



Open Source Used In Centriq Agent darwin

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1.7 libcap-ng 0.7.9-2.1build1

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Version 2.1, February 1999

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1.9 mawk 1.3.4.20200120-2

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1.10 findutils 4.7.0-1ubuntu1

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square

root function must still compute square roots.)

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However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License.

Section 6 states terms for distribution of such executables.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6.

Any executables

containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the

Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

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1.12 selinux 3.0-1build2

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1.13 grep 3.4-1

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Version 3, 29 June 2007

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the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

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The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

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The

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1.14 bytearraypool 1.0.0

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1.15 adduser 3.118ubuntu2

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1.17 debianutils 4.9.1

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1.19 hostname 3.23

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1.20 acl 2.2.53-6

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1.21 sed 4.7-1

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1.22 libffi 3.3-4

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1.25 base-passwd 3.5.47

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Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

```
Gnomovision version 69, Copyright (C) year name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.
```

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

```
Yoyodyne, Inc., hereby disclaims all copyright interest in the program
`Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

```
Format: https://www.debian.org/doc/packaging-manuals/copyright-format/1.0/
Upstream-Name: base-passwd
Upstream-Contact: Colin Watson <cjwatson@debian.org>
```

```
Files: *
Copyright: Copyright 1999-2002 Wichert Akkerman <wichert@deephackmode.org>
Copyright 2002, 2003, 2004 Colin Watson <cjwatson@debian.org>
License: GPL-2
```

```
Files:
passwd.master
group.master
License: PD
X-Notes: Originally written by Ian Murdock <imurdock@debian.org> and
Bruce Perens <bruce@pixar.com>.
```

```
Files: doc/*
Copyright: Copyright 2001, 2002 Joey Hess
```

Copyright 2002, 2003, 2004, 2005, 2007 Colin Watson

Copyright 2007 David Mandelberg

License: GPL-2

License: GPL-2

On Debian and Debian-based systems, a copy of the GNU General Public

License version 2 is available in /usr/share/common-licenses/GPL-2.

1.26 bzip2 1.0.8-2

1.26.1 Available under license :

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Julian Seward, jseward@acm.org
bzip2/libbzip2 version 1.0.8 of 13 July 2019

1.27 cracklib 2.9.6-3.2

1.27.1 Available under license :

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Version 2.1, February 1999

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can use it too, but we suggest you first think carefully about whether
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Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data

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Otherwise, if the work is a derivative of the Library, you may distribute

the object code for the work under the terms of Section 6.

Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

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d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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<one line to give the library's name and a brief idea of what it does.>

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Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

That's all there is to it!

EFFECTIVE OCT 2008, LICENSE IS BEING CHANGED TO LGPL-2.1 (though not reflected in released code until Nov 2009 - slow release cycle...)

Discussion thread from mailing list archive, with approval from everyone actively involved or holding original licensing rights included.

[Cracklib-devel] cracklib license
From: Mike Frysinger <vapier@ge...> - 2007-10-02 01:16

Attachments: Message as HTML
looks like 2.8.11 is out and marked as "GPL-2" ... releasing libraries unde=
r=20
GPL-2 is not desirable at all ... this is why the LGPL-2.1 exists
=2Dmike

Re: [Cracklib-devel] cracklib license
From: Neulinger, Nathan <nneul@um...> - 2007-10-02 01:18
I understand that, and you're welcome to bring it up with Alec directly and see if he wants to relicense his code as LGPL... but at this point,

it was enough to just get it consistent and documented as to what it was released under. This wasn't actually a license change, just a clarification of the licensing that was already in place.=20

-- Nathan

=20

Nathan Neulinger EMail: nneul@um...
University of Missouri - Rolla Phone: (573) 341-6679
UMR Information Technology Fax: (573) 341-4216

> -----Original Message-----

> From: cracklib-devel-bounces@li...
> [mailto:cracklib-devel-bounces@li...] On Behalf Of
> Mike Frysinger
> Sent: Monday, October 01, 2007 8:15 PM
> To: cracklib-devel@li...
> Subject: [Cracklib-devel] cracklib license

>=20

> looks like 2.8.11 is out and marked as "GPL-2" ... releasing
> libraries under
> GPL-2 is not desirable at all ... this is why the LGPL-2.1 exists
> -mike

Re: [Cracklib-devel] cracklib license

From: Mike Frysinger <vapier@ge...> - 2007-10-02 01:33

Attachments: Message as HTML

On Monday 01 October 2007, Neulinger, Nathan

wrote:

> I understand that, and you're welcome to bring it up with Alec directly
> and see if he wants to relicense his code as LGPL... but at this point,
> it was enough to just get it consistent and documented as to what it was
> released under. This wasn't actually a license change, just a
> clarification of the licensing that was already in place.

the original license (before moving to sourceforge -- aka, 2.7) was not=20
GPL-2 ... it was a modified artistic license ... i didnt notice the license=
=20

change until it was mentioned in the latest notes.

unlike the old license, GPL-2 prevents people from using cracklib unless th=
eir=20

applications are also GPL-2 which imo is just wrong. it isnt the place of =
a=20

library to dictact to application writes what license they should be using.=
=20

thus LGPL-2.1 enters to fill this void.

=2Dmike

Re: [Cracklib-devel]

cracklib license

From: Neulinger, Nathan <nneul@um...> - 2007-10-02 01:46

Seems like the ideal thing here would be for you and the other distro maintainers to get together with Alec in a conversation and come to a decision as to what licensing scheme y'all want. I haven't really done much other than cleaning up the packaging and patches and a small bit of additional code, so whatever licensing y'all come up with is fine by me.

-- Nathan

=20

Nathan Neulinger EMail: nneul@um...

University of Missouri - Rolla Phone: (573) 341-6679

UMR Information Technology Fax: (573) 341-4216

> -----Original Message-----

> From: cracklib-devel-bounces@li...

> [mailto:cracklib-devel-bounces@li...] On Behalf Of

> Mike Frysinger

> Sent: Monday, October 01, 2007 8:33 PM

> To: Neulinger, Nathan

> Cc: cracklib-devel@li...; Alec Muffett

> Subject: Re: [Cracklib-devel] cracklib license

>=20

> On Monday 01 October 2007, Neulinger, Nathan wrote:

> > I understand that, and you're welcome to bring it up with Alec

> > directly

> > and see if he wants to relicense his code as LGPL... but at this

> > point,

> > it was enough to just get it consistent and documented as to what

> > it was

> > released under. This wasn't actually a license change, just a

> > clarification of the licensing that was already in place.

>=20

> the original license (before moving to sourceforge -- aka, 2.7) was

> not

> GPL-2 ... it was a modified artistic license ... i didnt notice the

> license

> change until it was mentioned in the latest notes.

>=20

> unlike the old license, GPL-2 prevents people from using cracklib

> unless their

> applications are also GPL-2 which imo is just wrong. it isnt the

> place of a
> library
to dictact to application writes what license they should
> be using.
> thus LGPL-2.1 enters to fill this void.
> -mike

Re: [Cracklib-devel] cracklib license

From: Alec Muffett <alecm@cr...> - 2007-10-02 08:57

> Seems like the ideal thing here would be for you and the other distro
> maintainers to get together with Alec in a conversation and come to a
> decision as to what licensing scheme y'all want. I haven't really done
> much other than cleaning up the packaging and patches and a small
> bit of
> additional code, so whatever licensing y'all come up with is fine
> by me.

I am sympathetic. Guys, what do you reckon?

What I am hearing so far is that LGPL makes sense, since it can be
linked with any code, not just GPL...

-a

Re: [Cracklib-devel] cracklib license

From: Devin Reade <gdr@gn...> - 2007-10-02 15:04

I would like to see it under LGPL as well. I
think it is in everyone's
best interests to have as secure systems as possible, and I think tainting
it via GPL will just make it less likely that the library gets used, and
will not usually cause companies/developers to GPL the dependent code
(where it is not already GPL).

I like GPL, I use it when I can, but I don't think that it's the correct
license in this situation.

Devin

--

If it's sinful, it's more fun.

Re: [Cracklib-devel] cracklib license

From: Nalin Dahyabhai <nalin@re...> - 2008-01-28 16:32

On Tue, Oct 02, 2007 at 09:57:31AM +0100, Alec Muffett wrote:

>> Seems like the ideal thing here would be for you and the other distro
>> maintainers to get together with Alec in a conversation and come to a

>> decision as to what licensing scheme y'all want. I haven't really done
>> much other than cleaning up the packaging and patches and a small
>> bit of
>> additional
code, so whatever licensing y'all come up with is fine
>> by me.
>
> I am sympathetic. Guys, what do you reckon?
>
> What I am hearing so far is that LGPL makes sense, since it can be
> linked with any code, not just GPL...

My apologies for not chiming in in anything resembling a reasonable
timeframe.

I'd also suggest the LGPL, for the reason you noted above. Alternately,
GPLv2 with the option of using the library under a later version of the
GPL would permit applications which were released under version 3 of the
GPL to use the library, too, which would be sufficient for the packages
which are included in Fedora. FWIW, I'd personally lean toward LGPL.

In any case, I thank you both for working on sorting this out.

Cheers,

Nalin

Re: [Cracklib-devel] cracklib license
From: Mike Frysinger <vapier@ge...> - 2008-10-05 21:27

Attachments: Message as HTML

On Monday 28 January 2008, Nalin Dahyabhai wrote:

> On Tue, Oct 02, 2007 at 09:57:31AM +0100, Alec Muffett wrote:
>>> Seems like the ideal thing here would be for you and the other distro
>>> maintainers to get together with Alec in a conversation and come to a
>>> decision as to what licensing scheme y'all want. I haven't really done
>>> much other than cleaning up the packaging and patches and a small
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>>> additional code, so whatever licensing y'all come up with is fine
>>> by me.
>>
>> I am sympathetic. Guys, what do you reckon?
>>
>> What I am hearing so far is that LGPL makes sense, since it can be
>> linked with any code, not just GPL...
>

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> timeframe.
>
> I'd also suggest the LGPL, for the reason you noted above. Alternately,
> GPLv2 with the option of using
the library under a later version of the
> GPL would permit applications which were released under version 3 of the
> GPL to use the library, too, which would be sufficient for the packages
> which are included in Fedora. FWIW, I'd personally lean toward LGPL.
>
> In any case, I thank you both for working on sorting this out.

looks like everyone is OK with LGPL-2.1 (GNU Lesser license), so can we make
the change now ?

-mike

Re: [Cracklib-devel] cracklib license

From: Alec Muffett <alecm@cr...> - 2008-10-05 23:18

>> In any case, I thank you both for working on sorting this out.

>

> looks like everyone is OK with LGPL-2.1 (GNU Lesser license), so can we make
> the change now ?

yes. go for it. thanks++

-a

Re: [Cracklib-devel] cracklib license

From: Mike Frysinger <vapier@ge...> - 2008-10-25 22:34

Attachments: Message as HTML

On Sunday 05 October

2008, Alec Muffett wrote:

> >> In any case, I thank you both for working on sorting this out.

> >

> > looks like everyone is OK with LGPL-2.1 (GNU Lesser license), so can we
> > make the change now ?

>

> yes. go for it. thanks++

Nathan Neulinger is the only one who can actually make said change ...

-mike

BELOW IS ORIGINAL LICENSING DISCUSSION RE CHANGING TO GPL from Artistic.

CrackLib was originally licensed with a variant of the Artistic license. In the interests of wider acceptance and more modern licensing, it was switched with the original author's blessing to GPL v2.

This approval was carried out in email discussions in 2005, and has been reconfirmed as of 2007-10-01 with the following email from Alec Muffett.

The below email references nneul@umr.edu address, as that is the address that was used at the time. For any future emails regarding this, please use nneul@neulinger.org.

From

alecm@crypticide.com Mon Oct 1 12:26:03 2007

Received: from umr-exproto2.cc.umr.edu ([131.151.0.192]) by UMR-CMAIL1.umr.edu with Microsoft SMTPSVC(6.0.3790.3959);

Mon, 1 Oct 2007 12:26:03 -0500

Received: from scansrv2.srv.mst.edu ([131.151.1.114]) by umr-exproto2.cc.umr.edu with Microsoft SMTPSVC(6.0.3790.3959);

Mon, 1 Oct 2007 12:26:02 -0500

Received: (qmail 8022 invoked from network); 1 Oct 2007 16:59:55 -0000

Received: from smtp1.srv.mst.edu (131.151.1.43)

by scanin-ipvs.cc.umr.edu with SMTP; 1 Oct 2007 16:59:55 -0000

Received: from spunkymail-mx8.g.dreamhost.com (mx1.spunky.mail.dreamhost.com [208.97.132.47])

by smtp1.srv.mst.edu (8.13.1/8.13.1) with ESMTP id 191Gxtp020623

for <nneul@umr.edu>; Mon, 1 Oct 2007 11:59:55 -0500

Received: from rutherford.zen.co.uk (rutherford.zen.co.uk [212.23.3.142])

by spunkymail-mx8.g.dreamhost.com (Postfix) with ESMTP id 2C7734D311

for <nneul@neulinger.org>; Mon, 1 Oct 2007 09:59:50 -0700 (PDT)

Received: from

[82.68.43.14] (helo=[192.168.1.3])

by rutherford.zen.co.uk with esmtp (Exim 4.50)

id 1IcOcX-0004Qt-6L

for nneul@neulinger.org; Mon, 01 Oct 2007 16:59:49 +0000

Mime-Version: 1.0 (Apple Message framework v752.2)

In-Reply-To: <1b1b3fd80710010908k11dac0afp1f2dd471059ff9a4@mail.gmail.com>

References: <1190922867.3457.147.camel@localhost.localdomain>

<EC90713277D2BE41B7110CCD74E235CEF44F38@UMR-CMAIL1.umr.edu>

<1b1b3fd80710010908k11dac0afp1f2dd471059ff9a4@mail.gmail.com>

Content-Type: text/plain; charset=US-ASCII; delsp=yes; format=flowed

Message-Id: <117A1264-F6DC-4E25-B0DD-56FBFE6E9F@crypticide.com>

Content-Transfer-Encoding: 7bit

From: Alec Muffett <alecm@crypticide.com>
Subject: Re: cracklib license
Date: Mon, 1 Oct 2007 17:59:46 +0100
To: Nathan Neulinger <nneul@neulinger.org>
X-Mailer: Apple Mail (2.752.2)
X-Originating-Rutherford-IP: [82.68.43.14]
Return-Path: alecm@crypticide.com
X-OriginalArrivalTime: 01 Oct 2007 17:26:03.0008 (UTC) FILETIME=[2420C000:01C80450]
Status: RO
Content-Length:
585
Lines: 21

>
> ----- Forwarded message -----
> From: Neulinger, Nathan <nneul@umr.edu>
> Date: Sep 27, 2007 2:58 PM
> Subject: RE: cracklib license
> To: alecm@crypto.dircon.co.uk
>
> Any chance you could write me a self-contained email stating clearly
> that the license is being changed to GPL, so I could include that
> email
> in the repository and clean up the repository/tarballs? I have all the
> original discussion, but something succinct and self contained
> would be
> ideal.

The license for my code in the Cracklib distribution is henceforth GPL.

Happy now? :-)

-a

1.28 libpwquality 1.4.2-1build1

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```

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```
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```

<signature of Ty Coon>, 1 April 1989

Ty Coon, President of Vice

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1.29 cdebconf 0.251ubuntu1

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Other contributors include:

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David Whedon <dwhedon@gordian.com>

Dan Jacobowitz <dan@debian.org>

Tollef Fog Heen <tfheen@debian.org>

Attilio Fiandrotti <fiandro@tiscali.it>

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1.30 d3-time-format 2.3.0

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1.31 berkeley-db 5.3.28+dfsg1-0.6ubuntu2

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* $Id$  
*/
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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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- b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
- c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
- d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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END OF TERMS AND CONDITIONS

Appendix: How to Apply These Terms to Your New Libraries

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<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

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Version 3, 29 June 2007

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The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS

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1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The

"System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The "Corresponding Source" for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

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it, and giving a relevant date.

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c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.

d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.

b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years

and valid for as

long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.

d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

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1.41 shared-mime-info 1.15-1

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1.42 Isb 11.1.0ubuntu2

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1.43 libxcrypt 4.4.10-10ubuntu4

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**1.45 mgo 2.0.0-20160801194620-
b6121c6199b7**

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mgo - MongoDB driver for Go

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1.46 zstd 1.4.4+dfsg-3ubuntu0.1

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```

*/

/* checkTag : validation tool for libzstd
* command :
* $ ./checkTag tag
* checkTag validates tags of following format : v[0-9].[0-9].[0-9]{any}
* The tag is then compared to zstd version number.
* They are compatible if first 3 digits are identical.
* Anything beyond that is free, and doesn't impact validation.
* Example : tag v1.8.1.2 is compatible with version 1.8.1
* When tag and version are not compatible, program exits with error code 1.
* When they are compatible, it exists with a code 0.
* checkTag is intended to be used in automated testing environment.
*/

```

1.47 libtasn 4.16.0-2

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Version 2.1, February 1999

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Otherwise, if the work is a derivative of the Library, you may distribute the

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a) Accompany

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The

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1.53 d3-timer 1.0.10

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1.54 go-cleanhttp v0.5.2

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1.57 libnettle6 3.5.1+really3.5.1-2ubuntu0.2

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```
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build-aux/scripts/gen-libcrypt-map,
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test-alg-des.c, test-alg-md4.c (adaption of test-alg-md5.c),
test-alg-md5.c, test-alg-sha256.c, test-alg-sha512.c, test-crypt-des.c,
test-crypt-md5.c, test-crypt-sha256.c, test-crypt-sha512.c,
test-des-cases.h, test-des-obsolete{,_r}.c, test-gensalt.c,

test-crypt-nthash.c (adaption of test-crypt-des.c),
test-crypt-sunmd5.c (adaption of test-crypt-des.c),
test-crypt-pbkdf1-sha1.c (adaption of test-crypt-des.c)

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1.62 libmagic 1:5.38-4

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1.63 libdconf1 0.36.0-1

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The 95 level includes the 354,984 single words, 256,772 compound words, 4,946 female names and the 3,897 male names, and 21,986 names from the MWords package, ABLE.LST from the ENABLE Supplement, and some additional words found in my part-of-speech database that were not found anywhere else.

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phonetic_english.h - phonetic transformation rules for use with phonetic.c

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#

This rule set is based on Lawrence Phillips original metaphone


```

# algorithm with modifications made by Michael Kuhn in his
# C implantation, more modifications by Björn Jacke when
# converting the algorithm to a rule set and minor
# touch ups by Kevin Atkinson
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# Björn Jacke may be reached by email at bjoern.jacke@gmx.de
#
# Changelog:
#
# 2000-01-05 Björn Jacke <bjoern.jacke@gmx.de>
#     - first version with translation rules derived from
#       metaphone.cc distributed with aspell 0.28.3
#     - "TH" is now representated as "@" because "0" is a
#       meta character
#     - removed TH(!vowel) --> T; always use TH --> # instead
#     - dropped "^AE" -> "E" (redundant)
#     - "ing" is transformed to "N", not "NK"
#     - "SCH(EO)" transforms to "SK" now
#     - added R --> SILENT if (after a vowel) and no (vowel or
#       "y" follows) like in "Marcy" or "abort"
#     - H is SILENT in RH at beginning of words
#     - H is SILENT if vowel leads and "Y" follows
#     - some ".OUGH.." --> ...F exceptions added
#     - "^V" transforms
#       to "W"
# 2000-01-07 Kevin Atkinson <kevinatk@home.com>
#     Converted from header to data file.
#

```

1.65 libpwquality-common 1.4.2-1build1

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Upstream-Contact: Nathan Neulinger <nneul@umr.edu>

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1.71 dconf-cli 0.36.0-1

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1.75 josharian-intern 1.0.0

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1.77 spf13-pflag 1.0.5

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1.79 tdb 1.45.5

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1.80 json-iterator-go 1.1.12

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1.81 modern-go-reflect2 1.0.2

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1.82 go-diff lib 1.0.1-0.20181226105442-5d4384ee4fb2

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1.83 icu 66.1-2ubuntu2.1

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## Commands to generate dependency files
GEN_DEPS.c= $(CC) -E -MM $(DEFS) $(CPPFLAGS)
GEN_DEPS.cc= $(CXX) -E -MM $(DEFS) $(CPPFLAGS)

## Flags for position independent code
SHAREDLIBCFLAGS = -fPIC
SHAREDLIBCXXFLAGS = -fPIC
SHAREDLIBCPPFLAGS = -DPIC

## Additional flags when building libraries and with threads
THREADSCPPFLAGS = -D_REENTRANT
LIBCPPFLAGS =

## Compiler switch to embed a runtime search path
LD_RPATH=
LD_RPATH_PRE= -Wl,-rpath,

## Compiler switch to embed a library name
LD_SONAME = -Wl,-soname -Wl,$(notdir $(MIDDLE_SO_TARGET))
```

```

## Shared library options
LD_SOOPTIONS= -Wl,-Bsymbolic

## Shared object suffix
SO = so

## Non-shared intermediate object suffix
STATIC_O = ao

## Compilation
rules
%. $(STATIC_O): $(srcdir)/%.c
$(COMPILE.c) $(STATICCPPFLAGS) $(STATICCFLAGS) -o $@ $<
%.o: $(srcdir)/%.c
$(COMPILE.c) $(DYNAMICCPPFLAGS) $(DYNAMICCFLAGS) -o $@ $<

%. $(STATIC_O): $(srcdir)/%.cpp
$(COMPILE.cc) $(STATICCPPFLAGS) $(STATICCXXFLAGS) -o $@ $<
%.o: $(srcdir)/%.cpp
$(COMPILE.cc) $(DYNAMICCPPFLAGS) $(DYNAMICCXXFLAGS) -o $@ $<

## Dependency rules
%.d: $(srcdir)/%.c
@echo "generating dependency information for $<"
@$(SHELL) -ec '$(GEN_DEPS.c) $< \
| sed "s^\($*\)\.o[ :]*^1.o $@ : /g\" > $@; \
[ -s $@ ] || rm -f $@'

%.d: $(srcdir)/%.cpp
@echo "generating dependency information for $<"
@$(SHELL) -ec '$(GEN_DEPS.cc) $< \
| sed "s^\($*\)\.o[ :]*^1.o $@ : /g\" > $@; \
[ -s $@ ] || rm -f $@'

## Versioned libraries rules

%. $(SO).$(SO_TARGET_VERSION_MAJOR): %. $(SO).$(SO_TARGET_VERSION)
$(RM) $@ && ln -s ${<F} $@
%. $(SO): %. $(SO).$(SO_TARGET_VERSION_MAJOR)
$(RM) $@ && ln -s ${*F}. $(SO).$(SO_TARGET_VERSION) $@

## Bind internal references

# LDflags that pkgdata will use
BIR_LDFLAGS= -Wl,-Bsymbolic

# Dependencies [i.e. map files] for the final library
BIR_DEPS=

```

```
## Remove shared library 's'  
STATIC_PREFIX_WHEN_USED =  
STATIC_PREFIX =
```

```
## End BSD-specific setup
```

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1.87 gorilla 1.8.0

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1.88 evanphx-json-patch 4.12.0+incompatible

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1.89 internmap 2.0.3

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// Commands similar to git, go tools and other modern CLI tools
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```

1.92 xz 5.2.4-1ubuntu1.1

1.92.1 Available under license :

Format: <https://www.debian.org/doc/packaging-manuals/copyright-format/1.0/>

Upstream-Name: XZ Utils

Upstream-Contact:

Lasse Collin <lasse.collin@tukaani.org>

<https://tukaani.org/xz/lists.html>

Source:

<https://tukaani.org/xz>

<https://git.tukaani.org/xz.git>

Comment:

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From: Lasse Collin <lasse.collin@tukaani.org>

To: Jonathan Nieder <jrnieder@gmail.com>

Subject: Re: XZ utils for Debian

Date: Sun, 19 Jul 2009 13:28:23 +0300

Message-Id: <200907191328.23816.lasse.collin@tukaani.org>

[...]

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changelog.gz (commit 975d8fd) explains:

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Other-Authors: Roland McGrath, Akim Demaille, Paul Eggert,

David Mackenzie, Bruno Haible, and many others.

Origin: configure.ac from XZ Utils,

visibility.m4 serial 1 (gettext-0.15),

Autoconf 2.52g

License: config-h

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This package was put together by Matthias Klose <doko@debian.org>, from the following sources:

bash: <ftp.gnu.org:/pub/gnu/bash/bash-4.3.tar.gz>

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support/man2html.c

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```

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```
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<signature of Ty Coon>, 1 April 1989
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1.101 mitchellh-mapstructure 1.5.0

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1.102 e2fsprogs 1.45.5-2ubuntu1.1

1.102.1 Available under license :

This package was added to the e2fsprogs debian source package by Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

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```
#
# This is a Makefile stub which handles the creation of BSD shared
# libraries.
#
# In order to use this stub, the following makefile variables must be defined.
#
# BSDLIB_VERSION = 1.0
# BSDLIB_IMAGE = libce
# BSDLIB_MYDIR = et
# BSDLIB_INSTALL_DIR = $(SHLIBDIR)
#
```

```
all:: image
```

```
real-subdirs:: Makefile
@echo " MKDIR pic"
@mkdir -p pic
```

```
BSD_LIB = $(BSDLIB_IMAGE).so.$(BSDLIB_VERSION)
BSDLIB_PIC_FLAG = -fpic
```

```
image: $(BSD_LIB)
```

```
$(BSD_LIB): $(OBJS)
(cd pic; ld -Bshareable -o $(BSD_LIB) $(LDFLAGS_SHLIB) $(OBJS))
$(MV) pic/$(BSD_LIB) .
$(RM) -f ../$(BSD_LIB)
(cd ..; $(LN) $(LINK_BUILD_FLAGS) \
`echo $(my_dir) | sed -e 's;lib/;;'"/$(BSD_LIB) $(BSD_LIB))
```

```
install-shlibs install:: $(BSD_LIB)
@echo " INSTALL_PROGRAM $(BSDLIB_INSTALL_DIR)/$(BSD_LIB)"
@$(INSTALL_PROGRAM) $(BSD_LIB) \
$(DESTDIR)$$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
@-$(LDCONFIG)
```

```
install-strip: install
```

```
install-shlibs-strip:: install-shlibs
```

```
uninstall-shlibs uninstall::
$(RM) -f $(DESTDIR)$$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
```

```
clean::
$(RM)
```

-rf pic

\$(RM) -f \$(BSD_LIB)

\$(RM) -f ../\$(BSD_LIB)

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Index: tdbsa/tdb.c

=====

--- tdbsa.orig/tdb.c
+++ tdbsa/tdb.c
@@ -4,11 +4,11 @@ Rev: 23371
Last Changed Date: 2007-06-06 20:14:06 -0400 (Wed, 06 Jun 2007)
*/
/*
- Unix SMB/CIFS implementation.
+ trivial database library - standalone version

- trivial database library - private includes
-
- Copyright (C) Andrew Tridgell 2005
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Gadi Oxman, August 1995

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```
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```

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```
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```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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Theodore Ts'o
23-June-2007

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```

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This package was added to the e2fsprogs debian source package by Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

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1.104 githubcompelletiergotoml v1.9.5

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localtime.go, localtime_test.go:

Originals:

<https://raw.githubusercontent.com/googleapis/google-cloud-go/ed46f5086358513cf8c25f8e3f022cb838a49d66/civil/civil.go>

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Changes:

- * Renamed files from civil* to localtime*.
- * Package changed from civil to toml.
- * 'Local' prefix added to all structs.

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1.107 kubernetes-client 0.24.3

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1.108 kubernetes-apimachinery 0.24.3

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* DNS resolver (dirmngr/dns.c)

dns.c - Recursive, Reentrant DNS Resolver.

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1.110 go-colorable 0.1.13

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1.112 jsonpatch v4.12.0

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1.113 github.com/go-mgo/mgo v2.0.0-20160801194620-b6121c6199b7

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mgo - MongoDB driver for Go

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1.114 google-gnostic 0.6.9

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1.115 d3-pprof 2.0.0

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1.116 kubernetes-api 0.24.3

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1.117 pcre 10.34-7ubuntu0.1

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1.118 google-go-cmp 0.5.9

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1.120 pcre 8.39-12ubuntu0.1

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1.121 audit 2.8.5-2ubuntu6

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1.123 d3-time 1.1.0

1.123.1 Available under license :

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1.124 command-line-arguments (devel)

1.124.1 Available under license :

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1.125 zlib 1.2.11.dfsg-2ubuntu1.5

1.125.1 Available under license :

No license file was found, but licenses were detected in source scan.

```
/* gun.c -- simple gunzip to give an example of the use of inflateBack()
 * Copyright (C) 2003, 2005, 2008, 2010, 2012 Mark Adler
 * For conditions of distribution and use, see copyright notice in zlib.h
 * Version 1.7 12 August 2012 Mark Adler */
```

Found in path(s):

```
*/opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/examples/gun.c
```

No license file was found, but licenses were detected in source scan.

```
/* gzclose.c -- zlib gzclose() function
* Copyright (C) 2004, 2010 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/gzclose.c
No license file was found, but licenses were detected in source scan.
```

MiniZip - Copyright (c) 1998-2010 - by Gilles Vollant - version 1.1 64 bits from Mathias Svensson

Introduction

MiniZip 1.1 is built from MiniZip 1.0 by Gilles Vollant (<http://www.winimage.com/zLibDll/minizip.html>)

When adding ZIP64 support into minizip it would result into risk of breaking compatibility with minizip 1.0.
All possible work was done for compatibility.

Background

When adding ZIP64 support Mathias Svensson found that Even Rouault have added ZIP64 support for unzip.c into minizip for a open source project called gdal (<http://www.gdal.org/>)

That was used as a starting point. And after that ZIP64 support was added to zip.c some refactoring and code cleanup was also done.

Changed from MiniZip 1.0 to MiniZip 1.1

-
- * Added ZIP64 support for unzip (by Even Rouault)
 - * Added ZIP64 support for zip (by Mathias Svensson)
 - * Reverted some changed that Even Rouault did.
 - * Bunch of patches received from Guller Vollant that he received for MiniZip from various users.
 - * Added unzip patch for BZIP Compression method (patch create by Daniel Borca)
 - * Added BZIP Compress method for zip
 - * Did some refactoring and code cleanup

Credits

Gilles Vollant - Original MiniZip author
Even Rouault - ZIP64 unzip Support
Daniel Borca - BZip Compression method support in unzip
Mathias Svensson - ZIP64 zip support

Mathias Svensson - BZip Compression method support in zip

Resources

ZipLayout <http://result42.com/projects/ZipFileLayout>

Command line tool for Windows that shows the layout and information of the headers in a zip archive.

Used when debugging and validating the creation of zip files using MiniZip64

ZIP App Note <http://www.pkware.com/documents/casestudies/APPNOTE.TXT>

Zip File specification

Notes.

* To be able to use BZip compression method in

zip64.c or unzip64.c the BZIP2 lib is needed and HAVE_BZIP2 need to be defined.

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2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.
3. This notice may not be removed or altered from any source distribution.

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/contrib/minizip/MiniZip64_info.txt

No license file was found, but licenses were detected in source scan.

/* compress.c -- compress a memory buffer

* Copyright (C) 1995-2005, 2014, 2016 Jean-loup Gailly, Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/compress.c
No license file was found, but licenses were detected in source scan.

/* zconf.h -- configuration of the zlib compression library

* Copyright (C) 1995-2016 Jean-loup Gailly, Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zconf.h
* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zconf.h.in
* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zconf.h.cmakein
No license file was found, but licenses were detected in source scan.

/*

* gzlog.c

* Copyright (C) 2004, 2008, 2012, 2016 Mark Adler, all rights reserved

* For conditions of distribution and use, see copyright notice in gzlog.h

* version 2.2, 14 Aug 2012

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/examples/gzlog.c
No license file was found, but licenses were detected in source scan.

/* deflate.c -- compress data using the deflation algorithm

* Copyright (C) 1995-2017 Jean-loup Gailly and Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/deflate.c
No license file was found, but licenses were detected in source scan.

Not copyrighted -- provided to the public domain

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/examples/zlib_how.html
No license file was found, but licenses were detected in source scan.

/* zutil.h -- internal interface and configuration of the compression library

* Copyright (C) 1995-2016 Jean-loup Gailly, Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zutil.h

No license file was found, but licenses were detected in source scan.

/* uncompr.c -- decompress a memory buffer

* Copyright (C) 1995-2003, 2010, 2014, 2016 Jean-loup Gailly, Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/uncompr.c

No license file was found, but licenses were detected in source scan.

For conditions of distribution and use, see copyright notice in zlib.h

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/msdos/Makefile.emx

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/old/Makefile.emx

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/msdos/Makefile.dj2

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/old/os2/Makefile.os2

No license file was found, but licenses were detected in source scan.

/* trees.c -- output deflated data using Huffman coding

* Copyright (C) 1995-2017 Jean-loup Gailly

* detect_data_type() function provided freely by Cosmin Truta, 2006

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/trees.c

No license file was found, but licenses were detected in source scan.

/* gzread.c -- zlib functions for reading gzip files

* Copyright (C) 2004, 2005, 2010, 2011, 2012, 2013, 2016 Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/gzread.c

No license file was found, but licenses were detected in source scan.

/* unzip.c -- IO for uncompress .zip files using zlib
Version 1.1, February 14h, 2010
part of the MiniZip project - (<http://www.winimage.com/zLibDll/minizip.html>)

Copyright (C) 1998-2010 Gilles Vollant (minizip) (<http://www.winimage.com/zLibDll/minizip.html>)

Modifications of Unzip for Zip64
Copyright (C) 2007-2008 Even Rouault

Modifications for Zip64 support on both zip and unzip
Copyright (C) 2009-2010 Mathias Svensson (<http://result42.com>)

For more info read MiniZip_info.txt

Decryption code comes from crypt.c by Info-ZIP but has been greatly reduced in terms of compatibility with older software. The following is from the original crypt.c.
Code woven in by Terry Thorsen 1/2003.

Copyright (c) 1990-2000 Info-ZIP. All rights reserved.

See the accompanying
file LICENSE, version 2000-Apr-09 or later
(the contents of which are also included in zip.h) for terms of use.
If, for some reason, all these files are missing, the Info-ZIP license
also may be found at: <ftp://ftp.info-zip.org/pub/infozip/license.html>

crypt.c (full version) by Info-ZIP. Last revised: [see crypt.h]

The encryption/decryption parts of this source code (as opposed to the non-echoing password parts) were originally written in Europe. The whole source package can be freely distributed, including from the USA. (Prior to January 2000, re-export from the US was a violation of US law.)

This encryption code is a direct transcription of the algorithm from Roger Schlafly, described by Phil Katz in the file appnote.txt. This file (appnote.txt) is distributed with the PKZIP program (even in the version without encryption capabilities).

Changes in unzip.c

2007-2008 - Even Rouault - Addition of cpl_unzGetCurrentFileZStreamPos
2007-2008 - Even Rouault - Decoration of symbol names unz* -> cpl_unz*
2007-2008 - Even Rouault - Remove old C style function prototypes
2007-2008 - Even Rouault - Add unzip support for ZIP64

Copyright (C) 2007-2008 Even Rouault

Oct-2009 - Mathias Svensson - Removed cpl_* from symbol names (Even Rouault added them but since this is now moved to a new project (minizip64) I renamed them again).

Oct-2009 - Mathias Svensson - Fixed problem if uncompressed size was > 4G and compressed size was <4G should only read the compressed/uncompressed size from the Zip64 format if the size from normal header was 0xFFFFFFFF

Oct-2009 - Mathias Svensson - Applied some bug fixes from patches received from Gilles Vollant

Oct-2009 - Mathias Svensson - Applied support to unzip files with compression method BZIP2 (bzip2 lib is required)

Patch created by Daniel Borca

Jan-2010 - back to unzip and minizip 1.0 name scheme, with compatibility layer

Copyright (C) 1998 - 2010 Gilles Vollant, Even Rouault, Mathias Svensson

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/contrib/minizip/unzip.c

No license file was found, but licenses were detected in source scan.

/* example.c -- usage example of the zlib compression library

* Copyright (C) 1995-2006, 2011, 2016 Jean-loup Gailly

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/test/example.c

/* zlib.h -- interface of the 'zlib' general purpose compression library
version 1.2.11, January 15th, 2017

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Jean-loup Gailly Mark Adler
jloup@gzip.org madler@alumni.caltech.edu

The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://tools.ietf.org/html/rfc1950> (zlib format), rfc1951 (deflate format) and rfc1952 (gzip format).

*/

No license file was found, but licenses were detected in source scan.

```
/* gzwrite.c -- zlib functions for writing gzip files
 * Copyright (C) 2004-2017 Mark Adler
 * For conditions of distribution and use, see copyright notice in zlib.h
 */
```

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/gzwrite.c

No license file was found, but licenses were detected in source scan.

```
/* Adler32.c -- compute the Adler-32 checksum of a data stream
 * Copyright (C) 1995-2011, 2016 Mark Adler
 * For conditions of distribution and use, see copyright notice in zlib.h
 */
```

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/adler32.c

No license file was found, but licenses were detected in source scan.

Frequently Asked Questions about zlib

If your question is not there, please check the zlib home page <http://zlib.net/> which may have more recent information. The latest zlib FAQ is at http://zlib.net/zlib_faq.html

1. Is zlib Y2K-compliant?

Yes. zlib doesn't handle dates.

2. Where can I get a Windows DLL version?

The zlib sources can be compiled without change to produce a DLL. See the file win32/DLL_FAQ.txt in the zlib distribution. Pointers to the precompiled DLL are found in the zlib web site at <http://zlib.net/>.

3. Where can I get a Visual Basic interface to zlib?

See

- * <http://marknelson.us/1997/01/01/zlib-engine/>
- * win32/DLL_FAQ.txt in the zlib distribution

4. compress() returns Z_BUF_ERROR.

Make sure that before the call of compress(), the length of the compressed buffer is equal to the available size of the compressed buffer and not zero. For Visual Basic, check that this parameter is passed by reference ("as any"), not by value ("as long").

5. deflate() or inflate() returns Z_BUF_ERROR.

Before making the call, make sure that avail_in and avail_out are not zero. When setting the parameter flush equal to Z_FINISH, also make sure that avail_out is big enough to allow processing all pending input. Note that a Z_BUF_ERROR is not fatal--another call to deflate() or inflate() can be made with more input or output space. A Z_BUF_ERROR may in fact be unavoidable depending on how the functions are used, since it is not possible to tell whether or not there is more output pending when strm.avail_out returns with zero. See http://zlib.net/zlib_how.html for a heavily annotated example.

6. Where's the zlib documentation (man pages, etc.)?

It's in zlib.h . Examples of zlib usage are in the files test/example.c and test/minigzip.c, with more in examples/ .

7. Why don't you use GNU autoconf or libtool or ...?

Because we would like to keep zlib as a very small and simple package. zlib is rather portable and doesn't need much configuration.

8. I found a bug in zlib.

Most of the time, such problems are due to an incorrect usage of zlib. Please try to reproduce the problem with a small program and send the corresponding source to us at zlib@gzip.org . Do not send multi-megabyte

data files without prior agreement.

9. Why do I get "undefined reference to gzputc"?

If "make test" produces something like

```
example.o(.text+0x154): undefined reference to `gzputc'
```

check that you don't have old files libz.* in /usr/lib, /usr/local/lib or /usr/X11R6/lib. Remove any old versions, then do "make install".

10. I need a Delphi interface to zlib.

See the contrib/delphi directory in the zlib distribution.

11. Can zlib handle .zip archives?

Not by itself, no. See the directory contrib/minizip in the zlib distribution.

12.

Can zlib handle .Z files?

No, sorry. You have to spawn an uncompress or gunzip subprocess, or adapt the code of uncompress on your own.

13. How can I make a Unix shared library?

By default a shared (and a static) library is built for Unix. So:

```
make distclean
./configure
make
```

14. How do I install a shared zlib library on Unix?

After the above, then:

```
make install
```

However, many flavors of Unix come with a shared zlib already installed. Before going to the trouble of compiling a shared version of zlib and trying to install it, you may want to check if it's already there! If you can `#include <zlib.h>`, it's there. The `-lz` option will probably link to it. You can check the version at the top of `zlib.h` or with the `ZLIB_VERSION` symbol defined in `zlib.h`.

15. I have a question about OttoPDF.

We are not the authors of OttoPDF. The real author is on the OttoPDF web site: Joel Hainley, jhainley@myndkryme.com.

16.

Can zlib decode Flate data in an Adobe PDF file?

Yes. See <http://www.pdflib.com/> . To modify PDF forms, see <http://sourceforge.net/projects/acroformtool/> .

17. Why am I getting this "register_frame_info not found" error on Solaris?

After installing zlib 1.1.4 on Solaris 2.6, running applications using zlib generates an error such as:

```
ld.so.1: rpm: fatal: relocation error: file /usr/local/lib/libz.so:
symbol __register_frame_info: referenced symbol not found
```

The symbol `__register_frame_info` is not part of zlib, it is generated by the C compiler (cc or gcc). You must recompile applications using zlib which have this problem. This problem is specific to Solaris. See <http://www.sunfreeware.com> for Solaris versions of zlib and applications using zlib.

18. Why does gzip give an error on a file I make with compress/deflate?

The compress and deflate functions produce data in the zlib format, which is different and incompatible with the gzip format. The `gz*` functions in zlib on the other hand use the gzip format. Both the zlib and gzip formats use the same compressed data format internally, but have different headers and trailers around the compressed data.

19. Ok, so why are there two different formats?

The gzip format was designed to retain the directory information about a single file, such as the name and last modification date. The zlib format on the other hand was designed for in-memory and communication channel applications, and has a much more compact header and trailer and uses a faster integrity check than gzip.

20. Well that's nice, but how do I make a gzip file in memory?

You can request that deflate write the gzip format instead of the zlib format using `deflateInit2()`. You can also request that inflate decode the gzip format using `inflateInit2()`. Read `zlib.h` for more details.

21. Is zlib thread-safe?

Yes. However any library routines that zlib uses and any application-provided memory allocation routines must also be thread-safe. zlib's gz* functions use stdio library routines, and most of zlib's functions use the library memory allocation routines by default. zlib's *Init* functions allow for the application to provide custom memory allocation routines.

Of course, you should only operate on any given zlib or gzip stream from a single thread at a time.

22. Can I use zlib in my commercial application?

Yes. Please read the license in zlib.h.

23. Is zlib under the GNU license?

No. Please read the license in zlib.h.

24. The license says that altered source versions must be "plainly marked". So what exactly do I need to do to meet that requirement?

You need to change the ZLIB_VERSION and ZLIB_VERNUM #defines in zlib.h. In particular, the final version number needs to be changed to "f", and an identification string should be appended to ZLIB_VERSION. Version numbers x.x.x.f are reserved for modifications to zlib by others than the zlib maintainers. For example, if the version of the base zlib you are altering is "1.2.3.4", then in zlib.h you should change ZLIB_VERNUM to 0x123f, and ZLIB_VERSION to something like "1.2.3.f-zachary-mods-v3". You can also update the version strings in deflate.c and infrees.c.

For altered source distributions, you should also note the origin and nature of the changes in zlib.h, as well as in ChangeLog and README, along with the dates of the alterations. The origin should include at least your name (or your company's name), and an email address to contact for help or issues with the library.

Note that distributing a compiled zlib library along with zlib.h and zconf.h is also a source distribution, and so you should change ZLIB_VERSION and ZLIB_VERNUM and note the origin and nature of the changes in zlib.h as you would for a full source distribution.

25.

Will zlib work on a big-endian or little-endian architecture, and can I exchange compressed data between them?

Yes and yes.

26. Will zlib work on a 64-bit machine?

Yes. It has been tested on 64-bit machines, and has no dependence on any data types being limited to 32-bits in length. If you have any difficulties, please provide a complete problem report to zlib@gzip.org

27. Will zlib decompress data from the PKWare Data Compression Library?

No. The PKWare DCL uses a completely different compressed data format than does PKZIP and zlib. However, you can look in zlib's contrib/blast directory for a possible solution to your problem.

28. Can I access data randomly in a compressed stream?

No, not without some preparation. If when compressing you periodically use `Z_FULL_FLUSH`, carefully write all the pending data at those points, and keep an index of those locations, then you can start decompression at those points. You have to be careful to not use `Z_FULL_FLUSH` too often, since it can significantly degrade compression. Alternatively, you can scan a deflate stream once to generate an index, and then use that index for random access. See examples/zran.c .

29. Does zlib work on MVS, OS/390, CICS, etc.?

It has in the past, but we have not heard of any recent evidence. There were working ports of zlib 1.1.4 to MVS, but those links no longer work. If you know of recent, successful applications of zlib on these operating systems, please let us know. Thanks.

30. Is there some simpler, easier to read version of inflate I can look at to understand the deflate format?

First off, you should read RFC 1951. Second, yes. Look in zlib's contrib/puff directory.

31. Does zlib infringe on any patents?

As far as we know, no. In fact, that was originally the whole point behind zlib. Look here for some more information:

<http://www.gzip.org/#faq11>

32. Can zlib work with greater than 4 GB of data?

Yes. `inflate()` and `deflate()` will process any amount of data correctly. Each call of `inflate()` or `deflate()` is limited to input and output chunks

of the maximum value that can be stored in the compiler's "unsigned int" type, but there is no limit to the number of chunks. Note however that the `strm.total_in` and `strm_total_out` counters may be limited to 4 GB. These counters are provided as a convenience and are not used internally by `inflate()` or `deflate()`. The application can easily set up its own counters updated after each call of `inflate()` or `deflate()` to count beyond 4 GB. `compress()` and `uncompress()` may be limited to 4 GB, since they operate in a single call. `gzseek()` and `gztell()` may be limited to 4 GB depending on how `zlib` is compiled. See the `zlibCompileFlags()` function in `zlib.h`.

The word "may" appears several times above since there is a 4 GB limit only if the compiler's "long" type is 32 bits. If the compiler's "long" type is 64 bits, then the limit is 16 exabytes.

33. Does `zlib` have any security vulnerabilities?

The only one that we are aware of is potentially in `gzprintf()`. If `zlib` is compiled to use `sprintf()` or `vsprintf()`, then there is no protection against a buffer overflow of an 8K string space (or other value as set by `gzbuffer()`), other than the caller of `gzprintf()` assuring that the output will not exceed 8K. On the other hand, if `zlib` is compiled to use `snprintf()` or `vsnprintf()`, which should normally be the case, then there is no vulnerability. The `./configure` script will display warnings if an insecure variation of `sprintf()` will be used by `gzprintf()`. Also the `zlibCompileFlags()` function will return information on what variant of `sprintf()` is used by `gzprintf()`.

If you don't have `snprintf()` or `vsnprintf()` and would like one, you can find a portable implementation here:

<http://www.ijs.si/software/snprintf/>

Note that you should be using the most recent version of `zlib`. Versions 1.1.3 and before were subject to a double-free vulnerability, and versions 1.2.1 and 1.2.2 were subject to an access exception when decompressing invalid compressed data.

34. Is there a Java version of `zlib`?

Probably what you want is to use `zlib` in Java. `zlib` is already included as part of the Java SDK in the `java.util.zip` package. If you really want a version of `zlib` written in the Java language, look on the `zlib` home page for links: <http://zlib.net/> .

35. I get this or that compiler or source-code scanner warning when I crank it up to maximally-pedantic. Can't you guys write proper code?

Many years ago, we gave up attempting to avoid warnings on every compiler in the universe. It just got to be a waste of time, and some compilers were downright silly as well as contradicted each other. So now, we simply make sure that the code always works.

36. Valgrind (or some similar memory access checker) says that deflate is performing a conditional jump that depends on an uninitialized value. Isn't that a bug?

No. That is intentional for performance reasons, and the output of deflate is not affected. This only started showing up recently since zlib 1.2.x uses malloc() by default for allocations, whereas earlier versions used calloc(), which zeros out the allocated memory. Even though the code was correct, versions 1.2.4 and later was changed to not stimulate these checkers.

37. Will zlib read the (insert any ancient or arcane format here) compressed data format?

Probably not. Look in the comp.compression FAQ for pointers to various formats and associated software.

38. How can I encrypt/decrypt zip files with zlib?

zlib doesn't support encryption. The original PKZIP encryption is very weak and can be broken with freely available programs. To get strong encryption, use GnuPG, <http://www.gnupg.org/>, which already includes zlib compression. For PKZIP compatible "encryption", look at <http://www.info-zip.org/>

39. What's the difference between the "gzip" and "deflate" HTTP 1.1 encodings?

"gzip" is the gzip format, and "deflate" is the zlib format. They should probably have called the second one "zlib" instead to avoid confusion with the raw deflate compressed data format. While the HTTP 1.1 RFC 2616 correctly points to the zlib specification in RFC 1950 for the "deflate" transfer encoding, there have been reports of servers and browsers that incorrectly produce or expect raw deflate data per the deflate specification in RFC 1951, most notably Microsoft. So even though the "deflate" transfer encoding using the zlib format would be the more efficient approach (and in fact exactly what the zlib format was designed for), using the "gzip" transfer encoding is probably more reliable due to an unfortunate choice of name on the part of the HTTP 1.1 authors.

Bottom line: use the gzip format for HTTP 1.1 encoding.

40. Does zlib support the new "Deflate64" format introduced by PKWare?

No. PKWare has apparently decided to keep that format proprietary, since they have not documented it as they have previous compression formats. In any case, the compression improvements are so modest compared to other more modern approaches, that it's not worth the effort to implement.

41. I'm having a problem with the zip functions in zlib, can you help?

There are no zip functions in zlib. You are probably using minizip by Giles Vollant, which is found in the contrib directory of zlib. It is not part of zlib. In fact none of the stuff in contrib is part of zlib. The files in there are not supported by the zlib authors. You need to contact the authors of the respective contribution for help.

42. The match.asm code in contrib is under the GNU General Public License.

Since it's part of zlib, doesn't that mean that all of zlib falls under the GNU GPL?

No. The files in contrib are not part of zlib. They were contributed by other authors and are provided as a convenience to the user within the zlib distribution. Each item in contrib has its own license.

43. Is zlib subject to export controls? What is its ECCN?

zlib is not subject to export controls, and so is classified as EAR99.

44. Can you please sign these lengthy legal documents and fax them back to us so that we can use your software in our product?

No. Go away. Shoo.

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/FAQ

No license file was found, but licenses were detected in source scan.

/* inftrees.h -- header to use inftrees.c

* Copyright (C) 1995-2005, 2010 Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/inftrees.h

No license file was found, but licenses were detected in source scan.

/* gzappend -- command to append to a gzip file

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version 1.2, 11 Oct 2012

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Mark Adler madler@alumni.caltech.edu

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/examples/gzappend.c

No license file was found, but licenses were detected in source scan.

/* deflate.h -- internal compression state

* Copyright (C) 1995-2016 Jean-loup Gailly

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/deflate.h

No license file was found, but licenses were detected in source scan.

/*

Additional tools for Minizip

Code: Xavier Roche '2004

License: Same as ZLIB (www.gzip.org)

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/contrib/minizip/mztools.h

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-

1.2.11.dfsg/contrib/minizip/mztools.c

No license file was found, but licenses were detected in source scan.

/* unzip.h -- IO for uncompress .zip files using zlib

Version 1.1, February 14h, 2010

part of the MiniZip project - (<http://www.winimage.com/zLibDll/minizip.html>)

Copyright (C) 1998-2010 Gilles Vollant (minizip) (<http://www.winimage.com/zLibDll/minizip.html>)

Modifications of Unzip for Zip64

Copyright (C) 2007-2008 Even Rouault

Modifications for Zip64 support on both zip and unzip

Copyright (C) 2009-2010 Mathias Svensson (<http://result42.com>)

For more info read MiniZip_info.txt

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Changes

See header of unzip64.c

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-

1.2.11.dfsg/contrib/minizip/unzip.h

No license file was found, but licenses were detected in source scan.

/* gzjoin -- command to join gzip files into one gzip file

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version 1.2, 14 Aug 2012

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Mark Adler madler@alumni.caltech.edu

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-
1.2.11.dfsg/examples/gzjoin.c

No license file was found, but licenses were detected in source scan.

/* crc32.c -- compute the CRC-32 of a data stream

* Copyright (C) 1995-2006, 2010, 2011, 2012, 2016 Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*

* Thanks to Rodney Brown <rbrown64@csc.com.au> for his contribution of faster

* CRC methods: exclusive-oring 32 bits of data at a time, and pre-computing

* tables for updating the shift register in one step with three exclusive-ors

* instead of four steps with four exclusive-ors. This results in about a

* factor of two increase in speed on a Power PC G4 (PPC7455) using gcc -O3.

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/crc32.c

No license file was found, but licenses were detected in source scan.

```
/* inffast.c -- fast decoding
* Copyright (C) 1995-2017 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
*/opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/inffast.c
```

No license file was found, but licenses were detected in source scan.

```
/* zutil.c -- target dependent utility functions for the compression library
* Copyright (C) 1995-2017 Jean-loup Gailly
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
*/opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zutil.c
```

No license file was found, but licenses were detected in source scan.

```
/* inflate.h -- internal inflate state definition
* Copyright (C) 1995-2016 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
*/opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/inflate.h
```

No license file was found, but licenses were detected in source scan.

```
/* zlib.h -- interface of the 'zlib' general purpose compression library
version 1.2.11, January 15th, 2017
```

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Jean-loup Gailly Mark Adler
jloup@gzip.org madler@alumni.caltech.edu

The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://tools.ietf.org/html/rfc1950> (zlib format), [rfc1951](http://tools.ietf.org/html/rfc1951) (deflate format) and [rfc1952](http://tools.ietf.org/html/rfc1952) (gzip format).

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zlib.h

No license file was found, but licenses were detected in source scan.

/* gzguts.h -- zlib internal header definitions for gz* operations

* Copyright (C) 2004, 2005, 2010, 2011, 2012, 2013, 2016 Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/gzguts.h

No license file was found, but licenses were detected in source scan.

/* zip.h -- IO on .zip files using zlib

Version 1.1, February 14h, 2010

part of the MiniZip project - (<http://www.winimage.com/zLibDll/minizip.html>)

Copyright (C) 1998-2010 Gilles Vollant (<http://www.winimage.com/zLibDll/minizip.html>)

Modifications for Zip64 support

Copyright (C) 2009-2010 Mathias Svensson (<http://result42.com>)

For more info read MiniZip_info.txt

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Changes

See header of zip.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/contrib/minizip/zip.h

No license file was found, but licenses were detected in source scan.

/* inftrees.c -- generate Huffman trees for efficient decoding

* Copyright (C) 1995-2017 Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/inftrees.c

No license file was found, but licenses were detected in source scan.

/* inflate.c -- zlib decompression

* Copyright (C) 1995-2016 Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/inflate.c

No license file was found, but licenses were detected in source scan.

/* zpipe.c: example of proper use of zlib's inflate() and deflate()

Not copyrighted -- provided to the public domain

Version 1.4 11 December 2005 Mark Adler */

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/examples/zpipe.c

No license file was found, but licenses were detected in source scan.

ZLIB DATA COMPRESSION LIBRARY

zlib 1.2.11 is a general purpose data compression library. All the code is thread safe. The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://tools.ietf.org/html/rfc1950> (zlib format), [rfc1951](http://tools.ietf.org/html/rfc1951) (deflate format) and [rfc1952](http://tools.ietf.org/html/rfc1952) (gzip format).

All functions of the compression library are documented in the file `zlib.h` (volunteer to write man pages welcome, contact zlib@gzip.org). A usage example of the library is given in the file `test/example.c` which also tests that the library is working correctly. Another example is given in the file `test/minigzip.c`. The compression library itself is composed of all source files in the root directory.

To compile all files and run the test program, follow the instructions given at the top of `Makefile.in`. In short `./configure; make test`, and if that goes well, `make install` should work for most flavors of Unix. For Windows, use one of the special makefiles in `win32/` or `contrib/vstudio/`. For VMS, use `make_vms.com`.

Questions about zlib should be sent to [<zlib@gzip.org>](mailto:zlib@gzip.org), or to Gilles Vollant [<info@winimage.com>](mailto:info@winimage.com) for the Windows DLL version. The zlib home page is <http://zlib.net/>. Before reporting a problem, please check this site to verify that you have the latest version of zlib; otherwise get the latest version and check whether the problem still exists or not.

PLEASE read the zlib FAQ http://zlib.net/zlib_faq.html before asking for help.

Mark Nelson [<markn@ieee.org>](mailto:markn@ieee.org) wrote an article about zlib for the Jan. 1997 issue of Dr. Dobbs's Journal; a copy of the article is available at <http://marknelson.us/1997/01/01/zlib-engine/>.

The changes made in version 1.2.11 are documented in the file `ChangeLog`.

Unsupported third party contributions are provided in directory `contrib/`.

zlib is available in Java using the `java.util.zip` package, documented at <http://java.sun.com/developer/technicalArticles/Programming/compression/>.

A Perl interface to zlib written by Paul Marquess [<pmqs@cpan.org>](mailto:pmqs@cpan.org) is available at CPAN (Comprehensive Perl Archive Network) sites, including <http://search.cpan.org/~pmqs/IO-Compress-Zlib/>.

A Python interface to zlib written by A.M. Kuchling [<amk@amk.ca>](mailto:amk@amk.ca) is available in Python 1.5 and later versions, see <http://docs.python.org/library/zlib.html>.

zlib is built into tcl: <http://wiki.tcl.tk/4610> .

An experimental package to read and write files in .zip format, written on top of zlib by Gilles Vollant <info@winimage.com>, is available in the contrib/minizip directory of zlib.

Notes for some targets:

- For Windows DLL versions, please see win32/DLL_FAQ.txt
- For 64-bit Irix, deflate.c must be compiled without any optimization. With -O, one libpng test fails. The test works in 32 bit mode (with the -n32 compiler flag). The compiler bug has been reported to SGI.
- zlib doesn't work with gcc 2.6.3 on a DEC 3000/300LX under OSF/1 2.1 it works when compiled with cc.
- On Digital Unix 4.0D (formely OSF/1) on AlphaServer, the cc option -std1 is necessary to get gzprintf working correctly. This is done by configure.
- zlib doesn't work on HP-UX 9.05 with some versions of /bin/cc. It works with other compilers. Use "make test" to check your compiler.
- gzdopen is not supported on RISCOS or BEOS.
- For PalmOs, see <http://palmzlib.sourceforge.net/>

Acknowledgments:

The deflate format used by zlib was defined by Phil Katz. The deflate and zlib specifications were written by L. Peter Deutsch. Thanks to all the people who reported problems and suggested various improvements in zlib; they are too numerous to cite here.

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Jean-loup Gailly Mark Adler
jloup@gzip.org madler@alumni.caltech.edu

If you use the zlib library in a product, we would appreciate **not** receiving lengthy legal documents to sign. The sources are provided for free but without warranty of any kind. The library has been entirely written by Jean-loup Gailly and Mark Adler; it does not include third-party code.

If you redistribute modified sources, we would appreciate that you include in the file ChangeLog history information documenting your changes. Please read the FAQ for more information on the distribution of modified source versions.

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/README

No license file was found, but licenses were detected in source scan.

```
/* minigzip.c -- simulate gzip using the zlib compression library
* Copyright (C) 1995-2006, 2010, 2011, 2016 Jean-loup Gailly
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/test/minigzip.c

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Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zlib.3

No license file was found, but licenses were detected in source scan.

```
/* inffast.h -- header to use inffast.c
* Copyright (C) 1995-2003, 2010 Mark Adler
```

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/inffast.h

No license file was found, but licenses were detected in source scan.

/* zran.c -- example of zlib/gzip stream indexing and random access

* Copyright (C) 2005, 2012 Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

Version 1.1 29 Sep 2012 Mark Adler */

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-

1.2.11.dfsg/examples/zran.c

No license file was found, but licenses were detected in source scan.

/* inffback.c -- inflate using a call-back interface

* Copyright (C) 1995-2016 Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/inffback.c

No license file was found, but licenses were detected in source scan.

/* gzlog.h

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version 2.2, 14 Aug 2012

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Mark Adler madler@alumni.caltech.edu

*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/examples/gzlog.h

No license file was found, but licenses were detected in source scan.

/* fitblk.c: example of fitting compressed output to a specified size

Not copyrighted -- provided to the public domain

Version 1.1 25 November 2004 Mark Adler */

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/examples/fitblk.c

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/* zlib.c -- zlib functions common to reading and writing gzip files

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*/

Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/gzlib.c

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/* infcover.c -- test zlib's inflate routines with full code coverage

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Found in path(s):

* /opt/cola/permits/1445162814_1666092919.423293/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/test/infcover.c

1.126 zlib1g 1:1.2.11.dfsg-2ubuntu1.5

1.126.1 Available under license :

/* zlib.h -- interface of the 'zlib' general purpose compression library
version 1.2.11, January 15th, 2017

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Jean-loup Gailly Mark Adler
jloup@gzip.org madler@alumni.caltech.edu

The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://tools.ietf.org/html/rfc1950> (zlib format), rfc1951 (deflate format) and rfc1952 (gzip format).

*/

1.127 objx 0.5.0

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1.128 d3-selection 3.0.0

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1.129 golang-protobuf-extensions 1.0.4

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1.130 pmezard-godiff lib v1.0.1- 0.20181226105442-5d4384ee4fb2

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1.131 x-time-rate 0.3.0

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1.132 stretchr-objx v0.5.0

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1.133 github.com/google/gnostic v0.6.9

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1.138 x-time v0.3.0

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1.139 sigs.k8s.io/json v0.0.0-20221116044647-bc3834ca7abd

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1.140 go-openapi-jsonreference 0.20.2

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1.143 gogo-protobuf 1.3.2

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1.145 scowl 2018.04.16-1

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Peterson, Toby
Petten, Diego Elio
Pickett, Joel

Plotnick, Alex
de Raadt, Theo
Rasch, Gudleik
Reid, Steve
Richards, Matt
Rossum, Guido van
Rouillard, John P.
Rowe, William A., Jr.
Roy, Alain
Ruusame, Elan
Ryabinkin, Eygene
Sato, Yuichi
Snchez, Wilfredo
Sanders, Miguel
Sasaki, Kan
Saucier, Jean-Francois
Schoenfeld, Patrick
Schuring, Arno
Schwarze, Ingo
Scott, Dougal
Sieger, Nick
Simon, Thor Lancelot
Slemko, Marc
Smith, Andy
Sobrado, Igor
Soulen, Steven
Spangler, Aaron
Spradling, Cloyce D.
Spradling, Michael
Stier, Matthew
Stoeckmann, Tobias
Street, Russell
Stritzky, Tilo
Stroucken, Michael
Tarrall, Robert
Thomas, Matthew
Todd, Giles
Toft, Martin
Torek, Chris
Tucker, Darren
Uhl, Robert
Uzel, Petr
Valery, Reznic
Van Dinter, Theo
Venckus, Martynas
de Vries, Maarten
Wagner, Klaus
Walsh, Dan

Warburton, John
Webb, Kirk
Wetzel, Timm
Wieringen, Marco van
Wilk, Jakub
Winiger, Gary
Wood, David
Zacarias, Gustavo
Zolnowsky, John

The following people have worked to translate sudo into other languages as part of the Translation Project, see <https://translationproject.org> for more details.

Albuquerque, Pedro
Blttermann, Mario
Bogusz, Jakub
Buo-ren, Lin
Casagrande, Milo
Castro, Felipe
Cho, Seong-ho
Chornoivan, Yuri
Diguez,
Francisco
Fontenelle, Rafael
Garca-Fontes, Walter
Gezer, Volkan
Hamasaki, Takeshi
Hamming, Peter
Hansen, Joe
Hantrais, Frdric
Hein, Jochen
Hufthammer, Karl Ove
Jerovek, Damir
Karvonen, Jorma
Kazik, Duan
Kelemen, Gbor
Keeci, Mehmet
Koir, Klemen
Kozlov, Yuri
Kramer, Jakob
Krznar, Tomislav
Marchal, Frdric
Margeviius, Algimantas
Maryanov, Pavel
Nikoli, Miroslav
Nylander, Daniel
Psa, Petr

Puente, Enol
Putanec, Boidar
Qun, Trn Ngc
Rasmussen, Sebastian
Regueiro, Leandro
Sarar, zgr
Sendn, Abel
Sikrom, ka
Spingos, Dimitris
Taniguchi, Yasuaki
Tomat, Fbio
r, Balzs
Uranga, Mikel Olasagasti
Vorotnikov, Artem
Wang, Wylmer

1.152 logr 1.2.4

1.152.1 Available under license :

No license file was found, but licenses were detected in source scan.

/*!

- * Bootstrap Table of Contents v0.4.1 (<http://afeld.github.io/bootstrap-toc/>)
- * Copyright 2015 Aidan Feldman
- * Licensed under MIT (<https://github.com/afeld/bootstrap-toc/blob/gh-pages/LICENSE.md>) */

Found in path(s):

- * /opt/cola/permits/1640242423_1681521633.1109512/0/dbosak01-logr-v1-2-4-0-g8c5ac86-tar-gz/dbosak01-logr-8c5ac86/docs/bootstrap-toc.css
- * /opt/cola/permits/1640242423_1681521633.1109512/0/dbosak01-logr-v1-2-4-0-g8c5ac86-tar-gz/dbosak01-logr-8c5ac86/docs/bootstrap-toc.js

No license file was found, but licenses were detected in source scan.

/*

Source: <https://github.com/algolia/docsearch/>

License: MIT

*/

Found in path(s):

- * /opt/cola/permits/1640242423_1681521633.1109512/0/dbosak01-logr-v1-2-4-0-g8c5ac86-tar-gz/dbosak01-logr-8c5ac86/docs/docsearch.css

No license file was found, but licenses were detected in source scan.

Package: logr

Title: Creates Log Files

Version: 1.2.4

Authors@R:

```
person(given = "David",
      family = "Bosak",
      role = c("aut", "cre"),
      email = "dbosak01@gmail.com")
```

Description: Contains functions to help create log files. The package aims to overcome the difficulty of the base R `sink()` command. The `log_print()` function will print to both the console and the file log, without interfering in other write operations.

License: CC0

Encoding: UTF-8

URL: <https://logr.r-sassy.org>

BugReports: <https://github.com/dbosak01/logr/issues>

Depends: R (>= 3.4.0)

Suggests: knitr,
rmarkdown,
testthat,
tidylog,
dplyr,
utils

Imports: withr

VignetteBuilder: knitr

Roxygen: list(markdown = TRUE)

RoxygenNote: 7.1.1

Found in path(s):

```
* /opt/cola/permits/1640242423_1681521633.1109512/0/dbosak01-logr-v1-2-4-0-g8c5ac86-tar-gz/dbosak01-logr-8c5ac86/DESCRIPTION
```

1.153 cmd/test2json (devel)

1.153.1 Available under license :

No license file was found, but licenses were detected in source scan.

```
// Copyright 2017 The Go Authors. All rights reserved.
```

Found in path(s):

```
* /opt/cola/permits/1662035299_1692956471.8378384/0/test2json-zip/test2json/main.go
```

1.154 cmd/gofmt (devel)

1.154.1 Available under license :

No license file was found, but licenses were detected in source scan.

```
// Copyright 2020 The Go Authors. All rights reserved.
```

```
// Use of this source code is governed by a BSD-style
```

```
// license that can be found in the LICENSE file.
```

```

//gofmt

package typeparams

type T[P any] struct{ }
type T[P1, P2, P3 any] struct{ }

type T[P C] struct{ }
type T[P1, P2, P3 C] struct{ }

type T[P C[P]] struct{ }
type T[P1, P2, P3 C[P1, P2, P3]] struct{ }

func f[P any](x P)
func f[P1, P2, P3 any](x1 P1, x2 P2, x3 P3) struct{ }

func f[P interface{ }](x P)
func f[P1, P2, P3 interface {
    m1(P1)
    ~P2 | ~P3
}](x1 P1, x2 P2, x3 P3) struct{ }
func f[P any](T1[P], T2[P]) T3[P]

func (x T[P]) m()
func (T[P]) m(x T[P]) P

func _() {
    type _ []T[P]
    var _ []T[P]
    _ = []T[P]{ }
}

```

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/typeparams.golden

No license file was found, but licenses were detected in source scan.

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// license that can be found in the LICENSE file.

```
//gofmt
```

```
package main
```

```
var _ = []struct{
```

```
    S    string
```

```
    Integer int
```

```
}{
{
S: "Hello World",
Integer: 42,
},
{
S: "\t",
Integer: 42,
},
{
S: " ", // an actual <tab>
Integer: 42,
},
{
S: ` `, // an actual <tab>
Integer: 42,
},
{
S: "\u0009",
Integer: 42,
},
}
```

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/tabs.input

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// Copyright 2010 The Go Authors. All rights reserved.

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/simplify.go

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//gofmt

package main

```
var _ = []struct {
```

```
  S    string
```

```
  Integer int
```

```
}{
```

```
{
```

```
  S:    "Hello World",
```

```
  Integer: 42,
```

```

},
{
S:    "\t",
Integer: 42,
},
{
S:    " ", // an actual <tab>
Integer: 42,
},
{
S:    "\t", // an actual <tab>
Integer: 42,
},
{
S:    "\u0009",
Integer: 42,
},
}

```

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/tabs.golden

No license file was found, but licenses were detected in source scan.

```
//gofmt -r=fun(x)->Fun(x)
```

```
// Copyright 2013 The Go Authors. All rights reserved.
```

```
// Use of this source code is governed by a BSD-style
```

```
// license that can be found in the LICENSE file.
```

```
// Rewriting of calls must take the ... (ellipsis)
```

```
// attribute for the last argument into account.
```

```
package p
```

```
func fun(x []int) {}
```

```
func g(x []int) {
```

```
    Fun(x) // -r='fun(x)->Fun(x)' should rewrite this to Fun(x)
```

```
    fun(x...) // -r='fun(x)->Fun(x)' should not rewrite this
```

```
}
```

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite6.golden

No license file was found, but licenses were detected in source scan.

```
//gofmt -r=int->bool
```

```
// Copyright 2011 The Go Authors. All rights reserved.
```



```
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

```
package p
```

```
// Slices have nil Len values in the corresponding ast.ArrayType
// node and reflect.NewValue(slice.Len) is an invalid reflect.Value.
// The rewriter must not crash in that case. Was issue 1696.
```

```
func f() []int {}
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite2.input
No license file was found, but licenses were detected in source scan.
```

```
//gofmt -r=int->bool
```

```
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// license that can be found in the LICENSE file.
```

```
package p
```

```
// Slices have nil Len values in the corresponding ast.ArrayType
// node and reflect.NewValue(slice.Len) is an invalid reflect.Value.
// The rewriter must not crash in that case. Was issue 1696.
```

```
func f() []bool {}
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite2.golden
No license file was found, but licenses were detected in source scan.
```

```
//gofmt -r=x->x
```

```
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```

```
package main
```

```
// Field tags are *ast.BasicLit nodes that are nil when the tag is
// absent. These nil nodes must not be mistaken for expressions,
// the rewriter should not try to dereference them. Was issue 2410.
```

```
type Foo struct {
    Field int
}
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite3.input
```

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite3.golden
No license file was found, but licenses were detected in source scan.

// Copyright 2011 The Go Authors. All rights reserved.

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/gofmt_test.go
* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite1.input
* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite1.golden
* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/long_test.go
No license file was found, but licenses were detected in source scan.

//gofmt -r=interface{ }->int

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// license that can be found in the LICENSE file.

// Check that literal type expression rewrites are accepted.
// Was issue 4406.

package p

type T int

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite8.golden
No license file was found, but licenses were detected in source scan.

//gofmt -r=fun(x...)->Fun(x)

// Copyright 2013 The Go Authors. All rights reserved.

// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.

// Rewriting of calls must take the ... (ellipsis)
// attribute for the last argument into account.

package p

func fun(x []int) {}

func g(x []int) {
 fun(x) // -r='fun(x...)->Fun(x)' should not rewrite this
 fun(x...) // -r='fun(x...)->Fun(x)' should rewrite this to Fun(x)
}

Found in path(s):

```
* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite7.input
```

```
No license file was found, but licenses were detected in source scan.
```

```
//gofmt -r=a&&b!=2->a
```

```
// Copyright 2017 The Go Authors. All rights reserved.
```

```
// Use of this source code is governed by a BSD-style
```

```
// license that can be found in the LICENSE file.
```

```
// Issue 18987.
```

```
package p
```

```
const _ = x != 1 && x != 2
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite9.input
```

```
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2015 The Go Authors. All rights reserved.
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/internal.go
```

```
No license file was found, but licenses were detected in source scan.
```

```
//gofmt -r=fun(x...)->Fun(x)
```

```
// Copyright 2013 The Go Authors. All rights reserved.
```

```
// Use of this source code is governed by a BSD-style
```

```
// license that can be found in the LICENSE file.
```

```
// Rewriting of calls must take the ... (ellipsis)
```

```
// attribute for the last argument into account.
```

```
package p
```

```
func fun(x []int) {}
```

```
func g(x []int) {
```

```
    fun(x) // -r='fun(x...)->Fun(x)' should not rewrite this
```

```
    Fun(x) // -r='fun(x...)->Fun(x)' should rewrite this to Fun(x)
```

```
}
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite7.golden
```

```
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2020 The Go Authors. All rights reserved.
```

```

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// license that can be found in the LICENSE file.

//gofmt

package typeparams

type T[ P any] struct{ }
type T[P1, P2, P3 any] struct{ }

type T[P C] struct{ }
type T[P1,P2, P3 C] struct{ }

type T[P C[P]] struct{ }
type T[P1, P2, P3 C[P1,P2,P3]] struct{ }

func f[P any](x P)
func f[P1, P2, P3 any](x1 P1, x2 P2, x3 P3) struct{ }

func f[P interface{ }](x P)
func f[P1, P2, P3 interface{ m1(P1); ~P2|~P3 }](x1 P1, x2 P2, x3 P3) struct{ }
func f[P any](T1[P], T2[P]) T3[P]

func (x T[P]) m()
func ((T[P])) m(x T[P]) P

func _() {
type _ []T[P]
var _ []T[P]
_ = []T[P]{ }
}

```

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/typeparams.input

No license file was found, but licenses were detected in source scan.

```
//gofmt -r=x+x->2*x
```

```
// Copyright 2011 The Go Authors. All rights reserved.
```

```
// Use of this source code is governed by a BSD-style
```

```
// license that can be found in the LICENSE file.
```

```
// Rewriting of expressions containing nodes with associated comments to
```

```
// expressions without those nodes must also eliminate the associated
```

```
// comments.
```

```
package p
```

```
func f(x int) int {
    _ = x + x // this comment remains in the rewrite
    _ = x /* this comment must not be in the rewrite */ + x
    return x /* this comment must not be in the rewrite */ + x
}
```

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite5.input

No license file was found, but licenses were detected in source scan.

// Copyright 2009 The Go Authors. All rights reserved.

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/gofmt.go

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/doc.go

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/rewrite.go

No license file was found, but licenses were detected in source scan.

//gofmt -r=(x)->x

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// license that can be found in the LICENSE file.

// Rewriting of parenthesized expressions (x) -> x

// must not drop parentheses if that would lead to

// wrong association of the operands.

// Was issue 1847.

package main

// From example 1 of issue 1847.

```
func _() {
    var t = (&T{1000}).Id()
}
```

// From example 2 of issue 1847.

```
func _() {
    fmt.Println((*xpp).a)
}
```

// Some more test cases.

```
func _() {
    _ = (-x).f
    _ = (*x).f
    _ = (&x).f
    _ = (!x).f
    _ = -x.f
}
```

```

_ = *x.f
_ = &x.f
_ = !x.f
(-x).f()
(*x).f()
(&x).f()
(!x).f()
_ = -x.f()
_ = *x.f()
_ = &x.f()
_ = !x.f()

_ = (-x).f
_ = (*x).f
_ = (&x).f
_ = (!x).f
_ = -x.f
_ = *x.f
_ = &x.f
_ = !x.f
(-x).f()
(*x).f()
(&x).f()
(!x).f()
_ = -x.f()
_ = *x.f()
_ = &x.f()
_ = !x.f()

_ = -x.f
_ = *x.f
_ = &x.f
_ = !x.f
_ =
-x.f
_ = *x.f
_ = &x.f
_ = !x.f
_ = -x.f()
_ = *x.f()
_ = &x.f()
_ = !x.f()
_ = -x.f()
_ = *x.f()
_ = &x.f()
_ = !x.f()
}

```

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite4.golden

No license file was found, but licenses were detected in source scan.

```
//gofmt -r=x+x->2*x
```

```
// Copyright 2011 The Go Authors. All rights reserved.
```

```
// Use of this source code is governed by a BSD-style
```

```
// license that can be found in the LICENSE file.
```

```
// Rewriting of expressions containing nodes with associated comments to
```

```
// expressions without those nodes must also eliminate the associated
```

```
// comments.
```

```
package p
```

```
func f(x int) int {
```

```
    _ = 2 * x // this comment remains in the rewrite
```

```
    _ = 2 * x
```

```
    return 2 * x
```

```
}
```

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite5.golden

No license file was found, but licenses were detected in source scan.

```
//gofmt -r=a&&b!=2->a
```

```
// Copyright 2017 The Go Authors. All rights reserved.
```

```
// Use of this source code is governed by a BSD-style
```

```
// license that can be found in the LICENSE file.
```

```
// Issue 18987.
```

```
package p
```

```
const _ = x != 1
```

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite9.golden

No license file was found, but licenses were detected in source scan.

```
// Copyright 2019 The Go Authors. All rights reserved.
```

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/issue28082.golden

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/issue28082.input

No license file was found, but licenses were detected in source scan.

```
//gofmt -r=a->a
```

```
// Copyright 2019 The Go Authors. All rights reserved.
```

```
// Use of this source code is governed by a BSD-style
```

```
// license that can be found in the LICENSE file.
```

```
// Issue 33103, 33104, and 33105.
```

```
package pkg
```

```
func fn() {
```

```
  _ = func() {
```

```
    switch {
```

```
      default:
```

```
    }
```

```
  }
```

```
  _ = func() string { }
```

```
  _ = func() { var ptr *string; println(ptr) }
```

```
}
```

Found in path(s):

```
* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite10.input
```

```
* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite10.golden
```

No license file was found, but licenses were detected in source scan.

```
//gofmt -r=(x)->x
```

```
// Copyright 2012 The Go Authors. All rights reserved.
```

```
// Use of this source code is governed by a BSD-style
```

```
// license that can be found in the LICENSE file.
```

```
// Rewriting of parenthesized expressions (x) -> x
```

```
// must not drop parentheses if that would lead to
```

```
// wrong association of the operands.
```

```
// Was issue 1847.
```

```
package main
```

```
// From example 1 of issue 1847.
```

```
func _() {
```

```
  var t = (&T{1000}).Id()
```

```
}
```

```
// From example 2 of issue 1847.
```

```
func _() {
```

```
  fmt.Println((*xpp).a)
```



```
}
```

```
// Some more test cases.
```

```
func _() {
```

```
_ = (-x).f
```

```
_ = (*x).f
```

```
_ = (&x).f
```

```
_ = (!x).f
```

```
_ = (-x.f)
```

```
_ = (*x.f)
```

```
_ = (&x.f)
```

```
_ = (!x.f)
```

```
(-x).f()
```

```
(*x).f()
```

```
(&x).f()
```

```
(!x).f()
```

```
_ = (-x.f())
```

```
_ = (*x.f())
```

```
_ = (&x.f())
```

```
_ = (!x.f())
```

```
_ = ((-x)).f
```

```
_ = ((*x)).f
```

```
_ = ((&x)).f
```

```
_ = (!!x).f
```

```
_ = ((-x.f))
```

```
_ = ((*x.f))
```

```
_ = ((&x.f))
```

```
_ = (!!x.f)
```

```
((-x).f())
```

```
((*x).f())
```

```
((&x).f())
```

```
(!!x).f()
```

```
_ = ((-x.f()))
```

```
_ = ((*x.f()))
```

```
_ = ((&x.f()))
```

```
-
```

```
= (!!x.f())
```

```
_ = -(x).f
```

```
_ = *(x).f
```

```
_ = &(x).f
```

```
_ = !(x).f
```

```
_ = -x.f
```

```
_ = *x.f
```

```
_ = &x.f
```

```
_ = !x.f
```

```
_ = -(x).f()
```

```
_ = *(x).f()
_ = &(x).f()
_ = !(x).f()
_ = -x.f()
_ = *x.f()
_ = &x.f()
_ = !x.f()
}
```

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite4.input

No license file was found, but licenses were detected in source scan.

```
//gofmt -r=fun(x)->Fun(x)
```

```
// Copyright 2013 The Go Authors. All rights reserved.
```

```
// Use of this source code is governed by a BSD-style
```

```
// license that can be found in the LICENSE file.
```

```
// Rewriting of calls must take the ... (ellipsis)
```

```
// attribute for the last argument into account.
```

```
package p
```

```
func fun(x []int) {}
```

```
func g(x []int) {
```

```
    fun(x) // -r='fun(x)->Fun(x)' should rewrite this to Fun(x)
```

```
    fun(x...) // -r='fun(x)->Fun(x)' should not rewrite this
```

```
}
```

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite6.input

No license file was found, but licenses were detected in source scan.

```
//gofmt -r=interface{ }->int
```

```
// Copyright 2013 The Go Authors. All rights reserved.
```

```
// Use of this source code is governed by a BSD-style
```

```
// license that can be found in the LICENSE file.
```

```
// Check that literal type expression rewrites are accepted.
```

```
// Was issue 4406.
```

```
package p
```

```
type T interface{ }
```

Found in path(s):

* /opt/cola/permits/1662035352_1692956183.521849/0/gofmt-zip/gofmt/testdata/rewrite8.input

1.155 cmd/addr2line (devel)

1.155.1 Available under license :

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Found in path(s):

* /opt/cola/permits/1662035349_1692956280.9049976/0/addr2line-zip/addr2line/addr2line_test.go

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Found in path(s):

* /opt/cola/permits/1662035349_1692956280.9049976/0/addr2line-zip/addr2line/main.go

1.156 cmd/fix (devel)

1.156.1 Available under license :

No license file was found, but licenses were detected in source scan.

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Found in path(s):

* /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/buildtag.go

* /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/buildtag_test.go

No license file was found, but licenses were detected in source scan.

// Copyright 2016 The Go Authors. All rights reserved.

Found in path(s):

* /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/context.go

* /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/context_test.go

No license file was found, but licenses were detected in source scan.

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Found in path(s):

* /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/gotypes.go

No license file was found, but licenses were detected in source scan.

// Copyright 2011 The Go Authors. All rights reserved.

Found in path(s):

- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/main_test.go
- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/doc.go
- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/fix.go
- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/main.go
- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/import_test.go
- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/typecheck.go

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Found in path(s):

- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/egctype.go

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Found in path(s):

- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/gotypes_test.go
- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/printerconfig.go
- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/netip6zone_test.go
- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/netip6zone.go
- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/printerconfig_test.go

No license file was found, but licenses were detected in source scan.

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Found in path(s):

- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/egctype_test.go
- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/cftype_test.go
- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/cftype.go
- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/jnitype_test.go
- * /opt/cola/permits/1662035354_1692956376.389463/0/fix-zip/fix/jnitype.go

1.157 cmd/dist (devel)

1.157.1 Available under license :

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Found in path(s):

- * /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/util_gc.go
- * /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/test.go
- * /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/sys_default.go
- * /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/sys_windows.go
- * /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/vfp_arm.s

```
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/buildtool.go
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/util_gccgo.go
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/vfp_default.s
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2012 The Go Authors. All rights reserved.
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/buildruntime.go
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/buildgo.go
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/main.go
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/util.go
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/imports.go
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/build.go
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2021 The Go Authors. All rights reserved.
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/buildtag.go
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/exec.go
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/buildtag_test.go
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2016 The Go Authors. All rights reserved.
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/test_linux.go
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2017 The Go Authors. All rights reserved.
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035355_1692956443.2305462/0/dist-zip/dist/doc.go
```

1.158 cmd/trace (devel)

1.158.1 Available under license :

```
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2016 The Go Authors. All rights reserved.
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035304_1692956480.096531/0/trace-180-zip/trace/trace_test.go
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2017 The Go Authors. All rights reserved.
```

Found in path(s):

- * /opt/cola/permits/1662035304_1692956480.096531/0/trace-180-zip/trace/trace_unix_test.go
- * /opt/cola/permits/1662035304_1692956480.096531/0/trace-180-zip/trace/mmu.go
- * /opt/cola/permits/1662035304_1692956480.096531/0/trace-180-zip/trace/doc.go

No license file was found, but licenses were detected in source scan.

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Found in path(s):

- * /opt/cola/permits/1662035304_1692956480.096531/0/trace-180-zip/trace/goroutines.go
- * /opt/cola/permits/1662035304_1692956480.096531/0/trace-180-zip/trace/main.go
- * /opt/cola/permits/1662035304_1692956480.096531/0/trace-180-zip/trace/trace.go
- * /opt/cola/permits/1662035304_1692956480.096531/0/trace-180-zip/trace/pprof.go

No license file was found, but licenses were detected in source scan.

/**

* @license

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* subject to an additional IP rights grant found at <http://polymer.github.io/PATENTS.txt>

*/

Found in path(s):

- * /opt/cola/permits/1662035304_1692956480.096531/0/trace-180-zip/trace/static/webcomponents.min.js

No license file was found, but licenses were detected in source scan.

// Copyright 2018 The Go Authors. All rights reserved.

Found in path(s):

- * /opt/cola/permits/1662035304_1692956480.096531/0/trace-180-zip/trace/annotations.go
- * /opt/cola/permits/1662035304_1692956480.096531/0/trace-180-zip/trace/annotations_test.go

No license file was found, but licenses were detected in source scan.

// Copyright 2015 The Chromium Authors. All rights reserved.

Found in path(s):

- * /opt/cola/permits/1662035304_1692956480.096531/0/trace-180-zip/trace/static/trace_viewer_full.html

No license file was found, but licenses were detected in source scan.

Resources for Go's trace viewer

Go execution trace UI (`go tool trace`) embeds

Chrome's trace viewer (Catapult) following the

[instructions](

<https://chromium.googlesource.com/catapult+/refs/heads/master/tracing/docs/embedding-trace-viewer.md>). This directory contains

the helper files to embed Chrome's trace viewer.

The current resources were generated/copied from

[`Catapult@9508452e18f130c98499cb4c4f1e1efaedee8962`](

<https://chromium.googlesource.com/catapult+/9508452e18f130c98499cb4c4f1e1efaedee8962>).

Updating `trace_viewer_full.html`

The file was generated by catapult's `vulcanize_trace_viewer` command.

...

```
$ git clone https://chromium.googlesource.com/catapult
```

```
$ cd catapult
```

```
$ ./tracing/bin/vulcanize_trace_viewer --config=full
```

```
$ cp tracing/bin/trace_viewer_full.html $GOROOT/src/cmd/trace/static/trace_viewer_full.html
```

...

We are supposed to use `--config=lean` (produces smaller html),

but it is broken

at the moment:

<https://github.com/catapult-project/catapult/issues/2247>

Updating `webcomponents.min.js`

`webcomponents.min.js` is necessary to let the trace viewer page

to import the `trace_viewer_full.html`.

This is copied from the catapult repo.

...

```
$ cp third_party/polymer/components/webcomponentsjs/webcomponents.min.js
```

```
$GOROOT/src/cmd/trace/static/webcomponents.min.js
```

...

Licenses

The license for trace-viewer is as follows:

```
// Copyright (c) 2012 The Chromium Authors. All rights reserved.
```

```
//
```

```
// Redistribution and use in source and binary forms, with or without
```

```
// modification, are permitted provided that the following conditions are
```

```
// met:
```

```
//
```

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```

The
license for webcomponents.min.js is as follows:

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 * Code distributed by Google as part of the polymer project is also
 * subject to an additional IP rights grant found at http://polymer.github.io/PATENTS.txt
 */
// Copyright (c) 2014 The Polymer Authors. All rights reserved.
//
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// the above
// copyright notice, this list of conditions and the following disclaimer
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// distribution.
// * Neither the name of Google Inc. nor the names of its
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//
```



```
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// OR TORT
// (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
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```

Found in path(s):

```
* /opt/cola/permits/1662035304_1692956480.096531/0/trace-180-zip/trace/static/README.md
```

1.159 cmd/asm (devel)

1.159.1 Available under license :

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```
// Copyright 2020 The Go Authors. All rights reserved.
```

Found in path(s):

```
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/arch/riscv64.go
```

```
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/buildtagerror.s
```

No license file was found, but licenses were detected in source scan.

```
// Copyright 2014 The Go Authors. All rights reserved.
```

Found in path(s):

```
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/main.go
```

```
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/asm.go
```

No license file was found, but licenses were detected in source scan.

```
// Copyright 2018 The Go Authors. All rights reserved.
```

Found in path(s):

```
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/arm64error.s
```

```
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/386enc.s
```

```
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/line_test.go
```

No license file was found, but licenses were detected in source scan.

```
// Copyright 2016 The Go Authors. All rights reserved.
```

Found in path(s):

```
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/s390x.s
```

* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/amd64error.s
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/arch/s390x.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/mips.s
No license file was found, but licenses were detected in source scan.

// Copyright 2022 The Go Authors. All rights reserved.

Found in path(s):

* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/loong64enc1.s
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/loong64enc3.s
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/arch/loong64.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/loong64enc2.s
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/loong64.s
No license file was found, but licenses were detected in source scan.

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Found in path(s):

* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/amd64dynlinkerror.s
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/riscv64error.s
No license file was found, but licenses were detected in source scan.

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Found in path(s):

* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/mips64.s
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/arch/ppc64.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/parse.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/lex/lex.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/flags/flags.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/lex/stack.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/lex/slice.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/endoend_test.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/doc.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/expr_test.go
*
/opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/lex/lex_test.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/ppc64.s
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/arch/arm.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/amd64.s
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/lex/tokenizer.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/operand_test.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/lex/input.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/arch/arch.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/arm.s
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/arm64.s
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/pseudo_test.go
*

```
/opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/arch/mips.go
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/arch/arm64.go
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2017 The Go Authors. All rights reserved.
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/armv6.s
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/amd64enc_extra.s
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/arm64enc.s
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/armerror.s
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```

```
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```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035325_1692956307.8639967/0/asm-zip/asm/internal/asm/testdata/riscv64.s
```

1.160 cmd/cover (devel)

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```
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```
Found in path(s):
```

```
* /opt/cola/permits/1662035309_1692956362.2105646/0/cover-zip/cover/html.go
* /opt/cola/permits/1662035309_1692956362.2105646/0/cover-zip/cover/cover_test.go
* /opt/cola/permits/1662035309_1692956362.2105646/0/cover-zip/cover/testdata/main.go
* /opt/cola/permits/1662035309_1692956362.2105646/0/cover-zip/cover/testdata/test.go
* /opt/cola/permits/1662035309_1692956362.2105646/0/cover-zip/cover/doc.go
* /opt/cola/permits/1662035309_1692956362.2105646/0/cover-zip/cover/cover.go
* /opt/cola/permits/1662035309_1692956362.2105646/0/cover-zip/cover/func.go
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```
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```
Found in path(s):
```

```
* /opt/cola/permits/1662035309_1692956362.2105646/0/cover-zip/cover/pkgname_test.go
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```
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```

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* /opt/cola/permits/1662035309_1692956362.2105646/0/cover-zip/cover/testdata/toolexec.go
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Found in path(s):

- * /opt/cola/permits/1662035309_1692956362.2105646/0/cover-zip/cover/testdata/p.go
- * /opt/cola/permits/1662035309_1692956362.2105646/0/cover-zip/cover/testdata/directives.go

1.161 cmd/buildid (devel)

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Found in path(s):

- * /opt/cola/permits/1662035305_1692956322.6419218/0/buildid-zip/buildid/buildid.go
- * /opt/cola/permits/1662035305_1692956322.6419218/0/buildid-zip/buildid/doc.go

1.162 cmd/pprof (devel)

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Found in path(s):

- * /opt/cola/permits/1662035279_1692956465.309269/0/pprof-zip/pprof/doc.go
- * /opt/cola/permits/1662035279_1692956465.309269/0/pprof-zip/pprof/pprof.go

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Found in path(s):

- * /opt/cola/permits/1662035279_1692956465.309269/0/pprof-zip/pprof/testdata/cpu.go
- * /opt/cola/permits/1662035279_1692956465.309269/0/pprof-zip/pprof/pprof_test.go

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- * /opt/cola/permits/1662035279_1692956465.309269/0/pprof-zip/pprof/readlineui.go

1.163 cmd/go (devel)

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1.164 cmd/cgo (devel)

1.164.1 Available under license :

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```
// Copyright 2009 The Go Authors. All rights reserved.
```

Found in path(s):

```
* /opt/cola/permits/1662035350_1692956352.3659744/0/cgo-zip/cgo/out.go
```

```
* /opt/cola/permits/1662035350_1692956352.3659744/0/cgo-zip/cgo/util.go
```

```
* /opt/cola/permits/1662035350_1692956352.3659744/0/cgo-zip/cgo/ast.go
* /opt/cola/permits/1662035350_1692956352.3659744/0/cgo-zip/cgo/main.go
* /opt/cola/permits/1662035350_1692956352.3659744/0/cgo-zip/cgo/doc.go
* /opt/cola/permits/1662035350_1692956352.3659744/0/cgo-zip/cgo/gcc.go
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2011 The Go Authors. All rights reserved.
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035350_1692956352.3659744/0/cgo-zip/cgo/godefs.go
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```

```
// Copyright 2021 The Go Authors. All rights reserved.
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035350_1692956352.3659744/0/cgo-zip/cgo/ast_go118.go
* /opt/cola/permits/1662035350_1692956352.3659744/0/cgo-zip/cgo/ast_go1.go
```

1.165 cmd/nm (devel)

1.165.1 Available under license :

```
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```

```
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```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035288_1692956396.3571904/0/nm-zip/nm/nm_cgo_test.go
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```

```
// Copyright 2014 The Go Authors. All rights reserved.
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035288_1692956396.3571904/0/nm-zip/nm/nm_test.go
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```

```
// Copyright 2013 The Go Authors. All rights reserved.
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035288_1692956396.3571904/0/nm-zip/nm/doc.go
* /opt/cola/permits/1662035288_1692956396.3571904/0/nm-zip/nm/nm.go
```

1.166 cmd/compile (devel)

1.166.1 Available under license :

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```
// Copyright 2016 The Go Authors. All rights reserved.
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// Optimizations TODO:
// * Use SLTI and SLTIU for comparisons to constants, instead of SLT/SLTU with constants in registers
// * Use the zero register instead of moving 0 into a register.
// * Add rules to avoid generating a temp bool value for (If (SLT[U] ...) ...).
// * Arrange for non-trivial Zero and Move lowerings to use aligned loads and stores.
// * Avoid using Neq32 for writeBarrier.enabled checks.

// Lowering arithmetic
(Add64 ...) => (ADD ...)
(AddPtr ...) => (ADD ...)
(Add32 ...) => (ADD ...)
(Add16 ...) => (ADD ...)
(Add8 ...) => (ADD ...)
(Add32F ...) => (FADDS ...)
(Add64F ...) => (FADDD ...)

(Sub64 ...) => (SUB ...)
(SubPtr ...) => (SUB ...)
(Sub32 ...) => (SUB ...)
(Sub16 ...) => (SUB ...)
(Sub8 ...) => (SUB ...)
(Sub32F ...) => (FSUBS ...)
(Sub64F
...) => (FSUBD ...)

(Mul64 ...) => (MUL ...)
(Mul64uhilo ...) => (LoweredMuluhilo ...)
(Mul64uover ...) => (LoweredMuluover ...)
(Mul32 ...) => (MULW ...)
(Mul16 x y) => (MULW (SignExt16to32 x) (SignExt16to32 y))
(Mul8 x y) => (MULW (SignExt8to32 x) (SignExt8to32 y))
(Mul32F ...) => (FMULS ...)
(Mul64F ...) => (FMULD ...)

(Div32F ...) => (FDIVS ...)
(Div64F ...) => (FDIVD ...)

(Div64 x y [false]) => (DIV x y)
(Div64u ...) => (DIVU ...)
(Div32 x y [false]) => (DIVW x y)
(Div32u ...) => (DIVUW ...)
```

(Div16 x y [false]) => (DIVW (SignExt16to32 x) (SignExt16to32 y))
 (Div16u x y) => (DIVUW (ZeroExt16to32 x) (ZeroExt16to32 y))
 (Div8 x y) => (DIVW (SignExt8to32 x) (SignExt8to32 y))
 (Div8u x y) => (DIVUW (ZeroExt8to32 x) (ZeroExt8to32 y))

(Hmul64 ...) => (MULH ...)
 (Hmul64u ...) => (MULHU ...)
 (Hmul32 x y) => (SRAI [32] (MUL (SignExt32to64 x) (SignExt32to64 y)))
 (Hmul32u x y) => (SRLI [32] (MUL (ZeroExt32to64 x) (ZeroExt32to64 y)))

// (x + y) / 2 => (x / 2) + (y /
 2) + (x & y & 1)
 (Avg64u <t> x y) => (ADD (ADD <t> (SRLI <t> [1] x) (SRLI <t> [1] y)) (ANDI <t> [1] (AND <t> x y)))

(Mod64 x y [false]) => (REM x y)
 (Mod64u ...) => (REMU ...)
 (Mod32 x y [false]) => (REMW x y)
 (Mod32u ...) => (REMUW ...)
 (Mod16 x y [false]) => (REMW (SignExt16to32 x) (SignExt16to32 y))
 (Mod16u x y) => (REMUW (ZeroExt16to32 x) (ZeroExt16to32 y))
 (Mod8 x y) => (REMW (SignExt8to32 x) (SignExt8to32 y))
 (Mod8u x y) => (REMUW (ZeroExt8to32 x) (ZeroExt8to32 y))

(And64 ...) => (AND ...)
 (And32 ...) => (AND ...)
 (And16 ...) => (AND ...)
 (And8 ...) => (AND ...)

(Or64 ...) => (OR ...)
 (Or32 ...) => (OR ...)
 (Or16 ...) => (OR ...)
 (Or8 ...) => (OR ...)

(Xor64 ...) => (XOR ...)
 (Xor32 ...) => (XOR ...)
 (Xor16 ...) => (XOR ...)
 (Xor8 ...) => (XOR ...)

(Neg64 ...) => (NEG ...)
 (Neg32 ...) => (NEG ...)
 (Neg16 ...) => (NEG ...)
 (Neg8 ...) => (NEG ...)
 (Neg32F ...) => (FNEGS ...)
 (Neg64F ...) => (FNEGD ...)

(Com64 ...) => (NOT ...)
 (Com32 ...) => (NOT ...)
 (Com16

```

... => (NOT ...)
(Com8 ...) => (NOT ...)

(Sqrt ...) => (FSQRTD ...)
(Sqrt32 ...) => (FSQRTS ...)

(Copysign ...) => (FSGNJD ...)

(Abs ...) => (FABSD ...)

(FMA ...) => (FMADDD ...)

// Sign and zero extension.

(SignExt8to16 ...) => (MOVBreg ...)
(SignExt8to32 ...) => (MOVBreg ...)
(SignExt8to64 ...) => (MOVBreg ...)
(SignExt16to32 ...) => (MOVHreg ...)
(SignExt16to64 ...) => (MOVHreg ...)
(SignExt32to64 ...) => (MOVWreg ...)

(ZeroExt8to16 ...) => (MOVBUreg ...)
(ZeroExt8to32 ...) => (MOVBUreg ...)
(ZeroExt8to64 ...) => (MOVBUreg ...)
(ZeroExt16to32 ...) => (MOVHUreg ...)
(ZeroExt16to64 ...) => (MOVHUreg ...)
(ZeroExt32to64 ...) => (MOVWUreg ...)

(Cvt32to32F ...) => (FCVTSW ...)
(Cvt32to64F ...) => (FCVTDW ...)
(Cvt64to32F ...) => (FCVTSL ...)
(Cvt64to64F ...) => (FCVTDL ...)

(Cvt32Fto32 ...) => (FCVTWS ...)
(Cvt32Fto64 ...) => (FCVTLS ...)
(Cvt64Fto32 ...) => (FCVTWD ...)
(Cvt64Fto64 ...) => (FCVTLD ...)

(Cvt32Fto64F ...) => (FCVTDS ...)
(Cvt64Fto32F ...) => (FCVTSD
...)

(CvtBoolToUInt8 ...) => (Copy ...)

(Round32F ...) => (Copy ...)
(Round64F ...) => (Copy ...)

// From genericOps.go:

```



```

// "0 if arg0 == 0, -1 if arg0 > 0, undef if arg0<0"
//
// Like other arches, we compute  $\sim((x-1) \gg 63)$ , with arithmetic right shift.
// For positive x, bit 63 of x-1 is always 0, so the result is -1.
// For zero x, bit 63 of x-1 is 1, so the result is 0.
//
(Slicemask <t> x) => (NOT (SRAI <t> [63] (ADDI <t> [-1] x)))

// Truncations
// We ignore the unused high parts of registers, so truncates are just copies.
(Trunc16to8 ...) => (Copy ...)
(Trunc32to8 ...) => (Copy ...)
(Trunc32to16 ...) => (Copy ...)
(Trunc64to8 ...) => (Copy ...)
(Trunc64to16 ...) => (Copy ...)
(Trunc64to32 ...) => (Copy ...)

// Shifts

// SLL only considers the bottom 6 bits of y. If y > 64, the result should
// always be 0.
//
// Breaking down the operation:
//
// (SLL x y) generates  $x \ll (y \& 63)$ .
//
// If y < 64, this is the value we want. Otherwise, we want zero.
//
// So, we AND with
-1 * uint64(y < 64), which is 0xffff... if y < 64 and 0 otherwise.
(Lsh8x8 <t> x y) => (AND (SLL <t> x y) (Neg8 <t> (SLTIU <t> [64] (ZeroExt8to64 y))))
(Lsh8x16 <t> x y) => (AND (SLL <t> x y) (Neg8 <t> (SLTIU <t> [64] (ZeroExt16to64 y))))
(Lsh8x32 <t> x y) => (AND (SLL <t> x y) (Neg8 <t> (SLTIU <t> [64] (ZeroExt32to64 y))))
(Lsh8x64 <t> x y) => (AND (SLL <t> x y) (Neg8 <t> (SLTIU <t> [64] y)))
(Lsh16x8 <t> x y) => (AND (SLL <t> x y) (Neg16 <t> (SLTIU <t> [64] (ZeroExt8to64 y))))
(Lsh16x16 <t> x y) => (AND (SLL <t> x y) (Neg16 <t> (SLTIU <t> [64] (ZeroExt16to64 y))))
(Lsh16x32 <t> x y) => (AND (SLL <t> x y) (Neg16 <t> (SLTIU <t> [64] (ZeroExt32to64 y))))
(Lsh16x64 <t> x y) => (AND (SLL <t> x y) (Neg16 <t> (SLTIU <t> [64] y)))
(Lsh32x8 <t> x y) => (AND (SLL <t> x y) (Neg32 <t> (SLTIU <t> [64] (ZeroExt8to64 y))))
(Lsh32x16 <t> x y) => (AND (SLL <t> x y) (Neg32 <t> (SLTIU <t> [64] (ZeroExt16to64 y))))
(Lsh32x32 <t> x y) => (AND (SLL <t> x y) (Neg32 <t> (SLTIU <t> [64] (ZeroExt32to64
y))))
(Lsh32x64 <t> x y) => (AND (SLL <t> x y) (Neg32 <t> (SLTIU <t> [64] y)))
(Lsh64x8 <t> x y) => (AND (SLL <t> x y) (Neg64 <t> (SLTIU <t> [64] (ZeroExt8to64 y))))
(Lsh64x16 <t> x y) => (AND (SLL <t> x y) (Neg64 <t> (SLTIU <t> [64] (ZeroExt16to64 y))))
(Lsh64x32 <t> x y) => (AND (SLL <t> x y) (Neg64 <t> (SLTIU <t> [64] (ZeroExt32to64 y))))
(Lsh64x64 <t> x y) => (AND (SLL <t> x y) (Neg64 <t> (SLTIU <t> [64] y)))

```

```

// SRL only considers the bottom 6 bits of y. If y > 64, the result should
// always be 0. See Lsh above for a detailed description.
(Rsh8Ux8 <t> x y) => (AND (SRL <t> (ZeroExt8to64 x) y) (Neg8 <t> (SLTIU <t> [64] (ZeroExt8to64 y))))
(Rsh8Ux16 <t> x y) => (AND (SRL <t> (ZeroExt8to64 x) y) (Neg8 <t> (SLTIU <t> [64] (ZeroExt16to64 y))))
(Rsh8Ux32 <t> x y) => (AND (SRL <t> (ZeroExt8to64 x) y) (Neg8 <t> (SLTIU <t> [64] (ZeroExt32to64 y))))
(Rsh8Ux64 <t> x y) => (AND (SRL <t> (ZeroExt8to64 x) y) (Neg8 <t> (SLTIU <t> [64] y)))
(Rsh16Ux8 <t> x y) => (AND
(SRL <t> (ZeroExt16to64 x) y) (Neg16 <t> (SLTIU <t> [64] (ZeroExt8to64 y))))
(Rsh16Ux16 <t> x y) => (AND (SRL <t> (ZeroExt16to64 x) y) (Neg16 <t> (SLTIU <t> [64] (ZeroExt16to64 y))))
(Rsh16Ux32 <t> x y) => (AND (SRL <t> (ZeroExt16to64 x) y) (Neg16 <t> (SLTIU <t> [64] (ZeroExt32to64 y))))
(Rsh16Ux64 <t> x y) => (AND (SRL <t> (ZeroExt16to64 x) y) (Neg16 <t> (SLTIU <t> [64] y)))
(Rsh32Ux8 <t> x y) => (AND (SRL <t> (ZeroExt32to64 x) y) (Neg32 <t> (SLTIU <t> [64] (ZeroExt8to64 y))))
(Rsh32Ux16 <t> x y) => (AND (SRL <t> (ZeroExt32to64 x) y) (Neg32 <t> (SLTIU <t> [64] (ZeroExt16to64 y))))
(Rsh32Ux32 <t> x y) => (AND (SRL <t> (ZeroExt32to64 x) y) (Neg32 <t> (SLTIU <t> [64] (ZeroExt32to64 y))))
(Rsh32Ux64 <t> x y) => (AND (SRL <t> (ZeroExt32to64 x) y) (Neg32 <t> (SLTIU <t> [64] y)))
(Rsh64Ux8 <t> x y) => (AND (SRL <t> x y) (Neg64 <t> (SLTIU <t> [64] (ZeroExt8to64 y))))
(Rsh64Ux16 <t> x y) => (AND (SRL <t> x y) (Neg64 <t> (SLTIU <t> [64] (ZeroExt16to64 y))))
(Rsh64Ux32
<t> x y) => (AND (SRL <t> x y) (Neg64 <t> (SLTIU <t> [64] (ZeroExt32to64 y))))
(Rsh64Ux64 <t> x y) => (AND (SRL <t> x y) (Neg64 <t> (SLTIU <t> [64] y)))

// SRA only considers the bottom 6 bits of y. If y > 64, the result should
// be either 0 or -1 based on the sign bit.
//
// We implement this by performing the max shift (-1) if y >= 64.
//
// We OR (uint64(y < 64) - 1) into y before passing it to SRA. This leaves
// us with -1 (0xffff...) if y >= 64.
//
// We don't need to sign-extend the OR result, as it will be at minimum 8 bits,
// more than the 6 bits SRA cares about.
(Rsh8x8 <t> x y) => (SRA <t> (SignExt8to64 x) (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64]
(ZeroExt8to64 y))))
(Rsh8x16 <t> x y) => (SRA <t> (SignExt8to64 x) (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64]
(ZeroExt16to64 y))))
(Rsh8x32 <t> x y) => (SRA <t> (SignExt8to64 x) (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64]
(ZeroExt32to64 y))))
(Rsh8x64
<t> x y) => (SRA <t> (SignExt8to64 x) (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64] y))))
(Rsh16x8 <t> x y) => (SRA <t> (SignExt16to64 x) (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64]
(ZeroExt8to64 y))))
(Rsh16x16 <t> x y) => (SRA <t> (SignExt16to64 x) (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64]
(ZeroExt16to64 y))))
(Rsh16x32 <t> x y) => (SRA <t> (SignExt16to64 x) (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64]
(ZeroExt32to64 y))))
(Rsh16x64 <t> x y) => (SRA <t> (SignExt16to64 x) (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64]
y))))
(Rsh32x8 <t> x y) => (SRA <t> (SignExt32to64 x) (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64]

```

```

(ZeroExt8to64 y))))
(Rsh32x16 <t> x y) => (SRA <t> (SignExt32to64 x) (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64]
(ZeroExt16to64 y))))
(Rsh32x32 <t> x y) => (SRA <t> (SignExt32to64 x) (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64]
(ZeroExt32to64 y))))
(Rsh32x64
<t> x y) => (SRA <t> (SignExt32to64 x) (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64] y))))
(Rsh64x8 <t> x y) => (SRA <t> x (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64]
(ZeroExt8to64 y))))
(Rsh64x16 <t> x y) => (SRA <t> x (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64]
(ZeroExt16to64 y))))
(Rsh64x32 <t> x y) => (SRA <t> x (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64]
(ZeroExt32to64 y))))
(Rsh64x64 <t> x y) => (SRA <t> x (OR <y.Type> y (ADDI <y.Type> [-1] (SLTIU <y.Type> [64] y))))

// Rotates.
(RotateLeft8 <t> x (MOVDconst [c])) => (Or8 (Lsh8x64 <t> x (MOVDconst [c&7])) (Rsh8Ux64 <t> x
(MOVDconst [-c&7])))
(RotateLeft16 <t> x (MOVDconst [c])) => (Or16 (Lsh16x64 <t> x (MOVDconst [c&15])) (Rsh16Ux64 <t> x
(MOVDconst [-c&15])))
(RotateLeft32 <t> x (MOVDconst [c])) => (Or32 (Lsh32x64 <t> x (MOVDconst [c&31])) (Rsh32Ux64 <t> x
(MOVDconst [-c&31])))
(RotateLeft64 <t> x (MOVDconst [c]))
=> (Or64 (Lsh64x64 <t> x (MOVDconst [c&63])) (Rsh64Ux64 <t> x (MOVDconst [-c&63])))

(Less64 ...) => (SLT ...)
(Less32 x y) => (SLT (SignExt32to64 x) (SignExt32to64 y))
(Less16 x y) => (SLT (SignExt16to64 x) (SignExt16to64 y))
(Less8 x y) => (SLT (SignExt8to64 x) (SignExt8to64 y))
(Less64U ...) => (SLTU ...)
(Less32U x y) => (SLTU (ZeroExt32to64 x) (ZeroExt32to64 y))
(Less16U x y) => (SLTU (ZeroExt16to64 x) (ZeroExt16to64 y))
(Less8U x y) => (SLTU (ZeroExt8to64 x) (ZeroExt8to64 y))
(Less64F ...) => (FLTD ...)
(Less32F ...) => (FLTS ...)

// Convert x <= y to !(y > x).
(Leq64 x y) => (Not (Less64 y x))
(Leq32 x y) => (Not (Less32 y x))
(Leq16 x y) => (Not (Less16 y x))
(Leq8 x y) => (Not (Less8 y x))
(Leq64U x y) => (Not (Less64U y x))
(Leq32U x y) => (Not (Less32U y x))
(Leq16U x y) => (Not (Less16U y x))
(Leq8U x y) => (Not (Less8U y x))
(Leq64F ...) => (FLED ...)
(Leq32F ...) => (FLES ...)

```

```

(EqPtr x y) => (SEQZ (SUB <typ.Uintptr> x y))
(Eq64 x y) => (SEQZ
  (SUB <x.Type> x y))
(Eq32 x y) => (SEQZ (SUB <x.Type> (ZeroExt32to64 x) (ZeroExt32to64 y)))
(Eq16 x y) => (SEQZ (SUB <x.Type> (ZeroExt16to64 x) (ZeroExt16to64 y)))
(Eq8 x y) => (SEQZ (SUB <x.Type> (ZeroExt8to64 x) (ZeroExt8to64 y)))
(Eq64F ...) => (FEQD ...)
(Eq32F ...) => (FEQS ...)

```

```

(NeqPtr x y) => (SNEZ (SUB <typ.Uintptr> x y))
(Neq64 x y) => (SNEZ (SUB <x.Type> x y))
(Neq32 x y) => (SNEZ (SUB <x.Type> (ZeroExt32to64 x) (ZeroExt32to64 y)))
(Neq16 x y) => (SNEZ (SUB <x.Type> (ZeroExt16to64 x) (ZeroExt16to64 y)))
(Neq8 x y) => (SNEZ (SUB <x.Type> (ZeroExt8to64 x) (ZeroExt8to64 y)))
(Neq64F ...) => (FNED ...)
(Neq32F ...) => (FNES ...)

```

// Loads

```

(Load <t> ptr mem) && t.IsBoolean() => (MOVBULoad ptr mem)
(Load <t> ptr mem) && ( is8BitInt(t) && isSigned(t) => (MOVBLoad ptr mem)
(Load <t> ptr mem) && ( is8BitInt(t) && !isSigned(t) => (MOVBULoad ptr mem)
(Load <t> ptr mem) && (is16BitInt(t) && isSigned(t) => (MOVHLoad ptr mem)
(Load <t> ptr mem) &&
  (is16BitInt(t) && !isSigned(t) => (MOVHULoad ptr mem)
(Load <t> ptr mem) && (is32BitInt(t) && isSigned(t) => (MOVWLoad ptr mem)
(Load <t> ptr mem) && (is32BitInt(t) && !isSigned(t) => (MOVWULoad ptr mem)
(Load <t> ptr mem) && (is64BitInt(t) || isPtr(t) => (MOVDLoad ptr mem)
(Load <t> ptr mem) && is32BitFloat(t) => (FMOVWLoad ptr mem)
(Load <t> ptr mem) && is64BitFloat(t) => (FMOVDLoad ptr mem)

```

// Stores

```

(Store {t} ptr val mem) && t.Size() == 1 => (MOVBStore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 2 => (MOVHStore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && !is32BitFloat(val.Type) => (MOVWStore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 8 && !is64BitFloat(val.Type) => (MOVDStore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && is32BitFloat(val.Type) => (FMOVWStore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 8 && is64BitFloat(val.Type) => (FMOVDStore ptr val mem)

```

// We need to fold MOVaddr into

the LD/MOVDstore ops so that the live variable analysis

// knows what variables are being read/written by the ops.

```

(MOVBULoad [off1] {sym1} (MOVaddr [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>

```

```

(MOVBULoad [off1+off2] {mergeSym(sym1,sym2)} base) mem)

```

```

(MOVBLoad [off1] {sym1} (MOVaddr [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>

```

```

(MOVBLoad [off1+off2] {mergeSym(sym1,sym2)} base) mem)

```

```

(MOVHULoad [off1] {sym1} (MOVaddr [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&

```

```

canMergeSym(sym1, sym2) =>
(MOVHULoad [off1+off2] {mergeSym(sym1,sym2)} base mem)
(MOVHload [off1] {sym1} (MOVaddr [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
(MOVHload [off1+off2] {mergeSym(sym1,sym2)} base mem)
(MOVWULoad [off1] {sym1} (MOVaddr [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
(MOVWULoad [off1+off2] {mergeSym(sym1,sym2)}
base mem)
(MOVWload [off1] {sym1} (MOVaddr [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
(MOVWload [off1+off2] {mergeSym(sym1,sym2)} base mem)
(MOVDload [off1] {sym1} (MOVaddr [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
(MOVDload [off1+off2] {mergeSym(sym1,sym2)} base mem)

(MOVBstore [off1] {sym1} (MOVaddr [off2] {sym2} base) val mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
(MOVBstore [off1+off2] {mergeSym(sym1,sym2)} base val mem)
(MOVHstore [off1] {sym1} (MOVaddr [off2] {sym2} base) val mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
(MOVHstore [off1+off2] {mergeSym(sym1,sym2)} base val mem)
(MOVWstore [off1] {sym1} (MOVaddr [off2] {sym2} base) val mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
(MOVWstore [off1+off2] {mergeSym(sym1,sym2)} base val mem)
(MOVDstore [off1] {sym1} (MOVaddr [off2] {sym2}
base) val mem) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) =>
(MOVDstore [off1+off2] {mergeSym(sym1,sym2)} base val mem)
(MOVBstorezero [off1] {sym1} (MOVaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVBstorezero [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVHstorezero [off1] {sym1} (MOVaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVHstorezero [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVWstorezero [off1] {sym1} (MOVaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVWstorezero [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVDstorezero [off1] {sym1} (MOVaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVDstorezero [off1+off2] {mergeSym(sym1,sym2)} ptr mem)

(MOVBULoad [off1] {sym} (ADDI [off2] base) mem) && is32Bit(int64(off1)+off2) =>
(MOVBULoad [off1+int32(off2)] {sym}
base mem)
(MOVBload [off1] {sym} (ADDI [off2] base) mem) && is32Bit(int64(off1)+off2) =>
(MOVBload [off1+int32(off2)] {sym} base mem)
(MOVHULoad [off1] {sym} (ADDI [off2] base) mem) && is32Bit(int64(off1)+off2) =>
(MOVHULoad [off1+int32(off2)] {sym} base mem)

```

```

(MOVHload [off1] {sym} (ADDI [off2] base) mem) && is32Bit(int64(off1)+off2) =>
(MOVHload [off1+int32(off2)] {sym} base mem)
(MOVWUload [off1] {sym} (ADDI [off2] base) mem) && is32Bit(int64(off1)+off2) =>
(MOVWUload [off1+int32(off2)] {sym} base mem)
(MOVWload [off1] {sym} (ADDI [off2] base) mem) && is32Bit(int64(off1)+off2) =>
(MOVWload [off1+int32(off2)] {sym} base mem)
(MOVDload [off1] {sym} (ADDI [off2] base) mem) && is32Bit(int64(off1)+off2) =>
(MOVDload [off1+int32(off2)] {sym} base mem)

(MOVBstore [off1] {sym} (ADDI [off2] base) val mem) && is32Bit(int64(off1)+off2) =>
(MOVBstore [off1+int32(off2)] {sym} base val mem)
(MOVHstore [off1] {sym} (ADDI [off2] base) val mem) && is32Bit(int64(off1)+off2) =>
(MOVHstore
[off1+int32(off2)] {sym} base val mem)
(MOVWstore [off1] {sym} (ADDI [off2] base) val mem) && is32Bit(int64(off1)+off2) =>
(MOVWstore [off1+int32(off2)] {sym} base val mem)
(MOVDstore [off1] {sym} (ADDI [off2] base) val mem) && is32Bit(int64(off1)+off2) =>
(MOVDstore [off1+int32(off2)] {sym} base val mem)
(MOVBstorezero [off1] {sym} (ADDI [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVBstorezero
[off1+int32(off2)] {sym} ptr mem)
(MOVHstorezero [off1] {sym} (ADDI [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVHstorezero
[off1+int32(off2)] {sym} ptr mem)
(MOVWstorezero [off1] {sym} (ADDI [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVWstorezero
[off1+int32(off2)] {sym} ptr mem)
(MOVDstorezero [off1] {sym} (ADDI [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVDstorezero
[off1+int32(off2)] {sym} ptr mem)

```

// Similarly, fold ADDI into MOVaddr to avoid confusing live variable analysis

// with OffPtr -> ADDI.

```

(ADDI [c] (MOVaddr [d] {s} x)) && is32Bit(c+int64(d))
=> (MOVaddr [int32(c)+d] {s} x)

```

// Small zeroing

```

(Zero [0] _ mem) => mem
(Zero [1] ptr mem) => (MOVBstore ptr (MOVDconst [0]) mem)
(Zero [2] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore ptr (MOVDconst [0]) mem)
(Zero [2] ptr mem) =>
(MOVBstore [1] ptr (MOVDconst [0])
(MOVBstore ptr (MOVDconst [0]) mem))
(Zero [4] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore ptr (MOVDconst [0]) mem)
(Zero [4] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore [2] ptr (MOVDconst [0])
(MOVHstore ptr (MOVDconst [0]) mem))
(Zero [4] ptr mem) =>
(MOVBstore [3] ptr (MOVDconst [0])
(MOVBstore [2] ptr (MOVDconst [0])

```

```

(MOVBstore [1] ptr (MOVDconst [0])
 (MOVBstore ptr (MOVDconst [0]) mem)))
(Zero [8] {t} ptr mem) && t.Alignment()%8 == 0 =>
(MOVDstore ptr (MOVDconst [0]) mem)
(Zero [8] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore [4] ptr (MOVDconst [0])
 (MOVWstore ptr (MOVDconst [0]) mem))
(Zero [8] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore [6] ptr (MOVDconst
[0])
(MOVHstore [4] ptr (MOVDconst [0])
(MOVHstore [2] ptr (MOVDconst [0])
 (MOVHstore ptr (MOVDconst [0]) mem))))

(Zero [3] ptr mem) =>
(MOVBstore [2] ptr (MOVDconst [0])
 (MOVBstore [1] ptr (MOVDconst [0])
 (MOVBstore ptr (MOVDconst [0]) mem)))
(Zero [6] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore [4] ptr (MOVDconst [0])
 (MOVHstore [2] ptr (MOVDconst [0])
 (MOVHstore ptr (MOVDconst [0]) mem)))
(Zero [12] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore [8] ptr (MOVDconst [0])
 (MOVWstore [4] ptr (MOVDconst [0])
 (MOVWstore ptr (MOVDconst [0]) mem)))
(Zero [16] {t} ptr mem) && t.Alignment()%8 == 0 =>
(MOVDstore [8] ptr (MOVDconst [0])
 (MOVDstore ptr (MOVDconst [0]) mem))
(Zero [24] {t} ptr mem) && t.Alignment()%8 == 0 =>
(MOVDstore [16] ptr (MOVDconst [0])
 (MOVDstore [8] ptr (MOVDconst [0])
 (MOVDstore ptr (MOVDconst [0]) mem)))
(Zero [32] {t} ptr mem) && t.Alignment()%8 == 0 =>
(MOVDstore [24] ptr (MOVDconst [0])
 (MOVDstore [16] ptr (MOVDconst
[0])
 (MOVDstore [8] ptr (MOVDconst [0])
 (MOVDstore ptr (MOVDconst [0]) mem))))

// Medium 8-aligned zeroing uses a Duff's device
// 8 and 128 are magic constants, see runtime/mkduff.go
(Zero [s] {t} ptr mem)
&& s%8 == 0 && s <= 8*128
&& t.Alignment()%8 == 0 && !config.noDuffDevice =>
(DUFFZERO [8 * (128 - s/8)] ptr mem)

// Generic zeroing uses a loop

```

```

(Zero [s] {t} ptr mem) =>
(LoweredZero [t.Alignment()]
 ptr
 (ADD <ptr.Type> ptr (MOVDconst [s-moveSize(t.Alignment(), config)]))
 mem)

(Convert ...) => (MOVconvert ...)

// Checks
(IsNotNil ...) => (SNEZ ...)
(IsInBounds ...) => (Less64U ...)
(IsSliceInBounds ...) => (Leq64U ...)

// Trivial lowering
(NilCheck ...) => (LoweredNilCheck ...)
(GetClosurePtr ...) => (LoweredGetClosurePtr ...)
(GetCallerSP ...) => (LoweredGetCallerSP ...)
(GetCallerPC ...) => (LoweredGetCallerPC ...)

// Write barrier.
(WB ...) => (LoweredWB ...)

(PanicBounds [kind] x y mem) && boundsABI(kind) == 0 => (LoweredPanicBoundsA [kind] x y mem)
(PanicBounds
 [kind] x y mem) && boundsABI(kind) == 1 => (LoweredPanicBoundsB [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 2 => (LoweredPanicBoundsC [kind] x y mem)

// Small moves
(Move [0] _ _ mem) => mem
(Move [1] dst src mem) => (MOVBstore dst (MOVBload src mem) mem)
(Move [2] {t} dst src mem) && t.Alignment()%2 == 0 =>
 (MOVHstore dst (MOVHload src mem) mem)
(Move [2] dst src mem) =>
 (MOVBstore [1] dst (MOVBload [1] src mem)
 (MOVBstore dst (MOVBload src mem) mem))
(Move [4] {t} dst src mem) && t.Alignment()%4 == 0 =>
 (MOVWstore dst (MOVWload src mem) mem)
(Move [4] {t} dst src mem) && t.Alignment()%2 == 0 =>
 (MOVHstore [2] dst (MOVHload [2] src mem)
 (MOVHstore dst (MOVHload src mem) mem))
(Move [4] dst src mem) =>
 (MOVBstore [3] dst (MOVBload [3] src mem)
 (MOVBstore [2] dst (MOVBload [2] src mem)
 (MOVBstore [1] dst (MOVBload [1] src mem)
 (MOVBstore dst (MOVBload src mem) mem))))
(Move [8] {t} dst src mem) && t.Alignment()%8 == 0 =>
 (MOVDstore dst

```



```

(MOVDload src mem) mem)
(Move [8] {t} dst src mem) && t.Alignment()%4 == 0 =>
(MOVWstore [4] dst (MOVWload [4] src mem)
 (MOVWstore dst (MOVWload src mem) mem))
(Move [8] {t} dst src mem) && t.Alignment()%2 == 0 =>
(MOVHstore [6] dst (MOVHload [6] src mem)
 (MOVHstore [4] dst (MOVHload [4] src mem)
 (MOVHstore [2] dst (MOVHload [2] src mem)
 (MOVHstore dst (MOVHload src mem) mem))))

```

```

(Move [3] dst src mem) =>
(MOVBstore [2] dst (MOVBload [2] src mem)
 (MOVBstore [1] dst (MOVBload [1] src mem)
 (MOVBstore dst (MOVBload src mem) mem)))
(Move [6] {t} dst src mem) && t.Alignment()%2 == 0 =>
(MOVHstore [4] dst (MOVHload [4] src mem)
 (MOVHstore [2] dst (MOVHload [2] src mem)
 (MOVHstore dst (MOVHload src mem) mem)))
(Move [12] {t} dst src mem) && t.Alignment()%4 == 0 =>
(MOVWstore [8] dst (MOVWload [8] src mem)
 (MOVWstore [4] dst (MOVWload [4] src mem)
 (MOVWstore dst (MOVWload src mem) mem)))
(Move [16] {t} dst src mem) && t.Alignment()%8 == 0 =>
(MOVDstore [8] dst
 (MOVDload [8] src mem)
 (MOVDstore dst (MOVDload src mem) mem))
(Move [24] {t} dst src mem) && t.Alignment()%8 == 0 =>
(MOVDstore [16] dst (MOVDload [16] src mem)
 (MOVDstore [8] dst (MOVDload [8] src mem)
 (MOVDstore dst (MOVDload src mem) mem)))
(Move [32] {t} dst src mem) && t.Alignment()%8 == 0 =>
(MOVDstore [24] dst (MOVDload [24] src mem)
 (MOVDstore [16] dst (MOVDload [16] src mem)
 (MOVDstore [8] dst (MOVDload [8] src mem)
 (MOVDstore dst (MOVDload src mem) mem))))

```

```

// Medium 8-aligned move uses a Duff's device
// 16 and 128 are magic constants, see runtime/mkduff.go
(Move [s] {t} dst src mem)
&& s%8 == 0 && s <= 8*128 && t.Alignment()%8 == 0
&& !config.noDuffDevice && logLargeCopy(v, s) =>
(DUFFCOPY [16 * (128 - s/8)] dst src mem)

```

```

// Generic move uses a loop
(Move [s] {t} dst src mem) && (s <= 16 || logLargeCopy(v, s)) =>
(LoweredMove [t.Alignment()]
 dst
 src

```

```

(ADDI <src.Type> [s-moveSize(t.Alignment(), config)] src)
mem)

// Boolean ops; 0=false, 1=true
(AndB
...)=>(AND ...)
(OrB ...) => (OR ...)
(EqB x y) => (SEQZ (XOR <typ.Bool> x y))
(NeqB ...) => (XOR ...)
(Not ...) => (SEQZ ...)

// Lowering pointer arithmetic
// TODO: Special handling for SP offsets, like ARM
(OffPtr [off] ptr:(SP)) && is32Bit(off) => (MOVaddr [int32(off)] ptr)
(OffPtr [off] ptr) && is32Bit(off) => (ADDI [off] ptr)
(OffPtr [off] ptr) => (ADD (MOVDconst [off]) ptr)

(Const8 [val]) => (MOVDconst [int64(val)])
(Const16 [val]) => (MOVDconst [int64(val)])
(Const32 [val]) => (MOVDconst [int64(val)])
(Const64 [val]) => (MOVDconst [int64(val)])
(Const32F [val]) => (FMVSX (MOVDconst [int64(math.Float32bits(val))]))
(Const64F [val]) => (FMVDX (MOVDconst [int64(math.Float64bits(val))]))
(ConstNil) => (MOVDconst [0])
(ConstBool [val]) => (MOVDconst [int64(b2i(val))])

(Addr {sym} base) => (MOVaddr {sym} [0] base)
(LocalAddr {sym} base _) => (MOVaddr {sym} base)

// Calls
(StaticCall ...) => (CALLstatic ...)
(ClosureCall ...) => (CALLclosure ...)
(InterCall ...)
=> (CALLinter ...)
(TailCall ...) => (CALLtail ...)

// Atomic Ininsics
(AtomicLoad8 ...) => (LoweredAtomicLoad8 ...)
(AtomicLoad32 ...) => (LoweredAtomicLoad32 ...)
(AtomicLoad64 ...) => (LoweredAtomicLoad64 ...)
(AtomicLoadPtr ...) => (LoweredAtomicLoad64 ...)

(AtomicStore8 ...) => (LoweredAtomicStore8 ...)
(AtomicStore32 ...) => (LoweredAtomicStore32 ...)
(AtomicStore64 ...) => (LoweredAtomicStore64 ...)
(AtomicStorePtrNoWB ...) => (LoweredAtomicStore64 ...)

(AtomicAdd32 ...) => (LoweredAtomicAdd32 ...)

```

```

(AtomicAdd64 ...) => (LoweredAtomicAdd64 ...)

// AtomicAnd8(ptr,val) => LoweredAtomicAnd32(ptr&^3, ^(uint8(val) ^ 0xff) << ((ptr & 3) * 8))
(AtomicAnd8 ptr val mem) =>
(LoweredAtomicAnd32 (ANDI <typ.Uintptr> [^3] ptr)
 (NOT <typ.UInt32> (SLL <typ.UInt32> (XORI <typ.UInt32> [0xff] (ZeroExt8to32 val))
 (SLLI <typ.UInt64> [3] (ANDI <typ.UInt64> [3] ptr)))) mem)

(AtomicAnd32 ...) => (LoweredAtomicAnd32 ...)

(AtomicCompareAndSwap32 ptr old new mem) =>
(LoweredAtomicCas32 ptr (SignExt32to64 old) new mem)
(AtomicCompareAndSwap64 ...) => (LoweredAtomicCas64 ...)

(AtomicExchange32 ...) => (LoweredAtomicExchange32 ...)
(AtomicExchange64 ...) => (LoweredAtomicExchange64 ...)

// AtomicOr8(ptr,val) => LoweredAtomicOr32(ptr&^3, uint32(val)<<((ptr&3)*8))
(AtomicOr8 ptr val mem) =>
(LoweredAtomicOr32 (ANDI <typ.Uintptr> [^3] ptr)
 (SLL <typ.UInt32> (ZeroExt8to32 val)
 (SLLI <typ.UInt64> [3] (ANDI <typ.UInt64> [3] ptr))) mem)

(AtomicOr32 ...) => (LoweredAtomicOr32 ...)

// Conditional branches
(If cond yes no) => (BNEZ (MOVBUreg <typ.UInt64> cond) yes no)

// Optimizations

// Absorb SEQZ/SNEZ into branch.
(BEQZ (SEQZ x) yes no) => (BNEZ x yes no)
(BEQZ (SNEZ x) yes no) => (BEQZ x yes no)
(BNEZ (SEQZ x) yes no) => (BEQZ x yes no)
(BNEZ (SNEZ x) yes no) => (BNEZ x yes no)

// Absorb NEG into branch when possible.
(BEQZ x:(NEG y) yes no) && x.Uses == 1 => (BEQZ y yes no)
(BNEZ x:(NEG y) yes no) && x.Uses == 1 => (BNEZ y yes no)

// Convert
BEQZ/BNEZ into more optimal branch conditions.
(BEQZ (SUB x y) yes no) => (BEQ x y yes no)
(BNEZ (SUB x y) yes no) => (BNE x y yes no)
(BEQZ (SLT x y) yes no) => (BGE x y yes no)
(BNEZ (SLT x y) yes no) => (BLT x y yes no)
(BEQZ (SLTU x y) yes no) => (BGEU x y yes no)
(BNEZ (SLTU x y) yes no) => (BLTU x y yes no)

```



```

// Fold double extensions.
(MOVBreg x:(MOVBreg _)) => (MOVDreg x)
(MOVHreg x:(MOVBreg _)) => (MOVDreg x)
(MOVHreg x:(MOVBUreg _)) => (MOVDreg x)
(MOVHreg x:(MOVHreg _)) => (MOVDreg x)
(MOVWreg x:(MOVBreg _)) => (MOVDreg x)
(MOVWreg x:(MOVBUreg _)) => (MOVDreg x)
(MOVWreg x:(MOVHreg _)) => (MOVDreg x)
(MOVWreg x:(MOVWreg _)) => (MOVDreg x)
(MOVBUreg x:(MOVBUreg _)) => (MOVDreg x)
(MOVHUreg x:(MOVBUreg _)) => (MOVDreg x)
(MOVHUreg x:(MOVHUreg _)) => (MOVDreg x)
(MOVWUreg x:(MOVBUreg _)) => (MOVDreg x)
(MOVWUreg x:(MOVHUreg _)) => (MOVDreg x)
(MOVWUreg x:(MOVWUreg _))
=> (MOVDreg x)

// Do not extend before store.
(MOVBstore [off] {sym} ptr (MOVBreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVHreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVWreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVBUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVHUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVWUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVHreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVWreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVHUreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVWUreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVWstore [off] {sym} ptr (MOVWreg x) mem) => (MOVWstore [off] {sym} ptr x mem)
(MOVWstore [off] {sym} ptr (MOVWUreg x) mem) =>
(MOVWstore [off] {sym} ptr x mem)

// Replace extend after load with alternate load where possible.
(MOVBreg <t> x:(MOVBUload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVBload
<t> [off] {sym} ptr mem)
(MOVHreg <t> x:(MOVHUload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block
(MOVHload <t> [off] {sym} ptr mem)
(MOVWreg <t> x:(MOVWUload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block
(MOVWload <t> [off] {sym} ptr mem)
(MOVBUreg <t> x:(MOVBload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block
(MOVBUload <t> [off] {sym} ptr mem)
(MOVHUreg <t> x:(MOVHload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block
(MOVHUload <t> [off] {sym} ptr mem)
(MOVWUreg <t> x:(MOVWload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block
(MOVWUload <t> [off] {sym} ptr mem)

// If a register move has only 1 use, just use the same register without emitting instruction
// MOVnop does not emit an instruction, only for

```

```

ensuring the type.
(MOVDreg x) && x.Uses == 1 => (MOVDnop x)

// TODO: we should be able to get rid of MOVDnop all together.
// But for now, this is enough to get rid of lots of them.
(MOVDnop (MOVDconst [c])) => (MOVDconst [c])

// Fold constant into immediate instructions where possible.
(ADD (MOVDconst [val]) x) && is32Bit(val) => (ADDI [val] x)
(AND (MOVDconst [val]) x) && is32Bit(val) => (ANDI [val] x)
(OR (MOVDconst [val]) x) && is32Bit(val) => (ORI [val] x)
(XOR (MOVDconst [val]) x) && is32Bit(val) => (XORI [val] x)
(SLL x (MOVDconst [val])) => (SLLI [int64(val&63)] x)
(SRL x (MOVDconst [val])) => (SRLI [int64(val&63)] x)
(SRA x (MOVDconst [val])) => (SRAI [int64(val&63)] x)

// Convert subtraction of a const into ADDI with negative immediate, where possible.
(SUB x (MOVDconst [val])) && is32Bit(-val) => (ADDI [-val] x)

// Subtraction of zero.
(SUB x (MOVDconst [0])) => x
(SUBW x (MOVDconst [0])) => (ADDIW [0] x)

// Subtraction from zero.
(SUB (MOVDconst [0]) x) => (NEG x)
(SUBW
(MOVDconst [0]) x) => (NEGW x)

// Addition of zero or two constants.
(ADDI [0] x) => x
(ADDI [x] (MOVDconst [y])) && is32Bit(x + y) => (MOVDconst [x + y])

// ANDI with all zeros, all ones or two constants.
(ANDI [0] x) => (MOVDconst [0])
(ANDI [-1] x) => x
(ANDI [x] (MOVDconst [y])) => (MOVDconst [x & y])

// ORI with all zeroes, all ones or two constants.
(ORI [0] x) => x
(ORI [-1] x) => (MOVDconst [-1])
(ORI [x] (MOVDconst [y])) => (MOVDconst [x | y])

// Negation of a constant.
(NEG (MOVDconst [x])) => (MOVDconst [-x])
(NEGW (MOVDconst [x])) => (MOVDconst [int64(int32(-x))])

// Shift of a constant.
(SLLI [x] (MOVDconst [y])) && is32Bit(y << uint32(x)) => (MOVDconst [y << uint32(x)])

```

```
(SRLI [x] (MOVDconst [y])) => (MOVDconst [int64(uint64(y) >> uint32(x))])
```

```
(SRAI [x] (MOVDconst [y])) => (MOVDconst [int64(y) >> uint32(x)])
```

```
// SLTI/SLTIU with constants.
```

```
(SLTI [x] (MOVDconst [y])) => (MOVDconst [b2i(int64(y) < int64(x))])
```

```
(SLTIU [x] (MOVDconst [y])) => (MOVDconst [b2i(uint64(y)
```

```
< uint64(x))])
```

```
// Merge negation into fused multiply-add and multiply-subtract.
```

```
//
```

```
// Key:
```

```
//
```

```
// [+ -](x * y) [+ -] z.
```

```
// _N      A S
```

```
//         D U
```

```
//         D B
```

```
//
```

```
// Note: multiplication commutativity handled by rule generator.
```

```
(F(MADD|NMADD|MSUB|NMSUB)D neg:(FNEGD x) y z) && neg.Uses == 1 =>
```

```
(F(NMADD|MADD|NMSUB|MSUB)D x y z)
```

```
(F(MADD|NMADD|MSUB|NMSUB)D x y neg:(FNEGD z)) && neg.Uses == 1 =>
```

```
(F(MSUB|NMSUB|MADD|NMADD)D x y z)
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/RISCV64.rules
```

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Found in path(s):
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```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/export.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/func.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/staticinit/sched.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/type.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/base/base.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/sort.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssagen/nowb.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/node.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/walk/walk.go
```

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*
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/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/doc.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssagen/abi.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/walk/convert.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/universe.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/objw/objw.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/walk/select.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/goversion.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/universe.go
```

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/x86/ggen.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/mips64/galign.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/noder/import.go
 *
 /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/walk/compare.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/subr.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/dcl.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/x86/galign.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/symtab.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/amd64/galign.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/noder/lex.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/walk/stmt.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/target.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/amd64/ggen.go
 *
 /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/arm/ggen.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/typecheck.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/walk/expr.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/val.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/walk/builtin.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ppc64/ggen.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/builtin/runtime.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/stmt.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/walk/switch.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/staticdata/data.go
 *
 /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/mips64/ggen.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/gc/export.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/gc/obj.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/pkginit/init.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssagen/arch.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/expr.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/const.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/base/flag.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ppc64/galign.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/fmt.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/walk/complit.go
 *
 /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/walk/range.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/cfg.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/arm64/galign.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/deadcode/deadcode.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/reflectdata/reflect.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/size.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/ir.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/walk/assign.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/type.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/syms.go

*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/arm/galign.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/base/debug.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/gc/main.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/const.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/walk/closure.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/arm64/ggen.go
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Found in path(s):

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/testdata/fixebugs/issue50755.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/named_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/testdata/fixebugs/issue50417.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/testdata/fixebugs/issue51607.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/testdata/fixebugs/issue51233.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/testdata/fixebugs/issue50729.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/structuraltype.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/testdata/fixebugs/issue51525.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/testdata/fixebugs/issue50646.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/loong64/ggen.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/testdata/fixebugs/issue51386.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/testdata/fixebugs/issue50426.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/testdata/fixebugs/issue51339.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/testdata/fixebugs/issue49735.go
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* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/main_test.go
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/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/loong64/ssa.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/testdata/fixebugs/issue52401.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/testdata/fixebugs/issue50516.go
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* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
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* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
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zip/compile/internal/types2/testdata/fixbugs/issue51232.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/ssa/gen/LOONG64Ops.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/loong64/galign.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixbugs/issue51437.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixbugs/issue43056.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types/structuraltype_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixbugs/issue50965.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-

```
zip/compile/internal/types2/testdata/fixebugs/issue42881.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue52529.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue50918.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue51376.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue51257.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue50833.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue50450.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/spec/comparisons.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue50281.go
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2012 The Go Authors. All rights reserved.
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/expr0.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/decls2/decls2b.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/expr3.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/predicates.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/expr2.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/decls2/decls2a.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/conversions.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/const1.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/walk/race.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/compliterals.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/typestring_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/builtins.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/expr.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/expr1.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/errors.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/stmt.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/walk.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/const0.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/operand.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/decls1.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/conversions0.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/decls3.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/api.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/stmt0.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/walk/order.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/builtins0.go
No license file was found, but licenses were detected in source scan.
```

```
<!---
// Copyright 2018 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
-->
```

Introduction to the Go compiler's SSA backend

This package contains the compiler's Static Single Assignment form component. If you're not familiar with SSA, its [Wikipedia article](https://en.wikipedia.org/wiki/Static_single_assignment_form) is a good starting point.

It is recommended that you first read [cmd/compile/README.md]([././README.md](#)) if you are not familiar with the Go compiler already. That document gives an overview of the compiler, and explains what is SSA's part and purpose in it.

Key concepts

The names described below may be loosely related to their Go counterparts, but note that they are not equivalent. For example, a Go block statement has a variable scope, yet SSA has no notion of variables nor variable scopes.

It may also

be surprising that values and blocks are named after their unique sequential IDs. They rarely correspond to named entities in the original code, such as variables or function parameters. The sequential IDs also allow the compiler to avoid maps, and it is always possible to track back the values to Go code using debug and position information.

Values

Values are the basic building blocks of SSA. Per SSA's very definition, a value is defined exactly once, but it may be used any number of times. A value mainly consists of a unique identifier, an operator, a type, and some arguments.

An operator or ``Op`` describes the operation that computes the value. The semantics of each operator can be found in `gen/*Ops.go``. For example, ``OpAdd8`` takes two value arguments holding 8-bit integers and results in their addition. Here is a possible SSA representation of the addition of two ``uint8`` values:

```
// var c uint8 = a + b
v4 = Add8 <uint8> v2 v3
```

A value's type will usually be a Go type.

For example, the value in the example

above has a ``uint8`` type, and a constant boolean value will have a ``bool`` type.

However, certain types don't come from Go and are special; below we will cover ``memory``, the most common of them.

See [\[value.go\]\(value.go\)](#) for more information.

Memory types

``memory`` represents the global memory state. An ``Op`` that takes a memory argument depends on that memory state, and an ``Op`` which has the memory type impacts the state of memory. This ensures that memory operations are kept in the right order. For example:

```
// *a = 3
// *b = *a
v10 = Store <mem> {int} v6 v8 v1
v14 = Store <mem> {int} v7 v8 v10
```

Here, ``Store`` stores its second argument (of type ``int``) into the first argument (of type ``*int``). The last argument is the memory state; since the second store depends on the memory value defined by the first store, the two stores cannot be reordered.

See [\[cmd/compile/internal/types/type.go\]\(../types/type.go\)](#) for more information.

Blocks

A

block represents a basic block in the control flow graph of a function. It is, essentially, a list of values that define the operation of this block. Besides the list of values, blocks mainly consist of a unique identifier, a kind, and a

list of successor blocks.

The simplest kind is a `plain` block; it simply hands the control flow to another block, thus its successors list contains one block.

Another common block kind is the `exit` block. These have a final value, called control value, which must return a memory state. This is necessary for functions to return some values, for example - the caller needs some memory state to depend on, to ensure that it receives those return values correctly.

The last important block kind we will mention is the `if` block. It has a single control value that must be a boolean value, and it has exactly two successor blocks. The control flow is handed to the first successor if the bool is true, and to the second otherwise.

Here is a sample if-else control flow represented with basic blocks:

```
// func(b bool) int {
// if b {
//   return 2
// }
// return 3
// }
b1:
  v1 = InitMem <mem>
  v2 = SP <uintptr>
  v5 = Addr <*int> {~r1} v2
  v6 = Arg <bool> {b}
  v8 = Const64 <int> [2]
  v12 = Const64 <int> [3]
  If v6 -> b2 b3
b2: <- b1
  v10 = VarDef <mem> {~r1} v1
  v11 = Store <mem> {int} v5 v8 v10
  Ret v11
b3: <- b1
  v14 = VarDef <mem> {~r1} v1
  v15 = Store <mem> {int} v5 v12 v14
  Ret v15
```

<!--

TODO: can we come up with a shorter example that still shows the control flow?

-->

See block.go for more information.

Functions

A function represents a function declaration along with its body. It mainly consists of a name, a type (its signature), a list of blocks that form its body, and the entry block within said list.

When a function is called, the control flow is handed to its entry block. If the function terminates, the control flow will eventually reach an exit block, thus ending the function call.

Note that a function may have zero or multiple exit blocks, just like a Go function can have any number of return points, but it must have exactly one entry point block.

Also note that some SSA functions are autogenerated, such as the hash functions for each type used as a map key.

For example, this is what an empty function can look like in SSA, with a single exit block that returns an uninteresting memory state:

```
foo func()
  b1:
    v1 = InitMem <mem>
    Ret v1
```

See [\[func.go\]\(func.go\)](#) for more information.

Compiler passes

Having a program in SSA form is not very useful on its own. Its advantage lies in how easy it is to write optimizations that modify the program to make it better. The way the Go compiler accomplishes this is via a list of passes.

Each pass transforms a SSA function in some way. For example, a dead code elimination pass will remove blocks and values that it can prove will never be executed, and a nil check elimination pass will remove nil checks which it can prove to be redundant.

Compiler passes work on one function at a time, and by default run sequentially and exactly once.

The `lower` pass is special; it converts the SSA representation from being machine-independent to being machine-dependent. That is, some abstract operators are replaced with their non-generic counterparts, potentially reducing or increasing the final number of values.

<!--

TODO: Probably explain here why the ordering of the passes matters, and why some passes like deadstore have multiple variants at different stages.

-->

See the ``passes`` list defined in `compile.go` for more information.

Playing with SSA

A good way to see and get used to the compiler's SSA in action is via ``GOSSAFUNC``. For example, to see func ``Foo``'s initial SSA form and final generated assembly, one can run:

```
GOSSAFUNC=Foo go build
```

The generated ``ssa.html`` file will also contain the SSA func at each of the compile passes, making it easy to see what each pass does to a particular program. You can also click on values and blocks to highlight them, to help follow the control flow and values.

The value specified in `GOSSAFUNC` can also be a package-qualified function name, e.g.

```
GOSSAFUNC=blah.Foo go build
```

This will match any function named "Foo" within a package whose final suffix is "blah" (e.g. `something/blah.Foo`, `anotherthing/extra/blah.Foo`).

If non-HTML dumps are needed, append a "+" to the `GOSSAFUNC` value and dumps will be written to stdout:

```
GOSSAFUNC=Bar+ go build
```

<!--

TODO: need more ideas for this section

-->

Hacking on SSA

While most compiler passes are implemented directly in Go code, some others are code generated. This is currently done via rewrite rules, which have their own syntax and are maintained in ``gen/*.rules``. Simpler optimizations can be written easily and quickly this way, but rewrite rules are not suitable for more complex optimizations.

To read more on rewrite rules, have a look at the top comments in `gen/generic.rules` and `gen/rulegen.go`.

Similarly, the code to manage operators is also code generated from `gen/*Ops.go`, as it is easier to maintain a few tables than a lot of code. After changing the rules or operators, see gen/README for instructions on how to generate the Go code again.

<!--

TODO: more tips and info could likely go here

-->

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* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/README.md

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// license that can be found in the LICENSE file.

// Lowering arithmetic

(Add(64|32|16|8|Ptr) ...) => (I64Add ...)

(Add(64|32)F ...) => (F(64|32)Add ...)

(Sub(64|32|16|8|Ptr) ...) => (I64Sub ...)

(Sub(64|32)F ...) => (F(64|32)Sub ...)

(Mul(64|32|16|8) ...) => (I64Mul ...)

(Mul(64|32)F ...) => (F(64|32)Mul ...)

(Div64 [false] x y) => (I64DivS x y)

(Div32 [false] x y) => (I64DivS (SignExt32to64 x) (SignExt32to64 y))

(Div16 [false] x y) => (I64DivS (SignExt16to64 x) (SignExt16to64 y))

(Div8 x y) => (I64DivS (SignExt8to64 x) (SignExt8to64 y))

(Div64u ...) => (I64DivU ...)

(Div32u x y) => (I64DivU (ZeroExt32to64 x) (ZeroExt32to64 y))

(Div16u x y) => (I64DivU (ZeroExt16to64 x) (ZeroExt16to64 y))

(Div8u x y) => (I64DivU (ZeroExt8to64 x) (ZeroExt8to64 y))

(Div(64|32)F ...) => (F(64|32)Div ...)

(Mod64 [false]

x y) => (I64RemS x y)

(Mod32 [false] x y) => (I64RemS (SignExt32to64 x) (SignExt32to64 y))

(Mod16 [false] x y) => (I64RemS (SignExt16to64 x) (SignExt16to64 y))

(Mod8 x y) => (I64RemS (SignExt8to64 x) (SignExt8to64 y))

(Mod64u ...) => (I64RemU ...)

(Mod32u x y) => (I64RemU (ZeroExt32to64 x) (ZeroExt32to64 y))

(Mod16u x y) => (I64RemU (ZeroExt16to64 x) (ZeroExt16to64 y))

(Mod8u x y) => (I64RemU (ZeroExt8to64 x) (ZeroExt8to64 y))

```

(And(64|32|16|8|B) ...) => (I64And ...)

(Or(64|32|16|8|B) ...) => (I64Or ...)

(Xor(64|32|16|8) ...) => (I64Xor ...)

(Neg(64|32|16|8) x) => (I64Sub (I64Const [0]) x)
(Neg(64|32)F ...) => (F(64|32)Neg ...)

(Com(64|32|16|8) x) => (I64Xor x (I64Const [-1]))

(Not ...) => (I64Eqz ...)

// Lowering pointer arithmetic
(OffPtr ...) => (I64AddConst ...)

// Lowering extension
// It is unnecessary to extend loads
(SignExt32to64    x:(I64Load32S _ _)) => x
(SignExt16to(64|32)  x:(I64Load16S _ _)) => x
(SignExt8to(64|32|16) x:(I64Load8S  _ _)) =>
x
(ZeroExt32to64    x:(I64Load32U _ _)) => x
(ZeroExt16to(64|32)  x:(I64Load16U _ _)) => x
(ZeroExt8to(64|32|16) x:(I64Load8U  _ _)) => x
(SignExt32to64    x) && buildcfg.GOWASM.SignExt => (I64Extend32S x)
(SignExt8to(64|32|16) x) && buildcfg.GOWASM.SignExt => (I64Extend8S x)
(SignExt16to(64|32)  x) && buildcfg.GOWASM.SignExt => (I64Extend16S x)
(SignExt32to64    x) => (I64ShrS (I64Shl x (I64Const [32])) (I64Const [32]))
(SignExt16to(64|32)  x) => (I64ShrS (I64Shl x (I64Const [48])) (I64Const [48]))
(SignExt8to(64|32|16) x) => (I64ShrS (I64Shl x (I64Const [56])) (I64Const [56]))
(ZeroExt32to64    x) => (I64And x (I64Const [0xffffffff]))
(ZeroExt16to(64|32)  x) => (I64And x (I64Const [0xffff]))
(ZeroExt8to(64|32|16) x) => (I64And x (I64Const [0xff]))

(Slicemask x) => (I64ShrS (I64Sub (I64Const [0]) x) (I64Const [63]))

// Lowering truncation
// Because we ignore the high parts, truncates are just copies.
(Trunc64to(32|16|8) ...) => (Copy ...)
(Trunc32to(16|8)  ...)
=> (Copy ...)
(Trunc16to8      ...) => (Copy ...)

// Lowering float <=> int
(Cvt32to(64|32)F x) => (F(64|32)ConvertI64S (SignExt32to64 x))
(Cvt64to(64|32)F ...) => (F(64|32)ConvertI64S ...)
(Cvt32Uto(64|32)F x) => (F(64|32)ConvertI64U (ZeroExt32to64 x))

```

```

(Cvt64Uto(64|32)F ...) => (F(64|32)ConvertI64U ...)

(Cvt32Fto32 ...) => (I64TruncSatF32S ...)
(Cvt32Fto64 ...) => (I64TruncSatF32S ...)
(Cvt64Fto32 ...) => (I64TruncSatF64S ...)
(Cvt64Fto64 ...) => (I64TruncSatF64S ...)
(Cvt32Fto32U ...) => (I64TruncSatF32U ...)
(Cvt32Fto64U ...) => (I64TruncSatF32U ...)
(Cvt64Fto32U ...) => (I64TruncSatF64U ...)
(Cvt64Fto64U ...) => (I64TruncSatF64U ...)

(Cvt32Fto64F ...) => (F64PromoteF32 ...)
(Cvt64Fto32F ...) => (F32DemoteF64 ...)

(CvtBoolToUint8 ...) => (Copy ...)

(Round32F ...) => (Copy ...)
(Round64F ...) => (Copy ...)

// Lowering shifts
// Unsigned shifts need to return 0 if shift amount is >= width of shifted value.

(Lsh64x64 x y) && shiftIsBounded(v) => (I64Shl x y)
(Lsh64x64 x (I64Const
 [c])) && uint64(c) < 64 => (I64Shl x (I64Const [c]))
(Lsh64x64 x (I64Const [c])) && uint64(c) >= 64 => (I64Const [0])
(Lsh64x64 x y) => (Select (I64Shl x y) (I64Const [0]) (I64LtU y (I64Const [64])))
(Lsh64x(32|16|8) [c] x y) => (Lsh64x64 [c] x (ZeroExt(32|16|8)to64 y))

(Lsh32x64 ...) => (Lsh64x64 ...)
(Lsh32x(32|16|8) [c] x y) => (Lsh64x64 [c] x (ZeroExt(32|16|8)to64 y))

(Lsh16x64 ...) => (Lsh64x64 ...)
(Lsh16x(32|16|8) [c] x y) => (Lsh64x64 [c] x (ZeroExt(32|16|8)to64 y))

(Lsh8x64 ...) => (Lsh64x64 ...)
(Lsh8x(32|16|8) [c] x y) => (Lsh64x64 [c] x (ZeroExt(32|16|8)to64 y))

(Rsh64Ux64 x y) && shiftIsBounded(v) => (I64ShrU x y)
(Rsh64Ux64 x (I64Const [c])) && uint64(c) < 64 => (I64ShrU x (I64Const [c]))
(Rsh64Ux64 x (I64Const [c])) && uint64(c) >= 64 => (I64Const [0])
(Rsh64Ux64 x y) => (Select (I64ShrU x y) (I64Const [0]) (I64LtU y (I64Const [64])))
(Rsh64Ux(32|16|8) [c] x y) => (Rsh64Ux64 [c] x (ZeroExt(32|16|8)to64 y))

(Rsh32Ux64 [c] x y) => (Rsh64Ux64 [c] (ZeroExt32to64
 x) y)
(Rsh32Ux(32|16|8) [c] x y) => (Rsh64Ux64 [c] (ZeroExt32to64 x) (ZeroExt(32|16|8)to64 y))

```

```

(Rsh16Ux64 [c] x y) => (Rsh64Ux64 [c] (ZeroExt16to64 x) y)
(Rsh16Ux(32|16|8) [c] x y) => (Rsh64Ux64 [c] (ZeroExt16to64 x) (ZeroExt(32|16|8)to64 y))

(Rsh8Ux64 [c] x y) => (Rsh64Ux64 [c] (ZeroExt8to64 x) y)
(Rsh8Ux(32|16|8) [c] x y) => (Rsh64Ux64 [c] (ZeroExt8to64 x) (ZeroExt(32|16|8)to64 y))

// Signed right shift needs to return 0/-1 if shift amount is >= width of shifted value.
// We implement this by setting the shift value to (width - 1) if the shift value is >= width.

(Rsh64x64 x y) && shiftIsBounded(v) => (I64ShrS x y)
(Rsh64x64 x (I64Const [c])) && uint64(c) < 64 => (I64ShrS x (I64Const [c]))
(Rsh64x64 x (I64Const [c])) && uint64(c) >= 64 => (I64ShrS x (I64Const [63]))
(Rsh64x64 x y) => (I64ShrS x (Select <typ.Int64> y (I64Const [63]) (I64LtU y (I64Const [64]))))
(Rsh64x(32|16|8) [c] x y) => (Rsh64x64 [c] x (ZeroExt(32|16|8)to64 y))

(Rsh32x64 [c] x y) => (Rsh64x64 [c] (SignExt32to64
x) y)
(Rsh32x(32|16|8) [c] x y) => (Rsh64x64 [c] (SignExt32to64 x) (ZeroExt(32|16|8)to64 y))

(Rsh16x64 [c] x y) => (Rsh64x64 [c] (SignExt16to64 x) y)
(Rsh16x(32|16|8) [c] x y) => (Rsh64x64 [c] (SignExt16to64 x) (ZeroExt(32|16|8)to64 y))

(Rsh8x64 [c] x y) => (Rsh64x64 [c] (SignExt8to64 x) y)
(Rsh8x(32|16|8) [c] x y) => (Rsh64x64 [c] (SignExt8to64 x) (ZeroExt(32|16|8)to64 y))

// Lowering rotates
(RotateLeft8 <t> x (I64Const [c])) => (Or8 (Lsh8x64 <t> x (I64Const [c&7])) (Rsh8Ux64 <t> x (I64Const [-
c&7])))
(RotateLeft16 <t> x (I64Const [c])) => (Or16 (Lsh16x64 <t> x (I64Const [c&15])) (Rsh16Ux64 <t> x (I64Const [-
c&15])))
(RotateLeft32 ...) => (I32Rotl ...)
(RotateLeft64 ...) => (I64Rotl ...)

// Lowering comparisons
(Less64 ...) => (I64LtS ...)
(Less32 x y) => (I64LtS (SignExt32to64 x) (SignExt32to64 y))
(Less16 x y) => (I64LtS (SignExt16to64 x) (SignExt16to64 y))
(Less8 x y) => (I64LtS (SignExt8to64 x) (SignExt8to64 y))
(Less64U ...) => (I64LtU ...)
(Less32U x y) => (I64LtU
(ZeroExt32to64 x) (ZeroExt32to64 y))
(Less16U x y) => (I64LtU (ZeroExt16to64 x) (ZeroExt16to64 y))
(Less8U x y) => (I64LtU (ZeroExt8to64 x) (ZeroExt8to64 y))
(Less(64|32)F ...) => (F(64|32)Lt ...)

(Leq64 ...) => (I64LeS ...)
(Leq32 x y) => (I64LeS (SignExt32to64 x) (SignExt32to64 y))
(Leq16 x y) => (I64LeS (SignExt16to64 x) (SignExt16to64 y))

```

```

(Leq8 x y) => (I64LeS (SignExt8to64 x) (SignExt8to64 y))
(Leq64U ...) => (I64LeU ...)
(Leq32U x y) => (I64LeU (ZeroExt32to64 x) (ZeroExt32to64 y))
(Leq16U x y) => (I64LeU (ZeroExt16to64 x) (ZeroExt16to64 y))
(Leq8U x y) => (I64LeU (ZeroExt8to64 x) (ZeroExt8to64 y))
(Leq(64|32)F ...) => (F(64|32)Le ...)

(Eq64 ...) => (I64Eq ...)
(Eq32 x y) => (I64Eq (ZeroExt32to64 x) (ZeroExt32to64 y))
(Eq16 x y) => (I64Eq (ZeroExt16to64 x) (ZeroExt16to64 y))
(Eq8 x y) => (I64Eq (ZeroExt8to64 x) (ZeroExt8to64 y))
(EqB ...) => (I64Eq ...)
(EqPtr ...) => (I64Eq ...)
(Eq(64|32)F ...) => (F(64|32)Eq ...)

(Neq64 ...) => (I64Ne ...)
(Neq32 x
y) => (I64Ne (ZeroExt32to64 x) (ZeroExt32to64 y))
(Neq16 x y) => (I64Ne (ZeroExt16to64 x) (ZeroExt16to64 y))
(Neq8 x y) => (I64Ne (ZeroExt8to64 x) (ZeroExt8to64 y))
(NeqB ...) => (I64Ne ...)
(NeqPtr ...) => (I64Ne ...)
(Neq(64|32)F ...) => (F(64|32)Ne ...)

// Lowering loads
(Load <T> ptr mem) && is32BitFloat(t) => (F32Load ptr mem)
(Load <T> ptr mem) && is64BitFloat(t) => (F64Load ptr mem)
(Load <T> ptr mem) && t.Size() == 8 => (I64Load ptr mem)
(Load <T> ptr mem) && t.Size() == 4 && !t.IsSigned() => (I64Load32U ptr mem)
(Load <T> ptr mem) && t.Size() == 4 && t.IsSigned() => (I64Load32S ptr mem)
(Load <T> ptr mem) && t.Size() == 2 && !t.IsSigned() => (I64Load16U ptr mem)
(Load <T> ptr mem) && t.Size() == 2 && t.IsSigned() => (I64Load16S ptr mem)
(Load <T> ptr mem) && t.Size() == 1 && !t.IsSigned() => (I64Load8U ptr mem)
(Load <T> ptr mem) && t.Size() == 1 && t.IsSigned() => (I64Load8S ptr mem)

// Lowering stores
(Store {t} ptr val mem) && is64BitFloat(t) => (F64Store ptr val
mem)
(Store {t} ptr val mem) && is32BitFloat(t) => (F32Store ptr val mem)
(Store {t} ptr val mem) && t.Size() == 8 => (I64Store ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 => (I64Store32 ptr val mem)
(Store {t} ptr val mem) && t.Size() == 2 => (I64Store16 ptr val mem)
(Store {t} ptr val mem) && t.Size() == 1 => (I64Store8 ptr val mem)

// Lowering moves
(Move [0] _ _ mem) => mem
(Move [1] dst src mem) => (I64Store8 dst (I64Load8U src mem) mem)
(Move [2] dst src mem) => (I64Store16 dst (I64Load16U src mem) mem)

```

```

(Move [4] dst src mem) => (I64Store32 dst (I64Load32U src mem) mem)
(Move [8] dst src mem) => (I64Store dst (I64Load src mem) mem)
(Move [16] dst src mem) =>
(I64Store [8] dst (I64Load [8] src mem)
(I64Store dst (I64Load src mem) mem))
(Move [3] dst src mem) =>
(I64Store8 [2] dst (I64Load8U [2] src mem)
(I64Store16 dst (I64Load16U src mem) mem))
(Move [5] dst src mem) =>
(I64Store8 [4] dst (I64Load8U [4] src mem)
(I64Store32 dst (I64Load32U src mem) mem))
(Move
[6] dst src mem) =>
(I64Store16 [4] dst (I64Load16U [4] src mem)
(I64Store32 dst (I64Load32U src mem) mem))
(Move [7] dst src mem) =>
(I64Store32 [3] dst (I64Load32U [3] src mem)
(I64Store32 dst (I64Load32U src mem) mem))
(Move [s] dst src mem) && s > 8 && s < 16 =>
(I64Store [s-8] dst (I64Load [s-8] src mem)
(I64Store dst (I64Load src mem) mem))

// Adjust moves to be a multiple of 16 bytes.
(Move [s] dst src mem)
&& s > 16 && s%16 != 0 && s%16 <= 8 =>
(Move [s-s%16]
(OffPtr <dst.Type> dst [s%16])
(OffPtr <src.Type> src [s%16])
(I64Store dst (I64Load src mem) mem))
(Move [s] dst src mem)
&& s > 16 && s%16 != 0 && s%16 > 8 =>
(Move [s-s%16]
(OffPtr <dst.Type> dst [s%16])
(OffPtr <src.Type> src [s%16])
(I64Store [8] dst (I64Load [8] src mem)
(I64Store dst (I64Load src mem) mem)))

// Large copying uses helper.
(Move [s] dst src mem) && s%8 == 0 && logLargeCopy(v, s) =>
(LoweredMove [s/8] dst src mem)

// Lowering Zero instructions
(Zero [0] _ mem) => mem
(Zero
[1] destptr mem) => (I64Store8 destptr (I64Const [0]) mem)
(Zero [2] destptr mem) => (I64Store16 destptr (I64Const [0]) mem)
(Zero [4] destptr mem) => (I64Store32 destptr (I64Const [0]) mem)
(Zero [8] destptr mem) => (I64Store destptr (I64Const [0]) mem)

```

```

(Zero [3] destptr mem) =>
(I64Store8 [2] destptr (I64Const [0])
 (I64Store16 destptr (I64Const [0]) mem))
(Zero [5] destptr mem) =>
(I64Store8 [4] destptr (I64Const [0])
 (I64Store32 destptr (I64Const [0]) mem))
(Zero [6] destptr mem) =>
(I64Store16 [4] destptr (I64Const [0])
 (I64Store32 destptr (I64Const [0]) mem))
(Zero [7] destptr mem) =>
(I64Store32 [3] destptr (I64Const [0])
 (I64Store32 destptr (I64Const [0]) mem))

// Strip off any fractional word zeroing.
(Zero [s] destptr mem) && s%8 != 0 && s > 8 =>
(Zero [s-s%8] (OffPtr <destptr.Type> destptr [s%8])
 (I64Store destptr (I64Const [0]) mem))

// Zero small numbers of words directly.
(Zero [16] destptr mem) =>
(I64Store [8] destptr (I64Const [0])
 (I64Store
 destptr (I64Const [0]) mem))
(Zero [24] destptr mem) =>
(I64Store [16] destptr (I64Const [0])
 (I64Store [8] destptr (I64Const [0])
 (I64Store destptr (I64Const [0]) mem)))
(Zero [32] destptr mem) =>
(I64Store [24] destptr (I64Const [0])
 (I64Store [16] destptr (I64Const [0])
 (I64Store [8] destptr (I64Const [0])
 (I64Store destptr (I64Const [0]) mem))))

// Large zeroing uses helper.
(Zero [s] destptr mem) && s%8 == 0 && s > 32 =>
(LoweredZero [s/8] destptr mem)

// Lowering constants
(Const64 ...) => (I64Const ...)
(Const(32|16|8) [c]) => (I64Const [int64(c)])
(Const(64|32)F ...) => (F(64|32)Const ...)
(ConstNil) => (I64Const [0])
(ConstBool [c]) => (I64Const [b2i(c)])

// Lowering calls
(StaticCall ...) => (LoweredStaticCall ...)
(ClosureCall ...) => (LoweredClosureCall ...)

```



```

(InterCall ...) => (LoweredInterCall ...)
(TailCall ...) => (LoweredTailCall ...)

// Miscellaneous
(Convert ...) => (LoweredConvert ...)
(IsNotNil p) => (I64Eqz (I64Eqz p))
(IsInBounds ...) => (I64LtU
...)
(IsSliceInBounds ...) => (I64LeU ...)
(NilCheck ...) => (LoweredNilCheck ...)
(GetClosurePtr ...) => (LoweredGetClosurePtr ...)
(GetCallerPC ...) => (LoweredGetCallerPC ...)
(GetCallerSP ...) => (LoweredGetCallerSP ...)
(Addr {sym} base) => (LoweredAddr {sym} [0] base)
(LocalAddr {sym} base _) => (LoweredAddr {sym} base)

// Write barrier.
(WB ...) => (LoweredWB ...)

// --- Ininsics ---
(Sqrt ...) => (F64Sqrt ...)
(Trunc ...) => (F64Trunc ...)
(Ceil ...) => (F64Ceil ...)
(Floor ...) => (F64Floor ...)
(RoundToEven ...) => (F64Nearest ...)
(Abs ...) => (F64Abs ...)
(Copysign ...) => (F64Copysign ...)

(Sqrt32 ...) => (F32Sqrt ...)

(Ctz64 ...) => (I64Ctz ...)
(Ctz32 x) => (I64Ctz (I64Or x (I64Const [0x100000000])))
(Ctz16 x) => (I64Ctz (I64Or x (I64Const [0x10000])))
(Ctz8 x) => (I64Ctz (I64Or x (I64Const [0x100])))

(Ctz(64|32|16|8)NonZero ...) => (I64Ctz ...)

(BitLen64 x) => (I64Sub (I64Const [64]) (I64Clz x))

(PopCount64 ...) => (I64Popcnt ...)
(PopCount32 x) => (I64Popcnt
(ZeroExt32to64 x))
(PopCount16 x) => (I64Popcnt (ZeroExt16to64 x))
(PopCount8 x) => (I64Popcnt (ZeroExt8to64 x))

(CondSelect ...) => (Select ...)

// --- Optimizations ---

```

```

(I64Add (I64Const [x]) (I64Const [y])) => (I64Const [x + y])
(I64Mul (I64Const [x]) (I64Const [y])) => (I64Const [x * y])
(I64And (I64Const [x]) (I64Const [y])) => (I64Const [x & y])
(I64Or (I64Const [x]) (I64Const [y])) => (I64Const [x | y])
(I64Xor (I64Const [x]) (I64Const [y])) => (I64Const [x ^ y])
(F64Add (F64Const [x]) (F64Const [y])) => (F64Const [x + y])
(F64Mul (F64Const [x]) (F64Const [y])) && !math.IsNaN(x * y) => (F64Const [x * y])
(I64Eq (I64Const [x]) (I64Const [y])) && x == y => (I64Const [1])
(I64Eq (I64Const [x]) (I64Const [y])) && x != y => (I64Const [0])
(I64Ne (I64Const [x]) (I64Const [y])) && x == y => (I64Const [0])
(I64Ne (I64Const [x]) (I64Const [y])) && x != y => (I64Const [1])

```

```

(I64Shl (I64Const [x]) (I64Const [y])) => (I64Const [x << uint64(y)])
(I64ShrU (I64Const [x]) (I64Const [y])) => (I64Const [int64(uint64(x) >> uint64(y))])
(I64ShrS (I64Const [x]) (I64Const [y])) => (I64Const [x >> uint64(y)])

```

// TODO: declare these operations as commutative and get rid of these rules?

```

(I64Add (I64Const [x]) y) && y.Op != OpWasmI64Const => (I64Add y (I64Const [x]))
(I64Mul (I64Const [x]) y) && y.Op != OpWasmI64Const => (I64Mul y (I64Const [x]))
(I64And (I64Const [x]) y) && y.Op != OpWasmI64Const => (I64And y (I64Const [x]))
(I64Or (I64Const [x]) y) && y.Op != OpWasmI64Const => (I64Or y (I64Const [x]))
(I64Xor (I64Const [x]) y) && y.Op != OpWasmI64Const => (I64Xor y (I64Const [x]))
(F64Add (F64Const [x]) y) && y.Op != OpWasmF64Const => (F64Add y (F64Const [x]))
(F64Mul (F64Const [x]) y) && y.Op != OpWasmF64Const => (F64Mul y (F64Const [x]))
(I64Eq (I64Const [x]) y) && y.Op != OpWasmI64Const => (I64Eq y (I64Const [x]))
(I64Ne (I64Const [x]) y) && y.Op != OpWasmI64Const => (I64Ne y (I64Const [x]))

```

```

(I64Eq x (I64Const [0])) => (I64Eqz x)
(I64LtU (I64Const [0]) x) => (I64Eqz
  (I64Eqz x))
(I64LeU x (I64Const [0])) => (I64Eqz x)
(I64LtU x (I64Const [1])) => (I64Eqz x)
(I64LeU (I64Const [1]) x) => (I64Eqz (I64Eqz x))
(I64Ne x (I64Const [0])) => (I64Eqz (I64Eqz x))

```

```

(I64Add x (I64Const [y])) => (I64AddConst [y] x)
(I64AddConst [0] x) => x
(I64Eqz (I64Eqz (I64Eqz x))) => (I64Eqz x)

```

// folding offset into load/store

```

((I64Load|I64Load32U|I64Load32S|I64Load16U|I64Load16S|I64Load8U|I64Load8S) [off] (I64AddConst [off2]
ptr) mem)
&& isU32Bit(off+off2) =>
((I64Load|I64Load32U|I64Load32S|I64Load16U|I64Load16S|I64Load8U|I64Load8S) [off+off2] ptr mem)

((I64Store|I64Store32|I64Store16|I64Store8) [off] (I64AddConst [off2] ptr) val mem)
&& isU32Bit(off+off2) =>

```

((I64Store|I64Store32|I64Store16|I64Store8) [off+off2] ptr val mem)

// folding offset into address

```
(I64AddConst [off] (LoweredAddr {sym} [off2] base)) && isU32Bit(off+int64(off2)) =>
(LoweredAddr {sym} [int32(off)+off2] base)
(I64AddConst [off] x:(SP)) && isU32Bit(off) => (LoweredAddr [int32(off)] x) //
so it is rematerializeable
```

// transforming readonly globals into constants

```
(I64Load [off] (LoweredAddr {sym} [off2] (SB)) _) && symIsRO(sym) && isU32Bit(off+int64(off2)) =>
(I64Const [int64(read64(sym, off+int64(off2), config.ctx.Arch.ByteOrder))])
(I64Load32U [off] (LoweredAddr {sym} [off2] (SB)) _) && symIsRO(sym) && isU32Bit(off+int64(off2)) =>
(I64Const [int64(read32(sym, off+int64(off2), config.ctx.Arch.ByteOrder))])
(I64Load16U [off] (LoweredAddr {sym} [off2] (SB)) _) && symIsRO(sym) && isU32Bit(off+int64(off2)) =>
(I64Const [int64(read16(sym, off+int64(off2), config.ctx.Arch.ByteOrder))])
(I64Load8U [off] (LoweredAddr {sym} [off2] (SB)) _) && symIsRO(sym) && isU32Bit(off+int64(off2)) =>
(I64Const [int64(read8(sym, off+int64(off2))]))
```

Found in path(s):

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/Wasm.rules
No license file was found, but licenses were detected in source scan.
```

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Found in path(s):

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/scope.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/cycles1.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/call.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/objset.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixbugs/issue51877.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typebits/typebits.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/self_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/constdecl.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/builtins_test.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/stmt1.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/shifts.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/resolver.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/sizes.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/selection.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/cycles3.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
```

```

zip/compile/internal/types2/testdata/check/importdecl0/importdecl0b.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/object.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/vardecl.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/liveness/bvset.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/stdlib_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/bitvec/bv.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/errors.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/typexpr.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/return.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/lookup.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/cycles4.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/assignments.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/init0.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/package.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/hilbert_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/labels.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/init1.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/cycles2.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/issues_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/typestring.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/methodsets.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/api_test.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/liveness/plive.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/cycles0.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/importdecl0/importdecl0a.go
No license file was found, but licenses were detected in source scan.

```

```

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// license that can be found in the LICENSE file.

```

```

(Add(Ptr|64|32|16|8) ...) => (ADD ...)
(Add(32F|64F) ...) => (FADD(S|D) ...)

```

```

(Sub(Ptr|64|32|16|8) ...) => (SUB ...)
(Sub(32F|64F) ...) => (FSUB(S|D) ...)

```

```

(Mul64 ...) => (MUL ...)
(Mul(32|16|8) ...) => (MULW ...)
(Mul(32F|64F) ...) => (FMUL(S|D) ...)

(Hmul64 ...) => (MULH ...)
(Hmul64u ...) => (UMULH ...)
(Hmul32 x y) => (SRAconst (MULL <typ.Int64> x y) [32])
(Hmul32u x y) => (SRAconst (UMULL <typ.UInt64> x y) [32])
(Mul64uhilo ...) => (LoweredMuluhilo ...)

(Div64 [false] x y) => (DIV x y)
(Div64u ...) => (UDIV ...)
(Div32 [false] x y) => (DIVW x y)
(Div32u ...) => (UDIVW ...)
(Div16 [false] x y) => (DIVW (SignExt16to32 x) (SignExt16to32 y))
(Div16u x y) => (UDIVW (ZeroExt16to32 x) (ZeroExt16to32 y))
(Div8 x y) => (DIVW (SignExt8to32 x) (SignExt8to32 y))
(Div8u
 x y) => (UDIVW (ZeroExt8to32 x) (ZeroExt8to32 y))
(Div32F ...) => (FDIVS ...)
(Div64F ...) => (FDIVD ...)

(Mod64 x y) => (MOD x y)
(Mod64u ...) => (UMOD ...)
(Mod32 x y) => (MODW x y)
(Mod32u ...) => (UMODW ...)
(Mod16 x y) => (MODW (SignExt16to32 x) (SignExt16to32 y))
(Mod16u x y) => (UMODW (ZeroExt16to32 x) (ZeroExt16to32 y))
(Mod8 x y) => (MODW (SignExt8to32 x) (SignExt8to32 y))
(Mod8u x y) => (UMODW (ZeroExt8to32 x) (ZeroExt8to32 y))

// (x + y) / 2 with x>=y  =>  (x - y) / 2 + y
(Avg64u <t> x y) => (ADD (SRLconst <t> (SUB <t> x y) [1]) y)

(And(64|32|16|8) ...) => (AND ...)
(Or(64|32|16|8) ...) => (OR ...)
(Xor(64|32|16|8) ...) => (XOR ...)

// unary ops
(Neg(64|32|16|8) ...) => (NEG ...)
(Neg(32F|64F) ...) => (FNEG(S|D) ...)
(Com(64|32|16|8) ...) => (MVN ...)

// math package intrinsics
(Abs ...) => (FABSD ...)
(Sqrt ...) => (FSQRTD ...)
(Ceil ...) => (FRINTPD ...)

```

```

(Floor ...) => (FRINTMD ...)
(Round ...) => (FRINTAD ...)
(RoundToEven ...) => (FRINTND ...)
(Trunc ...) =>
  (FRINTZD ...)
(FMA x y z) => (FMADDD z x y)

(Sqrt32 ...) => (FSQRTS ...)

// lowering rotates
(RotateLeft8 <t> x (MOVDconst [c])) => (Or8 (Lsh8x64 <t> x (MOVDconst [c&7])) (Rsh8Ux64 <t> x
(MOVDconst [-c&7])))
(RotateLeft16 <t> x (MOVDconst [c])) => (Or16 (Lsh16x64 <t> x (MOVDconst [c&15])) (Rsh16Ux64 <t> x
(MOVDconst [-c&15])))
(RotateLeft32 x y) => (RORW x (NEG <y.Type> y))
(RotateLeft64 x y) => (ROR x (NEG <y.Type> y))

(Ctz(64|32|16|8)NonZero ...) => (Ctz(64|32|32|32) ...)

(Ctz64 <t> x) => (CLZ (RBIT <t> x))
(Ctz32 <t> x) => (CLZW (RBITW <t> x))
(Ctz16 <t> x) => (CLZW <t> (RBITW <typ.UInt32> (ORconst <typ.UInt32> [0x10000] x)))
(Ctz8 <t> x) => (CLZW <t> (RBITW <typ.UInt32> (ORconst <typ.UInt32> [0x100] x)))

(PopCount64 <t> x) => (FMOVDfpgp <t> (VUADDLV <typ.Float64> (VCNT <typ.Float64> (FMOVDgfpf
<typ.Float64> x))))
(PopCount32 <t> x) => (FMOVDfpgp <t> (VUADDLV <typ.Float64> (VCNT <typ.Float64> (FMOVDgfpf
<typ.Float64> (ZeroExt32to64 x)))))
(PopCount16 <t> x) => (FMOVDfpgp <t>
(VUADDLV <typ.Float64> (VCNT <typ.Float64> (FMOVDgfpf <typ.Float64> (ZeroExt16to64 x)))))

// Load args directly into the register class where it will be used.
(FMOVDgfpf <t> (Arg [off] {sym})) => @b.Func.Entry (Arg <t> [off] {sym})
(FMOVDfpgp <t> (Arg [off] {sym})) => @b.Func.Entry (Arg <t> [off] {sym})

// Similarly for stores, if we see a store after FPR <=> GPR move, then redirect store to use the other register set.
(MOVDstore [off] {sym} ptr (FMOVDfpgp val) mem) => (FMOVDstore [off] {sym} ptr val mem)
(FMOVDstore [off] {sym} ptr (FMOVDgfpf val) mem) => (MOVDstore [off] {sym} ptr val mem)
(MOVWstore [off] {sym} ptr (FMOVSfpgp val) mem) => (FMOVSstore [off] {sym} ptr val mem)
(FMOVSstore [off] {sym} ptr (FMOVSpfpf val) mem) => (MOVWstore [off] {sym} ptr val mem)

// float <=> int register moves, with no conversion.
// These come up when compiling math.{Float64bits, Float64frombits, Float32bits, Float32frombits}.
(MOVDload [off] {sym} ptr (FMOVDstore [off] {sym} ptr val _)) => (FMOVDfpgp
val)
(FMOVDload [off] {sym} ptr (MOVDstore [off] {sym} ptr val _)) => (FMOVDgfpf val)
(MOVWUload [off] {sym} ptr (FMOVSstore [off] {sym} ptr val _)) => (FMOVSfpgp val)
(FMOVSload [off] {sym} ptr (MOVWstore [off] {sym} ptr val _)) => (FMOVSpfpf val)

```

```

(BitLen64 x) => (SUB (MOVDconst [64]) (CLZ <typ.Int> x))
(BitLen32 x) => (SUB (MOVDconst [32]) (CLZW <typ.Int> x))

(Bswap64 ...) => (REV ...)
(Bswap32 ...) => (RE VW ...)

(BitRev64 ...) => (RBIT ...)
(BitRev32 ...) => (RBITW ...)
(BitRev16 x) => (SRLconst [48] (RBIT <typ.UInt64> x))
(BitRev8 x) => (SRLconst [56] (RBIT <typ.UInt64> x))

// In fact, UMOD will be translated into UREM instruction, and UREM is originally translated into
// UDIV and MSUB instructions. But if there is already an identical UDIV instruction just before or
// after UREM (case like quo, rem := z/y, z%y), then the second UDIV instruction becomes redundant.
// The purpose of this rule is to have this extra UDIV instruction removed in CSE pass.
(UMOD <typ.UInt64>
 x y) => (MSUB <typ.UInt64> x y (UDIV <typ.UInt64> x y))
(UMODW <typ.UInt32> x y) => (MSUBW <typ.UInt32> x y (UDIVW <typ.UInt32> x y))

// 64-bit addition with carry.
(Select0 (Add64carry x y c) => (Select0 <typ.UInt64> (ADCSflags x y (Select1 <types.TypeFlags>
 (ADDSconstflags [-1] c))))
(Select1 (Add64carry x y c) => (ADCzerocarry <typ.UInt64> (Select1 <types.TypeFlags> (ADCSflags x y (Select1
 <types.TypeFlags> (ADDSconstflags [-1] c)))))

// 64-bit subtraction with borrowing.
(Select0 (Sub64borrow x y bo) => (Select0 <typ.UInt64> (SBCSflags x y (Select1 <types.TypeFlags> (NEGSflags
 bo))))
(Select1 (Sub64borrow x y bo) => (NEG <typ.UInt64> (NGCzerocarry <typ.UInt64> (Select1 <types.TypeFlags>
 (SBCSflags x y (Select1 <types.TypeFlags> (NEGSflags bo)))))

// boolean ops -- booleans are represented with 0=false, 1=true
(AndB ...) => (AND ...)
(OrB ...) => (OR ...)
(EqB x y) => (XOR (MOVDconst [1]) (XOR <typ.Bool> x y))
(NeqB ...) => (XOR ...)
(Not x) => (XOR (MOVDconst [1]) x)

// shifts
//
// hardware instruction uses only the low 6 bits of the shift
// we compare to 64 to ensure Go semantics for large shifts
// Rules about rotates with non-const shift are based on the following rules,
// if the following rules change, please also modify the rules based on them.
(Lsh64x64 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x y) (Const64 <t> [0]) (CMPconst [64] y))
(Lsh64x32 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x (ZeroExt32to64 y)) (Const64 <t> [0])
 (CMPconst [64] (ZeroExt32to64 y)))

```

(Lsh64x16 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x (ZeroExt16to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt16to64 y)))

(Lsh64x8 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x (ZeroExt8to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt8to64 y)))

(Lsh32x64 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x y) (Const64 <t> [0]) (CMPconst [64] y))

(Lsh32x32 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x (ZeroExt32to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt32to64 y)))

(Lsh32x16 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x (ZeroExt16to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt16to64 y)))

(Lsh32x8 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x (ZeroExt8to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt8to64 y)))

(Lsh16x64 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x y) (Const64 <t> [0]) (CMPconst [64] y))

(Lsh16x32 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x (ZeroExt32to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt32to64 y)))

(Lsh16x16 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x (ZeroExt16to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt16to64 y)))

(Lsh16x8 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x (ZeroExt8to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt8to64 y)))

(Lsh8x64 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x y) (Const64 <t> [0]) (CMPconst [64] y))

(Lsh8x32 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x (ZeroExt32to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt32to64 y)))

(Lsh8x16 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x (ZeroExt16to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt16to64 y)))

(Lsh8x8 <t> x y) => (CSEL [OpARM64LessThanU] (SLL <t> x (ZeroExt8to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt8to64 y)))

(Rsh64Ux64 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> x y) (Const64 <t> [0]) (CMPconst [64] y))

(Rsh64Ux32 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> x (ZeroExt32to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt32to64 y)))

(Rsh64Ux16 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> x (ZeroExt16to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt16to64 y)))

(Rsh64Ux8 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> x (ZeroExt8to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt8to64 y)))

(Rsh32Ux64 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> (ZeroExt32to64 x) y) (Const64 <t> [0]) (CMPconst [64] y))

(Rsh32Ux32 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> (ZeroExt32to64 x) (ZeroExt32to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt32to64 y)))

(Rsh32Ux16 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> (ZeroExt32to64 x) (ZeroExt16to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt16to64 y)))

(Rsh32Ux8 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> (ZeroExt32to64 x) (ZeroExt8to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt8to64 y)))

(Rsh16Ux64 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> (ZeroExt16to64 x) y) (Const64 <t> [0])
 (CMPconst [64] y))
 (Rsh16Ux32 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> (ZeroExt16to64 x) (ZeroExt32to64 y)) (Const64
 <t> [0]) (CMPconst [64] (ZeroExt32to64 y)))
 (Rsh16Ux16 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> (ZeroExt16to64 x) (ZeroExt16to64 y)) (Const64
 <t> [0]) (CMPconst [64] (ZeroExt16to64 y)))
 (Rsh16Ux8 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> (ZeroExt16to64 x) (ZeroExt8to64 y)) (Const64
 <t> [0]) (CMPconst [64] (ZeroExt8to64 y)))

(Rsh8Ux64 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> (ZeroExt8to64 x) y) (Const64 <t> [0])
 (CMPconst [64] y))
 (Rsh8Ux32 <t> x y) => (CSEL [OpARM64LessThanU]
 (SRL <t> (ZeroExt8to64 x) (ZeroExt32to64 y)) (Const64 <t> [0]) (CMPconst [64] (ZeroExt32to64 y)))
 (Rsh8Ux16 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> (ZeroExt8to64 x) (ZeroExt16to64 y)) (Const64
 <t> [0]) (CMPconst [64] (ZeroExt16to64 y)))
 (Rsh8Ux8 <t> x y) => (CSEL [OpARM64LessThanU] (SRL <t> (ZeroExt8to64 x) (ZeroExt8to64 y)) (Const64
 <t> [0]) (CMPconst [64] (ZeroExt8to64 y)))

(Rsh64x64 x y) => (SRA x (CSEL [OpARM64LessThanU] <y.Type> y (Const64 <y.Type> [63]) (CMPconst [64]
 y)))
 (Rsh64x32 x y) => (SRA x (CSEL [OpARM64LessThanU] <y.Type> (ZeroExt32to64 y) (Const64 <y.Type> [63])
 (CMPconst [64] (ZeroExt32to64 y))))
 (Rsh64x16 x y) => (SRA x (CSEL [OpARM64LessThanU] <y.Type> (ZeroExt16to64 y) (Const64 <y.Type> [63])
 (CMPconst [64] (ZeroExt16to64 y))))
 (Rsh64x8 x y) => (SRA x (CSEL [OpARM64LessThanU] <y.Type> (ZeroExt8to64 y) (Const64 <y.Type> [63])
 (CMPconst [64] (ZeroExt8to64 y))))

(Rsh32x64 x y) => (SRA (SignExt32to64 x) (CSEL [OpARM64LessThanU] <y.Type> y (Const64 <y.Type>
 [63]) (CMPconst [64] y)))
 (Rsh32x32 x y) => (SRA (SignExt32to64 x) (CSEL [OpARM64LessThanU] <y.Type> (ZeroExt32to64 y) (Const64
 <y.Type> [63]) (CMPconst [64] (ZeroExt32to64 y))))
 (Rsh32x16 x y) => (SRA (SignExt32to64 x) (CSEL [OpARM64LessThanU] <y.Type> (ZeroExt16to64 y) (Const64
 <y.Type> [63]) (CMPconst [64] (ZeroExt16to64 y))))
 (Rsh32x8 x y) => (SRA (SignExt32to64 x) (CSEL [OpARM64LessThanU] <y.Type> (ZeroExt8to64 y) (Const64
 <y.Type> [63]) (CMPconst [64] (ZeroExt8to64 y))))

(Rsh16x64 x y) => (SRA (SignExt16to64 x) (CSEL [OpARM64LessThanU] <y.Type> y (Const64 <y.Type> [63])
 (CMPconst [64] y)))
 (Rsh16x32 x y) => (SRA (SignExt16to64 x) (CSEL [OpARM64LessThanU] <y.Type> (ZeroExt32to64 y) (Const64
 <y.Type> [63]) (CMPconst [64] (ZeroExt32to64 y))))
 (Rsh16x16 x y) => (SRA (SignExt16to64 x) (CSEL [OpARM64LessThanU] <y.Type> (ZeroExt16to64 y) (Const64
 <y.Type> [63]) (CMPconst [64] (ZeroExt16to64 y))))
 (Rsh16x8 x y) => (SRA (SignExt16to64 x) (CSEL [OpARM64LessThanU] <y.Type> (ZeroExt8to64
 y) (Const64 <y.Type> [63]) (CMPconst [64] (ZeroExt8to64 y))))

(Rsh8x64 x y) => (SRA (SignExt8to64 x) (CSEL [OpARM64LessThanU] <y.Type> y (Const64 <y.Type> [63])
 (CMPconst [64] y)))
 (Rsh8x32 x y) => (SRA (SignExt8to64 x) (CSEL [OpARM64LessThanU] <y.Type> (ZeroExt32to64 y) (Const64

```

<y.Type> [63]) (CMPconst [64] (ZeroExt32to64 y))))
(Rsh8x16 x y) => (SRA (SignExt8to64 x) (CSEL [OpARM64LessThanU] <y.Type> (ZeroExt16to64 y) (Const64
<y.Type> [63]) (CMPconst [64] (ZeroExt16to64 y))))
(Rsh8x8 x y) => (SRA (SignExt8to64 x) (CSEL [OpARM64LessThanU] <y.Type> (ZeroExt8to64 y) (Const64
<y.Type> [63]) (CMPconst [64] (ZeroExt8to64 y))))

```

```

// constants

```

```

(Const(64|32|16|8) [val]) => (MOVDconst [int64(val)])
(Const(32F|64F) [val]) => (FMOV(S|D)const [float64(val)])
(ConstNil) => (MOVDconst [0])
(ConstBool [t]) => (MOVDconst [b2i(t)])

```

```

(Slicemask <t> x) => (SRAconst (NEG <t> x) [63])

```

```

// truncations

```

```

// Because we ignore high parts of registers, truncates are just copies.

```

```

(Trunc16to8 ...) => (Copy
...)
(Trunc32to8 ...) => (Copy ...)
(Trunc32to16 ...) => (Copy ...)
(Trunc64to8 ...) => (Copy ...)
(Trunc64to16 ...) => (Copy ...)
(Trunc64to32 ...) => (Copy ...)

```

```

// Zero-/Sign-extensions

```

```

(ZeroExt8to16 ...) => (MOVBUreg ...)
(ZeroExt8to32 ...) => (MOVBUreg ...)
(ZeroExt16to32 ...) => (MOVHUreg ...)
(ZeroExt8to64 ...) => (MOVBUreg ...)
(ZeroExt16to64 ...) => (MOVHUreg ...)
(ZeroExt32to64 ...) => (MOVWUreg ...)

```

```

(SignExt8to16 ...) => (MOVBreg ...)
(SignExt8to32 ...) => (MOVBreg ...)
(SignExt16to32 ...) => (MOVHreg ...)
(SignExt8to64 ...) => (MOVBreg ...)
(SignExt16to64 ...) => (MOVHreg ...)
(SignExt32to64 ...) => (MOVWreg ...)

```

```

// float <=> int conversion

```

```

(Cvt32to32F ...) => (SCVTFWS ...)
(Cvt32to64F ...) => (SCVTFWD ...)
(Cvt64to32F ...) => (SCVTFS ...)
(Cvt64to64F ...) => (SCVTFD ...)
(Cvt32Uto32F ...) => (UCVTFWS ...)
(Cvt32Uto64F ...) => (UCVTFWD ...)
(Cvt64Uto32F ...) => (UCVTFS ...)
(Cvt64Uto64F ...) => (UCVTFD ...)

```

```
(Cvt32Fto32 ...) => (FCVTZSSW ...)  
(Cvt64Fto32 ...) => (FCVTZSDW  
...)  
(Cvt32Fto64 ...) => (FCVTZSS ...)  
(Cvt64Fto64 ...) => (FCVTZSD ...)  
(Cvt32Fto32U ...) => (FCVTZUSW ...)  
(Cvt64Fto32U ...) => (FCVTZUDW ...)  
(Cvt32Fto64U ...) => (FCVTZUS ...)  
(Cvt64Fto64U ...) => (FCVTZUD ...)  
(Cvt32Fto64F ...) => (FCVTSD ...)  
(Cvt64Fto32F ...) => (FCVTDS ...)
```

```
(CvtBoolToUint8 ...) => (Copy ...)
```

```
(Round32F ...) => (LoweredRound32F ...)  
(Round64F ...) => (LoweredRound64F ...)
```

```
// comparisons
```

```
(Eq8 x y) => (Equal (CMPW (ZeroExt8to32 x) (ZeroExt8to32 y)))  
(Eq16 x y) => (Equal (CMPW (ZeroExt16to32 x) (ZeroExt16to32 y)))  
(Eq32 x y) => (Equal (CMPW x y))  
(Eq64 x y) => (Equal (CMP x y))  
(EqPtr x y) => (Equal (CMP x y))  
(Eq32F x y) => (Equal (FCMPS x y))  
(Eq64F x y) => (Equal (FCMPD x y))
```

```
(Neq8 x y) => (NotEqual (CMPW (ZeroExt8to32 x) (ZeroExt8to32 y)))  
(Neq16 x y) => (NotEqual (CMPW (ZeroExt16to32 x) (ZeroExt16to32 y)))  
(Neq32 x y) => (NotEqual (CMPW x y))  
(Neq64 x y) => (NotEqual (CMP x y))  
(NeqPtr x y) => (NotEqual (CMP x y))  
(Neq32F x y) => (NotEqual (FCMPS x y))  
(Neq64F  
x y) => (NotEqual (FCMPD x y))
```

```
(Less8 x y) => (LessThan (CMPW (SignExt8to32 x) (SignExt8to32 y)))  
(Less16 x y) => (LessThan (CMPW (SignExt16to32 x) (SignExt16to32 y)))  
(Less32 x y) => (LessThan (CMPW x y))  
(Less64 x y) => (LessThan (CMP x y))
```

```
// Set condition flags for floating-point comparisons "x < y"  
// and "x <= y". Because if either or both of the operands are  
// NaNs, all three of (x < y), (x == y) and (x > y) are false,  
// and ARM Manual says FCMP instruction sets PSTATE.<N,Z,C,V>  
// of this case to (0, 0, 1, 1).
```

```
(Less32F x y) => (LessThanF (FCMPS x y))  
(Less64F x y) => (LessThanF (FCMPD x y))
```

```

// For an unsigned integer x, the following rules are useful when combining branch
// 0 < x => x != 0
// x <= 0 => x == 0
// x < 1 => x == 0
// 1 <= x => x != 0
(Less(8U|16U|32U|64U) zero:(MOVDconst [0]) x) => (Neq(8|16|32|64) zero x)
(Leq(8U|16U|32U|64U) x zero:(MOVDconst [0])) => (Eq(8|16|32|64) x zero)
(Less(8U|16U|32U|64U) x (MOVDconst [1])) => (Eq(8|16|32|64) x
(MOVDconst [0]))
(Leq(8U|16U|32U|64U) (MOVDconst [1]) x) => (Neq(8|16|32|64) (MOVDconst [0]) x)

(Less8U x y) => (LessThanU (CMPW (ZeroExt8to32 x) (ZeroExt8to32 y)))
(Less16U x y) => (LessThanU (CMPW (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Less32U x y) => (LessThanU (CMPW x y))
(Less64U x y) => (LessThanU (CMP x y))

(Leq8 x y) => (LessEqual (CMPW (SignExt8to32 x) (SignExt8to32 y)))
(Leq16 x y) => (LessEqual (CMPW (SignExt16to32 x) (SignExt16to32 y)))
(Leq32 x y) => (LessEqual (CMPW x y))
(Leq64 x y) => (LessEqual (CMP x y))

// Refer to the comments for op Less64F above.
(Leq32F x y) => (LessEqualF (FCMPS x y))
(Leq64F x y) => (LessEqualF (FCMPD x y))

(Leq8U x y) => (LessEqualU (CMPW (ZeroExt8to32 x) (ZeroExt8to32 y)))
(Leq16U x y) => (LessEqualU (CMPW (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Leq32U x y) => (LessEqualU (CMPW x y))
(Leq64U x y) => (LessEqualU (CMP x y))

// Optimize comparison between a floating-point value and 0.0 with "FCMP $(0.0), Fn"
(FCMPS x (FMOVScnst [0])) =>
(FCMPS0 x)
(FCMPS (FMOVScnst [0]) x) => (InvertFlags (FCMPS0 x))
(FCMPD x (FMOVDconst [0])) => (FCMPD0 x)
(FCMPD (FMOVDconst [0]) x) => (InvertFlags (FCMPD0 x))

// CSEL needs a flag-generating argument. Synthesize a TSTW if necessary.
(CondSelect x y boolval) && flagArg(boolval) != nil => (CSEL [boolval.Op] x y flagArg(boolval))
(CondSelect x y boolval) && flagArg(boolval) == nil => (CSEL [OpARM64NotEqual] x y (TSTWconst [1]
boolval))

(OffPtr [off] ptr:(SP)) && is32Bit(off) => (MOVDaddr [int32(off)] ptr)
(OffPtr [off] ptr) => (ADDconst [off] ptr)

(Addr {sym} base) => (MOVDaddr {sym} base)
(LocalAddr {sym} base _) => (MOVDaddr {sym} base)

```

```

// loads
(Load <tr> ptr mem) && t.IsBoolean() => (MOVBUload ptr mem)
(Load <tr> ptr mem) && (is8BitInt(t) && isSigned(t)) => (MOVBLload ptr mem)
(Load <tr> ptr mem) && (is8BitInt(t) && !isSigned(t)) => (MOVBUload ptr mem)
(Load <tr> ptr mem) && (is16BitInt(t) && isSigned(t)) => (MOVHLload ptr mem)
(Load <tr> ptr mem) && (is16BitInt(t) && !isSigned(t))
=> (MOVHULload ptr mem)
(Load <tr> ptr mem) && (is32BitInt(t) && isSigned(t)) => (MOVWLload ptr mem)
(Load <tr> ptr mem) && (is32BitInt(t) && !isSigned(t)) => (MOVWULload ptr mem)
(Load <tr> ptr mem) && (is64BitInt(t) || isPtr(t)) => (MOVDload ptr mem)
(Load <tr> ptr mem) && is32BitFloat(t) => (FMOVSLload ptr mem)
(Load <tr> ptr mem) && is64BitFloat(t) => (FMOVDload ptr mem)

// stores
(Store {t} ptr val mem) && t.Size() == 1 => (MOVBSstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 2 => (MOVHStore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && !is32BitFloat(val.Type) => (MOVWstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 8 && !is64BitFloat(val.Type) => (MOVDstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && is32BitFloat(val.Type) => (FMOVSSstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 8 && is64BitFloat(val.Type) => (FMOVDstore ptr val mem)

// zeroing
(Zero [0] _ mem) => mem
(Zero [1] ptr mem) => (MOVBSstore ptr (MOVDconst [0]) mem)
(Zero
[2] ptr mem) => (MOVHStore ptr (MOVDconst [0]) mem)
(Zero [4] ptr mem) => (MOVWstore ptr (MOVDconst [0]) mem)
(Zero [8] ptr mem) => (MOVDstore ptr (MOVDconst [0]) mem)

(Zero [3] ptr mem) =>
(MOVBSstore [2] ptr (MOVDconst [0])
(MOVHStore ptr (MOVDconst [0]) mem))
(Zero [5] ptr mem) =>
(MOVBSstore [4] ptr (MOVDconst [0])
(MOVWstore ptr (MOVDconst [0]) mem))
(Zero [6] ptr mem) =>
(MOVHStore [4] ptr (MOVDconst [0])
(MOVWstore ptr (MOVDconst [0]) mem))
(Zero [7] ptr mem) =>
(MOVBSstore [6] ptr (MOVDconst [0])
(MOVHStore [4] ptr (MOVDconst [0])
(MOVWstore ptr (MOVDconst [0]) mem)))
(Zero [9] ptr mem) =>
(MOVBSstore [8] ptr (MOVDconst [0])
(MOVDstore ptr (MOVDconst [0]) mem))
(Zero [10] ptr mem) =>
(MOVHStore [8] ptr (MOVDconst [0])
(MOVDstore ptr (MOVDconst [0]) mem))

```

```

(Zero [11] ptr mem) =>
(MOVBstore [10] ptr (MOVDconst [0])
 (MOVHstore [8] ptr (MOVDconst [0])
  (MOVDstore ptr (MOVDconst [0]) mem)))
(Zero [12] ptr mem) =>
(MOVWstore [8] ptr (MOVDconst [0])
 (MOVDstore
 ptr (MOVDconst [0]) mem))
(Zero [13] ptr mem) =>
(MOVBstore [12] ptr (MOVDconst [0])
 (MOVWstore [8] ptr (MOVDconst [0])
  (MOVDstore ptr (MOVDconst [0]) mem)))
(Zero [14] ptr mem) =>
(MOVHstore [12] ptr (MOVDconst [0])
 (MOVWstore [8] ptr (MOVDconst [0])
  (MOVDstore ptr (MOVDconst [0]) mem)))
(Zero [15] ptr mem) =>
(MOVBstore [14] ptr (MOVDconst [0])
 (MOVHstore [12] ptr (MOVDconst [0])
  (MOVWstore [8] ptr (MOVDconst [0])
   (MOVDstore ptr (MOVDconst [0]) mem))))
(Zero [16] ptr mem) =>
(STP [0] ptr (MOVDconst [0]) (MOVDconst [0]) mem)

(Zero [32] ptr mem) =>
(STP [16] ptr (MOVDconst [0]) (MOVDconst [0])
 (STP [0] ptr (MOVDconst [0]) (MOVDconst [0]) mem))

(Zero [48] ptr mem) =>
(STP [32] ptr (MOVDconst [0]) (MOVDconst [0])
 (STP [16] ptr (MOVDconst [0]) (MOVDconst [0])
  (STP [0] ptr (MOVDconst [0]) (MOVDconst [0]) mem)))

(Zero [64] ptr mem) =>
(STP [48] ptr (MOVDconst [0]) (MOVDconst [0])
 (STP [32] ptr (MOVDconst [0]) (MOVDconst [0])
  (STP [16] ptr (MOVDconst
 [0]) (MOVDconst [0])
  (STP [0] ptr (MOVDconst [0]) (MOVDconst [0]) mem))))

// strip off fractional word zeroing
(Zero [s] ptr mem) && s%16 != 0 && s%16 <= 8 && s > 16 =>
(Zero [8]
 (OffPtr <ptr.Type> ptr [s-8])
 (Zero [s-s%16] ptr mem))
(Zero [s] ptr mem) && s%16 != 0 && s%16 > 8 && s > 16 =>
(Zero [16]
 (OffPtr <ptr.Type> ptr [s-16])

```

```

(Zero [s-s%16] ptr mem))

// medium zeroing uses a duff device
// 4, 16, and 64 are magic constants, see runtime/mkduff.go
(Zero [s] ptr mem)
&& s%16 == 0 && s > 64 && s <= 16*64
&& !config.noDuffDevice =>
(DUFFZERO [4 * (64 - s/16)] ptr mem)

// large zeroing uses a loop
(Zero [s] ptr mem)
&& s%16 == 0 && (s > 16*64 || config.noDuffDevice) =>
(LoweredZero
 ptr
 (ADDconst <ptr.Type> [s-16] ptr)
 mem)

// moves
(Move [0] _ _ mem) => mem
(Move [1] dst src mem) => (MOVBstore dst (MOVBUload src mem) mem)
(Move [2] dst src mem) => (MOVHstore dst (MOVHUload src mem) mem)
(Move [4] dst src mem) => (MOVWstore dst (MOVWUload src mem) mem)
(Move
 [8] dst src mem) => (MOVDstore dst (MOVDload src mem) mem)

(Move [3] dst src mem) =>
(MOVBstore [2] dst (MOVBUload [2] src mem)
 (MOVHstore dst (MOVHUload src mem) mem))
(Move [5] dst src mem) =>
(MOVBstore [4] dst (MOVBUload [4] src mem)
 (MOVWstore dst (MOVWUload src mem) mem))
(Move [6] dst src mem) =>
(MOVHstore [4] dst (MOVHUload [4] src mem)
 (MOVWstore dst (MOVWUload src mem) mem))
(Move [7] dst src mem) =>
(MOVBstore [6] dst (MOVBUload [6] src mem)
 (MOVHstore [4] dst (MOVHUload [4] src mem)
 (MOVWstore dst (MOVWUload src mem) mem)))
(Move [12] dst src mem) =>
(MOVWstore [8] dst (MOVWUload [8] src mem)
 (MOVDstore dst (MOVDload src mem) mem))
(Move [16] dst src mem) =>
(MOVDstore [8] dst (MOVDload [8] src mem)
 (MOVDstore dst (MOVDload src mem) mem))
(Move [24] dst src mem) =>
(MOVDstore [16] dst (MOVDload [16] src mem)
 (MOVDstore [8] dst (MOVDload [8] src mem)
 (MOVDstore dst (MOVDload src mem) mem)))

```

```

// strip off fractional word move
(Move [s] dst src mem)
&& s%8 != 0 && s > 8 =>
(Move [s%8]
 (OffPtr <dst.Type> dst [s-s%8])
 (OffPtr <src.Type> src [s-s%8])
 (Move [s-s%8] dst src mem))

// medium move uses a duff device
(Move [s] dst src mem)
&& s > 32 && s <= 16*64 && s%16 == 8
&& !config.noDuffDevice && logLargeCopy(v, s) =>
(MOVDstore [int32(s-8)] dst (MOVDload [int32(s-8)] src mem)
 (DUFFCOPY <types.TypeMem> [8*(64-(s-8)/16)] dst src mem))
(Move [s] dst src mem)
&& s > 32 && s <= 16*64 && s%16 == 0
&& !config.noDuffDevice && logLargeCopy(v, s) =>
(DUFFCOPY [8 * (64 - s/16)] dst src mem)
// 8 is the number of bytes to encode:
//
// LDP.P 16(R16), (R26, R27)
// STP.P (R26, R27), 16(R17)
//
// 64 is number of these blocks. See runtime/duff_arm64.s:duffcopy

// large move uses a loop
(Move [s] dst src mem)
&& s > 24 && s%8 == 0 && logLargeCopy(v, s) =>
(LoweredMove
 dst
 src
 (ADDconst <src.Type> src [s-8])
 mem)

// calls
(StaticCall ...) => (CALLstatic ...)
(ClosureCall ...) => (CALLclosure ...)
(InterCall ...)
=> (CALLinter ...)
(TailCall ...) => (CALLtail ...)

// checks
(NilCheck ...) => (LoweredNilCheck ...)
(IsNotNil ptr) => (NotEqual (CMPconst [0] ptr))
(IsInBounds idx len) => (LessThanU (CMP idx len))
(IsSliceInBounds idx len) => (LessEqualU (CMP idx len))

```



```

// pseudo-ops
(GetClosurePtr ...) => (LoweredGetClosurePtr ...)
(GetCallerSP ...) => (LoweredGetCallerSP ...)
(GetCallerPC ...) => (LoweredGetCallerPC ...)

// Absorb pseudo-ops into blocks.
(If (Equal cc) yes no) => (EQ cc yes no)
(If (NotEqual cc) yes no) => (NE cc yes no)
(If (LessThan cc) yes no) => (LT cc yes no)
(If (LessThanU cc) yes no) => (ULT cc yes no)
(If (LessEqual cc) yes no) => (LE cc yes no)
(If (LessEqualU cc) yes no) => (ULE cc yes no)
(If (GreaterThan cc) yes no) => (GT cc yes no)
(If (GreaterThanU cc) yes no) => (UGT cc yes no)
(If (GreaterEqual cc) yes no) => (GE cc yes no)
(If (GreaterEqualU cc) yes no) => (UGE cc yes no)
(If (LessThanF cc) yes no) => (FLT cc yes no)
(If (LessEqualF cc) yes no) => (FLE cc yes no)
(If
  (GreaterThanF cc) yes no) => (FGT cc yes no)
(If (GreaterEqualF cc) yes no) => (FGE cc yes no)

(If cond yes no) => (TBNZ [0] cond yes no)

(JumpTable idx) => (JUMPTABLE {makeJumpTableSym(b)} idx (MOVDaddr <typ.Uintptr>
{makeJumpTableSym(b)} (SB)))

// atomic intrinsics
// Note: these ops do not accept offset.
(AtomicLoad8 ...) => (LDARB ...)
(AtomicLoad32 ...) => (LDARW ...)
(AtomicLoad64 ...) => (LDAR ...)
(AtomicLoadPtr ...) => (LDAR ...)

(AtomicStore8 ...) => (STLRB ...)
(AtomicStore32 ...) => (STLRW ...)
(AtomicStore64 ...) => (STLR ...)
(AtomicStorePtrNoWB ...) => (STLR ...)

(AtomicExchange(32|64) ...) => (LoweredAtomicExchange(32|64) ...)
(AtomicAdd(32|64) ...) => (LoweredAtomicAdd(32|64) ...)
(AtomicCompareAndSwap(32|64) ...) => (LoweredAtomicCas(32|64) ...)

(AtomicAdd(32|64)Variant ...) => (LoweredAtomicAdd(32|64)Variant ...)
(AtomicExchange(32|64)Variant ...) => (LoweredAtomicExchange(32|64)Variant ...)
(AtomicCompareAndSwap(32|64)Variant
...) => (LoweredAtomicCas(32|64)Variant ...)

```

```

// Currently the updated value is not used, but we need a register to temporarily hold it.
(AtomicAnd8 ptr val mem) => (Select1 (LoweredAtomicAnd8 ptr val mem))
(AtomicAnd32 ptr val mem) => (Select1 (LoweredAtomicAnd32 ptr val mem))
(AtomicOr8 ptr val mem) => (Select1 (LoweredAtomicOr8 ptr val mem))
(AtomicOr32 ptr val mem) => (Select1 (LoweredAtomicOr32 ptr val mem))

(AtomicAnd8Variant ptr val mem) => (Select1 (LoweredAtomicAnd8Variant ptr val mem))
(AtomicAnd32Variant ptr val mem) => (Select1 (LoweredAtomicAnd32Variant ptr val mem))
(AtomicOr8Variant ptr val mem) => (Select1 (LoweredAtomicOr8Variant ptr val mem))
(AtomicOr32Variant ptr val mem) => (Select1 (LoweredAtomicOr32Variant ptr val mem))

// Write barrier.
(WB ...) => (LoweredWB ...)

// Publication barrier (0xe is ST option)
(PubBarrier mem) => (DMB [0xe] mem)

(PanicBounds [kind] x y mem) && boundsABI(kind) == 0 => (LoweredPanicBoundsA
 [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 1 => (LoweredPanicBoundsB [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 2 => (LoweredPanicBoundsC [kind] x y mem)

// Optimizations

// Absorb boolean tests into block
(NZ (Equal cc) yes no) => (EQ cc yes no)
(NZ (NotEqual cc) yes no) => (NE cc yes no)
(NZ (LessThan cc) yes no) => (LT cc yes no)
(NZ (LessThanU cc) yes no) => (ULT cc yes no)
(NZ (LessEqual cc) yes no) => (LE cc yes no)
(NZ (LessEqualU cc) yes no) => (ULE cc yes no)
(NZ (GreaterThan cc) yes no) => (GT cc yes no)
(NZ (GreaterThanU cc) yes no) => (UGT cc yes no)
(NZ (GreaterEqual cc) yes no) => (GE cc yes no)
(NZ (GreaterEqualU cc) yes no) => (UGE cc yes no)
(NZ (LessThanF cc) yes no) => (FLT cc yes no)
(NZ (LessEqualF cc) yes no) => (FLE cc yes no)
(NZ (GreaterThanF cc) yes no) => (FGT cc yes no)
(NZ (GreaterEqualF cc) yes no) => (FGE cc yes no)

(TBNZ [0] (Equal cc) yes no) => (EQ cc yes no)
(TBNZ [0] (NotEqual cc) yes
no) => (NE cc yes no)
(TBNZ [0] (LessThan cc) yes no) => (LT cc yes no)
(TBNZ [0] (LessThanU cc) yes no) => (ULT cc yes no)
(TBNZ [0] (LessEqual cc) yes no) => (LE cc yes no)
(TBNZ [0] (LessEqualU cc) yes no) => (ULE cc yes no)
(TBNZ [0] (GreaterThan cc) yes no) => (GT cc yes no)

```

(TBNZ [0] (GreaterThanU cc) yes no) => (UGT cc yes no)
(TBNZ [0] (GreaterEqual cc) yes no) => (GE cc yes no)
(TBNZ [0] (GreaterEqualU cc) yes no) => (UGE cc yes no)
(TBNZ [0] (LessThanF cc) yes no) => (FLT cc yes no)
(TBNZ [0] (LessEqualF cc) yes no) => (FLE cc yes no)
(TBNZ [0] (GreaterThanF cc) yes no) => (FGT cc yes no)
(TBNZ [0] (GreaterEqualF cc) yes no) => (FGE cc yes no)

(EQ (CMPWconst [0] x:(ANDconst [c] y)) yes no) && x.Uses == 1 => (EQ (TSTWconst [int32(c)] y) yes no)
(NE (CMPWconst [0] x:(ANDconst [c] y)) yes no) && x.Uses == 1 => (NE (TSTWconst [int32(c)] y) yes no)
(LT (CMPWconst [0] x:(ANDconst [c] y)) yes no) && x.Uses == 1 => (LT (TSTWconst [int32(c)] y) yes no)
(LE (CMPWconst [0] x:(ANDconst
[c] y)) yes no) && x.Uses == 1 => (LE (TSTWconst [int32(c)] y) yes no)
(GT (CMPWconst [0] x:(ANDconst [c] y)) yes no) && x.Uses == 1 => (GT (TSTWconst [int32(c)] y) yes no)
(GE (CMPWconst [0] x:(ANDconst [c] y)) yes no) && x.Uses == 1 => (GE (TSTWconst [int32(c)] y) yes no)

(EQ (CMPconst [0] z:(AND x y)) yes no) && z.Uses == 1 => (EQ (TST x y) yes no)
(NE (CMPconst [0] z:(AND x y)) yes no) && z.Uses == 1 => (NE (TST x y) yes no)
(LT (CMPconst [0] z:(AND x y)) yes no) && z.Uses == 1 => (LT (TST x y) yes no)
(LE (CMPconst [0] z:(AND x y)) yes no) && z.Uses == 1 => (LE (TST x y) yes no)
(GT (CMPconst [0] z:(AND x y)) yes no) && z.Uses == 1 => (GT (TST x y) yes no)
(GE (CMPconst [0] z:(AND x y)) yes no) && z.Uses == 1 => (GE (TST x y) yes no)

(EQ (CMPWconst [0] z:(AND x y)) yes no) && z.Uses == 1 => (EQ (TSTW x y) yes no)
(NE (CMPWconst [0] z:(AND x y)) yes no) && z.Uses == 1 => (NE (TSTW x y) yes no)
(LT (CMPWconst [0] z:(AND x y)) yes no) && z.Uses == 1 => (LT (TSTW x y) yes no)
(LE (CMPWconst
[0] z:(AND x y)) yes no) && z.Uses == 1 => (LE (TSTW x y) yes no)
(GT (CMPWconst [0] z:(AND x y)) yes no) && z.Uses == 1 => (GT (TSTW x y) yes no)
(GE (CMPWconst [0] z:(AND x y)) yes no) && z.Uses == 1 => (GE (TSTW x y) yes no)

(EQ (CMPconst [0] x:(ANDconst [c] y)) yes no) && x.Uses == 1 => (EQ (TSTconst [c] y) yes no)
(NE (CMPconst [0] x:(ANDconst [c] y)) yes no) && x.Uses == 1 => (NE (TSTconst [c] y) yes no)
(LT (CMPconst [0] x:(ANDconst [c] y)) yes no) && x.Uses == 1 => (LT (TSTconst [c] y) yes no)
(LE (CMPconst [0] x:(ANDconst [c] y)) yes no) && x.Uses == 1 => (LE (TSTconst [c] y) yes no)
(GT (CMPconst [0] x:(ANDconst [c] y)) yes no) && x.Uses == 1 => (GT (TSTconst [c] y) yes no)
(GE (CMPconst [0] x:(ANDconst [c] y)) yes no) && x.Uses == 1 => (GE (TSTconst [c] y) yes no)

(EQ (CMPconst [0] x:(ADDconst [c] y)) yes no) && x.Uses == 1 => (EQ (CMNconst [c] y) yes no)
(NE (CMPconst [0] x:(ADDconst [c] y)) yes no) && x.Uses == 1 => (NE (CMNconst [c] y) yes no)
(LT (CMPconst [0]
x:(ADDconst [c] y)) yes no) && x.Uses == 1 => (LTnoov (CMNconst [c] y) yes no)
(LE (CMPconst [0] x:(ADDconst [c] y)) yes no) && x.Uses == 1 => (LEnoov (CMNconst [c] y) yes no)
(GT (CMPconst [0] x:(ADDconst [c] y)) yes no) && x.Uses == 1 => (GTnoov (CMNconst [c] y) yes no)
(GE (CMPconst [0] x:(ADDconst [c] y)) yes no) && x.Uses == 1 => (GEnoov (CMNconst [c] y) yes no)

(EQ (CMPWconst [0] x:(ADDconst [c] y)) yes no) && x.Uses == 1 => (EQ (CMNWconst [int32(c)] y) yes no)
(NE (CMPWconst [0] x:(ADDconst [c] y)) yes no) && x.Uses == 1 => (NE (CMNWconst [int32(c)] y) yes no)

(LT (CMPWconst [0] x:(ADDconst [c] y)) yes no) && x.Uses == 1 => (LTnoov (CMNWconst [int32(c)] y) yes no)
(LE (CMPWconst [0] x:(ADDconst [c] y)) yes no) && x.Uses == 1 => (LEnoov (CMNWconst [int32(c)] y) yes no)
(GT (CMPWconst [0] x:(ADDconst [c] y)) yes no) && x.Uses == 1 => (GTnoov (CMNWconst [int32(c)] y) yes no)
(GE (CMPWconst [0] x:(ADDconst [c] y)) yes no) && x.Uses == 1 => (GENoov (CMNWconst [int32(c)] y) yes no)

(EQ

(CMPconst [0] z:(ADD x y)) yes no) && z.Uses == 1 => (EQ (CMN x y) yes no)
(NE (CMPconst [0] z:(ADD x y)) yes no) && z.Uses == 1 => (NE (CMN x y) yes no)
(LT (CMPconst [0] z:(ADD x y)) yes no) && z.Uses == 1 => (LTnoov (CMN x y) yes no)
(LE (CMPconst [0] z:(ADD x y)) yes no) && z.Uses == 1 => (LEnoov (CMN x y) yes no)
(GT (CMPconst [0] z:(ADD x y)) yes no) && z.Uses == 1 => (GTnoov (CMN x y) yes no)
(GE (CMPconst [0] z:(ADD x y)) yes no) && z.Uses == 1 => (GENoov (CMN x y) yes no)

(EQ (CMPWconst [0] z:(ADD x y)) yes no) && z.Uses == 1 => (EQ (CMNW x y) yes no)
(NE (CMPWconst [0] z:(ADD x y)) yes no) && z.Uses == 1 => (NE (CMNW x y) yes no)
(LT (CMPWconst [0] z:(ADD x y)) yes no) && z.Uses == 1 => (LTnoov (CMNW x y) yes no)
(LE (CMPWconst [0] z:(ADD x y)) yes no) && z.Uses == 1 => (LEnoov (CMNW x y) yes no)
(GT (CMPWconst [0] z:(ADD x y)) yes no) && z.Uses == 1 => (GTnoov (CMNW x y) yes no)
(GE (CMPWconst [0] z:(ADD x y)) yes no) && z.Uses == 1 => (GENoov (CMNW x y) yes no)

// CMP(x,-y)

-> CMN(x,y) is only valid for unordered comparison, if y can be -1<<63

(EQ (CMP x z:(NEG y)) yes no) && z.Uses == 1 => (EQ (CMN x y) yes no)
(NE (CMP x z:(NEG y)) yes no) && z.Uses == 1 => (NE (CMN x y) yes no)

// CMPW(x,-y) -> CMNW(x,y) is only valid for unordered comparison, if y can be -1<<31

(EQ (CMPW x z:(NEG y)) yes no) && z.Uses == 1 => (EQ (CMNW x y) yes no)
(NE (CMPW x z:(NEG y)) yes no) && z.Uses == 1 => (NE (CMNW x y) yes no)

(EQ (CMPconst [0] x) yes no) => (Z x yes no)
(NE (CMPconst [0] x) yes no) => (NZ x yes no)
(EQ (CMPWconst [0] x) yes no) => (ZW x yes no)
(NE (CMPWconst [0] x) yes no) => (NZW x yes no)

(EQ (CMPconst [0] z:(MADD a x y)) yes no) && z.Uses==1 => (EQ (CMN a (MUL <x.Type> x y)) yes no)
(NE (CMPconst [0] z:(MADD a x y)) yes no) && z.Uses==1 => (NE (CMN a (MUL <x.Type> x y)) yes no)
(LT (CMPconst [0] z:(MADD a x y)) yes no) && z.Uses==1 => (LTnoov (CMN a (MUL <x.Type> x y)) yes no)
(LE (CMPconst [0] z:(MADD a x y)) yes no) && z.Uses==1 => (LEnoov
(CMN a (MUL <x.Type> x y)) yes no)
(GT (CMPconst [0] z:(MADD a x y)) yes no) && z.Uses==1 => (GTnoov (CMN a (MUL <x.Type> x y)) yes no)
(GE (CMPconst [0] z:(MADD a x y)) yes no) && z.Uses==1 => (GENoov (CMN a (MUL <x.Type> x y)) yes no)

(EQ (CMPconst [0] z:(MSUB a x y)) yes no) && z.Uses==1 => (EQ (CMP a (MUL <x.Type> x y)) yes no)
(NE (CMPconst [0] z:(MSUB a x y)) yes no) && z.Uses==1 => (NE (CMP a (MUL <x.Type> x y)) yes no)
(LE (CMPconst [0] z:(MSUB a x y)) yes no) && z.Uses==1 => (LEnoov (CMP a (MUL <x.Type> x y)) yes no)
(LT (CMPconst [0] z:(MSUB a x y)) yes no) && z.Uses==1 => (LTnoov (CMP a (MUL <x.Type> x y)) yes no)

```

(GE (CMPconst [0] z:(MSUB a x y)) yes no) && z.Uses==1 => (GEnoov (CMP a (MUL <x.Type> x y)) yes no)
(GT (CMPconst [0] z:(MSUB a x y)) yes no) && z.Uses==1 => (GTnoov (CMP a (MUL <x.Type> x y)) yes no)

(EQ (CMPWconst [0] z:(MADDW a x y)) yes no) && z.Uses==1 => (EQ (CMNW a (MULW <x.Type> x y)) yes
no)
(NE (CMPWconst [0] z:(MADDW a x y)) yes no) && z.Uses==1
=> (NE (CMNW a (MULW <x.Type> x y)) yes no)
(LE (CMPWconst [0] z:(MADDW a x y)) yes no) && z.Uses==1 => (LEnoov (CMNW a (MULW <x.Type> x y))
yes no)
(LT (CMPWconst [0] z:(MADDW a x y)) yes no) && z.Uses==1 => (LTnoov (CMNW a (MULW <x.Type> x y))
yes no)
(GE (CMPWconst [0] z:(MADDW a x y)) yes no) && z.Uses==1 => (GEnoov (CMNW a (MULW <x.Type> x y))
yes no)
(GT (CMPWconst [0] z:(MADDW a x y)) yes no) && z.Uses==1 => (GTnoov (CMNW a (MULW <x.Type> x y))
yes no)

(EQ (CMPWconst [0] z:(MSUBW a x y)) yes no) && z.Uses==1 => (EQ (CMPW a (MULW <x.Type> x y)) yes
no)
(NE (CMPWconst [0] z:(MSUBW a x y)) yes no) && z.Uses==1 => (NE (CMPW a (MULW <x.Type> x y)) yes
no)
(LE (CMPWconst [0] z:(MSUBW a x y)) yes no) && z.Uses==1 => (LEnoov (CMPW a (MULW <x.Type> x y))
yes no)
(LT (CMPWconst [0] z:(MSUBW a x y)) yes no) && z.Uses==1 => (LTnoov (CMPW a (MULW <x.Type> x y))
yes no)
(GE (CMPWconst [0] z:(MSUBW a x y)) yes no) && z.Uses==1 => (GEnoov (CMPW a (MULW <x.Type> x y))
yes no)
(GT (CMPWconst
[0] z:(MSUBW a x y)) yes no) && z.Uses==1 => (GTnoov (CMPW a (MULW <x.Type> x y)) yes no)

// Absorb bit-tests into block
(Z (ANDconst [c] x) yes no) && oneBit(c) => (TBZ [int64(ntz64(c))] x yes no)
(NZ (ANDconst [c] x) yes no) && oneBit(c) => (TBNZ [int64(ntz64(c))] x yes no)
(ZW (ANDconst [c] x) yes no) && oneBit(int64(uint32(c))) => (TBZ [int64(ntz64(int64(uint32(c))))] x yes no)
(NZW (ANDconst [c] x) yes no) && oneBit(int64(uint32(c))) => (TBNZ [int64(ntz64(int64(uint32(c))))] x yes no)
(EQ (TSTconst [c] x) yes no) && oneBit(c) => (TBZ [int64(ntz64(c))] x yes no)
(NE (TSTconst [c] x) yes no) && oneBit(c) => (TBNZ [int64(ntz64(c))] x yes no)
(EQ (TSTWconst [c] x) yes no) && oneBit(int64(uint32(c))) => (TBZ [int64(ntz64(int64(uint32(c))))] x yes no)
(NE (TSTWconst [c] x) yes no) && oneBit(int64(uint32(c))) => (TBNZ [int64(ntz64(int64(uint32(c))))] x yes no)

// Test sign-bit for signed comparisons against zero
(GE (CMPWconst [0] x) yes no) => (TBZ [31] x yes no)
(GE (CMPconst
[0] x) yes no) => (TBZ [63] x yes no)
(LT (CMPWconst [0] x) yes no) => (TBNZ [31] x yes no)
(LT (CMPconst [0] x) yes no) => (TBNZ [63] x yes no)

// fold offset into address
(ADDconst [off1] (MOVDaddr [off2] {sym} ptr)) && is32Bit(off1+int64(off2)) =>

```

(MOVDaddr [int32(off1)+off2] {sym} ptr)

// fold address into load/store

```
(MOVBload [off1] {sym} (ADDconst [off2] ptr mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVBload [off1+int32(off2)] {sym} ptr mem)
(MOVBUload [off1] {sym} (ADDconst [off2] ptr mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVBUload [off1+int32(off2)] {sym} ptr mem)
(MOVHload [off1] {sym} (ADDconst [off2] ptr mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVHload [off1+int32(off2)] {sym} ptr mem)
(MOVHUload [off1] {sym} (ADDconst [off2] ptr mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVHUload
[off1+int32(off2)] {sym} ptr mem)
(MOVWload [off1] {sym} (ADDconst [off2] ptr mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVWload [off1+int32(off2)] {sym} ptr mem)
(MOVWUload [off1] {sym} (ADDconst [off2] ptr mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVWUload [off1+int32(off2)] {sym} ptr mem)
(MOVDload [off1] {sym} (ADDconst [off2] ptr mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVDload [off1+int32(off2)] {sym} ptr mem)
(FMOVSload [off1] {sym} (ADDconst [off2] ptr mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(FMOVSload [off1+int32(off2)] {sym} ptr mem)
(FMOVDload [off1] {sym} (ADDconst [off2] ptr mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(FMOVDload [off1+int32(off2)] {sym} ptr mem)
```

// register indexed load

```
(MOVDload [off] {sym} (ADD ptr idx) mem) && off
== 0 && sym == nil => (MOVDloadidx ptr idx mem)
(MOVWUload [off] {sym} (ADD ptr idx) mem) && off == 0 && sym == nil => (MOVWUloadidx ptr idx mem)
(MOVWload [off] {sym} (ADD ptr idx) mem) && off == 0 && sym == nil => (MOVWloadidx ptr idx mem)
(MOVHUload [off] {sym} (ADD ptr idx) mem) && off == 0 && sym == nil => (MOVHUloadidx ptr idx mem)
(MOVHload [off] {sym} (ADD ptr idx) mem) && off == 0 && sym == nil => (MOVHloadidx ptr idx mem)
(MOVBUload [off] {sym} (ADD ptr idx) mem) && off == 0 && sym == nil => (MOVBUloadidx ptr idx mem)
(MOVBload [off] {sym} (ADD ptr idx) mem) && off == 0 && sym == nil => (MOVBloadidx ptr idx mem)
(FMOVSload [off] {sym} (ADD ptr idx) mem) && off == 0 && sym == nil => (FMOVSloadidx ptr idx mem)
(FMOVDload [off] {sym} (ADD ptr idx) mem) && off == 0 && sym == nil => (FMOVDloadidx ptr idx mem)
(MOVDloadidx ptr (MOVDconst [c]) mem) && is32Bit(c) => (MOVDload [int32(c)] ptr mem)
(MOVDloadidx (MOVDconst [c]) ptr mem) && is32Bit(c) => (MOVDload [int32(c)] ptr
mem)
(MOVWUloadidx ptr (MOVDconst [c]) mem) && is32Bit(c) => (MOVWUload [int32(c)] ptr mem)
(MOVWUloadidx (MOVDconst [c]) ptr mem) && is32Bit(c) => (MOVWUload [int32(c)] ptr mem)
```

```

(MOVWloadidx ptr (MOVDconst [c] mem) && is32Bit(c) => (MOVWload [int32(c)] ptr mem)
(MOVWloadidx (MOVDconst [c]) ptr mem) && is32Bit(c) => (MOVWload [int32(c)] ptr mem)
(MOVHUloadidx ptr (MOVDconst [c] mem) && is32Bit(c) => (MOVHUload [int32(c)] ptr mem)
(MOVHUloadidx (MOVDconst [c]) ptr mem) && is32Bit(c) => (MOVHUload [int32(c)] ptr mem)
(MOVHloadidx ptr (MOVDconst [c] mem) && is32Bit(c) => (MOVHload [int32(c)] ptr mem)
(MOVHloadidx (MOVDconst [c]) ptr mem) && is32Bit(c) => (MOVHload [int32(c)] ptr mem)
(MOVBUloadidx ptr (MOVDconst [c] mem) && is32Bit(c) => (MOVBUload [int32(c)] ptr mem)
(MOVBUloadidx (MOVDconst [c]) ptr mem) && is32Bit(c) => (MOVBUload [int32(c)] ptr mem)
(MOVBlloadidx ptr (MOVDconst [c] mem) && is32Bit(c) => (MOVBlload [int32(c)] ptr mem)
(MOVBlloadidx (MOVDconst [c]) ptr mem)
&& is32Bit(c) => (MOVBlload [int32(c)] ptr mem)
(FMOVSloadidx ptr (MOVDconst [c] mem) && is32Bit(c) => (FMOVSload [int32(c)] ptr mem)
(FMOVSloadidx (MOVDconst [c]) ptr mem) && is32Bit(c) => (FMOVSload [int32(c)] ptr mem)
(FMOVDloadidx ptr (MOVDconst [c] mem) && is32Bit(c) => (FMOVDload [int32(c)] ptr mem)
(FMOVDloadidx (MOVDconst [c]) ptr mem) && is32Bit(c) => (FMOVDload [int32(c)] ptr mem)

// shifted register indexed load
(MOVDload [off] {sym} (ADDshiftLL [3] ptr idx) mem) && off == 0 && sym == nil => (MOVDloadidx8 ptr idx
mem)
(MOVWUload [off] {sym} (ADDshiftLL [2] ptr idx) mem) && off == 0 && sym == nil => (MOVWUloadidx4 ptr
idx mem)
(MOVWload [off] {sym} (ADDshiftLL [2] ptr idx) mem) && off == 0 && sym == nil => (MOVWloadidx4 ptr
idx mem)
(MOVHUload [off] {sym} (ADDshiftLL [1] ptr idx) mem) && off == 0 && sym == nil => (MOVHUloadidx2 ptr
idx mem)
(MOVHload [off] {sym} (ADDshiftLL [1] ptr idx) mem) && off == 0 && sym == nil => (MOVHloadidx2 ptr idx
mem)
(MOVDloadidx ptr (SLLconst
[3] idx) mem) => (MOVDloadidx8 ptr idx mem)
(MOVWloadidx ptr (SLLconst [2] idx) mem) => (MOVWloadidx4 ptr idx mem)
(MOVWUloadidx ptr (SLLconst [2] idx) mem) => (MOVWUloadidx4 ptr idx mem)
(MOVHloadidx ptr (SLLconst [1] idx) mem) => (MOVHloadidx2 ptr idx mem)
(MOVHUloadidx ptr (SLLconst [1] idx) mem) => (MOVHUloadidx2 ptr idx mem)
(MOVHloadidx ptr (ADD idx idx) mem) => (MOVHloadidx2 ptr idx mem)
(MOVHUloadidx ptr (ADD idx idx) mem) => (MOVHUloadidx2 ptr idx mem)
(MOVDloadidx (SLLconst [3] idx) ptr mem) => (MOVDloadidx8 ptr idx mem)
(MOVWloadidx (SLLconst [2] idx) ptr mem) => (MOVWloadidx4 ptr idx mem)
(MOVWUloadidx (SLLconst [2] idx) ptr mem) => (MOVWUloadidx4 ptr idx mem)
(MOVHloadidx (ADD idx idx) ptr mem) => (MOVHloadidx2 ptr idx mem)
(MOVHUloadidx (ADD idx idx) ptr mem) => (MOVHUloadidx2 ptr idx mem)
(MOVDloadidx8 ptr (MOVDconst [c] mem) && is32Bit(c<<3) => (MOVDload [int32(c)<<3] ptr mem)
(MOVWUloadidx4 ptr (MOVDconst [c] mem) && is32Bit(c<<2) => (MOVWUload [int32(c)<<2]
ptr mem)
(MOVWloadidx4 ptr (MOVDconst [c] mem) && is32Bit(c<<2) => (MOVWload [int32(c)<<2] ptr mem)
(MOVHUloadidx2 ptr (MOVDconst [c] mem) && is32Bit(c<<1) => (MOVHUload [int32(c)<<1] ptr mem)
(MOVHloadidx2 ptr (MOVDconst [c] mem) && is32Bit(c<<1) => (MOVHload [int32(c)<<1] ptr mem)

(FMOVDload [off] {sym} (ADDshiftLL [3] ptr idx) mem) && off == 0 && sym == nil => (FMOVDloadidx8 ptr

```

```

idx mem)
(FMOVSlod [off] {sym} (ADDshiftLL [2] ptr idx) mem) && off == 0 && sym == nil => (FMOVSlodidx4 ptr
idx mem)
(FMOVDloadidx ptr (SLLconst [3] idx) mem) => (FMOVDloadidx8 ptr idx mem)
(FMOVSlodidx ptr (SLLconst [2] idx) mem) => (FMOVSlodidx4 ptr idx mem)
(FMOVDloadidx (SLLconst [3] idx) ptr mem) => (FMOVDloadidx8 ptr idx mem)
(FMOVSlodidx (SLLconst [2] idx) ptr mem) => (FMOVSlodidx4 ptr idx mem)
(FMOVDloadidx8 ptr (MOVDconst [c]) mem) && is32Bit(c<<3) => (FMOVDload ptr [int32(c)<<3] mem)
(FMOVSlodidx4 ptr (MOVDconst [c]) mem) && is32Bit(c<<2) => (FMOVSlod ptr [int32(c)<<2] mem)

```

(MOVBstore

```

[off1] {sym} (ADDconst [off2] ptr) val mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVBstore [off1+int32(off2)] {sym} ptr val mem)
(MOVHstore [off1] {sym} (ADDconst [off2] ptr) val mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVHstore [off1+int32(off2)] {sym} ptr val mem)
(MOVWstore [off1] {sym} (ADDconst [off2] ptr) val mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVWstore [off1+int32(off2)] {sym} ptr val mem)
(MOVDstore [off1] {sym} (ADDconst [off2] ptr) val mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVDstore [off1+int32(off2)] {sym} ptr val mem)
(STP [off1] {sym} (ADDconst [off2] ptr) val1 val2 mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(STP [off1+int32(off2)] {sym} ptr val1 val2 mem)
(FMOVStore [off1] {sym} (ADDconst [off2] ptr) val mem) && is32Bit(int64(off1)+off2)
&&
(ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(FMOVStore [off1+int32(off2)] {sym} ptr val mem)
(FMOVDstore [off1] {sym} (ADDconst [off2] ptr) val mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(FMOVDstore [off1+int32(off2)] {sym} ptr val mem)
(MOVBstorezero [off1] {sym} (ADDconst [off2] ptr) mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVBstorezero [off1+int32(off2)] {sym} ptr mem)
(MOVHstorezero [off1] {sym} (ADDconst [off2] ptr) mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVHstorezero [off1+int32(off2)] {sym} ptr mem)
(MOVWstorezero [off1] {sym} (ADDconst [off2] ptr) mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVWstorezero [off1+int32(off2)] {sym} ptr mem)
(MOVDstorezero [off1] {sym} (ADDconst [off2] ptr) mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVDstorezero
[off1+int32(off2)] {sym} ptr mem)
(MOVQstorezero [off1] {sym} (ADDconst [off2] ptr) mem) && is32Bit(int64(off1)+off2)
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>

```



```

(MOVQstorezero [off1+int32(off2)] {sym} ptr mem)

// register indexed store
(MOVDstore [off] {sym} (ADD ptr idx) val mem) && off == 0 && sym == nil => (MOVDstoreidx ptr idx val mem)
(MOVWstore [off] {sym} (ADD ptr idx) val mem) && off == 0 && sym == nil => (MOVWstoreidx ptr idx val mem)
(MOVHstore [off] {sym} (ADD ptr idx) val mem) && off == 0 && sym == nil => (MOVHstoreidx ptr idx val mem)
(MOVBstore [off] {sym} (ADD ptr idx) val mem) && off == 0 && sym == nil => (MOVBstoreidx ptr idx val mem)
(FMOVDstore [off] {sym} (ADD ptr idx) val mem) && off == 0 && sym == nil => (FMOVDstoreidx ptr idx val mem)
(FMOVSstore [off] {sym} (ADD ptr idx) val mem) && off == 0 && sym == nil => (FMOVSstoreidx ptr idx val mem)
(MOVDstoreidx ptr (MOVDconst [c]) val mem) && is32Bit(c) => (MOVDstore [int32(c)] ptr val mem)
(MOVDstoreidx
(MOVDconst [c]) idx val mem) && is32Bit(c) => (MOVDstore [int32(c)] idx val mem)
(MOVWstoreidx ptr (MOVDconst [c]) val mem) && is32Bit(c) => (MOVWstore [int32(c)] ptr val mem)
(MOVWstoreidx (MOVDconst [c]) idx val mem) && is32Bit(c) => (MOVWstore [int32(c)] idx val mem)
(MOVHstoreidx ptr (MOVDconst [c]) val mem) && is32Bit(c) => (MOVHstore [int32(c)] ptr val mem)
(MOVHstoreidx (MOVDconst [c]) idx val mem) && is32Bit(c) => (MOVHstore [int32(c)] idx val mem)
(MOVBstoreidx ptr (MOVDconst [c]) val mem) && is32Bit(c) => (MOVBstore [int32(c)] ptr val mem)
(MOVBstoreidx (MOVDconst [c]) idx val mem) && is32Bit(c) => (MOVBstore [int32(c)] idx val mem)
(FMOVDstoreidx ptr (MOVDconst [c]) val mem) && is32Bit(c) => (FMOVDstore [int32(c)] ptr val mem)
(FMOVDstoreidx (MOVDconst [c]) idx val mem) && is32Bit(c) => (FMOVDstore [int32(c)] idx val mem)
(FMOVSstoreidx ptr (MOVDconst [c]) val mem) && is32Bit(c) => (FMOVSstore [int32(c)] ptr val mem)
(FMOVSstoreidx (MOVDconst [c]) idx val mem) &&
is32Bit(c) => (FMOVSstore [int32(c)] idx val mem)

// shifted register indexed store
(MOVDstore [off] {sym} (ADDshiftLL [3] ptr idx) val mem) && off == 0 && sym == nil => (MOVDstoreidx8 ptr idx val mem)
(MOVWstore [off] {sym} (ADDshiftLL [2] ptr idx) val mem) && off == 0 && sym == nil => (MOVWstoreidx4 ptr idx val mem)
(MOVHstore [off] {sym} (ADDshiftLL [1] ptr idx) val mem) && off == 0 && sym == nil => (MOVHstoreidx2 ptr idx val mem)
(MOVDstoreidx ptr (SLLconst [3] idx) val mem) => (MOVDstoreidx8 ptr idx val mem)
(MOVWstoreidx ptr (SLLconst [2] idx) val mem) => (MOVWstoreidx4 ptr idx val mem)
(MOVHstoreidx ptr (SLLconst [1] idx) val mem) => (MOVHstoreidx2 ptr idx val mem)
(MOVHstoreidx ptr (ADD idx idx) val mem) => (MOVHstoreidx2 ptr idx val mem)
(MOVDstoreidx (SLLconst [3] idx) ptr val mem) => (MOVDstoreidx8 ptr idx val mem)
(MOVWstoreidx (SLLconst [2] idx) ptr val mem) => (MOVWstoreidx4 ptr idx val mem)
(MOVHstoreidx (SLLconst [1] idx) ptr val mem) => (MOVHstoreidx2 ptr idx val mem)
(MOVHstoreidx
(ADD idx idx) ptr val mem) => (MOVHstoreidx2 ptr idx val mem)
(MOVDstoreidx8 ptr (MOVDconst [c]) val mem) && is32Bit(c<<3) => (MOVDstore [int32(c)<<3] ptr val mem)
(MOVWstoreidx4 ptr (MOVDconst [c]) val mem) && is32Bit(c<<2) => (MOVWstore [int32(c)<<2] ptr val mem)

```



```

[off1] {sym1} (MOVDaddr [off2] {sym2} ptr mem)
&& canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2))
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(FMOVDload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)

(MOVBstore [off1] {sym1} (MOVDaddr [off2] {sym2} ptr) val mem)
&& canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2))
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVBstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(MOVHstore [off1] {sym1} (MOVDaddr [off2] {sym2} ptr) val mem)
&& canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2))
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVHstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(MOVWstore [off1] {sym1} (MOVDaddr [off2] {sym2} ptr) val mem)
&& canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2))
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVWstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(MOVDstore [off1] {sym1} (MOVDaddr [off2] {sym2} ptr) val mem)
&& canMergeSym(sym1,sym2)
&& is32Bit(int64(off1)+int64(off2))
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVDstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(STP [off1] {sym1} (MOVDaddr [off2] {sym2} ptr) val1 val2 mem)
&& canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2))
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(STP [off1+off2] {mergeSym(sym1,sym2)} ptr val1 val2 mem)
(FMOVStore [off1] {sym1} (MOVDaddr [off2] {sym2} ptr) val mem)
&& canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2))
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(FMOVStore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(FMOVDstore [off1] {sym1} (MOVDaddr [off2] {sym2} ptr) val mem)
&& canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2))
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(FMOVDstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(MOVBstorezero [off1] {sym1} (MOVDaddr [off2] {sym2} ptr) mem)
&& canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2))
&&
(ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVBstorezero [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVHstorezero [off1] {sym1} (MOVDaddr [off2] {sym2} ptr) mem)
&& canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2))
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVHstorezero [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVWstorezero [off1] {sym1} (MOVDaddr [off2] {sym2} ptr) mem)
&& canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2))
&& (ptr.Op != OpSB || !config.ctxst.Flag_shared) =>
(MOVWstorezero [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVDstorezero [off1] {sym1} (MOVDaddr [off2] {sym2} ptr) mem)

```

```

&& canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2))
&& (ptr.Op != OpSB || !config.ctx.Flag_shared) =>
(MOVDstorezero [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVQstorezero [off1] {sym1} (MOVDaddr [off2] {sym2} ptr) mem)
&& canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2))
&& (ptr.Op != OpSB || !config.ctx.Flag_shared)
=>
(MOVQstorezero [off1+off2] {mergeSym(sym1,sym2)} ptr mem)

// store zero
(MOVBstore [off] {sym} ptr (MOVDconst [0]) mem) => (MOVBstorezero [off] {sym} ptr mem)
(MOVHstore [off] {sym} ptr (MOVDconst [0]) mem) => (MOVHstorezero [off] {sym} ptr mem)
(MOVWstore [off] {sym} ptr (MOVDconst [0]) mem) => (MOVWstorezero [off] {sym} ptr mem)
(MOVDstore [off] {sym} ptr (MOVDconst [0]) mem) => (MOVDstorezero [off] {sym} ptr mem)
(STP [off] {sym} ptr (MOVDconst [0]) (MOVDconst [0]) mem) => (MOVQstorezero [off] {sym} ptr mem)

// register indexed store zero
(MOVDstorezero [off] {sym} (ADD ptr idx) mem) && off == 0 && sym == nil => (MOVDstorezeroidx ptr idx
mem)
(MOVWstorezero [off] {sym} (ADD ptr idx) mem) && off == 0 && sym == nil => (MOVWstorezeroidx ptr idx
mem)
(MOVHstorezero [off] {sym} (ADD ptr idx) mem) && off == 0 && sym == nil => (MOVHstorezeroidx ptr idx
mem)
(MOVBstorezero [off] {sym} (ADD ptr idx) mem) && off == 0 && sym == nil => (MOVBstorezeroidx ptr idx
mem)
(MOVDstoreidx ptr
idx (MOVDconst [0]) mem) => (MOVDstorezeroidx ptr idx mem)
(MOVWstoreidx ptr idx (MOVDconst [0]) mem) => (MOVWstorezeroidx ptr idx mem)
(MOVHstoreidx ptr idx (MOVDconst [0]) mem) => (MOVHstorezeroidx ptr idx mem)
(MOVBstoreidx ptr idx (MOVDconst [0]) mem) => (MOVBstorezeroidx ptr idx mem)
(MOVDstorezeroidx ptr (MOVDconst [c]) mem) && is32Bit(c) => (MOVDstorezero [int32(c)] ptr mem)
(MOVDstorezeroidx (MOVDconst [c]) idx mem) && is32Bit(c) => (MOVDstorezero [int32(c)] idx mem)
(MOVWstorezeroidx ptr (MOVDconst [c]) mem) && is32Bit(c) => (MOVWstorezero [int32(c)] ptr mem)
(MOVWstorezeroidx (MOVDconst [c]) idx mem) && is32Bit(c) => (MOVWstorezero [int32(c)] idx mem)
(MOVHstorezeroidx ptr (MOVDconst [c]) mem) && is32Bit(c) => (MOVHstorezero [int32(c)] ptr mem)
(MOVHstorezeroidx (MOVDconst [c]) idx mem) && is32Bit(c) => (MOVHstorezero [int32(c)] idx mem)
(MOVBstorezeroidx ptr (MOVDconst [c]) mem) && is32Bit(c) => (MOVBstorezero [int32(c)] ptr mem)
(MOVBstorezeroidx (MOVDconst [c]) idx mem) &&
is32Bit(c) => (MOVBstorezero [int32(c)] idx mem)

// shifted register indexed store zero
(MOVDstorezero [off] {sym} (ADDshiftLL [3] ptr idx) mem) && off == 0 && sym == nil =>
(MOVDstorezeroidx8 ptr idx mem)
(MOVWstorezero [off] {sym} (ADDshiftLL [2] ptr idx) mem) && off == 0 && sym == nil =>
(MOVWstorezeroidx4 ptr idx mem)
(MOVHstorezero [off] {sym} (ADDshiftLL [1] ptr idx) mem) && off == 0 && sym == nil =>
(MOVHstorezeroidx2 ptr idx mem)
(MOVDstorezeroidx ptr (SLLconst [3] idx) mem) => (MOVDstorezeroidx8 ptr idx mem)

```

```

(MOVWstorezeroidx ptr (SLLconst [2] idx) mem) => (MOVWstorezeroidx4 ptr idx mem)
(MOVHstorezeroidx ptr (SLLconst [1] idx) mem) => (MOVHstorezeroidx2 ptr idx mem)
(MOVHstorezeroidx ptr (ADD idx idx) mem) => (MOVHstorezeroidx2 ptr idx mem)
(MOVDstorezeroidx (SLLconst [3] idx) ptr mem) => (MOVDstorezeroidx8 ptr idx mem)
(MOVWstorezeroidx (SLLconst [2] idx) ptr mem) => (MOVWstorezeroidx4 ptr idx mem)
(MOVHstorezeroidx (SLLconst [1] idx) ptr mem) => (MOVHstorezeroidx2 ptr idx
mem)
(MOVHstorezeroidx (ADD idx idx) ptr mem) => (MOVHstorezeroidx2 ptr idx mem)
(MOVDstoreidx8 ptr idx (MOVDconst [0]) mem) => (MOVDstorezeroidx8 ptr idx mem)
(MOVWstoreidx4 ptr idx (MOVDconst [0]) mem) => (MOVWstorezeroidx4 ptr idx mem)
(MOVHstoreidx2 ptr idx (MOVDconst [0]) mem) => (MOVHstorezeroidx2 ptr idx mem)
(MOVDstorezeroidx8 ptr (MOVDconst [c]) mem) && is32Bit(c<<3) => (MOVDstorezero [int32(c<<3)] ptr mem)
(MOVWstorezeroidx4 ptr (MOVDconst [c]) mem) && is32Bit(c<<2) => (MOVWstorezero [int32(c<<2)] ptr mem)
(MOVHstorezeroidx2 ptr (MOVDconst [c]) mem) && is32Bit(c<<1) => (MOVHstorezero [int32(c<<1)] ptr mem)

```

// replace load from same location as preceding store with zero/sign extension (or copy in case of full width)

// these seem to have bad interaction with other rules, resulting in slower code

```

//(MOVBload [off] {sym} ptr (MOVBstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) -> (MOVBreg x)
//(MOVBUload [off] {sym} ptr (MOVBstore [off2] {sym2}
ptr2 x _) && sym == sym2 && off == off2 && isSamePtr(ptr, ptr2) -> (MOVBUreg x)
//(MOVHload [off] {sym} ptr (MOVHstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) -> (MOVHreg x)
//(MOVHUload [off] {sym} ptr (MOVHstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) -> (MOVHUreg x)
//(MOVWload [off] {sym} ptr (MOVWstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) -> (MOVWreg x)
//(MOVWUload [off] {sym} ptr (MOVWstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) -> (MOVWUreg x)
//(MOVDload [off] {sym} ptr (MOVDstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) -> x
//(FMOVSload [off] {sym} ptr (FMOVSstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) -> x
//(FMOVDload [off] {sym} ptr (FMOVDstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) -> x

```

(MOVBload

```

[off] {sym} ptr (MOVBstorezero [off2] {sym2} ptr2 _) && sym == sym2 && off == off2 && isSamePtr(ptr,
ptr2) => (MOVDconst [0])

```

```

(MOVBUload [off] {sym} ptr (MOVBstorezero [off2] {sym2} ptr2 _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVDconst [0])

```

```

(MOVHload [off] {sym} ptr (MOVHstorezero [off2] {sym2} ptr2 _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVDconst [0])

```

```

(MOVHUload [off] {sym} ptr (MOVHstorezero [off2] {sym2} ptr2 _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVDconst [0])

```

```

(MOVWload [off] {sym} ptr (MOVWstorezero [off2] {sym2} ptr2 _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVDconst [0])

```

```

(MOVWUload [off] {sym} ptr (MOVWstorezero [off2] {sym2} ptr2 _) && sym == sym2 && off == off2 &&

```

```
isSamePtr(ptr, ptr2) => (MOVDconst [0])
(MOVDload [off] {sym} ptr (MOVDstorezero [off2] {sym2} ptr2 _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVDconst [0])
```

```
(MOVBloadidx ptr idx (MOVBstorezeroidx ptr2
idx2 _))
&& (isSamePtr(ptr, ptr2) && isSamePtr(idx, idx2) || isSamePtr(ptr, idx2) && isSamePtr(idx, ptr2)) =>
(MOVDconst [0])
(MOVBUloadidx ptr idx (MOVBstorezeroidx ptr2 idx2 _))
&& (isSamePtr(ptr, ptr2) && isSamePtr(idx, idx2) || isSamePtr(ptr, idx2) && isSamePtr(idx, ptr2)) =>
(MOVDconst [0])
(MOVHloadidx ptr idx (MOVHstorezeroidx ptr2 idx2 _))
&& (isSamePtr(ptr, ptr2) && isSamePtr(idx, idx2) || isSamePtr(ptr, idx2) && isSamePtr(idx, ptr2)) =>
(MOVDconst [0])
(MOVHUloadidx ptr idx (MOVHstorezeroidx ptr2 idx2 _))
&& (isSamePtr(ptr, ptr2) && isSamePtr(idx, idx2) || isSamePtr(ptr, idx2) && isSamePtr(idx, ptr2)) =>
(MOVDconst [0])
(MOVWloadidx ptr idx (MOVWstorezeroidx ptr2 idx2 _))
&& (isSamePtr(ptr, ptr2) && isSamePtr(idx, idx2) || isSamePtr(ptr, idx2) && isSamePtr(idx, ptr2)) =>
(MOVDconst [0])
(MOVWUloadidx ptr idx (MOVWstorezeroidx ptr2 idx2 _))
&& (isSamePtr(ptr, ptr2) && isSamePtr(idx, idx2) || isSamePtr(ptr, idx2) && isSamePtr(idx, ptr2)) =>
(MOVDconst [0])
(MOVDloadidx
ptr idx (MOVDstorezeroidx ptr2 idx2 _))
&& (isSamePtr(ptr, ptr2) && isSamePtr(idx, idx2) || isSamePtr(ptr, idx2) && isSamePtr(idx, ptr2)) =>
(MOVDconst [0])
```

```
(MOVHloadidx2 ptr idx (MOVHstorezeroidx2 ptr2 idx2 _)) && isSamePtr(ptr, ptr2) && isSamePtr(idx, idx2) =>
(MOVDconst [0])
(MOVHUloadidx2 ptr idx (MOVHstorezeroidx2 ptr2 idx2 _)) && isSamePtr(ptr, ptr2) && isSamePtr(idx, idx2) =>
(MOVDconst [0])
(MOVWloadidx4 ptr idx (MOVWstorezeroidx4 ptr2 idx2 _)) && isSamePtr(ptr, ptr2) && isSamePtr(idx, idx2) =>
(MOVDconst [0])
(MOVWUloadidx4 ptr idx (MOVWstorezeroidx4 ptr2 idx2 _)) && isSamePtr(ptr, ptr2) && isSamePtr(idx, idx2)
=> (MOVDconst [0])
(MOVDloadidx8 ptr idx (MOVDstorezeroidx8 ptr2 idx2 _)) && isSamePtr(ptr, ptr2) && isSamePtr(idx, idx2) =>
(MOVDconst [0])
```

```
// don't extend after proper load
(MOVBreg x:(MOVBload _ _)) => (MOVDreg x)
(MOVBUreg x:(MOVBUload _ _)) => (MOVDreg x)
(MOVHreg x:(MOVBload _ _)) => (MOVDreg x)
(MOVHreg x:(MOVBUload _ _)) => (MOVDreg x)
(MOVHreg x:(MOVHload
_ _)) => (MOVDreg x)
(MOVHUreg x:(MOVBUload _ _)) => (MOVDreg x)
(MOVHUreg x:(MOVHUload _ _)) => (MOVDreg x)
```

```

(MOVWreg x:(MOVBlload __)) => (MOVDreg x)
(MOVWreg x:(MOVBUload __)) => (MOVDreg x)
(MOVWreg x:(MOVHload __)) => (MOVDreg x)
(MOVWreg x:(MOVHUload __)) => (MOVDreg x)
(MOVWreg x:(MOVWload __)) => (MOVDreg x)
(MOVWUreg x:(MOVBUload __)) => (MOVDreg x)
(MOVWUreg x:(MOVHUload __)) => (MOVDreg x)
(MOVWUreg x:(MOVWUload __)) => (MOVDreg x)
(MOVBreg x:(MOVBlloadidx __ __)) => (MOVDreg x)
(MOVBUreg x:(MOVBUloadidx __ __)) => (MOVDreg x)
(MOVHreg x:(MOVBlloadidx __ __)) => (MOVDreg x)
(MOVHreg x:(MOVBUloadidx __ __)) => (MOVDreg x)
(MOVHreg x:(MOVHloadidx __ __)) => (MOVDreg x)
(MOVHUreg x:(MOVBUloadidx __ __)) => (MOVDreg x)
(MOVHUreg x:(MOVHUloadidx __ __)) => (MOVDreg x)
(MOVWreg x:(MOVBlloadidx __ __)) => (MOVDreg x)
(MOVWreg x:(MOVBUloadidx __ __)) => (MOVDreg x)
(MOVWreg x:(MOVHloadidx __ __)) => (MOVDreg x)
(MOVWreg x:(MOVHUloadidx __ __)) => (MOVDreg x)
(MOVWreg x:(MOVWloadidx
__ __)) => (MOVDreg x)
(MOVWUreg x:(MOVBUloadidx __ __)) => (MOVDreg x)
(MOVWUreg x:(MOVHUloadidx __ __)) => (MOVDreg x)
(MOVWUreg x:(MOVWUloadidx __ __)) => (MOVDreg x)
(MOVHreg x:(MOVHloadidx2 __ __)) => (MOVDreg x)
(MOVHUreg x:(MOVHUloadidx2 __ __)) => (MOVDreg x)
(MOVWreg x:(MOVHloadidx2 __ __)) => (MOVDreg x)
(MOVWreg x:(MOVHUloadidx2 __ __)) => (MOVDreg x)
(MOVWreg x:(MOVWloadidx4 __ __)) => (MOVDreg x)
(MOVWUreg x:(MOVHUloadidx2 __ __)) => (MOVDreg x)
(MOVWUreg x:(MOVWUloadidx4 __ __)) => (MOVDreg x)

// fold double extensions
(MOVBreg x:(MOVBreg __)) => (MOVDreg x)
(MOVBUreg x:(MOVBUreg __)) => (MOVDreg x)
(MOVHreg x:(MOVBreg __)) => (MOVDreg x)
(MOVHreg x:(MOVBUreg __)) => (MOVDreg x)
(MOVHreg x:(MOVHreg __)) => (MOVDreg x)
(MOVHUreg x:(MOVBUreg __)) => (MOVDreg x)
(MOVHUreg x:(MOVHUreg __)) => (MOVDreg x)
(MOVWreg x:(MOVBreg __)) => (MOVDreg x)
(MOVWreg x:(MOVBUreg __)) => (MOVDreg x)
(MOVWreg x:(MOVHreg __)) => (MOVDreg x)
(MOVWreg x:(MOVWreg __)) => (MOVDreg x)
(MOVWUreg x:(MOVBUreg
__)) => (MOVDreg x)
(MOVWUreg x:(MOVHUreg __)) => (MOVDreg x)
(MOVWUreg x:(MOVWUreg __)) => (MOVDreg x)

```

```

// don't extend before store
(MOVBstore [off] {sym} ptr (MOVBreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVBUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVHreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVHUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVWreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVWUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVHreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVHUreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVWreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVWUreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVWstore [off] {sym} ptr (MOVWreg x) mem) => (MOVWstore
[off] {sym} ptr x mem)
(MOVWstore [off] {sym} ptr (MOVWUreg x) mem) => (MOVWstore [off] {sym} ptr x mem)
(MOVBstoreidx ptr idx (MOVBreg x) mem) => (MOVBstoreidx ptr idx x mem)
(MOVBstoreidx ptr idx (MOVBUreg x) mem) => (MOVBstoreidx ptr idx x mem)
(MOVBstoreidx ptr idx (MOVHreg x) mem) => (MOVBstoreidx ptr idx x mem)
(MOVBstoreidx ptr idx (MOVHUreg x) mem) => (MOVBstoreidx ptr idx x mem)
(MOVBstoreidx ptr idx (MOVWreg x) mem) => (MOVBstoreidx ptr idx x mem)
(MOVBstoreidx ptr idx (MOVWUreg x) mem) => (MOVBstoreidx ptr idx x mem)
(MOVHstoreidx ptr idx (MOVHreg x) mem) => (MOVHstoreidx ptr idx x mem)
(MOVHstoreidx ptr idx (MOVHUreg x) mem) => (MOVHstoreidx ptr idx x mem)
(MOVHstoreidx ptr idx (MOVWreg x) mem) => (MOVHstoreidx ptr idx x mem)
(MOVHstoreidx ptr idx (MOVWUreg x) mem) => (MOVHstoreidx ptr idx x mem)
(MOVWstoreidx ptr idx (MOVWreg x) mem) => (MOVWstoreidx ptr idx x mem)
(MOVWstoreidx ptr idx (MOVWUreg x) mem) => (MOVWstoreidx ptr idx x mem)
(MOVHstoreidx2 ptr idx (MOVHreg
x) mem) => (MOVHstoreidx2 ptr idx x mem)
(MOVHstoreidx2 ptr idx (MOVHUreg x) mem) => (MOVHstoreidx2 ptr idx x mem)
(MOVHstoreidx2 ptr idx (MOVWreg x) mem) => (MOVHstoreidx2 ptr idx x mem)
(MOVHstoreidx2 ptr idx (MOVWUreg x) mem) => (MOVHstoreidx2 ptr idx x mem)
(MOVWstoreidx4 ptr idx (MOVWreg x) mem) => (MOVWstoreidx4 ptr idx x mem)
(MOVWstoreidx4 ptr idx (MOVWUreg x) mem) => (MOVWstoreidx4 ptr idx x mem)

// if a register move has only 1 use, just use the same register without emitting instruction
// MOVDnop doesn't emit instruction, only for ensuring the type.
(MOVDreg x) && x.Uses == 1 => (MOVDnop x)

// TODO: we should be able to get rid of MOVDnop all together.
// But for now, this is enough to get rid of lots of them.
(MOVDnop (MOVDconst [c])) => (MOVDconst [c])

// fold constant into arithmetic ops
(ADD x (MOVDconst [c])) => (ADDconst [c] x)
(SUB x (MOVDconst [c])) => (SUBconst [c] x)
(AND x (MOVDconst [c])) => (ANDconst [c] x)
(OR x (MOVDconst [c])) => (ORconst [c] x)

```



```

(XOR
x (MOVDconst [c])) => (XORconst [c] x)
(TST x (MOVDconst [c])) => (TSTconst [c] x)
(TSTW x (MOVDconst [c])) => (TSTWconst [int32(c)] x)
(CMN x (MOVDconst [c])) => (CMNconst [c] x)
(CMNW x (MOVDconst [c])) => (CMNWconst [int32(c)] x)
(BIC x (MOVDconst [c])) => (ANDconst [^c] x)
(EON x (MOVDconst [c])) => (XORconst [^c] x)
(ORN x (MOVDconst [c])) => (ORconst [^c] x)

(SLL x (MOVDconst [c])) => (SLLconst x [c&63]) // Note: I don't think we ever generate bad constant shifts (i.e.
c>=64)
(SRL x (MOVDconst [c])) => (SRLconst x [c&63])
(SRA x (MOVDconst [c])) => (SRAconst x [c&63])

(CMP x (MOVDconst [c])) => (CMPconst [c] x)
(CMP (MOVDconst [c] x) => (InvertFlags (CMPconst [c] x))
(CMPW x (MOVDconst [c])) => (CMPWconst [int32(c)] x)
(CMPW (MOVDconst [c] x) => (InvertFlags (CMPWconst [int32(c)] x))

(ROR x (MOVDconst [c])) => (RORconst x [c&63])
(RORW x (MOVDconst [c])) => (RORWconst x [c&31])

// Canonicalize the order of arguments to comparisons - helps with CSE.
((CMP|CMPW) x y) && canonLessThan(x,y)
=> (InvertFlags ((CMP|CMPW) y x))

// mul-neg => mneg
(NEG (MUL x y)) => (MNEG x y)
(NEG (MULW x y)) => (MNEGW x y)
(MUL (NEG x) y) => (MNEG x y)
(MULW (NEG x) y) => (MNEGW x y)

// madd/msub
(ADD a l:(MUL x y)) && l.Uses==1 && clobber(l) => (MADD a x y)
(SUB a l:(MUL x y)) && l.Uses==1 && clobber(l) => (MSUB a x y)
(ADD a l:(MNEG x y)) && l.Uses==1 && clobber(l) => (MSUB a x y)
(SUB a l:(MNEGW x y)) && l.Uses==1 && clobber(l) => (MADD a x y)

(ADD a l:(MULW x y)) && a.Type.Size() != 8 && l.Uses==1 && clobber(l) => (MADDW a x y)
(SUB a l:(MULW x y)) && a.Type.Size() != 8 && l.Uses==1 && clobber(l) => (MSUBW a x y)
(ADD a l:(MNEGW x y)) && a.Type.Size() != 8 && l.Uses==1 && clobber(l) => (MSUBW a x y)
(SUB a l:(MNEGW x y)) && a.Type.Size() != 8 && l.Uses==1 && clobber(l) => (MADDW a x y)

// optimize ADCSflags, SBCSflags and friends
(ADCSflags x y (Select1 <types.TypeFlags> (ADDSconstflags [-1] (ADCzerocarry <typ.UInt64> c)))) =>
(ADCSflags x y c)
(ADCSflags x y (Select1

```

```

<types.TypeFlags> (ADDSconstflags [-1] (MOVDconst [0]))) => (ADDSflags x y)
(SBCSflags x y (Select1 <types.TypeFlags> (NEGSflags (NEG <typ.UInt64> (NGCzerocarry <typ.UInt64> bo))))))
=> (SBCSflags x y bo)
(SBCSflags x y (Select1 <types.TypeFlags> (NEGSflags (MOVDconst [0]))) => (SUBSflags x y)

// mul by constant
(MUL x (MOVDconst [-1])) => (NEG x)
(MUL _ (MOVDconst [0])) => (MOVDconst [0])
(MUL x (MOVDconst [1])) => x
(MUL x (MOVDconst [c])) && isPowerOfTwo64(c) => (SLLconst [log64(c)] x)
(MUL x (MOVDconst [c])) && isPowerOfTwo64(c-1) && c >= 3 => (ADDshiftLL x x [log64(c-1)])
(MUL x (MOVDconst [c])) && isPowerOfTwo64(c+1) && c >= 7 => (ADDshiftLL (NEG <x.Type> x) x
[log64(c+1)])
(MUL x (MOVDconst [c])) && c%3 == 0 && isPowerOfTwo64(c/3) => (SLLconst [log64(c/3)] (ADDshiftLL
<x.Type> x x [1]))
(MUL x (MOVDconst [c])) && c%5 == 0 && isPowerOfTwo64(c/5) => (SLLconst [log64(c/5)] (ADDshiftLL
<x.Type> x x [2]))
(MUL x (MOVDconst [c])) && c%7 == 0 && isPowerOfTwo64(c/7) => (SLLconst [log64(c/7)]
(ADDshiftLL <x.Type> (NEG <x.Type> x) x [3]))
(MUL x (MOVDconst [c])) && c%9 == 0 && isPowerOfTwo64(c/9) => (SLLconst [log64(c/9)] (ADDshiftLL
<x.Type> x x [3]))

(MULW x (MOVDconst [c])) && int32(c)==-1 => (NEG x)
(MULW _ (MOVDconst [c])) && int32(c)==0 => (MOVDconst [0])
(MULW x (MOVDconst [c])) && int32(c)==1 => x
(MULW x (MOVDconst [c])) && isPowerOfTwo64(c) => (SLLconst [log64(c)] x)
(MULW x (MOVDconst [c])) && isPowerOfTwo64(c-1) && int32(c) >= 3 => (ADDshiftLL x x [log64(c-1)])
(MULW x (MOVDconst [c])) && isPowerOfTwo64(c+1) && int32(c) >= 7 => (ADDshiftLL (NEG <x.Type> x) x
[log64(c+1)])
(MULW x (MOVDconst [c])) && c%3 == 0 && isPowerOfTwo64(c/3) && is32Bit(c) => (SLLconst [log64(c/3)]
(ADDshiftLL <x.Type> x x [1]))
(MULW x (MOVDconst [c])) && c%5 == 0 && isPowerOfTwo64(c/5) && is32Bit(c) => (SLLconst [log64(c/5)]
(ADDshiftLL <x.Type> x x [2]))
(MULW x (MOVDconst [c])) && c%7 == 0 && isPowerOfTwo64(c/7) && is32Bit(c) => (SLLconst [log64(c/7)]
(ADDshiftLL <x.Type> (NEG
<x.Type> x) x [3]))
(MULW x (MOVDconst [c])) && c%9 == 0 && isPowerOfTwo64(c/9) && is32Bit(c) => (SLLconst [log64(c/9)]
(ADDshiftLL <x.Type> x x [3]))

// mneg by constant
(MNEG x (MOVDconst [-1])) => x
(MNEG _ (MOVDconst [0])) => (MOVDconst [0])
(MNEG x (MOVDconst [1])) => (NEG x)
(MNEG x (MOVDconst [c])) && isPowerOfTwo64(c) => (NEG (SLLconst <x.Type> [log64(c)] x))
(MNEG x (MOVDconst [c])) && isPowerOfTwo64(c-1) && c >= 3 => (NEG (ADDshiftLL <x.Type> x x
[log64(c-1)]))
(MNEG x (MOVDconst [c])) && isPowerOfTwo64(c+1) && c >= 7 => (NEG (ADDshiftLL <x.Type> (NEG
<x.Type> x) x [log64(c+1)]))

```

(MNEG x (MOVDconst [c])) && c%3 == 0 && isPowerOfTwo64(c/3) => (SLLconst <x.Type> [log64(c/3)]
 (SUBshiftLL <x.Type> x x [2]))
 (MNEG x (MOVDconst [c])) && c%5 == 0 && isPowerOfTwo64(c/5) => (NEG (SLLconst <x.Type> [log64(c/5)]
 (ADDshiftLL <x.Type> x x [2])))
 (MNEG x (MOVDconst [c])) && c%7 == 0 && isPowerOfTwo64(c/7) => (SLLconst <x.Type> [log64(c/7)]
 (SUBshiftLL <x.Type> x x [3]))
 (MNEG x (MOVDconst
 [c])) && c%9 == 0 && isPowerOfTwo64(c/9) => (NEG (SLLconst <x.Type> [log64(c/9)] (ADDshiftLL <x.Type>
 x x [3])))

(MNEGW x (MOVDconst [c])) && int32(c)==-1 => x
 (MNEGW _ (MOVDconst [c])) && int32(c)==0 => (MOVDconst [0])
 (MNEGW x (MOVDconst [c])) && int32(c)==1 => (NEG x)
 (MNEGW x (MOVDconst [c])) && isPowerOfTwo64(c) => (NEG (SLLconst <x.Type> [log64(c)] x))
 (MNEGW x (MOVDconst [c])) && isPowerOfTwo64(c-1) && int32(c) >= 3 => (NEG (ADDshiftLL <x.Type> x x
 [log64(c-1)]))
 (MNEGW x (MOVDconst [c])) && isPowerOfTwo64(c+1) && int32(c) >= 7 => (NEG (ADDshiftLL <x.Type>
 (NEG <x.Type> x) x [log64(c+1)]))
 (MNEGW x (MOVDconst [c])) && c%3 == 0 && isPowerOfTwo64(c/3) && is32Bit(c) => (SLLconst <x.Type>
 [log64(c/3)] (SUBshiftLL <x.Type> x x [2]))
 (MNEGW x (MOVDconst [c])) && c%5 == 0 && isPowerOfTwo64(c/5) && is32Bit(c) => (NEG (SLLconst
 <x.Type> [log64(c/5)] (ADDshiftLL <x.Type> x x [2])))
 (MNEGW x (MOVDconst [c])) && c%7 == 0 && isPowerOfTwo64(c/7) && is32Bit(c) => (SLLconst <x.Type>
 [log64(c/7)]
 (SUBshiftLL <x.Type> x x [3]))
 (MNEGW x (MOVDconst [c])) && c%9 == 0 && isPowerOfTwo64(c/9) && is32Bit(c) => (NEG (SLLconst
 <x.Type> [log64(c/9)] (ADDshiftLL <x.Type> x x [3])))

(MADD a x (MOVDconst [-1])) => (SUB a x)
 (MADD a _ (MOVDconst [0])) => a
 (MADD a x (MOVDconst [1])) => (ADD a x)
 (MADD a x (MOVDconst [c])) && isPowerOfTwo64(c) => (ADDshiftLL a x [log64(c)])
 (MADD a x (MOVDconst [c])) && isPowerOfTwo64(c-1) && c>=3 => (ADD a (ADDshiftLL <x.Type> x x
 [log64(c-1)]))
 (MADD a x (MOVDconst [c])) && isPowerOfTwo64(c+1) && c>=7 => (SUB a (SUBshiftLL <x.Type> x x
 [log64(c+1)]))
 (MADD a x (MOVDconst [c])) && c%3 == 0 && isPowerOfTwo64(c/3) => (SUBshiftLL a (SUBshiftLL
 <x.Type> x x [2]) [log64(c/3)])
 (MADD a x (MOVDconst [c])) && c%5 == 0 && isPowerOfTwo64(c/5) => (ADDshiftLL a (ADDshiftLL
 <x.Type> x x [2]) [log64(c/5)])
 (MADD a x (MOVDconst [c])) && c%7 == 0 && isPowerOfTwo64(c/7) => (SUBshiftLL a (SUBshiftLL
 <x.Type> x x [3]) [log64(c/7)])
 (MADD a x (MOVDconst [c])) && c%9 ==
 0 && isPowerOfTwo64(c/9) => (ADDshiftLL a (ADDshiftLL <x.Type> x x [3]) [log64(c/9)])

(MADD a (MOVDconst [-1]) x) => (SUB a x)

```

(MADD a (MOVDconst [0]) _) => a
(MADD a (MOVDconst [1]) x) => (ADD a x)
(MADD a (MOVDconst [c]) x) && isPowerOfTwo64(c) => (ADDshiftLL a x [log64(c)])
(MADD a (MOVDconst [c]) x) && isPowerOfTwo64(c-1) && c>=3 => (ADD a (ADDshiftLL <x.Type> x x
[log64(c-1)]))
(MADD a (MOVDconst [c]) x) && isPowerOfTwo64(c+1) && c>=7 => (SUB a (SUBshiftLL <x.Type> x x
[log64(c+1)]))
(MADD a (MOVDconst [c]) x) && c%3 == 0 && isPowerOfTwo64(c/3) => (SUBshiftLL a (SUBshiftLL
<x.Type> x x [2]) [log64(c/3)])
(MADD a (MOVDconst [c]) x) && c%5 == 0 && isPowerOfTwo64(c/5) => (ADDshiftLL a (ADDshiftLL
<x.Type> x x [2]) [log64(c/5)])
(MADD a (MOVDconst [c]) x) && c%7 == 0 && isPowerOfTwo64(c/7) => (SUBshiftLL a (SUBshiftLL
<x.Type> x x [3]) [log64(c/7)])
(MADD a (MOVDconst [c]) x) && c%9 == 0 && isPowerOfTwo64(c/9) => (ADDshiftLL a (ADDshiftLL
<x.Type> x x [3]) [log64(c/9)])

(MADDW a x
(MOVDconst [c]) && int32(c)===-1 => (SUB a x)
(MADDW a _ (MOVDconst [c]) && int32(c)===0 => a
(MADDW a x (MOVDconst [c]) && int32(c)===1 => (ADD a x)
(MADDW a x (MOVDconst [c]) && isPowerOfTwo64(c) => (ADDshiftLL a x [log64(c)])
(MADDW a x (MOVDconst [c]) && isPowerOfTwo64(c-1) && int32(c)>=3 => (ADD a (ADDshiftLL <x.Type>
x x [log64(c-1)]))
(MADDW a x (MOVDconst [c]) && isPowerOfTwo64(c+1) && int32(c)>=7 => (SUB a (SUBshiftLL <x.Type>
x x [log64(c+1)]))
(MADDW a x (MOVDconst [c]) && c%3 == 0 && isPowerOfTwo64(c/3) && is32Bit(c) => (SUBshiftLL a
(SUBshiftLL <x.Type> x x [2]) [log64(c/3)])
(MADDW a x (MOVDconst [c]) && c%5 == 0 && isPowerOfTwo64(c/5) && is32Bit(c) => (ADDshiftLL a
(ADDshiftLL <x.Type> x x [2]) [log64(c/5)])
(MADDW a x (MOVDconst [c]) && c%7 == 0 && isPowerOfTwo64(c/7) && is32Bit(c) => (SUBshiftLL a
(SUBshiftLL <x.Type> x x [3]) [log64(c/7)])
(MADDW a x (MOVDconst [c]) && c%9 == 0 && isPowerOfTwo64(c/9) && is32Bit(c) => (ADDshiftLL a
(ADDshiftLL <x.Type> x x [3])
[log64(c/9)])

(MADDW a (MOVDconst [c]) x) && int32(c)===-1 => (SUB a x)
(MADDW a (MOVDconst [c]) _) && int32(c)===0 => a
(MADDW a (MOVDconst [c]) x) && int32(c)===1 => (ADD a x)
(MADDW a (MOVDconst [c]) x) && isPowerOfTwo64(c) => (ADDshiftLL a x [log64(c)])
(MADDW a (MOVDconst [c]) x) && isPowerOfTwo64(c-1) && int32(c)>=3 => (ADD a (ADDshiftLL <x.Type>
x x [log64(c-1)]))
(MADDW a (MOVDconst [c]) x) && isPowerOfTwo64(c+1) && int32(c)>=7 => (SUB a (SUBshiftLL <x.Type>
x x [log64(c+1)]))
(MADDW a (MOVDconst [c]) x) && c%3 == 0 && isPowerOfTwo64(c/3) && is32Bit(c) => (SUBshiftLL a
(SUBshiftLL <x.Type> x x [2]) [log64(c/3)])
(MADDW a (MOVDconst [c]) x) && c%5 == 0 && isPowerOfTwo64(c/5) && is32Bit(c) => (ADDshiftLL a
(ADDshiftLL <x.Type> x x [2]) [log64(c/5)])
(MADDW a (MOVDconst [c]) x) && c%7 == 0 && isPowerOfTwo64(c/7) && is32Bit(c) => (SUBshiftLL a

```

```

(SUBshiftLL <x.Type> x x [3]) [log64(c/7)])
(MADDW a (MOVDconst [c] x) && c%9 == 0 && isPowerOfTwo64(c/9) && is32Bit(c) => (ADDshiftLL a
(ADDshiftLL
<x.Type> x x [3]) [log64(c/9)])

(MSUB a x (MOVDconst [-1])) => (ADD a x)
(MSUB a _ (MOVDconst [0])) => a
(MSUB a x (MOVDconst [1])) => (SUB a x)
(MSUB a x (MOVDconst [c])) && isPowerOfTwo64(c) => (SUBshiftLL a x [log64(c)])
(MSUB a x (MOVDconst [c])) && isPowerOfTwo64(c-1) && c>=3 => (SUB a (ADDshiftLL <x.Type> x x
[log64(c-1)]))
(MSUB a x (MOVDconst [c])) && isPowerOfTwo64(c+1) && c>=7 => (ADD a (SUBshiftLL <x.Type> x x
[log64(c+1)]))
(MSUB a x (MOVDconst [c])) && c%3 == 0 && isPowerOfTwo64(c/3) => (ADDshiftLL a (SUBshiftLL
<x.Type> x x [2]) [log64(c/3)])
(MSUB a x (MOVDconst [c])) && c%5 == 0 && isPowerOfTwo64(c/5) => (SUBshiftLL a (ADDshiftLL
<x.Type> x x [2]) [log64(c/5)])
(MSUB a x (MOVDconst [c])) && c%7 == 0 && isPowerOfTwo64(c/7) => (ADDshiftLL a (SUBshiftLL
<x.Type> x x [3]) [log64(c/7)])
(MSUB a x (MOVDconst [c])) && c%9 == 0 && isPowerOfTwo64(c/9) => (SUBshiftLL a (ADDshiftLL
<x.Type> x x [3]) [log64(c/9)])

(MSUB a (MOVDconst [-1] x) => (ADD a x)
(MSUB a (MOVDconst
[0] _) => a
(MSUB a (MOVDconst [1] x) => (SUB a x)
(MSUB a (MOVDconst [c] x) && isPowerOfTwo64(c) => (SUBshiftLL a x [log64(c)])
(MSUB a (MOVDconst [c] x) && isPowerOfTwo64(c-1) && c>=3 => (SUB a (ADDshiftLL <x.Type> x x
[log64(c-1)]))
(MSUB a (MOVDconst [c] x) && isPowerOfTwo64(c+1) && c>=7 => (ADD a (SUBshiftLL <x.Type> x x
[log64(c+1)]))
(MSUB a (MOVDconst [c] x) && c%3 == 0 && isPowerOfTwo64(c/3) => (ADDshiftLL a (SUBshiftLL
<x.Type> x x [2]) [log64(c/3)])
(MSUB a (MOVDconst [c] x) && c%5 == 0 && isPowerOfTwo64(c/5) => (SUBshiftLL a (ADDshiftLL
<x.Type> x x [2]) [log64(c/5)])
(MSUB a (MOVDconst [c] x) && c%7 == 0 && isPowerOfTwo64(c/7) => (ADDshiftLL a (SUBshiftLL
<x.Type> x x [3]) [log64(c/7)])
(MSUB a (MOVDconst [c] x) && c%9 == 0 && isPowerOfTwo64(c/9) => (SUBshiftLL a (ADDshiftLL
<x.Type> x x [3]) [log64(c/9)])

(MSUBW a x (MOVDconst [c])) && int32(c)=-1 => (ADD a x)
(MSUBW a _ (MOVDconst [c])) && int32(c)=0 => a
(MSUBW a x (MOVDconst [c])) && int32(c)=1 => (SUB a
x)
(MSUBW a x (MOVDconst [c])) && isPowerOfTwo64(c) => (SUBshiftLL a x [log64(c)])
(MSUBW a x (MOVDconst [c])) && isPowerOfTwo64(c-1) && int32(c)>=3 => (SUB a (ADDshiftLL <x.Type> x
x [log64(c-1)]))
(MSUBW a x (MOVDconst [c])) && isPowerOfTwo64(c+1) && int32(c)>=7 => (ADD a (SUBshiftLL <x.Type>

```

```

x x [log64(c+1)])
(MSUBW a x (MOVDconst [c])) && c%3 == 0 && isPowerOfTwo64(c/3) && is32Bit(c) => (ADDshiftLL a
(SUBshiftLL <x.Type> x x [2]) [log64(c/3)])
(MSUBW a x (MOVDconst [c])) && c%5 == 0 && isPowerOfTwo64(c/5) && is32Bit(c) => (SUBshiftLL a
(ADDshiftLL <x.Type> x x [2]) [log64(c/5)])
(MSUBW a x (MOVDconst [c])) && c%7 == 0 && isPowerOfTwo64(c/7) && is32Bit(c) => (ADDshiftLL a
(SUBshiftLL <x.Type> x x [3]) [log64(c/7)])
(MSUBW a x (MOVDconst [c])) && c%9 == 0 && isPowerOfTwo64(c/9) && is32Bit(c) => (SUBshiftLL a
(ADDshiftLL <x.Type> x x [3]) [log64(c/9)])

(MSUBW a (MOVDconst [c] x) && int32(c)==-1 => (ADD a x)
(MSUBW a (MOVDconst [c] _) && int32(c)==0 => a
(MSUBW a (MOVDconst [c] x)
&& int32(c)==1 => (SUB a x)
(MSUBW a (MOVDconst [c] x) && isPowerOfTwo64(c) => (SUBshiftLL a x [log64(c)])
(MSUBW a (MOVDconst [c] x) && isPowerOfTwo64(c-1) && int32(c)>=3 => (SUB a (ADDshiftLL <x.Type> x
x [log64(c-1)]))
(MSUBW a (MOVDconst [c] x) && isPowerOfTwo64(c+1) && int32(c)>=7 => (ADD a (SUBshiftLL <x.Type>
x x [log64(c+1)]))
(MSUBW a (MOVDconst [c] x) && c%3 == 0 && isPowerOfTwo64(c/3) && is32Bit(c) => (ADDshiftLL a
(SUBshiftLL <x.Type> x x [2]) [log64(c/3)])
(MSUBW a (MOVDconst [c] x) && c%5 == 0 && isPowerOfTwo64(c/5) && is32Bit(c) => (SUBshiftLL a
(ADDshiftLL <x.Type> x x [2]) [log64(c/5)])
(MSUBW a (MOVDconst [c] x) && c%7 == 0 && isPowerOfTwo64(c/7) && is32Bit(c) => (ADDshiftLL a
(SUBshiftLL <x.Type> x x [3]) [log64(c/7)])
(MSUBW a (MOVDconst [c] x) && c%9 == 0 && isPowerOfTwo64(c/9) && is32Bit(c) => (SUBshiftLL a
(ADDshiftLL <x.Type> x x [3]) [log64(c/9)])

// div by constant
(UDIV x (MOVDconst [1])) => x
(UDIV x (MOVDconst [c])) && isPowerOfTwo64(c) => (SRLconst
[log64(c)] x)
(UDIVW x (MOVDconst [c])) && uint32(c)==1 => x
(UDIVW x (MOVDconst [c])) && isPowerOfTwo64(c) && is32Bit(c) => (SRLconst [log64(c)] x)
(UMOD _ (MOVDconst [1])) => (MOVDconst [0])
(UMOD x (MOVDconst [c])) && isPowerOfTwo64(c) => (ANDconst [c-1] x)
(UMODW _ (MOVDconst [c])) && uint32(c)==1 => (MOVDconst [0])
(UMODW x (MOVDconst [c])) && isPowerOfTwo64(c) && is32Bit(c) => (ANDconst [c-1] x)

// generic simplifications
(ADD x (NEG y)) => (SUB x y)
(SUB x x) => (MOVDconst [0])
(AND x x) => x
(OR x x) => x
(XOR x x) => (MOVDconst [0])
(BIC x x) => (MOVDconst [0])
(EON x x) => (MOVDconst [-1])
(ORN x x) => (MOVDconst [-1])

```

```

(AND x (MVN y)) => (BIC x y)
(XOR x (MVN y)) => (EON x y)
(OR x (MVN y)) => (ORN x y)
(MVN (XOR x y)) => (EON x y)
(NEG (NEG x)) => x

(CSEL [cc] (MOVDconst [-1]) (MOVDconst [0]) flag) => (CSETM [cc] flag)
(CSEL [cc] (MOVDconst [0]) (MOVDconst [-1]) flag) => (CSETM [arm64Negate(cc)] flag)
(CSEL [cc] x (MOVDconst [0]) flag) => (CSEL0 [cc] x flag)
(CSEL [cc]
  (MOVDconst [0]) y flag) => (CSEL0 [arm64Negate(cc)] y flag)
(CSEL [cc] x (ADDconst [1] a) flag) => (CSINC [cc] x a flag)
(CSEL [cc] (ADDconst [1] a) x flag) => (CSINC [arm64Negate(cc)] x a flag)
(CSEL [cc] x (MVN a) flag) => (CSINV [cc] x a flag)
(CSEL [cc] (MVN a) x flag) => (CSINV [arm64Negate(cc)] x a flag)
(CSEL [cc] x (NEG a) flag) => (CSNEG [cc] x a flag)
(CSEL [cc] (NEG a) x flag) => (CSNEG [arm64Negate(cc)] x a flag)

(SUB x (SUB y z)) => (SUB (ADD <v.Type> x z) y)
(SUB (SUB x y) z) => (SUB x (ADD <y.Type> y z))

// remove redundant *const ops
(ADDconst [0] x) => x
(SUBconst [0] x) => x
(ANDconst [0] _) => (MOVDconst [0])
(ANDconst [-1] x) => x
(ORconst [0] x) => x
(ORconst [-1] _) => (MOVDconst [-1])
(XORconst [0] x) => x
(XORconst [-1] x) => (MVN x)

// generic constant folding
(ADDconst [c] (MOVDconst [d])) => (MOVDconst [c+d])
(ADDconst [c] (ADDconst [d] x)) => (ADDconst [c+d] x)
(ADDconst [c] (SUBconst [d] x)) => (ADDconst [c-d] x)
(SUBconst [c] (MOVDconst [d]))
=> (MOVDconst [d-c])
(SUBconst [c] (SUBconst [d] x)) => (ADDconst [-c-d] x)
(SUBconst [c] (ADDconst [d] x)) => (ADDconst [-c+d] x)
(SLLconst [c] (MOVDconst [d])) => (MOVDconst [d<<uint64(c)])
(SRLconst [c] (MOVDconst [d])) => (MOVDconst [int64(uint64(d)>>uint64(c))])
(SRAconst [c] (MOVDconst [d])) => (MOVDconst [d>>uint64(c)])
(MUL (MOVDconst [c]) (MOVDconst [d])) => (MOVDconst [c*d])
(MULW (MOVDconst [c]) (MOVDconst [d])) => (MOVDconst [int64(int32(c)*int32(d))])
(MNEG (MOVDconst [c]) (MOVDconst [d])) => (MOVDconst [-c*d])
(MNEGW (MOVDconst [c]) (MOVDconst [d])) => (MOVDconst [-int64(int32(c)*int32(d))])
(MADD (MOVDconst [c] x y) => (ADDconst [c] (MUL <x.Type> x y))
(MADDW (MOVDconst [c] x y) => (ADDconst [c] (MULW <x.Type> x y))

```

```

(MSUB (MOVDconst [c]) x y) => (ADDconst [c] (MNEG <x.Type> x y))
(MSUBW (MOVDconst [c]) x y) => (ADDconst [c] (MNEGW <x.Type> x y))
(MADD a (MOVDconst [c]) (MOVDconst [d])) => (ADDconst [c*d] a)
(MADDW a (MOVDconst [c]) (MOVDconst [d])) => (ADDconst
[int64(int32(c)*int32(d))] a)
(MSUB a (MOVDconst [c]) (MOVDconst [d])) => (SUBconst [c*d] a)
(MSUBW a (MOVDconst [c]) (MOVDconst [d])) => (SUBconst [int64(int32(c)*int32(d))] a)
(DIV (MOVDconst [c]) (MOVDconst [d])) && d != 0 => (MOVDconst [c/d])
(UDIV (MOVDconst [c]) (MOVDconst [d])) && d != 0 => (MOVDconst [int64(uint64(c)/uint64(d))])
(DIVW (MOVDconst [c]) (MOVDconst [d])) && d != 0 => (MOVDconst [int64(int32(c)/int32(d))])
(UDIVW (MOVDconst [c]) (MOVDconst [d])) && d != 0 => (MOVDconst [int64(uint32(c)/uint32(d))])
(MOD (MOVDconst [c]) (MOVDconst [d])) && d != 0 => (MOVDconst [c%d])
(UMOD (MOVDconst [c]) (MOVDconst [d])) && d != 0 => (MOVDconst [int64(uint64(c)%uint64(d))])
(MODW (MOVDconst [c]) (MOVDconst [d])) && d != 0 => (MOVDconst [int64(int32(c)%int32(d))])
(UMODW (MOVDconst [c]) (MOVDconst [d])) && d != 0 => (MOVDconst [int64(uint32(c)%uint32(d))])
(ANDconst [c] (MOVDconst [d])) => (MOVDconst [c&d])
(ANDconst [c] (ANDconst [d] x)) => (ANDconst [c&d] x)
(ANDconst
[c] (MOVWUreg x)) => (ANDconst [c&(1<<32-1)] x)
(ANDconst [c] (MOVHUreg x)) => (ANDconst [c&(1<<16-1)] x)
(ANDconst [c] (MOVBUreg x)) => (ANDconst [c&(1<<8-1)] x)
(MOVWUreg (ANDconst [c] x)) => (ANDconst [c&(1<<32-1)] x)
(MOVHUreg (ANDconst [c] x)) => (ANDconst [c&(1<<16-1)] x)
(MOVBUreg (ANDconst [c] x)) => (ANDconst [c&(1<<8-1)] x)
(ORconst [c] (MOVDconst [d])) => (MOVDconst [c|d])
(ORconst [c] (ORconst [d] x)) => (ORconst [c|d] x)
(XORconst [c] (MOVDconst [d])) => (MOVDconst [c^d])
(XORconst [c] (XORconst [d] x)) => (XORconst [c^d] x)
(MVN (MOVDconst [c])) => (MOVDconst [^c])
(NEG (MOVDconst [c])) => (MOVDconst [-c])
(MOVBreg (MOVDconst [c])) => (MOVDconst [int64(int8(c))])
(MOVBUreg (MOVDconst [c])) => (MOVDconst [int64(uint8(c))])
(MOVHreg (MOVDconst [c])) => (MOVDconst [int64(int16(c))])
(MOVHUreg (MOVDconst [c])) => (MOVDconst [int64(uint16(c))])
(MOVWreg (MOVDconst [c])) => (MOVDconst [int64(int32(c))])
(MOVWUreg (MOVDconst [c])) => (MOVDconst [int64(uint32(c))])
(MOVDreg
(MOVDconst [c])) => (MOVDconst [c])

```

```
// constant comparisons
```

```

(CMPconst (MOVDconst [x]) [y]) => (FlagConstant [subFlags64(x,y)])
(CMPWconst (MOVDconst [x]) [y]) => (FlagConstant [subFlags32(int32(x),y)])
(TSTconst (MOVDconst [x]) [y]) => (FlagConstant [logicFlags64(x&y)])
(TSTWconst (MOVDconst [x]) [y]) => (FlagConstant [logicFlags32(int32(x)&y)])
(CMNconst (MOVDconst [x]) [y]) => (FlagConstant [addFlags64(x,y)])
(CMNWconst (MOVDconst [x]) [y]) => (FlagConstant [addFlags32(int32(x),y)])

```

```
// other known comparisons
```



```

(CMPconst (MOVBUreg _) [c]) && 0xff < c => (FlagConstant [subFlags64(0,1)])
(CMPconst (MOVHUreg _) [c]) && 0xffff < c => (FlagConstant [subFlags64(0,1)])
(CMPconst (MOVWUreg _) [c]) && 0xffffffff < c => (FlagConstant [subFlags64(0,1)])
(CMPconst (ANDconst _ [m]) [n]) && 0 <= m && m < n => (FlagConstant [subFlags64(0,1)])
(CMPconst (SRLconst _ [c]) [n]) && 0 <= n && 0 < c && c <= 63 && (1<<uint64(64-c)) <= uint64(n) =>
(FlagConstant [subFlags64(0,1)])
(CMPWconst (MOVBUreg
_) [c]) && 0xff < c => (FlagConstant [subFlags64(0,1)])
(CMPWconst (MOVHUreg _) [c]) && 0xffff < c => (FlagConstant [subFlags64(0,1)])

// absorb flag constants into branches
(EQ (FlagConstant [fc]) yes no) && fc.eq() => (First yes no)
(EQ (FlagConstant [fc]) yes no) && !fc.eq() => (First no yes)

(NE (FlagConstant [fc]) yes no) && fc.ne() => (First yes no)
(NE (FlagConstant [fc]) yes no) && !fc.ne() => (First no yes)

(LT (FlagConstant [fc]) yes no) && fc.lt() => (First yes no)
(LT (FlagConstant [fc]) yes no) && !fc.lt() => (First no yes)

(LE (FlagConstant [fc]) yes no) && fc.le() => (First yes no)
(LE (FlagConstant [fc]) yes no) && !fc.le() => (First no yes)

(GT (FlagConstant [fc]) yes no) && fc.gt() => (First yes no)
(GT (FlagConstant [fc]) yes no) && !fc.gt() => (First no yes)

(GE (FlagConstant [fc]) yes no) && fc.ge() => (First yes no)
(GE (FlagConstant [fc]) yes no) && !fc.ge() => (First no yes)

(ULT (FlagConstant [fc]) yes no) && fc.ult() => (First yes no)
(ULT
(FlagConstant [fc]) yes no) && !fc.ult() => (First no yes)

(ULE (FlagConstant [fc]) yes no) && fc.ule() => (First yes no)
(ULE (FlagConstant [fc]) yes no) && !fc.ule() => (First no yes)

(UGT (FlagConstant [fc]) yes no) && fc.ugt() => (First yes no)
(UGT (FlagConstant [fc]) yes no) && !fc.ugt() => (First no yes)

(UGE (FlagConstant [fc]) yes no) && fc.uge() => (First yes no)
(UGE (FlagConstant [fc]) yes no) && !fc.uge() => (First no yes)

(LTnoov (FlagConstant [fc]) yes no) && fc.ltNoov() => (First yes no)
(LTnoov (FlagConstant [fc]) yes no) && !fc.ltNoov() => (First no yes)

(LEnoov (FlagConstant [fc]) yes no) && fc.leNoov() => (First yes no)
(LEnoov (FlagConstant [fc]) yes no) && !fc.leNoov() => (First no yes)

```

(GTnoov (FlagConstant [fc] yes no) && fc.gtNoov() => (First yes no)
(GTnoov (FlagConstant [fc] yes no) && !fc.gtNoov() => (First no yes)

(GEnoov (FlagConstant [fc] yes no) && fc.geNoov() => (First yes no)
(GEnoov (FlagConstant [fc] yes no) && !fc.geNoov() => (First
no yes)

(Z (MOVDconst [0]) yes no) => (First yes no)
(Z (MOVDconst [c] yes no) && c != 0 => (First no yes)
(NZ (MOVDconst [0]) yes no) => (First no yes)
(NZ (MOVDconst [c] yes no) && c != 0 => (First yes no)
(ZW (MOVDconst [c] yes no) && int32(c) == 0 => (First yes no)
(ZW (MOVDconst [c] yes no) && int32(c) != 0 => (First no yes)
(NZW (MOVDconst [c] yes no) && int32(c) == 0 => (First no yes)
(NZW (MOVDconst [c] yes no) && int32(c) != 0 => (First yes no)

// absorb InvertFlags into branches

(LT (InvertFlags cmp) yes no) => (GT cmp yes no)
(GT (InvertFlags cmp) yes no) => (LT cmp yes no)
(LE (InvertFlags cmp) yes no) => (GE cmp yes no)
(GE (InvertFlags cmp) yes no) => (LE cmp yes no)
(ULT (InvertFlags cmp) yes no) => (UGT cmp yes no)
(UGT (InvertFlags cmp) yes no) => (ULT cmp yes no)
(ULE (InvertFlags cmp) yes no) => (UGE cmp yes no)
(UGE (InvertFlags cmp) yes no) => (ULE cmp yes no)
(EQ (InvertFlags cmp) yes no) => (EQ cmp yes no)
(NE (InvertFlags cmp) yes no) => (NE cmp yes
no)
(FLT (InvertFlags cmp) yes no) => (FGT cmp yes no)
(FGT (InvertFlags cmp) yes no) => (FLT cmp yes no)
(FLE (InvertFlags cmp) yes no) => (FGE cmp yes no)
(FGE (InvertFlags cmp) yes no) => (FLE cmp yes no)
(LTnoov (InvertFlags cmp) yes no) => (GTnoov cmp yes no)
(GEnoov (InvertFlags cmp) yes no) => (LEnoov cmp yes no)
(LEnoov (InvertFlags cmp) yes no) => (GEnoov cmp yes no)
(GTnoov (InvertFlags cmp) yes no) => (LTnoov cmp yes no)

// absorb InvertFlags into conditional instructions

(CSEL [cc] x y (InvertFlags cmp)) => (CSEL [arm64Invert(cc)] x y cmp)
(CSEL0 [cc] x (InvertFlags cmp)) => (CSEL0 [arm64Invert(cc)] x cmp)
(CSETM [cc] (InvertFlags cmp)) => (CSETM [arm64Invert(cc)] cmp)
(CSINC [cc] x y (InvertFlags cmp)) => (CSINC [arm64Invert(cc)] x y cmp)
(CSINV [cc] x y (InvertFlags cmp)) => (CSINV [arm64Invert(cc)] x y cmp)
(CSNEG [cc] x y (InvertFlags cmp)) => (CSNEG [arm64Invert(cc)] x y cmp)

// absorb flag constants into boolean values

(Equal (FlagConstant [fc])) => (MOVDconst [b2i(fc.eq())])
(NotEqual

```

(FlagConstant [fc])) => (MOVDconst [b2i(fc.ne())])
(LessThan (FlagConstant [fc])) => (MOVDconst [b2i(fc.lt())])
(LessThanU (FlagConstant [fc])) => (MOVDconst [b2i(fc.ult())])
(LessEqual (FlagConstant [fc])) => (MOVDconst [b2i(fc.le())])
(LessEqualU (FlagConstant [fc])) => (MOVDconst [b2i(fc.ule())])
(GreaterThan (FlagConstant [fc])) => (MOVDconst [b2i(fc.gt())])
(GreaterThanU (FlagConstant [fc])) => (MOVDconst [b2i(fc.ugt())])
(GreaterEqual (FlagConstant [fc])) => (MOVDconst [b2i(fc.ge())])
(GreaterEqualU (FlagConstant [fc])) => (MOVDconst [b2i(fc.uge())])

// absorb InvertFlags into boolean values
(Equal (InvertFlags x)) => (Equal x)
(NotEqual (InvertFlags x)) => (NotEqual x)
(LessThan (InvertFlags x)) => (GreaterThan x)
(LessThanU (InvertFlags x)) => (GreaterThanU x)
(GreaterThan (InvertFlags x)) => (LessThan x)
(GreaterThanU (InvertFlags x)) => (LessThanU x)
(LessEqual (InvertFlags x)) => (GreaterEqual x)
(LessEqualU (InvertFlags x)) => (GreaterEqualU x)
(GreaterEqual
(InvertFlags x)) => (LessEqual x)
(GreaterEqualU (InvertFlags x)) => (LessEqualU x)
(LessThanF (InvertFlags x)) => (GreaterThanF x)
(LessEqualF (InvertFlags x)) => (GreaterEqualF x)
(GreaterThanF (InvertFlags x)) => (LessThanF x)
(GreaterEqualF (InvertFlags x)) => (LessEqualF x)

// Boolean-generating instructions (NOTE: NOT all boolean Values) always
// zero upper bit of the register; no need to zero-extend
(MOVBureg
x:(Equal|NotEqual|LessThan|LessThanU|LessThanF|LessEqual|LessEqualU|LessEqualF|GreaterThan|GreaterThan
U|GreaterThanF|GreaterEqual|GreaterEqualU|GreaterEqualF _) => (MOVDreg x)

// absorb flag constants into conditional instructions
(CSEL [cc] x _ flag) && ccARM64Eval(cc, flag) > 0 => x
(CSEL [cc] _ y flag) && ccARM64Eval(cc, flag) < 0 => y
(CSEL0 [cc] x flag) && ccARM64Eval(cc, flag) > 0 => x
(CSEL0 [cc] _ flag) && ccARM64Eval(cc, flag) < 0 => (MOVDconst [0])
(CSNEG [cc] x _ flag) && ccARM64Eval(cc, flag) > 0 => x
(CSNEG [cc] _ y flag) && ccARM64Eval(cc, flag) <
0 => (NEG y)
(CSINV [cc] x _ flag) && ccARM64Eval(cc, flag) > 0 => x
(CSINV [cc] _ y flag) && ccARM64Eval(cc, flag) < 0 => (Not y)
(CSINC [cc] x _ flag) && ccARM64Eval(cc, flag) > 0 => x
(CSINC [cc] _ y flag) && ccARM64Eval(cc, flag) < 0 => (ADDconst [1] y)
(CSETM [cc] flag) && ccARM64Eval(cc, flag) > 0 => (MOVDconst [-1])
(CSETM [cc] flag) && ccARM64Eval(cc, flag) < 0 => (MOVDconst [0])

```

```

// absorb flags back into boolean CSEL
(CSEL [cc] x y (CMPWconst [0] boolval)) && cc == OpARM64NotEqual && flagArg(boolval) != nil =>
    (CSEL [boolval.Op] x y flagArg(boolval))
(CSEL [cc] x y (CMPWconst [0] boolval)) && cc == OpARM64Equal && flagArg(boolval) != nil =>
    (CSEL [arm64Negate(boolval.Op)] x y flagArg(boolval))
(CSEL0 [cc] x (CMPWconst [0] boolval)) && cc == OpARM64NotEqual && flagArg(boolval) != nil =>
    (CSEL0 [boolval.Op] x flagArg(boolval))
(CSEL0 [cc] x (CMPWconst [0] boolval)) && cc == OpARM64Equal && flagArg(boolval) != nil =>
    (CSEL0 [arm64Negate(boolval.Op)] x flagArg(boolval))

//
absorb shifts into ops
(NEG x:(SLLconst [c] y)) && clobberIfDead(x) => (NEGshiftLL [c] y)
(NEG x:(SRLconst [c] y)) && clobberIfDead(x) => (NEGshiftRL [c] y)
(NEG x:(SRAconst [c] y)) && clobberIfDead(x) => (NEGshiftRA [c] y)
(MVN x:(SLLconst [c] y)) && clobberIfDead(x) => (MVNshiftLL [c] y)
(MVN x:(SRLconst [c] y)) && clobberIfDead(x) => (MVNshiftRL [c] y)
(MVN x:(SRAconst [c] y)) && clobberIfDead(x) => (MVNshiftRA [c] y)
(MVN x:(RORconst [c] y)) && clobberIfDead(x) => (MVNshiftRO [c] y)
(ADD x0 x1:(SLLconst [c] y)) && clobberIfDead(x1) => (ADDshiftLL x0 y [c])
(ADD x0 x1:(SRLconst [c] y)) && clobberIfDead(x1) => (ADDshiftRL x0 y [c])
(ADD x0 x1:(SRAconst [c] y)) && clobberIfDead(x1) => (ADDshiftRA x0 y [c])
(SUB x0 x1:(SLLconst [c] y)) && clobberIfDead(x1) => (SUBshiftLL x0 y [c])
(SUB x0 x1:(SRLconst [c] y)) && clobberIfDead(x1) => (SUBshiftRL x0 y [c])
(SUB x0 x1:(SRAconst [c] y)) && clobberIfDead(x1) => (SUBshiftRA x0 y [c])
(AND x0 x1:(SLLconst [c] y)) && clobberIfDead(x1)
=> (ANDshiftLL x0 y [c])
(AND x0 x1:(SRLconst [c] y)) && clobberIfDead(x1) => (ANDshiftRL x0 y [c])
(AND x0 x1:(SRAconst [c] y)) && clobberIfDead(x1) => (ANDshiftRA x0 y [c])
(AND x0 x1:(RORconst [c] y)) && clobberIfDead(x1) => (ANDshiftRO x0 y [c])
(OR x0 x1:(SLLconst [c] y)) && clobberIfDead(x1) => (ORshiftLL x0 y [c]) // useful for combined load
(OR x0 x1:(SRLconst [c] y)) && clobberIfDead(x1) => (ORshiftRL x0 y [c])
(OR x0 x1:(SRAconst [c] y)) && clobberIfDead(x1) => (ORshiftRA x0 y [c])
(OR x0 x1:(RORconst [c] y)) && clobberIfDead(x1) => (ORshiftRO x0 y [c])
(XOR x0 x1:(SLLconst [c] y)) && clobberIfDead(x1) => (XORshiftLL x0 y [c])
(XOR x0 x1:(SRLconst [c] y)) && clobberIfDead(x1) => (XORshiftRL x0 y [c])
(XOR x0 x1:(SRAconst [c] y)) && clobberIfDead(x1) => (XORshiftRA x0 y [c])
(XOR x0 x1:(RORconst [c] y)) && clobberIfDead(x1) => (XORshiftRO x0 y [c])
(BIC x0 x1:(SLLconst [c] y)) && clobberIfDead(x1) => (BICshiftLL x0 y [c])
(BIC x0 x1:(SRLconst [c] y)) && clobberIfDead(x1)
=> (BICshiftRL x0 y [c])
(BIC x0 x1:(SRAconst [c] y)) && clobberIfDead(x1) => (BICshiftRA x0 y [c])
(BIC x0 x1:(RORconst [c] y)) && clobberIfDead(x1) => (BICshiftRO x0 y [c])
(ORN x0 x1:(SLLconst [c] y)) && clobberIfDead(x1) => (ORNshiftLL x0 y [c])
(ORN x0 x1:(SRLconst [c] y)) && clobberIfDead(x1) => (ORNshiftRL x0 y [c])
(ORN x0 x1:(SRAconst [c] y)) && clobberIfDead(x1) => (ORNshiftRA x0 y [c])
(ORN x0 x1:(RORconst [c] y)) && clobberIfDead(x1) => (ORNshiftRO x0 y [c])
(EON x0 x1:(SLLconst [c] y)) && clobberIfDead(x1) => (EONshiftLL x0 y [c])

```

```

(EON x0 x1:(SRLconst [c] y)) && clobberIfDead(x1) => (EONshiftRL x0 y [c])
(EON x0 x1:(SRAconst [c] y)) && clobberIfDead(x1) => (EONshiftRA x0 y [c])
(EON x0 x1:(RORconst [c] y)) && clobberIfDead(x1) => (EONshiftRO x0 y [c])
(CMP x0 x1:(SLLconst [c] y)) && clobberIfDead(x1) => (CMPshiftLL x0 y [c])
(CMP x0:(SLLconst [c] y) x1) && clobberIfDead(x0) => (InvertFlags (CMPshiftLL x1 y [c]))
(CMP x0 x1:(SRLconst [c] y)) && clobberIfDead(x1)
=> (CMPshiftRL x0 y [c])
(CMP x0:(SRLconst [c] y) x1) && clobberIfDead(x0) => (InvertFlags (CMPshiftRL x1 y [c]))
(CMP x0 x1:(SRAconst [c] y)) && clobberIfDead(x1) => (CMPshiftRA x0 y [c])
(CMP x0:(SRAconst [c] y) x1) && clobberIfDead(x0) => (InvertFlags (CMPshiftRA x1 y [c]))
(CMN x0 x1:(SLLconst [c] y)) && clobberIfDead(x1) => (CMNshiftLL x0 y [c])
(CMN x0 x1:(SRLconst [c] y)) && clobberIfDead(x1) => (CMNshiftRL x0 y [c])
(CMN x0 x1:(SRAconst [c] y)) && clobberIfDead(x1) => (CMNshiftRA x0 y [c])
(TST x0 x1:(SLLconst [c] y)) && clobberIfDead(x1) => (TSTshiftLL x0 y [c])
(TST x0 x1:(SRLconst [c] y)) && clobberIfDead(x1) => (TSTshiftRL x0 y [c])
(TST x0 x1:(SRAconst [c] y)) && clobberIfDead(x1) => (TSTshiftRA x0 y [c])
(TST x0 x1:(RORconst [c] y)) && clobberIfDead(x1) => (TSTshiftRO x0 y [c])

// prefer *const ops to *shift ops
(ADDshiftLL (MOVDconst [c] x [d]) => (ADDconst [c] (SLLconst <x.Type> x [d]))
(ADDshiftRL (MOVDconst [c] x [d]) => (ADDconst [c] (SRLconst <x.Type> x [d]))
(ADDshiftRA
(MOVDconst [c] x [d]) => (ADDconst [c] (SRAconst <x.Type> x [d]))
(ANDshiftLL (MOVDconst [c] x [d]) => (ANDconst [c] (SLLconst <x.Type> x [d]))
(ANDshiftRL (MOVDconst [c] x [d]) => (ANDconst [c] (SRLconst <x.Type> x [d]))
(ANDshiftRA (MOVDconst [c] x [d]) => (ANDconst [c] (SRAconst <x.Type> x [d]))
(ANDshiftRO (MOVDconst [c] x [d]) => (ANDconst [c] (RORconst <x.Type> x [d]))
(ORshiftLL (MOVDconst [c] x [d]) => (ORconst [c] (SLLconst <x.Type> x [d]))
(ORshiftRL (MOVDconst [c] x [d]) => (ORconst [c] (SRLconst <x.Type> x [d]))
(ORshiftRA (MOVDconst [c] x [d]) => (ORconst [c] (SRAconst <x.Type> x [d]))
(ORshiftRO (MOVDconst [c] x [d]) => (ORconst [c] (RORconst <x.Type> x [d]))
(XORshiftLL (MOVDconst [c] x [d]) => (XORconst [c] (SLLconst <x.Type> x [d]))
(XORshiftRL (MOVDconst [c] x [d]) => (XORconst [c] (SRLconst <x.Type> x [d]))
(XORshiftRA (MOVDconst [c] x [d]) => (XORconst [c] (SRAconst <x.Type> x [d]))
(XORshiftRO (MOVDconst [c] x [d]) => (XORconst [c]
(RORconst <x.Type> x [d]))
(CMPshiftLL (MOVDconst [c] x [d]) => (InvertFlags (CMPconst [c] (SLLconst <x.Type> x [d])))
(CMPshiftRL (MOVDconst [c] x [d]) => (InvertFlags (CMPconst [c] (SRLconst <x.Type> x [d])))
(CMPshiftRA (MOVDconst [c] x [d]) => (InvertFlags (CMPconst [c] (SRAconst <x.Type> x [d])))
(CMNshiftLL (MOVDconst [c] x [d]) => (CMNconst [c] (SLLconst <x.Type> x [d]))
(CMNshiftRL (MOVDconst [c] x [d]) => (CMNconst [c] (SRLconst <x.Type> x [d]))
(CMNshiftRA (MOVDconst [c] x [d]) => (CMNconst [c] (SRAconst <x.Type> x [d]))
(TSTshiftLL (MOVDconst [c] x [d]) => (TSTconst [c] (SLLconst <x.Type> x [d]))
(TSTshiftRL (MOVDconst [c] x [d]) => (TSTconst [c] (SRLconst <x.Type> x [d]))
(TSTshiftRA (MOVDconst [c] x [d]) => (TSTconst [c] (SRAconst <x.Type> x [d]))
(TSTshiftRO (MOVDconst [c] x [d]) => (TSTconst [c] (RORconst <x.Type> x [d]))

// constant folding in *shift ops

```

(MVNshiftLL (MOVDconst [c] [d]) => (MOVDconst [^int64(uint64(c)<<uint64(d))])
(MVNshiftRL (MOVDconst [c] [d]) => (MOVDconst [^int64(uint64(c)>>uint64(d))])
(MVNshiftRA (MOVDconst [c] [d]) => (MOVDconst [^(c>>uint64(d))])
(MVNshiftRO (MOVDconst [c] [d]) => (MOVDconst [^rotateRight64(c, d)])
(NEGshiftLL (MOVDconst [c] [d]) => (MOVDconst [-int64(uint64(c)<<uint64(d))])
(NEGshiftRL (MOVDconst [c] [d]) => (MOVDconst [-int64(uint64(c)>>uint64(d))])
(NEGshiftRA (MOVDconst [c] [d]) => (MOVDconst [-(c>>uint64(d))])
(ADDshiftLL x (MOVDconst [c] [d]) => (ADDconst x [int64(uint64(c)<<uint64(d))])
(ADDshiftRL x (MOVDconst [c] [d]) => (ADDconst x [int64(uint64(c)>>uint64(d))])
(ADDshiftRA x (MOVDconst [c] [d]) => (ADDconst x [c>>uint64(d)])
(SUBshiftLL x (MOVDconst [c] [d]) => (SUBconst x [int64(uint64(c)<<uint64(d))])
(SUBshiftRL x (MOVDconst [c] [d]) => (SUBconst x [int64(uint64(c)>>uint64(d))])
(SUBshiftRA x (MOVDconst [c] [d]) => (SUBconst x [c>>uint64(d)])
(ANDshiftLL x (MOVDconst [c] [d]) => (ANDconst x [int64(uint64(c)<<uint64(d))])
(ANDshiftRL x (MOVDconst [c] [d]) => (ANDconst x [int64(uint64(c)>>uint64(d))])
(ANDshiftRA x (MOVDconst [c] [d]) => (ANDconst x [c>>uint64(d)])
(ANDshiftRO x (MOVDconst [c] [d]) => (ANDconst x [rotateRight64(c, d)])
(ORshiftLL x (MOVDconst [c] [d]) => (ORconst x [int64(uint64(c)<<uint64(d))])
(ORshiftRL x (MOVDconst [c] [d]) => (ORconst x [int64(uint64(c)>>uint64(d))])
(ORshiftRA x (MOVDconst [c] [d]) => (ORconst x [c>>uint64(d)])
(ORshiftRO x (MOVDconst [c] [d]) => (ORconst x [rotateRight64(c, d)])
(XORshiftLL x (MOVDconst [c] [d]) => (XORconst x [int64(uint64(c)<<uint64(d))])
(XORshiftRL x (MOVDconst [c] [d]) => (XORconst x [int64(uint64(c)>>uint64(d))])
(XORshiftRA x (MOVDconst [c] [d]) => (XORconst x [c>>uint64(d)])
(XORshiftRO x (MOVDconst [c] [d]) => (XORconst x [rotateRight64(c, d)])
(BICshiftLL x (MOVDconst [c] [d]) => (ANDconst x [^int64(uint64(c)<<uint64(d))])
(BICshiftRL x (MOVDconst [c] [d]) => (ANDconst x [^int64(uint64(c)>>uint64(d))])
(BICshiftRA x (MOVDconst [c] [d]) => (ANDconst x [^(c>>uint64(d))])
(BICshiftRO x (MOVDconst [c] [d]) => (ANDconst x [^rotateRight64(c, d)])
(ORNshiftLL x (MOVDconst [c] [d]) => (ORconst x [^int64(uint64(c)<<uint64(d))])
(ORNshiftRL x (MOVDconst [c] [d]) => (ORconst x [^int64(uint64(c)>>uint64(d))])
(ORNshiftRA x (MOVDconst [c] [d]) => (ORconst x [^(c>>uint64(d))])
(ORNshiftRO x (MOVDconst [c] [d]) => (ORconst x [^rotateRight64(c, d)])
(EONshiftLL x (MOVDconst [c] [d]) => (XORconst x [^int64(uint64(c)<<uint64(d))])
(EONshiftRL x (MOVDconst [c] [d]) => (XORconst x [^int64(uint64(c)>>uint64(d))])
(EONshiftRA x (MOVDconst [c] [d]) => (XORconst x [^(c>>uint64(d))])
(EONshiftRO x (MOVDconst [c] [d]) => (XORconst x [^rotateRight64(c, d)])
(CMPshiftLL x (MOVDconst [c] [d]) => (CMPconst x [int64(uint64(c)<<uint64(d))])
(CMPshiftRL x (MOVDconst [c] [d]) => (CMPconst x [int64(uint64(c)>>uint64(d))])
(CMPshiftRA x (MOVDconst [c] [d]) => (CMPconst x [c>>uint64(d)])
(CMNshiftLL x (MOVDconst [c] [d]) => (CMNconst x [int64(uint64(c)<<uint64(d))])
(CMNshiftRL x (MOVDconst [c] [d]) => (CMNconst x [int64(uint64(c)>>uint64(d))])
(CMNshiftRA x (MOVDconst [c] [d]) => (CMNconst x [c>>uint64(d)])
(TSTshiftLL x (MOVDconst [c] [d]) => (TSTconst x [int64(uint64(c)<<uint64(d))])

(TSTshiftRL x (MOVDconst [c] [d]) => (TSTconst x [int64(uint64(c)>>uint64(d))])

(TSTshiftRA x (MOVDconst [c] [d]) => (TSTconst x [c>>uint64(d)])

(TSTshiftRO x (MOVDconst [c] [d]) => (TSTconst x [rotateRight64(c, d)])

// simplification with *shift ops

(SUBshiftLL (SLLconst x [c] x [c]) => (MOVDconst [0])

(SUBshiftRL (SRLconst x [c] x [c]) => (MOVDconst [0])

(SUBshiftRA (SRAconst x [c] x [c]) => (MOVDconst [0])

(ANDshiftLL y:(SLLconst x [c] x [c]) => y

(ANDshiftRL y:(SRLconst x [c] x [c]) => y

(ANDshiftRA y:(SRAconst x [c] x [c]) => y

(ANDshiftRO y:(RORconst x [c] x [c]) => y

(ORshiftLL y:(SLLconst x [c] x [c]) => y

(ORshiftRL y:(SRLconst x [c] x [c]) => y

(ORshiftRA y:(SRAconst x [c] x [c]) => y

(ORshiftRO y:(RORconst x [c] x [c]) => y

(XORshiftLL

(SLLconst x [c] x [c]) => (MOVDconst [0])

(XORshiftRL (SRLconst x [c] x [c]) => (MOVDconst [0])

(XORshiftRA (SRAconst x [c] x [c]) => (MOVDconst [0])

(XORshiftRO (RORconst x [c] x [c]) => (MOVDconst [0])

(BICshiftLL (SLLconst x [c] x [c]) => (MOVDconst [0])

(BICshiftRL (SRLconst x [c] x [c]) => (MOVDconst [0])

(BICshiftRA (SRAconst x [c] x [c]) => (MOVDconst [0])

(BICshiftRO (RORconst x [c] x [c]) => (MOVDconst [0])

(EONshiftLL (SLLconst x [c] x [c]) => (MOVDconst [-1])

(EONshiftRL (SRLconst x [c] x [c]) => (MOVDconst [-1])

(EONshiftRA (SRAconst x [c] x [c]) => (MOVDconst [-1])

(EONshiftRO (RORconst x [c] x [c]) => (MOVDconst [-1])

(ORNshiftLL (SLLconst x [c] x [c]) => (MOVDconst [-1])

(ORNshiftRL (SRLconst x [c] x [c]) => (MOVDconst [-1])

(ORNshiftRA (SRAconst x [c] x [c]) => (MOVDconst [-1])

(ORNshiftRO (RORconst x [c] x [c]) => (MOVDconst [-1])

// Generate rotates with const shift

(ADDshiftLL [c] (SRLconst x [64-c] x) => (RORconst [64-c] x)

(ORshiftLL [c] (SRLconst
x [64-c] x) => (RORconst [64-c] x)

(XORshiftLL [c] (SRLconst x [64-c] x) => (RORconst [64-c] x)

(ADDshiftRL [c] (SLLconst x [64-c] x) => (RORconst [c] x)

(ORshiftRL [c] (SLLconst x [64-c] x) => (RORconst [c] x)

(XORshiftRL [c] (SLLconst x [64-c] x) => (RORconst [c] x)

(ADDshiftLL <t> [c] (UBFX [bfc] x) x) && c < 32 && t.Size() == 4 && bfc == armBFAuxInt(32-c, c)
=> (RORWconst [32-c] x)

(ORshiftLL <t> [c] (UBFX [bfc] x) x) && c < 32 && t.Size() == 4 && bfc == armBFAuxInt(32-c, c)
=> (RORWconst [32-c] x)

(XORshiftLL <t> [c] (UBFX [bfc] x) x) && c < 32 && t.Size() == 4 && bfc == armBFAuxInt(32-c, c)

```

=> (RORWconst [32-c] x)
(ADDshiftRL <t> [c] (SLLconst x [32-c]) (MOVWUreg x)) && c < 32 && t.Size() == 4 => (RORWconst [c] x)
(ORshiftRL <t> [c] (SLLconst x [32-c]) (MOVWUreg x)) && c < 32 && t.Size() == 4 => (RORWconst [c] x)
(XORshiftRL <t> [c] (SLLconst x [32-c]) (MOVWUreg x)) && c < 32 && t.Size() == 4 => (RORWconst [c] x)

(RORconst [c] (RORconst [d] x)) => (RORconst
[(c+d)&63] x)
(RORWconst [c] (RORWconst [d] x)) => (RORWconst [(c+d)&31] x)

// Generate rotates with non-const shift.
// These rules match the Go source code like
// y &= 63
// x << y | x >> (64-y)
// "|" can also be "^" or "+".
// As arm64 does not have a ROL instruction, so ROL(x, y) is replaced by ROR(x, -y).
((ADD|OR|XOR) (SLL x (ANDconst <t> [63] y))
(CSEL0 <typ.UInt64> [cc] (SRL <typ.UInt64> x (SUB <t> (MOVDconst [64]) (ANDconst <t> [63] y))))
(CMPconst [64] (SUB <t> (MOVDconst [64]) (ANDconst <t> [63] y)))) && cc == OpARM64LessThanU
=> (ROR x (NEG <t> y))
((ADD|OR|XOR) (SRL <typ.UInt64> x (ANDconst <t> [63] y))
(CSEL0 <typ.UInt64> [cc] (SLL x (SUB <t> (MOVDconst [64]) (ANDconst <t> [63] y))))
(CMPconst [64] (SUB <t> (MOVDconst [64]) (ANDconst <t> [63] y)))) && cc == OpARM64LessThanU
=> (ROR x y)

// These rules match the Go source code like
// y &= 31
// x << y | x >> (32-y)
// "|" can also be "^" or "+".
// As arm64 does not have a ROLW instruction, so ROLW(x,
y) is replaced by RORW(x, -y).
((ADD|OR|XOR) (SLL x (ANDconst <t> [31] y))
(CSEL0 <typ.UInt32> [cc] (SRL <typ.UInt32> (MOVWUreg x) (SUB <t> (MOVDconst [32]) (ANDconst <t> [31]
y))))
(CMPconst [64] (SUB <t> (MOVDconst [32]) (ANDconst <t> [31] y)))) && cc == OpARM64LessThanU
=> (RORW x (NEG <t> y))
((ADD|OR|XOR) (SRL <typ.UInt32> (MOVWUreg x) (ANDconst <t> [31] y))
(CSEL0 <typ.UInt32> [cc] (SLL x (SUB <t> (MOVDconst [32]) (ANDconst <t> [31] y))))
(CMPconst [64] (SUB <t> (MOVDconst [32]) (ANDconst <t> [31] y)))) && cc == OpARM64LessThanU
=> (RORW x y)

// rev16w | rev16
// ((x>>8) | (x<<8)) => (REV16W x), the type of x is uint16, "|" can also be "^" or "+".
((ADDshiftLL|ORshiftLL|XORshiftLL) <typ.UInt16> [8] (UBFX <typ.UInt16> [armBFAuxInt(8, 8)] x) x) =>
(REV16W x)

// ((x & 0xff00ff00)>>8) | ((x & 0x00ff00ff)<<8), "|" can also be "^" or "+".
((ADDshiftLL|ORshiftLL|XORshiftLL) [8] (UBFX [armBFAuxInt(8, 24)] (ANDconst [c1] x)) (ANDconst [c2] x))
&& uint32(c1) == 0xff00ff00 &&

```



```

uint32(c2) == 0x00ff00ff
=> (REV16W x)

// ((x & 0xff00ff00ff00ff00)>>8) | ((x & 0x00ff00ff00ff00ff)<<8), "|" can also be "^" or "+".
((ADDshiftLL|ORshiftLL|XORshiftLL) [8] (SRLconst [8] (ANDconst [c1] x)) (ANDconst [c2] x))
&& (uint64(c1) == 0xff00ff00ff00ff00 && uint64(c2) == 0x00ff00ff00ff00ff)
=> (REV16 x)

// ((x & 0xff00ff00)>>8) | ((x & 0x00ff00ff)<<8), "|" can also be "^" or "+".
((ADDshiftLL|ORshiftLL|XORshiftLL) [8] (SRLconst [8] (ANDconst [c1] x)) (ANDconst [c2] x))
&& (uint64(c1) == 0xff00ff00 && uint64(c2) == 0x00ff00ff)
=> (REV16 (ANDconst <x.Type> [0xffffffff] x))

// Extract from reg pair
(ADDshiftLL [c] (SRLconst x [64-c] x2) => (EXTRconst [64-c] x2 x)
( ORshiftLL [c] (SRLconst x [64-c] x2) => (EXTRconst [64-c] x2 x)
(XORshiftLL [c] (SRLconst x [64-c] x2) => (EXTRconst [64-c] x2 x)

(ADDshiftLL <t> [c] (UBFX [bfc] x) x2) && c < 32 && t.Size() == 4 && bfc == armBFAuxInt(32-c, c)
=> (EXTRWconst [32-c] x2 x)
( ORshiftLL <t> [c] (UBFX [bfc] x) x2) && c < 32 && t.Size()
== 4 && bfc == armBFAuxInt(32-c, c)
=> (EXTRWconst [32-c] x2 x)
(XORshiftLL <t> [c] (UBFX [bfc] x) x2) && c < 32 && t.Size() == 4 && bfc == armBFAuxInt(32-c, c)
=> (EXTRWconst [32-c] x2 x)

// Rewrite special pairs of shifts to AND.
// On ARM64 the bitmask can fit into an instruction.
(SRLconst [c] (SLLconst [c] x)) && 0 < c && c < 64 => (ANDconst [1<<uint(64-c)-1] x) // mask out high bits
(SLLconst [c] (SRLconst [c] x)) && 0 < c && c < 64 => (ANDconst [^(1<<uint(c)-1)] x) // mask out low bits

// Special case setting bit as 1. An example is math.Copysign(c,-1)
(ORconst [c1] (ANDconst [c2] x)) && c2|c1 == ^0 => (ORconst [c1] x)

// If the shift amount is larger than the datasize(32, 16, 8), we can optimize to constant 0.
(MOVWUreg (SLLconst [lc] x)) && lc >= 32 => (MOVDconst [0])
(MOVHUreg (SLLconst [lc] x)) && lc >= 16 => (MOVDconst [0])
(MOVBUreg (SLLconst [lc] x)) && lc >= 8 => (MOVDconst [0])

// After zero extension, the upper (64-datasize(32|16|8)) bits are zero, we can
optimiza to constant 0.
(SRLconst [rc] (MOVWUreg x)) && rc >= 32 => (MOVDconst [0])
(SRLconst [rc] (MOVHUreg x)) && rc >= 16 => (MOVDconst [0])
(SRLconst [rc] (MOVBUreg x)) && rc >= 8 => (MOVDconst [0])

// bitfield ops

// sbfiz

```

```

// (x << lc) >> rc
(SRAconst [rc] (SLLconst [lc] x)) && lc > rc => (SBFIZ [armBFAuxInt(lc-rc, 64-lc)] x)
// int64(x << lc)
(MOVWreg (SLLconst [lc] x)) && lc < 32 => (SBFIZ [armBFAuxInt(lc, 32-lc)] x)
(MOVHreg (SLLconst [lc] x)) && lc < 16 => (SBFIZ [armBFAuxInt(lc, 16-lc)] x)
(MOVBreg (SLLconst [lc] x)) && lc < 8 => (SBFIZ [armBFAuxInt(lc, 8-lc)] x)
// int64(x) << lc
(SLLconst [lc] (MOVWreg x)) => (SBFIZ [armBFAuxInt(lc, min(32, 64-lc))] x)
(SLLconst [lc] (MOVHreg x)) => (SBFIZ [armBFAuxInt(lc, min(16, 64-lc))] x)
(SLLconst [lc] (MOVBreg x)) => (SBFIZ [armBFAuxInt(lc, min(8, 64-lc))] x)

// sbfx
// (x << lc) >> rc
(SRAconst [rc] (SLLconst [lc] x)) && lc <= rc => (SBFX [armBFAuxInt(rc-lc, 64-rc)] x)
// int64(x) >> rc
(SRAconst [rc] (MOVWreg x)) && rc < 32 =>
(SBFX [armBFAuxInt(rc, 32-rc)] x)
(SRAconst [rc] (MOVHreg x)) && rc < 16 => (SBFX [armBFAuxInt(rc, 16-rc)] x)
(SRAconst [rc] (MOVBreg x)) && rc < 8 => (SBFX [armBFAuxInt(rc, 8-rc)] x)
// merge sbfx and sign-extension into sbfx
(MOVWreg (SBFX [bfc] x)) && bfc.getARM64BFwidth() <= 32 => (SBFX [bfc] x)
(MOVHreg (SBFX [bfc] x)) && bfc.getARM64BFwidth() <= 16 => (SBFX [bfc] x)
(MOVBreg (SBFX [bfc] x)) && bfc.getARM64BFwidth() <= 8 => (SBFX [bfc] x)

// sbfiz/sbfx combinations: merge shifts into bitfield ops
(SRAconst [sc] (SBFIZ [bfc] x)) && sc < bfc.getARM64BFIsb()
=> (SBFIZ [armBFAuxInt(bfc.getARM64BFIsb()-sc, bfc.getARM64BFwidth())] x)
(SRAconst [sc] (SBFIZ [bfc] x)) && sc >= bfc.getARM64BFIsb()
&& sc < bfc.getARM64BFIsb()+bfc.getARM64BFwidth()
=> (SBFX [armBFAuxInt(sc-bfc.getARM64BFIsb(), bfc.getARM64BFIsb()+bfc.getARM64BFwidth()-sc)] x)

// ubfiz
// (x << lc) >> rc
(SRLconst [rc] (SLLconst [lc] x)) && lc > rc => (UBFIZ [armBFAuxInt(lc-rc, 64-lc)] x)
// uint64(x) << lc
(SLLconst [lc]
(MOVWUreg x)) => (UBFIZ [armBFAuxInt(lc, min(32, 64-lc))] x)
(SLLconst [lc] (MOVHUreg x)) => (UBFIZ [armBFAuxInt(lc, min(16, 64-lc))] x)
(SLLconst [lc] (MOVBUreg x)) => (UBFIZ [armBFAuxInt(lc, min(8, 64-lc))] x)
// uint64(x << lc)
(MOVWUreg (SLLconst [lc] x)) && lc < 32 => (UBFIZ [armBFAuxInt(lc, 32-lc)] x)
(MOVHUreg (SLLconst [lc] x)) && lc < 16 => (UBFIZ [armBFAuxInt(lc, 16-lc)] x)
(MOVBUreg (SLLconst [lc] x)) && lc < 8 => (UBFIZ [armBFAuxInt(lc, 8-lc)] x)

// merge ANDconst into ubfiz
// (x & ac) << sc
(SLLconst [sc] (ANDconst [ac] x)) && isARM64BFMask(sc, ac, 0)
=> (UBFIZ [armBFAuxInt(sc, arm64BFWidth(ac, 0))] x)

```

```

// (x << sc) & ac
(ANDconst [ac] (SLLconst [sc] x)) && isARM64BFMask(sc, ac, sc)
=> (UBFIZ [armBFAuxInt(sc, arm64BFWidth(ac, sc))] x)

// ubfx
// (x << lc) >> rc
(SRLconst [rc] (SLLconst [lc] x)) && lc < rc => (UBFX [armBFAuxInt(rc-lc, 64-rc)] x)
// uint64(x) >> rc
(SRLconst [rc] (MOVWUreg x)) && rc < 32 => (UBFX [armBFAuxInt(rc, 32-rc)] x)
(SRLconst [rc] (MOVHUreg
x)) && rc < 16 => (UBFX [armBFAuxInt(rc, 16-rc)] x)
(SRLconst [rc] (MOVBUREg x)) && rc < 8 => (UBFX [armBFAuxInt(rc, 8-rc)] x)
// uint64(x >> rc)
(MOVWUreg (SRLconst [rc] x)) && rc < 32 => (UBFX [armBFAuxInt(rc, 32)] x)
(MOVHUreg (SRLconst [rc] x)) && rc < 16 => (UBFX [armBFAuxInt(rc, 16)] x)
(MOVBUREg (SRLconst [rc] x)) && rc < 8 => (UBFX [armBFAuxInt(rc, 8)] x)
// merge ANDconst into ubfx
// (x >> sc) & ac
(ANDconst [ac] (SRLconst [sc] x)) && isARM64BFMask(sc, ac, 0)
=> (UBFX [armBFAuxInt(sc, arm64BFWidth(ac, 0))] x)
// (x & ac) >> sc
(SRLconst [sc] (ANDconst [ac] x)) && isARM64BFMask(sc, ac, sc)
=> (UBFX [armBFAuxInt(sc, arm64BFWidth(ac, sc))] x)
// merge ANDconst and ubfx into ubfx
(ANDconst [c] (UBFX [bfc] x)) && isARM64BFMask(0, c, 0) =>
(UBFX [armBFAuxInt(bfc.getARM64BFIsb(), min(bfc.getARM64BFwidth(), arm64BFWidth(c, 0)))] x)
(UBFX [bfc] (ANDconst [c] x)) && isARM64BFMask(0, c, 0) && bfc.getARM64BFIsb() +
bfc.getARM64BFwidth() <= arm64BFWidth(c, 0) =>
(UBFX [bfc] x)
// merge
ubfx and zero-extension into ubfx
(MOVWUreg (UBFX [bfc] x)) && bfc.getARM64BFwidth() <= 32 => (UBFX [bfc] x)
(MOVHUreg (UBFX [bfc] x)) && bfc.getARM64BFwidth() <= 16 => (UBFX [bfc] x)
(MOVBUREg (UBFX [bfc] x)) && bfc.getARM64BFwidth() <= 8 => (UBFX [bfc] x)

// ubfiz/ubfx combinations: merge shifts into bitfield ops
(SRLconst [sc] (UBFX [bfc] x)) && sc < bfc.getARM64BFwidth()
=> (UBFX [armBFAuxInt(bfc.getARM64BFIsb()+sc, bfc.getARM64BFwidth()-sc)] x)
(UBFX [bfc] (SRLconst [sc] x)) && sc+bfc.getARM64BFwidth()+bfc.getARM64BFIsb() < 64
=> (UBFX [armBFAuxInt(bfc.getARM64BFIsb()+sc, bfc.getARM64BFwidth())] x)
(SLLconst [sc] (UBFIZ [bfc] x)) && sc+bfc.getARM64BFwidth()+bfc.getARM64BFIsb() < 64
=> (UBFIZ [armBFAuxInt(bfc.getARM64BFIsb()+sc, bfc.getARM64BFwidth())] x)
(UBFIZ [bfc] (SLLconst [sc] x)) && sc < bfc.getARM64BFwidth()
=> (UBFIZ [armBFAuxInt(bfc.getARM64BFIsb()+sc, bfc.getARM64BFwidth()-sc)] x)
// ((x << c1) >> c2) >> c3
(SRLconst [sc] (UBFIZ [bfc] x)) && sc == bfc.getARM64BFIsb()
=>

```

```

(ANDconst [1<<uint(bfc.getARM64BFwidth()-1] x)
(SRLconst [sc] (UBFIZ [bfc] x)) && sc < bfc.getARM64BFIsb()
=> (UBFIZ [armBFAuxInt(bfc.getARM64BFIsb()-sc, bfc.getARM64BFwidth())] x)
(SRLconst [sc] (UBFIZ [bfc] x)) && sc > bfc.getARM64BFIsb()
&& sc < bfc.getARM64BFIsb()+bfc.getARM64BFwidth()
=> (UBFX [armBFAuxInt(sc-bfc.getARM64BFIsb(), bfc.getARM64BFIsb()+bfc.getARM64BFwidth()-sc)] x)
// ((x << c1) << c2) >> c3
(UBFX [bfc] (SLLconst [sc] x)) && sc == bfc.getARM64BFIsb()
=> (ANDconst [1<<uint(bfc.getARM64BFwidth()-1] x)
(UBFX [bfc] (SLLconst [sc] x)) && sc < bfc.getARM64BFIsb()
=> (UBFX [armBFAuxInt(bfc.getARM64BFIsb()-sc, bfc.getARM64BFwidth())] x)
(UBFX [bfc] (SLLconst [sc] x)) && sc > bfc.getARM64BFIsb()
&& sc < bfc.getARM64BFIsb()+bfc.getARM64BFwidth()
=> (UBFIZ [armBFAuxInt(sc-bfc.getARM64BFIsb(), bfc.getARM64BFIsb()+bfc.getARM64BFwidth()-sc)] x)

// bfi
(OR (UBFIZ [bfc] x) (ANDconst [ac] y))
&& ac == ^((1<<uint(bfc.getARM64BFwidth()-1) << uint(bfc.getARM64BFIsb())))
=>
(BFI [bfc] y x)
(ORshiftRL [rc] (ANDconst [ac] x) (SLLconst [lc] y))
&& lc > rc && ac == ^((1<<uint(64-lc)-1) << uint64(lc-rc))
=> (BFI [armBFAuxInt(lc-rc, 64-lc)] x y)
// bfxil
(OR (UBFX [bfc] x) (ANDconst [ac] y)) && ac == ^((1<<uint(bfc.getARM64BFwidth()-1)
=> (BFXIL [bfc] y x)
(ORshiftLL [sc] (UBFX [bfc] x) (SRLconst [sc] y)) && sc == bfc.getARM64BFwidth()
=> (BFXIL [bfc] y x)
(ORshiftRL [rc] (ANDconst [ac] y) (SLLconst [lc] x)) && lc < rc && ac == ^((1<<uint(64-rc)-1))
=> (BFXIL [armBFAuxInt(rc-lc, 64-rc)] y x)

// do combined loads
// little endian loads
// b[0] | b[1]<<8 => load 16-bit
(ORshiftLL <t> [8]
y0:(MOVDnop x0:(MOVBUload [i0] {s} p mem))
y1:(MOVDnop x1:(MOVBUload [i1] {s} p mem)))
&& i1 == i0+1
&& x0.Uses == 1 && x1.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, y0, y1)
=> @mergePoint(b,x0,x1) (MOVHUload <t> {s} (OffPtr <p.Type> [int64(i0)] p) mem)
(ORshiftLL <t> [8]
y0:(MOVDnop x0:(MOVBUloadidx ptr0 idx0
mem))
y1:(MOVDnop x1:(MOVBUload [1] {s} p1:(ADD ptr1 idx1 mem)))
&& s == nil

```

```

&& x0.Uses == 1 && x1.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x0, x1, y0, y1)
=> @mergePoint(b,x0,x1) (MOVHULoadidx <t> ptr0 idx0 mem)
(ORshiftLL <t> [8]
y0:(MOVDnop x0:(MOVBUloadidx ptr idx mem))
y1:(MOVDnop x1:(MOVBUloadidx ptr (ADDconst [1] idx) mem)))
&& x0.Uses == 1 && x1.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, y0, y1)
=> @mergePoint(b,x0,x1) (MOVHULoadidx <t> ptr idx mem)

// b[0] | b[1]<<8 | b[2]<<16 | b[3]<<24 => load 32-bit
(ORshiftLL <t> [24] o0:(ORshiftLL [16]
    x0:(MOVHULoad [i0] {s} p mem)
y1:(MOVDnop x1:(MOVBUload [i2] {s} p mem)))
y2:(MOVDnop x2:(MOVBUload [i3] {s} p mem)))
&& i2 == i0+2
&& i3 == i0+3
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1
&& y1.Uses == 1 &&
y2.Uses == 1
&& o0.Uses == 1
&& mergePoint(b,x0,x1,x2) != nil
&& clobber(x0, x1, x2, y1, y2, o0)
=> @mergePoint(b,x0,x1,x2) (MOVWULoad <t> {s} (OffPtr <p.Type> [int64(i0)] p) mem)
(ORshiftLL <t> [24] o0:(ORshiftLL [16]
    x0:(MOVHULoadidx ptr0 idx0 mem)
y1:(MOVDnop x1:(MOVBUload [2] {s} p1:(ADD ptr1 idx1) mem)))
y2:(MOVDnop x2:(MOVBUload [3] {s} p mem)))
&& s == nil
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1
&& y1.Uses == 1 && y2.Uses == 1
&& o0.Uses == 1
&& mergePoint(b,x0,x1,x2) != nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& isSamePtr(p1, p)
&& clobber(x0, x1, x2, y1, y2, o0)
=> @mergePoint(b,x0,x1,x2) (MOVWULoadidx <t> ptr0 idx0 mem)
(ORshiftLL <t> [24] o0:(ORshiftLL [16]
    x0:(MOVHULoadidx ptr idx mem)
y1:(MOVDnop x1:(MOVBUloadidx ptr (ADDconst [2] idx) mem)))
y2:(MOVDnop x2:(MOVBUloadidx ptr (ADDconst [3] idx) mem)))
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1
&& y1.Uses

```

```

== 1 && y2.Uses == 1
&& o0.Uses == 1
&& mergePoint(b,x0,x1,x2) != nil
&& clobber(x0, x1, x2, y1, y2, o0)
=> @mergePoint(b,x0,x1,x2) (MOVWUloadidx <t> ptr idx mem)
(ORshiftLL <t> [24] o0:(ORshiftLL [16]
    x0:(MOVHUloadidx2 ptr0 idx0 mem)
y1:(MOVDnop x1:(MOVBUload [2] {s} p1:(ADDshiftLL [1] ptr1 idx1) mem)))
y2:(MOVDnop x2:(MOVBUload [3] {s} p mem)))
&& s == nil
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1
&& y1.Uses == 1 && y2.Uses == 1
&& o0.Uses == 1
&& mergePoint(b,x0,x1,x2) != nil
&& isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1)
&& isSamePtr(p1, p)
&& clobber(x0, x1, x2, y1, y2, o0)
=> @mergePoint(b,x0,x1,x2) (MOVWUloadidx <t> ptr0 (SLLconst <idx0.Type> [1] idx0) mem)

// b[0] | b[1]<<8 | b[2]<<16 | b[3]<<24 | b[4]<<32 | b[5]<<40 | b[6]<<48 | b[7]<<56 => load 64-bit
(ORshiftLL <t> [56] o0:(ORshiftLL [48] o1:(ORshiftLL [40] o2:(ORshiftLL [32]
    x0:(MOVWUload [i0] {s} p mem)
y1:(MOVDnop x1:(MOVBUload [i4] {s} p mem)))
y2:(MOVDnop x2:(MOVBUload
[i5] {s} p mem)))
y3:(MOVDnop x3:(MOVBUload [i6] {s} p mem)))
y4:(MOVDnop x4:(MOVBUload [i7] {s} p mem)))
&& i4 == i0+4
&& i5 == i0+5
&& i6 == i0+6
&& i7 == i0+7
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1 && x4.Uses == 1
&& y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1 && y4.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1
&& mergePoint(b,x0,x1,x2,x3,x4) != nil
&& clobber(x0, x1, x2, x3, x4, y1, y2, y3, y4, o0, o1, o2)
=> @mergePoint(b,x0,x1,x2,x3,x4) (MOVDload <t> {s} (OffPtr <p.Type> [int64(i0)] p) mem)
(ORshiftLL <t> [56] o0:(ORshiftLL [48] o1:(ORshiftLL [40] o2:(ORshiftLL [32]
    x0:(MOVWUloadidx ptr0 idx0 mem)
y1:(MOVDnop x1:(MOVBUload [4] {s} p1:(ADD ptr1 idx1) mem)))
y2:(MOVDnop x2:(MOVBUload [5] {s} p mem)))
y3:(MOVDnop x3:(MOVBUload [6] {s} p mem)))
y4:(MOVDnop x4:(MOVBUload [7] {s} p mem)))
&& s == nil
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1 && x4.Uses == 1
&& y1.Uses == 1 && y2.Uses == 1 &&
y3.Uses == 1 && y4.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1

```

```

&& mergePoint(b,x0,x1,x2,x3,x4) != nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& isSamePtr(p1, p)
&& clobber(x0, x1, x2, x3, x4, y1, y2, y3, y4, o0, o1, o2)
=> @mergePoint(b,x0,x1,x2,x3,x4) (MOVDloadidx <t> ptr0 idx0 mem)
(ORshiftLL <t> [56] o0:(ORshiftLL [48] o1:(ORshiftLL [40] o2:(ORshiftLL [32]
    x0:(MOVWUloadidx4 ptr0 idx0 mem)
y1:(MOVDnop x1:(MOVBUload [4] {s} p1:(ADDshiftLL [2] ptr1 idx1) mem)))
y2:(MOVDnop x2:(MOVBUload [5] {s} p mem)))
y3:(MOVDnop x3:(MOVBUload [6] {s} p mem)))
y4:(MOVDnop x4:(MOVBUload [7] {s} p mem)))
&& s == nil
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1 && x4.Uses == 1
&& y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1 && y4.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1
&& mergePoint(b,x0,x1,x2,x3,x4) != nil
&& isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1)
&&
isSamePtr(p1, p)
&& clobber(x0, x1, x2, x3, x4, y1, y2, y3, y4, o0, o1, o2)
=> @mergePoint(b,x0,x1,x2,x3,x4) (MOVDloadidx <t> ptr0 (SLLconst <idx0.Type> [2] idx0) mem)
(ORshiftLL <t> [56] o0:(ORshiftLL [48] o1:(ORshiftLL [40] o2:(ORshiftLL [32]
    x0:(MOVWUloadidx ptr idx mem)
y1:(MOVDnop x1:(MOVBUloadidx ptr (ADDconst [4] idx) mem)))
y2:(MOVDnop x2:(MOVBUloadidx ptr (ADDconst [5] idx) mem)))
y3:(MOVDnop x3:(MOVBUloadidx ptr (ADDconst [6] idx) mem)))
y4:(MOVDnop x4:(MOVBUloadidx ptr (ADDconst [7] idx) mem)))
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1 && x4.Uses == 1
&& y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1 && y4.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1
&& mergePoint(b,x0,x1,x2,x3,x4) != nil
&& clobber(x0, x1, x2, x3, x4, y1, y2, y3, y4, o0, o1, o2)
=> @mergePoint(b,x0,x1,x2,x3,x4) (MOVDloadidx <t> ptr idx mem)

// b[3]<<24 | b[2]<<16 | b[1]<<8 | b[0] => load 32-bit
(OR <t> o0:(ORshiftLL [8] o1:(ORshiftLL [16] s0:(SLLconst
[24]
y0:(MOVDnop x0:(MOVBUload [i3] {s} p mem)))
y1:(MOVDnop x1:(MOVBUload [i2] {s} p mem)))
y2:(MOVDnop x2:(MOVBUload [i1] {s} p mem)))
y3:(MOVDnop x3:(MOVBUload [i0] {s} p mem)))
&& i1 == i0+1
&& i2 == i0+2
&& i3 == i0+3
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && s0.Uses == 1
&& mergePoint(b,x0,x1,x2,x3) != nil

```

```

&& clobber(x0, x1, x2, x3, y0, y1, y2, y3, o0, o1, s0)
=> @mergePoint(b,x0,x1,x2,x3) (MOVWUload <t> {s} (OffPtr <p.Type> [int64(i0)] p) mem)
(OR <t> o0:(ORshiftLL [8] o1:(ORshiftLL [16] s0:(SLLconst [24]
y0:(MOVDnop x0:(MOVBUload [3] {s} p mem)))
y1:(MOVDnop x1:(MOVBUload [2] {s} p mem)))
y2:(MOVDnop x2:(MOVBUload [1] {s} p1:(ADD ptr1 idx1) mem)))
y3:(MOVDnop x3:(MOVBUloadidx ptr0 idx0 mem)))
&& s == nil
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1
&& o0.Uses
== 1 && o1.Uses == 1 && s0.Uses == 1
&& mergePoint(b,x0,x1,x2,x3) != nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& isSamePtr(p1, p)
&& clobber(x0, x1, x2, x3, y0, y1, y2, y3, o0, o1, s0)
=> @mergePoint(b,x0,x1,x2,x3) (MOVWUloadidx <t> ptr0 idx0 mem)
(OR <t> o0:(ORshiftLL [8] o1:(ORshiftLL [16] s0:(SLLconst [24]
y0:(MOVDnop x0:(MOVBUloadidx ptr (ADDconst [3] idx) mem)))
y1:(MOVDnop x1:(MOVBUloadidx ptr (ADDconst [2] idx) mem)))
y2:(MOVDnop x2:(MOVBUloadidx ptr (ADDconst [1] idx) mem)))
y3:(MOVDnop x3:(MOVBUloadidx ptr idx mem)))
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && s0.Uses == 1
&& mergePoint(b,x0,x1,x2,x3) != nil
&& clobber(x0, x1, x2, x3, y0, y1, y2, y3, o0, o1, s0)
=> @mergePoint(b,x0,x1,x2,x3) (MOVWUloadidx <t> ptr idx mem)

// b[7]<<56 | b[6]<<48 | b[5]<<40 | b[4]<<32 | b[3]<<24
| b[2]<<16 | b[1]<<8 | b[0] => load 64-bit
(OR <t> o0:(ORshiftLL [8] o1:(ORshiftLL [16] o2:(ORshiftLL [24] o3:(ORshiftLL [32] o4:(ORshiftLL [40]
o5:(ORshiftLL [48] s0:(SLLconst [56]
y0:(MOVDnop x0:(MOVBUload [i7] {s} p mem)))
y1:(MOVDnop x1:(MOVBUload [i6] {s} p mem)))
y2:(MOVDnop x2:(MOVBUload [i5] {s} p mem)))
y3:(MOVDnop x3:(MOVBUload [i4] {s} p mem)))
y4:(MOVDnop x4:(MOVBUload [i3] {s} p mem)))
y5:(MOVDnop x5:(MOVBUload [i2] {s} p mem)))
y6:(MOVDnop x6:(MOVBUload [i1] {s} p mem)))
y7:(MOVDnop x7:(MOVBUload [i0] {s} p mem)))
&& i1 == i0+1
&& i2 == i0+2
&& i3 == i0+3
&& i4 == i0+4
&& i5 == i0+5
&& i6 == i0+6
&& i7 == i0+7

```



```

&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1
&& x4.Uses == 1 && x5.Uses == 1 && x6.Uses == 1 && x7.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1
&& y4.Uses == 1 && y5.Uses == 1 && y6.Uses == 1 && y7.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1 && o3.Uses == 1
&& o4.Uses == 1 && o5.Uses
== 1 && s0.Uses == 1
&& mergePoint(b,x0,x1,x2,x3,x4,x5,x6,x7) != nil
&& clobber(x0, x1, x2, x3, x4, x5, x6, x7, y0, y1, y2, y3, y4, y5, y6, y7, o0, o1, o2, o3, o4, o5, s0)
=> @mergePoint(b,x0,x1,x2,x3,x4,x5,x6,x7) (MOVDload <t> {s} (OffPtr <p.Type> [int64(i0)] p) mem)
(OR <t> o0:(ORshiftLL [8] o1:(ORshiftLL [16] o2:(ORshiftLL [24] o3:(ORshiftLL [32] o4:(ORshiftLL [40]
o5:(ORshiftLL [48] s0:(SLLconst [56]
y0:(MOVDnop x0:(MOVBUload [7] {s} p mem)))
y1:(MOVDnop x1:(MOVBUload [6] {s} p mem)))
y2:(MOVDnop x2:(MOVBUload [5] {s} p mem)))
y3:(MOVDnop x3:(MOVBUload [4] {s} p mem)))
y4:(MOVDnop x4:(MOVBUload [3] {s} p mem)))
y5:(MOVDnop x5:(MOVBUload [2] {s} p mem)))
y6:(MOVDnop x6:(MOVBUload [1] {s} p1:(ADD ptr1 idx1 mem)))
y7:(MOVDnop x7:(MOVBUloadidx ptr0 idx0 mem)))
&& s == nil
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1
&& x4.Uses == 1 && x5.Uses == 1 && x6.Uses == 1 && x7.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1
&& y4.Uses
== 1 && y5.Uses == 1 && y6.Uses == 1 && y7.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1 && o3.Uses == 1
&& o4.Uses == 1 && o5.Uses == 1 && s0.Uses == 1
&& mergePoint(b,x0,x1,x2,x3,x4,x5,x6,x7) != nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& isSamePtr(p1, p)
&& clobber(x0, x1, x2, x3, x4, x5, x6, x7, y0, y1, y2, y3, y4, y5, y6, y7, o0, o1, o2, o3, o4, o5, s0)
=> @mergePoint(b,x0,x1,x2,x3,x4,x5,x6,x7) (MOVDloadidx <t> ptr0 idx0 mem)
(OR <t> o0:(ORshiftLL [8] o1:(ORshiftLL [16] o2:(ORshiftLL [24] o3:(ORshiftLL [32] o4:(ORshiftLL [40]
o5:(ORshiftLL [48] s0:(SLLconst [56]
y0:(MOVDnop x0:(MOVBUloadidx ptr (ADDconst [7] idx) mem)))
y1:(MOVDnop x1:(MOVBUloadidx ptr (ADDconst [6] idx) mem)))
y2:(MOVDnop x2:(MOVBUloadidx ptr (ADDconst [5] idx) mem)))
y3:(MOVDnop x3:(MOVBUloadidx ptr (ADDconst [4] idx) mem)))
y4:(MOVDnop x4:(MOVBUloadidx ptr (ADDconst [3] idx) mem)))
y5:(MOVDnop x5:(MOVBUloadidx ptr (ADDconst
[2] idx) mem)))
y6:(MOVDnop x6:(MOVBUloadidx ptr (ADDconst [1] idx) mem)))
y7:(MOVDnop x7:(MOVBUloadidx ptr idx mem)))
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1
&& x4.Uses == 1 && x5.Uses == 1 && x6.Uses == 1 && x7.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1
&& y4.Uses == 1 && y5.Uses == 1 && y6.Uses == 1 && y7.Uses == 1

```

```

&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1 && o3.Uses == 1
&& o4.Uses == 1 && o5.Uses == 1 && s0.Uses == 1
&& mergePoint(b,x0,x1,x2,x3,x4,x5,x6,x7) != nil
&& clobber(x0, x1, x2, x3, x4, x5, x6, x7, y0, y1, y2, y3, y4, y5, y6, y7, o0, o1, o2, o3, o4, o5, s0)
=> @mergePoint(b,x0,x1,x2,x3,x4,x5,x6,x7) (MOVDloadidx <t> ptr idx mem)

// big endian loads
// b[1] | b[0]<<8 => load 16-bit, reverse
(ORshiftLL <t> [8]
y0:(MOVDnop x0:(MOVBUload [i1] {s} p mem))
y1:(MOVDnop x1:(MOVBUload [i0] {s} p mem)))
&& i1 == i0+1
&& x0.Uses == 1 && x1.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1
&& mergePoint(b,x0,x1)
!= nil
&& clobber(x0, x1, y0, y1)
=> @mergePoint(b,x0,x1) (REV16W <t> (MOVHUload <t> [i0] {s} p mem))
(ORshiftLL <t> [8]
y0:(MOVDnop x0:(MOVBUload [1] {s} p1:(ADD ptr1 idx1) mem))
y1:(MOVDnop x1:(MOVBUloadidx ptr0 idx0 mem)))
&& s == nil
&& x0.Uses == 1 && x1.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x0, x1, y0, y1)
=> @mergePoint(b,x0,x1) (REV16W <t> (MOVHUloadidx <t> ptr0 idx0 mem))
(ORshiftLL <t> [8]
y0:(MOVDnop x0:(MOVBUloadidx ptr (ADDconst [1] idx) mem))
y1:(MOVDnop x1:(MOVBUloadidx ptr idx mem)))
&& x0.Uses == 1 && x1.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, y0, y1)
=> @mergePoint(b,x0,x1) (REV16W <t> (MOVHUloadidx <t> ptr idx mem))

// b[3] | b[2]<<8 | b[1]<<16 | b[0]<<24 => load 32-bit, reverse
(ORshiftLL <t> [24] o0:(ORshiftLL [16]
y0:(REV16W x0:(MOVHUload [i2]
{s} p mem))
y1:(MOVDnop x1:(MOVBUload [i1] {s} p mem)))
y2:(MOVDnop x2:(MOVBUload [i0] {s} p mem)))
&& i1 == i0+1
&& i2 == i0+2
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1
&& o0.Uses == 1

```

```

&& mergePoint(b,x0,x1,x2) != nil
&& clobber(x0, x1, x2, y0, y1, y2, o0)
=> @mergePoint(b,x0,x1,x2) (REVW <t> (MOVWUload <t> {s} (OffPtr <p.Type> [int64(i0)] p) mem))
(ORshiftLL <t> [24] o0:(ORshiftLL [16]
y0:(REV16W x0:(MOVHUload [2] {s} p mem))
y1:(MOVDnop x1:(MOVBUload [1] {s} p1:(ADD ptr1 idx1) mem)))
y2:(MOVDnop x2:(MOVBUloadidx ptr0 idx0 mem)))
&& s == nil
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1
&& o0.Uses == 1
&& mergePoint(b,x0,x1,x2) != nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& isSamePtr(p1, p)
&& clobber(x0, x1, x2, y0, y1, y2, o0)
=> @mergePoint(b,x0,x1,x2) (REVW <t> (MOVWUloadidx <t> ptr0 idx0 mem))
(ORshiftLL
<t> [24] o0:(ORshiftLL [16]
y0:(REV16W x0:(MOVHUloadidx ptr (ADDconst [2] idx) mem))
y1:(MOVDnop x1:(MOVBUloadidx ptr (ADDconst [1] idx) mem)))
y2:(MOVDnop x2:(MOVBUloadidx ptr idx mem)))
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1
&& o0.Uses == 1
&& mergePoint(b,x0,x1,x2) != nil
&& clobber(x0, x1, x2, y0, y1, y2, o0)
=> @mergePoint(b,x0,x1,x2) (REVW <t> (MOVWUloadidx <t> ptr idx mem))

// b[7] | b[6]<<8 | b[5]<<16 | b[4]<<24 | b[3]<<32 | b[2]<<40 | b[1]<<48 | b[0]<<56 => load 64-bit, reverse
(ORshiftLL <t> [56] o0:(ORshiftLL [48] o1:(ORshiftLL [40] o2:(ORshiftLL [32]
y0:(REVW x0:(MOVWUload [i4] {s} p mem))
y1:(MOVDnop x1:(MOVBUload [i3] {s} p mem)))
y2:(MOVDnop x2:(MOVBUload [i2] {s} p mem)))
y3:(MOVDnop x3:(MOVBUload [i1] {s} p mem)))
y4:(MOVDnop x4:(MOVBUload [i0] {s} p mem)))
&& i1 == i0+1
&& i2 == i0+2
&& i3 == i0+3
&& i4 == i0+4
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1
&& x4.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1 && y4.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1
&& mergePoint(b,x0,x1,x2,x3,x4) != nil
&& clobber(x0, x1, x2, x3, x4, y0, y1, y2, y3, y4, o0, o1, o2)
=> @mergePoint(b,x0,x1,x2,x3,x4) (REV <t> (MOVDload <t> {s} (OffPtr <p.Type> [int64(i0)] p) mem))
(ORshiftLL <t> [56] o0:(ORshiftLL [48] o1:(ORshiftLL [40] o2:(ORshiftLL [32]
y0:(REVW x0:(MOVWUload [4] {s} p mem))

```

```

y1:(MOVDnop x1:(MOVBUload [3] {s} p mem)))
y2:(MOVDnop x2:(MOVBUload [2] {s} p mem)))
y3:(MOVDnop x3:(MOVBUload [1] {s} p1:(ADD ptr1 idx1 mem)))
y4:(MOVDnop x4:(MOVBUloadidx ptr0 idx0 mem)))
&& s == nil
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1 && x4.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1 && y4.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1
&& mergePoint(b,x0,x1,x2,x3,x4) != nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0,
idx1) && isSamePtr(idx0, ptr1))
&& isSamePtr(p1, p)
&& clobber(x0, x1, x2, x3, x4, y0, y1, y2, y3, y4, o0, o1, o2)
=> @mergePoint(b,x0,x1,x2,x3,x4) (REV <t> (MOVDloadidx <t> ptr0 idx0 mem))
(ORshiftLL <t> [56] o0:(ORshiftLL [48] o1:(ORshiftLL [40] o2:(ORshiftLL [32]
y0:(REVW x0:(MOVWUloadidx ptr (ADDconst [4] idx) mem))
y1:(MOVDnop x1:(MOVBUloadidx ptr (ADDconst [3] idx) mem)))
y2:(MOVDnop x2:(MOVBUloadidx ptr (ADDconst [2] idx) mem)))
y3:(MOVDnop x3:(MOVBUloadidx ptr (ADDconst [1] idx) mem)))
y4:(MOVDnop x4:(MOVBUloadidx ptr idx mem)))
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1 && x4.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1 && y4.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1
&& mergePoint(b,x0,x1,x2,x3,x4) != nil
&& clobber(x0, x1, x2, x3, x4, y0, y1, y2, y3, y4, o0, o1, o2)
=> @mergePoint(b,x0,x1,x2,x3,x4) (REV <t> (MOVDloadidx <t> ptr idx mem))

// b[0]<<24 | b[1]<<16 | b[2]<<8 | b[3] => load 32-bit,
reverse
(OR <t> o0:(ORshiftLL [8] o1:(ORshiftLL [16] s0:(SLLconst [24]
y0:(MOVDnop x0:(MOVBUload [i0] {s} p mem)))
y1:(MOVDnop x1:(MOVBUload [i1] {s} p mem)))
y2:(MOVDnop x2:(MOVBUload [i2] {s} p mem)))
y3:(MOVDnop x3:(MOVBUload [i3] {s} p mem)))
&& i1 == i0+1
&& i2 == i0+2
&& i3 == i0+3
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && s0.Uses == 1
&& mergePoint(b,x0,x1,x2,x3) != nil
&& clobber(x0, x1, x2, x3, y0, y1, y2, y3, o0, o1, s0)
=> @mergePoint(b,x0,x1,x2,x3) (REVW <t> (MOVWUload <t> {s} (OffPtr <p.Type> [int64(i0)] p) mem))
(OR <t> o0:(ORshiftLL [8] o1:(ORshiftLL [16] s0:(SLLconst [24]
y0:(MOVDnop x0:(MOVBUloadidx ptr0 idx0 mem)))
y1:(MOVDnop x1:(MOVBUload [1] {s} p1:(ADD ptr1 idx1 mem)))
y2:(MOVDnop x2:(MOVBUload [2] {s} p mem)))
y3:(MOVDnop x3:(MOVBUload [3] {s} p mem)))

```

```

&& s == nil
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses ==
1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && s0.Uses == 1
&& mergePoint(b,x0,x1,x2,x3) != nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& isSamePtr(p1, p)
&& clobber(x0, x1, x2, x3, y0, y1, y2, y3, o0, o1, s0)
=> @mergePoint(b,x0,x1,x2,x3) (REVW <t> (MOVWUloadidx <t> ptr0 idx0 mem))
(OR <t> o0:(ORshiftLL [8] o1:(ORshiftLL [16] s0:(SLLconst [24]
y0:(MOVDnop x0:(MOVBUloadidx ptr idx mem)))
y1:(MOVDnop x1:(MOVBUloadidx ptr (ADDconst [1] idx) mem)))
y2:(MOVDnop x2:(MOVBUloadidx ptr (ADDconst [2] idx) mem)))
y3:(MOVDnop x3:(MOVBUloadidx ptr (ADDconst [3] idx) mem)))
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && s0.Uses == 1
&& mergePoint(b,x0,x1,x2,x3) != nil
&& clobber(x0, x1, x2, x3, y0, y1, y2, y3, o0, o1, s0)
=> @mergePoint(b,x0,x1,x2,x3)
(REVW <t> (MOVWUloadidx <t> ptr idx mem))

// b[0]<<56 | b[1]<<48 | b[2]<<40 | b[3]<<32 | b[4]<<24 | b[5]<<16 | b[6]<<8 | b[7] => load 64-bit, reverse
(OR <t> o0:(ORshiftLL [8] o1:(ORshiftLL [16] o2:(ORshiftLL [24] o3:(ORshiftLL [32] o4:(ORshiftLL [40]
o5:(ORshiftLL [48] s0:(SLLconst [56]
y0:(MOVDnop x0:(MOVBUload [i0] {s} p mem)))
y1:(MOVDnop x1:(MOVBUload [i1] {s} p mem)))
y2:(MOVDnop x2:(MOVBUload [i2] {s} p mem)))
y3:(MOVDnop x3:(MOVBUload [i3] {s} p mem)))
y4:(MOVDnop x4:(MOVBUload [i4] {s} p mem)))
y5:(MOVDnop x5:(MOVBUload [i5] {s} p mem)))
y6:(MOVDnop x6:(MOVBUload [i6] {s} p mem)))
y7:(MOVDnop x7:(MOVBUload [i7] {s} p mem)))
&& i1 == i0+1
&& i2 == i0+2
&& i3 == i0+3
&& i4 == i0+4
&& i5 == i0+5
&& i6 == i0+6
&& i7 == i0+7
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1
&& x4.Uses == 1 && x5.Uses == 1 && x6.Uses == 1 && x7.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1
&& y4.Uses == 1 && y5.Uses == 1 && y6.Uses == 1
&& y7.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1 && o3.Uses == 1
&& o4.Uses == 1 && o5.Uses == 1 && s0.Uses == 1

```

```

&& mergePoint(b,x0,x1,x2,x3,x4,x5,x6,x7) != nil
&& clobber(x0, x1, x2, x3, x4, x5, x6, x7, y0, y1, y2, y3, y4, y5, y6, y7, o0, o1, o2, o3, o4, o5, s0)
=> @mergePoint(b,x0,x1,x2,x3,x4,x5,x6,x7) (REV <↳ (MOVDload <↳ {s} (OffPtr <p.Type> [int64(i0)] p) mem))
(OR <↳ o0:(ORshiftLL [8] o1:(ORshiftLL [16] o2:(ORshiftLL [24] o3:(ORshiftLL [32] o4:(ORshiftLL [40]
o5:(ORshiftLL [48] s0:(SLLconst [56]
y0:(MOVDnop x0:(MOVBUloadidx ptr0 idx0 mem)))
y1:(MOVDnop x1:(MOVBUload [1] {s} p1:(ADD ptr1 idx1) mem)))
y2:(MOVDnop x2:(MOVBUload [2] {s} p mem)))
y3:(MOVDnop x3:(MOVBUload [3] {s} p mem)))
y4:(MOVDnop x4:(MOVBUload [4] {s} p mem)))
y5:(MOVDnop x5:(MOVBUload [5] {s} p mem)))
y6:(MOVDnop x6:(MOVBUload [6] {s} p mem)))
y7:(MOVDnop x7:(MOVBUload [7] {s} p mem)))
&& s == nil
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1
&& x4.Uses == 1 &&
x5.Uses == 1 && x6.Uses == 1 && x7.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1
&& y4.Uses == 1 && y5.Uses == 1 && y6.Uses == 1 && y7.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1 && o3.Uses == 1
&& o4.Uses == 1 && o5.Uses == 1 && s0.Uses == 1
&& mergePoint(b,x0,x1,x2,x3,x4,x5,x6,x7) != nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& isSamePtr(p1, p)
&& clobber(x0, x1, x2, x3, x4, x5, x6, x7, y0, y1, y2, y3, y4, y5, y6, y7, o0, o1, o2, o3, o4, o5, s0)
=> @mergePoint(b,x0,x1,x2,x3,x4,x5,x6,x7) (REV <↳ (MOVDloadidx <↳ ptr0 idx0 mem))
(OR <↳ o0:(ORshiftLL [8] o1:(ORshiftLL [16] o2:(ORshiftLL [24] o3:(ORshiftLL [32] o4:(ORshiftLL [40]
o5:(ORshiftLL [48] s0:(SLLconst [56]
y0:(MOVDnop x0:(MOVBUloadidx ptr idx mem)))
y1:(MOVDnop x1:(MOVBUloadidx ptr (ADDconst [1] idx) mem)))
y2:(MOVDnop x2:(MOVBUloadidx ptr (ADDconst [2] idx) mem)))
y3:(MOVDnop x3:(MOVBUloadidx ptr (ADDconst [3]
idx) mem)))
y4:(MOVDnop x4:(MOVBUloadidx ptr (ADDconst [4] idx) mem)))
y5:(MOVDnop x5:(MOVBUloadidx ptr (ADDconst [5] idx) mem)))
y6:(MOVDnop x6:(MOVBUloadidx ptr (ADDconst [6] idx) mem)))
y7:(MOVDnop x7:(MOVBUloadidx ptr (ADDconst [7] idx) mem)))
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1
&& x4.Uses == 1 && x5.Uses == 1 && x6.Uses == 1 && x7.Uses == 1
&& y0.Uses == 1 && y1.Uses == 1 && y2.Uses == 1 && y3.Uses == 1
&& y4.Uses == 1 && y5.Uses == 1 && y6.Uses == 1 && y7.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1 && o3.Uses == 1
&& o4.Uses == 1 && o5.Uses == 1 && s0.Uses == 1
&& mergePoint(b,x0,x1,x2,x3,x4,x5,x6,x7) != nil
&& clobber(x0, x1, x2, x3, x4, x5, x6, x7, y0, y1, y2, y3, y4, y5, y6, y7, o0, o1, o2, o3, o4, o5, s0)
=> @mergePoint(b,x0,x1,x2,x3,x4,x5,x6,x7) (REV <↳ (MOVDloadidx <↳ ptr idx mem))

```

// Combine zero stores into larger (unaligned) stores.

```

(MOVBstorezero [i] {s} ptr0 x:(MOVBstorezero [j] {s} ptr1 mem))
  && x.Uses == 1
  &&
  areAdjacentOffsets(int64(i),int64(j),1)
  && isSamePtr(ptr0, ptr1)
  && clobber(x)
=> (MOVHstorezero [int32(min(int64(i),int64(j)))] {s} ptr0 mem)
(MOVBstorezero [1] {s} (ADD ptr0 idx0) x:(MOVBstorezeroidx ptr1 idx1 mem))
  && x.Uses == 1
  && s == nil
  && (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
  && clobber(x)
=> (MOVHstorezeroidx ptr1 idx1 mem)
(MOVBstorezeroidx ptr (ADDconst [1] idx) x:(MOVBstorezeroidx ptr idx mem))
  && x.Uses == 1
  && clobber(x)
=> (MOVHstorezeroidx ptr idx mem)
(MOVHstorezero [i] {s} ptr0 x:(MOVHstorezero [j] {s} ptr1 mem))
  && x.Uses == 1
  && areAdjacentOffsets(int64(i),int64(j),2)
  && isSamePtr(ptr0, ptr1)
  && clobber(x)
=> (MOVWstorezero [int32(min(int64(i),int64(j)))] {s} ptr0 mem)
(MOVHstorezero [2] {s} (ADD ptr0 idx0) x:(MOVHstorezeroidx ptr1 idx1 mem))
  && x.Uses == 1
  && s == nil
  && (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
  && clobber(x)
=>
(MOVWstorezeroidx ptr1 idx1 mem)
(MOVHstorezeroidx ptr (ADDconst [2] idx) x:(MOVHstorezeroidx ptr idx mem))
  && x.Uses == 1
  && clobber(x)
=> (MOVWstorezeroidx ptr idx mem)
(MOVHstorezero [2] {s} (ADDshiftLL [1] ptr0 idx0) x:(MOVHstorezeroidx2 ptr1 idx1 mem))
  && x.Uses == 1
  && s == nil
  && isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1)
  && clobber(x)
=> (MOVWstorezeroidx ptr1 (SLLconst <idx1.Type> [1] idx1) mem)
(MOVWstorezero [i] {s} ptr0 x:(MOVWstorezero [j] {s} ptr1 mem))
  && x.Uses == 1
  && areAdjacentOffsets(int64(i),int64(j),4)
  && isSamePtr(ptr0, ptr1)
  && clobber(x)
=> (MOVDstorezero [int32(min(int64(i),int64(j)))] {s} ptr0 mem)
(MOVWstorezero [4] {s} (ADD ptr0 idx0) x:(MOVWstorezeroidx ptr1 idx1 mem))
  && x.Uses == 1

```

```

&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVDstorezeroidx ptr1 idx1 mem)
(MOVWstorezeroidx ptr (ADDconst [4] idx) x:(MOVWstorezeroidx ptr idx mem))
&& x.Uses
== 1
&& clobber(x)
=> (MOVDstorezeroidx ptr idx mem)
(MOVWstorezero [4] {s} (ADDshiftLL [2] ptr0 idx0) x:(MOVWstorezeroidx4 ptr1 idx1 mem))
&& x.Uses == 1
&& s == nil
&& isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1)
&& clobber(x)
=> (MOVDstorezeroidx ptr1 (SLLconst <idx1.Type> [2] idx1) mem)
(MOVDstorezero [i] {s} ptr0 x:(MOVDstorezero [j] {s} ptr1 mem))
&& x.Uses == 1
&& areAdjacentOffsets(int64(i),int64(j),8)
&& isSamePtr(ptr0, ptr1)
&& clobber(x)
=> (MOVQstorezero [int32(min(int64(i),int64(j)))] {s} ptr0 mem)
(MOVDstorezero [8] {s} p0:(ADD ptr0 idx0) x:(MOVDstorezeroidx ptr1 idx1 mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVQstorezero [0] {s} p0 mem)
(MOVDstorezero [8] {s} p0:(ADDshiftLL [3] ptr0 idx0) x:(MOVDstorezeroidx8 ptr1 idx1 mem))
&& x.Uses == 1
&& s == nil
&& isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1)
&& clobber(x)
=> (MOVQstorezero [0]
{s} p0 mem)

// Combine stores into larger (unaligned) stores.
(MOVBstore [i] {s} ptr0 (SRLconst [8] w) x:(MOVBstore [i-1] {s} ptr1 w mem))
&& x.Uses == 1
&& isSamePtr(ptr0, ptr1)
&& clobber(x)
=> (MOVHstore [i-1] {s} ptr0 w mem)
(MOVBstore [1] {s} (ADD ptr0 idx0) (SRLconst [8] w) x:(MOVBstoreidx ptr1 idx1 w mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVHstoreidx ptr1 idx1 w mem)
(MOVBstoreidx ptr (ADDconst [1] idx) (SRLconst [8] w) x:(MOVBstoreidx ptr idx w mem))

```



```

&& x.Uses == 1
&& clobber(x)
=> (MOVHstoreidx ptr idx w mem)
(MOVBstore [i] {s} ptr0 (UBFX [armBFAuxInt(8, 8)] w) x:(MOVBstore [i-1] {s} ptr1 w mem))
&& x.Uses == 1
&& isSamePtr(ptr0, ptr1)
&& clobber(x)
=> (MOVHstore [i-1] {s} ptr0 w mem)
(MOVBstore [1] {s} (ADD ptr0 idx0) (UBFX [armBFAuxInt(8, 8)] w) x:(MOVBstoreidx ptr1 idx1 w mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0,
idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVHstoreidx ptr1 idx1 w mem)
(MOVBstore [i] {s} ptr0 (UBFX [armBFAuxInt(8, 24)] w) x:(MOVBstore [i-1] {s} ptr1 w mem))
&& x.Uses == 1
&& isSamePtr(ptr0, ptr1)
&& clobber(x)
=> (MOVHstore [i-1] {s} ptr0 w mem)
(MOVBstore [1] {s} (ADD ptr0 idx0) (UBFX [armBFAuxInt(8, 24)] w) x:(MOVBstoreidx ptr1 idx1 w mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVHstoreidx ptr1 idx1 w mem)
(MOVBstore [i] {s} ptr0 (SRLconst [8] (MOVDreg w)) x:(MOVBstore [i-1] {s} ptr1 w mem))
&& x.Uses == 1
&& isSamePtr(ptr0, ptr1)
&& clobber(x)
=> (MOVHstore [i-1] {s} ptr0 w mem)
(MOVBstore [1] {s} (ADD ptr0 idx0) (SRLconst [8] (MOVDreg w)) x:(MOVBstoreidx ptr1 idx1 w mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=>
(MOVHstoreidx ptr1 idx1 w mem)
(MOVBstore [i] {s} ptr0 (SRLconst [j] w) x:(MOVBstore [i-1] {s} ptr1 w0:(SRLconst [j-8] w) mem))
&& x.Uses == 1
&& isSamePtr(ptr0, ptr1)
&& clobber(x)
=> (MOVHstore [i-1] {s} ptr0 w0 mem)
(MOVBstore [1] {s} (ADD ptr0 idx0) (SRLconst [j] w) x:(MOVBstoreidx ptr1 idx1 w0:(SRLconst [j-8] w) mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)

```

```

=> (MOVHstoreidx ptr1 idx1 w0 mem)
(MOVBstore [i] {s} ptr0 (UBFX [bfc] w) x:(MOVBstore [i-1] {s} ptr1 w0:(UBFX [bfc2] w) mem))
&& x.Uses == 1
&& isSamePtr(ptr0, ptr1)
&& bfc.getARM64BFwidth() == 32 - bfc.getARM64BFIsb()
&& bfc2.getARM64BFwidth() == 32 - bfc2.getARM64BFIsb()
&& bfc2.getARM64BFIsb() == bfc.getARM64BFIsb() - 8
&& clobber(x)
=> (MOVHstore [i-1] {s} ptr0 w0 mem)
(MOVBstore [1] {s} (ADD ptr0 idx0) (UBFX [bfc] w) x:(MOVBstoreidx ptr1 idx1 w0:(UBFX [bfc2] w) mem))
&& x.Uses == 1
&& s == nil
&&
(isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& bfc.getARM64BFwidth() == 32 - bfc.getARM64BFIsb()
&& bfc2.getARM64BFwidth() == 32 - bfc2.getARM64BFIsb()
&& bfc2.getARM64BFIsb() == bfc.getARM64BFIsb() - 8
&& clobber(x)
=> (MOVHstoreidx ptr1 idx1 w0 mem)
(MOVBstore [i] {s} ptr0 (SRLconst [j] (MOVDreg w)) x:(MOVBstore [i-1] {s} ptr1 w0:(SRLconst [j-8]
(MOVDreg w)) mem))
&& x.Uses == 1
&& isSamePtr(ptr0, ptr1)
&& clobber(x)
=> (MOVHstore [i-1] {s} ptr0 w0 mem)
(MOVBstore [1] {s} (ADD ptr0 idx0) (SRLconst [j] (MOVDreg w)) x:(MOVBstoreidx ptr1 idx1 w0:(SRLconst [j-
8] (MOVDreg w)) mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVHstoreidx ptr1 idx1 w0 mem)
(MOVHstore [i] {s} ptr0 (SRLconst [16] w) x:(MOVHstore [i-2] {s} ptr1 w mem))
&& x.Uses == 1
&& isSamePtr(ptr0, ptr1)
&& clobber(x)
=> (MOVWstore [i-2] {s} ptr0
w mem)
(MOVHstore [2] {s} (ADD ptr0 idx0) (SRLconst [16] w) x:(MOVHstoreidx ptr1 idx1 w mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVWstoreidx ptr1 idx1 w mem)
(MOVHstoreidx ptr (ADDconst [2] idx) (SRLconst [16] w) x:(MOVHstoreidx ptr idx w mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVWstoreidx ptr idx w mem)

```

```

(MOVHstore [2] {s} (ADDshiftLL [1] ptr0 idx0) (SRLconst [16] w) x:(MOVHstoreidx2 ptr1 idx1 w mem))
&& x.Uses == 1
&& s == nil
&& isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1)
&& clobber(x)
=> (MOVWstoreidx ptr1 (SLLconst <idx1.Type> [1] idx1) w mem)
(MOVHstore [i] {s} ptr0 (UBFX [armBFAuxInt(16, 16)] w) x:(MOVHstore [i-2] {s} ptr1 w mem))
&& x.Uses == 1
&& isSamePtr(ptr0, ptr1)
&& clobber(x)
=> (MOVWstore [i-2] {s} ptr0 w mem)
(MOVHstore [2] {s} (ADD ptr0 idx0) (UBFX [armBFAuxInt(16, 16)] w) x:(MOVHstoreidx ptr1 idx1 w mem))
&& x.Uses == 1
&& s == nil
&&
(isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVWstoreidx ptr1 idx1 w mem)
(MOVHstore [2] {s} (ADDshiftLL [1] ptr0 idx0) (UBFX [armBFAuxInt(16, 16)] w) x:(MOVHstoreidx2 ptr1 idx1
w mem))
&& x.Uses == 1
&& s == nil
&& isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1)
&& clobber(x)
=> (MOVWstoreidx ptr1 (SLLconst <idx1.Type> [1] idx1) w mem)
(MOVHstore [i] {s} ptr0 (SRLconst [16] (MOVDreg w)) x:(MOVHstore [i-2] {s} ptr1 w mem))
&& x.Uses == 1
&& isSamePtr(ptr0, ptr1)
&& clobber(x)
=> (MOVWstore [i-2] {s} ptr0 w mem)
(MOVHstore [2] {s} (ADD ptr0 idx0) (SRLconst [16] (MOVDreg w)) x:(MOVHstoreidx ptr1 idx1 w mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVWstoreidx ptr1 idx1 w mem)
(MOVHstore [2] {s} (ADDshiftLL [1] ptr0 idx0) (SRLconst [16] (MOVDreg w)) x:(MOVHstoreidx2 ptr1 idx1 w
mem))
&& x.Uses
== 1
&& s == nil
&& isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1)
&& clobber(x)
=> (MOVWstoreidx ptr1 (SLLconst <idx1.Type> [1] idx1) w mem)
(MOVHstore [i] {s} ptr0 (SRLconst [j] w) x:(MOVHstore [i-2] {s} ptr1 w0:(SRLconst [j-16] w) mem))
&& x.Uses == 1
&& isSamePtr(ptr0, ptr1)
&& clobber(x)

```

```

=> (MOVWstore [i-2] {s} ptr0 w0 mem)
(MOVHstore [2] {s} (ADD ptr0 idx0) (SRLconst [j] w) x:(MOVHstoreidx ptr1 idx1 w0:(SRLconst [j-16] w) mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVWstoreidx ptr1 idx1 w0 mem)
(MOVHstore [2] {s} (ADDshiftLL [1] ptr0 idx0) (SRLconst [j] w) x:(MOVHstoreidx2 ptr1 idx1 w0:(SRLconst [j-16] w) mem))
&& x.Uses == 1
&& s == nil
&& isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1)
&& clobber(x)
=> (MOVWstoreidx ptr1 (SLLconst <idx1.Type> [1] idx1) w0 mem)
(MOVWstore [i] {s} ptr0 (SRLconst [32] w) x:(MOVWstore [i-4] {s} ptr1 w mem))
&& x.Uses ==
1
&& isSamePtr(ptr0, ptr1)
&& clobber(x)
=> (MOVDstore [i-4] {s} ptr0 w mem)
(MOVWstore [4] {s} (ADD ptr0 idx0) (SRLconst [32] w) x:(MOVWstoreidx ptr1 idx1 w mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVDstoreidx ptr1 idx1 w mem)
(MOVWstoreidx ptr (ADDconst [4] idx) (SRLconst [32] w) x:(MOVWstoreidx ptr idx w mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVDstoreidx ptr idx w mem)
(MOVWstore [4] {s} (ADDshiftLL [2] ptr0 idx0) (SRLconst [32] w) x:(MOVWstoreidx4 ptr1 idx1 w mem))
&& x.Uses == 1
&& s == nil
&& isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1)
&& clobber(x)
=> (MOVDstoreidx ptr1 (SLLconst <idx1.Type> [2] idx1) w mem)
(MOVWstore [i] {s} ptr0 (SRLconst [j] w) x:(MOVWstore [i-4] {s} ptr1 w0:(SRLconst [j-32] w) mem))
&& x.Uses == 1
&& isSamePtr(ptr0, ptr1)
&& clobber(x)
=> (MOVDstore [i-4] {s} ptr0 w0 mem)
(MOVWstore [4] {s} (ADD ptr0 idx0) (SRLconst [j] w)
x:(MOVWstoreidx ptr1 idx1 w0:(SRLconst [j-32] w) mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVDstoreidx ptr1 idx1 w0 mem)

```

```

(MOVWstore [4] {s} (ADDshiftLL [2] ptr0 idx0) (SRLconst [j] w) x:(MOVWstoreidx4 ptr1 idx1 w0:(SRLconst [j-
32] w) mem))
&& x.Uses == 1
&& s == nil
&& isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1)
&& clobber(x)
=> (MOVDstoreidx ptr1 (SLLconst <idx1.Type> [2] idx1) w0 mem)
(MOVBstore [i] {s} ptr w
x0:(MOVBstore [i-1] {s} ptr (SRLconst [8] w)
x1:(MOVBstore [i-2] {s} ptr (SRLconst [16] w)
x2:(MOVBstore [i-3] {s} ptr (SRLconst [24] w)
x3:(MOVBstore [i-4] {s} ptr (SRLconst [32] w)
x4:(MOVBstore [i-5] {s} ptr (SRLconst [40] w)
x5:(MOVBstore [i-6] {s} ptr (SRLconst [48] w)
x6:(MOVBstore [i-7] {s} ptr (SRLconst [56] w) mem))))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& x3.Uses == 1
&& x4.Uses == 1
&& x5.Uses == 1
&& x6.Uses == 1
&&
clobber(x0, x1, x2, x3, x4, x5, x6)
=> (MOVDstore [i-7] {s} ptr (REV <typ.UInt64> w) mem)
(MOVBstore [7] {s} p w
x0:(MOVBstore [6] {s} p (SRLconst [8] w)
x1:(MOVBstore [5] {s} p (SRLconst [16] w)
x2:(MOVBstore [4] {s} p (SRLconst [24] w)
x3:(MOVBstore [3] {s} p (SRLconst [32] w)
x4:(MOVBstore [2] {s} p (SRLconst [40] w)
x5:(MOVBstore [1] {s} p1:(ADD ptr1 idx1) (SRLconst [48] w)
x6:(MOVBstoreidx ptr0 idx0 (SRLconst [56] w) mem))))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& x3.Uses == 1
&& x4.Uses == 1
&& x5.Uses == 1
&& x6.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& isSamePtr(p1, p)
&& clobber(x0, x1, x2, x3, x4, x5, x6)
=> (MOVDstoreidx ptr0 idx0 (REV <typ.UInt64> w) mem)
(MOVBstore [i] {s} ptr w
x0:(MOVBstore [i-1] {s} ptr (UBFX [armBFAuxInt(8, 24)] w)
x1:(MOVBstore [i-2] {s} ptr (UBFX [armBFAuxInt(16, 16)] w)

```

```

x2:(MOVBstore [i-3] {s} ptr (UBFX [armBFAuxInt(24, 8)]
w) mem))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& clobber(x0, x1, x2)
=> (MOVWstore [i-3] {s} ptr (REVW <typ.UInt32> w) mem)
(MOVBstore [3] {s} p w
x0:(MOVBstore [2] {s} p (UBFX [armBFAuxInt(8, 24)] w)
x1:(MOVBstore [1] {s} p1:(ADD ptr1 idx1) (UBFX [armBFAuxInt(16, 16)] w)
x2:(MOVBstoreidx ptr0 idx0 (UBFX [armBFAuxInt(24, 8)] w) mem))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& isSamePtr(p1, p)
&& clobber(x0, x1, x2)
=> (MOVWstoreidx ptr0 idx0 (REVW <typ.UInt32> w) mem)
(MOVBstoreidx ptr (ADDconst [3] idx) w
x0:(MOVBstoreidx ptr (ADDconst [2] idx) (UBFX [armBFAuxInt(8, 24)] w)
x1:(MOVBstoreidx ptr (ADDconst [1] idx) (UBFX [armBFAuxInt(16, 16)] w)
x2:(MOVBstoreidx ptr idx (UBFX [armBFAuxInt(24, 8)] w) mem))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& clobber(x0, x1, x2)
=> (MOVWstoreidx ptr idx (REVW <typ.UInt32> w) mem)
(MOVBstoreidx
ptr idx w
x0:(MOVBstoreidx ptr (ADDconst [1] idx) (UBFX [armBFAuxInt(8, 24)] w)
x1:(MOVBstoreidx ptr (ADDconst [2] idx) (UBFX [armBFAuxInt(16, 16)] w)
x2:(MOVBstoreidx ptr (ADDconst [3] idx) (UBFX [armBFAuxInt(24, 8)] w) mem))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& clobber(x0, x1, x2)
=> (MOVWstoreidx ptr idx w mem)
(MOVBstore [i] {s} ptr w
x0:(MOVBstore [i-1] {s} ptr (SRLconst [8] (MOVDreg w))
x1:(MOVBstore [i-2] {s} ptr (SRLconst [16] (MOVDreg w))
x2:(MOVBstore [i-3] {s} ptr (SRLconst [24] (MOVDreg w)) mem))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& clobber(x0, x1, x2)
=> (MOVWstore [i-3] {s} ptr (REVW <typ.UInt32> w) mem)
(MOVBstore [3] {s} p w

```

```

x0:(MOVBstore [2] {s} p (SRLconst [8] (MOVDreg w))
x1:(MOVBstore [1] {s} p1:(ADD ptr1 idx1) (SRLconst [16] (MOVDreg w))
x2:(MOVBstoreidx ptr0 idx0 (SRLconst [24] (MOVDreg w) mem))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0,
idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& isSamePtr(p1, p)
&& clobber(x0, x1, x2)
=> (MOVWstoreidx ptr0 idx0 (REVW <typ.UInt32> w) mem)
(MOVBstore [i] {s} ptr w
x0:(MOVBstore [i-1] {s} ptr (SRLconst [8] w)
x1:(MOVBstore [i-2] {s} ptr (SRLconst [16] w)
x2:(MOVBstore [i-3] {s} ptr (SRLconst [24] w) mem))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& clobber(x0, x1, x2)
=> (MOVWstore [i-3] {s} ptr (REVW <typ.UInt32> w) mem)
(MOVBstore [3] {s} p w
x0:(MOVBstore [2] {s} p (SRLconst [8] w)
x1:(MOVBstore [1] {s} p1:(ADD ptr1 idx1) (SRLconst [16] w)
x2:(MOVBstoreidx ptr0 idx0 (SRLconst [24] w) mem))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& isSamePtr(p1, p)
&& clobber(x0, x1, x2)
=> (MOVWstoreidx ptr0 idx0 (REVW <typ.UInt32> w) mem)
(MOVBstore [i] {s} ptr w x:(MOVBstore [i-1] {s} ptr (SRLconst [8] w) mem))
&& x.Uses
== 1
&& clobber(x)
=> (MOVHstore [i-1] {s} ptr (REV16W <typ.UInt16> w) mem)
(MOVBstore [1] {s} (ADD ptr1 idx1) w x:(MOVBstoreidx ptr0 idx0 (SRLconst [8] w) mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVHstoreidx ptr0 idx0 (REV16W <typ.UInt16> w) mem)
(MOVBstore [i] {s} ptr w x:(MOVBstore [i-1] {s} ptr (UBFX [armBFAuxInt(8, 8)] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVHstore [i-1] {s} ptr (REV16W <typ.UInt16> w) mem)

```

```

(MOVBstore [1] {s} (ADD ptr1 idx1) w x:(MOVBstoreidx ptr0 idx0 (UBFX [armBFAuxInt(8, 8)] w) mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVHstoreidx ptr0 idx0 (REV16W <typ.UInt16> w) mem)
(MOVBstoreidx ptr (ADDconst [1] idx) w x:(MOVBstoreidx ptr idx (UBFX [armBFAuxInt(8, 8)] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVHstoreidx ptr idx
(REV16W <typ.UInt16> w) mem)
(MOVBstoreidx ptr idx w x:(MOVBstoreidx ptr (ADDconst [1] idx) (UBFX [armBFAuxInt(8, 8)] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVHstoreidx ptr idx w mem)
(MOVBstore [i] {s} ptr w x:(MOVBstore [i-1] {s} ptr (SRLconst [8] (MOVDreg w)) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVHstore [i-1] {s} ptr (REV16W <typ.UInt16> w) mem)
(MOVBstore [1] {s} (ADD ptr1 idx1) w x:(MOVBstoreidx ptr0 idx0 (SRLconst [8] (MOVDreg w)) mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) && isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVHstoreidx ptr0 idx0 (REV16W <typ.UInt16> w) mem)
(MOVBstore [i] {s} ptr w x:(MOVBstore [i-1] {s} ptr (UBFX [armBFAuxInt(8, 24)] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVHstore [i-1] {s} ptr (REV16W <typ.UInt16> w) mem)
(MOVBstore [1] {s} (ADD ptr1 idx1) w x:(MOVBstoreidx ptr0 idx0 (UBFX [armBFAuxInt(8, 24)] w) mem))
&& x.Uses == 1
&& s == nil
&& (isSamePtr(ptr0, ptr1) &&
isSamePtr(idx0, idx1) || isSamePtr(ptr0, idx1) && isSamePtr(idx0, ptr1))
&& clobber(x)
=> (MOVHstoreidx ptr0 idx0 (REV16W <typ.UInt16> w) mem)

```

// FP simplification

```

(FNEGS (FMULS x y)) => (FNMULS x y)
(FNEGD (FMULD x y)) => (FNMULD x y)
(FMULS (FNEGS x) y) => (FNMULS x y)
(FMULD (FNEGD x) y) => (FNMULD x y)
(FNEGS (FNMULS x y)) => (FMULS x y)
(FNEGD (FNMULD x y)) => (FMULD x y)
(FNMULS (FNEGS x) y) => (FMULS x y)
(FNMULD (FNEGD x) y) => (FMULD x y)
(FADDS a (FMULS x y)) => (FMADDS a x y)
(FADDD a (FMULD x y)) => (FMADDD a x y)

```



```

(FSUBS a (FMULS x y)) => (FMSUBS a x y)
(FSUBD a (FMULD x y)) => (FMSUBD a x y)
(FSUBS (FMULS x y) a) => (FNMSUBS a x y)
(FSUBD (FMULD x y) a) => (FNMSUBD a x y)
(FADDS a (FNMULS x y)) => (FMSUBS a x y)
(FADDD a (FNMULD x y)) => (FMSUBD a x y)
(FSUBS a (FNMULS x y)) => (FMADDS a x y)
(FSUBD a (FNMULD x y)) => (FMADDD a x y)
(FSUBS (FNMULS x y) a) => (FNMADDS a x y)
(FSUBD (FNMULD x y) a) => (FNMADDD a x y)

(MOVBUnload [off] {sym} (SB _) && symIsRO(sym) => (MOVDconst
[int64(read8(sym, int64(off)))]))
(MOVHUnload [off] {sym} (SB _) && symIsRO(sym) => (MOVDconst [int64(read16(sym, int64(off),
config.ctx.Arch.ByteOrder)]))
(MOVWUnload [off] {sym} (SB _) && symIsRO(sym) => (MOVDconst [int64(read32(sym, int64(off),
config.ctx.Arch.ByteOrder)]))
(MOVDload [off] {sym} (SB _) && symIsRO(sym) => (MOVDconst [int64(read64(sym, int64(off),
config.ctx.Arch.ByteOrder)]))

// Prefetch instructions (aux is option: 0 - PLDL1KEEP; 1 - PLDL1STRM)
(PrefetchCache addr mem) => (PRFM [0] addr mem)
(PrefetchCacheStreamed addr mem) => (PRFM [1] addr mem)

// Arch-specific inlining for small or disjoint runtime.memmove
(SelectN [0] call:(CALLstatic {sym} s1:(MOVDstore _ (MOVDconst [sz]) s2:(MOVDstore _ src s3:(MOVDstore
{t} _ dst mem))))
&& sz >= 0
&& isSameCall(sym, "runtime.memmove")
&& s1.Uses == 1 && s2.Uses == 1 && s3.Uses == 1
&& isInlinableMemmove(dst, src, sz, config)
&& clobber(s1, s2, s3, call)
=> (Move [sz] dst src mem)

// Match post-lowering
calls, register version.
(SelectN [0] call:(CALLstatic {sym} dst src (MOVDconst [sz] mem))
&& sz >= 0
&& isSameCall(sym, "runtime.memmove")
&& call.Uses == 1
&& isInlinableMemmove(dst, src, sz, config)
&& clobber(call)
=> (Move [sz] dst src mem)

((REV|REVW) ((REV|REVW) p)) => p

```

Found in path(s):

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/ARM64.rules

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```

This package generates opcode tables, rewrite rules, etc. for the ssa compiler.

Run it with go-1.13 (or above):

```
go run *.go
```

Found in path(s):

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/README
```

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```

```
// See the top of AMD64splitload.rules for discussion of these rules.
```

```
(CMP(L|W|B)load {sym} [off] ptr x mem) => (CMP(L|W|B) (MOV(L|W|B)load {sym} [off] ptr mem) x)
```

```
(CMPLconstload {sym} [vo] ptr mem) => (CMPLconst (MOVLload {sym} [vo.Off()] ptr mem) [vo.Val()])
```

```
(CMPWconstload {sym} [vo] ptr mem) => (CMPWconst (MOVWload {sym} [vo.Off()] ptr mem) [vo.Val16()])
```

```
(CMPBconstload {sym} [vo] ptr mem) => (CMPBconst (MOVBload {sym} [vo.Off()] ptr mem) [vo.Val8()])
```

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```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/386splitload.rules
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```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/logopt/escape_bootstrap.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/logopt/logopt_test.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/gccgosizes.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/logopt/escape.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/testdata/slices.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-  
zip/compile/internal/test/testdata/reproducible/issue30202.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-  
zip/compile/internal/types2/testdata/check/map1.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/fuse_comparisons.go
```

```
*
```

```
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/logopt/log_opts.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-  
zip/compile/internal/types2/testdata/check/map0.go
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
```

```

zip/compile/internal/types2/testdata/fixbugs/issue6977.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/zerorange_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/testdata/map2.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/xposmap.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/literals.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/examples/functions.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/dep_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/pkginit/initorder.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/slices.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/examples/types.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/typeinst0.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/typeinst1.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/testdata/map.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/linalg.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/testdata/linalg.go
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```

```

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```

```

// This file contains rules used by flagalloc and addressingmodes to
// split a flag-generating merged load op into separate load and op.
// Unlike with the other rules files, not all of these
// rules will be applied to all values.
// Rather, flagalloc will request for rules to be applied
// to a particular problematic value.
// These are often the exact inverse of rules in AMD64.rules,
// only with the conditions removed.
//
// For addressingmodes, certain single instructions are slower than the two instruction
// split generated here (which is different from the inputs to addressingmodes).
// For example:
// (CMPBconstload c (ADDQ x y)) -> (CMPBconstloadidx1 c x y) -> (CMPB c (MOVBloadidx1 x y))

```

```

(CMP(Q|L|W|B)load {sym} [off] ptr x mem) => (CMP(Q|L|W|B) (MOV(Q|L|W|B)load
{sym} [off] ptr mem) x)

```

```

(CMP(Q|L|W|B)constload {sym} [vo] ptr mem) && vo.Val() == 0 => (TEST(Q|L|W|B) x:(MOV(Q|L|W|B)load
{sym} [vo.Off()]) ptr mem) x)

```

(CMPQconstload {sym} [vo] ptr mem) && vo.Val() != 0 => (CMPQconst (MOVQload {sym} [vo.Off()]) ptr mem) [vo.Val()])
(CMPLconstload {sym} [vo] ptr mem) && vo.Val() != 0 => (CMPLconst (MOVLload {sym} [vo.Off()]) ptr mem) [vo.Val()])
(CMPWconstload {sym} [vo] ptr mem) && vo.Val() != 0 => (CMPWconst (MOVWload {sym} [vo.Off()]) ptr mem) [vo.Val16()])
(CMPBconstload {sym} [vo] ptr mem) && vo.Val() != 0 => (CMPBconst (MOVBload {sym} [vo.Off()]) ptr mem) [vo.Val8()])

(CMP(Q|L|W|B)loadidx1 {sym} [off] ptr idx x mem) => (CMP(Q|L|W|B) (MOV(Q|L|W|B)loadidx1 {sym} [off] ptr idx mem) x)
(CMPQloadidx8 {sym} [off] ptr idx x mem) => (CMPQ (MOVQloadidx8 {sym} [off] ptr idx mem) x)
(CMPLloadidx4 {sym} [off] ptr idx x mem) => (CMPL (MOVLloadidx4 {sym} [off] ptr idx mem) x)
(CMPWloadidx2 {sym} [off] ptr idx x mem) => (CMPW (MOVWloadidx2 {sym} [off] ptr idx mem) x)

(CMP(Q|L|W|B)constloadidx1 {sym} [vo] ptr idx mem) && vo.Val() == 0 => (TEST(Q|L|W|B) x:(MOV(Q|L|W|B)loadidx1 {sym} [vo.Off()]) ptr idx mem) x)
(CMPQconstloadidx8 {sym} [vo] ptr idx mem) && vo.Val() == 0 => (TESTQ x:(MOVQloadidx8 {sym} [vo.Off()]) ptr idx mem) x)
(CMPLconstloadidx4 {sym} [vo] ptr idx mem) && vo.Val() == 0 => (TESTL x:(MOVLloadidx4 {sym} [vo.Off()]) ptr idx mem) x)
(CMPWconstloadidx2 {sym} [vo] ptr idx mem) && vo.Val() == 0 => (TESTW x:(MOVWloadidx2 {sym} [vo.Off()]) ptr idx mem) x)

(CMPQconstloadidx1 {sym} [vo] ptr idx mem) && vo.Val() != 0 => (CMPQconst (MOVQloadidx1 {sym} [vo.Off()]) ptr idx mem) [vo.Val()])
(CMPLconstloadidx1 {sym} [vo] ptr idx mem) && vo.Val() != 0 => (CMPLconst (MOVLloadidx1 {sym} [vo.Off()]) ptr idx mem) [vo.Val()])
(CMPWconstloadidx1 {sym} [vo] ptr idx mem) && vo.Val() != 0 => (CMPWconst (MOVWloadidx1 {sym} [vo.Off()]) ptr idx mem) [vo.Val16()])
(CMPBconstloadidx1 {sym} [vo] ptr idx mem) && vo.Val() != 0 => (CMPBconst (MOVBloadidx1 {sym} [vo.Off()]) ptr idx mem) [vo.Val8()])

(CMPQconstloadidx8 {sym} [vo] ptr idx mem) && vo.Val() != 0 => (CMPQconst (MOVQloadidx8 {sym} [vo.Off()]) ptr idx mem) [vo.Val()])
(CMPLconstloadidx4 {sym} [vo] ptr idx mem) && vo.Val() != 0 => (CMPLconst (MOVLloadidx4 {sym} [vo.Off()]) ptr idx mem) [vo.Val()])
(CMPWconstloadidx2 {sym} [vo] ptr idx mem) && vo.Val() != 0 => (CMPWconst (MOVWloadidx2 {sym} [vo.Off()]) ptr idx mem) [vo.Val16()])

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* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/ssa/gen/AMD64splitload.rules

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```

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// Lowering arithmetic
(Add(Ptr|32|16|8) ...) => (ADDL ...)
(Add(32|64)F ...) => (ADDS(S|D) ...)
(Add32carry ...) => (ADDLcarry ...)
(Add32withcarry ...) => (ADCL ...)

(Sub(Ptr|32|16|8) ...) => (SUBL ...)
(Sub(32|64)F ...) => (SUBS(S|D) ...)
(Sub32carry ...) => (SUBLcarry ...)
(Sub32withcarry ...) => (SBBL ...)

(Mul(32|16|8) ...) => (MULL ...)
(Mul(32|64)F ...) => (MULS(S|D) ...)
(Mul32uhilo ...) => (MULLQU ...)

(Select0 (Mul32uover x y)) => (Select0 <typ.UInt32> (MULLU x y))
(Select1 (Mul32uover x y)) => (SETO (Select1 <types.TypeFlags> (MULLU x y)))

(Avg32u ...) => (AVGLU ...)

(Div(32|64)F ...) => (DIVS(S|D) ...)
(Div(32|32u|16|16u) ...) => (DIV(L|LU|W|WU) ...)
(Div8 x y) => (DIVW (SignExt8to16 x) (SignExt8to16 y))
(Div8u x y) => (DIVWU (ZeroExt8to16
x) (ZeroExt8to16 y))

(Hmul(32|32u) ...) => (HMUL(L|LU) ...)

(Mod(32|32u|16|16u) ...) => (MOD(L|LU|W|WU) ...)
(Mod8 x y) => (MODW (SignExt8to16 x) (SignExt8to16 y))
(Mod8u x y) => (MODWU (ZeroExt8to16 x) (ZeroExt8to16 y))

(And(32|16|8) ...) => (ANDL ...)
(Or(32|16|8) ...) => (ORL ...)
(Xor(32|16|8) ...) => (XORL ...)

(Neg(32|16|8) ...) => (NEGL ...)
(Neg32F x) => (PXOR x (MOVSSconst <typ.Float32> [float32(math.Copysign(0, -1))]))
(Neg64F x) => (PXOR x (MOVSDconst <typ.Float64> [math.Copysign(0, -1)]))

(Com(32|16|8) ...) => (NOTL ...)

// Lowering boolean ops
(AndB ...) => (ANDL ...)

```

```

(OrB ...) => (ORL ...)
(Not x) => (XORLconst [1] x)

// Lowering pointer arithmetic
(OffPtr [off] ptr) => (ADDLconst [int32(off)] ptr)

(Bswap32 ...) => (BSWAPL ...)

(Sqrt ...) => (SQRTSD ...)
(Sqrt32 ...) => (SQRTSS ...)

(Ctz16 x) => (BSFL (ORLconst <typ.UInt32> [0x10000] x))
(Ctz16NonZero ...) => (BSFL ...)

// Lowering extension
(SignExt8to16 ...) => (MOVBLSX ...)
(SignExt8to32 ...) => (MOVBLSX
...)
(SignExt16to32 ...) => (MOVWLSX ...)

(ZeroExt8to16 ...) => (MOVBLZX ...)
(ZeroExt8to32 ...) => (MOVBLZX ...)
(ZeroExt16to32 ...) => (MOVWLZX ...)

(Signmask x) => (SARLconst x [31])
(Zeromask <t> x) => (XORLconst [-1] (SBBLcarrymask <t> (CMPLconst x [1])))
(Slicemask <t> x) => (SARLconst (NEGL <t> x) [31])

// Lowering truncation
// Because we ignore high parts of registers, truncates are just copies.
(Trunc16to8 ...) => (Copy ...)
(Trunc32to8 ...) => (Copy ...)
(Trunc32to16 ...) => (Copy ...)

// Lowering float-int conversions
(Cvt32to32F ...) => (CVTSL2SS ...)
(Cvt32to64F ...) => (CVTSL2SD ...)

(Cvt32Fto32 ...) => (CVTTSS2SL ...)
(Cvt64Fto32 ...) => (CVTTSD2SL ...)

(Cvt32Fto64F ...) => (CVTSS2SD ...)
(Cvt64Fto32F ...) => (CVTSD2SS ...)

(Round32F ...) => (Copy ...)
(Round64F ...) => (Copy ...)

(CvtBoolToUInt8 ...) => (Copy ...)

```

```

// Lowering shifts
// Unsigned shifts need to return 0 if shift amount is >= width of shifted value.
// result = (arg << shift) & (shift
// >= argbits ? 0 : 0xffffffffffff)
(Lsh32x(32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDL (SHLL <t> x y) (SBBLcarrymask <t>
(CMP(L|W|B)const y [32])))
(Lsh16x(32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDL (SHLL <t> x y) (SBBLcarrymask <t>
(CMP(L|W|B)const y [32])))
(Lsh8x(32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDL (SHLL <t> x y) (SBBLcarrymask <t>
(CMP(L|W|B)const y [32])))

(Lsh32x(32|16|8) <t> x y) && shiftIsBounded(v) => (SHLL <t> x y)
(Lsh16x(32|16|8) <t> x y) && shiftIsBounded(v) => (SHLL <t> x y)
(Lsh8x(32|16|8) <t> x y) && shiftIsBounded(v) => (SHLL <t> x y)

(Rsh32Ux(32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDL (SHRL <t> x y) (SBBLcarrymask <t>
(CMP(L|W|B)const y [32])))
(Rsh16Ux(32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDL (SHRW <t> x y) (SBBLcarrymask <t>
(CMP(L|W|B)const y [16])))
(Rsh8Ux(32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDL (SHRB <t> x y) (SBBLcarrymask <t>
(CMP(L|W|B)const y [8])))

(Rsh32Ux(32|16|8) <t> x y) && shiftIsBounded(v) => (SHRL
<t> x y)
(Rsh16Ux(32|16|8) <t> x y) && shiftIsBounded(v) => (SHRW <t> x y)
(Rsh8Ux(32|16|8) <t> x y) && shiftIsBounded(v) => (SHRB <t> x y)

// Signed right shift needs to return 0/-1 if shift amount is >= width of shifted value.
// We implement this by setting the shift value to -1 (all ones) if the shift value is >= width.

(Rsh32x(32|16|8) <t> x y) && !shiftIsBounded(v) => (SARL <t> x (ORL <y.Type> y (NOTL <y.Type>
(SBBLcarrymask <y.Type> (CMP(L|W|B)const y [32])))
(Rsh16x(32|16|8) <t> x y) && !shiftIsBounded(v) => (SARW <t> x (ORL <y.Type> y (NOTL <y.Type>
(SBBLcarrymask <y.Type> (CMP(L|W|B)const y [16])))
(Rsh8x(32|16|8) <t> x y) && !shiftIsBounded(v) => (SARB <t> x (ORL <y.Type> y (NOTL <y.Type>
(SBBLcarrymask <y.Type> (CMP(L|W|B)const y [8])))

(Rsh32x(32|16|8) <t> x y) && shiftIsBounded(v) => (SARL x y)
(Rsh16x(32|16|8) <t> x y) && shiftIsBounded(v) => (SARW x y)
(Rsh8x(32|16|8) <t> x y) && shiftIsBounded(v) => (SARB x y)

// constant shifts
// generic opt rewrites all
constant shifts to shift by Const64
(Lsh32x64 x (Const64 [c])) && uint64(c) < 32 => (SHLLconst x [int32(c)])
(Rsh32x64 x (Const64 [c])) && uint64(c) < 32 => (SARLconst x [int32(c)])
(Rsh32Ux64 x (Const64 [c])) && uint64(c) < 32 => (SHRLconst x [int32(c)])

```

```

(Lsh16x64 x (Const64 [c])) && uint64(c) < 16 => (SHLLconst x [int32(c)])
(Rsh16x64 x (Const64 [c])) && uint64(c) < 16 => (SARWconst x [int16(c)])
(Rsh16Ux64 x (Const64 [c])) && uint64(c) < 16 => (SHRWconst x [int16(c)])
(Lsh8x64 x (Const64 [c])) && uint64(c) < 8 => (SHLLconst x [int32(c)])
(Rsh8x64 x (Const64 [c])) && uint64(c) < 8 => (SARBconst x [int8(c)])
(Rsh8Ux64 x (Const64 [c])) && uint64(c) < 8 => (SHRBconst x [int8(c)])

```

```
// large constant shifts
```

```

(Lsh32x64 _ (Const64 [c])) && uint64(c) >= 32 => (Const32 [0])
(Rsh32Ux64 _ (Const64 [c])) && uint64(c) >= 32 => (Const32 [0])
(Lsh16x64 _ (Const64 [c])) && uint64(c) >= 16 => (Const16 [0])
(Rsh16Ux64 _ (Const64 [c])) && uint64(c) >= 16 => (Const16 [0])
(Lsh8x64 _ (Const64 [c])) &&
uint64(c) >= 8 => (Const8 [0])
(Rsh8Ux64 _ (Const64 [c])) && uint64(c) >= 8 => (Const8 [0])

```

```
// large constant signed right shift, we leave the sign bit
```

```

(Rsh32x64 x (Const64 [c])) && uint64(c) >= 32 => (SARLconst x [31])
(Rsh16x64 x (Const64 [c])) && uint64(c) >= 16 => (SARWconst x [15])
(Rsh8x64 x (Const64 [c])) && uint64(c) >= 8 => (SARBconst x [7])

```

```
// constant rotates
```

```

(RotateLeft32 x (MOVLconst [c])) => (ROLLconst [c&31] x)
(RotateLeft16 x (MOVLconst [c])) => (ROLWconst [int16(c&15)] x)
(RotateLeft8 x (MOVLconst [c])) => (ROLBconst [int8(c&7)] x)

```

```
// Lowering comparisons
```

```

(Less32 x y) => (SETL (CMPL x y))
(Less16 x y) => (SETL (CMPW x y))
(Less8 x y) => (SETL (CMPB x y))
(Less32U x y) => (SETB (CMPL x y))
(Less16U x y) => (SETB (CMPW x y))
(Less8U x y) => (SETB (CMPB x y))
// Use SETGF with reversed operands to dodge NaN case
(Less64F x y) => (SETGF (UCOMISD y x))
(Less32F x y) => (SETGF (UCOMISS y x))

```

```

(Leq32 x y) => (SETLE (CMPL x y))
(Leq16 x y) => (SETLE (CMPW x y))
(Leq8
 x y) => (SETLE (CMPB x y))
(Leq32U x y) => (SETBE (CMPL x y))
(Leq16U x y) => (SETBE (CMPW x y))
(Leq8U x y) => (SETBE (CMPB x y))
// Use SETGEF with reversed operands to dodge NaN case
(Leq64F x y) => (SETGEF (UCOMISD y x))
(Leq32F x y) => (SETGEF (UCOMISS y x))

```



```

(Eq32 x y) => (SETEQ (CMPL x y))
(Eq16 x y) => (SETEQ (CMPW x y))
(Eq8 x y) => (SETEQ (CMPB x y))
(EqB x y) => (SETEQ (CMPB x y))
(EqPtr x y) => (SETEQ (CMPL x y))
(Eq64F x y) => (SETEQF (UCOMISD x y))
(Eq32F x y) => (SETEQF (UCOMISS x y))

(Neq32 x y) => (SETNE (CMPL x y))
(Neq16 x y) => (SETNE (CMPW x y))
(Neq8 x y) => (SETNE (CMPB x y))
(NeqB x y) => (SETNE (CMPB x y))
(NeqPtr x y) => (SETNE (CMPL x y))
(Neq64F x y) => (SETNEF (UCOMISD x y))
(Neq32F x y) => (SETNEF (UCOMISS x y))

// Lowering loads
(Load <t> ptr mem) && (is32BitInt(t) || isPtr(t)) => (MOVLload ptr mem)
(Load <t> ptr mem) && is16BitInt(t) => (MOVWload ptr mem)
(Load <t> ptr mem) && (t.IsBoolean() || is8BitInt(t)) => (MOVBload ptr mem)
(Load
<t> ptr mem) && is32BitFloat(t) => (MOVSSload ptr mem)
(Load <t> ptr mem) && is64BitFloat(t) => (MOVSDload ptr mem)

// Lowering stores
// These more-specific FP versions of Store pattern should come first.
(Store {t} ptr val mem) && t.Size() == 8 && is64BitFloat(val.Type) => (MOVSDstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && is32BitFloat(val.Type) => (MOVSSstore ptr val mem)

(Store {t} ptr val mem) && t.Size() == 4 => (MOVLstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 2 => (MOVWstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 1 => (MOVBstore ptr val mem)

// Lowering moves
(Move [0] _ _ mem) => mem
(Move [1] dst src mem) => (MOVBstore dst (MOVBload src mem) mem)
(Move [2] dst src mem) => (MOVWstore dst (MOVWload src mem) mem)
(Move [4] dst src mem) => (MOVLstore dst (MOVLload src mem) mem)
(Move [3] dst src mem) =>
(MOVBstore [2] dst (MOVBload [2] src mem)
(MOVWstore dst (MOVWload src mem) mem))
(Move [5] dst src mem) =>
(MOVBstore [4] dst
(MOVBload [4] src mem)
(MOVLstore dst (MOVLload src mem) mem))
(Move [6] dst src mem) =>
(MOVWstore [4] dst (MOVWload [4] src mem)
(MOVLstore dst (MOVLload src mem) mem))

```

```

(Move [7] dst src mem) =>
(MOVLstore [3] dst (MOVLload [3] src mem)
 (MOVLstore dst (MOVLload src mem) mem))
(Move [8] dst src mem) =>
(MOVLstore [4] dst (MOVLload [4] src mem)
 (MOVLstore dst (MOVLload src mem) mem))

// Adjust moves to be a multiple of 4 bytes.
(Move [s] dst src mem)
&& s > 8 && s%4 != 0 =>
(Move [s-s%4]
 (ADDLconst <dst.Type> dst [int32(s%4)])
 (ADDLconst <src.Type> src [int32(s%4)])
 (MOVLstore dst (MOVLload src mem) mem))

// Medium copying uses a duff device.
(Move [s] dst src mem)
&& s > 8 && s <= 4*128 && s%4 == 0
&& !config.noDuffDevice && logLargeCopy(v, s) =>
(DUFFCOPY [10*(128-s/4)] dst src mem)
// 10 and 128 are magic constants. 10 is the number of bytes to encode:
// MOVL (SI), CX
// ADDL $4, SI
// MOVL CX, (DI)
// ADDL $4, DI
// and 128 is the number of such blocks. See
src/runtime/duff_386.s:duffcopy.

// Large copying uses REP MOVS.
(Move [s] dst src mem) && (s > 4*128 || config.noDuffDevice) && s%4 == 0 && logLargeCopy(v, s) =>
(REPMOVS dst src (MOVLconst [int32(s/4)] mem))

// Lowering Zero instructions
(Zero [0] _ mem) => mem
(Zero [1] destptr mem) => (MOVBstoreconst [0] destptr mem)
(Zero [2] destptr mem) => (MOVWstoreconst [0] destptr mem)
(Zero [4] destptr mem) => (MOVLstoreconst [0] destptr mem)

(Zero [3] destptr mem) =>
(MOVBstoreconst [makeValAndOff(0,2)] destptr
 (MOVWstoreconst [makeValAndOff(0,0)] destptr mem))
(Zero [5] destptr mem) =>
(MOVBstoreconst [makeValAndOff(0,4)] destptr
 (MOVLstoreconst [makeValAndOff(0,0)] destptr mem))
(Zero [6] destptr mem) =>
(MOVWstoreconst [makeValAndOff(0,4)] destptr
 (MOVLstoreconst [makeValAndOff(0,0)] destptr mem))
(Zero [7] destptr mem) =>

```

```

(MOVLstoreconst [makeValAndOff(0,3)] destptr
(MOVLstoreconst [makeValAndOff(0,0)] destptr mem))

// Strip off any fractional word zeroing.
(Zero [s]
destptr mem) && s%4 != 0 && s > 4 =>
(Zero [s-s%4] (ADDLconst destptr [int32(s%4)])
(MOVLstoreconst [0] destptr mem))

// Zero small numbers of words directly.
(Zero [8] destptr mem) =>
(MOVLstoreconst [makeValAndOff(0,4)] destptr
(MOVLstoreconst [makeValAndOff(0,0)] destptr mem))
(Zero [12] destptr mem) =>
(MOVLstoreconst [makeValAndOff(0,8)] destptr
(MOVLstoreconst [makeValAndOff(0,4)] destptr
(MOVLstoreconst [makeValAndOff(0,0)] destptr mem)))
(Zero [16] destptr mem) =>
(MOVLstoreconst [makeValAndOff(0,12)] destptr
(MOVLstoreconst [makeValAndOff(0,8)] destptr
(MOVLstoreconst [makeValAndOff(0,4)] destptr
(MOVLstoreconst [makeValAndOff(0,0)] destptr mem))))

// Medium zeroing uses a duff device.
(Zero [s] destptr mem)
&& s > 16 && s <= 4*128 && s%4 == 0
&& !config.noDuffDevice =>
(DUFFZERO [1*(128-s/4)] destptr (MOVLconst [0]) mem)
// 1 and 128 are magic constants. 1 is the number of bytes to encode STOSL.
// 128 is the number of STOSL instructions in duffzero.
//
See src/runtime/duff_386.s:duffzero.

// Large zeroing uses REP STOSQ.
(Zero [s] destptr mem)
&& (s > 4*128 || (config.noDuffDevice && s > 16))
&& s%4 == 0 =>
(REPSTOSL destptr (MOVLconst [int32(s/4)]) (MOVLconst [0]) mem)

// Lowering constants
(Const8 [c]) => (MOVLconst [int32(c)])
(Const16 [c]) => (MOVLconst [int32(c)])
(Const32 ...) => (MOVLconst ...)
(Const(32|64)F ...) => (MOVS(S|D)const ...)
(ConstNil) => (MOVLconst [0])
(ConstBool [c]) => (MOVLconst [b2i32(c)])

```

```

// Lowering calls
(StaticCall ...) => (CALLstatic ...)
(ClosureCall ...) => (CALLclosure ...)
(InterCall ...) => (CALLinter ...)
(TailCall ...) => (CALLtail ...)

// Miscellaneous
(IsNotNil p) => (SETNE (TESTL p p))
(IsInBounds idx len) => (SETB (CMPL idx len))
(IsSliceInBounds idx len) => (SETBE (CMPL idx len))
(NilCheck ...) => (LoweredNilCheck ...)
(GetG ...) => (LoweredGetG ...)
(GetClosurePtr ...) => (LoweredGetClosurePtr ...)
(GetCallerPC ...) => (LoweredGetCallerPC ...)
(GetCallerSP ...) => (LoweredGetCallerSP
...)
(Addr {sym} base) => (LEAL {sym} base)
(LocalAddr {sym} base _) => (LEAL {sym} base)

// block rewrites
(If (SETL cmp) yes no) => (LT cmp yes no)
(If (SETLE cmp) yes no) => (LE cmp yes no)
(If (SETG cmp) yes no) => (GT cmp yes no)
(If (SETGE cmp) yes no) => (GE cmp yes no)
(If (SETEQ cmp) yes no) => (EQ cmp yes no)
(If (SETNE cmp) yes no) => (NE cmp yes no)
(If (SETB cmp) yes no) => (ULT cmp yes no)
(If (SETBE cmp) yes no) => (ULE cmp yes no)
(If (SETA cmp) yes no) => (UGT cmp yes no)
(If (SETAE cmp) yes no) => (UGE cmp yes no)
(If (SETO cmp) yes no) => (OS cmp yes no)

// Special case for floating point - LF/LEF not generated
(If (SETGF cmp) yes no) => (UGT cmp yes no)
(If (SETGEF cmp) yes no) => (UGE cmp yes no)
(If (SETEQF cmp) yes no) => (EQF cmp yes no)
(If (SETNEF cmp) yes no) => (NEF cmp yes no)

(If cond yes no) => (NE (TESTB cond cond) yes no)

// Write barrier.
(WB ...) => (LoweredWB ...)

(PanicBounds [kind] x y mem) && boundsABI(kind)
== 0 => (LoweredPanicBoundsA [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 1 => (LoweredPanicBoundsB [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 2 => (LoweredPanicBoundsC [kind] x y mem)

```

```

(PanicExtend [kind] hi lo y mem) && boundsABI(kind) == 0 => (LoweredPanicExtendA [kind] hi lo y mem)
(PanicExtend [kind] hi lo y mem) && boundsABI(kind) == 1 => (LoweredPanicExtendB [kind] hi lo y mem)
(PanicExtend [kind] hi lo y mem) && boundsABI(kind) == 2 => (LoweredPanicExtendC [kind] hi lo y mem)

// *****
// Above: lowering rules
// Below: optimizations
// *****
// TODO: Should the optimizations be a separate pass?

// Fold boolean tests into blocks
(NE (TESTB (SETL cmp) (SETL cmp)) yes no) => (LT cmp yes no)
(NE (TESTB (SETLE cmp) (SETLE cmp)) yes no) => (LE cmp yes no)
(NE (TESTB (SETG cmp) (SETG cmp)) yes no) => (GT cmp yes no)
(NE (TESTB (SETGE cmp) (SETGE cmp)) yes no) => (GE cmp yes no)
(NE (TESTB
  (SETEQ cmp) (SETEQ cmp)) yes no) => (EQ cmp yes no)
(NE (TESTB (SETNE cmp) (SETNE cmp)) yes no) => (NE cmp yes no)
(NE (TESTB (SETB cmp) (SETB cmp)) yes no) => (ULT cmp yes no)
(NE (TESTB (SETBE cmp) (SETBE cmp)) yes no) => (ULE cmp yes no)
(NE (TESTB (SETA cmp) (SETA cmp)) yes no) => (UGT cmp yes no)
(NE (TESTB (SETAE cmp) (SETAE cmp)) yes no) => (UGE cmp yes no)
(NE (TESTB (SETO cmp) (SETO cmp)) yes no) => (OS cmp yes no)

// Special case for floating point - LF/LEF not generated
(NE (TESTB (SETGF cmp) (SETGF cmp)) yes no) => (UGT cmp yes no)
(NE (TESTB (SETGEF cmp) (SETGEF cmp)) yes no) => (UGE cmp yes no)
(NE (TESTB (SETEQF cmp) (SETEQF cmp)) yes no) => (EQF cmp yes no)
(NE (TESTB (SETNEF cmp) (SETNEF cmp)) yes no) => (NEF cmp yes no)

// fold constants into instructions
(ADDL x (MOVLconst [c])) => (ADDLconst [c] x)
(ADDLcarry x (MOVLconst [c])) => (ADDLconstcarry [c] x)
(ADCL x (MOVLconst [c]) f) => (ADCLconst [c] x f)

(SUBL x (MOVLconst [c])) => (SUBLconst x [c])
(SUBL
  (MOVLconst [c] x) => (NEGL (SUBLconst <v.Type> x [c]))
(SUBLcarry x (MOVLconst [c])) => (SUBLconstcarry [c] x)
(SBBL x (MOVLconst [c]) f) => (SBBLconst [c] x f)

(MULL x (MOVLconst [c])) => (MULLconst [c] x)
(ANDL x (MOVLconst [c])) => (ANDLconst [c] x)

(ANDLconst [c] (ANDLconst [d] x)) => (ANDLconst [c & d] x)
(XORLconst [c] (XORLconst [d] x)) => (XORLconst [c ^ d] x)
(MULLconst [c] (MULLconst [d] x)) => (MULLconst [c * d] x)

```

```

(ORL x (MOVLconst [c])) => (ORLconst [c] x)
(XORL x (MOVLconst [c])) => (XORLconst [c] x)

(SHLL x (MOVLconst [c])) => (SHLLconst [c&31] x)
(SHRL x (MOVLconst [c])) => (SHRLconst [c&31] x)
(SHRW x (MOVLconst [c])) && c&31 < 16 => (SHRWconst [int16(c&31)] x)
(SHRW _ (MOVLconst [c])) && c&31 >= 16 => (MOVLconst [0])
(SHRB x (MOVLconst [c])) && c&31 < 8 => (SHRBconst [int8(c&31)] x)
(SHRB _ (MOVLconst [c])) && c&31 >= 8 => (MOVLconst [0])

(SARL x (MOVLconst [c])) => (SARLconst [c&31] x)
(SARW x (MOVLconst [c])) => (SARWconst [int16(min(int64(c&31),15))] x)
(SARB
x (MOVLconst [c])) => (SARBconst [int8(min(int64(c&31),7))] x)

(SARL x (ANDLconst [31] y)) => (SARL x y)
(SHLL x (ANDLconst [31] y)) => (SHLL x y)
(SHRL x (ANDLconst [31] y)) => (SHRL x y)

// Rotate instructions

(ADDL (SHLLconst [c] x) (SHRLconst [d] x)) && d == 32-c => (ROLLconst [c] x)
(ORL (SHLLconst [c] x) (SHRLconst [d] x)) && d == 32-c => (ROLLconst [c] x)
(XORL (SHLLconst [c] x) (SHRLconst [d] x)) && d == 32-c => (ROLLconst [c] x)

(ADDL <t> (SHLLconst x [c]) (SHRWconst x [d])) && c < 16 && d == int16(16-c) && t.Size() == 2
=> (ROLWconst x [int16(c)])
(ORL <t> (SHLLconst x [c]) (SHRWconst x [d])) && c < 16 && d == int16(16-c) && t.Size() == 2
=> (ROLWconst x [int16(c)])
(XORL <t> (SHLLconst x [c]) (SHRWconst x [d])) && c < 16 && d == int16(16-c) && t.Size() == 2
=> (ROLWconst x [int16(c)])

(ADDL <t> (SHLLconst x [c]) (SHRBconst x [d])) && c < 8 && d == int8(8-c) && t.Size() == 1
=> (ROLBconst x [int8(c)])
(ORL <t> (SHLLconst x [c]) (SHRBconst x [d])) && c <
8 && d == int8(8-c) && t.Size() == 1
=> (ROLBconst x [int8(c)])
(XORL <t> (SHLLconst x [c]) (SHRBconst x [d])) && c < 8 && d == int8(8-c) && t.Size() == 1
=> (ROLBconst x [int8(c)])

(ROLLconst [c] (ROLLconst [d] x)) => (ROLLconst [(c+d)&31] x)
(ROLWconst [c] (ROLWconst [d] x)) => (ROLWconst [(c+d)&15] x)
(ROLBconst [c] (ROLBconst [d] x)) => (ROLBconst [(c+d)&7] x)

// Constant shift simplifications

(SHLLconst x [0]) => x

```

(SHRLconst x [0]) => x

(SARLconst x [0]) => x

(SHRWconst x [0]) => x

(SARWconst x [0]) => x

(SHRBconst x [0]) => x

(SARBconst x [0]) => x

(ROLLconst [0] x) => x

(ROLWconst [0] x) => x

(ROLBconst [0] x) => x

// Note: the word and byte shifts keep the low 5 bits (not the low 4 or 3 bits)

// because the x86 instructions are defined to use all 5 bits of the shift even

// for the small shifts. I don't think we'll ever generate a weird shift (e.g.

// (SHRW x (MOVLconst [24])), but just in case.

(CMPL x (MOVLconst [c])) => (CMPLconst x [c])

(CMPL (MOVLconst [c]

x) => (InvertFlags (CMPLconst x [c]))

(CMPW x (MOVLconst [c])) => (CMPWconst x [int16(c)])

(CMPW (MOVLconst [c] x) => (InvertFlags (CMPWconst x [int16(c)]))

(CMPB x (MOVLconst [c])) => (CMPBconst x [int8(c)])

(CMPB (MOVLconst [c] x) => (InvertFlags (CMPBconst x [int8(c)]))

// Canonicalize the order of arguments to comparisons - helps with CSE.

(CMP(L|W|B) x y) && canonLessThan(x,y) => (InvertFlags (CMP(L|W|B) y x))

// strength reduction

// Assumes that the following costs from <https://gmpilib.org/~tege/x86-timing.pdf>:

// 1 - addl, shll, leal, negl, subl

// 3 - imull

// This limits the rewrites to two instructions.

// Note that negl always operates in-place,

// which can require a register-register move

// to preserve the original value,

// so it must be used with care.

(MULLconst [-9] x) => (NEGL (LEAL8 <v.Type> x x))

(MULLconst [-5] x) => (NEGL (LEAL4 <v.Type> x x))

(MULLconst [-3] x) => (NEGL (LEAL2 <v.Type> x x))

(MULLconst [-1] x) => (NEGL x)

(MULLconst [0] _) => (MOVLconst
[0])

(MULLconst [1] x) => x

(MULLconst [3] x) => (LEAL2 x x)

(MULLconst [5] x) => (LEAL4 x x)

(MULLconst [7] x) => (LEAL2 x (LEAL2 <v.Type> x x))

```

(MULLconst [9] x) => (LEAL8 x x)
(MULLconst [11] x) => (LEAL2 x (LEAL4 <v.Type> x x))
(MULLconst [13] x) => (LEAL4 x (LEAL2 <v.Type> x x))
(MULLconst [19] x) => (LEAL2 x (LEAL8 <v.Type> x x))
(MULLconst [21] x) => (LEAL4 x (LEAL4 <v.Type> x x))
(MULLconst [25] x) => (LEAL8 x (LEAL2 <v.Type> x x))
(MULLconst [27] x) => (LEAL8 (LEAL2 <v.Type> x x) (LEAL2 <v.Type> x x))
(MULLconst [37] x) => (LEAL4 x (LEAL8 <v.Type> x x))
(MULLconst [41] x) => (LEAL8 x (LEAL4 <v.Type> x x))
(MULLconst [45] x) => (LEAL8 (LEAL4 <v.Type> x x) (LEAL4 <v.Type> x x))
(MULLconst [73] x) => (LEAL8 x (LEAL8 <v.Type> x x))
(MULLconst [81] x) => (LEAL8 (LEAL8 <v.Type> x x) (LEAL8 <v.Type> x x))

(MULLconst [c] x) && isPowerOfTwo32(c+1) && c >= 15 => (SUBL (SHLLconst <v.Type> [int32(log32(c+1))]
x) x)
(MULLconst [c] x) && isPowerOfTwo32(c-1) && c >= 17 => (LEAL1 (SHLLconst
<v.Type> [int32(log32(c-1))] x) x)
(MULLconst [c] x) && isPowerOfTwo32(c-2) && c >= 34 => (LEAL2 (SHLLconst <v.Type> [int32(log32(c-2))]
x) x)
(MULLconst [c] x) && isPowerOfTwo32(c-4) && c >= 68 => (LEAL4 (SHLLconst <v.Type> [int32(log32(c-4))]
x) x)
(MULLconst [c] x) && isPowerOfTwo32(c-8) && c >= 136 => (LEAL8 (SHLLconst <v.Type> [int32(log32(c-8))]
x) x)
(MULLconst [c] x) && c%3 == 0 && isPowerOfTwo32(c/3) => (SHLLconst [int32(log32(c/3))] (LEAL2
<v.Type> x x))
(MULLconst [c] x) && c%5 == 0 && isPowerOfTwo32(c/5) => (SHLLconst [int32(log32(c/5))] (LEAL4
<v.Type> x x))
(MULLconst [c] x) && c%9 == 0 && isPowerOfTwo32(c/9) => (SHLLconst [int32(log32(c/9))] (LEAL8
<v.Type> x x))

// combine add/shift into LEAL
(ADDL x (SHLLconst [3] y)) => (LEAL8 x y)
(ADDL x (SHLLconst [2] y)) => (LEAL4 x y)
(ADDL x (SHLLconst [1] y)) => (LEAL2 x y)
(ADDL x (ADDL y y)) => (LEAL2 x y)
(ADDL x (ADDL x y)) => (LEAL2 y x)

// combine ADDL/ADDLconst into LEAL1
(ADDLconst [c] (ADDL x y)) => (LEAL1 [c] x y)
(ADDL
(ADDLconst [c] x) y) => (LEAL1 [c] x y)

// fold ADDL into LEAL
(ADDLconst [c] (LEAL [d] {s} x)) && is32Bit(int64(c)+int64(d)) => (LEAL [c+d] {s} x)
(LEAL [c] {s} (ADDLconst [d] x)) && is32Bit(int64(c)+int64(d)) => (LEAL [c+d] {s} x)
(ADDLconst [c] x:(SP)) => (LEAL [c] x) // so it is rematerializeable
(LEAL [c] {s} (ADDL x y)) && x.Op != OpSB && y.Op != OpSB => (LEAL1 [c] {s} x y)
(ADDL x (LEAL [c] {s} y)) && x.Op != OpSB && y.Op != OpSB => (LEAL1 [c] {s} x y)

```



```

// fold ADDLconst into LEALx
(ADDLconst [c] (LEAL1 [d] {s} x y)) && is32Bit(int64(c)+int64(d)) => (LEAL1 [c+d] {s} x y)
(ADDLconst [c] (LEAL2 [d] {s} x y)) && is32Bit(int64(c)+int64(d)) => (LEAL2 [c+d] {s} x y)
(ADDLconst [c] (LEAL4 [d] {s} x y)) && is32Bit(int64(c)+int64(d)) => (LEAL4 [c+d] {s} x y)
(ADDLconst [c] (LEAL8 [d] {s} x y)) && is32Bit(int64(c)+int64(d)) => (LEAL8 [c+d] {s} x y)
(LEAL1 [c] {s} (ADDLconst [d] x) y) && is32Bit(int64(c)+int64(d)) && x.Op != OpSB => (LEAL1 [c+d] {s} x
y)
(LEAL2 [c] {s} (ADDLconst
[d] x) y) && is32Bit(int64(c)+int64(d)) && x.Op != OpSB => (LEAL2 [c+d] {s} x y)
(LEAL2 [c] {s} x (ADDLconst [d] y)) && is32Bit(int64(c)+2*int64(d)) && y.Op != OpSB => (LEAL2 [c+2*d]
{s} x y)
(LEAL4 [c] {s} (ADDLconst [d] x) y) && is32Bit(int64(c)+int64(d)) && x.Op != OpSB => (LEAL4 [c+d] {s} x
y)
(LEAL4 [c] {s} x (ADDLconst [d] y)) && is32Bit(int64(c)+4*int64(d)) && y.Op != OpSB => (LEAL4 [c+4*d]
{s} x y)
(LEAL8 [c] {s} (ADDLconst [d] x) y) && is32Bit(int64(c)+int64(d)) && x.Op != OpSB => (LEAL8 [c+d] {s} x
y)
(LEAL8 [c] {s} x (ADDLconst [d] y)) && is32Bit(int64(c)+8*int64(d)) && y.Op != OpSB => (LEAL8 [c+8*d]
{s} x y)

```

```

// fold shifts into LEALx
(LEAL1 [c] {s} x (SHLLconst [1] y)) => (LEAL2 [c] {s} x y)
(LEAL1 [c] {s} x (SHLLconst [2] y)) => (LEAL4 [c] {s} x y)
(LEAL1 [c] {s} x (SHLLconst [3] y)) => (LEAL8 [c] {s} x y)
(LEAL2 [c] {s} x (SHLLconst [1] y)) => (LEAL4 [c] {s} x y)
(LEAL2 [c] {s} x (SHLLconst [2] y)) => (LEAL8 [c] {s} x y)
(LEAL4 [c] {s} x (SHLLconst [1] y)) => (LEAL8
[c] {s} x y)

```

```

// reverse ordering of compare instruction
(SETL (InvertFlags x)) => (SETG x)
(SETG (InvertFlags x)) => (SETL x)
(SETB (InvertFlags x)) => (SETA x)
(SETA (InvertFlags x)) => (SETB x)
(SETLE (InvertFlags x)) => (SETGE x)
(SETGE (InvertFlags x)) => (SETLE x)
(SETBE (InvertFlags x)) => (SETAE x)
(SETAE (InvertFlags x)) => (SETBE x)
(SETEQ (InvertFlags x)) => (SETEQ x)
(SETNE (InvertFlags x)) => (SETNE x)

```

```

// sign extended loads
// Note: The combined instruction must end up in the same block
// as the original load. If not, we end up making a value with
// memory type live in two different blocks, which can lead to
// multiple memory values alive simultaneously.
// Make sure we don't combine these ops if the load has another use.

```

```

// This prevents a single load from being split into multiple loads
// which then might return different values. See test/atomicload.go.
(MOVBLSX x:(MOVBlload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVBLSXload
<v.Type> [off]
{sym} ptr mem)
(MOVBLZX x:(MOVBlload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVBlload
<v.Type> [off] {sym} ptr mem)
(MOVWLSX x:(MOVWload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block
(MOVWLSXload <v.Type> [off] {sym} ptr mem)
(MOVWLZX x:(MOVWload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVWload
<v.Type> [off] {sym} ptr mem)

// replace load from same location as preceding store with zero/sign extension (or copy in case of full width)
(MOVBlload [off] {sym} ptr (MOVBlstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVBLZX x)
(MOVWload [off] {sym} ptr (MOVWstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVWLZX x)
(MOVLload [off] {sym} ptr (MOVLstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => x
(MOVBLSXload [off] {sym} ptr (MOVBlstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr,
ptr2) => (MOVBLSX x)
(MOVWLSXload [off] {sym} ptr (MOVWstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVWLSX x)

// Fold extensions and ANDs together.
(MOVBLZX (ANDLconst [c] x)) => (ANDLconst [c & 0xff] x)
(MOVWLZX (ANDLconst [c] x)) => (ANDLconst [c & 0xffff] x)
(MOVBLSX (ANDLconst [c] x)) && c & 0x80 == 0 => (ANDLconst [c & 0x7f] x)
(MOVWLSX (ANDLconst [c] x)) && c & 0x8000 == 0 => (ANDLconst [c & 0x7fff] x)

// Don't extend before storing
(MOVWstore [off] {sym} ptr (MOVWL(S|Z)X x mem) => (MOVWstore [off] {sym} ptr x mem)
(MOVBlstore [off] {sym} ptr (MOVBl(S|Z)X x mem) => (MOVBlstore [off] {sym} ptr x mem)

// fold constants into memory operations
// Note that this is not always a good idea because if not all the uses of
// the ADDLconst get eliminated, we still have to compute the ADDLconst and we now
// have potentially two live values (ptr and (ADDLconst [off] ptr)) instead of one.
// Nevertheless, let's do it!
(MOV(L|W|B|SS|SD)load [off1]
{sym} (ADDLconst [off2] ptr) mem) && is32Bit(int64(off1)+int64(off2)) =>
(MOV(L|W|B|SS|SD)load [off1+off2] {sym} ptr mem)
(MOV(L|W|B|SS|SD)store [off1] {sym} (ADDLconst [off2] ptr) val mem) && is32Bit(int64(off1)+int64(off2)) =>
(MOV(L|W|B|SS|SD)store [off1+off2] {sym} ptr val mem)

((ADD|SUB|MUL|AND|OR|XOR)Lload [off1] {sym} val (ADDLconst [off2] base) mem) &&
is32Bit(int64(off1)+int64(off2)) =>

```

```

((ADD|SUB|MUL|AND|OR|XOR)Lload [off1+off2] {sym} val base mem)
((ADD|SUB|MUL|DIV)SSload [off1] {sym} val (ADDLconst [off2] base) mem) &&
is32Bit(int64(off1)+int64(off2)) =>
((ADD|SUB|MUL|DIV)SSload [off1+off2] {sym} val base mem)
((ADD|SUB|MUL|DIV)SDload [off1] {sym} val (ADDLconst [off2] base) mem) &&
is32Bit(int64(off1)+int64(off2)) =>
((ADD|SUB|MUL|DIV)SDload [off1+off2] {sym} val base mem)
((ADD|SUB|AND|OR|XOR)Lmodify [off1] {sym} (ADDLconst [off2] base) val mem) &&
is32Bit(int64(off1)+int64(off2)) =>
((ADD|SUB|AND|OR|XOR)Lmodify [off1+off2] {sym} base val mem)
((ADD|AND|OR|XOR)Lconstmodify
[valoff1] {sym} (ADDLconst [off2] base) mem) && valoff1.canAdd32(off2) =>
((ADD|AND|OR|XOR)Lconstmodify [valoff1.addOffset32(off2)] {sym} base mem)

// Fold constants into stores.
(MOVLstore [off] {sym} ptr (MOVLconst [c] mem) =>
(MOVLstoreconst [makeValAndOff(c,off)] {sym} ptr mem)
(MOVWstore [off] {sym} ptr (MOVWconst [c] mem) =>
(MOVWstoreconst [makeValAndOff(c,off)] {sym} ptr mem)
(MOVBstore [off] {sym} ptr (MOVBconst [c] mem) =>
(MOVBstoreconst [makeValAndOff(c,off)] {sym} ptr mem)

// Fold address offsets into constant stores.
(MOV(L|W|B)storeconst [sc] {s} (ADDLconst [off] ptr) mem) && sc.canAdd32(off) =>
(MOV(L|W|B)storeconst [sc.addOffset32(off)] {s} ptr mem)

// We need to fold LEAL into the MOVx ops so that the live variable analysis knows
// what variables are being read/written by the ops.
// Note: we turn off this merging for operations on globals when building
// position-independent code (when Flag_shared is set).
// PIC needs a spare register
to load the PC into. Having the LEAL be
// a separate instruction gives us that register. Having the LEAL be
// a separate instruction also allows it to be CSEd (which is good because
// it compiles to a thunk call).
(MOV(L|W|B|SS|SD|BLSX|WLSX)load [off1] {sym1} (LEAL [off2] {sym2} base) mem) &&
is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2)
&& (base.Op != OpSB || !config.ctxxt.Flag_shared) =>
(MOV(L|W|B|SS|SD|BLSX|WLSX)load [off1+off2] {mergeSym(sym1,sym2)} base mem)

(MOV(L|W|B|SS|SD)store [off1] {sym1} (LEAL [off2] {sym2} base) val mem) &&
is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2)
&& (base.Op != OpSB || !config.ctxxt.Flag_shared) =>
(MOV(L|W|B|SS|SD)store [off1+off2] {mergeSym(sym1,sym2)} base val mem)

(MOV(L|W|B)storeconst [sc] {sym1} (LEAL [off] {sym2} ptr) mem) && canMergeSym(sym1, sym2) &&
sc.canAdd32(off)
&& (ptr.Op != OpSB || !config.ctxxt.Flag_shared) =>

```

```

(MOV(L|W|B)storeconst [sc.addOffset32(off)] {mergeSym(sym1, sym2)}
ptr mem)

((ADD|SUB|MUL|AND|OR|XOR)Lload [off1] {sym1} val (LEAL [off2] {sym2} base) mem)
&& is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) && (base.Op != OpSB ||
!config.ctx.Flag_shared) =>
((ADD|SUB|MUL|AND|OR|XOR)Lload [off1+off2] {mergeSym(sym1,sym2)} val base mem)
((ADD|SUB|MUL|DIV)SSload [off1] {sym1} val (LEAL [off2] {sym2} base) mem)
&& is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) && (base.Op != OpSB ||
!config.ctx.Flag_shared) =>
((ADD|SUB|MUL|DIV)SSload [off1+off2] {mergeSym(sym1,sym2)} val base mem)
((ADD|SUB|MUL|DIV)SDload [off1] {sym1} val (LEAL [off2] {sym2} base) mem)
&& is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) && (base.Op != OpSB ||
!config.ctx.Flag_shared) =>
((ADD|SUB|MUL|DIV)SDload [off1+off2] {mergeSym(sym1,sym2)} val base mem)
((ADD|SUB|AND|OR|XOR)Lmodify [off1] {sym1} (LEAL [off2] {sym2} base) val mem)
&& is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) && (base.Op != OpSB ||
!config.ctx.Flag_shared)
=>
((ADD|SUB|AND|OR|XOR)Lmodify [off1+off2] {mergeSym(sym1,sym2)} base val mem)
((ADD|AND|OR|XOR)Lconstmodify [valoff1] {sym1} (LEAL [off2] {sym2} base) mem)
&& valoff1.canAdd32(off2) && canMergeSym(sym1, sym2) && (base.Op != OpSB || !config.ctx.Flag_shared) =>
((ADD|AND|OR|XOR)Lconstmodify [valoff1.addOffset32(off2)] {mergeSym(sym1,sym2)} base mem)

// Merge load/store to op
((ADD|AND|OR|XOR|SUB|MUL)L x l:(MOVLload [off] {sym} ptr mem)) && canMergeLoadClobber(v, l, x) &&
clobber(l) => ((ADD|AND|OR|XOR|SUB|MUL)Lload x [off] {sym} ptr mem)
((ADD|SUB|MUL|DIV)SD x l:(MOVSDload [off] {sym} ptr mem)) && canMergeLoadClobber(v, l, x) &&
clobber(l) => ((ADD|SUB|MUL|DIV)SDload x [off] {sym} ptr mem)
((ADD|SUB|MUL|DIV)SS x l:(MOVSSload [off] {sym} ptr mem)) && canMergeLoadClobber(v, l, x) &&
clobber(l) => ((ADD|SUB|MUL|DIV)SSload x [off] {sym} ptr mem)
(MOVLstore {sym} [off] ptr y:((ADD|AND|OR|XOR)Lload x [off] {sym} ptr mem) mem) && y.Uses==1 &&
clobber(y) => ((ADD|AND|OR|XOR)Lmodify [off]
{sym} ptr x mem)
(MOVLstore {sym} [off] ptr y:((ADD|SUB|AND|OR|XOR)L l:(MOVLload [off] {sym} ptr mem) x) mem) &&
y.Uses==1 && l.Uses==1 && clobber(y, l) =>
((ADD|SUB|AND|OR|XOR)Lmodify [off] {sym} ptr x mem)
(MOVLstore {sym} [off] ptr y:((ADD|AND|OR|XOR)Lconst [c] l:(MOVLload [off] {sym} ptr mem)) mem)
&& y.Uses==1 && l.Uses==1 && clobber(y, l) =>
((ADD|AND|OR|XOR)Lconstmodify [makeValAndOff(c,off)] {sym} ptr mem)

// fold LEALs together
(LEAL [off1] {sym1} (LEAL [off2] {sym2} x)) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) =>
(LEAL [off1+off2] {mergeSym(sym1,sym2)} x)

// LEAL into LEAL1
(LEAL1 [off1] {sym1} (LEAL [off2] {sym2} x) y) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,

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sym2) && x.Op != OpSB =>
    (LEAL1 [off1+off2] {mergeSym(sym1,sym2)} x y)

// LEAL1 into LEAL
(LEAL [off1] {sym1} (LEAL1 [off2] {sym2} x y)) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) =>
    (LEAL1 [off1+off2] {mergeSym(sym1,sym2)} x y)

//
LEAL into LEAL[248]
(LEAL2 [off1] {sym1} (LEAL [off2] {sym2} x y)) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) && x.Op != OpSB =>
    (LEAL2 [off1+off2] {mergeSym(sym1,sym2)} x y)
(LEAL4 [off1] {sym1} (LEAL [off2] {sym2} x y)) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) && x.Op != OpSB =>
    (LEAL4 [off1+off2] {mergeSym(sym1,sym2)} x y)
(LEAL8 [off1] {sym1} (LEAL [off2] {sym2} x y)) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) && x.Op != OpSB =>
    (LEAL8 [off1+off2] {mergeSym(sym1,sym2)} x y)

// LEAL[248] into LEAL
(LEAL [off1] {sym1} (LEAL2 [off2] {sym2} x y)) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) =>
    (LEAL2 [off1+off2] {mergeSym(sym1,sym2)} x y)
(LEAL [off1] {sym1} (LEAL4 [off2] {sym2} x y)) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) =>
    (LEAL4 [off1+off2] {mergeSym(sym1,sym2)} x y)
(LEAL [off1] {sym1} (LEAL8 [off2] {sym2} x y)) && is32Bit(int64(off1)+int64(off2))
&& canMergeSym(sym1, sym2) =>
    (LEAL8 [off1+off2] {mergeSym(sym1,sym2)} x y)

// LEAL[1248] into LEAL[1248]. Only some such merges are possible.
(LEAL1 [off1] {sym1} x (LEAL1 [off2] {sym2} y y)) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
    (LEAL2 [off1+off2] {mergeSym(sym1, sym2)} x y)
(LEAL1 [off1] {sym1} x (LEAL1 [off2] {sym2} x y)) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
    (LEAL2 [off1+off2] {mergeSym(sym1, sym2)} y x)
(LEAL2 [off1] {sym} x (LEAL1 [off2] {nil} y y)) && is32Bit(int64(off1)+2*int64(off2)) =>
    (LEAL4 [off1+2*off2] {sym} x y)
(LEAL4 [off1] {sym} x (LEAL1 [off2] {nil} y y)) && is32Bit(int64(off1)+4*int64(off2)) =>
    (LEAL8 [off1+4*off2] {sym} x y)

// Absorb InvertFlags into branches.
(LT (InvertFlags cmp) yes no) => (GT cmp yes no)
(GT (InvertFlags cmp) yes no) => (LT cmp yes no)
(LE (InvertFlags cmp) yes no) => (GE cmp yes no)
(GE (InvertFlags cmp) yes no) => (LE cmp yes no)

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```

(ULT (InvertFlags cmp)
yes no) => (UGT cmp yes no)
(UGT (InvertFlags cmp) yes no) => (ULT cmp yes no)
(ULE (InvertFlags cmp) yes no) => (UGE cmp yes no)
(UGE (InvertFlags cmp) yes no) => (ULE cmp yes no)
(EQ (InvertFlags cmp) yes no) => (EQ cmp yes no)
(NE (InvertFlags cmp) yes no) => (NE cmp yes no)

// Constant comparisons.
(CMPLconst (MOVLconst [x] [y]) && x==y          => (FlagEQ)
(CMPLconst (MOVLconst [x] [y]) && x<y && uint32(x)<uint32(y) => (FlagLT_ULT)
(CMPLconst (MOVLconst [x] [y]) && x<y && uint32(x)>uint32(y) => (FlagLT_UGT)
(CMPLconst (MOVLconst [x] [y]) && x>y && uint32(x)<uint32(y) => (FlagGT_ULT)
(CMPLconst (MOVLconst [x] [y]) && x>y && uint32(x)>uint32(y) => (FlagGT_UGT)

(CMPWconst (MOVLconst [x] [y]) && int16(x)==y          => (FlagEQ)
(CMPWconst (MOVLconst [x] [y]) && int16(x)<y && uint16(x)<uint16(y) => (FlagLT_ULT)
(CMPWconst (MOVLconst [x] [y]) && int16(x)<y && uint16(x)>uint16(y) => (FlagLT_UGT)
(CMPWconst (MOVLconst [x] [y]) && int16(x)>y && uint16(x)<uint16(y)
=> (FlagGT_ULT)
(CMPWconst (MOVLconst [x] [y]) && int16(x)>y && uint16(x)>uint16(y) => (FlagGT_UGT)

(CMPBconst (MOVLconst [x] [y]) && int8(x)==y          => (FlagEQ)
(CMPBconst (MOVLconst [x] [y]) && int8(x)<y && uint8(x)<uint8(y) => (FlagLT_ULT)
(CMPBconst (MOVLconst [x] [y]) && int8(x)<y && uint8(x)>uint8(y) => (FlagLT_UGT)
(CMPBconst (MOVLconst [x] [y]) && int8(x)>y && uint8(x)<uint8(y) => (FlagGT_ULT)
(CMPBconst (MOVLconst [x] [y]) && int8(x)>y && uint8(x)>uint8(y) => (FlagGT_UGT)

// Other known comparisons.
(CMPLconst (SHRLconst _ [c] [n]) && 0 <= n && 0 < c && c <= 32 && (1<<uint64(32-c)) <= uint64(n) =>
(FlagLT_ULT)
(CMPLconst (ANDLconst _ [m] [n]) && 0 <= m && m < n => (FlagLT_ULT)
(CMPWconst (ANDLconst _ [m] [n]) && 0 <= int16(m) && int16(m) < n => (FlagLT_ULT)
(CMPBconst (ANDLconst _ [m] [n]) && 0 <= int8(m) && int8(m) < n => (FlagLT_ULT)
// TODO: DIVxU also.

// Absorb flag constants into SBB ops.
(SBBLcarrymask (FlagEQ)) => (MOVLconst
[0])
(SBBLcarrymask (FlagLT_ULT)) => (MOVLconst [-1])
(SBBLcarrymask (FlagLT_UGT)) => (MOVLconst [0])
(SBBLcarrymask (FlagGT_ULT)) => (MOVLconst [-1])
(SBBLcarrymask (FlagGT_UGT)) => (MOVLconst [0])

// Absorb flag constants into branches.
(EQ (FlagEQ) yes no) => (First yes no)
(EQ (FlagLT_ULT) yes no) => (First no yes)
(EQ (FlagLT_UGT) yes no) => (First no yes)

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(EQ (FlagGT_ULT) yes no) => (First no yes)
(EQ (FlagGT_UGT) yes no) => (First no yes)

(NE (FlagEQ) yes no) => (First no yes)
(NE (FlagLT_ULT) yes no) => (First yes no)
(NE (FlagLT_UGT) yes no) => (First yes no)
(NE (FlagGT_ULT) yes no) => (First yes no)
(NE (FlagGT_UGT) yes no) => (First yes no)

(LT (FlagEQ) yes no) => (First no yes)
(LT (FlagLT_ULT) yes no) => (First yes no)
(LT (FlagLT_UGT) yes no) => (First yes no)
(LT (FlagGT_ULT) yes no) => (First no yes)
(LT (FlagGT_UGT) yes no) => (First no yes)

(LE (FlagEQ) yes no) => (First yes no)
(LE (FlagLT_ULT) yes no) => (First yes no)
(LE (FlagLT_UGT) yes no) => (First yes no)
(LE
(FlagGT_ULT) yes no) => (First no yes)
(LE (FlagGT_UGT) yes no) => (First no yes)

(GT (FlagEQ) yes no) => (First no yes)
(GT (FlagLT_ULT) yes no) => (First no yes)
(GT (FlagLT_UGT) yes no) => (First no yes)
(GT (FlagGT_ULT) yes no) => (First yes no)
(GT (FlagGT_UGT) yes no) => (First yes no)

(GE (FlagEQ) yes no) => (First yes no)
(GE (FlagLT_ULT) yes no) => (First no yes)
(GE (FlagLT_UGT) yes no) => (First no yes)
(GE (FlagGT_ULT) yes no) => (First yes no)
(GE (FlagGT_UGT) yes no) => (First yes no)

(ULT (FlagEQ) yes no) => (First no yes)
(ULT (FlagLT_ULT) yes no) => (First yes no)
(ULT (FlagLT_UGT) yes no) => (First no yes)
(ULT (FlagGT_ULT) yes no) => (First yes no)
(ULT (FlagGT_UGT) yes no) => (First no yes)

(ULE (FlagEQ) yes no) => (First yes no)
(ULE (FlagLT_ULT) yes no) => (First yes no)
(ULE (FlagLT_UGT) yes no) => (First no yes)
(ULE (FlagGT_ULT) yes no) => (First yes no)
(ULE (FlagGT_UGT) yes no) => (First no yes)

(UGT (FlagEQ) yes no) => (First no yes)
(UGT (FlagLT_ULT)

yes no) => (First no yes)
(UGT (FlagLT_UGT) yes no) => (First yes no)
(UGT (FlagGT_ULT) yes no) => (First no yes)
(UGT (FlagGT_UGT) yes no) => (First yes no)

(UGE (FlagEQ) yes no) => (First yes no)
(UGE (FlagLT_ULT) yes no) => (First no yes)
(UGE (FlagLT_UGT) yes no) => (First yes no)
(UGE (FlagGT_ULT) yes no) => (First no yes)
(UGE (FlagGT_UGT) yes no) => (First yes no)

// Absorb flag constants into SETxx ops.

(SETEQ (FlagEQ)) => (MOVLconst [1])
(SETEQ (FlagLT_ULT)) => (MOVLconst [0])
(SETEQ (FlagLT_UGT)) => (MOVLconst [0])
(SETEQ (FlagGT_ULT)) => (MOVLconst [0])
(SETEQ (FlagGT_UGT)) => (MOVLconst [0])

(SETNE (FlagEQ)) => (MOVLconst [0])
(SETNE (FlagLT_ULT)) => (MOVLconst [1])
(SETNE (FlagLT_UGT)) => (MOVLconst [1])
(SETNE (FlagGT_ULT)) => (MOVLconst [1])
(SETNE (FlagGT_UGT)) => (MOVLconst [1])

(SETL (FlagEQ)) => (MOVLconst [0])
(SETL (FlagLT_ULT)) => (MOVLconst [1])
(SETL (FlagLT_UGT)) => (MOVLconst [1])
(SETL (FlagGT_ULT)) => (MOVLconst [0])
(SETL (FlagGT_UGT)) => (MOVLconst
[0])

(SETLE (FlagEQ)) => (MOVLconst [1])
(SETLE (FlagLT_ULT)) => (MOVLconst [1])
(SETLE (FlagLT_UGT)) => (MOVLconst [1])
(SETLE (FlagGT_ULT)) => (MOVLconst [0])
(SETLE (FlagGT_UGT)) => (MOVLconst [0])

(SETG (FlagEQ)) => (MOVLconst [0])
(SETG (FlagLT_ULT)) => (MOVLconst [0])
(SETG (FlagLT_UGT)) => (MOVLconst [0])
(SETG (FlagGT_ULT)) => (MOVLconst [1])
(SETG (FlagGT_UGT)) => (MOVLconst [1])

(SETGE (FlagEQ)) => (MOVLconst [1])
(SETGE (FlagLT_ULT)) => (MOVLconst [0])
(SETGE (FlagLT_UGT)) => (MOVLconst [0])
(SETGE (FlagGT_ULT)) => (MOVLconst [1])
(SETGE (FlagGT_UGT)) => (MOVLconst [1])


```

(SETB (FlagEQ)) => (MOVLconst [0])
(SETB (FlagLT_ULT)) => (MOVLconst [1])
(SETB (FlagLT_UGT)) => (MOVLconst [0])
(SETB (FlagGT_ULT)) => (MOVLconst [1])
(SETB (FlagGT_UGT)) => (MOVLconst [0])

(SETBE (FlagEQ)) => (MOVLconst [1])
(SETBE (FlagLT_ULT)) => (MOVLconst [1])
(SETBE (FlagLT_UGT)) => (MOVLconst [0])
(SETBE (FlagGT_ULT)) => (MOVLconst [1])
(SETBE (FlagGT_UGT)) => (MOVLconst [0])

(SETA (FlagEQ)) =>
(MOVLconst [0])
(SETA (FlagLT_ULT)) => (MOVLconst [0])
(SETA (FlagLT_UGT)) => (MOVLconst [1])
(SETA (FlagGT_ULT)) => (MOVLconst [0])
(SETA (FlagGT_UGT)) => (MOVLconst [1])

(SETAE (FlagEQ)) => (MOVLconst [1])
(SETAE (FlagLT_ULT)) => (MOVLconst [0])
(SETAE (FlagLT_UGT)) => (MOVLconst [1])
(SETAE (FlagGT_ULT)) => (MOVLconst [0])
(SETAE (FlagGT_UGT)) => (MOVLconst [1])

// Remove redundant *const ops
(ADDLconst [c] x) && c==0 => x
(SUBLconst [c] x) && c==0 => x
(ANDLconst [c] _) && c==0 => (MOVLconst [0])
(ANDLconst [c] x) && c==-1 => x
(ORLconst [c] x) && c==0 => x
(ORLconst [c] _) && c==-1 => (MOVLconst [-1])
(XORLconst [c] x) && c==0 => x
// TODO: since we got rid of the W/B versions, we might miss
// things like (ANDLconst [0x100] x) which were formerly
// (ANDBconst [0] x). Probably doesn't happen very often.
// If we cared, we might do:
// (ANDLconst <t> [c] x) && t.Size()==1 && int8(x)==0 => (MOVLconst [0])

// Convert constant subtracts to constant adds
(SUBLconst [c] x)
=> (ADDLconst [-c] x)

// generic constant folding
// TODO: more of this
(ADDLconst [c] (MOVLconst [d])) => (MOVLconst [c+d])
(ADDLconst [c] (ADDLconst [d] x)) => (ADDLconst [c+d] x)

```

```

(SARLconst [c] (MOVLconst [d])) => (MOVLconst [d>>uint64(c)])
(SARWconst [c] (MOVLconst [d])) => (MOVLconst [d>>uint64(c)])
(SARBconst [c] (MOVLconst [d])) => (MOVLconst [d>>uint64(c)])
(NEGL (MOVLconst [c])) => (MOVLconst [-c])
(MULLconst [c] (MOVLconst [d])) => (MOVLconst [c*d])
(ANDLconst [c] (MOVLconst [d])) => (MOVLconst [c&d])
(ORLconst [c] (MOVLconst [d])) => (MOVLconst [c|d])
(XORLconst [c] (MOVLconst [d])) => (MOVLconst [c^d])
(NOTL (MOVLconst [c])) => (MOVLconst [^c])

// generic simplifications
// TODO: more of this
(ADDL x (NEGL y)) => (SUBL x y)
(SUBL x x) => (MOVLconst [0])
(ANDL x x) => x
(ORL x x) => x
(XORL x x) => (MOVLconst [0])

// checking AND against 0.
(CMP(L|W|B)const l:(ANDL x y) [0]) && l.Uses==1 => (TEST(L|W|B) x y)
(CMPLconst l:(ANDLconst [c] x) [0]) && l.Uses==1 => (TESTLconst
[c] x)
(CMPWconst l:(ANDLconst [c] x) [0]) && l.Uses==1 => (TESTWconst [int16(c)] x)
(CMPBconst l:(ANDLconst [c] x) [0]) && l.Uses==1 => (TESTBconst [int8(c)] x)

// TEST %reg,%reg is shorter than CMP
(CMP(L|W|B)const x [0]) => (TEST(L|W|B) x x)

// Convert LEAL1 back to ADDL if we can
(LEAL1 [0] {nil} x y) => (ADDL x y)

// Combining byte loads into larger (unaligned) loads.
// There are many ways these combinations could occur. This is
// designed to match the way encoding/binary.LittleEndian does it.
(ORL          x0:(MOVBload [i0] {s} p mem)
 s0:(SHLLconst [8] x1:(MOVBload [i1] {s} p mem)))
&& i1 == i0+1
&& x0.Uses == 1
&& x1.Uses == 1
&& s0.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, s0)
=> @mergePoint(b,x0,x1) (MOVWload [i0] {s} p mem)

(ORL          x0:(MOVBload [i] {s} p0 mem)
 s0:(SHLLconst [8] x1:(MOVBload [i] {s} p1 mem)))
&& x0.Uses == 1
&& x1.Uses == 1

```

```

&& s0.Uses == 1
&& sequentialAddresses(p0, p1, 1)
&& mergePoint(b,x0,x1)
!= nil
&& clobber(x0, x1, s0)
=> @mergePoint(b,x0,x1) (MOVWload [i] {s} p0 mem)

(ORL o0:(ORL
    x0:(MOVWload [i0] {s} p mem)
    s0:(SHLLconst [16] x1:(MOVBload [i2] {s} p mem)))
    s1:(SHLLconst [24] x2:(MOVBload [i3] {s} p mem)))
&& i2 == i0+2
&& i3 == i0+3
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& s0.Uses == 1
&& s1.Uses == 1
&& o0.Uses == 1
&& mergePoint(b,x0,x1,x2) != nil
&& clobber(x0, x1, x2, s0, s1, o0)
=> @mergePoint(b,x0,x1,x2) (MOVLload [i0] {s} p mem)

```

```

(ORL o0:(ORL
    x0:(MOVWload [i] {s} p0 mem)
    s0:(SHLLconst [16] x1:(MOVBload [i] {s} p1 mem)))
    s1:(SHLLconst [24] x2:(MOVBload [i] {s} p2 mem)))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& s0.Uses == 1
&& s1.Uses == 1
&& o0.Uses == 1
&& sequentialAddresses(p0, p1, 2)
&& sequentialAddresses(p1, p2, 1)
&& mergePoint(b,x0,x1,x2) != nil
&& clobber(x0, x1, x2, s0, s1, o0)
=> @mergePoint(b,x0,x1,x2) (MOVLload
[i] {s} p0 mem)

```

```

// Combine constant stores into larger (unaligned) stores.
(MOVBstoreconst [c] {s} p x:(MOVBstoreconst [a] {s} p mem))
&& x.Uses == 1
&& a.Off() + 1 == c.Off()
&& clobber(x)
=> (MOVWstoreconst [makeValAndOff(a.Val()&0xff | c.Val()<<8, a.Off())] {s} p mem)
(MOVBstoreconst [a] {s} p x:(MOVBstoreconst [c] {s} p mem))
&& x.Uses == 1

```

```

&& a.Off() + 1 == c.Off()
&& clobber(x)
=> (MOVWstoreconst [makeValAndOff(a.Val()&0xff | c.Val()<<8, a.Off())] {s} p mem)

(MOVBstoreconst [c] {s} p1 x:(MOVBstoreconst [a] {s} p0 mem))
&& x.Uses == 1
&& a.Off() == c.Off()
&& sequentialAddresses(p0, p1, 1)
&& clobber(x)
=> (MOVWstoreconst [makeValAndOff(a.Val()&0xff | c.Val()<<8, a.Off())] {s} p0 mem)
(MOVBstoreconst [a] {s} p0 x:(MOVBstoreconst [c] {s} p1 mem))
&& x.Uses == 1
&& a.Off() == c.Off()
&& sequentialAddresses(p0, p1, 1)
&& clobber(x)
=> (MOVWstoreconst [makeValAndOff(a.Val()&0xff | c.Val()<<8, a.Off())] {s} p0 mem)

(MOVWstoreconst [c] {s} p x:(MOVWstoreconst
[a] {s} p mem))
&& x.Uses == 1
&& a.Off() + 2 == c.Off()
&& clobber(x)
=> (MOVLstoreconst [makeValAndOff(a.Val()&0xffff | c.Val()<<16, a.Off())] {s} p mem)
(MOVWstoreconst [a] {s} p x:(MOVWstoreconst [c] {s} p mem))
&& x.Uses == 1
&& ValAndOff(a.Off() + 2 == ValAndOff(c.Off()))
&& clobber(x)
=> (MOVLstoreconst [makeValAndOff(a.Val()&0xffff | c.Val()<<16, a.Off())] {s} p mem)

(MOVWstoreconst [c] {s} p1 x:(MOVWstoreconst [a] {s} p0 mem))
&& x.Uses == 1
&& a.Off() == c.Off()
&& sequentialAddresses(p0, p1, 2)
&& clobber(x)
=> (MOVLstoreconst [makeValAndOff(a.Val()&0xffff | c.Val()<<16, a.Off())] {s} p0 mem)
(MOVWstoreconst [a] {s} p0 x:(MOVWstoreconst [c] {s} p1 mem))
&& x.Uses == 1
&& a.Off() == c.Off()
&& sequentialAddresses(p0, p1, 2)
&& clobber(x)
=> (MOVLstoreconst [makeValAndOff(a.Val()&0xffff | c.Val()<<16, a.Off())] {s} p0 mem)

// Combine stores into larger (unaligned) stores.
(MOVBstore [i] {s} p (SHR(W|L)const [8] w) x:(MOVBstore
[i-1] {s} p w mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVWstore [i-1] {s} p w mem)

```

```

(MOVBstore [i] {s} p w x:(MOVBstore {s} [i+1] p (SHR(W|L)const [8] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVWstore [i] {s} p w mem)
(MOVBstore [i] {s} p (SHRLconst [j] w) x:(MOVBstore [i-1] {s} p w0:(SHRLconst [j-8] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVWstore [i-1] {s} p w0 mem)

(MOVBstore [i] {s} p1 (SHR(W|L)const [8] w) x:(MOVBstore [i] {s} p0 w mem))
&& x.Uses == 1
&& sequentialAddresses(p0, p1, 1)
&& clobber(x)
=> (MOVWstore [i] {s} p0 w mem)
(MOVBstore [i] {s} p0 w x:(MOVBstore {s} [i] p1 (SHR(W|L)const [8] w) mem))
&& x.Uses == 1
&& sequentialAddresses(p0, p1, 1)
&& clobber(x)
=> (MOVWstore [i] {s} p0 w mem)
(MOVBstore [i] {s} p1 (SHRLconst [j] w) x:(MOVBstore [i] {s} p0 w0:(SHRLconst [j-8] w) mem))
&& x.Uses == 1
&& sequentialAddresses(p0, p1, 1)
&& clobber(x)
=> (MOVWstore [i] {s} p0 w0 mem)

(MOVWstore [i] {s} p (SHRLconst [16] w) x:(MOVWstore
[i-2] {s} p w mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVLstore [i-2] {s} p w mem)
(MOVWstore [i] {s} p (SHRLconst [j] w) x:(MOVWstore [i-2] {s} p w0:(SHRLconst [j-16] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVLstore [i-2] {s} p w0 mem)

(MOVWstore [i] {s} p1 (SHRLconst [16] w) x:(MOVWstore [i] {s} p0 w mem))
&& x.Uses == 1
&& sequentialAddresses(p0, p1, 2)
&& clobber(x)
=> (MOVLstore [i] {s} p0 w mem)
(MOVWstore [i] {s} p1 (SHRLconst [j] w) x:(MOVWstore [i] {s} p0 w0:(SHRLconst [j-16] w) mem))
&& x.Uses == 1
&& sequentialAddresses(p0, p1, 2)
&& clobber(x)
=> (MOVLstore [i] {s} p0 w0 mem)

// For PIC, break floating-point constant loading into two instructions so we have
// a register to use for holding the address of the constant pool entry.

```

```
(MOVSSconst [c]) && config.ctx.Flag_shared => (MOVSSconst2 (MOVSSconst1 [c]))
(MOVSDconst [c]) && config.ctx.Flag_shared => (MOVSDconst2 (MOVSDconst1 [c]))
```

```
(CMP(L|W|B) l:(MOV(L|W|B)load {sym} [off] ptr mem) x)
&& canMergeLoad(v, l) && clobber(l) => (CMP(L|W|B)load {sym} [off] ptr x mem)
(CMP(L|W|B) x l:(MOV(L|W|B)load {sym} [off] ptr mem)) && canMergeLoad(v, l) && clobber(l) => (InvertFlags
(CMP(L|W|B)load {sym} [off] ptr x mem))
```

```
(CMP(L|W|B)const l:(MOV(L|W|B)load {sym} [off] ptr mem) [c])
&& l.Uses == 1
&& clobber(l) =>
@l.Block (CMP(L|W|B)constload {sym} [makeValAndOff(int32(c),off)] ptr mem)
```

```
(Cmplload {sym} [off] ptr (MOVLconst [c] mem) => (Cmplconstload {sym} [makeValAndOff(c,off)] ptr mem)
(CMPWload {sym} [off] ptr (MOVLconst [c] mem) => (CMPWconstload {sym}
[makeValAndOff(int32(int16(c)),off)] ptr mem)
(CMPBload {sym} [off] ptr (MOVLconst [c] mem) => (CMPBconstload {sym}
[makeValAndOff(int32(int8(c)),off)] ptr mem)
```

```
(MOVBlload [off] {sym} (SB) _) && symIsRO(sym) => (MOVLconst [int32(read8(sym, int64(off)))]
(MOVWload [off] {sym} (SB) _) && symIsRO(sym) => (MOVLconst [int32(read16(sym, int64(off),
config.ctx.Arch.ByteOrder))])
(MOVLload [off] {sym} (SB) _) && symIsRO(sym) =>
(MOVLconst [int32(read32(sym, int64(off), config.ctx.Arch.ByteOrder))])
```

Found in path(s):

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/386.rules
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2014 The Go Authors. All rights reserved.
```

Found in path(s):

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/decl.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ppc64/opt.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/issues0.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/importdecl1/importdecl1a.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/init2.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/initorder.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/blank.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/importdecl1/importdecl1b.go
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```

```
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```

```

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// license that can be found in the LICENSE file.

// This file contains rules to decompose builtin compound types
// (complex,string,slice,interface) into their constituent
// types. These rules work together with the decomposeBuiltin
// pass which handles phis of these types.

// complex ops
(ComplexReal (ComplexMake real _ )) => real
(ComplexImag (ComplexMake _ imag )) => imag

(Load <t> ptr mem) && t.IsComplex() && t.Size() == 8 =>
(ComplexMake
  (Load <typ.Float32> ptr mem)
  (Load <typ.Float32>
    (OffPtr <typ.Float32Ptr> [4] ptr)
    mem)
  )
(Store {t} dst (ComplexMake real imag) mem) && t.Size() == 8 =>
(Store {typ.Float32}
  (OffPtr <typ.Float32Ptr> [4] dst)
  imag
  (Store {typ.Float32} dst real mem))
(Load <t> ptr mem) && t.IsComplex() && t.Size() == 16 =>
(ComplexMake

(Load <typ.Float64> ptr mem)
  (Load <typ.Float64>
    (OffPtr <typ.Float64Ptr> [8] ptr)
    mem)
  )
(Store {t} dst (ComplexMake real imag) mem) && t.Size() == 16 =>
(Store {typ.Float64}
  (OffPtr <typ.Float64Ptr> [8] dst)
  imag
  (Store {typ.Float64} dst real mem))

// string ops
(StringPtr (StringMake ptr _)) => ptr
(StringLen (StringMake _ len)) => len

(Load <t> ptr mem) && t.IsString() =>
(StringMake
  (Load <typ.BytePtr> ptr mem)
  (Load <typ.Int>
    (OffPtr <typ.IntPtr> [config.PtrSize] ptr)
    mem))

```

```

(Store dst (StringMake ptr len) mem) =>
(Store {typ.Int}
  (OffPtr <typ.IntPtr> [config.PtrSize] dst)
  len
  (Store {typ.BytePtr} dst ptr mem))

// slice ops
(SlicePtr (SliceMake ptr _ _)) => ptr
(SliceLen (SliceMake _ len _)) => len
(SliceCap (SliceMake _ _ cap)) => cap
(SlicePtrUnchecked (SliceMake ptr _ _)) => ptr

(Load <t> ptr mem) && t.IsSlice() =>
(SliceMake
  (Load <t.Elem().PtrTo()> ptr mem)
  (Load <typ.Int>
    (OffPtr <typ.IntPtr>
[config.PtrSize] ptr)
  mem)
  (Load <typ.Int>
    (OffPtr <typ.IntPtr> [2*config.PtrSize] ptr)
  mem))
(Store {t} dst (SliceMake ptr len cap) mem) =>
(Store {typ.Int}
  (OffPtr <typ.IntPtr> [2*config.PtrSize] dst)
  cap
  (Store {typ.Int}
    (OffPtr <typ.IntPtr> [config.PtrSize] dst)
    len
    (Store {t.Elem().PtrTo()} dst ptr mem)))

// interface ops
(ITab (IMake itab _)) => itab
(IData (IMake _ data)) => data

(Load <t> ptr mem) && t.IsInterface() =>
(IMake
  (Load <typ.Uintptr> ptr mem)
  (Load <typ.BytePtr>
    (OffPtr <typ.BytePtrPtr> [config.PtrSize] ptr)
  mem))
(Store dst (IMake itab data) mem) =>
(Store {typ.BytePtr}
  (OffPtr <typ.BytePtrPtr> [config.PtrSize] dst)
  data
  (Store {typ.Uintptr} dst itab mem))

```

Found in path(s):

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/dec.rules

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(Add(Ptr|64|32|16|8) ...) => (ADDV ...)

(Add(32|64)F ...) => (ADD(F|D) ...)

(Sub(Ptr|64|32|16|8) ...) => (SUBV ...)

(Sub(32|64)F ...) => (SUB(F|D) ...)

(Mul(64|32|16|8) x y) => (Select1 (MULVU x y))

(Mul(32|64)F ...) => (MUL(F|D) ...)

(Mul64uhilo ...) => (MULVU ...)

(Select0 (Mul64uover x y)) => (Select1 <typ.UInt64> (MULVU x y))

(Select1 (Mul64uover x y)) => (SGTU <typ.Bool> (Select0 <typ.UInt64> (MULVU x y)) (MOVVconst <typ.UInt64> [0]))

(Hmul64 x y) => (Select0 (MULV x y))

(Hmul64u x y) => (Select0 (MULVU x y))

(Hmul32 x y) => (SRAVconst (Select1 <typ.Int64> (MULV (SignExt32to64 x) (SignExt32to64 y))) [32])

(Hmul32u x y) => (SRLVconst (Select1 <typ.UInt64> (MULVU (ZeroExt32to64 x) (ZeroExt32to64 y))) [32])

(Div64 x y) => (Select1 (DIVV x y))

(Div64u x y)

=> (Select1 (DIVVU x y))

(Div32 x y) => (Select1 (DIVV (SignExt32to64 x) (SignExt32to64 y)))

(Div32u x y) => (Select1 (DIVVU (ZeroExt32to64 x) (ZeroExt32to64 y)))

(Div16 x y) => (Select1 (DIVV (SignExt16to64 x) (SignExt16to64 y)))

(Div16u x y) => (Select1 (DIVVU (ZeroExt16to64 x) (ZeroExt16to64 y)))

(Div8 x y) => (Select1 (DIVV (SignExt8to64 x) (SignExt8to64 y)))

(Div8u x y) => (Select1 (DIVVU (ZeroExt8to64 x) (ZeroExt8to64 y)))

(Div(32|64)F ...) => (DIV(F|D) ...)

(Mod64 x y) => (Select0 (DIVV x y))

(Mod64u x y) => (Select0 (DIVVU x y))

(Mod32 x y) => (Select0 (DIVV (SignExt32to64 x) (SignExt32to64 y)))

(Mod32u x y) => (Select0 (DIVVU (ZeroExt32to64 x) (ZeroExt32to64 y)))

(Mod16 x y) => (Select0 (DIVV (SignExt16to64 x) (SignExt16to64 y)))

(Mod16u x y) => (Select0 (DIVVU (ZeroExt16to64 x) (ZeroExt16to64 y)))

(Mod8 x y) => (Select0 (DIVV (SignExt8to64 x) (SignExt8to64 y)))

(Mod8u x y) => (Select0 (DIVVU (ZeroExt8to64 x) (ZeroExt8to64 y)))

// (x + y) / 2 with x>=y => (x - y) / 2 + y

(Avg64u

<t> x y) => (ADDV (SRLVconst <t> (SUBV <t> x y) [1]) y)

(And(64|32|16|8) ...) => (AND ...)

(Or(64|32|16|8) ...) => (OR ...)

(Xor(64|32|16|8) ...) => (XOR ...)

// shifts

// hardware instruction uses only the low 6 bits of the shift

// we compare to 64 to ensure Go semantics for large shifts

(Lsh64x64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SLLV <t> x y))

(Lsh64x32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SLLV <t> x (ZeroExt32to64 y)))

(Lsh64x16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SLLV <t> x (ZeroExt16to64 y)))

(Lsh64x8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SLLV <t> x (ZeroExt8to64 y)))

(Lsh32x64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SLLV <t> x y))

(Lsh32x32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SLLV <t> x (ZeroExt32to64 y)))

(Lsh32x16 <t>

x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SLLV <t> x (ZeroExt16to64 y)))

(Lsh32x8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SLLV <t> x (ZeroExt8to64 y)))

(Lsh16x64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SLLV <t> x y))

(Lsh16x32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SLLV <t> x (ZeroExt32to64 y)))

(Lsh16x16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SLLV <t> x (ZeroExt16to64 y)))

(Lsh16x8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SLLV <t> x (ZeroExt8to64 y)))

(Lsh8x64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SLLV <t> x y))

(Lsh8x32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SLLV <t> x (ZeroExt32to64 y)))

(Lsh8x16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SLLV <t> x (ZeroExt16to64 y)))

(Lsh8x8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SLLV <t> x (ZeroExt8to64 y)))

(Rsh64Ux64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SRLV <t> x y))

(Rsh64Ux32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SRLV <t> x (ZeroExt32to64 y)))

(Rsh64Ux16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SRLV <t> x (ZeroExt16to64 y)))

(Rsh64Ux8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SRLV <t> x (ZeroExt8to64 y)))

<t> x (ZeroExt8to64 y)))

(Rsh32Ux64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SRLV <t> (ZeroExt32to64 x) y))

(Rsh32Ux32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SRLV <t> (ZeroExt32to64 x) (ZeroExt32to64 y)))

(Rsh32Ux16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SRLV <t> (ZeroExt32to64 x) (ZeroExt16to64 y)))

(Rsh32Ux8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SRLV <t> (ZeroExt32to64 x) (ZeroExt8to64 y)))

(Rsh16Ux64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SRLV <t> (ZeroExt16to64 x) y))

(Rsh16Ux32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SRLV <t> (ZeroExt16to64 x) (ZeroExt32to64 y)))

(Rsh16Ux16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SRLV <t> (ZeroExt16to64 x) (ZeroExt16to64 y)))

(Rsh16Ux8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SRLV <t> (ZeroExt16to64 x) (ZeroExt8to64 y)))

(Rsh8Ux64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SRLV <t> (ZeroExt8to64 x) y))

(Rsh8Ux32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SRLV <t> (ZeroExt8to64 x) (ZeroExt32to64 y)))

(Rsh8Ux16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SRLV <t> (ZeroExt8to64 x) (ZeroExt16to64 y)))

(Rsh8Ux8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SRLV <t> (ZeroExt8to64 x) (ZeroExt8to64 y)))

(Rsh64x64 <t> x y) => (SRAV x (OR <t> (NEGV <t> (SGTU y (MOVVconst <typ.UInt64> [63]))) y))

(Rsh64x32 <t> x y) => (SRAV x (OR <t> (NEGV <t> (SGTU (ZeroExt32to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt32to64 y)))

(Rsh64x16 <t> x y) => (SRAV x (OR <t> (NEGV <t> (SGTU (ZeroExt16to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt16to64 y)))

(Rsh64x8 <t> x y) => (SRAV x (OR <t> (NEGV <t> (SGTU (ZeroExt8to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt8to64 y)))

(Rsh32x64 <t> x y) => (SRAV (SignExt32to64 x) (OR <t> (NEGV <t> (SGTU y (MOVVconst <typ.UInt64> [63]))) y))

(Rsh32x32 <t> x y) => (SRAV (SignExt32to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt32to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt32to64 y)))

(Rsh32x16 <t> x y) => (SRAV (SignExt32to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt16to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt16to64 y)))

(Rsh32x8 <t> x y) => (SRAV (SignExt32to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt8to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt8to64 y)))

```

(Rsh16x64 <t> x y) => (SRV (SignExt16to64 x) (OR <t> (NEGV <t> (SGTU y (MOVVconst <typ.UInt64>
[63]))) y))
(Rsh16x32 <t> x y) => (SRV (SignExt16to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt32to64 y) (MOVVconst
<typ.UInt64> [63]))) (ZeroExt32to64 y)))
(Rsh16x16 <t> x y) => (SRV (SignExt16to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt16to64 y) (MOVVconst
<typ.UInt64> [63]))) (ZeroExt16to64 y)))
(Rsh16x8 <t> x y) => (SRV (SignExt16to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt8to64 y) (MOVVconst
<typ.UInt64> [63]))) (ZeroExt8to64 y)))

(Rsh8x64 <t> x y) => (SRV (SignExt8to64 x) (OR <t> (NEGV <t> (SGTU y (MOVVconst <typ.UInt64> [63])))
y))
(Rsh8x32 <t> x y) => (SRV (SignExt8to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt32to64 y) (MOVVconst
<typ.UInt64> [63]))) (ZeroExt32to64
y)))
(Rsh8x16 <t> x y) => (SRV (SignExt8to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt16to64 y) (MOVVconst
<typ.UInt64> [63]))) (ZeroExt16to64 y)))
(Rsh8x8 <t> x y) => (SRV (SignExt8to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt8to64 y) (MOVVconst
<typ.UInt64> [63]))) (ZeroExt8to64 y)))

// rotates
(RotateLeft8 <t> x (MOVVconst [c])) => (Or8 (Lsh8x64 <t> x (MOVVconst [c&7])) (Rsh8Ux64 <t> x
(MOVVconst [-c&7])))
(RotateLeft16 <t> x (MOVVconst [c])) => (Or16 (Lsh16x64 <t> x (MOVVconst [c&15])) (Rsh16Ux64 <t> x
(MOVVconst [-c&15])))
(RotateLeft32 <t> x (MOVVconst [c])) => (Or32 (Lsh32x64 <t> x (MOVVconst [c&31])) (Rsh32Ux64 <t> x
(MOVVconst [-c&31])))
(RotateLeft64 <t> x (MOVVconst [c])) => (Or64 (Lsh64x64 <t> x (MOVVconst [c&63])) (Rsh64Ux64 <t> x
(MOVVconst [-c&63])))

// unary ops
(Neg(64|32|16|8) ...) => (NEGV ...)
(Neg(32|64)F ...) => (NEG(F)D ...)

(Com(64|32|16|8) x) => (NOR (MOVVconst [0]) x)

(Sqrt ...) => (SQRTD ...)
(Sqrt32 ...) => (SQRTF ...)

// boolean ops -- booleans are
represented with 0=false, 1=true
(AndB ...) => (AND ...)
(OrB ...) => (OR ...)
(EqB x y) => (XOR (MOVVconst [1]) (XOR <typ.Bool> x y))
(NeqB ...) => (XOR ...)
(Not x) => (XORconst [1] x)

// constants
(Const(64|32|16|8) [val]) => (MOVVconst [int64(val)])

```

```

(Const(32|64)F [val]) => (MOV(F|D)const [float64(val)])
(ConstNil) => (MOVVconst [0])
(ConstBool [t]) => (MOVVconst [int64(b2i(t))])

(Slicemask <t> x) => (SRAVconst (NEGV <t> x) [63])

// truncations
// Because we ignore high parts of registers, truncates are just copies.
(Trunc16to8 ...) => (Copy ...)
(Trunc32to8 ...) => (Copy ...)
(Trunc32to16 ...) => (Copy ...)
(Trunc64to8 ...) => (Copy ...)
(Trunc64to16 ...) => (Copy ...)
(Trunc64to32 ...) => (Copy ...)

// Zero-/Sign-extensions
(ZeroExt8to16 ...) => (MOVBUreg ...)
(ZeroExt8to32 ...) => (MOVBUreg ...)
(ZeroExt16to32 ...) => (MOVHUreg ...)
(ZeroExt8to64 ...) => (MOVBUreg ...)
(ZeroExt16to64 ...) => (MOVHUreg ...)
(ZeroExt32to64 ...) => (MOVWUreg ...)

(SignExt8to16 ...) => (MOVBreg
...)
(SignExt8to32 ...) => (MOVBreg ...)
(SignExt16to32 ...) => (MOVHreg ...)
(SignExt8to64 ...) => (MOVBreg ...)
(SignExt16to64 ...) => (MOVHreg ...)
(SignExt32to64 ...) => (MOVWreg ...)

// float <=> int conversion
(Cvt32to32F ...) => (MOVWF ...)
(Cvt32to64F ...) => (MOVWD ...)
(Cvt64to32F ...) => (MOVVF ...)
(Cvt64to64F ...) => (MOVVD ...)
(Cvt32Fto32 ...) => (TRUNCFW ...)
(Cvt64Fto32 ...) => (TRUNCDW ...)
(Cvt32Fto64 ...) => (TRUNCFV ...)
(Cvt64Fto64 ...) => (TRUNCDV ...)
(Cvt32Fto64F ...) => (MOVFD ...)
(Cvt64Fto32F ...) => (MOVDF ...)

(CvtBoolToUInt8 ...) => (Copy ...)

(Round(32|64)F ...) => (Copy ...)

// comparisons

```

```

(Eq8 x y) => (SGTU (MOVVconst [1]) (XOR (ZeroExt8to64 x) (ZeroExt8to64 y)))
(Eq16 x y) => (SGTU (MOVVconst [1]) (XOR (ZeroExt16to64 x) (ZeroExt16to64 y)))
(Eq32 x y) => (SGTU (MOVVconst [1]) (XOR (ZeroExt32to64 x) (ZeroExt32to64 y)))
(Eq64 x y) => (SGTU (MOVVconst [1]) (XOR x y))
(EqPtr x y) => (SGTU (MOVVconst [1]) (XOR x y))
(Eq(32|64)F x y) => (FPFlagTrue (CMPEQ(F|D)
x y))

(Neq8 x y) => (SGTU (XOR (ZeroExt8to64 x) (ZeroExt8to64 y)) (MOVVconst [0]))
(Neq16 x y) => (SGTU (XOR (ZeroExt16to32 x) (ZeroExt16to64 y)) (MOVVconst [0]))
(Neq32 x y) => (SGTU (XOR (ZeroExt32to64 x) (ZeroExt32to64 y)) (MOVVconst [0]))
(Neq64 x y) => (SGTU (XOR x y) (MOVVconst [0]))
(NeqPtr x y) => (SGTU (XOR x y) (MOVVconst [0]))
(Neq(32|64)F x y) => (FPFlagFalse (CMPEQ(F|D) x y))

(Less8 x y) => (SGT (SignExt8to64 y) (SignExt8to64 x))
(Less16 x y) => (SGT (SignExt16to64 y) (SignExt16to64 x))
(Less32 x y) => (SGT (SignExt32to64 y) (SignExt32to64 x))
(Less64 x y) => (SGT y x)
(Less(32|64)F x y) => (FPFlagTrue (CMPGT(F|D) y x)) // reverse operands to work around NaN

(Less8U x y) => (SGTU (ZeroExt8to64 y) (ZeroExt8to64 x))
(Less16U x y) => (SGTU (ZeroExt16to64 y) (ZeroExt16to64 x))
(Less32U x y) => (SGTU (ZeroExt32to64 y) (ZeroExt32to64 x))
(Less64U x y) => (SGTU y x)

(Leq8 x y) => (XOR (MOVVconst [1]) (SGT (SignExt8to64 x) (SignExt8to64 y)))
(Leq16 x y) => (XOR
(MOVVconst [1]) (SGT (SignExt16to64 x) (SignExt16to64 y)))
(Leq32 x y) => (XOR (MOVVconst [1]) (SGT (SignExt32to64 x) (SignExt32to64 y)))
(Leq64 x y) => (XOR (MOVVconst [1]) (SGT x y))
(Leq(32|64)F x y) => (FPFlagTrue (CMPGE(F|D) y x)) // reverse operands to work around NaN

(Leq8U x y) => (XOR (MOVVconst [1]) (SGTU (ZeroExt8to64 x) (ZeroExt8to64 y)))
(Leq16U x y) => (XOR (MOVVconst [1]) (SGTU (ZeroExt16to64 x) (ZeroExt16to64 y)))
(Leq32U x y) => (XOR (MOVVconst [1]) (SGTU (ZeroExt32to64 x) (ZeroExt32to64 y)))
(Leq64U x y) => (XOR (MOVVconst [1]) (SGTU x y))

(OffPtr [off] ptr:(SP)) && is32Bit(off) => (MOVVaddr [int32(off)] ptr)
(OffPtr [off] ptr) => (ADDVconst [off] ptr)

(Addr {sym} base) => (MOVVaddr {sym} base)
(LocalAddr {sym} base _) => (MOVVaddr {sym} base)

// loads
(Load <t> ptr mem) && t.IsBoolean() => (MOVBUload ptr mem)
(Load <t> ptr mem) && (is8BitInt(t) && isSigned(t)) => (MOVBlod ptr mem)
(Load <t> ptr mem) && (is8BitInt(t) && !isSigned(t)) => (MOVBUload ptr mem)

```

```

(Load
<↳ ptr mem) && (is16BitInt(t) && isSigned(t)) => (MOVHload ptr mem)
(Load <↳ ptr mem) && (is16BitInt(t) && !isSigned(t)) => (MOVHUload ptr mem)
(Load <↳ ptr mem) && (is32BitInt(t) && isSigned(t)) => (MOVWload ptr mem)
(Load <↳ ptr mem) && (is32BitInt(t) && !isSigned(t)) => (MOVWUload ptr mem)
(Load <↳ ptr mem) && (is64BitInt(t) || isPtr(t)) => (MOVVload ptr mem)
(Load <↳ ptr mem) && is32BitFloat(t) => (MOVFloat ptr mem)
(Load <↳ ptr mem) && is64BitFloat(t) => (MOVDload ptr mem)

// stores
(Store {t} ptr val mem) && t.Size() == 1 => (MOVBstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 2 => (MOVHstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && !is32BitFloat(val.Type) => (MOVWstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 8 && !is64BitFloat(val.Type) => (MOVVstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && is32BitFloat(val.Type) => (MOVFloatstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 8 && is64BitFloat(val.Type) => (MOVDstore
ptr val mem)

// zeroing
(Zero [0] _ mem) => mem
(Zero [1] ptr mem) => (MOVBstore ptr (MOVVconst [0]) mem)
(Zero [2] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore ptr (MOVVconst [0]) mem)
(Zero [2] ptr mem) =>
(MOVBstore [1] ptr (MOVVconst [0])
(MOVBstore [0] ptr (MOVVconst [0]) mem))
(Zero [4] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore ptr (MOVVconst [0]) mem)
(Zero [4] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore [2] ptr (MOVVconst [0])
(MOVHstore [0] ptr (MOVVconst [0]) mem))
(Zero [4] ptr mem) =>
(MOVBstore [3] ptr (MOVVconst [0])
(MOVBstore [2] ptr (MOVVconst [0])
(MOVBstore [1] ptr (MOVVconst [0])
(MOVBstore [0] ptr (MOVVconst [0]) mem))))
(Zero [8] {t} ptr mem) && t.Alignment()%8 == 0 =>
(MOVVstore ptr (MOVVconst [0]) mem)
(Zero [8] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore [4] ptr (MOVVconst [0])
(MOVWstore [0] ptr (MOVVconst [0]) mem))
(Zero [8] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore [6] ptr (MOVVconst [0])
(MOVHstore
[4] ptr (MOVVconst [0])
(MOVHstore [2] ptr (MOVVconst [0])
(MOVHstore [0] ptr (MOVVconst [0]) mem))))

```

```

(Zero [3] ptr mem) =>
(MOVBstore [2] ptr (MOVVconst [0])
 (MOVBstore [1] ptr (MOVVconst [0])
  (MOVBstore [0] ptr (MOVVconst [0]) mem)))
(Zero [6] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore [4] ptr (MOVVconst [0])
 (MOVHstore [2] ptr (MOVVconst [0])
  (MOVHstore [0] ptr (MOVVconst [0]) mem)))
(Zero [12] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore [8] ptr (MOVVconst [0])
 (MOVWstore [4] ptr (MOVVconst [0])
  (MOVWstore [0] ptr (MOVVconst [0]) mem)))
(Zero [16] {t} ptr mem) && t.Alignment()%8 == 0 =>
(MOVVstore [8] ptr (MOVVconst [0])
 (MOVVstore [0] ptr (MOVVconst [0]) mem))
(Zero [24] {t} ptr mem) && t.Alignment()%8 == 0 =>
(MOVVstore [16] ptr (MOVVconst [0])
 (MOVVstore [8] ptr (MOVVconst [0])
  (MOVVstore [0] ptr (MOVVconst [0]) mem)))

// medium zeroing uses a duff device
// 8, and 128 are magic constants, see runtime/mkduff.go
(Zero [s]
 {t} ptr mem)
&& s%8 == 0 && s > 24 && s <= 8*128
&& t.Alignment()%8 == 0 && !config.noDuffDevice =>
(DUFFZERO [8 * (128 - s/8)] ptr mem)

// large or unaligned zeroing uses a loop
(Zero [s] {t} ptr mem)
&& (s > 8*128 || config.noDuffDevice) || t.Alignment()%8 != 0 =>
(LoweredZero [t.Alignment()]
 ptr
 (ADDVconst <ptr.Type> ptr [s-moveSize(t.Alignment(), config)]
 mem)

// moves
(Move [0] _ _ mem) => mem
(Move [1] dst src mem) => (MOVBstore dst (MOVBload src mem) mem)
(Move [2] {t} dst src mem) && t.Alignment()%2 == 0 =>
 (MOVHstore dst (MOVHload src mem) mem)
(Move [2] dst src mem) =>
 (MOVBstore [1] dst (MOVBload [1] src mem)
  (MOVBstore dst (MOVBload src mem) mem))
(Move [4] {t} dst src mem) && t.Alignment()%4 == 0 =>
 (MOVWstore dst (MOVWload src mem) mem)
(Move [4] {t} dst src mem) && t.Alignment()%2 == 0 =>
 (MOVHstore [2] dst (MOVHload [2] src mem)

```



```

(MOVHstore dst (MOVHload src mem) mem))
(Move [4] dst src mem) =>
(MOVBstore [3] dst (MOVBload [3] src mem)
(MOVBstore
[2] dst (MOVBload [2] src mem)
(MOVBstore [1] dst (MOVBload [1] src mem)
(MOVBstore dst (MOVBload src mem) mem))))
(Move [8] {t} dst src mem) && t.Alignment()%8 == 0 =>
(MOVVstore dst (MOVVload src mem) mem)
(Move [8] {t} dst src mem) && t.Alignment()%4 == 0 =>
(MOVWstore [4] dst (MOVWload [4] src mem)
(MOVWstore dst (MOVWload src mem) mem))
(Move [8] {t} dst src mem) && t.Alignment()%2 == 0 =>
(MOVHstore [6] dst (MOVHload [6] src mem)
(MOVHstore [4] dst (MOVHload [4] src mem)
(MOVHstore [2] dst (MOVHload [2] src mem)
(MOVHstore dst (MOVHload src mem) mem))))

(Move [3] dst src mem) =>
(MOVBstore [2] dst (MOVBload [2] src mem)
(MOVBstore [1] dst (MOVBload [1] src mem)
(MOVBstore dst (MOVBload src mem) mem)))
(Move [6] {t} dst src mem) && t.Alignment()%2 == 0 =>
(MOVHstore [4] dst (MOVHload [4] src mem)
(MOVHstore [2] dst (MOVHload [2] src mem)
(MOVHstore dst (MOVHload src mem) mem)))
(Move [12] {t} dst src mem) && t.Alignment()%4 == 0 =>
(MOVWstore [8]
dst (MOVWload [8] src mem)
(MOVWstore [4] dst (MOVWload [4] src mem)
(MOVWstore dst (MOVWload src mem) mem)))
(Move [16] {t} dst src mem) && t.Alignment()%8 == 0 =>
(MOVVstore [8] dst (MOVVload [8] src mem)
(MOVVstore dst (MOVVload src mem) mem))
(Move [24] {t} dst src mem) && t.Alignment()%8 == 0 =>
(MOVVstore [16] dst (MOVVload [16] src mem)
(MOVVstore [8] dst (MOVVload [8] src mem)
(MOVVstore dst (MOVVload src mem) mem)))

// medium move uses a duff device
(Move [s] {t} dst src mem)
&& s%8 == 0 && s >= 24 && s <= 8*128 && t.Alignment()%8 == 0
&& !config.noDuffDevice && logLargeCopy(v, s) =>
(DUFFCOPY [16 * (128 - s/8)] dst src mem)
// 16 and 128 are magic constants. 16 is the number of bytes to encode:
// MOVV (R1), R23
// ADDV $8, R1
// MOVV R23, (R2)

```

```

// ADDV $8, R2
// and 128 is the number of such blocks. See runtime/duff_mips64.s:duffcopy.

// large or unaligned move uses a loop
(Move [s] {t} dst src mem)
  && s > 24 && logLargeCopy(v, s) || t.Alignment()%8 !=
  0 =>
  (LoweredMove [t.Alignment()]
   dst
   src
   (ADDVconst <src.Type> src [s-moveSize(t.Alignment(), config)]
   mem)

// calls
(StaticCall ...) => (CALLstatic ...)
(ClosureCall ...) => (CALLclosure ...)
(InterCall ...) => (CALLinter ...)
(TailCall ...) => (CALLtail ...)

// atomic intrinsics
(AtomicLoad(8|32|64) ...) => (LoweredAtomicLoad(8|32|64) ...)
(AtomicLoadPtr ...) => (LoweredAtomicLoad64 ...)

(AtomicStore(8|32|64) ...) => (LoweredAtomicStore(8|32|64) ...)
(AtomicStorePtrNoWB ...) => (LoweredAtomicStore64 ...)

(AtomicExchange(32|64) ...) => (LoweredAtomicExchange(32|64) ...)

(AtomicAdd(32|64) ...) => (LoweredAtomicAdd(32|64) ...)

(AtomicCompareAndSwap32 ptr old new mem) => (LoweredAtomicCas32 ptr (SignExt32to64 old) new mem)
(AtomicCompareAndSwap64 ...) => (LoweredAtomicCas64 ...)

// checks
(NilCheck ...) => (LoweredNilCheck ...)
(IsNotNil ptr) => (SGTU ptr (MOVVconst [0]))
(IsInBounds idx len) => (SGTU len idx)
(IsSliceInBounds idx len) => (XOR (MOVVconst [1]) (SGTU idx
len))

// pseudo-ops
(GetClosurePtr ...) => (LoweredGetClosurePtr ...)
(GetCallerSP ...) => (LoweredGetCallerSP ...)
(GetCallerPC ...) => (LoweredGetCallerPC ...)

(If cond yes no) => (NE cond yes no)

// Write barrier.

```

(WB ...) => (LoweredWB ...)

(PanicBounds [kind] x y mem) && boundsABI(kind) == 0 => (LoweredPanicBoundsA [kind] x y mem)

(PanicBounds [kind] x y mem) && boundsABI(kind) == 1 => (LoweredPanicBoundsB [kind] x y mem)

(PanicBounds [kind] x y mem) && boundsABI(kind) == 2 => (LoweredPanicBoundsC [kind] x y mem)

// Optimizations

// Absorb boolean tests into block

(NE (FPFlagTrue cmp) yes no) => (FPT cmp yes no)

(NE (FPFlagFalse cmp) yes no) => (FPF cmp yes no)

(EQ (FPFlagTrue cmp) yes no) => (FPF cmp yes no)

(EQ (FPFlagFalse cmp) yes no) => (FPT cmp yes no)

(NE (XORconst [1] cmp:(SGT _ _)) yes no) => (EQ cmp yes no)

(NE (XORconst [1] cmp:(SGTU _ _)) yes no) => (EQ cmp yes no)

(NE (XORconst [1] cmp:(SGTconst _)) yes no) => (EQ cmp yes no)

(NE (XORconst [1] cmp:(SGTUconst _))

yes no) => (EQ cmp yes no)

(EQ (XORconst [1] cmp:(SGT _ _)) yes no) => (NE cmp yes no)

(EQ (XORconst [1] cmp:(SGTU _ _)) yes no) => (NE cmp yes no)

(EQ (XORconst [1] cmp:(SGTconst _)) yes no) => (NE cmp yes no)

(EQ (XORconst [1] cmp:(SGTUconst _)) yes no) => (NE cmp yes no)

(NE (SGTUconst [1] x) yes no) => (EQ x yes no)

(EQ (SGTUconst [1] x) yes no) => (NE x yes no)

(NE (SGTU x (MOVVconst [0])) yes no) => (NE x yes no)

(EQ (SGTU x (MOVVconst [0])) yes no) => (EQ x yes no)

(NE (SGTconst [0] x) yes no) => (LTZ x yes no)

(EQ (SGTconst [0] x) yes no) => (GEZ x yes no)

(NE (SGT x (MOVVconst [0])) yes no) => (GTZ x yes no)

(EQ (SGT x (MOVVconst [0])) yes no) => (LEZ x yes no)

// fold offset into address

(ADDVconst [off1] (MOVVaddr [off2] {sym} ptr) && is32Bit(off1+int64(off2))) => (MOVVaddr [int32(off1)+int32(off2)] {sym} ptr)

// fold address into load/store

(MOVBload [off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVBload [off1+int32(off2)] {sym} ptr mem)

(MOVBUload

[off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVBUload [off1+int32(off2)] {sym} ptr mem)

(MOVHload [off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVHload [off1+int32(off2)] {sym} ptr mem)

(MOVHUload [off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVHUload [off1+int32(off2)] {sym} ptr mem)

(MOVWload [off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVWload [off1+int32(off2)] {sym} ptr mem)

(MOVWUload [off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVWUload

```

[off1+int32(off2)] {sym} ptr mem)
(MOVVload [off1] {sym} (ADDVconst [off2] ptr mem) && is32Bit(int64(off1)+off2) => (MOVVload
[off1+int32(off2)] {sym} ptr mem)
(MOVFlod [off1] {sym} (ADDVconst [off2] ptr mem) && is32Bit(int64(off1)+off2) => (MOVFlod
[off1+int32(off2)] {sym} ptr mem)
(MOVDload [off1] {sym} (ADDVconst [off2] ptr mem) && is32Bit(int64(off1)+off2) => (MOVDload
[off1+int32(off2)]
{sym} ptr mem)

(MOVBstore [off1] {sym} (ADDVconst [off2] ptr val mem) && is32Bit(int64(off1)+off2) => (MOVBstore
[off1+int32(off2)] {sym} ptr val mem)
(MOVHstore [off1] {sym} (ADDVconst [off2] ptr val mem) && is32Bit(int64(off1)+off2) => (MOVHstore
[off1+int32(off2)] {sym} ptr val mem)
(MOVWstore [off1] {sym} (ADDVconst [off2] ptr val mem) && is32Bit(int64(off1)+off2) => (MOVWstore
[off1+int32(off2)] {sym} ptr val mem)
(MOVVstore [off1] {sym} (ADDVconst [off2] ptr val mem) && is32Bit(int64(off1)+off2) => (MOVVstore
[off1+int32(off2)] {sym} ptr val mem)
(MOVFstore [off1] {sym} (ADDVconst [off2] ptr val mem) && is32Bit(int64(off1)+off2) => (MOVFstore
[off1+int32(off2)] {sym} ptr val mem)
(MOVDstore [off1] {sym} (ADDVconst [off2] ptr val mem) && is32Bit(int64(off1)+off2) => (MOVDstore
[off1+int32(off2)] {sym} ptr val mem)
(MOVBstorezero [off1] {sym} (ADDVconst [off2] ptr mem) && is32Bit(int64(off1)+off2) => (MOVBstorezero
[off1+int32(off2)] {sym} ptr mem)
(MOVHstorezero
[off1] {sym} (ADDVconst [off2] ptr mem) && is32Bit(int64(off1)+off2) => (MOVHstorezero [off1+int32(off2)]
{sym} ptr mem)
(MOVWstorezero [off1] {sym} (ADDVconst [off2] ptr mem) && is32Bit(int64(off1)+off2) => (MOVWstorezero
[off1+int32(off2)] {sym} ptr mem)
(MOVVstorezero [off1] {sym} (ADDVconst [off2] ptr mem) && is32Bit(int64(off1)+off2) => (MOVVstorezero
[off1+int32(off2)] {sym} ptr mem)

(MOVBload [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVBload [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVBULoad [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVBULoad [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVHload [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVHload [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVHULoad [off1] {sym1} (MOVVaddr [off2] {sym2}
ptr mem) && canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2)) =>
(MOVHULoad [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVWload [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVWload [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVWULoad [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>

```

```

(MOVWUload [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVVload [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVVload [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVFload [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVFload [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVDload [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2))
=>
(MOVDload [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)

(MOVBstore [off1] {sym1} (MOVVaddr [off2] {sym2} ptr val mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVBstore [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr val mem)
(MOVHstore [off1] {sym1} (MOVVaddr [off2] {sym2} ptr val mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVHstore [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr val mem)
(MOVWstore [off1] {sym1} (MOVVaddr [off2] {sym2} ptr val mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVWstore [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr val mem)
(MOVVstore [off1] {sym1} (MOVVaddr [off2] {sym2} ptr val mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVVstore [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr val mem)
(MOVFstore [off1] {sym1} (MOVVaddr [off2] {sym2} ptr val mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVFstore [off1+int32(off2)]
{mergeSym(sym1,sym2)} ptr val mem)
(MOVDstore [off1] {sym1} (MOVVaddr [off2] {sym2} ptr val mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVDstore [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr val mem)
(MOVBstorezero [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVBstorezero [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVHstorezero [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVHstorezero [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVWstorezero [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVWstorezero [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVVstorezero [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVVstorezero [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr
mem)

// store zero
(MOVBstore [off] {sym} ptr (MOVVconst [0] mem) => (MOVBstorezero [off] {sym} ptr mem)
(MOVHstore [off] {sym} ptr (MOVVconst [0] mem) => (MOVHstorezero [off] {sym} ptr mem)

```

(MOVWstore [off] {sym} ptr (MOVVconst [0]) mem) => (MOVWstorezero [off] {sym} ptr mem)

(MOVVstore [off] {sym} ptr (MOVVconst [0]) mem) => (MOVVstorezero [off] {sym} ptr mem)

// don't extend after proper load

(MOVBreg x:(MOVBload __)) => (MOVVreg x)

(MOVBUreg x:(MOVBUload __)) => (MOVVreg x)

(MOVHreg x:(MOVBload __)) => (MOVVreg x)

(MOVHreg x:(MOVBUload __)) => (MOVVreg x)

(MOVHreg x:(MOVHload __)) => (MOVVreg x)

(MOVHUreg x:(MOVBUload __)) => (MOVVreg x)

(MOVHUreg x:(MOVHload __)) => (MOVVreg x)

(MOVWreg x:(MOVBload __)) => (MOVVreg x)

(MOVWreg x:(MOVBUload __)) => (MOVVreg x)

(MOVWreg x:(MOVHload __)) => (MOVVreg x)

(MOVWreg x:(MOVHload __)) => (MOVVreg x)

(MOVWreg x:(MOVWload __)) => (MOVVreg x)

(MOVWUreg x:(MOVBUload __)) => (MOVVreg x)

(MOVWUreg x:(MOVHload __)) => (MOVVreg

x)

(MOVWUreg x:(MOVWUload __)) => (MOVVreg x)

// fold double extensions

(MOVBreg x:(MOVBreg __)) => (MOVVreg x)

(MOVBUreg x:(MOVBUreg __)) => (MOVVreg x)

(MOVHreg x:(MOVBreg __)) => (MOVVreg x)

(MOVHreg x:(MOVBUreg __)) => (MOVVreg x)

(MOVHreg x:(MOVHreg __)) => (MOVVreg x)

(MOVHUreg x:(MOVBUreg __)) => (MOVVreg x)

(MOVHUreg x:(MOVHreg __)) => (MOVVreg x)

(MOVWreg x:(MOVBreg __)) => (MOVVreg x)

(MOVWreg x:(MOVBUreg __)) => (MOVVreg x)

(MOVWreg x:(MOVHreg __)) => (MOVVreg x)

(MOVWreg x:(MOVWreg __)) => (MOVVreg x)

(MOVWUreg x:(MOVBUreg __)) => (MOVVreg x)

(MOVWUreg x:(MOVHreg __)) => (MOVVreg x)

(MOVWUreg x:(MOVWUreg __)) => (MOVVreg x)

// don't extend before store

(MOVBstore [off] {sym} ptr (MOVBreg x) mem) => (MOVBstore [off] {sym} ptr x mem)

(MOVBstore [off] {sym} ptr (MOVBUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)

(MOVBstore [off] {sym} ptr (MOVHreg x) mem) => (MOVBstore [off] {sym} ptr x mem)

(MOVBstore [off] {sym} ptr (MOVHUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)

(MOVBstore

[off] {sym} ptr (MOVWreg x) mem) => (MOVBstore [off] {sym} ptr x mem)

(MOVBstore [off] {sym} ptr (MOVWUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)

(MOVHstore [off] {sym} ptr (MOVHreg x) mem) => (MOVHstore [off] {sym} ptr x mem)

(MOVHstore [off] {sym} ptr (MOVHUreg x) mem) => (MOVHstore [off] {sym} ptr x mem)

(MOVHstore [off] {sym} ptr (MOVWreg x) mem) => (MOVHstore [off] {sym} ptr x mem)

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(MOVHstore [off] {sym} ptr (MOVWUreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVWstore [off] {sym} ptr (MOVWreg x) mem) => (MOVWstore [off] {sym} ptr x mem)
(MOVWstore [off] {sym} ptr (MOVWUreg x) mem) => (MOVWstore [off] {sym} ptr x mem)

// if a register move has only 1 use, just use the same register without emitting instruction
// MOVVnop doesn't emit instruction, only for ensuring the type.
(MOVVreg x) && x.Uses == 1 => (MOVVnop x)

// TODO: we should be able to get rid of MOVVnop all together.
// But for now, this is enough to get rid of lots of them.
(MOVVnop (MOVVconst [c])) => (MOVVconst
[c])

// fold constant into arithmetic ops
(ADDV x (MOVVconst [c])) && is32Bit(c) => (ADDVconst [c] x)
(SUBV x (MOVVconst [c])) && is32Bit(c) => (SUBVconst [c] x)
(AND x (MOVVconst [c])) && is32Bit(c) => (ANDconst [c] x)
(OR x (MOVVconst [c])) && is32Bit(c) => (ORconst [c] x)
(XOR x (MOVVconst [c])) && is32Bit(c) => (XORconst [c] x)
(NOR x (MOVVconst [c])) && is32Bit(c) => (NORconst [c] x)

(SLLV _ (MOVVconst [c])) && uint64(c)>=64 => (MOVVconst [0])
(SRLV _ (MOVVconst [c])) && uint64(c)>=64 => (MOVVconst [0])
(SRAV x (MOVVconst [c])) && uint64(c)>=64 => (SRAVconst x [63])
(SLLV x (MOVVconst [c])) => (SLLVconst x [c])
(SRLV x (MOVVconst [c])) => (SRLVconst x [c])
(SRAV x (MOVVconst [c])) => (SRAVconst x [c])

(SGT (MOVVconst [c] x) && is32Bit(c) => (SGTconst [c] x)
(SGTU (MOVVconst [c] x) && is32Bit(c) => (SGTUconst [c] x)

// mul by constant
(Select1 (MULVU x (MOVVconst [-1]))) => (NEGV x)
(Select1 (MULVU _ (MOVVconst [0]))) => (MOVVconst [0])
(Select1 (MULVU x (MOVVconst
[1]))) => x
(Select1 (MULVU x (MOVVconst [c])) && isPowerOfTwo64(c) => (SLLVconst [log64(c)] x)

// div by constant
(Select1 (DIVVU x (MOVVconst [1]))) => x
(Select1 (DIVVU x (MOVVconst [c])) && isPowerOfTwo64(c) => (SRLVconst [log64(c)] x)
(Select0 (DIVVU _ (MOVVconst [1]))) => (MOVVconst [0]) // mod
(Select0 (DIVVU x (MOVVconst [c])) && isPowerOfTwo64(c) => (ANDconst [c-1] x) // mod

// generic simplifications
(ADDV x (NEGV y)) => (SUBV x y)
(SUBV x x) => (MOVVconst [0])
(SUBV (MOVVconst [0] x) => (NEGV x)

```

```

(AND x x) => x
(OR x x) => x
(XOR x x) => (MOVVconst [0])

// remove redundant *const ops
(ADDVconst [0] x) => x
(SUBVconst [0] x) => x
(ANDconst [0] _) => (MOVVconst [0])
(ANDconst [-1] x) => x
(ORconst [0] x) => x
(ORconst [-1] _) => (MOVVconst [-1])
(XORconst [0] x) => x
(XORconst [-1] x) => (NORconst [0] x)

// generic constant folding
(ADDVconst [c] (MOVVconst [d])) => (MOVVconst [c+d])
(ADDVconst [c] (ADDVconst [d] x)) && is32Bit(c+d) =>
(ADDVconst [c+d] x)
(ADDVconst [c] (SUBVconst [d] x)) && is32Bit(c-d) => (ADDVconst [c-d] x)
(SUBVconst [c] (MOVVconst [d])) => (MOVVconst [d-c])
(SUBVconst [c] (SUBVconst [d] x)) && is32Bit(-c-d) => (ADDVconst [-c-d] x)
(SUBVconst [c] (ADDVconst [d] x)) && is32Bit(-c+d) => (ADDVconst [-c+d] x)
(SLLVconst [c] (MOVVconst [d])) => (MOVVconst [d<<uint64(c)])
(SRLVconst [c] (MOVVconst [d])) => (MOVVconst [int64(uint64(d)>>uint64(c))])
(SRAVconst [c] (MOVVconst [d])) => (MOVVconst [d>>uint64(c)])
(Select1 (MULVU (MOVVconst [c]) (MOVVconst [d]))) => (MOVVconst [c*d])
(Select1 (DIVV (MOVVconst [c]) (MOVVconst [d]))) && d != 0 => (MOVVconst [c/d])
(Select1 (DIVVU (MOVVconst [c]) (MOVVconst [d]))) && d != 0 => (MOVVconst [int64(uint64(c)/uint64(d))])
(Select0 (DIVV (MOVVconst [c]) (MOVVconst [d]))) && d != 0 => (MOVVconst [c%d]) // mod
(Select0 (DIVVU (MOVVconst [c]) (MOVVconst [d]))) && d != 0 => (MOVVconst [int64(uint64(c)%uint64(d))])
// mod
(ANDconst [c] (MOVVconst [d])) => (MOVVconst
[c&d])
(ANDconst [c] (ANDconst [d] x)) => (ANDconst [c&d] x)
(ORconst [c] (MOVVconst [d])) => (MOVVconst [c|d])
(ORconst [c] (ORconst [d] x)) && is32Bit(c|d) => (ORconst [c|d] x)
(XORconst [c] (MOVVconst [d])) => (MOVVconst [c^d])
(XORconst [c] (XORconst [d] x)) && is32Bit(c^d) => (XORconst [c^d] x)
(NORconst [c] (MOVVconst [d])) => (MOVVconst [^(c|d)])
(NEGV (MOVVconst [c])) => (MOVVconst [-c])
(MOVBreg (MOVVconst [c])) => (MOVVconst [int64(int8(c))])
(MOVBUreg (MOVVconst [c])) => (MOVVconst [int64(uint8(c))])
(MOVHreg (MOVVconst [c])) => (MOVVconst [int64(int16(c))])
(MOVHUreg (MOVVconst [c])) => (MOVVconst [int64(uint16(c))])
(MOVWreg (MOVVconst [c])) => (MOVVconst [int64(int32(c))])
(MOVWUreg (MOVVconst [c])) => (MOVVconst [int64(uint32(c))])
(MOVVreg (MOVVconst [c])) => (MOVVconst [c])
(LoweredAtomicStore(32|64) ptr (MOVVconst [0]) mem) => (LoweredAtomicStorezero(32|64) ptr mem)

```



```

(LoweredAtomicAdd32 ptr (MOVVconst [c] mem) && is32Bit(c) => (LoweredAtomicAddconst32 [int32(c)]
ptr mem)
(LoweredAtomicAdd64 ptr (MOVVconst [c] mem) && is32Bit(c) => (LoweredAtomicAddconst64 [c] ptr mem)

// constant comparisons
(SGTconst [c] (MOVVconst [d])) && c>d => (MOVVconst [1])
(SGTconst [c] (MOVVconst [d])) && c<=d => (MOVVconst [0])
(SGTUconst [c] (MOVVconst [d])) && uint64(c)>uint64(d) => (MOVVconst [1])
(SGTUconst [c] (MOVVconst [d])) && uint64(c)<=uint64(d) => (MOVVconst [0])

// other known comparisons
(SGTconst [c] (MOVBreg _)) && 0x7f < c => (MOVVconst [1])
(SGTconst [c] (MOVBreg _)) && c <= -0x80 => (MOVVconst [0])
(SGTconst [c] (MOVBUreg _)) && 0xff < c => (MOVVconst [1])
(SGTconst [c] (MOVBUreg _)) && c < 0 => (MOVVconst [0])
(SGTUconst [c] (MOVBUreg _)) && 0xff < uint64(c) => (MOVVconst [1])
(SGTconst [c] (MOVHreg _)) && 0x7fff < c => (MOVVconst [1])
(SGTconst [c] (MOVHreg _)) && c <= -0x8000 => (MOVVconst [0])
(SGTconst [c] (MOVHUreg _)) && 0xffff < c => (MOVVconst [1])
(SGTconst [c] (MOVHUreg _)) && c < 0 => (MOVVconst [0])
(SGTUconst [c] (MOVHUreg _)) &&
0xffff < uint64(c) => (MOVVconst [1])
(SGTconst [c] (MOVWUreg _)) && c < 0 => (MOVVconst [0])
(SGTconst [c] (ANDconst [m] _)) && 0 <= m && m < c => (MOVVconst [1])
(SGTUconst [c] (ANDconst [m] _)) && uint64(m) < uint64(c) => (MOVVconst [1])
(SGTconst [c] (SRLVconst _ [d])) && 0 <= c && 0 < d && d <= 63 && 0xffffffffffff>>uint64(d) < uint64(c)
=> (MOVVconst [1])
(SGTUconst [c] (SRLVconst _ [d])) && 0 < d && d <= 63 && 0xffffffffffff>>uint64(d) < uint64(c) =>
(MOVVconst [1])

// absorb constants into branches
(EQ (MOVVconst [0]) yes no) => (First yes no)
(EQ (MOVVconst [c]) yes no) && c != 0 => (First no yes)
(NE (MOVVconst [0]) yes no) => (First no yes)
(NE (MOVVconst [c]) yes no) && c != 0 => (First yes no)
(LTZ (MOVVconst [c]) yes no) && c < 0 => (First yes no)
(LTZ (MOVVconst [c]) yes no) && c >= 0 => (First no yes)
(LEZ (MOVVconst [c]) yes no) && c <= 0 => (First yes no)
(LEZ (MOVVconst [c]) yes no) && c > 0 => (First no yes)
(GTZ (MOVVconst [c]) yes no) && c > 0 => (First
yes no)
(GTZ (MOVVconst [c]) yes no) && c <= 0 => (First no yes)
(GEZ (MOVVconst [c]) yes no) && c >= 0 => (First yes no)
(GEZ (MOVVconst [c]) yes no) && c < 0 => (First no yes)

// fold readonly sym load
(MOVBload [off] {sym} (SB) _) && symIsRO(sym) => (MOVVconst [int64(read8(sym, int64(off)))]))
(MOVHload [off] {sym} (SB) _) && symIsRO(sym) => (MOVVconst [int64(read16(sym, int64(off)),

```

```
config.ctx.Arch.ByteOrder))]
(MOVVload [off] {sym} (SB _) && symIsRO(sym) => (MOVVconst [int64(read32(sym, int64(off),
config.ctx.Arch.ByteOrder))]
(MOVVload [off] {sym} (SB _) && symIsRO(sym) => (MOVVconst [int64(read64(sym, int64(off),
config.ctx.Arch.ByteOrder))])
```

Found in path(s):

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No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2021 The Go Authors. All rights reserved.
```

Found in path(s):

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* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
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```

// Copyright 2016 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.

```

```

(Add(Ptr|32|16|8) ...) => (ADD ...)
(Add(32|64)F ...) => (ADD(F|D) ...)

```

```

(Select0 (Add32carry <t> x y)) => (ADD <t.FieldType(0)> x y)
(Select1 (Add32carry <t> x y)) => (SGTU <typ.Bool> x (ADD <t.FieldType(0)> x y))
(Add32withcarry <t> x y c) => (ADD c (ADD <t> x y))

```

```

(Sub(Ptr|32|16|8) ...) => (SUB ...)
(Sub(32|64)F ...) => (SUB(F|D) ...)

```

```

(Select0 (Sub32carry <t> x y)) => (SUB <t.FieldType(0)> x y)
(Select1 (Sub32carry <t> x y)) => (SGTU <typ.Bool> (SUB <t.FieldType(0)> x y) x)
(Sub32withcarry <t> x y c) => (SUB (SUB <t> x y) c)

```

```

(Mul(32|16|8) ...) => (MUL ...)
(Mul(32|64)F ...) => (MUL(F|D) ...)

```

```

(Hmul(32|32u) x y) => (Select0 (MUL(T|TU) x y))
(Mul32uhilo ...) => (MULTU ...)

```

```

(Div32 x y) => (Select1 (DIV x y))
(Div32u x y) => (Select1 (DIVU x y))
(Div16 x y)
=> (Select1 (DIV (SignExt16to32 x) (SignExt16to32 y)))
(Div16u x y) => (Select1 (DIVU (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Div8 x y) => (Select1 (DIV (SignExt8to32 x) (SignExt8to32 y)))
(Div8u x y) => (Select1 (DIVU (ZeroExt8to32 x) (ZeroExt8to32 y)))
(Div(32|64)F ...) => (DIV(F|D) ...)

```

```

(Mod32 x y) => (Select0 (DIV x y))
(Mod32u x y) => (Select0 (DIVU x y))
(Mod16 x y) => (Select0 (DIV (SignExt16to32 x) (SignExt16to32 y)))
(Mod16u x y) => (Select0 (DIVU (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Mod8 x y) => (Select0 (DIV (SignExt8to32 x) (SignExt8to32 y)))
(Mod8u x y) => (Select0 (DIVU (ZeroExt8to32 x) (ZeroExt8to32 y)))

// (x + y) / 2 with x>=y becomes (x - y) / 2 + y
(Avg32u <t> x y) => (ADD (SRLconst <t> (SUB <t> x y) [1]) y)

(And(32|16|8) ...) => (AND ...)
(Or(32|16|8) ...) => (OR ...)
(Xor(32|16|8) ...) => (XOR ...)

// constant shifts
// generic opt rewrites all constant shifts to shift by Const64
(Lsh32x64 x (Const64 [c])) && uint32(c) < 32 => (SLLconst x [int32(c)])
(Rsh32x64
  x (Const64 [c])) && uint32(c) < 32 => (SRAconst x [int32(c)])
(Rsh32Ux64 x (Const64 [c])) && uint32(c) < 32 => (SRLconst x [int32(c)])
(Lsh16x64 x (Const64 [c])) && uint32(c) < 16 => (SLLconst x [int32(c)])
(Rsh16x64 x (Const64 [c])) && uint32(c) < 16 => (SRAconst (SLLconst <typ.UInt32> x [16]) [int32(c+16)])
(Rsh16Ux64 x (Const64 [c])) && uint32(c) < 16 => (SRLconst (SLLconst <typ.UInt32> x [16]) [int32(c+16)])
(Lsh8x64 x (Const64 [c])) && uint32(c) < 8 => (SLLconst x [int32(c)])
(Rsh8x64 x (Const64 [c])) && uint32(c) < 8 => (SRAconst (SLLconst <typ.UInt32> x [24]) [int32(c+24)])
(Rsh8Ux64 x (Const64 [c])) && uint32(c) < 8 => (SRLconst (SLLconst <typ.UInt32> x [24]) [int32(c+24)])

// large constant shifts
(Lsh32x64 _ (Const64 [c])) && uint32(c) >= 32 => (MOVWconst [0])
(Rsh32Ux64 _ (Const64 [c])) && uint32(c) >= 32 => (MOVWconst [0])
(Lsh16x64 _ (Const64 [c])) && uint32(c) >= 16 => (MOVWconst [0])
(Rsh16Ux64 _ (Const64 [c])) && uint32(c) >= 16 => (MOVWconst [0])
(Lsh8x64
  _ (Const64 [c])) && uint32(c) >= 8 => (MOVWconst [0])
(Rsh8Ux64 _ (Const64 [c])) && uint32(c) >= 8 => (MOVWconst [0])

// large constant signed right shift, we leave the sign bit
(Rsh32x64 x (Const64 [c])) && uint32(c) >= 32 => (SRAconst x [31])
(Rsh16x64 x (Const64 [c])) && uint32(c) >= 16 => (SRAconst (SLLconst <typ.UInt32> x [16]) [31])
(Rsh8x64 x (Const64 [c])) && uint32(c) >= 8 => (SRAconst (SLLconst <typ.UInt32> x [24]) [31])

// shifts
// hardware instruction uses only the low 5 bits of the shift
// we compare to 32 to ensure Go semantics for large shifts
(Lsh32x32 <t> x y) => (CMOVZ (SLL <t> x y) (MOVWconst [0]) (SGTUconst [32] y))
(Lsh32x16 <t> x y) => (CMOVZ (SLL <t> x (ZeroExt16to32 y)) (MOVWconst [0]) (SGTUconst [32]
(ZeroExt16to32 y)))

```


(Lsh32x8 <t> x y) => (CMOVZ (SLL <t> x (ZeroExt8to32 y)) (MOVWconst [0]) (SGTUconst [32] (ZeroExt8to32 y))))

(Lsh16x32 <t> x y) => (CMOVZ (SLL <t> x y) (MOVWconst [0]) (SGTUconst [32] y))

(Lsh16x16 <t> x y) => (CMOVZ (SLL <t>

x (ZeroExt16to32 y)) (MOVWconst [0]) (SGTUconst [32] (ZeroExt16to32 y)))

(Lsh16x8 <t> x y) => (CMOVZ (SLL <t> x (ZeroExt8to32 y)) (MOVWconst [0]) (SGTUconst [32] (ZeroExt8to32 y))))

(Lsh8x32 <t> x y) => (CMOVZ (SLL <t> x y) (MOVWconst [0]) (SGTUconst [32] y))

(Lsh8x16 <t> x y) => (CMOVZ (SLL <t> x (ZeroExt16to32 y)) (MOVWconst [0]) (SGTUconst [32] (ZeroExt16to32 y)))

(Lsh8x8 <t> x y) => (CMOVZ (SLL <t> x (ZeroExt8to32 y)) (MOVWconst [0]) (SGTUconst [32] (ZeroExt8to32 y))))

(Rsh32Ux32 <t> x y) => (CMOVZ (SRL <t> x y) (MOVWconst [0]) (SGTUconst [32] y))

(Rsh32Ux16 <t> x y) => (CMOVZ (SRL <t> x (ZeroExt16to32 y)) (MOVWconst [0]) (SGTUconst [32] (ZeroExt16to32 y)))

(Rsh32Ux8 <t> x y) => (CMOVZ (SRL <t> x (ZeroExt8to32 y)) (MOVWconst [0]) (SGTUconst [32] (ZeroExt8to32 y)))

(Rsh16Ux32 <t> x y) => (CMOVZ (SRL <t> (ZeroExt16to32 x) y) (MOVWconst [0]) (SGTUconst [32] y))

(Rsh16Ux16 <t> x y) => (CMOVZ (SRL <t> (ZeroExt16to32 x) (ZeroExt16to32 y)) (MOVWconst [0] (SGTUconst [32] (ZeroExt16to32 y))))

(Rsh16Ux8 <t> x y) => (CMOVZ (SRL <t> (ZeroExt16to32 x) (ZeroExt8to32 y)) (MOVWconst [0]) (SGTUconst [32] (ZeroExt8to32 y)))

(Rsh8Ux32 <t> x y) => (CMOVZ (SRL <t> (ZeroExt8to32 x) y) (MOVWconst [0]) (SGTUconst [32] y))

(Rsh8Ux16 <t> x y) => (CMOVZ (SRL <t> (ZeroExt8to32 x) (ZeroExt16to32 y)) (MOVWconst [0]) (SGTUconst [32] (ZeroExt16to32 y)))

(Rsh8Ux8 <t> x y) => (CMOVZ (SRL <t> (ZeroExt8to32 x) (ZeroExt8to32 y)) (MOVWconst [0]) (SGTUconst [32] (ZeroExt8to32 y)))

(Rsh32x32 x y) => (SRA x (CMOVZ <typ.UInt32> y (MOVWconst [31]) (SGTUconst [32] y)))

(Rsh32x16 x y) => (SRA x (CMOVZ <typ.UInt32> (ZeroExt16to32 y) (MOVWconst [31]) (SGTUconst [32] (ZeroExt16to32 y))))

(Rsh32x8 x y) => (SRA x (CMOVZ <typ.UInt32> (ZeroExt8to32 y) (MOVWconst [31]) (SGTUconst [32] (ZeroExt8to32 y))))

(Rsh16x32 x y) => (SRA (SignExt16to32 x) (CMOVZ <typ.UInt32> y (MOVWconst [31]) (SGTUconst [32] y)))

(Rsh16x16 x y) => (SRA (SignExt16to32 x) (CMOVZ <typ.UInt32> (ZeroExt16to32 y) (MOVWconst [31]) (SGTUconst [32] (ZeroExt16to32 y))))

(Rsh16x8 x y) => (SRA (SignExt16to32 x) (CMOVZ <typ.UInt32> (ZeroExt8to32 y) (MOVWconst [31]) (SGTUconst [32] (ZeroExt8to32 y))))

(Rsh8x32 x y) => (SRA (SignExt16to32 x) (CMOVZ <typ.UInt32> y (MOVWconst [31]) (SGTUconst [32] y)))

(Rsh8x16 x y) => (SRA (SignExt16to32 x) (CMOVZ <typ.UInt32> (ZeroExt16to32 y) (MOVWconst [31])

```

(SGTUconst [32] (ZeroExt16to32 y)))
(Rsh8x8 x y) => (SRA (SignExt16to32 x) (CMOVZ <typ.UInt32> (ZeroExt8to32 y) (MOVWconst [31])
(SGTUconst [32] (ZeroExt8to32 y))))

// rotates
(RotateLeft8 <t> x (MOVWconst [c])) => (Or8 (Lsh8x32 <t> x (MOVWconst [c&7])) (Rsh8Ux32 <t> x
(MOVWconst [-c&7])))
(RotateLeft16 <t> x (MOVWconst [c])) => (Or16 (Lsh16x32 <t> x (MOVWconst [c&15])) (Rsh16Ux32 <t> x
(MOVWconst [-c&15])))
(RotateLeft32 <t> x (MOVWconst [c])) => (Or32 (Lsh32x32 <t> x (MOVWconst [c&31])) (Rsh32Ux32 <t> x
(MOVWconst [-c&31])))
(RotateLeft64 <t> x (MOVWconst [c])) => (Or64 (Lsh64x32 <t> x (MOVWconst [c&63])) (Rsh64Ux32
<t> x (MOVWconst [-c&63])))

// unary ops
(Neg(32|16|8) ...) => (NEG ...)
(Neg(32|64)F ...) => (NEG(FID) ...)

(Com(32|16|8) x) => (NORconst [0] x)

(Sqrt ...) => (SQRTD ...)
(Sqrt32 ...) => (SQRTF ...)

// TODO: optimize this case?
(Ctz32NonZero ...) => (Ctz32 ...)

// count trailing zero
// 32 - CLZ(x&-x - 1)
(Ctz32 <t> x) => (SUB (MOVWconst [32]) (CLZ <t> (SUBconst <t> [1] (AND <t> x (NEG <t> x))))))

// bit length
(BitLen32 <t> x) => (SUB (MOVWconst [32]) (CLZ <t> x))

// boolean ops -- booleans are represented with 0=false, 1=true
(AndB ...) => (AND ...)
(OrB ...) => (OR ...)
(EqB x y) => (XORconst [1] (XOR <typ.Bool> x y))
(NeqB ...) => (XOR ...)
(Not x) => (XORconst [1] x)

// constants
(Const(32|16|8) [val]) => (MOVWconst [int32(val)])
(Const(32|64)F ...) => (MOV(FID)const ...)
(ConstNil) => (MOVWconst [0])
(ConstBool [t]) => (MOVWconst [b2i32(t)])

// truncations
// Because we ignore high parts of registers, truncates are just copies.

```

```

(Trunc16to8 ...) => (Copy ...)
(Trunc32to8
...) => (Copy ...)
(Trunc32to16 ...) => (Copy ...)

// Zero-/Sign-extensions
(ZeroExt8to16 ...) => (MOVBUreg ...)
(ZeroExt8to32 ...) => (MOVBUreg ...)
(ZeroExt16to32 ...) => (MOVHUreg ...)

(SignExt8to16 ...) => (MOVBreg ...)
(SignExt8to32 ...) => (MOVBreg ...)
(SignExt16to32 ...) => (MOVHreg ...)

(Signmask x) => (SRAconst x [31])
(Zeromask x) => (NEG (SGTU x (MOVWconst [0])))
(Slicemask <t> x) => (SRAconst (NEG <t> x) [31])

// float-int conversion
(Cvt32to(32|64)F ...) => (MOVW(F|D) ...)
(Cvt(32|64)Fto32 ...) => (TRUNC(F|D)W ...)
(Cvt32Fto64F ...) => (MOVFD ...)
(Cvt64Fto32F ...) => (MOVDF ...)

(CvtBoolToUint8 ...) => (Copy ...)

(Round(32|64)F ...) => (Copy ...)

// comparisons
(Eq8 x y) => (SGTUconst [1] (XOR (ZeroExt8to32 x) (ZeroExt8to32 y)))
(Eq16 x y) => (SGTUconst [1] (XOR (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Eq32 x y) => (SGTUconst [1] (XOR x y))
(EqPtr x y) => (SGTUconst [1] (XOR x y))
(Eq(32|64)F x y) => (FPFlagTrue (CMPEQ(F|D) x y))

(Neq8 x y) => (SGTU
(XOR (ZeroExt8to32 x) (ZeroExt8to32 y)) (MOVWconst [0]))
(Neq16 x y) => (SGTU (XOR (ZeroExt16to32 x) (ZeroExt16to32 y)) (MOVWconst [0]))
(Neq32 x y) => (SGTU (XOR x y) (MOVWconst [0]))
(NeqPtr x y) => (SGTU (XOR x y) (MOVWconst [0]))
(Neq(32|64)F x y) => (FPFlagFalse (CMPEQ(F|D) x y))

(Less8 x y) => (SGT (SignExt8to32 y) (SignExt8to32 x))
(Less16 x y) => (SGT (SignExt16to32 y) (SignExt16to32 x))
(Less32 x y) => (SGT y x)
(Less(32|64)F x y) => (FPFlagTrue (CMPGT(F|D) y x)) // reverse operands to work around NaN

(Less8U x y) => (SGTU (ZeroExt8to32 y) (ZeroExt8to32 x))

```

```

(Less16U x y) => (SGTU (ZeroExt16to32 y) (ZeroExt16to32 x))
(Less32U x y) => (SGTU y x)

(Leq8 x y) => (XORconst [1] (SGT (SignExt8to32 x) (SignExt8to32 y)))
(Leq16 x y) => (XORconst [1] (SGT (SignExt16to32 x) (SignExt16to32 y)))
(Leq32 x y) => (XORconst [1] (SGT x y))
(Leq(32|64)F x y) => (FPFlagTrue (CMPGE(FID) y x)) // reverse operands to work around NaN

(Leq8U x y) => (XORconst [1] (SGTU (ZeroExt8to32 x) (ZeroExt8to32
y)))
(Leq16U x y) => (XORconst [1] (SGTU (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Leq32U x y) => (XORconst [1] (SGTU x y))

(OffPtr [off] ptr:(SP)) => (MOVWaddr [int32(off)] ptr)
(OffPtr [off] ptr) => (ADDconst [int32(off)] ptr)

(Addr {sym} base) => (MOVWaddr {sym} base)
(LocalAddr {sym} base _) => (MOVWaddr {sym} base)

// loads
(Load <t> ptr mem) && t.IsBoolean() => (MOVBUnload ptr mem)
(Load <t> ptr mem) && (is8BitInt(t) && isSigned(t)) => (MOVBlload ptr mem)
(Load <t> ptr mem) && (is8BitInt(t) && !isSigned(t)) => (MOVBUnload ptr mem)
(Load <t> ptr mem) && (is16BitInt(t) && isSigned(t)) => (MOVHload ptr mem)
(Load <t> ptr mem) && (is16BitInt(t) && !isSigned(t)) => (MOVHUnload ptr mem)
(Load <t> ptr mem) && (is32BitInt(t) || isPtr(t)) => (MOVWload ptr mem)
(Load <t> ptr mem) && is32BitFloat(t) => (MOVFlload ptr mem)
(Load <t> ptr mem) && is64BitFloat(t) => (MOVDload ptr mem)

// stores
(Store {t} ptr val mem) && t.Size() == 1 => (MOVBstore ptr val mem)
(Store {t} ptr val mem) && t.Size()
== 2 => (MOVHstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && !is32BitFloat(val.Type) => (MOVWstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && is32BitFloat(val.Type) => (MOVFlstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 8 && is64BitFloat(val.Type) => (MOVDstore ptr val mem)

// zero instructions
(Zero [0] _ mem) => mem
(Zero [1] ptr mem) => (MOVBstore ptr (MOVWconst [0]) mem)
(Zero [2] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore ptr (MOVWconst [0]) mem)
(Zero [2] ptr mem) =>
(MOVBstore [1] ptr (MOVWconst [0])
(MOVBstore [0] ptr (MOVWconst [0]) mem))
(Zero [4] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore ptr (MOVWconst [0]) mem)
(Zero [4] {t} ptr mem) && t.Alignment()%2 == 0 =>

```

```

(MOVHstore [2] ptr (MOVWconst [0])
 (MOVHstore [0] ptr (MOVWconst [0]) mem))
(Zero [4] ptr mem) =>
(MOVBstore [3] ptr (MOVWconst [0])
 (MOVBstore [2] ptr (MOVWconst [0])
 (MOVBstore [1] ptr (MOVWconst [0])
 (MOVBstore [0] ptr (MOVWconst [0])
 mem))))
(Zero [3] ptr mem) =>
(MOVBstore [2] ptr (MOVWconst [0])
 (MOVBstore [1] ptr (MOVWconst [0])
 (MOVBstore [0] ptr (MOVWconst [0]) mem)))
(Zero [6] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore [4] ptr (MOVWconst [0])
 (MOVHstore [2] ptr (MOVWconst [0])
 (MOVHstore [0] ptr (MOVWconst [0]) mem)))
(Zero [8] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore [4] ptr (MOVWconst [0])
 (MOVWstore [0] ptr (MOVWconst [0]) mem))
(Zero [12] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore [8] ptr (MOVWconst [0])
 (MOVWstore [4] ptr (MOVWconst [0])
 (MOVWstore [0] ptr (MOVWconst [0]) mem)))
(Zero [16] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore [12] ptr (MOVWconst [0])
 (MOVWstore [8] ptr (MOVWconst [0])
 (MOVWstore [4] ptr (MOVWconst [0])
 (MOVWstore [0] ptr (MOVWconst [0]) mem))))

// large or unaligned zeroing uses a loop
(Zero [s] {t} ptr mem)
&& (s > 16 || t.Alignment()%4 != 0) =>
(LoweredZero [int32(t.Alignment())]
 ptr
 (ADDconst <ptr.Type>
 ptr [int32(s-moveSize(t.Alignment(), config))]
 mem)

// moves
(Move [0] _ _ mem) => mem
(Move [1] dst src mem) => (MOVBstore dst (MOVBUload src mem) mem)
(Move [2] {t} dst src mem) && t.Alignment()%2 == 0 =>
(MOVHstore dst (MOVHUload src mem) mem)
(Move [2] dst src mem) =>
(MOVBstore [1] dst (MOVBUload [1] src mem)
 (MOVBstore dst (MOVBUload src mem) mem))
(Move [4] {t} dst src mem) && t.Alignment()%4 == 0 =>
(MOVWstore dst (MOVWload src mem) mem)

```

```

(Move [4] {t} dst src mem) && t.Alignment()%2 == 0 =>
(MOVHstore [2] dst (MOVHload [2] src mem)
 (MOVHstore dst (MOVHload src mem) mem))
(Move [4] dst src mem) =>
(MOVBstore [3] dst (MOVBUload [3] src mem)
 (MOVBstore [2] dst (MOVBUload [2] src mem)
 (MOVBstore [1] dst (MOVBUload [1] src mem)
 (MOVBstore dst (MOVBUload src mem) mem))))
(Move [3] dst src mem) =>
(MOVBstore [2] dst (MOVBUload [2] src mem)
 (MOVBstore [1] dst (MOVBUload [1] src mem)
 (MOVBstore dst (MOVBUload src mem) mem)))
(Move [8] {t} dst src mem) &&
t.Alignment()%4 == 0 =>
(MOVWstore [4] dst (MOVWload [4] src mem)
 (MOVWstore dst (MOVWload src mem) mem))
(Move [8] {t} dst src mem) && t.Alignment()%2 == 0 =>
(MOVHstore [6] dst (MOVHload [6] src mem)
 (MOVHstore [4] dst (MOVHload [4] src mem)
 (MOVHstore [2] dst (MOVHload [2] src mem)
 (MOVHstore dst (MOVHload src mem) mem))))
(Move [6] {t} dst src mem) && t.Alignment()%2 == 0 =>
(MOVHstore [4] dst (MOVHload [4] src mem)
 (MOVHstore [2] dst (MOVHload [2] src mem)
 (MOVHstore dst (MOVHload src mem) mem)))
(Move [12] {t} dst src mem) && t.Alignment()%4 == 0 =>
(MOVWstore [8] dst (MOVWload [8] src mem)
 (MOVWstore [4] dst (MOVWload [4] src mem)
 (MOVWstore dst (MOVWload src mem) mem)))
(Move [16] {t} dst src mem) && t.Alignment()%4 == 0 =>
(MOVWstore [12] dst (MOVWload [12] src mem)
 (MOVWstore [8] dst (MOVWload [8] src mem)
 (MOVWstore [4] dst (MOVWload [4] src mem)
 (MOVWstore dst (MOVWload src mem) mem))))

// large or unaligned move uses a loop
(Move [s] {t}
dst src mem)
&& (s > 16 && logLargeCopy(v, s) || t.Alignment()%4 != 0) =>
(LoweredMove [int32(t.Alignment())]
dst
src
(ADDconst <src.Type> src [int32(s-moveSize(t.Alignment(), config))])
mem)

// calls
(StaticCall ...) => (CALLstatic ...)

```

```

(ClosureCall ...) => (CALLclosure ...)
(InterCall ...) => (CALLinter ...)
(TailCall ...) => (CALLtail ...)

// atomic intrinsics
(AtomicLoad(8|32) ...) => (LoweredAtomicLoad(8|32) ...)
(AtomicLoadPtr ...) => (LoweredAtomicLoad32 ...)

(AtomicStore(8|32) ...) => (LoweredAtomicStore(8|32) ...)
(AtomicStorePtrNoWB ...) => (LoweredAtomicStore32 ...)

(AtomicExchange32 ...) => (LoweredAtomicExchange ...)
(AtomicAdd32 ...) => (LoweredAtomicAdd ...)

(AtomicCompareAndSwap32 ...) => (LoweredAtomicCas ...)

// AtomicOr8(ptr,val) => LoweredAtomicOr(ptr&^3,uint32(val) << ((ptr & 3) * 8))
(AtomicOr8 ptr val mem) && !config.BigEndian =>
(LoweredAtomicOr (AND <typ.UInt32Ptr> (MOVWconst [^3]) ptr)
(SLL <typ.UInt32> (ZeroExt8to32 val)
(SLLconst
<typ.UInt32> [3]
(ANDconst <typ.UInt32> [3] ptr))) mem)

// AtomicAnd8(ptr,val) => LoweredAtomicAnd(ptr&^3,(uint32(val) << ((ptr & 3) * 8)) | ^(uint32(0xFF) << ((ptr
& 3) * 8))))
(AtomicAnd8 ptr val mem) && !config.BigEndian =>
(LoweredAtomicAnd (AND <typ.UInt32Ptr> (MOVWconst [^3]) ptr)
(OR <typ.UInt32> (SLL <typ.UInt32> (ZeroExt8to32 val)
(SLLconst <typ.UInt32> [3]
(ANDconst <typ.UInt32> [3] ptr)))
(NORconst [0] <typ.UInt32> (SLL <typ.UInt32>
(MOVWconst [0xff]) (SLLconst <typ.UInt32> [3]
(ANDconst <typ.UInt32> [3] ptr)))))) mem)

// AtomicOr8(ptr,val) => LoweredAtomicOr(ptr&^3,uint32(val) << (((ptr^3) & 3) * 8))
(AtomicOr8 ptr val mem) && config.BigEndian =>
(LoweredAtomicOr (AND <typ.UInt32Ptr> (MOVWconst [^3]) ptr)
(SLL <typ.UInt32> (ZeroExt8to32 val)
(SLLconst <typ.UInt32> [3]
(ANDconst <typ.UInt32> [3]
(XORconst <typ.UInt32> [3] ptr)))) mem)

// AtomicAnd8(ptr,val) => LoweredAtomicAnd(ptr&^3,(uint32(val) << (((ptr^3) & 3)
* 8)) | ^(uint32(0xFF) << (((ptr^3) & 3) * 8))))
(AtomicAnd8 ptr val mem) && config.BigEndian =>
(LoweredAtomicAnd (AND <typ.UInt32Ptr> (MOVWconst [^3]) ptr)
(OR <typ.UInt32> (SLL <typ.UInt32> (ZeroExt8to32 val)

```

```

(SLLconst <typ.UInt32> [3]
 (ANDconst <typ.UInt32> [3]
  (XORconst <typ.UInt32> [3] ptr))))
(NORconst [0] <typ.UInt32> (SLL <typ.UInt32>
 (MOVWconst [0xff]) (SLLconst <typ.UInt32> [3]
 (ANDconst <typ.UInt32> [3]
 (XORconst <typ.UInt32> [3] ptr)))))) mem)

(AtomicAnd32 ...) => (LoweredAtomicAnd ...)
(AtomicOr32 ...) => (LoweredAtomicOr ...)

// checks
(NilCheck ...) => (LoweredNilCheck ...)
(IsNotNil ptr) => (SGTU ptr (MOVWconst [0]))
(IsInBounds idx len) => (SGTU len idx)
(IsSliceInBounds idx len) => (XORconst [1] (SGTU idx len))

// pseudo-ops
(GetClosurePtr ...) => (LoweredGetClosurePtr ...)
(GetCallerSP ...) => (LoweredGetCallerSP ...)
(GetCallerPC ...) => (LoweredGetCallerPC ...)

(If cond yes no) => (NE cond yes no)

// Write barrier.
(WB ...)
=> (LoweredWB ...)

(PanicBounds [kind] x y mem) && boundsABI(kind) == 0 => (LoweredPanicBoundsA [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 1 => (LoweredPanicBoundsB [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 2 => (LoweredPanicBoundsC [kind] x y mem)

(PanicExtend [kind] hi lo y mem) && boundsABI(kind) == 0 => (LoweredPanicExtendA [kind] hi lo y mem)
(PanicExtend [kind] hi lo y mem) && boundsABI(kind) == 1 => (LoweredPanicExtendB [kind] hi lo y mem)
(PanicExtend [kind] hi lo y mem) && boundsABI(kind) == 2 => (LoweredPanicExtendC [kind] hi lo y mem)

// Optimizations

// Absorb boolean tests into block
(NE (FPFlagTrue cmp) yes no) => (FPT cmp yes no)
(NE (FPFlagFalse cmp) yes no) => (FPF cmp yes no)
(EQ (FPFlagTrue cmp) yes no) => (FPF cmp yes no)
(EQ (FPFlagFalse cmp) yes no) => (FPT cmp yes no)
(NE (XORconst [1] cmp:(SGT _ _)) yes no) => (EQ cmp yes no)
(NE (XORconst [1] cmp:(SGTU _ _)) yes no) => (EQ cmp yes no)
(NE (XORconst [1]

```



```

cmp:(SGTconst _) yes no => (EQ cmp yes no)
(NE (XORconst [1] cmp:(SGTUconst _) yes no) => (EQ cmp yes no)
(NE (XORconst [1] cmp:(SGTzero _) yes no) => (EQ cmp yes no)
(NE (XORconst [1] cmp:(SGTUzero _) yes no) => (EQ cmp yes no)
(EQ (XORconst [1] cmp:(SGT _ _) yes no) => (NE cmp yes no)
(EQ (XORconst [1] cmp:(SGTU _ _) yes no) => (NE cmp yes no)
(EQ (XORconst [1] cmp:(SGTconst _) yes no) => (NE cmp yes no)
(EQ (XORconst [1] cmp:(SGTUconst _) yes no) => (NE cmp yes no)
(EQ (XORconst [1] cmp:(SGTzero _) yes no) => (NE cmp yes no)
(EQ (XORconst [1] cmp:(SGTUzero _) yes no) => (NE cmp yes no)
(NE (SGTUconst [1] x) yes no) => (EQ x yes no)
(EQ (SGTUconst [1] x) yes no) => (NE x yes no)
(NE (SGTUzero x) yes no) => (NE x yes no)
(EQ (SGTUzero x) yes no) => (EQ x yes no)
(NE (SGTconst [0] x) yes no) => (LTZ x yes no)
(EQ (SGTconst [0] x) yes no) => (GEZ x yes no)
(NE (SGTzero x) yes no) => (GTZ x yes no)
(EQ (SGTzero x) yes no) => (LEZ x yes no)

// fold offset into
address
(ADDconst [off1] (MOVWaddr [off2] {sym} ptr)) => (MOVWaddr [off1+off2] {sym} ptr)

// fold address into load/store
(MOVBload [off1] {sym} x:(ADDconst [off2] ptr) mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) =>
(MOVBload [off1+off2] {sym} ptr mem)
(MOVBUload [off1] {sym} x:(ADDconst [off2] ptr) mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) =>
(MOVBUload [off1+off2] {sym} ptr mem)
(MOVHload [off1] {sym} x:(ADDconst [off2] ptr) mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) =>
(MOVHload [off1+off2] {sym} ptr mem)
(MOVHUload [off1] {sym} x:(ADDconst [off2] ptr) mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) =>
(MOVHUload [off1+off2] {sym} ptr mem)
(MOVWload [off1] {sym} x:(ADDconst [off2] ptr) mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) =>
(MOVWload [off1+off2] {sym} ptr mem)
(MOVFload [off1] {sym} x:(ADDconst [off2] ptr) mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) =>
(MOVFload [off1+off2] {sym} ptr mem)
(MOVDload [off1] {sym} x:(ADDconst
[off2] ptr) mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) => (MOVDload [off1+off2] {sym} ptr mem)

(MOVBstore [off1] {sym} x:(ADDconst [off2] ptr) val mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) =>
(MOVBstore [off1+off2] {sym} ptr val mem)
(MOVHstore [off1] {sym} x:(ADDconst [off2] ptr) val mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) =>
(MOVHstore [off1+off2] {sym} ptr val mem)
(MOVWstore [off1] {sym} x:(ADDconst [off2] ptr) val mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) =>
(MOVWstore [off1+off2] {sym} ptr val mem)
(MOVFstore [off1] {sym} x:(ADDconst [off2] ptr) val mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) =>
(MOVFstore [off1+off2] {sym} ptr val mem)
(MOVDstore [off1] {sym} x:(ADDconst [off2] ptr) val mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) =>

```

```

(MOVDstore [off1+off2] {sym} ptr val mem)

(MOVBstorezero [off1] {sym} x:(ADDconst [off2] ptr) mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) =>
(MOVBstorezero [off1+off2] {sym} ptr mem)
(MOVHstorezero
[off1] {sym} x:(ADDconst [off2] ptr) mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) => (MOVHstorezero
[off1+off2] {sym} ptr mem)
(MOVWstorezero [off1] {sym} x:(ADDconst [off2] ptr) mem) && (is16Bit(int64(off1+off2)) || x.Uses == 1) =>
(MOVWstorezero [off1+off2] {sym} ptr mem)

(MOVBload [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVBload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVBULoad [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVBULoad [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVHload [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVHload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVHULoad [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVHULoad [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVWload [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVWload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVFload
[off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVFload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVDload [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVDload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)

(MOVBstore [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2) =>
(MOVBstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(MOVHstore [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2) =>
(MOVHstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(MOVWstore [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2) =>
(MOVWstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(MOVFstore [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2) =>
(MOVFstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(MOVDstore [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2) =>
(MOVDstore [off1+off2]
{mergeSym(sym1,sym2)} ptr val mem)
(MOVBstorezero [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVBstorezero [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVHstorezero [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVHstorezero [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVWstorezero [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVWstorezero [off1+off2] {mergeSym(sym1,sym2)} ptr mem)

// replace load from same location as preceding store with zero/sign extension (or copy in case of full width)
(MOVBload [off] {sym} ptr (MOVBstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVBreg x)
(MOVBULoad [off] {sym} ptr (MOVBstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&

```

```

isSamePtr(ptr, ptr2) => (MOVBUreg x)
(MOVHload [off] {sym} ptr (MOVHstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVHreg
x)
(MOVHUload [off] {sym} ptr (MOVHstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVHUreg x)
(MOVWload [off] {sym} ptr (MOVWstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => x
(MOVFload [off] {sym} ptr (MOVFstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => x
(MOVDload [off] {sym} ptr (MOVDstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => x

// store zero
(MOVBstore [off] {sym} ptr (MOVWconst [0]) mem) => (MOVBstorezero [off] {sym} ptr mem)
(MOVHstore [off] {sym} ptr (MOVWconst [0]) mem) => (MOVHstorezero [off] {sym} ptr mem)
(MOVWstore [off] {sym} ptr (MOVWconst [0]) mem) => (MOVWstorezero [off] {sym} ptr mem)

// don't extend after proper load
(MOVBreg x:(MOVBlload _ _)) => (MOVWreg x)
(MOVBUreg x:(MOVBUload _ _)) => (MOVWreg x)
(MOVHreg x:(MOVBlload _ _)) => (MOVWreg x)
(MOVHreg x:(MOVBUload _ _)) => (MOVWreg x)
(MOVHreg x:(MOVHload
_ _)) => (MOVWreg x)
(MOVHUreg x:(MOVBUload _ _)) => (MOVWreg x)
(MOVHUreg x:(MOVHUload _ _)) => (MOVWreg x)

// fold double extensions
(MOVBreg x:(MOVBreg _)) => (MOVWreg x)
(MOVBUreg x:(MOVBUreg _)) => (MOVWreg x)
(MOVHreg x:(MOVBreg _)) => (MOVWreg x)
(MOVHreg x:(MOVBUreg _)) => (MOVWreg x)
(MOVHreg x:(MOVHreg _)) => (MOVWreg x)
(MOVHUreg x:(MOVBUreg _)) => (MOVWreg x)
(MOVHUreg x:(MOVHUreg _)) => (MOVWreg x)

// sign extended loads
// Note: The combined instruction must end up in the same block
// as the original load. If not, we end up making a value with
// memory type live in two different blocks, which can lead to
// multiple memory values alive simultaneously.
// Make sure we don't combine these ops if the load has another use.
// This prevents a single load from being split into multiple loads
// which then might return different values. See test/atomicload.go.
(MOVBreg <t> x:(MOVBUload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVBlload
<t> [off] {sym} ptr mem)
(MOVBUreg <t> x:(MOVBlload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block

```

```

(MOVBUload <t> [off] {sym} ptr mem)
(MOVHreg <t> x:(MOVHUload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVHload
<t> [off] {sym} ptr mem)
(MOVHUreg <t> x:(MOVHload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block
(MOVHUload <t> [off] {sym} ptr mem)

// fold extensions and ANDs together
(MOVBUreg (ANDconst [c] x)) => (ANDconst [c&0xff] x)
(MOVHUreg (ANDconst [c] x)) => (ANDconst [c&0xffff] x)
(MOVBreg (ANDconst [c] x)) && c & 0x80 == 0 => (ANDconst [c&0x7f] x)
(MOVHreg (ANDconst [c] x)) && c & 0x8000 == 0 => (ANDconst [c&0x7fff] x)

// don't extend before store
(MOVBstore [off] {sym} ptr (MOVBreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVBUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVHreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVHUreg
x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVWreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVHreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVHUreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVWreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVWstore [off] {sym} ptr (MOVWreg x) mem) => (MOVWstore [off] {sym} ptr x mem)

// if a register move has only 1 use, just use the same register without emitting instruction
// MOVWnop doesn't emit instruction, only for ensuring the type.
(MOVWreg x) && x.Uses == 1 => (MOVWnop x)

// TODO: we should be able to get rid of MOVWnop all together.
// But for now, this is enough to get rid of lots of them.
(MOVWnop (MOVWconst [c])) => (MOVWconst [c])

// fold constant into arithmetic ops
(ADD x (MOVWconst [c])) => (ADDconst [c] x)
(SUB x (MOVWconst [c])) => (SUBconst [c] x)
(AND x (MOVWconst [c])) => (ANDconst [c] x)
(OR
x (MOVWconst [c])) => (ORconst [c] x)
(XOR x (MOVWconst [c])) => (XORconst [c] x)
(NOR x (MOVWconst [c])) => (NORconst [c] x)

(SLL x (MOVWconst [c])) => (SLLconst x [c&31])
(SRL x (MOVWconst [c])) => (SRLconst x [c&31])
(SRA x (MOVWconst [c])) => (SRAconst x [c&31])

(SGT (MOVWconst [c]) x) => (SGTconst [c] x)
(SGTU (MOVWconst [c]) x) => (SGTUconst [c] x)
(SGT x (MOVWconst [0])) => (SGTzero x)

```

(SGTU x (MOVWconst [0])) => (SGTUzero x)

// mul with constant

(Select1 (MULTU (MOVWconst [0]) _)) => (MOVWconst [0])

(Select0 (MULTU (MOVWconst [0]) _)) => (MOVWconst [0])

(Select1 (MULTU (MOVWconst [1]) x)) => x

(Select0 (MULTU (MOVWconst [1]) _)) => (MOVWconst [0])

(Select1 (MULTU (MOVWconst [-1]) x)) => (NEG <x.Type> x)

(Select0 (MULTU (MOVWconst [-1]) x)) => (CMOVZ (ADDconst <x.Type> [-1] x) (MOVWconst [0]) x)

(Select1 (MULTU (MOVWconst [c]) x)) && isPowerOfTwo64(int64(uint32(c))) => (SLLconst [int32(log2uint32(int64(c)))] x)

(Select0 (MULTU (MOVWconst [c]) x)) && isPowerOfTwo64(int64(uint32(c)))
=> (SRLconst [int32(32-log2uint32(int64(c)))] x)

(MUL (MOVWconst [0]) _) => (MOVWconst [0])

(MUL (MOVWconst [1]) x) => x

(MUL (MOVWconst [-1]) x) => (NEG x)

(MUL (MOVWconst [c]) x) && isPowerOfTwo64(int64(uint32(c))) => (SLLconst [int32(log2uint32(int64(c)))] x)

// generic simplifications

(ADD x (NEG y)) => (SUB x y)

(SUB x x) => (MOVWconst [0])

(SUB (MOVWconst [0]) x) => (NEG x)

(AND x x) => x

(OR x x) => x

(XOR x x) => (MOVWconst [0])

// miscellaneous patterns generated by dec64

(AND (SGTUconst [1] x) (SGTUconst [1] y)) => (SGTUconst [1] (OR <x.Type> x y))

(OR (SGTUzero x) (SGTUzero y)) => (SGTUzero (OR <x.Type> x y))

// remove redundant *const ops

(ADDconst [0] x) => x

(SUBconst [0] x) => x

(ANDconst [0] _) => (MOVWconst [0])

(ANDconst [-1] x) => x

(ORconst [0] x) => x

(ORconst [-1] _) => (MOVWconst [-1])

(XORconst [0] x) => x

(XORconst [-1] x) => (NORconst [0] x)

// generic constant folding

(ADDconst [c] (MOVWconst [d])) => (MOVWconst [int32(c+d)])

(ADDconst [c] (ADDconst [d] x)) => (ADDconst [c+d] x)

(ADDconst [c] (SUBconst [d] x)) => (ADDconst [c-d] x)

(SUBconst [c] (MOVWconst [d])) => (MOVWconst [d-c])

(SUBconst [c] (SUBconst [d] x)) => (ADDconst [-c-d] x)

```

(SUBconst [c] (ADDconst [d] x)) => (ADDconst [-c+d] x)
(SLLconst [c] (MOVWconst [d])) => (MOVWconst [d<<uint32(c)])
(SRLconst [c] (MOVWconst [d])) => (MOVWconst [int32(uint32(d)>>uint32(c))])
(SRAconst [c] (MOVWconst [d])) => (MOVWconst [d>>uint32(c)])
(MUL (MOVWconst [c] (MOVWconst [d])) => (MOVWconst [c*d])
(Select1 (MULTU (MOVWconst [c] (MOVWconst [d]))) => (MOVWconst [int32(uint32(c)*uint32(d))])
(Select0 (MULTU (MOVWconst [c] (MOVWconst [d]))) => (MOVWconst
[int32((int64(uint32(c))*int64(uint32(d)))>>32)])
(Select1 (DIV (MOVWconst [c] (MOVWconst [d]))) && d != 0 => (MOVWconst [c/d])
(Select1 (DIVU (MOVWconst [c] (MOVWconst [d]))) && d != 0 => (MOVWconst [int32(uint32(c)/uint32(d))])
(Select0 (DIV (MOVWconst [c] (MOVWconst [d]))) && d !=
0 => (MOVWconst [c%d])
(Select0 (DIVU (MOVWconst [c] (MOVWconst [d]))) && d != 0 => (MOVWconst [int32(uint32(c)%uint32(d))])
(ANDconst [c] (MOVWconst [d])) => (MOVWconst [c&d])
(ANDconst [c] (ANDconst [d] x)) => (ANDconst [c&d] x)
(ORconst [c] (MOVWconst [d])) => (MOVWconst [c|d])
(ORconst [c] (ORconst [d] x)) => (ORconst [c|d] x)
(XORconst [c] (MOVWconst [d])) => (MOVWconst [c^d])
(XORconst [c] (XORconst [d] x)) => (XORconst [c^d] x)
(NORconst [c] (MOVWconst [d])) => (MOVWconst [^(c|d)])
(NEG (MOVWconst [c])) => (MOVWconst [-c])
(MOVBreg (MOVWconst [c])) => (MOVWconst [int32(int8(c))])
(MOVBUreg (MOVWconst [c])) => (MOVWconst [int32(uint8(c))])
(MOVHreg (MOVWconst [c])) => (MOVWconst [int32(int16(c))])
(MOVHUreg (MOVWconst [c])) => (MOVWconst [int32(uint16(c))])
(MOVWreg (MOVWconst [c])) => (MOVWconst [c])

// constant comparisons
(SGTconst [c] (MOVWconst [d])) && c > d => (MOVWconst [1])
(SGTconst [c] (MOVWconst [d])) && c <= d => (MOVWconst [0])
(SGTUconst [c] (MOVWconst [d]))
&& uint32(c) > uint32(d) => (MOVWconst [1])
(SGTUconst [c] (MOVWconst [d])) && uint32(c) <= uint32(d) => (MOVWconst [0])
(SGTzero (MOVWconst [d])) && d > 0 => (MOVWconst [1])
(SGTzero (MOVWconst [d])) && d <= 0 => (MOVWconst [0])
(SGTUzero (MOVWconst [d])) && d != 0 => (MOVWconst [1])
(SGTUzero (MOVWconst [d])) && d == 0 => (MOVWconst [0])

// other known comparisons
(SGTconst [c] (MOVBreg _)) && 0x7f < c => (MOVWconst [1])
(SGTconst [c] (MOVBreg _)) && c <= -0x80 => (MOVWconst [0])
(SGTconst [c] (MOVBUreg _)) && 0xff < c => (MOVWconst [1])
(SGTconst [c] (MOVBUreg _)) && c < 0 => (MOVWconst [0])
(SGTUconst [c] (MOVBUreg _)) && 0xff < uint32(c) => (MOVWconst [1])
(SGTconst [c] (MOVHreg _)) && 0x7fff < c => (MOVWconst [1])
(SGTconst [c] (MOVHreg _)) && c <= -0x8000 => (MOVWconst [0])
(SGTconst [c] (MOVHUreg _)) && 0xffff < c => (MOVWconst [1])
(SGTconst [c] (MOVHUreg _)) && c < 0 => (MOVWconst [0])

```

```

(SGTUconst [c] (MOVHUreg _) && 0xffff < uint32(c) => (MOVWconst [1])
(SGTconst
[c] (ANDconst [m] _) && 0 <= m && m < c => (MOVWconst [1])
(SGTUconst [c] (ANDconst [m] _) && uint32(m) < uint32(c) => (MOVWconst [1])
(SGTconst [c] (SRLconst _ [d])) && 0 <= c && uint32(d) <= 31 && 0xffffffff>>uint32(d) < uint32(c) =>
(MOVWconst [1])
(SGTUconst [c] (SRLconst _ [d])) && uint32(d) <= 31 && 0xffffffff>>uint32(d) < uint32(c) => (MOVWconst [1])

```

```
// absorb constants into branches
```

```

(EQ (MOVWconst [0]) yes no) => (First yes no)
(EQ (MOVWconst [c]) yes no) && c != 0 => (First no yes)
(NE (MOVWconst [0]) yes no) => (First no yes)
(NE (MOVWconst [c]) yes no) && c != 0 => (First yes no)
(LTZ (MOVWconst [c]) yes no) && c < 0 => (First yes no)
(LTZ (MOVWconst [c]) yes no) && c >= 0 => (First no yes)
(LEZ (MOVWconst [c]) yes no) && c <= 0 => (First yes no)
(LEZ (MOVWconst [c]) yes no) && c > 0 => (First no yes)
(GTZ (MOVWconst [c]) yes no) && c > 0 => (First yes no)
(GTZ (MOVWconst [c]) yes no) && c <= 0 => (First no yes)
(GEZ (MOVWconst [c]) yes no) && c >= 0 => (First yes
no)
(GEZ (MOVWconst [c]) yes no) && c < 0 => (First no yes)

```

```
// conditional move
```

```

(CMOVZ _ f (MOVWconst [0])) => f
(CMOVZ a _ (MOVWconst [c])) && c!=0 => a
(CMOVZzero _ (MOVWconst [0])) => (MOVWconst [0])
(CMOVZzero a (MOVWconst [c])) && c!=0 => a
(CMOVZ a (MOVWconst [0]) c) => (CMOVZzero a c)

```

```
// atomic
```

```

(LoweredAtomicStore32 ptr (MOVWconst [0]) mem) => (LoweredAtomicStorezero ptr mem)
(LoweredAtomicAdd ptr (MOVWconst [c]) mem) && is16Bit(int64(c)) => (LoweredAtomicAddconst [c] ptr mem)

```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/MIPS.rules
```

```
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2016 The Go Authors. All rights reserved.
```

```
// Use of this source code is governed by a BSD-style
```

```
// license that can be found in the LICENSE file.
```

```
// This file contains rules to decompose [u]int64 types on 32-bit
```

```
// architectures. These rules work together with the decomposeBuiltIn
```

```
// pass which handles phis of these typ.
```

```
(Int64Hi (Int64Make hi _) => hi
```

```
(Int64Lo (Int64Make _ lo) => lo
```

```

(Load <▷ ptr mem) && is64BitInt(t) && !config.BigEndian && t.IsSigned() =>
(Int64Make
  (Load <typ.Int32> (OffPtr <typ.Int32Ptr> [4] ptr) mem)
  (Load <typ.Uint32> ptr mem))

(Load <▷ ptr mem) && is64BitInt(t) && !config.BigEndian && !t.IsSigned() =>
(Int64Make
  (Load <typ.Uint32> (OffPtr <typ.Uint32Ptr> [4] ptr) mem)
  (Load <typ.Uint32> ptr mem))

(Load <▷ ptr mem) && is64BitInt(t) && config.BigEndian && t.IsSigned() =>
(Int64Make
  (Load <typ.Int32> ptr mem)
  (Load <typ.Uint32> (OffPtr <typ.Uint32Ptr> [4] ptr)
  mem))

(Load <▷ ptr mem) && is64BitInt(t) && config.BigEndian && !t.IsSigned() =>
(Int64Make
  (Load <typ.Uint32> ptr mem)
  (Load <typ.Uint32> (OffPtr <typ.Uint32Ptr> [4] ptr) mem))

(Store {t} dst (Int64Make hi lo) mem) && t.Size() == 8 && !config.BigEndian =>
(Store {hi.Type}
  (OffPtr <hi.Type.PtrTo()> [4] dst)
  hi
  (Store {lo.Type} dst lo mem))

(Store {t} dst (Int64Make hi lo) mem) && t.Size() == 8 && config.BigEndian =>
(Store {lo.Type}
  (OffPtr <lo.Type.PtrTo()> [4] dst)
  lo
  (Store {hi.Type} dst hi mem))

// These are not enabled during decomposeBuiltin if late call expansion, but they are always enabled for softFloat
(Arg {n} [off]) && is64BitInt(v.Type) && !config.BigEndian && v.Type.IsSigned() && !(b.Func.pass.name ==
"decompose builtin") =>
(Int64Make
  (Arg <typ.Int32> {n} [off+4])
  (Arg <typ.Uint32> {n} [off]))
(Arg {n} [off]) && is64BitInt(v.Type) && !config.BigEndian && !v.Type.IsSigned() && !(b.Func.pass.name ==
"decompose builtin") =>
(Int64Make
  (Arg <typ.Uint32> {n} [off+4])
  (Arg <typ.Uint32> {n} [off]))

(Arg {n} [off]) && is64BitInt(v.Type) && config.BigEndian && v.Type.IsSigned() && !(b.Func.pass.name ==
"decompose builtin") =>

```



```

(Int64Make
  (Arg <typ.Int32> {n} [off])
  (Arg <typ.UInt32> {n} [off+4]))
(Arg {n} [off]) && is64BitInt(v.Type) && config.BigEndian && !v.Type.IsSigned() && !(b.Func.pass.name ==
"decompose builtin") =>
(Int64Make
  (Arg <typ.UInt32> {n} [off])
  (Arg <typ.UInt32> {n} [off+4]))

(Add64 x y) =>
(Int64Make
  (Add32withcarry <typ.Int32>
    (Int64Hi x)
    (Int64Hi y)
    (Select1 <types.TypeFlags> (Add32carry (Int64Lo x) (Int64Lo y))))
  (Select0 <typ.UInt32> (Add32carry (Int64Lo x) (Int64Lo y))))

(Sub64 x y) =>
(Int64Make
  (Sub32withcarry <typ.Int32>
    (Int64Hi x)
    (Int64Hi y)
    (Select1 <types.TypeFlags> (Sub32carry (Int64Lo x) (Int64Lo y))))
  (Select0 <typ.UInt32> (Sub32carry (Int64Lo x) (Int64Lo y))))

(Mul64 x y) =>
(Int64Make
  (Add32 <typ.UInt32>
    (Mul32 <typ.UInt32>
      (Int64Lo x) (Int64Hi y))
    (Add32 <typ.UInt32>
      (Mul32 <typ.UInt32> (Int64Hi x) (Int64Lo y))
      (Select0 <typ.UInt32> (Mul32uhilo (Int64Lo x) (Int64Lo y)))))
  (Select1 <typ.UInt32> (Mul32uhilo (Int64Lo x) (Int64Lo y))))

(And64 x y) =>
(Int64Make
  (And32 <typ.UInt32> (Int64Hi x) (Int64Hi y))
  (And32 <typ.UInt32> (Int64Lo x) (Int64Lo y)))

(Or64 x y) =>
(Int64Make
  (Or32 <typ.UInt32> (Int64Hi x) (Int64Hi y))
  (Or32 <typ.UInt32> (Int64Lo x) (Int64Lo y)))

(Xor64 x y) =>
(Int64Make
  (Xor32 <typ.UInt32> (Int64Hi x) (Int64Hi y))

```

```

(Xor32 <typ.UInt32> (Int64Lo x) (Int64Lo y)))

(Neg64 <t> x) => (Sub64 (Const64 <t> [0]) x)

(Com64 x) =>
(Int64Make
 (Com32 <typ.UInt32> (Int64Hi x))
 (Com32 <typ.UInt32> (Int64Lo x)))

// Sadly, just because we know that x is non-zero,
// we don't know whether either component is,
// so just treat Ctz64NonZero the same as Ctz64.
(Ctz64NonZero ...) => (Ctz64 ...)

(Ctz64 x) =>
(Add32 <typ.UInt32>
 (Ctz32 <typ.UInt32> (Int64Lo x))
 (And32 <typ.UInt32>
 (Com32
 <typ.UInt32> (Zeromask (Int64Lo x)))
 (Ctz32 <typ.UInt32> (Int64Hi x)))))

(BitLen64 x) =>
(Add32 <typ.Int>
 (BitLen32 <typ.Int> (Int64Hi x))
 (BitLen32 <typ.Int>
 (Or32 <typ.UInt32>
 (Int64Lo x)
 (Zeromask (Int64Hi x)))))

(Bswap64 x) =>
(Int64Make
 (Bswap32 <typ.UInt32> (Int64Lo x))
 (Bswap32 <typ.UInt32> (Int64Hi x)))

(SignExt32to64 x) => (Int64Make (Signmask x) x)
(SignExt16to64 x) => (SignExt32to64 (SignExt16to32 x))
(SignExt8to64 x) => (SignExt32to64 (SignExt8to32 x))

(ZeroExt32to64 x) => (Int64Make (Const32 <typ.UInt32> [0]) x)
(ZeroExt16to64 x) => (ZeroExt32to64 (ZeroExt16to32 x))
(ZeroExt8to64 x) => (ZeroExt32to64 (ZeroExt8to32 x))

(Trunc64to32 (Int64Make _ lo)) => lo
(Trunc64to16 (Int64Make _ lo)) => (Trunc32to16 lo)
(Trunc64to8 (Int64Make _ lo)) => (Trunc32to8 lo)
// Most general
(Trunc64to32 x) => (Int64Lo x)

```

```

(Trunc64to16 x) => (Trunc32to16 (Int64Lo x))
(Trunc64to8 x) => (Trunc32to8 (Int64Lo x))

(Lsh32x64 _ (Int64Make (Const32 [c] _))
 && c != 0 => (Const32 [0])
(Rsh32x64 x (Int64Make (Const32 [c] _)) && c != 0 => (Signmask x)
(Rsh32Ux64 _ (Int64Make (Const32 [c] _)) && c != 0 => (Const32 [0])
(Lsh16x64 _ (Int64Make (Const32 [c] _)) && c != 0 => (Const32 [0])
(Rsh16x64 x (Int64Make (Const32 [c] _)) && c != 0 => (Signmask (SignExt16to32 x))
(Rsh16Ux64 _ (Int64Make (Const32 [c] _)) && c != 0 => (Const32 [0])
(Lsh8x64 _ (Int64Make (Const32 [c] _)) && c != 0 => (Const32 [0])
(Rsh8x64 x (Int64Make (Const32 [c] _)) && c != 0 => (Signmask (SignExt8to32 x))
(Rsh8Ux64 _ (Int64Make (Const32 [c] _)) && c != 0 => (Const32 [0])

(Lsh32x64 [c] x (Int64Make (Const32 [0] lo)) => (Lsh32x32 [c] x lo)
(Rsh32x64 [c] x (Int64Make (Const32 [0] lo)) => (Rsh32x32 [c] x lo)
(Rsh32Ux64 [c] x (Int64Make (Const32 [0] lo)) => (Rsh32Ux32 [c] x lo)
(Lsh16x64 [c] x (Int64Make (Const32 [0] lo)) => (Lsh16x32 [c] x lo)
(Rsh16x64 [c] x (Int64Make (Const32 [0] lo)) => (Rsh16x32 [c] x lo)
(Rsh16Ux64 [c] x (Int64Make (Const32 [0] lo)) => (Rsh16Ux32
 [c] x lo)
(Lsh8x64 [c] x (Int64Make (Const32 [0] lo)) => (Lsh8x32 [c] x lo)
(Rsh8x64 [c] x (Int64Make (Const32 [0] lo)) => (Rsh8x32 [c] x lo)
(Rsh8Ux64 [c] x (Int64Make (Const32 [0] lo)) => (Rsh8Ux32 [c] x lo)

(Lsh64x64 _ (Int64Make (Const32 [c] _)) && c != 0 => (Const64 [0])
(Rsh64x64 x (Int64Make (Const32 [c] _)) && c != 0 => (Int64Make (Signmask (Int64Hi x)) (Signmask (Int64Hi
 x))))
(Rsh64Ux64 _ (Int64Make (Const32 [c] _)) && c != 0 => (Const64 [0])

(Lsh64x64 [c] x (Int64Make (Const32 [0] lo)) => (Lsh64x32 [c] x lo)
(Rsh64x64 [c] x (Int64Make (Const32 [0] lo)) => (Rsh64x32 [c] x lo)
(Rsh64Ux64 [c] x (Int64Make (Const32 [0] lo)) => (Rsh64Ux32 [c] x lo)

// turn x64 non-constant shifts to x32 shifts
// if high 32-bit of the shift is nonzero, make a huge shift
(Lsh64x64 x (Int64Make hi lo)) && hi.Op != OpConst32 =>
  (Lsh64x32 x (Or32 <typ.UInt32> (Zeromask hi) lo))
(Rsh64x64 x (Int64Make hi lo)) && hi.Op != OpConst32 =>
  (Rsh64x32 x (Or32 <typ.UInt32> (Zeromask
 hi) lo))
(Rsh64Ux64 x (Int64Make hi lo)) && hi.Op != OpConst32 =>
  (Rsh64Ux32 x (Or32 <typ.UInt32> (Zeromask hi) lo))
(Lsh32x64 x (Int64Make hi lo)) && hi.Op != OpConst32 =>
  (Lsh32x32 x (Or32 <typ.UInt32> (Zeromask hi) lo))
(Rsh32x64 x (Int64Make hi lo)) && hi.Op != OpConst32 =>
  (Rsh32x32 x (Or32 <typ.UInt32> (Zeromask hi) lo))
(Rsh32Ux64 x (Int64Make hi lo)) && hi.Op != OpConst32 =>

```

```

(Rsh32Ux32 x (Or32 <typ.UInt32> (Zeromask hi) lo))
(Lsh16x64 x (Int64Make hi lo)) && hi.Op != OpConst32 =>
(Lsh16x32 x (Or32 <typ.UInt32> (Zeromask hi) lo))
(Rsh16x64 x (Int64Make hi lo)) && hi.Op != OpConst32 =>
(Rsh16x32 x (Or32 <typ.UInt32> (Zeromask hi) lo))
(Rsh16Ux64 x (Int64Make hi lo)) && hi.Op != OpConst32 =>
(Rsh16Ux32 x (Or32 <typ.UInt32> (Zeromask hi) lo))
(Lsh8x64 x (Int64Make hi lo)) && hi.Op != OpConst32 =>
(Lsh8x32 x (Or32 <typ.UInt32> (Zeromask hi) lo))
(Rsh8x64 x (Int64Make hi lo)) && hi.Op != OpConst32 =>
(Rsh8x32 x (Or32
<typ.UInt32> (Zeromask hi) lo))
(Rsh8Ux64 x (Int64Make hi lo)) && hi.Op != OpConst32 =>
(Rsh8Ux32 x (Or32 <typ.UInt32> (Zeromask hi) lo))

// Most general
(Lsh64x64 x y) => (Lsh64x32 x (Or32 <typ.UInt32> (Zeromask (Int64Hi y)) (Int64Lo y)))
(Rsh64x64 x y) => (Rsh64x32 x (Or32 <typ.UInt32> (Zeromask (Int64Hi y)) (Int64Lo y)))
(Rsh64Ux64 x y) => (Rsh64Ux32 x (Or32 <typ.UInt32> (Zeromask (Int64Hi y)) (Int64Lo y)))
(Lsh32x64 x y) => (Lsh32x32 x (Or32 <typ.UInt32> (Zeromask (Int64Hi y)) (Int64Lo y)))
(Rsh32x64 x y) => (Rsh32x32 x (Or32 <typ.UInt32> (Zeromask (Int64Hi y)) (Int64Lo y)))
(Rsh32Ux64 x y) => (Rsh32Ux32 x (Or32 <typ.UInt32> (Zeromask (Int64Hi y)) (Int64Lo y)))
(Lsh16x64 x y) => (Lsh16x32 x (Or32 <typ.UInt32> (Zeromask (Int64Hi y)) (Int64Lo y)))
(Rsh16x64 x y) => (Rsh16x32 x (Or32 <typ.UInt32> (Zeromask (Int64Hi y)) (Int64Lo y)))
(Rsh16Ux64 x y) => (Rsh16Ux32 x (Or32 <typ.UInt32> (Zeromask (Int64Hi y)) (Int64Lo y)))
(Lsh8x64 x y) => (Lsh8x32 x (Or32 <typ.UInt32>
(Zeromask (Int64Hi y)) (Int64Lo y)))
(Rsh8x64 x y) => (Rsh8x32 x (Or32 <typ.UInt32> (Zeromask (Int64Hi y)) (Int64Lo y)))
(Rsh8Ux64 x y) => (Rsh8Ux32 x (Or32 <typ.UInt32> (Zeromask (Int64Hi y)) (Int64Lo y)))

// Clean up constants a little
(Or32 <typ.UInt32> (Zeromask (Const32 [c])) y) && c == 0 => y
(Or32 <typ.UInt32> (Zeromask (Const32 [c])) y) && c != 0 => (Const32 <typ.UInt32> [-1])

// 64x left shift
// result.hi = hi<<s | lo>>(32-s) | lo<<(s-32) // >> is unsigned, large shifts result 0
// result.lo = lo<<s
(Lsh64x32 x s) =>
(Int64Make
(Or32 <typ.UInt32>
(Or32 <typ.UInt32>
(Lsh32x32 <typ.UInt32> (Int64Hi x) s)
(Rsh32Ux32 <typ.UInt32>
(Int64Lo x)
(Sub32 <typ.UInt32> (Const32 <typ.UInt32> [32]) s)))
(Lsh32x32 <typ.UInt32>
(Int64Lo x)
(Sub32 <typ.UInt32> s (Const32 <typ.UInt32> [32]))))

```

```

(Lsh32x32 <typ.UInt32> (Int64Lo x) s)
(Lsh64x16 x s) =>
(Int64Make
(Or32 <typ.UInt32>
(Or32 <typ.UInt32>
(Lsh32x16 <typ.UInt32> (Int64Hi x)
s)
(Rsh32Ux16 <typ.UInt32>
(Int64Lo x)
(Sub16 <typ.UInt16> (Const16 <typ.UInt16> [32]) s)))
(Lsh32x16 <typ.UInt32>
(Int64Lo x)
(Sub16 <typ.UInt16> s (Const16 <typ.UInt16> [32])))
(Lsh32x16 <typ.UInt32> (Int64Lo x) s)
(Lsh64x8 x s) =>
(Int64Make
(Or32 <typ.UInt32>
(Or32 <typ.UInt32>
(Lsh32x8 <typ.UInt32> (Int64Hi x) s)
(Rsh32Ux8 <typ.UInt32>
(Int64Lo x)
(Sub8 <typ.UInt8> (Const8 <typ.UInt8> [32]) s)))
(Lsh32x8 <typ.UInt32>
(Int64Lo x)
(Sub8 <typ.UInt8> s (Const8 <typ.UInt8> [32])))
(Lsh32x8 <typ.UInt32> (Int64Lo x) s)

// 64x unsigned right shift
// result.hi = hi>>s
// result.lo = lo>>s | hi<<(32-s) | hi>>(s-32) // >> is unsigned, large shifts result 0
(Rsh64Ux32 x s) =>
(Int64Make
(Rsh32Ux32 <typ.UInt32> (Int64Hi x) s)
(Or32 <typ.UInt32>
(Or32 <typ.UInt32>
(Rsh32Ux32 <typ.UInt32> (Int64Lo x) s)
(Lsh32x32 <typ.UInt32>
(Int64Hi x)
(Sub32 <typ.UInt32> (Const32 <typ.UInt32> [32]) s)))
(Rsh32Ux32
<typ.UInt32>
(Int64Hi x)
(Sub32 <typ.UInt32> s (Const32 <typ.UInt32> [32])))
(Rsh64Ux16 x s) =>
(Int64Make
(Rsh32Ux16 <typ.UInt32> (Int64Hi x) s)
(Or32 <typ.UInt32>
(Or32 <typ.UInt32>

```

```

(Rsh32Ux16 <typ.UInt32> (Int64Lo x) s)
(Lsh32x16 <typ.UInt32>
(Int64Hi x)
(Sub16 <typ.UInt16> (Const16 <typ.UInt16> [32]) s)))
(Rsh32Ux16 <typ.UInt32>
(Int64Hi x)
(Sub16 <typ.UInt16> s (Const16 <typ.UInt16> [32])))
(Rsh64Ux8 x s) =>
(Int64Make
(Rsh32Ux8 <typ.UInt32> (Int64Hi x) s)
(Or32 <typ.UInt32>
(Or32 <typ.UInt32>
(Rsh32Ux8 <typ.UInt32> (Int64Lo x) s)
(Lsh32x8 <typ.UInt32>
(Int64Hi x)
(Sub8 <typ.UInt8> (Const8 <typ.UInt8> [32]) s)))
(Rsh32Ux8 <typ.UInt32>
(Int64Hi x)
(Sub8 <typ.UInt8> s (Const8 <typ.UInt8> [32])))

// 64x signed right shift
// result.hi = hi>>s
// result.lo = lo>>s | hi<<(32-s) | (hi>>(s-32))&zeromask(s>>5) // hi>>(s-32) is signed, large shifts result 0/-1
(Rsh64x32 x s) =>
(Int64Make
(Rsh32x32
<typ.UInt32> (Int64Hi x) s)
(Or32 <typ.UInt32>
(Or32 <typ.UInt32>
(Rsh32Ux32 <typ.UInt32> (Int64Lo x) s)
(Lsh32x32 <typ.UInt32>
(Int64Hi x)
(Sub32 <typ.UInt32> (Const32 <typ.UInt32> [32]) s)))
(And32 <typ.UInt32>
(Rsh32x32 <typ.UInt32>
(Int64Hi x)
(Sub32 <typ.UInt32> s (Const32 <typ.UInt32> [32])))
(Zeromask
(Rsh32Ux32 <typ.UInt32> s (Const32 <typ.UInt32> [5])))
(Rsh64x16 x s) =>
(Int64Make
(Rsh32x16 <typ.UInt32> (Int64Hi x) s)
(Or32 <typ.UInt32>
(Or32 <typ.UInt32>
(Rsh32Ux16 <typ.UInt32> (Int64Lo x) s)
(Lsh32x16 <typ.UInt32>
(Int64Hi x)
(Sub16 <typ.UInt16> (Const16 <typ.UInt16> [32]) s)))

```

```

(And32 <typ.UInt32>
(Rsh32x16 <typ.UInt32>
(Int64Hi x)
(Sub16 <typ.UInt16> s (Const16 <typ.UInt16> [32])))
(Zeromask
(ZeroExt16to32
(Rsh16Ux32 <typ.UInt16> s (Const32 <typ.UInt32> [5]))))))
(Rsh64x8 x s) =>
(Int64Make
(Rsh32x8 <typ.UInt32> (Int64Hi x) s)
(Or32 <typ.UInt32>
(Or32
<typ.UInt32>
(Rsh32Ux8 <typ.UInt32> (Int64Lo x) s)
(Lsh32x8 <typ.UInt32>
(Int64Hi x)
(Sub8 <typ.UInt8> (Const8 <typ.UInt8> [32]) s)))
(And32 <typ.UInt32>
(Rsh32x8 <typ.UInt32>
(Int64Hi x)
(Sub8 <typ.UInt8> s (Const8 <typ.UInt8> [32])))
(Zeromask
(ZeroExt8to32
(Rsh8Ux32 <typ.UInt8> s (Const32 <typ.UInt32> [5]))))))

(Const64 <t> [c]) && t.IsSigned() =>
(Int64Make (Const32 <typ.Int32> [int32(c)>>32]) (Const32 <typ.UInt32> [int32(c)]))
(Const64 <t> [c]) && !t.IsSigned() =>
(Int64Make (Const32 <typ.UInt32> [int32(c)>>32]) (Const32 <typ.UInt32> [int32(c)]))

(Eq64 x y) =>
(AndB
(Eq32 (Int64Hi x) (Int64Hi y))
(Eq32 (Int64Lo x) (Int64Lo y)))

(Neq64 x y) =>
(OrB
(Neq32 (Int64Hi x) (Int64Hi y))
(Neq32 (Int64Lo x) (Int64Lo y)))

(Less64U x y) =>
(OrB
(Less32U (Int64Hi x) (Int64Hi y))
(AndB
(Eq32 (Int64Hi x) (Int64Hi y))
(Less32U (Int64Lo x) (Int64Lo y))))

(Leq64U x y) =>

```

```
(OrB
(Less32U (Int64Hi x) (Int64Hi y))
(AndB
(Eq32
(Int64Hi x) (Int64Hi y))
(Leq32U (Int64Lo x) (Int64Lo y))))
```

```
(Less64 x y) =>
(OrB
(Less32 (Int64Hi x) (Int64Hi y))
(AndB
(Eq32 (Int64Hi x) (Int64Hi y))
(Less32U (Int64Lo x) (Int64Lo y))))
```

```
(Leq64 x y) =>
(OrB
(Less32 (Int64Hi x) (Int64Hi y))
(AndB
(Eq32 (Int64Hi x) (Int64Hi y))
(Leq32U (Int64Lo x) (Int64Lo y))))
```

Found in path(s):

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/dec64.rules
```

No license file was found, but licenses were detected in source scan.

```
// Copyright 2016 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

```
(Add(Ptr|32|16|8) ...) => (ADD ...)
(Add(32|64)F ...) => (ADD(F|D) ...)
(Add32carry ...) => (ADDS ...)
(Add32withcarry ...) => (ADC ...)
```

```
(Sub(Ptr|32|16|8) ...) => (SUB ...)
(Sub(32|64)F ...) => (SUB(F|D) ...)
(Sub32carry ...) => (SUBS ...)
(Sub32withcarry ...) => (SBC ...)
```

```
(Mul(32|16|8) ...) => (MUL ...)
(Mul(32|64)F ...) => (MUL(F|D) ...)
(Hmul(32|32u) ...) => (HMU(L|LU) ...)
(Mul32uhilo ...) => (MULLU ...)
```

```
(Div32 x y) =>
(SUB (XOR <typ.UInt32> // negate the result if one operand is negative
(Select0 <typ.UInt32> (CALLudiv
(SUB <typ.UInt32> (XOR x <typ.UInt32> (Signmask x)) (Signmask x)) // negate x if negative
```



```

(SUB <typ.UInt32> (XOR y <typ.UInt32> (Signmask y)) (Signmask y))) // negate y if
negative
(Signmask (XOR <typ.UInt32> x y)) (Signmask (XOR <typ.UInt32> x y))
(Div32u x y) => (Select0 <typ.UInt32> (CALLUdiv x y))
(Div16 x y) => (Div32 (SignExt16to32 x) (SignExt16to32 y))
(Div16u x y) => (Div32u (ZeroExt16to32 x) (ZeroExt16to32 y))
(Div8 x y) => (Div32 (SignExt8to32 x) (SignExt8to32 y))
(Div8u x y) => (Div32u (ZeroExt8to32 x) (ZeroExt8to32 y))
(Div(32|64)F ...) => (DIV(F|D) ...)

(Mod32 x y) =>
(SUB (XOR <typ.UInt32>                                     // negate the result if x is negative
(Select1 <typ.UInt32> (CALLUdiv
(SUB <typ.UInt32> (XOR <typ.UInt32> x (Signmask x)) (Signmask x)) // negate x if negative
(SUB <typ.UInt32> (XOR <typ.UInt32> y (Signmask y)) (Signmask y))) // negate y if negative
(Signmask x)) (Signmask x))
(Mod32u x y) => (Select1 <typ.UInt32> (CALLUdiv x y))
(Mod16 x y) => (Mod32 (SignExt16to32 x) (SignExt16to32 y))
(Mod16u x y) => (Mod32u (ZeroExt16to32 x) (ZeroExt16to32 y))
(Mod8 x y) => (Mod32 (SignExt8to32
x) (SignExt8to32 y))
(Mod8u x y) => (Mod32u (ZeroExt8to32 x) (ZeroExt8to32 y))

// (x + y) / 2 with x>=y -> (x - y) / 2 + y
(Avg32u <t> x y) => (ADD (SRLconst <t> (SUB <t> x y) [1]) y)

(And(32|16|8) ...) => (AND ...)
(Or(32|16|8) ...) => (OR ...)
(Xor(32|16|8) ...) => (XOR ...)

// unary ops
(Neg(32|16|8) x) => (RSBconst [0] x)
(Neg(32|64)F ...) => (NEG(F|D) ...)

(Com(32|16|8) ...) => (MVN ...)

(Sqrt ...) => (SQRTD ...)
(Sqrt32 ...) => (SQRTF ...)
(Abs ...) => (ABSD ...)

// TODO: optimize this for ARMv5 and ARMv6
(Ctz32NonZero ...) => (Ctz32 ...)
(Ctz16NonZero ...) => (Ctz32 ...)
(Ctz8NonZero ...) => (Ctz32 ...)

// count trailing zero for ARMv5 and ARMv6
// 32 - CLZ(x&-x - 1)
(Ctz32 <t> x) && buildcfg.GOARM<=6 =>

```

```

(RSBconst [32] (CLZ <t> (SUBconst <t> (AND <t> x (RSBconst <t> [0] x)) [1])))
(Ctz16 <t> x) && buildcfg.GOARM<=6 =>
(RSBconst [32] (CLZ <t> (SUBconst <typ.UInt32> (AND <typ.UInt32> (ORconst <typ.UInt32> [0x10000] x)
(RSBconst <typ.UInt32> [0] (ORconst <typ.UInt32> [0x10000]
x))) [1])))
(Ctz8 <t> x) && buildcfg.GOARM<=6 =>
(RSBconst [32] (CLZ <t> (SUBconst <typ.UInt32> (AND <typ.UInt32> (ORconst <typ.UInt32> [0x100] x)
(RSBconst <typ.UInt32> [0] (ORconst <typ.UInt32> [0x100] x))) [1])))

// count trailing zero for ARMv7
(Ctz32 <t> x) && buildcfg.GOARM==7 => (CLZ <t> (RBIT <t> x))
(Ctz16 <t> x) && buildcfg.GOARM==7 => (CLZ <t> (RBIT <typ.UInt32> (ORconst <typ.UInt32> [0x10000] x)))
(Ctz8 <t> x) && buildcfg.GOARM==7 => (CLZ <t> (RBIT <typ.UInt32> (ORconst <typ.UInt32> [0x100] x)))

// bit length
(BitLen32 <t> x) => (RSBconst [32] (CLZ <t> x))

// byte swap for ARMv5
// let (a, b, c, d) be the bytes of x from high to low
// t1 = x right rotate 16 bits -- (c, d, a, b )
// t2 = x ^ t1          -- (a^c, b^d, a^c, b^d)
// t3 = t2 &^ 0xff0000   -- (a^c, 0, a^c, b^d)
// t4 = t3 >> 8         -- (0, a^c, 0, a^c)
// t5 = x right rotate 8 bits -- (d, a, b, c )
// result = t4 ^ t5     -- (d, c, b, a )
// using
shifted ops this can be done in 4 instructions.
(Bswap32 <t> x) && buildcfg.GOARM==5 =>
(XOR <t>
(SRLconst <t> (BICconst <t> (XOR <t> x (SRRconst <t> [16] x)) [0xff0000]) [8])
(SRRconst <t> x [8]))

// byte swap for ARMv6 and above
(Bswap32 x) && buildcfg.GOARM>=6 => (REV x)

// boolean ops -- booleans are represented with 0=false, 1=true
(AndB ...) => (AND ...)
(OrB ...) => (OR ...)
(EqB x y) => (XORconst [1] (XOR <typ.Bool> x y))
(NeqB ...) => (XOR ...)
(Not x) => (XORconst [1] x)

// shifts
// hardware instruction uses only the low byte of the shift
// we compare to 256 to ensure Go semantics for large shifts
(Lsh32x32 x y) => (CMOVWHSconst (SLL <x.Type> x y) (CMPconst [256] y) [0])
(Lsh32x16 x y) => (CMOVWHSconst (SLL <x.Type> x (ZeroExt16to32 y)) (CMPconst [256] (ZeroExt16to32 y))
[0])

```

```

(Lsh32x8 x y) => (SLL x (ZeroExt8to32 y))

(Lsh16x32 x y) => (CMOVWHSconst (SLL <x.Type> x y) (CMPconst [256] y) [0])
(Lsh16x16 x y) => (CMOVWHSconst (SLL <x.Type> x (ZeroExt16to32 y)) (CMPconst
[256] (ZeroExt16to32 y)) [0])
(Lsh16x8 x y) => (SLL x (ZeroExt8to32 y))

(Lsh8x32 x y) => (CMOVWHSconst (SLL <x.Type> x y) (CMPconst [256] y) [0])
(Lsh8x16 x y) => (CMOVWHSconst (SLL <x.Type> x (ZeroExt16to32 y)) (CMPconst [256] (ZeroExt16to32 y))
[0])
(Lsh8x8 x y) => (SLL x (ZeroExt8to32 y))

(Rsh32Ux32 x y) => (CMOVWHSconst (SRL <x.Type> x y) (CMPconst [256] y) [0])
(Rsh32Ux16 x y) => (CMOVWHSconst (SRL <x.Type> x (ZeroExt16to32 y)) (CMPconst [256] (ZeroExt16to32
y)) [0])
(Rsh32Ux8 x y) => (SRL x (ZeroExt8to32 y))

(Rsh16Ux32 x y) => (CMOVWHSconst (SRL <x.Type> (ZeroExt16to32 x) y) (CMPconst [256] y) [0])
(Rsh16Ux16 x y) => (CMOVWHSconst (SRL <x.Type> (ZeroExt16to32 x) (ZeroExt16to32 y)) (CMPconst [256]
(ZeroExt16to32 y)) [0])
(Rsh16Ux8 x y) => (SRL (ZeroExt16to32 x) (ZeroExt8to32 y))

(Rsh8Ux32 x y) => (CMOVWHSconst (SRL <x.Type> (ZeroExt8to32 x) y) (CMPconst [256] y) [0])
(Rsh8Ux16 x y) => (CMOVWHSconst (SRL <x.Type> (ZeroExt8to32 x) (ZeroExt16to32 y)) (CMPconst [256]
(ZeroExt16to32
y)) [0])
(Rsh8Ux8 x y) => (SRL (ZeroExt8to32 x) (ZeroExt8to32 y))

(Rsh32x32 x y) => (SRAcond x y (CMPconst [256] y))
(Rsh32x16 x y) => (SRAcond x (ZeroExt16to32 y) (CMPconst [256] (ZeroExt16to32 y)))
(Rsh32x8 x y) => (SRA x (ZeroExt8to32 y))

(Rsh16x32 x y) => (SRAcond (SignExt16to32 x) y (CMPconst [256] y))
(Rsh16x16 x y) => (SRAcond (SignExt16to32 x) (ZeroExt16to32 y) (CMPconst [256] (ZeroExt16to32 y)))
(Rsh16x8 x y) => (SRA (SignExt16to32 x) (ZeroExt8to32 y))

(Rsh8x32 x y) => (SRAcond (SignExt8to32 x) y (CMPconst [256] y))
(Rsh8x16 x y) => (SRAcond (SignExt8to32 x) (ZeroExt16to32 y) (CMPconst [256] (ZeroExt16to32 y)))
(Rsh8x8 x y) => (SRA (SignExt8to32 x) (ZeroExt8to32 y))

// constant shifts
// generic opt rewrites all constant shifts to shift by Const64
(Lsh32x64 x (Const64 [c])) && uint64(c) < 32 => (SLLconst x [int32(c)])
(Rsh32x64 x (Const64 [c])) && uint64(c) < 32 => (SRAconst x [int32(c)])
(Rsh32Ux64 x (Const64 [c])) && uint64(c) < 32 => (SRLconst x [int32(c)])
(Lsh16x64
x (Const64 [c])) && uint64(c) < 16 => (SLLconst x [int32(c)])
(Rsh16x64 x (Const64 [c])) && uint64(c) < 16 => (SRAconst (SLLconst <typ.UInt32> x [16]) [int32(c+16)])

```

```

(Rsh16Ux64 x (Const64 [c])) && uint64(c) < 16 => (SRLconst (SLLconst <typ.UInt32> x [16]) [int32(c+16)])
(Lsh8x64 x (Const64 [c])) && uint64(c) < 8 => (SLLconst x [int32(c)])
(Rsh8x64 x (Const64 [c])) && uint64(c) < 8 => (SRAconst (SLLconst <typ.UInt32> x [24]) [int32(c+24)])
(Rsh8Ux64 x (Const64 [c])) && uint64(c) < 8 => (SRLconst (SLLconst <typ.UInt32> x [24]) [int32(c+24)])

// large constant shifts
(Lsh32x64 _ (Const64 [c])) && uint64(c) >= 32 => (Const32 [0])
(Rsh32Ux64 _ (Const64 [c])) && uint64(c) >= 32 => (Const32 [0])
(Lsh16x64 _ (Const64 [c])) && uint64(c) >= 16 => (Const16 [0])
(Rsh16Ux64 _ (Const64 [c])) && uint64(c) >= 16 => (Const16 [0])
(Lsh8x64 _ (Const64 [c])) && uint64(c) >= 8 => (Const8 [0])
(Rsh8Ux64 _ (Const64 [c])) && uint64(c) >= 8 => (Const8 [0])

// large constant signed right shift,
we leave the sign bit
(Rsh32x64 x (Const64 [c])) && uint64(c) >= 32 => (SRAconst x [31])
(Rsh16x64 x (Const64 [c])) && uint64(c) >= 16 => (SRAconst (SLLconst <typ.UInt32> x [16]) [31])
(Rsh8x64 x (Const64 [c])) && uint64(c) >= 8 => (SRAconst (SLLconst <typ.UInt32> x [24]) [31])

// constants
(Const(8|16|32) [val]) => (MOVWconst [int32(val)])
(Const(32|64)F [val]) => (MOV(F|D)const [float64(val)])
(ConstNil) => (MOVWconst [0])
(ConstBool [t]) => (MOVWconst [b2i32(t)])

// truncations
// Because we ignore high parts of registers, truncates are just copies.
(Trunc16to8 ...) => (Copy ...)
(Trunc32to8 ...) => (Copy ...)
(Trunc32to16 ...) => (Copy ...)

// Zero-/Sign-extensions
(ZeroExt8to16 ...) => (MOVBUreg ...)
(ZeroExt8to32 ...) => (MOVBUreg ...)
(ZeroExt16to32 ...) => (MOVHUreg ...)

(SignExt8to16 ...) => (MOVBreg ...)
(SignExt8to32 ...) => (MOVBreg ...)
(SignExt16to32 ...) => (MOVHreg ...)

(Signmask x) => (SRAconst x [31])
(Zeromask x) => (SRAconst (RSBshiftRL <typ.Int32> x x [1]) [31])
// sign bit of uint32(x)>>1 - x
(Slicemask <t> x) => (SRAconst (RSBconst <t> [0] x) [31])

// float <-> int conversion
(Cvt32to32F ...) => (MOVWF ...)
(Cvt32to64F ...) => (MOVWD ...)

```

```

(Cvt32Uto32F ...) => (MOVWUF ...)
(Cvt32Uto64F ...) => (MOVWUD ...)
(Cvt32Fto32 ...) => (MOVFW ...)
(Cvt64Fto32 ...) => (MOVDW ...)
(Cvt32Fto32U ...) => (MOVFWU ...)
(Cvt64Fto32U ...) => (MOVDWU ...)
(Cvt32Fto64F ...) => (MOVFD ...)
(Cvt64Fto32F ...) => (MOVDF ...)

(Round(32|64)F ...) => (Copy ...)

(CvtBoolToUint8 ...) => (Copy ...)

// fused-multiply-add
(FMA x y z) => (FMULAD z x y)

// comparisons
(Eq8 x y) => (Equal (CMP (ZeroExt8to32 x) (ZeroExt8to32 y)))
(Eq16 x y) => (Equal (CMP (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Eq32 x y) => (Equal (CMP x y))
(EqPtr x y) => (Equal (CMP x y))
(Eq(32|64)F x y) => (Equal (CMP(F|D) x y))

(Neq8 x y) => (NotEqual (CMP (ZeroExt8to32 x) (ZeroExt8to32 y)))
(Neq16 x y) => (NotEqual (CMP (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Neq32 x y) => (NotEqual (CMP x y))
(NeqPtr
 x y) => (NotEqual (CMP x y))
(Neq(32|64)F x y) => (NotEqual (CMP(F|D) x y))

(Less8 x y) => (LessThan (CMP (SignExt8to32 x) (SignExt8to32 y)))
(Less16 x y) => (LessThan (CMP (SignExt16to32 x) (SignExt16to32 y)))
(Less32 x y) => (LessThan (CMP x y))
(Less(32|64)F x y) => (GreaterThan (CMP(F|D) y x)) // reverse operands to work around NaN

(Less8U x y) => (LessThanU (CMP (ZeroExt8to32 x) (ZeroExt8to32 y)))
(Less16U x y) => (LessThanU (CMP (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Less32U x y) => (LessThanU (CMP x y))

(Leq8 x y) => (LessEqual (CMP (SignExt8to32 x) (SignExt8to32 y)))
(Leq16 x y) => (LessEqual (CMP (SignExt16to32 x) (SignExt16to32 y)))
(Leq32 x y) => (LessEqual (CMP x y))
(Leq(32|64)F x y) => (GreaterEqual (CMP(F|D) y x)) // reverse operands to work around NaN

(Leq8U x y) => (LessEqualU (CMP (ZeroExt8to32 x) (ZeroExt8to32 y)))
(Leq16U x y) => (LessEqualU (CMP (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Leq32U x y) => (LessEqualU (CMP x y))

```

```

(OffPtr [off] ptr:(SP)) => (MOVWaddr
[int32(off)] ptr)
(OffPtr [off] ptr) => (ADDconst [int32(off)] ptr)

(Addr {sym} base) => (MOVWaddr {sym} base)
(LocalAddr {sym} base _) => (MOVWaddr {sym} base)

// loads
(Load <T> ptr mem) && t.IsBoolean() => (MOVBUload ptr mem)
(Load <T> ptr mem) && (is8BitInt(t) && isSigned(t)) => (MOVBlload ptr mem)
(Load <T> ptr mem) && (is8BitInt(t) && !isSigned(t)) => (MOVBUload ptr mem)
(Load <T> ptr mem) && (is16BitInt(t) && isSigned(t)) => (MOVHload ptr mem)
(Load <T> ptr mem) && (is16BitInt(t) && !isSigned(t)) => (MOVHUload ptr mem)
(Load <T> ptr mem) && (is32BitInt(t) || isPtr(t)) => (MOVWload ptr mem)
(Load <T> ptr mem) && is32BitFloat(t) => (MOVFlload ptr mem)
(Load <T> ptr mem) && is64BitFloat(t) => (MOVDload ptr mem)

// stores
(Store {t} ptr val mem) && t.Size() == 1 => (MOVBstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 2 => (MOVHstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && !is32BitFloat(val.Type) => (MOVWstore ptr val mem)
(Store {t} ptr val mem) &&
t.Size() == 4 && is32BitFloat(val.Type) => (MOVFstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 8 && is64BitFloat(val.Type) => (MOVDstore ptr val mem)

// zero instructions
(Zero [0] _ mem) => mem
(Zero [1] ptr mem) => (MOVBstore ptr (MOVWconst [0]) mem)
(Zero [2] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore ptr (MOVWconst [0]) mem)
(Zero [2] ptr mem) =>
(MOVBstore [1] ptr (MOVWconst [0])
(MOVBstore [0] ptr (MOVWconst [0]) mem))
(Zero [4] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore ptr (MOVWconst [0]) mem)
(Zero [4] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore [2] ptr (MOVWconst [0])
(MOVHstore [0] ptr (MOVWconst [0]) mem))
(Zero [4] ptr mem) =>
(MOVBstore [3] ptr (MOVWconst [0])
(MOVBstore [2] ptr (MOVWconst [0])
(MOVBstore [1] ptr (MOVWconst [0])
(MOVBstore [0] ptr (MOVWconst [0]) mem))))
(Zero [3] ptr mem) =>
(MOVBstore [2] ptr (MOVWconst [0])
(MOVBstore [1] ptr (MOVWconst [0])
(MOVBstore [0] ptr (MOVWconst [0]) mem)))

```

```

// Medium
zeroing uses a duff device
// 4 and 128 are magic constants, see runtime/mkduff.go
(Zero [s] {t} ptr mem)
  && s%4 == 0 && s > 4 && s <= 512
  && t.Alignment()%4 == 0 && !config.noDuffDevice =>
  (DUFFZERO [4 * (128 - s/4)] ptr (MOVWconst [0]) mem)

// Large zeroing uses a loop
(Zero [s] {t} ptr mem)
  && (s > 512 || config.noDuffDevice) || t.Alignment()%4 != 0 =>
  (LoweredZero [t.Alignment()]
  ptr
  (ADDconst <ptr.Type> ptr [int32(s-moveSize(t.Alignment(), config))])
  (MOVWconst [0])
  mem)

// moves
(Move [0] _ _ mem) => mem
(Move [1] dst src mem) => (MOVBstore dst (MOVBUload src mem) mem)
(Move [2] {t} dst src mem) && t.Alignment()%2 == 0 =>
  (MOVHstore dst (MOVHUload src mem) mem)
(Move [2] dst src mem) =>
  (MOVBstore [1] dst (MOVBUload [1] src mem)
  (MOVBstore dst (MOVBUload src mem) mem))
(Move [4] {t} dst src mem) && t.Alignment()%4 == 0 =>
  (MOVWstore dst (MOVWload src mem) mem)
(Move [4] {t} dst src mem) && t.Alignment()%2 == 0 =>
  (MOVHstore [2] dst (MOVHUload [2] src mem)
  (MOVHstore
  dst (MOVHUload src mem) mem))
(Move [4] dst src mem) =>
  (MOVBstore [3] dst (MOVBUload [3] src mem)
  (MOVBstore [2] dst (MOVBUload [2] src mem)
  (MOVBstore [1] dst (MOVBUload [1] src mem)
  (MOVBstore dst (MOVBUload src mem) mem))))

(Move [3] dst src mem) =>
  (MOVBstore [2] dst (MOVBUload [2] src mem)
  (MOVBstore [1] dst (MOVBUload [1] src mem)
  (MOVBstore dst (MOVBUload src mem) mem)))

// Medium move uses a duff device
// 8 and 128 are magic constants, see runtime/mkduff.go
(Move [s] {t} dst src mem)
  && s%4 == 0 && s > 4 && s <= 512
  && t.Alignment()%4 == 0 && !config.noDuffDevice && logLargeCopy(v, s) =>

```

```

(DUFFCOPY [8 * (128 - s/4)] dst src mem)

// Large move uses a loop
(Move [s] {t} dst src mem)
&& ((s > 512 || config.noDuffDevice) || t.Alignment()%4 != 0) && logLargeCopy(v, s) =>
(LoweredMove [t.Alignment()]
dst
src
(ADDconst <src.Type> src [int32(s-moveSize(t.Alignment(), config))])
mem)

// calls
(StaticCall ...) => (CALLstatic ...)
(ClosureCall
... ) => (CALLclosure ...)
(InterCall ...) => (CALLinter ...)
(TailCall ...) => (CALLtail ...)

// checks
(NilCheck ...) => (LoweredNilCheck ...)
(IsNonNil ptr) => (NotEqual (CMPconst [0] ptr))
(IsInBounds idx len) => (LessThanU (CMP idx len))
(IsSliceInBounds idx len) => (LessEqualU (CMP idx len))

// pseudo-ops
(GetClosurePtr ...) => (LoweredGetClosurePtr ...)
(GetCallerSP ...) => (LoweredGetCallerSP ...)
(GetCallerPC ...) => (LoweredGetCallerPC ...)

// Absorb pseudo-ops into blocks.
(If (Equal cc) yes no) => (EQ cc yes no)
(If (NotEqual cc) yes no) => (NE cc yes no)
(If (LessThan cc) yes no) => (LT cc yes no)
(If (LessThanU cc) yes no) => (ULT cc yes no)
(If (LessEqual cc) yes no) => (LE cc yes no)
(If (LessEqualU cc) yes no) => (ULE cc yes no)
(If (GreaterThan cc) yes no) => (GT cc yes no)
(If (GreaterThanU cc) yes no) => (UGT cc yes no)
(If (GreaterEqual cc) yes no) => (GE cc yes no)
(If (GreaterEqualU cc) yes no) => (UGE cc yes no)

(If cond yes no) => (NE (CMPconst [0] cond) yes
no)

// Absorb boolean tests into block
(NE (CMPconst [0] (Equal cc)) yes no) => (EQ cc yes no)
(NE (CMPconst [0] (NotEqual cc)) yes no) => (NE cc yes no)
(NE (CMPconst [0] (LessThan cc)) yes no) => (LT cc yes no)

```



```

(NE (CMPconst [0] (LessThanU cc)) yes no) => (ULT cc yes no)
(NE (CMPconst [0] (LessEqual cc)) yes no) => (LE cc yes no)
(NE (CMPconst [0] (LessEqualU cc)) yes no) => (ULE cc yes no)
(NE (CMPconst [0] (GreaterThan cc)) yes no) => (GT cc yes no)
(NE (CMPconst [0] (GreaterThanU cc)) yes no) => (UGT cc yes no)
(NE (CMPconst [0] (GreaterEqual cc)) yes no) => (GE cc yes no)
(NE (CMPconst [0] (GreaterEqualU cc)) yes no) => (UGE cc yes no)

// Write barrier.
(WB ...) => (LoweredWB ...)

(PanicBounds [kind] x y mem) && boundsABI(kind) == 0 => (LoweredPanicBoundsA [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 1 => (LoweredPanicBoundsB [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 2 => (LoweredPanicBoundsC [kind] x y mem)

(PanicExtend [kind]
 hi lo y mem) && boundsABI(kind) == 0 => (LoweredPanicExtendA [kind] hi lo y mem)
(PanicExtend [kind] hi lo y mem) && boundsABI(kind) == 1 => (LoweredPanicExtendB [kind] hi lo y mem)
(PanicExtend [kind] hi lo y mem) && boundsABI(kind) == 2 => (LoweredPanicExtendC [kind] hi lo y mem)

// Optimizations

// fold offset into address
(ADDconst [off1] (MOVWaddr [off2] {sym} ptr)) => (MOVWaddr [off1+off2] {sym} ptr)
(SUBconst [off1] (MOVWaddr [off2] {sym} ptr)) => (MOVWaddr [off2-off1] {sym} ptr)

// fold address into load/store
(MOVBload [off1] {sym} (ADDconst [off2] ptr) mem) => (MOVBload [off1+off2] {sym} ptr mem)
(MOVBload [off1] {sym} (SUBconst [off2] ptr) mem) => (MOVBload [off1-off2] {sym} ptr mem)
(MOVBUload [off1] {sym} (ADDconst [off2] ptr) mem) => (MOVBUload [off1+off2] {sym} ptr mem)
(MOVBUload [off1] {sym} (SUBconst [off2] ptr) mem) => (MOVBUload [off1-off2] {sym} ptr mem)
(MOVHload [off1] {sym} (ADDconst [off2] ptr) mem) => (MOVHload [off1+off2] {sym} ptr mem)
(MOVHload [off1]
 {sym} (SUBconst [off2] ptr) mem) => (MOVHload [off1-off2] {sym} ptr mem)
(MOVHUload [off1] {sym} (ADDconst [off2] ptr) mem) => (MOVHUload [off1+off2] {sym} ptr mem)
(MOVHUload [off1] {sym} (SUBconst [off2] ptr) mem) => (MOVHUload [off1-off2] {sym} ptr mem)
(MOVWload [off1] {sym} (ADDconst [off2] ptr) mem) => (MOVWload [off1+off2] {sym} ptr mem)
(MOVWload [off1] {sym} (SUBconst [off2] ptr) mem) => (MOVWload [off1-off2] {sym} ptr mem)
(MOVFload [off1] {sym} (ADDconst [off2] ptr) mem) => (MOVFload [off1+off2] {sym} ptr mem)
(MOVFload [off1] {sym} (SUBconst [off2] ptr) mem) => (MOVFload [off1-off2] {sym} ptr mem)
(MOVDload [off1] {sym} (ADDconst [off2] ptr) mem) => (MOVDload [off1+off2] {sym} ptr mem)
(MOVDload [off1] {sym} (SUBconst [off2] ptr) mem) => (MOVDload [off1-off2] {sym} ptr mem)

(MOVBstore [off1] {sym} (ADDconst [off2] ptr) val mem) => (MOVBstore [off1+off2] {sym} ptr val mem)
(MOVBstore [off1] {sym} (SUBconst [off2] ptr) val mem) => (MOVBstore [off1-off2] {sym} ptr val mem)
(MOVHstore
 [off1] {sym} (ADDconst [off2] ptr) val mem) => (MOVHstore [off1+off2] {sym} ptr val mem)
(MOVHstore [off1] {sym} (SUBconst [off2] ptr) val mem) => (MOVHstore [off1-off2] {sym} ptr val mem)

```

```

(MOVWstore [off1] {sym} (ADDconst [off2] ptr) val mem) => (MOVWstore [off1+off2] {sym} ptr val mem)
(MOVWstore [off1] {sym} (SUBconst [off2] ptr) val mem) => (MOVWstore [off1-off2] {sym} ptr val mem)
(MOVFstore [off1] {sym} (ADDconst [off2] ptr) val mem) => (MOVFstore [off1+off2] {sym} ptr val mem)
(MOVFstore [off1] {sym} (SUBconst [off2] ptr) val mem) => (MOVFstore [off1-off2] {sym} ptr val mem)
(MOVDstore [off1] {sym} (ADDconst [off2] ptr) val mem) => (MOVDstore [off1+off2] {sym} ptr val mem)
(MOVDstore [off1] {sym} (SUBconst [off2] ptr) val mem) => (MOVDstore [off1-off2] {sym} ptr val mem)

```

```

(MOVBload [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVBload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)

```

```

(MOVBUnload [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) &&
canMergeSym(sym1,sym2) =>

```

```

(MOVBUnload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)

```

```

(MOVHload [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVHload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)

```

```

(MOVHUnload [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVHUnload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)

```

```

(MOVWload [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVWload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)

```

```

(MOVFlload [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVFlload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)

```

```

(MOVDload [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) =>
(MOVDload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)

```

```

(MOVBstore [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2) =>
(MOVBstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)

```

```

(MOVHstore [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) val
mem) && canMergeSym(sym1,sym2) =>

```

```

(MOVHstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)

```

```

(MOVWstore [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2) =>
(MOVWstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)

```

```

(MOVFstore [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2) =>
(MOVFstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)

```

```

(MOVDstore [off1] {sym1} (MOVWaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2) =>
(MOVDstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)

```

```

// replace load from same location as preceding store with zero/sign extension (or copy in case of full width)

```

```

(MOVBload [off] {sym} ptr (MOVBstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVBreg x)

```

```

(MOVBUnload [off] {sym} ptr (MOVBstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVBUnreg x)

```

```

(MOVHload [off] {sym} ptr (MOVHstore [off2] {sym2} ptr2 x _) && sym == sym2 &&
off == off2 && isSamePtr(ptr, ptr2) => (MOVHreg x)

```

```

(MOVHUnload [off] {sym} ptr (MOVHstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVHUnreg x)

```

```

(MOVWload [off] {sym} ptr (MOVWstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => x

```

```

(MOVFlload [off] {sym} ptr (MOVFstore [off2] {sym2} ptr2 x _) && sym == sym2 && off == off2 &&

```

```

isSamePtr(ptr, ptr2) => x
(MOVDload [off] {sym} ptr (MOVDstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => x

(MOVWloadidx ptr idx (MOVWstoreidx ptr2 idx x _)) && isSamePtr(ptr, ptr2) => x
(MOVWloadshiftLL ptr idx [c] (MOVWstoreshiftLL ptr2 idx [d] x _)) && c==d && isSamePtr(ptr, ptr2) => x
(MOVWloadshiftRL ptr idx [c] (MOVWstoreshiftRL ptr2 idx [d] x _)) && c==d && isSamePtr(ptr, ptr2) => x
(MOVWloadshiftRA ptr idx [c] (MOVWstoreshiftRA ptr2 idx [d] x _)) && c==d && isSamePtr(ptr, ptr2) => x
(MOVBUloadidx ptr idx (MOVBstoreidx ptr2 idx x _)) && isSamePtr(ptr,
ptr2) => (MOVBUreg x)
(MOVBloadidx ptr idx (MOVBstoreidx ptr2 idx x _)) && isSamePtr(ptr, ptr2) => (MOVBreg x)
(MOVHUloadidx ptr idx (MOVHstoreidx ptr2 idx x _)) && isSamePtr(ptr, ptr2) => (MOVHUreg x)
(MOVHloadidx ptr idx (MOVHstoreidx ptr2 idx x _)) && isSamePtr(ptr, ptr2) => (MOVHreg x)

// fold constant into arithmetic ops
(ADD x (MOVWconst [c])) => (ADDconst [c] x)
(SUB (MOVWconst [c] x) => (RSBconst [c] x)
(SUB x (MOVWconst [c])) => (SUBconst [c] x)
(RSB (MOVWconst [c] x) => (SUBconst [c] x)
(RSB x (MOVWconst [c])) => (RSBconst [c] x)

(ADDS x (MOVWconst [c])) => (ADDSconst [c] x)
(SUBS x (MOVWconst [c])) => (SUBSconst [c] x)

(ADC (MOVWconst [c] x flags) => (ADCconst [c] x flags)
(SBC (MOVWconst [c] x flags) => (RSCconst [c] x flags)
(SBC x (MOVWconst [c] flags) => (SBCconst [c] x flags)

(AND x (MOVWconst [c])) => (ANDconst [c] x)
(OR x (MOVWconst [c])) => (ORconst [c] x)
(XOR x (MOVWconst [c])) => (XORconst [c] x)
(BIC x (MOVWconst [c])) => (BICconst [c] x)

(SLL
x (MOVWconst [c])) && 0 <= c && c < 32 => (SLLconst x [c])
(SRL x (MOVWconst [c])) && 0 <= c && c < 32 => (SRLconst x [c])
(SRA x (MOVWconst [c])) && 0 <= c && c < 32 => (SRAconst x [c])

(CMP x (MOVWconst [c])) => (CMPconst [c] x)
(CMP (MOVWconst [c] x) => (InvertFlags (CMPconst [c] x))
(CMN x (MOVWconst [c])) => (CMNconst [c] x)
(TST x (MOVWconst [c])) => (TSTconst [c] x)
(TEQ x (MOVWconst [c])) => (TEQconst [c] x)

(SRR x (MOVWconst [c])) => (SRRconst x [c&31])

// Canonicalize the order of arguments to comparisons - helps with CSE.
(CMP x y) && canonLessThan(x,y) => (InvertFlags (CMP y x))

```

```

// don't extend after proper load
// MOVWreg instruction is not emitted if src and dst registers are same, but it ensures the type.
(MOVBreg x:(MOVBload _ _)) => (MOVWreg x)
(MOVBUreg x:(MOVBload _ _)) => (MOVWreg x)
(MOVHreg x:(MOVBload _ _)) => (MOVWreg x)
(MOVHreg x:(MOVBload _ _)) => (MOVWreg x)
(MOVHreg x:(MOVHload _ _)) => (MOVWreg x)
(MOVHUreg x:(MOVBload _ _)) => (MOVWreg x)
(MOVHUreg
x:(MOVHload _ _)) => (MOVWreg x)

// fold extensions and ANDs together
(MOVBUreg (ANDconst [c] x)) => (ANDconst [c&0xff] x)
(MOVHUreg (ANDconst [c] x)) => (ANDconst [c&0xffff] x)
(MOVBreg (ANDconst [c] x) && c & 0x80 == 0 => (ANDconst [c&0x7f] x)
(MOVHreg (ANDconst [c] x) && c & 0x8000 == 0 => (ANDconst [c&0x7fff] x)

// fold double extensions
(MOVBreg x:(MOVBreg _)) => (MOVWreg x)
(MOVBUreg x:(MOVBreg _)) => (MOVWreg x)
(MOVHreg x:(MOVBreg _)) => (MOVWreg x)
(MOVHreg x:(MOVBreg _)) => (MOVWreg x)
(MOVHreg x:(MOVHreg _)) => (MOVWreg x)
(MOVHUreg x:(MOVBreg _)) => (MOVWreg x)
(MOVHUreg x:(MOVHreg _)) => (MOVWreg x)

// don't extend before store
(MOVBstore [off] {sym} ptr (MOVBreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVBUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVHreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVHUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVHstore [off]
{sym} ptr (MOVHreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVHUreg x) mem) => (MOVHstore [off] {sym} ptr x mem)

// if a register move has only 1 use, just use the same register without emitting instruction
// MOVWnop doesn't emit instruction, only for ensuring the type.
(MOVWreg x) && x.Uses == 1 => (MOVWnop x)

// TODO: we should be able to get rid of MOVWnop all together.
// But for now, this is enough to get rid of lots of them.
(MOVWnop (MOVWconst [c])) => (MOVWconst [c])

// mul by constant
(MUL x (MOVWconst [c])) && int32(c) == -1 => (RSBconst [0] x)
(MUL _ (MOVWconst [0])) => (MOVWconst [0])
(MUL x (MOVWconst [1])) => x

```

```

(MUL x (MOVWconst [c])) && isPowerOfTwo32(c) => (SLLconst [int32(log32(c))] x)
(MUL x (MOVWconst [c])) && isPowerOfTwo32(c-1) && c >= 3 => (ADDshiftLL x x [int32(log32(c-1))])
(MUL x (MOVWconst [c])) && isPowerOfTwo32(c+1) && c >= 7 => (RSBshiftLL x x [int32(log32(c+1))])
(MUL x (MOVWconst [c])) && c%3 == 0 && isPowerOfTwo32(c/3)
=> (SLLconst [int32(log32(c/3))] (ADDshiftLL <x.Type> x x [1]))
(MUL x (MOVWconst [c])) && c%5 == 0 && isPowerOfTwo32(c/5) => (SLLconst [int32(log32(c/5))]
(ADDshiftLL <x.Type> x x [2]))
(MUL x (MOVWconst [c])) && c%7 == 0 && isPowerOfTwo32(c/7) => (SLLconst [int32(log32(c/7))]
(RSBshiftLL <x.Type> x x [3]))
(MUL x (MOVWconst [c])) && c%9 == 0 && isPowerOfTwo32(c/9) => (SLLconst [int32(log32(c/9))]
(ADDshiftLL <x.Type> x x [3]))

(MULA x (MOVWconst [c]) a) && c == -1 => (SUB a x)
(MULA _ (MOVWconst [0]) a) => a
(MULA x (MOVWconst [1]) a) => (ADD x a)
(MULA x (MOVWconst [c]) a) && isPowerOfTwo32(c) => (ADD (SLLconst <x.Type> [int32(log32(c))] x) a)
(MULA x (MOVWconst [c]) a) && isPowerOfTwo32(c-1) && c >= 3 => (ADD (ADDshiftLL <x.Type> x x
[int32(log32(c-1))]) a)
(MULA x (MOVWconst [c]) a) && isPowerOfTwo32(c+1) && c >= 7 => (ADD (RSBshiftLL <x.Type> x x
[int32(log32(c+1))]) a)
(MULA x (MOVWconst [c]) a) && c%3 == 0 && isPowerOfTwo32(c/3) => (ADD (SLLconst <x.Type>
[int32(log32(c/3))]
(ADDshiftLL <x.Type> x x [1])) a)
(MULA x (MOVWconst [c]) a) && c%5 == 0 && isPowerOfTwo32(c/5) => (ADD (SLLconst <x.Type>
[int32(log32(c/5))] (ADDshiftLL <x.Type> x x [2])) a)
(MULA x (MOVWconst [c]) a) && c%7 == 0 && isPowerOfTwo32(c/7) => (ADD (SLLconst <x.Type>
[int32(log32(c/7))] (RSBshiftLL <x.Type> x x [3])) a)
(MULA x (MOVWconst [c]) a) && c%9 == 0 && isPowerOfTwo32(c/9) => (ADD (SLLconst <x.Type>
[int32(log32(c/9))] (ADDshiftLL <x.Type> x x [3])) a)

(MULA (MOVWconst [c]) x a) && c == -1 => (SUB a x)
(MULA (MOVWconst [0]) _ a) => a
(MULA (MOVWconst [1]) x a) => (ADD x a)
(MULA (MOVWconst [c]) x a) && isPowerOfTwo32(c) => (ADD (SLLconst <x.Type> [int32(log32(c))] x) a)
(MULA (MOVWconst [c]) x a) && isPowerOfTwo32(c-1) && c >= 3 => (ADD (ADDshiftLL <x.Type> x x
[int32(log32(c-1))]) a)
(MULA (MOVWconst [c]) x a) && isPowerOfTwo32(c+1) && c >= 7 => (ADD (RSBshiftLL <x.Type> x x
[int32(log32(c+1))]) a)
(MULA (MOVWconst [c]) x a) && c%3 == 0 && isPowerOfTwo32(c/3) => (ADD (SLLconst
<x.Type> [int32(log32(c/3))] (ADDshiftLL <x.Type> x x [1])) a)
(MULA (MOVWconst [c]) x a) && c%5 == 0 && isPowerOfTwo32(c/5) => (ADD (SLLconst <x.Type>
[int32(log32(c/5))] (ADDshiftLL <x.Type> x x [2])) a)
(MULA (MOVWconst [c]) x a) && c%7 == 0 && isPowerOfTwo32(c/7) => (ADD (SLLconst <x.Type>
[int32(log32(c/7))] (RSBshiftLL <x.Type> x x [3])) a)
(MULA (MOVWconst [c]) x a) && c%9 == 0 && isPowerOfTwo32(c/9) => (ADD (SLLconst <x.Type>
[int32(log32(c/9))] (ADDshiftLL <x.Type> x x [3])) a)

(MULS x (MOVWconst [c]) a) && c == -1 => (ADD a x)

```

```

(MULS _ (MOVWconst [0]) a) => a
(MULS x (MOVWconst [1]) a) => (RSB x a)
(MULS x (MOVWconst [c]) a) && isPowerOfTwo32(c) => (RSB (SLLconst <x.Type> [int32(log32(c))] x) a)
(MULS x (MOVWconst [c]) a) && isPowerOfTwo32(c-1) && c >= 3 => (RSB (ADDshiftLL <x.Type> x x
[int32(log32(c-1))]) a)
(MULS x (MOVWconst [c]) a) && isPowerOfTwo32(c+1) && c >= 7 => (RSB (RSBshiftLL <x.Type> x x
[int32(log32(c+1))]) a)
(MULS x (MOVWconst [c]) a) && c%3 == 0 && isPowerOfTwo32(c/3)
=> (RSB (SLLconst <x.Type> [int32(log32(c/3))] (ADDshiftLL <x.Type> x x [1])) a)
(MULS x (MOVWconst [c]) a) && c%5 == 0 && isPowerOfTwo32(c/5) => (RSB (SLLconst <x.Type>
[int32(log32(c/5))] (ADDshiftLL <x.Type> x x [2])) a)
(MULS x (MOVWconst [c]) a) && c%7 == 0 && isPowerOfTwo32(c/7) => (RSB (SLLconst <x.Type>
[int32(log32(c/7))] (RSBshiftLL <x.Type> x x [3])) a)
(MULS x (MOVWconst [c]) a) && c%9 == 0 && isPowerOfTwo32(c/9) => (RSB (SLLconst <x.Type>
[int32(log32(c/9))] (ADDshiftLL <x.Type> x x [3])) a)

(MULS (MOVWconst [c]) x a) && c == -1 => (ADD a x)
(MULS (MOVWconst [0]) _ a) => a
(MULS (MOVWconst [1]) x a) => (RSB x a)
(MULS (MOVWconst [c]) x a) && isPowerOfTwo32(c) => (RSB (SLLconst <x.Type> [int32(log32(c))] x) a)
(MULS (MOVWconst [c]) x a) && isPowerOfTwo32(c-1) && c >= 3 => (RSB (ADDshiftLL <x.Type> x x
[int32(log32(c-1))]) a)
(MULS (MOVWconst [c]) x a) && isPowerOfTwo32(c+1) && c >= 7 => (RSB (RSBshiftLL <x.Type> x x
[int32(log32(c+1))]) a)
(MULS (MOVWconst
[c]) x a) && c%3 == 0 && isPowerOfTwo32(c/3) => (RSB (SLLconst <x.Type> [int32(log32(c/3))] (ADDshiftLL
<x.Type> x x [1])) a)
(MULS (MOVWconst [c]) x a) && c%5 == 0 && isPowerOfTwo32(c/5) => (RSB (SLLconst <x.Type>
[int32(log32(c/5))] (ADDshiftLL <x.Type> x x [2])) a)
(MULS (MOVWconst [c]) x a) && c%7 == 0 && isPowerOfTwo32(c/7) => (RSB (SLLconst <x.Type>
[int32(log32(c/7))] (RSBshiftLL <x.Type> x x [3])) a)
(MULS (MOVWconst [c]) x a) && c%9 == 0 && isPowerOfTwo32(c/9) => (RSB (SLLconst <x.Type>
[int32(log32(c/9))] (ADDshiftLL <x.Type> x x [3])) a)

// div by constant
(Select0 (CALLudiv x (MOVWconst [1]))) => x
(Select1 (CALLudiv _ (MOVWconst [1]))) => (MOVWconst [0])
(Select0 (CALLudiv x (MOVWconst [c]))) && isPowerOfTwo32(c) => (SRLconst [int32(log32(c))] x)
(Select1 (CALLudiv x (MOVWconst [c]))) && isPowerOfTwo32(c) => (ANDconst [c-1] x)

// constant comparisons
(CMPconst (MOVWconst [x]) [y]) => (FlagConstant [subFlags32(x,y)])
(CMNconst (MOVWconst [x]) [y]) => (FlagConstant [addFlags32(x,y)])
(TSTconst
(MOVWconst [x]) [y]) => (FlagConstant [logicFlags32(x&y)])
(TEQconst (MOVWconst [x]) [y]) => (FlagConstant [logicFlags32(x^y)])

// other known comparisons

```

```
(CMPconst (MOVBUreg _) [c]) && 0xff < c => (FlagConstant [subFlags32(0, 1)])
(CMPconst (MOVHUreg _) [c]) && 0xffff < c => (FlagConstant [subFlags32(0, 1)])
(CMPconst (ANDconst _ [m]) [n]) && 0 <= m && m < n => (FlagConstant [subFlags32(0, 1)])
(CMPconst (SRLconst _ [c]) [n]) && 0 <= n && 0 < c && c <= 32 && (1<<uint32(32-c)) <= uint32(n) =>
(FlagConstant [subFlags32(0, 1)])
```

```
// absorb flag constants into branches
```

```
(EQ (FlagConstant [fc]) yes no) && fc.eq() => (First yes no)
```

```
(EQ (FlagConstant [fc]) yes no) && !fc.eq() => (First no yes)
```

```
(NE (FlagConstant [fc]) yes no) && fc.ne() => (First yes no)
```

```
(NE (FlagConstant [fc]) yes no) && !fc.ne() => (First no yes)
```

```
(LT (FlagConstant [fc]) yes no) && fc.lt() => (First yes no)
```

```
(LT (FlagConstant [fc]) yes no) && !fc.lt() => (First no yes)
```

```
(LE (FlagConstant [fc]) yes no)
```

```
&& fc.le() => (First yes no)
```

```
(LE (FlagConstant [fc]) yes no) && !fc.le() => (First no yes)
```

```
(GT (FlagConstant [fc]) yes no) && fc.gt() => (First yes no)
```

```
(GT (FlagConstant [fc]) yes no) && !fc.gt() => (First no yes)
```

```
(GE (FlagConstant [fc]) yes no) && fc.ge() => (First yes no)
```

```
(GE (FlagConstant [fc]) yes no) && !fc.ge() => (First no yes)
```

```
(ULT (FlagConstant [fc]) yes no) && fc.ult() => (First yes no)
```

```
(ULT (FlagConstant [fc]) yes no) && !fc.ult() => (First no yes)
```

```
(ULE (FlagConstant [fc]) yes no) && fc.ule() => (First yes no)
```

```
(ULE (FlagConstant [fc]) yes no) && !fc.ule() => (First no yes)
```

```
(UGT (FlagConstant [fc]) yes no) && fc.ugt() => (First yes no)
```

```
(UGT (FlagConstant [fc]) yes no) && !fc.ugt() => (First no yes)
```

```
(UGE (FlagConstant [fc]) yes no) && fc.uge() => (First yes no)
```

```
(UGE (FlagConstant [fc]) yes no) && !fc.uge() => (First no yes)
```

```
(LTnoov (FlagConstant [fc]) yes no) && fc.ltNoov() => (First yes no)
```

```
(LTnoov (FlagConstant [fc]) yes no) && !fc.ltNoov() => (First no yes)
```

```
(LEnoov
```

```
(FlagConstant [fc]) yes no) && fc.leNoov() => (First yes no)
```

```
(LEnoov (FlagConstant [fc]) yes no) && !fc.leNoov() => (First no yes)
```

```
(GTnoov (FlagConstant [fc]) yes no) && fc.gtNoov() => (First yes no)
```

```
(GTnoov (FlagConstant [fc]) yes no) && !fc.gtNoov() => (First no yes)
```

```
(GEnoov (FlagConstant [fc]) yes no) && fc.geNoov() => (First yes no)
(GEnoov (FlagConstant [fc]) yes no) && !fc.geNoov() => (First no yes)
```

```
// absorb InvertFlags into branches
```

```
(LT (InvertFlags cmp) yes no) => (GT cmp yes no)
(GT (InvertFlags cmp) yes no) => (LT cmp yes no)
(LE (InvertFlags cmp) yes no) => (GE cmp yes no)
(GE (InvertFlags cmp) yes no) => (LE cmp yes no)
(ULT (InvertFlags cmp) yes no) => (UGT cmp yes no)
(UGT (InvertFlags cmp) yes no) => (ULT cmp yes no)
(ULE (InvertFlags cmp) yes no) => (UGE cmp yes no)
(UGE (InvertFlags cmp) yes no) => (ULE cmp yes no)
(EQ (InvertFlags cmp) yes no) => (EQ cmp yes no)
(NE (InvertFlags cmp) yes no) => (NE cmp yes no)
(LTnoov (InvertFlags cmp) yes no) => (GTnoov
cmp yes no)
(GEnoov (InvertFlags cmp) yes no) => (LEnoov cmp yes no)
(LEnoov (InvertFlags cmp) yes no) => (GEnoov cmp yes no)
(GTnoov (InvertFlags cmp) yes no) => (LTnoov cmp yes no)
```

```
// absorb flag constants into boolean values
```

```
(Equal (FlagConstant [fc])) => (MOVWconst [b2i32(fc.eq())])
(NotEqual (FlagConstant [fc])) => (MOVWconst [b2i32(fc.ne())])
(LessThan (FlagConstant [fc])) => (MOVWconst [b2i32(fc.lt())])
(LessThanU (FlagConstant [fc])) => (MOVWconst [b2i32(fc.ult())])
(LessEqual (FlagConstant [fc])) => (MOVWconst [b2i32(fc.le())])
(LessEqualU (FlagConstant [fc])) => (MOVWconst [b2i32(fc.ule())])
(GreaterThan (FlagConstant [fc])) => (MOVWconst [b2i32(fc.gt())])
(GreaterThanU (FlagConstant [fc])) => (MOVWconst [b2i32(fc.ugt())])
(GreaterEqual (FlagConstant [fc])) => (MOVWconst [b2i32(fc.ge())])
(GreaterEqualU (FlagConstant [fc])) => (MOVWconst [b2i32(fc.uge())])
```

```
// absorb InvertFlags into boolean values
```

```
(Equal (InvertFlags x)) => (Equal x)
(NotEqual (InvertFlags x)) => (NotEqual
x)
(LessThan (InvertFlags x)) => (GreaterThan x)
(LessThanU (InvertFlags x)) => (GreaterThanU x)
(GreaterThan (InvertFlags x)) => (LessThan x)
(GreaterThanU (InvertFlags x)) => (LessThanU x)
(LessEqual (InvertFlags x)) => (GreaterEqual x)
(LessEqualU (InvertFlags x)) => (GreaterEqualU x)
(GreaterEqual (InvertFlags x)) => (LessEqual x)
(GreaterEqualU (InvertFlags x)) => (LessEqualU x)
```

```
// absorb flag constants into conditional instructions
```

```
(CMOVWLSconst _ (FlagConstant [fc]) [c]) && fc.ule() => (MOVWconst [c])
(CMOVWLSconst x (FlagConstant [fc]) [c]) && fc.ugt() => x
```



```

(CMOVWHSconst _ (FlagConstant [fc]) [c]) && fc.uge() => (MOVWconst [c])
(CMOVWHSconst x (FlagConstant [fc]) [c]) && fc.ult() => x

(CMOVWLSconst x (InvertFlags flags) [c]) => (CMOVWHSconst x flags [c])
(CMOVWHSconst x (InvertFlags flags) [c]) => (CMOVWLSconst x flags [c])

(SRAconst x _ (FlagConstant [fc])) && fc.uge() => (SRAconst x [31])
(SRAconst x y (FlagConstant [fc])) && fc.ult() => (SRA x y)

// remove redundant
*const ops
(ADDconst [0] x) => x
(SUBconst [0] x) => x
(ANDconst [0] _) => (MOVWconst [0])
(ANDconst [c] x) && int32(c)===-1 => x
(ORconst [0] x) => x
(ORconst [c] _) && int32(c)===-1 => (MOVWconst [-1])
(XORconst [0] x) => x
(BICconst [0] x) => x
(BICconst [c] _) && int32(c)===-1 => (MOVWconst [0])

// generic constant folding
(ADDconst [c] x) && !isARMImmRot(uint32(c)) && isARMImmRot(uint32(-c)) => (SUBconst [-c] x)
(SUBconst [c] x) && !isARMImmRot(uint32(c)) && isARMImmRot(uint32(-c)) => (ADDconst [-c] x)
(ANDconst [c] x) && !isARMImmRot(uint32(c)) && isARMImmRot(^uint32(c)) => (BICconst [int32(^uint32(c))]
x)
(BICconst [c] x) && !isARMImmRot(uint32(c)) && isARMImmRot(^uint32(c)) => (ANDconst [int32(^uint32(c))]
x)
(ADDconst [c] x) && buildcfg.GOARM==7 && !isARMImmRot(uint32(c)) && uint32(c)>0xffff && uint32(-
c)<=0xffff => (SUBconst [-c] x)
(SUBconst [c] x) && buildcfg.GOARM==7 && !isARMImmRot(uint32(c)) && uint32(c)>0xffff && uint32(-
c)<=0xffff => (ADDconst [-c] x)
(ANDconst [c] x) &&
buildcfg.GOARM==7 && !isARMImmRot(uint32(c)) && uint32(c)>0xffff && ^uint32(c)<=0xffff => (BICconst
[int32(^uint32(c))] x)
(BICconst [c] x) && buildcfg.GOARM==7 && !isARMImmRot(uint32(c)) && uint32(c)>0xffff &&
^uint32(c)<=0xffff => (ANDconst [int32(^uint32(c))] x)
(ADDconst [c] (MOVWconst [d])) => (MOVWconst [c+d])
(ADDconst [c] (ADDconst [d] x)) => (ADDconst [c+d] x)
(ADDconst [c] (SUBconst [d] x)) => (ADDconst [c-d] x)
(ADDconst [c] (RSBconst [d] x)) => (RSBconst [c+d] x)
(ADCconst [c] (ADDconst [d] x) flags) => (ADCconst [c+d] x flags)
(ADCconst [c] (SUBconst [d] x) flags) => (ADCconst [c-d] x flags)
(SUBconst [c] (MOVWconst [d])) => (MOVWconst [d-c])
(SUBconst [c] (SUBconst [d] x)) => (ADDconst [-c-d] x)
(SUBconst [c] (ADDconst [d] x)) => (ADDconst [-c+d] x)
(SUBconst [c] (RSBconst [d] x)) => (RSBconst [-c+d] x)

```

```

(SBCconst [c] (ADDconst [d] x) flags) => (SBCconst [c-d] x flags)
(SBCconst [c] (SUBconst [d] x) flags) => (SBCconst [c+d] x flags)
(RSBconst [c] (MOVWconst [d])) => (MOVWconst
[c-d])
(RSBconst [c] (RSBconst [d] x)) => (ADDconst [c-d] x)
(RSBconst [c] (ADDconst [d] x)) => (RSBconst [c-d] x)
(RSBconst [c] (SUBconst [d] x)) => (RSBconst [c+d] x)
(RSCconst [c] (ADDconst [d] x) flags) => (RSCconst [c-d] x flags)
(RSCconst [c] (SUBconst [d] x) flags) => (RSCconst [c+d] x flags)
(SLLconst [c] (MOVWconst [d])) => (MOVWconst [d<<uint64(c)])
(SRLconst [c] (MOVWconst [d])) => (MOVWconst [int32(uint32(d)>>uint64(c))])
(SRAconst [c] (MOVWconst [d])) => (MOVWconst [d>>uint64(c)])
(MUL (MOVWconst [c]) (MOVWconst [d])) => (MOVWconst [c*d])
(MULA (MOVWconst [c]) (MOVWconst [d]) a) => (ADDconst [c*d] a)
(MULS (MOVWconst [c]) (MOVWconst [d]) a) => (SUBconst [c*d] a)
(Select0 (CALLLudiv (MOVWconst [c]) (MOVWconst [d]))) && d != 0 => (MOVWconst
[int32(uint32(c)/uint32(d))])
(Select1 (CALLLudiv (MOVWconst [c]) (MOVWconst [d]))) && d != 0 => (MOVWconst
[int32(uint32(c)%uint32(d))])
(ANDconst [c] (MOVWconst [d])) => (MOVWconst [c&d])
(ANDconst [c] (ANDconst [d] x)) => (ANDconst
[c&d] x)
(ORconst [c] (MOVWconst [d])) => (MOVWconst [c|d])
(ORconst [c] (ORconst [d] x)) => (ORconst [c|d] x)
(XORconst [c] (MOVWconst [d])) => (MOVWconst [c^d])
(XORconst [c] (XORconst [d] x)) => (XORconst [c^d] x)
(BICconst [c] (MOVWconst [d])) => (MOVWconst [d&^c])
(BICconst [c] (BICconst [d] x)) => (BICconst [c|d] x)
(MVN (MOVWconst [c])) => (MOVWconst [^c])
(MOVBreg (MOVWconst [c])) => (MOVWconst [int32(int8(c))])
(MOVBUreg (MOVWconst [c])) => (MOVWconst [int32(uint8(c))])
(MOVHreg (MOVWconst [c])) => (MOVWconst [int32(int16(c))])
(MOVHUreg (MOVWconst [c])) => (MOVWconst [int32(uint16(c))])
(MOVWreg (MOVWconst [c])) => (MOVWconst [c])
// BFX: Width = c >> 8, LSB = c & 0xff, result = d << (32 - Width - LSB) >> (32 - Width)
(BFX [c] (MOVWconst [d])) => (MOVWconst [d<<(32-uint32(c&0xff)-uint32(c)>>8)>>(32-uint32(c)>>8)])
(BFXU [c] (MOVWconst [d])) => (MOVWconst [int32(uint32(d)<<(32-uint32(c&0xff)-uint32(c)>>8)>>(32-
uint32(c)>>8))])

// absorb shifts into ops
(ADD x (SLLconst [c]
y)) => (ADDshiftLL x y [c])
(ADD x (SRLconst [c] y)) => (ADDshiftRL x y [c])
(ADD x (SRAconst [c] y)) => (ADDshiftRA x y [c])
(ADD x (SLL y z)) => (ADDshiftLLreg x y z)
(ADD x (SRL y z)) => (ADDshiftRLreg x y z)
(ADD x (SRA y z)) => (ADDshiftRAreg x y z)
(ADC x (SLLconst [c] y) flags) => (ADCshiftLL x y [c] flags)

```

(ADC x (SRLconst [c] y) flags) => (ADCshiftRL x y [c] flags)
 (ADC x (SRAconst [c] y) flags) => (ADCshiftRA x y [c] flags)
 (ADC x (SLL y z) flags) => (ADCshiftLLreg x y z flags)
 (ADC x (SRL y z) flags) => (ADCshiftRLreg x y z flags)
 (ADC x (SRA y z) flags) => (ADCshiftRAreg x y z flags)
 (ADDS x (SLLconst [c] y)) => (ADDSshiftLL x y [c])
 (ADDS x (SRLconst [c] y)) => (ADDSshiftRL x y [c])
 (ADDS x (SRAconst [c] y)) => (ADDSshiftRA x y [c])
 (ADDS x (SLL y z)) => (ADDSshiftLLreg x y z)
 (ADDS x (SRL y z)) => (ADDSshiftRLreg x y z)
 (ADDS x (SRA y z)) => (ADDSshiftRAreg x y z)
 (SUB x (SLLconst [c] y)) => (SUBshiftLL x y [c])
 (SUB (SLLconst [c] y) x) => (RSBshiftLL x y [c])
 (SUB x (SRLconst
 [c] y)) => (SUBshiftRL x y [c])
 (SUB (SRLconst [c] y) x) => (RSBshiftRL x y [c])
 (SUB x (SRAconst [c] y)) => (SUBshiftRA x y [c])
 (SUB (SRAconst [c] y) x) => (RSBshiftRA x y [c])
 (SUB x (SLL y z)) => (SUBshiftLLreg x y z)
 (SUB (SLL y z) x) => (RSBshiftLLreg x y z)
 (SUB x (SRL y z)) => (SUBshiftRLreg x y z)
 (SUB (SRL y z) x) => (RSBshiftRLreg x y z)
 (SUB x (SRA y z)) => (SUBshiftRAreg x y z)
 (SUB (SRA y z) x) => (RSBshiftRAreg x y z)
 (SBC x (SLLconst [c] y) flags) => (SBCshiftLL x y [c] flags)
 (SBC (SLLconst [c] y) x flags) => (RSCshiftLL x y [c] flags)
 (SBC x (SRLconst [c] y) flags) => (SBCshiftRL x y [c] flags)
 (SBC (SRLconst [c] y) x flags) => (RSCshiftRL x y [c] flags)
 (SBC x (SRAconst [c] y) flags) => (SBCshiftRA x y [c] flags)
 (SBC (SRAconst [c] y) x flags) => (RSCshiftRA x y [c] flags)
 (SBC x (SLL y z) flags) => (SBCshiftLLreg x y z flags)
 (SBC (SLL y z) x flags) => (RSCshiftLLreg x y z flags)
 (SBC x (SRL y z) flags) => (SBCshiftRLreg x y z flags)
 (SBC (SRL y z) x flags) =>
 (RSCshiftRLreg x y z flags)
 (SBC x (SRA y z) flags) => (SBCshiftRAreg x y z flags)
 (SBC (SRA y z) x flags) => (RSCshiftRAreg x y z flags)
 (SUBS x (SLLconst [c] y)) => (SUBSshiftLL x y [c])
 (SUBS (SLLconst [c] y) x) => (RSBSshiftLL x y [c])
 (SUBS x (SRLconst [c] y)) => (SUBSshiftRL x y [c])
 (SUBS (SRLconst [c] y) x) => (RSBSshiftRL x y [c])
 (SUBS x (SRAconst [c] y)) => (SUBSshiftRA x y [c])
 (SUBS (SRAconst [c] y) x) => (RSBSshiftRA x y [c])
 (SUBS x (SLL y z)) => (SUBSshiftLLreg x y z)
 (SUBS (SLL y z) x) => (RSBSshiftLLreg x y z)
 (SUBS x (SRL y z)) => (SUBSshiftRLreg x y z)
 (SUBS (SRL y z) x) => (RSBSshiftRLreg x y z)
 (SUBS x (SRA y z)) => (SUBSshiftRAreg x y z)

(SUBS (SRA y z) x) => (RSBSshiftRAreg x y z)
 (RSB x (SLLconst [c] y)) => (RSBshiftLL x y [c])
 (RSB (SLLconst [c] y) x) => (SUBshiftLL x y [c])
 (RSB x (SRLconst [c] y)) => (RSBshiftRL x y [c])
 (RSB (SRLconst [c] y) x) => (SUBshiftRL x y [c])
 (RSB x (SRAconst [c] y)) => (RSBshiftRA x y [c])
 (RSB (SRAconst [c] y) x) => (SUBshiftRA
 x y [c])
 (RSB x (SLL y z)) => (RSBshiftLLreg x y z)
 (RSB (SLL y z) x) => (SUBshiftLLreg x y z)
 (RSB x (SRL y z)) => (RSBshiftRLreg x y z)
 (RSB (SRL y z) x) => (SUBshiftRLreg x y z)
 (RSB x (SRA y z)) => (RSBshiftRAreg x y z)
 (RSB (SRA y z) x) => (SUBshiftRAreg x y z)
 (AND x (SLLconst [c] y)) => (ANDshiftLL x y [c])
 (AND x (SRLconst [c] y)) => (ANDshiftRL x y [c])
 (AND x (SRAconst [c] y)) => (ANDshiftRA x y [c])
 (AND x (SLL y z)) => (ANDshiftLLreg x y z)
 (AND x (SRL y z)) => (ANDshiftRLreg x y z)
 (AND x (SRA y z)) => (ANDshiftRAreg x y z)
 (OR x (SLLconst [c] y)) => (ORshiftLL x y [c])
 (OR x (SRLconst [c] y)) => (ORshiftRL x y [c])
 (OR x (SRAconst [c] y)) => (ORshiftRA x y [c])
 (OR x (SLL y z)) => (ORshiftLLreg x y z)
 (OR x (SRL y z)) => (ORshiftRLreg x y z)
 (OR x (SRA y z)) => (ORshiftRAreg x y z)
 (XOR x (SLLconst [c] y)) => (XORshiftLL x y [c])
 (XOR x (SRLconst [c] y)) => (XORshiftRL x y [c])
 (XOR x (SRAconst [c] y)) => (XORshiftRA x y [c])
 (XOR x (SRRconst [c] y)) => (XORshiftRR x y [c])
 (XOR
 x (SLL y z)) => (XORshiftLLreg x y z)
 (XOR x (SRL y z)) => (XORshiftRLreg x y z)
 (XOR x (SRA y z)) => (XORshiftRAreg x y z)
 (BIC x (SLLconst [c] y)) => (BICshiftLL x y [c])
 (BIC x (SRLconst [c] y)) => (BICshiftRL x y [c])
 (BIC x (SRAconst [c] y)) => (BICshiftRA x y [c])
 (BIC x (SLL y z)) => (BICshiftLLreg x y z)
 (BIC x (SRL y z)) => (BICshiftRLreg x y z)
 (BIC x (SRA y z)) => (BICshiftRAreg x y z)
 (MVN (SLLconst [c] x)) => (MVNshiftLL x [c])
 (MVN (SRLconst [c] x)) => (MVNshiftRL x [c])
 (MVN (SRAconst [c] x)) => (MVNshiftRA x [c])
 (MVN (SLL x y)) => (MVNshiftLLreg x y)
 (MVN (SRL x y)) => (MVNshiftRLreg x y)
 (MVN (SRA x y)) => (MVNshiftRAreg x y)

 (CMP x (SLLconst [c] y)) => (CMPshiftLL x y [c])

```

(CMP (SLLconst [c] y) x) => (InvertFlags (CMPshiftLL x y [c]))
(CMP x (SRLconst [c] y)) => (CMPshiftRL x y [c])
(CMP (SRLconst [c] y) x) => (InvertFlags (CMPshiftRL x y [c]))
(CMP x (SRAconst [c] y)) => (CMPshiftRA x y [c])
(CMP (SRAconst [c] y) x) => (InvertFlags (CMPshiftRA x y [c]))
(CMP
  x (SLL y z)) => (CMPshiftLLreg x y z)
(CMP (SLL y z) x) => (InvertFlags (CMPshiftLLreg x y z))
(CMP x (SRL y z)) => (CMPshiftRLreg x y z)
(CMP (SRL y z) x) => (InvertFlags (CMPshiftRLreg x y z))
(CMP x (SRA y z)) => (CMPshiftRAreg x y z)
(CMP (SRA y z) x) => (InvertFlags (CMPshiftRAreg x y z))
(TST x (SLLconst [c] y)) => (TSTshiftLL x y [c])
(TST x (SRLconst [c] y)) => (TSTshiftRL x y [c])
(TST x (SRAconst [c] y)) => (TSTshiftRA x y [c])
(TST x (SLL y z)) => (TSTshiftLLreg x y z)
(TST x (SRL y z)) => (TSTshiftRLreg x y z)
(TST x (SRA y z)) => (TSTshiftRAreg x y z)
(TEQ x (SLLconst [c] y)) => (TEQshiftLL x y [c])
(TEQ x (SRLconst [c] y)) => (TEQshiftRL x y [c])
(TEQ x (SRAconst [c] y)) => (TEQshiftRA x y [c])
(TEQ x (SLL y z)) => (TEQshiftLLreg x y z)
(TEQ x (SRL y z)) => (TEQshiftRLreg x y z)
(TEQ x (SRA y z)) => (TEQshiftRAreg x y z)
(CMN x (SLLconst [c] y)) => (CMNshiftLL x y [c])
(CMN x (SRLconst [c] y)) => (CMNshiftRL x y [c])
(CMN x (SRAconst [c] y)) => (CMNshiftRA x y [c])
(CMN
  x (SLL y z)) => (CMNshiftLLreg x y z)
(CMN x (SRL y z)) => (CMNshiftRLreg x y z)
(CMN x (SRA y z)) => (CMNshiftRAreg x y z)

// prefer *const ops to *shift ops
(ADDshiftLL (MOVWconst [c] x [d]) => (ADDconst [c] (SLLconst <x.Type> x [d]))
(ADDshiftRL (MOVWconst [c] x [d]) => (ADDconst [c] (SRLconst <x.Type> x [d]))
(ADDshiftRA (MOVWconst [c] x [d]) => (ADDconst [c] (SRAconst <x.Type> x [d]))
(ADCshiftLL (MOVWconst [c] x [d] flags) => (ADCconst [c] (SLLconst <x.Type> x [d] flags)
(ADCshiftRL (MOVWconst [c] x [d] flags) => (ADCconst [c] (SRLconst <x.Type> x [d] flags)
(ADCshiftRA (MOVWconst [c] x [d] flags) => (ADCconst [c] (SRAconst <x.Type> x [d] flags)
(ADDSshiftLL (MOVWconst [c] x [d]) => (ADDSconst [c] (SLLconst <x.Type> x [d]))
(ADDSshiftRL (MOVWconst [c] x [d]) => (ADDSconst [c] (SRLconst <x.Type> x [d]))
(ADDSshiftRA (MOVWconst [c] x [d]) => (ADDSconst [c] (SRAconst <x.Type> x [d]))
(SUBshiftLL (MOVWconst [c] x [d]) => (RSBconst [c] (SLLconst <x.Type> x [d]))
(SUBshiftRL
  (MOVWconst [c] x [d]) => (RSBconst [c] (SRLconst <x.Type> x [d]))
(SUBshiftRA (MOVWconst [c] x [d]) => (RSBconst [c] (SRAconst <x.Type> x [d]))
(SBCshiftLL (MOVWconst [c] x [d] flags) => (RSCconst [c] (SLLconst <x.Type> x [d] flags)
(SBCshiftRL (MOVWconst [c] x [d] flags) => (RSCconst [c] (SRLconst <x.Type> x [d] flags)

```

(SBCshiftRA (MOVWconst [c] x [d] flags) => (RSCconst [c] (SRAconst <x.Type> x [d]) flags)
(SUBSshiftLL (MOVWconst [c] x [d]) => (RSBSconst [c] (SLLconst <x.Type> x [d]))
(SUBSshiftRL (MOVWconst [c] x [d]) => (RSBSconst [c] (SRLconst <x.Type> x [d]))
(SUBSshiftRA (MOVWconst [c] x [d]) => (RSBSconst [c] (SRAconst <x.Type> x [d]))
(RSBshiftLL (MOVWconst [c] x [d]) => (SUBconst [c] (SLLconst <x.Type> x [d]))
(RSBshiftRL (MOVWconst [c] x [d]) => (SUBconst [c] (SRLconst <x.Type> x [d]))
(RSBshiftRA (MOVWconst [c] x [d]) => (SUBconst [c] (SRAconst <x.Type> x [d]))
(RSCshiftLL (MOVWconst [c] x [d] flags) => (SBCconst [c] (SLLconst <x.Type> x [d]) flags)
(RSCshiftRL
(MOVWconst [c] x [d] flags) => (SBCconst [c] (SRLconst <x.Type> x [d]) flags)
(RSCshiftRA (MOVWconst [c] x [d] flags) => (SBCconst [c] (SRAconst <x.Type> x [d]) flags)
(RSBSshiftLL (MOVWconst [c] x [d]) => (SUBSconst [c] (SLLconst <x.Type> x [d]))
(RSBSshiftRL (MOVWconst [c] x [d]) => (SUBSconst [c] (SRLconst <x.Type> x [d]))
(RSBSshiftRA (MOVWconst [c] x [d]) => (SUBSconst [c] (SRAconst <x.Type> x [d]))
(ANDshiftLL (MOVWconst [c] x [d]) => (ANDconst [c] (SLLconst <x.Type> x [d]))
(ANDshiftRL (MOVWconst [c] x [d]) => (ANDconst [c] (SRLconst <x.Type> x [d]))
(ANDshiftRA (MOVWconst [c] x [d]) => (ANDconst [c] (SRAconst <x.Type> x [d]))
(ORshiftLL (MOVWconst [c] x [d]) => (ORconst [c] (SLLconst <x.Type> x [d]))
(ORshiftRL (MOVWconst [c] x [d]) => (ORconst [c] (SRLconst <x.Type> x [d]))
(ORshiftRA (MOVWconst [c] x [d]) => (ORconst [c] (SRAconst <x.Type> x [d]))
(XORshiftLL (MOVWconst [c] x [d]) => (XORconst [c] (SLLconst <x.Type> x [d]))
(XORshiftRL (MOVWconst [c] x [d])
=> (XORconst [c] (SRLconst <x.Type> x [d]))
(XORshiftRA (MOVWconst [c] x [d]) => (XORconst [c] (SRAconst <x.Type> x [d]))
(XORshiftRR (MOVWconst [c] x [d]) => (XORconst [c] (SRRconst <x.Type> x [d]))
(CMPshiftLL (MOVWconst [c] x [d]) => (InvertFlags (CMPconst [c] (SLLconst <x.Type> x [d])))
(CMPshiftRL (MOVWconst [c] x [d]) => (InvertFlags (CMPconst [c] (SRLconst <x.Type> x [d])))
(CMPshiftRA (MOVWconst [c] x [d]) => (InvertFlags (CMPconst [c] (SRAconst <x.Type> x [d])))
(TSTshiftLL (MOVWconst [c] x [d]) => (TSTconst [c] (SLLconst <x.Type> x [d]))
(TSTshiftRL (MOVWconst [c] x [d]) => (TSTconst [c] (SRLconst <x.Type> x [d]))
(TSTshiftRA (MOVWconst [c] x [d]) => (TSTconst [c] (SRAconst <x.Type> x [d]))
(TEQshiftLL (MOVWconst [c] x [d]) => (TEQconst [c] (SLLconst <x.Type> x [d]))
(TEQshiftRL (MOVWconst [c] x [d]) => (TEQconst [c] (SRLconst <x.Type> x [d]))
(TEQshiftRA (MOVWconst [c] x [d]) => (TEQconst [c] (SRAconst <x.Type> x [d]))
(CMNshiftLL (MOVWconst [c] x [d]) => (CMNconst
[c] (SLLconst <x.Type> x [d]))
(CMNshiftRL (MOVWconst [c] x [d]) => (CMNconst [c] (SRLconst <x.Type> x [d]))
(CMNshiftRA (MOVWconst [c] x [d]) => (CMNconst [c] (SRAconst <x.Type> x [d]))

(ADDshiftLLreg (MOVWconst [c] x y) => (ADDconst [c] (SLL <x.Type> x y))
(ADDshiftRLreg (MOVWconst [c] x y) => (ADDconst [c] (SRL <x.Type> x y))
(ADDshiftRAreg (MOVWconst [c] x y) => (ADDconst [c] (SRA <x.Type> x y))
(ADCshiftLLreg (MOVWconst [c] x y flags) => (ADCconst [c] (SLL <x.Type> x y) flags)
(ADCshiftRLreg (MOVWconst [c] x y flags) => (ADCconst [c] (SRL <x.Type> x y) flags)
(ADCshiftRAreg (MOVWconst [c] x y flags) => (ADCconst [c] (SRA <x.Type> x y) flags)
(ADDSshiftLLreg (MOVWconst [c] x y) => (ADDSconst [c] (SLL <x.Type> x y))
(ADDSshiftRLreg (MOVWconst [c] x y) => (ADDSconst [c] (SRL <x.Type> x y))
(ADDSshiftRAreg (MOVWconst [c] x y) => (ADDSconst [c] (SRA <x.Type> x y))

```

(SUBshiftLLreg (MOVWconst [c] x y) => (RSBconst [c] (SLL <x.Type> x y))
(SUBshiftRLreg (MOVWconst [c] x
y) => (RSBconst [c] (SRL <x.Type> x y))
(SUBshiftRAREg (MOVWconst [c] x y) => (RSBconst [c] (SRA <x.Type> x y))
(SBCshiftLLreg (MOVWconst [c] x y flags) => (RSCconst [c] (SLL <x.Type> x y) flags)
(SBCshiftRLreg (MOVWconst [c] x y flags) => (RSCconst [c] (SRL <x.Type> x y) flags)
(SBCshiftRAREg (MOVWconst [c] x y flags) => (RSCconst [c] (SRA <x.Type> x y) flags)
(SUBSshiftLLreg (MOVWconst [c] x y) => (RSBSconst [c] (SLL <x.Type> x y))
(SUBSshiftRLreg (MOVWconst [c] x y) => (RSBSconst [c] (SRL <x.Type> x y))
(SUBSshiftRAREg (MOVWconst [c] x y) => (RSBSconst [c] (SRA <x.Type> x y))
(RSBshiftLLreg (MOVWconst [c] x y) => (SUBconst [c] (SLL <x.Type> x y))
(RSBshiftRLreg (MOVWconst [c] x y) => (SUBconst [c] (SRL <x.Type> x y))
(RSBshiftRAREg (MOVWconst [c] x y) => (SUBconst [c] (SRA <x.Type> x y))
(RSCshiftLLreg (MOVWconst [c] x y flags) => (SBCconst [c] (SLL <x.Type> x y) flags)
(RSCshiftRLreg (MOVWconst [c] x y flags) => (SBCconst [c] (SRL <x.Type> x y) flags)
(RSCshiftRAREg (MOVWconst
[c] x y flags) => (SBCconst [c] (SRA <x.Type> x y) flags)
(RSBSshiftLLreg (MOVWconst [c] x y) => (SUBSconst [c] (SLL <x.Type> x y))
(RSBSshiftRLreg (MOVWconst [c] x y) => (SUBSconst [c] (SRL <x.Type> x y))
(RSBSshiftRAREg (MOVWconst [c] x y) => (SUBSconst [c] (SRA <x.Type> x y))
(ANDshiftLLreg (MOVWconst [c] x y) => (ANDconst [c] (SLL <x.Type> x y))
(ANDshiftRLreg (MOVWconst [c] x y) => (ANDconst [c] (SRL <x.Type> x y))
(ANDshiftRAREg (MOVWconst [c] x y) => (ANDconst [c] (SRA <x.Type> x y))
(ORshiftLLreg (MOVWconst [c] x y) => (ORconst [c] (SLL <x.Type> x y))
(ORshiftRLreg (MOVWconst [c] x y) => (ORconst [c] (SRL <x.Type> x y))
(ORshiftRAREg (MOVWconst [c] x y) => (ORconst [c] (SRA <x.Type> x y))
(XORshiftLLreg (MOVWconst [c] x y) => (XORconst [c] (SLL <x.Type> x y))
(XORshiftRLreg (MOVWconst [c] x y) => (XORconst [c] (SRL <x.Type> x y))
(XORshiftRAREg (MOVWconst [c] x y) => (XORconst [c] (SRA <x.Type> x y))
(CMPshiftLLreg (MOVWconst [c] x y) => (InvertFlags (CMPconst
[c] (SLL <x.Type> x y)))
(CMPshiftRLreg (MOVWconst [c] x y) => (InvertFlags (CMPconst [c] (SRL <x.Type> x y)))
(CMPshiftRAREg (MOVWconst [c] x y) => (InvertFlags (CMPconst [c] (SRA <x.Type> x y)))
(TSTshiftLLreg (MOVWconst [c] x y) => (TSTconst [c] (SLL <x.Type> x y))
(TSTshiftRLreg (MOVWconst [c] x y) => (TSTconst [c] (SRL <x.Type> x y))
(TSTshiftRAREg (MOVWconst [c] x y) => (TSTconst [c] (SRA <x.Type> x y))
(TEQshiftLLreg (MOVWconst [c] x y) => (TEQconst [c] (SLL <x.Type> x y))
(TEQshiftRLreg (MOVWconst [c] x y) => (TEQconst [c] (SRL <x.Type> x y))
(TEQshiftRAREg (MOVWconst [c] x y) => (TEQconst [c] (SRA <x.Type> x y))
(CMNshiftLLreg (MOVWconst [c] x y) => (CMNconst [c] (SLL <x.Type> x y))
(CMNshiftRLreg (MOVWconst [c] x y) => (CMNconst [c] (SRL <x.Type> x y))
(CMNshiftRAREg (MOVWconst [c] x y) => (CMNconst [c] (SRA <x.Type> x y))

// constant folding in *shift ops
(ADDshiftLL x (MOVWconst [c] [d]) => (ADDconst x [c<<uint64(d)])
(ADDshiftRL x (MOVWconst [c] [d]) =>
(ADDconst x [int32(uint32(c)>>uint64(d))])
(ADDshiftRA x (MOVWconst [c] [d]) => (ADDconst x [c>>uint64(d)])

```

(ADCshiftLL x (MOVWconst [c]) [d] flags) => (ADCconst x [c<<uint64(d)] flags)
 (ADCshiftRL x (MOVWconst [c]) [d] flags) => (ADCconst x [int32(uint32(c)>>uint64(d))] flags)
 (ADCshiftRA x (MOVWconst [c]) [d] flags) => (ADCconst x [c>>uint64(d)] flags)
 (ADDSshiftLL x (MOVWconst [c]) [d]) => (ADDSconst x [c<<uint64(d)])
 (ADDSshiftRL x (MOVWconst [c]) [d]) => (ADDSconst x [int32(uint32(c)>>uint64(d))])
 (ADDSshiftRA x (MOVWconst [c]) [d]) => (ADDSconst x [c>>uint64(d)])
 (SUBshiftLL x (MOVWconst [c]) [d]) => (SUBconst x [c<<uint64(d)])
 (SUBshiftRL x (MOVWconst [c]) [d]) => (SUBconst x [int32(uint32(c)>>uint64(d))])
 (SUBshiftRA x (MOVWconst [c]) [d]) => (SUBconst x [c>>uint64(d)])
 (SBCshiftLL x (MOVWconst [c]) [d] flags) => (SBCconst x [c<<uint64(d)] flags)
 (SBCshiftRL x (MOVWconst [c]) [d] flags) => (SBCconst x [int32(uint32(c)>>uint64(d))] flags)
 (SBCshiftRA x (MOVWconst [c]) [d] flags)
 => (SBCconst x [c>>uint64(d)] flags)
 (SUBSshiftLL x (MOVWconst [c]) [d]) => (SUBSconst x [c<<uint64(d)])
 (SUBSshiftRL x (MOVWconst [c]) [d]) => (SUBSconst x [int32(uint32(c)>>uint64(d))])
 (SUBSshiftRA x (MOVWconst [c]) [d]) => (SUBSconst x [c>>uint64(d)])
 (RSBshiftLL x (MOVWconst [c]) [d]) => (RSBconst x [c<<uint64(d)])
 (RSBshiftRL x (MOVWconst [c]) [d]) => (RSBconst x [int32(uint32(c)>>uint64(d))])
 (RSBshiftRA x (MOVWconst [c]) [d]) => (RSBconst x [c>>uint64(d)])
 (RSCshiftLL x (MOVWconst [c]) [d] flags) => (RSCconst x [c<<uint64(d)] flags)
 (RSCshiftRL x (MOVWconst [c]) [d] flags) => (RSCconst x [int32(uint32(c)>>uint64(d))] flags)
 (RSCshiftRA x (MOVWconst [c]) [d] flags) => (RSCconst x [c>>uint64(d)] flags)
 (RSBSshiftLL x (MOVWconst [c]) [d]) => (RSBSconst x [c<<uint64(d)])
 (RSBSshiftRL x (MOVWconst [c]) [d]) => (RSBSconst x [int32(uint32(c)>>uint64(d))])
 (RSBSshiftRA x (MOVWconst [c]) [d]) => (RSBSconst x [c>>uint64(d)])
 (ANDshiftLL x (MOVWconst [c]) [d]) => (ANDconst x [c<<uint64(d)])
 (ANDshiftRL
 x (MOVWconst [c]) [d]) => (ANDconst x [int32(uint32(c)>>uint64(d))])
 (ANDshiftRA x (MOVWconst [c]) [d]) => (ANDconst x [c>>uint64(d)])
 (ORshiftLL x (MOVWconst [c]) [d]) => (ORconst x [c<<uint64(d)])
 (ORshiftRL x (MOVWconst [c]) [d]) => (ORconst x [int32(uint32(c)>>uint64(d))])
 (ORshiftRA x (MOVWconst [c]) [d]) => (ORconst x [c>>uint64(d)])
 (XORshiftLL x (MOVWconst [c]) [d]) => (XORconst x [c<<uint64(d)])
 (XORshiftRL x (MOVWconst [c]) [d]) => (XORconst x [int32(uint32(c)>>uint64(d))])
 (XORshiftRA x (MOVWconst [c]) [d]) => (XORconst x [c>>uint64(d)])
 (XORshiftRR x (MOVWconst [c]) [d]) => (XORconst x [int32(uint32(c)>>uint64(d)|uint32(c)<<uint64(32-d))])
 (BICshiftLL x (MOVWconst [c]) [d]) => (BICconst x [c<<uint64(d)])
 (BICshiftRL x (MOVWconst [c]) [d]) => (BICconst x [int32(uint32(c)>>uint64(d))])
 (BICshiftRA x (MOVWconst [c]) [d]) => (BICconst x [c>>uint64(d)])
 (MVNshiftLL (MOVWconst [c]) [d]) => (MOVWconst [^(c<<uint64(d))])
 (MVNshiftRL (MOVWconst [c]) [d]) => (MOVWconst
 [^int32(uint32(c)>>uint64(d))])
 (MVNshiftRA (MOVWconst [c]) [d]) => (MOVWconst [int32(c)>>uint64(d)])
 (CMPshiftLL x (MOVWconst [c]) [d]) => (CMPconst x [c<<uint64(d)])
 (CMPshiftRL x (MOVWconst [c]) [d]) => (CMPconst x [int32(uint32(c)>>uint64(d))])
 (CMPshiftRA x (MOVWconst [c]) [d]) => (CMPconst x [c>>uint64(d)])
 (TSTshiftLL x (MOVWconst [c]) [d]) => (TSTconst x [c<<uint64(d)])
 (TSTshiftRL x (MOVWconst [c]) [d]) => (TSTconst x [int32(uint32(c)>>uint64(d))])

(TSTshiftRA x (MOVWconst [c]) [d]) => (TSTconst x [c>>uint64(d)])
(TEQshiftLL x (MOVWconst [c]) [d]) => (TEQconst x [c<<uint64(d)])
(TEQshiftRL x (MOVWconst [c]) [d]) => (TEQconst x [int32(uint32(c)>>uint64(d))])
(TEQshiftRA x (MOVWconst [c]) [d]) => (TEQconst x [c>>uint64(d)])
(CMNshiftLL x (MOVWconst [c]) [d]) => (CMNconst x [c<<uint64(d)])
(CMNshiftRL x (MOVWconst [c]) [d]) => (CMNconst x [int32(uint32(c)>>uint64(d))])
(CMNshiftRA x (MOVWconst [c]) [d]) => (CMNconst x [c>>uint64(d)])

(ADDshiftLLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (ADDshiftLL x y [c])
(ADDshiftRLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (ADDshiftRL x y [c])
(ADDshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (ADDshiftRA x y [c])
(ADCshiftLLreg x y (MOVWconst [c]) flags) && 0 <= c && c < 32 => (ADCshiftLL x y [c] flags)
(ADCshiftRLreg x y (MOVWconst [c]) flags) && 0 <= c && c < 32 => (ADCshiftRL x y [c] flags)
(ADCshiftRAreg x y (MOVWconst [c]) flags) && 0 <= c && c < 32 => (ADCshiftRA x y [c] flags)
(ADDSshiftLLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (ADDSshiftLL x y [c])
(ADDSshiftRLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (ADDSshiftRL x y [c])
(ADDSshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (ADDSshiftRA x y [c])
(SUBshiftLLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (SUBshiftLL x y [c])
(SUBshiftRLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (SUBshiftRL x y [c])
(SUBshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (SUBshiftRA x y [c])
(SBCshiftLLreg x y (MOVWconst [c]) flags) && 0 <= c && c < 32 => (SBCshiftLL x y [c] flags)
(SBCshiftRLreg x y (MOVWconst [c]) flags) && 0 <= c && c < 32 => (SBCshiftRL x y [c] flags)
(SBCshiftRAreg x y (MOVWconst [c]) flags) && 0 <= c && c < 32 => (SBCshiftRA x y [c] flags)
(SUBSshiftLLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (SUBSshiftLL x y [c])
(SUBSshiftRLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (SUBSshiftRL x y [c])
(SUBSshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (SUBSshiftRA x y [c])
(RSBshiftLLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (RSBshiftLL x y [c])
(RSBshiftRLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (RSBshiftRL x y [c])
(RSBshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (RSBshiftRA x y [c])
(RSCshiftLLreg x y (MOVWconst [c]) flags) && 0 <= c && c < 32 => (RSCshiftLL x y [c] flags)
(RSCshiftRLreg x y (MOVWconst [c]) flags) && 0 <= c && c < 32 => (RSCshiftRL x y [c] flags)
(RSCshiftRAreg x y (MOVWconst [c]) flags) && 0 <= c && c < 32 => (RSCshiftRA x y [c] flags)
(RSBSshiftLLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (RSBSshiftLL x y [c])
(RSBSshiftRLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (RSBSshiftRL x y [c])
(RSBSshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (RSBSshiftRA x y [c])
(ANDshiftLLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (ANDshiftLL x y [c])
(ANDshiftRLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (ANDshiftRL x y [c])
(ANDshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (ANDshiftRA x y [c])
(ORshiftLLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (ORshiftLL x y [c])
(ORshiftRLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (ORshiftRL x y [c])
(ORshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (ORshiftRA x y [c])
(XORshiftLLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (XORshiftLL x y [c])
(XORshiftRLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (XORshiftRL x y [c])
(XORshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (XORshiftRA x y [c])
(BICshiftLLreg x y (MOVWconst [c])) && 0 <=

```

c && c < 32 => (BICshiftLL x y [c])
(BICshiftRLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (BICshiftRL x y [c])
(BICshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (BICshiftRA x y [c])
(MVNshiftLLreg x (MOVWconst [c])) && 0 <= c && c < 32 => (MVNshiftLL x [c])
(MVNshiftRLreg x (MOVWconst [c])) && 0 <= c && c < 32 => (MVNshiftRL x [c])
(MVNshiftRAreg x (MOVWconst [c])) && 0 <= c && c < 32 => (MVNshiftRA x [c])
(CMPshiftLLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (CMPshiftLL x y [c])
(CMPshiftRLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (CMPshiftRL x y [c])
(CMPshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (CMPshiftRA x y [c])
(TSTshiftLLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (TSTshiftLL x y [c])
(TSTshiftRLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (TSTshiftRL x y [c])
(TSTshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (TSTshiftRA x y [c])
(TEQshiftLLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (TEQshiftLL x y [c])
(TEQshiftRLreg
x y (MOVWconst [c])) && 0 <= c && c < 32 => (TEQshiftRL x y [c])
(TEQshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (TEQshiftRA x y [c])
(CMNshiftLLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (CMNshiftLL x y [c])
(CMNshiftRLreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (CMNshiftRL x y [c])
(CMNshiftRAreg x y (MOVWconst [c])) && 0 <= c && c < 32 => (CMNshiftRA x y [c])

// Generate rotates
(ADDshiftLL [c] (SRLconst x [32-c] x) => (SRRconst [32-c] x)
(ORshiftLL [c] (SRLconst x [32-c] x) => (SRRconst [32-c] x)
(XORshiftLL [c] (SRLconst x [32-c] x) => (SRRconst [32-c] x)
(ADDshiftRL [c] (SLLconst x [32-c] x) => (SRRconst [ c] x)
(ORshiftRL [c] (SLLconst x [32-c] x) => (SRRconst [ c] x)
(XORshiftRL [c] (SLLconst x [32-c] x) => (SRRconst [ c] x)

(RotateLeft16 <t> x (MOVWconst [c])) => (Or16 (Lsh16x32 <t> x (MOVWconst [c&15])) (Rsh16Ux32 <t> x
(MOVWconst [-c&15])))
(RotateLeft8 <t> x (MOVWconst [c])) => (Or8 (Lsh8x32 <t> x (MOVWconst [c&7])) (Rsh8Ux32 <t> x
(MOVWconst
[-c&7])))
(RotateLeft32 x y) => (SRR x (RSBconst [0] <y.Type> y))

// ((x>>8) | (x<<8)) -> (REV16 x), the type of x is uint16, "|" can also be "^" or "+".
// UBFX instruction is supported by ARMv6T2, ARMv7 and above versions, REV16 is supported by
// ARMv6 and above versions. So for ARMv6, we need to match SLLconst, SRLconst and ORshiftLL.
((ADDshiftLL|ORshiftLL|XORshiftLL) <typ.UInt16> [8] (BFXU <typ.UInt16> [int32(armBFAuxInt(8, 8))] x) x)
=> (REV16 x)
((ADDshiftLL|ORshiftLL|XORshiftLL) <typ.UInt16> [8] (SRLconst <typ.UInt16> [24] (SLLconst [16] x)) x) &&
buildcfg.GOARM>=6 => (REV16 x)

// use indexed loads and stores
(MOVWload [0] {sym} (ADD ptr idx mem) && sym == nil => (MOVWloadidx ptr idx mem)
(MOVWstore [0] {sym} (ADD ptr idx val mem) && sym == nil => (MOVWstoreidx ptr idx val mem)
(MOVWload [0] {sym} (ADDshiftLL ptr idx [c] mem) && sym == nil => (MOVWloadshiftLL ptr idx [c] mem)
(MOVWload [0] {sym} (ADDshiftRL ptr idx [c] mem) && sym == nil => (MOVWloadshiftRL ptr idx

```

[c] mem)
(MOVWload [0] {sym} (ADDshiftRA ptr idx [c]) mem) && sym == nil => (MOVWloadshiftRA ptr idx [c] mem)
(MOVWstore [0] {sym} (ADDshiftLL ptr idx [c]) val mem) && sym == nil => (MOVWstoreshiftLL ptr idx [c] val mem)
(MOVWstore [0] {sym} (ADDshiftRL ptr idx [c]) val mem) && sym == nil => (MOVWstoreshiftRL ptr idx [c] val mem)
(MOVWstore [0] {sym} (ADDshiftRA ptr idx [c]) val mem) && sym == nil => (MOVWstoreshiftRA ptr idx [c] val mem)
(MOVBUload [0] {sym} (ADD ptr idx) mem) && sym == nil => (MOVBUloadidx ptr idx mem)
(MOVBlload [0] {sym} (ADD ptr idx) mem) && sym == nil => (MOVBlloadidx ptr idx mem)
(MOVBstore [0] {sym} (ADD ptr idx) val mem) && sym == nil => (MOVBstoreidx ptr idx val mem)
(MOVHUload [0] {sym} (ADD ptr idx) mem) && sym == nil => (MOVHUloadidx ptr idx mem)
(MOVHload [0] {sym} (ADD ptr idx) mem) && sym == nil => (MOVHloadidx ptr idx mem)
(MOVHstore [0] {sym} (ADD ptr idx) val mem) && sym == nil => (MOVHstoreidx ptr idx val mem)

// constant folding in indexed loads and stores

(MOVWloadidx ptr (MOVWconst [c]) mem) => (MOVWload [c] ptr mem)
(MOVWloadidx (MOVWconst [c]) ptr mem) => (MOVWload [c] ptr mem)
(MOVBlloadidx ptr (MOVWconst [c]) mem) => (MOVBlload [c] ptr mem)
(MOVBlloadidx (MOVWconst [c]) ptr mem) => (MOVBlload [c] ptr mem)
(MOVBUloadidx ptr (MOVWconst [c]) mem) => (MOVBUload [c] ptr mem)
(MOVBUloadidx (MOVWconst [c]) ptr mem) => (MOVBUload [c] ptr mem)
(MOVHUloadidx ptr (MOVWconst [c]) mem) => (MOVHUload [c] ptr mem)
(MOVHloadidx (MOVWconst [c]) ptr mem) => (MOVHload [c] ptr mem)
(MOVHloadidx (MOVWconst [c]) ptr mem) => (MOVHload [c] ptr mem)
(MOVWstoreidx ptr (MOVWconst [c]) val mem) => (MOVWstore [c] ptr val mem)
(MOVWstoreidx (MOVWconst [c]) ptr val mem) => (MOVWstore [c] ptr val mem)
(MOVBstoreidx ptr (MOVWconst [c]) val mem) => (MOVBstore [c] ptr val mem)
(MOVBstoreidx (MOVWconst [c]) ptr val mem) => (MOVBstore [c] ptr val mem)
(MOVHstoreidx ptr (MOVWconst [c]) val mem) =>
(MOVHstore [c] ptr val mem)
(MOVHstoreidx (MOVWconst [c]) ptr val mem) => (MOVHstore [c] ptr val mem)

(MOVWloadidx ptr (SLLconst idx [c]) mem) => (MOVWloadshiftLL ptr idx [c] mem)
(MOVWloadidx (SLLconst idx [c]) ptr mem) => (MOVWloadshiftLL ptr idx [c] mem)
(MOVWloadidx ptr (SRLconst idx [c]) mem) => (MOVWloadshiftRL ptr idx [c] mem)
(MOVWloadidx (SRLconst idx [c]) ptr mem) => (MOVWloadshiftRL ptr idx [c] mem)
(MOVWloadidx ptr (SRAconst idx [c]) mem) => (MOVWloadshiftRA ptr idx [c] mem)
(MOVWloadidx (SRAconst idx [c]) ptr mem) => (MOVWloadshiftRA ptr idx [c] mem)

(MOVWstoreidx ptr (SLLconst idx [c]) val mem) => (MOVWstoreshiftLL ptr idx [c] val mem)
(MOVWstoreidx (SLLconst idx [c]) ptr val mem) => (MOVWstoreshiftLL ptr idx [c] val mem)
(MOVWstoreidx ptr (SRLconst idx [c]) val mem) => (MOVWstoreshiftRL ptr idx [c] val mem)
(MOVWstoreidx (SRLconst idx [c]) ptr val mem) => (MOVWstoreshiftRL ptr idx [c] val mem)
(MOVWstoreidx ptr (SRAconst idx [c]) val mem) => (MOVWstoreshiftRA ptr idx [c] val mem)

```

val mem)
(MOVWstoreidx (SRAconst idx [c]) ptr val mem) => (MOVWstoreshiftRA ptr idx [c] val mem)

(MOVWloadshiftLL ptr (MOVWconst [c]) [d] mem) => (MOVWload [int32(uint32(c)<<uint64(d))] ptr mem)
(MOVWloadshiftRL ptr (MOVWconst [c]) [d] mem) => (MOVWload [int32(uint32(c)>>uint64(d))] ptr mem)
(MOVWloadshiftRA ptr (MOVWconst [c]) [d] mem) => (MOVWload [c>>uint64(d)] ptr mem)

(MOVWstoreshiftLL ptr (MOVWconst [c]) [d] val mem) => (MOVWstore [int32(uint32(c)<<uint64(d))] ptr val
mem)
(MOVWstoreshiftRL ptr (MOVWconst [c]) [d] val mem) => (MOVWstore [int32(uint32(c)>>uint64(d))] ptr val
mem)
(MOVWstoreshiftRA ptr (MOVWconst [c]) [d] val mem) => (MOVWstore [c>>uint64(d)] ptr val mem)

// generic simplifications
(ADD x (RSBconst [0] y)) => (SUB x y)
(ADD <↳ (RSBconst [c] x) (RSBconst [d] y)) => (RSBconst [c+d] (ADD <↳ x y))
(SUB x x) => (MOVWconst [0])
(RSB x x) => (MOVWconst [0])
(AND x x) => x
(OR x x) => x
(XOR x x) => (MOVWconst [0])
(BIC x x) => (MOVWconst [0])

(ADD (MUL x y) a) =>
(MULA x y a)
(SUB a (MUL x y)) && buildcfg.GOARM == 7 => (MULS x y a)
(RSB (MUL x y) a) && buildcfg.GOARM == 7 => (MULS x y a)

(NEGF (MULF x y)) && buildcfg.GOARM >= 6 => (NMULF x y)
(NEGD (MULD x y)) && buildcfg.GOARM >= 6 => (NMULD x y)
(MULF (NEGF x) y) && buildcfg.GOARM >= 6 => (NMULF x y)
(MULD (NEGD x) y) && buildcfg.GOARM >= 6 => (NMULD x y)
(NMULF (NEGF x) y) => (MULF x y)
(NMULD (NEGD x) y) => (MULD x y)

// the result will overwrite the addend, since they are in the same register
(ADDF a (MULF x y)) && a.Uses == 1 && buildcfg.GOARM >= 6 => (MULAF a x y)
(ADDF a (NMULF x y)) && a.Uses == 1 && buildcfg.GOARM >= 6 => (MULSF a x y)
(ADDD a (MULD x y)) && a.Uses == 1 && buildcfg.GOARM >= 6 => (MULAD a x y)
(ADDD a (NMULD x y)) && a.Uses == 1 && buildcfg.GOARM >= 6 => (MULSD a x y)
(SUBF a (MULF x y)) && a.Uses == 1 && buildcfg.GOARM >= 6 => (MULSF a x y)
(SUBF a (NMULF x y)) && a.Uses == 1 && buildcfg.GOARM >= 6 => (MULAF a x y)
(SUBD a (MULD x y)) && a.Uses == 1 && buildcfg.GOARM
>= 6 => (MULSD a x y)
(SUBD a (NMULD x y)) && a.Uses == 1 && buildcfg.GOARM >= 6 => (MULAD a x y)

(AND x (MVN y)) => (BIC x y)

```

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// simplification with *shift ops
(SUBshiftLL (SLLconst x [c]) x [c]) => (MOVWconst [0])
(SUBshiftRL (SRLconst x [c]) x [c]) => (MOVWconst [0])
(SUBshiftRA (SRAconst x [c]) x [c]) => (MOVWconst [0])
(RSBshiftLL (SLLconst x [c]) x [c]) => (MOVWconst [0])
(RSBshiftRL (SRLconst x [c]) x [c]) => (MOVWconst [0])
(RSBshiftRA (SRAconst x [c]) x [c]) => (MOVWconst [0])
(ANDshiftLL y:(SLLconst x [c]) x [c]) => y
(ANDshiftRL y:(SRLconst x [c]) x [c]) => y
(ANDshiftRA y:(SRAconst x [c]) x [c]) => y
(ORshiftLL y:(SLLconst x [c]) x [c]) => y
(ORshiftRL y:(SRLconst x [c]) x [c]) => y
(ORshiftRA y:(SRAconst x [c]) x [c]) => y
(XORshiftLL (SLLconst x [c]) x [c]) => (MOVWconst [0])
(XORshiftRL (SRLconst x [c]) x [c]) => (MOVWconst [0])
(XORshiftRA (SRAconst x [c]) x [c]) => (MOVWconst [0])
(BICshiftLL (SLLconst x [c]) x [c]) => (MOVWconst [0])
(BICshiftRL (SRLconst x [c])
x [c]) => (MOVWconst [0])
(BICshiftRA (SRAconst x [c]) x [c]) => (MOVWconst [0])
(AND x (MVNshiftLL y [c])) => (BICshiftLL x y [c])
(AND x (MVNshiftRL y [c])) => (BICshiftRL x y [c])
(AND x (MVNshiftRA y [c])) => (BICshiftRA x y [c])

// floating point optimizations
(CMPF x (MOVFconst [0])) => (CMPF0 x)
(CMPD x (MOVDconst [0])) => (CMPD0 x)

// bit extraction
(SRAconst (SLLconst x [c]) [d]) && buildcfg.GOARM==7 && uint64(d)>=uint64(c) && uint64(d)<=31 => (BFX
[(d-c)|(32-d)<<8] x)
(SRLconst (SLLconst x [c]) [d]) && buildcfg.GOARM==7 && uint64(d)>=uint64(c) && uint64(d)<=31 =>
(BFXU [(d-c)|(32-d)<<8] x)

// comparison simplification
((EQ|NE) (CMP x (RSBconst [0] y))) => ((EQ|NE) (CMN x y)) // sense of carry bit not preserved; see also #50854
((EQ|NE) (CMN x (RSBconst [0] y))) => ((EQ|NE) (CMP x y)) // sense of carry bit not preserved; see also #50864
(EQ (CMPconst [0] l:(SUB x y)) yes no) && l.Uses==1 => (EQ (CMP x y) yes no)
(EQ (CMPconst [0] l:(MULS x y a)) yes no) && l.Uses==1 => (EQ
(CMP a (MUL <x.Type> x y)) yes no)
(EQ (CMPconst [0] l:(SUBconst [c] x)) yes no) && l.Uses==1 => (EQ (CMPconst [c] x) yes no)
(EQ (CMPconst [0] l:(SUBshiftLL x y [c])) yes no) && l.Uses==1 => (EQ (CMPshiftLL x y [c]) yes no)
(EQ (CMPconst [0] l:(SUBshiftRL x y [c])) yes no) && l.Uses==1 => (EQ (CMPshiftRL x y [c]) yes no)
(EQ (CMPconst [0] l:(SUBshiftRA x y [c])) yes no) && l.Uses==1 => (EQ (CMPshiftRA x y [c]) yes no)
(EQ (CMPconst [0] l:(SUBshiftLLreg x y z)) yes no) && l.Uses==1 => (EQ (CMPshiftLLreg x y z) yes no)
(EQ (CMPconst [0] l:(SUBshiftRLreg x y z)) yes no) && l.Uses==1 => (EQ (CMPshiftRLreg x y z) yes no)
(EQ (CMPconst [0] l:(SUBshiftRAreg x y z)) yes no) && l.Uses==1 => (EQ (CMPshiftRAreg x y z) yes no)
(NE (CMPconst [0] l:(SUB x y)) yes no) && l.Uses==1 => (NE (CMP x y) yes no)

```


(TEQconst [c] x) yes no)

(EQ (CMPconst [0] l:(XORshiftLL x y [c])) yes no) && 1.Uses==1 => (EQ (TEQshiftLL x y [c]) yes no)

(EQ (CMPconst [0] l:(XORshiftRL x y [c])) yes no) && 1.Uses==1 => (EQ (TEQshiftRL x y [c]) yes no)

(EQ (CMPconst [0] l:(XORshiftRA x y [c])) yes no) && 1.Uses==1 => (EQ (TEQshiftRA x y [c]) yes no)

(EQ (CMPconst [0] l:(XORshiftLLreg x y z)) yes no) && 1.Uses==1 => (EQ (TEQshiftLLreg x y z) yes no)

(EQ (CMPconst [0] l:(XORshiftRLreg x y z)) yes no) && 1.Uses==1 => (EQ (TEQshiftRLreg x y z) yes no)

(EQ (CMPconst [0] l:(XORshiftRAreg x y z)) yes no) && 1.Uses==1 => (EQ (TEQshiftRAreg x y z) yes no)

(NE (CMPconst [0] l:(XOR x y)) yes no) && 1.Uses==1 => (NE (TEQ x y) yes no)

(NE (CMPconst [0] l:(XORconst [c] x)) yes no) && 1.Uses==1 => (NE (TEQconst [c] x) yes no)

(NE (CMPconst [0] l:(XORshiftLL x y [c])) yes no) && 1.Uses==1 => (NE (TEQshiftLL x y [c]) yes no)

(NE (CMPconst [0] l:(XORshiftRL x y [c])) yes no) && 1.Uses==1 => (NE (TEQshiftRL x y [c]) yes no)

(NE (CMPconst [0] l:(XORshiftRA x y [c])) yes no) && 1.Uses==1 => (NE (TEQshiftRA x y [c]) yes no)

(NE (CMPconst [0] l:(XORshiftLLreg x y z)) yes no) && 1.Uses==1 => (NE (TEQshiftLLreg x y z) yes no)

(NE (CMPconst [0] l:(XORshiftRLreg x y z)) yes no) && 1.Uses==1 => (NE (TEQshiftRLreg x y z) yes no)

(NE (CMPconst [0] l:(XORshiftRAreg x y z)) yes no) && 1.Uses==1 => (NE (TEQshiftRAreg x y z) yes no)

(LT (CMPconst [0] l:(SUB x y)) yes no) && 1.Uses==1 => (LTnoov (CMP x y) yes no)

(LT (CMPconst [0] l:(MULS x y a)) yes no) && 1.Uses==1 => (LTnoov (CMP a (MUL <x.Type> x y)) yes no)

(LT (CMPconst [0] l:(SUBconst [c] x)) yes no) && 1.Uses==1 => (LTnoov (CMPconst [c] x) yes no)

(LT (CMPconst [0] l:(SUBshiftLL x y [c])) yes no) && 1.Uses==1 => (LTnoov (CMPshiftLL x y [c]) yes no)

(LT (CMPconst [0] l:(SUBshiftRL x y [c])) yes no) && 1.Uses==1 => (LTnoov (CMPshiftRL x y [c]) yes no)

(LT (CMPconst [0] l:(SUBshiftRA x y [c])) yes no) && 1.Uses==1 => (LTnoov (CMPshiftRA x y [c]) yes no)

(LT (CMPconst [0] l:(SUBshiftLLreg x y z)) yes no) && 1.Uses==1 => (LTnoov (CMPshiftLLreg x y z) yes no)

(LT (CMPconst [0] l:(SUBshiftRLreg x y z)) yes no) && 1.Uses==1 => (LTnoov (CMPshiftRLreg x y z) yes no)

(LT (CMPconst [0] l:(SUBshiftRAreg x y z)) yes no) && 1.Uses==1 => (LTnoov (CMPshiftRAreg x y z) yes no)

(LE (CMPconst [0] l:(SUB x y)) yes no) && 1.Uses==1 => (LEnoov (CMP x y) yes no)

(LE (CMPconst [0] l:(MULS x y a)) yes no) && 1.Uses==1 => (LEnoov (CMP a (MUL <x.Type> x y)) yes no)

(LE (CMPconst [0] l:(SUBconst [c] x)) yes no) && 1.Uses==1 => (LEnoov (CMPconst [c] x) yes no)

(LE (CMPconst [0] l:(SUBshiftLL x y [c])) yes no) && 1.Uses==1 => (LEnoov (CMPshiftLL x y [c]) yes no)

(LE (CMPconst [0] l:(SUBshiftRL x y [c])) yes no) && 1.Uses==1 => (LEnoov (CMPshiftRL x y [c]) yes no)

(LE (CMPconst [0] l:(SUBshiftRA x y [c])) yes no) && 1.Uses==1 => (LEnoov (CMPshiftRA x y [c]) yes no)

(LE (CMPconst [0] l:(SUBshiftLLreg x y z)) yes no) && 1.Uses==1 => (LEnoov (CMPshiftLLreg x y z) yes no)

(LE (CMPconst [0] l:(SUBshiftRLreg x y z)) yes no) && 1.Uses==1 => (LEnoov (CMPshiftRLreg x y z) yes no)

(LE (CMPconst [0] l:(SUBshiftRAreg x y z)) yes no) && 1.Uses==1 => (LEnoov (CMPshiftRAreg x y z) yes no)

(LT (CMPconst [0] l:(ADD x y)) yes no) && 1.Uses==1 => (LTnoov (CMN x y) yes no)

(LT (CMPconst [0] l:(MULA x y a)) yes no) && 1.Uses==1 => (LTnoov (CMN a (MUL <x.Type> x y)) yes no)

(LT (CMPconst [0] l:(ADDconst [c] x)) yes no) && 1.Uses==1 => (LTnoov (CMNconst [c] x) yes no)

(LT (CMPconst [0] l:(ADDshiftLL x y [c])) yes no) && 1.Uses==1 => (LTnoov (CMNshiftLL x y [c]) yes no)

(LT (CMPconst [0] l:(ADDshiftRL x y [c])) yes no) && 1.Uses==1 => (LTnoov (CMNshiftRL x y [c]) yes no)

(LT (CMPconst [0] l:(ADDshiftRA x y [c])) yes no) && 1.Uses==1 => (LTnoov (CMNshiftRA x y [c]) yes no)

(LT (CMPconst [0] l:(ADDshiftLLreg x y z)) yes no) && 1.Uses==1 => (LTnoov (CMNshiftLLreg x y z) yes no)

(LT (CMPconst [0] l:(ADDshiftRLreg x y z)) yes no) && 1.Uses==1 => (LTnoov (CMNshiftRLreg x y z) yes no)

(LT (CMPconst [0] l:(ADDshiftRAreg x y z)) yes no) && 1.Uses==1 => (LTnoov (CMNshiftRAreg x y z) yes no)

(LE (CMPconst [0] l:(ADD x y)) yes no) && 1.Uses==1 => (LEnoov (CMN x y) yes no)

(LE (CMPconst [0] l:(MULA x y a)) yes no) && 1.Uses==1 => (LEnoov (CMN a (MUL <x.Type> x y)) yes no)


```

l:(ANDshiftRA x y [c])) yes no) && 1.Uses==1 => (GEnoov (TSTshiftRA x y [c]) yes no)
(GE (CMPconst [0] l:(ANDshiftLLreg x y z)) yes no) && 1.Uses==1 => (GEnoov (TSTshiftLLreg x y z) yes no)
(GE (CMPconst [0] l:(ANDshiftRLreg x y z)) yes no) && 1.Uses==1 => (GEnoov (TSTshiftRLreg x y z) yes no)
(GE (CMPconst [0] l:(ANDshiftRAreg x y z)) yes no) && 1.Uses==1 => (GEnoov (TSTshiftRAreg x y z) yes no)
(GT (CMPconst [0] l:(XOR x y)) yes no) && 1.Uses==1 => (GTnoov (TEQ x y) yes no)
(GT (CMPconst [0] l:(XORconst [c] x)) yes no) && 1.Uses==1 => (GTnoov (TEQconst [c] x) yes no)
(GT (CMPconst [0] l:(XORshiftLL x y [c])) yes no) && 1.Uses==1 => (GTnoov (TEQshiftLL x y [c]) yes no)
(GT (CMPconst [0] l:(XORshiftRL x y [c])) yes no) && 1.Uses==1 => (GTnoov (TEQshiftRL x y [c]) yes no)
(GT (CMPconst [0] l:(XORshiftRA x y [c])) yes no) && 1.Uses==1 => (GTnoov (TEQshiftRA x y [c]) yes no)
(GT (CMPconst [0] l:(XORshiftLLreg x y z)) yes no) && 1.Uses==1 => (GTnoov (TEQshiftLLreg x y z) yes no)
(GT (CMPconst
[0] l:(XORshiftRLreg x y z)) yes no) && 1.Uses==1 => (GTnoov (TEQshiftRLreg x y z) yes no)
(GT (CMPconst [0] l:(XORshiftRAreg x y z)) yes no) && 1.Uses==1 => (GTnoov (TEQshiftRAreg x y z) yes no)
(GE (CMPconst [0] l:(XOR x y)) yes no) && 1.Uses==1 => (GEnoov (TEQ x y) yes no)
(GE (CMPconst [0] l:(XORconst [c] x)) yes no) && 1.Uses==1 => (GEnoov (TEQconst [c] x) yes no)
(GE (CMPconst [0] l:(XORshiftLL x y [c])) yes no) && 1.Uses==1 => (GEnoov (TEQshiftLL x y [c]) yes no)
(GE (CMPconst [0] l:(XORshiftRL x y [c])) yes no) && 1.Uses==1 => (GEnoov (TEQshiftRL x y [c]) yes no)
(GE (CMPconst [0] l:(XORshiftRA x y [c])) yes no) && 1.Uses==1 => (GEnoov (TEQshiftRA x y [c]) yes no)
(GE (CMPconst [0] l:(XORshiftLLreg x y z)) yes no) && 1.Uses==1 => (GEnoov (TEQshiftLLreg x y z) yes no)
(GE (CMPconst [0] l:(XORshiftRLreg x y z)) yes no) && 1.Uses==1 => (GEnoov (TEQshiftRLreg x y z) yes no)
(GE (CMPconst [0] l:(XORshiftRAreg x y z)) yes no) && 1.Uses==1 => (GEnoov (TEQshiftRAreg x y z) yes no)

```

(MOVBULoad

```

[off] {sym} (SB _) && symIsRO(sym) => (MOVWconst [int32(read8(sym, int64(off)))]))
(MOVHULoad [off] {sym} (SB _) && symIsRO(sym) => (MOVWconst [int32(read16(sym, int64(off),
config.ctx.Arch.ByteOrder))]))
(MOVWload [off] {sym} (SB _) && symIsRO(sym) => (MOVWconst [int32(read32(sym, int64(off),
config.ctx.Arch.ByteOrder))]))

```

Found in path(s):

```

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/ARM.rules
No license file was found, but licenses were detected in source scan.

```

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Found in path(s):

```

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/cover.bash
No license file was found, but licenses were detected in source scan.

```

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Found in path(s):

```

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/test/testdata/gen/cmpConstGen.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/softfloat.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/magic_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/testdata/hist.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/branches.go

```

```

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/looprotate.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/bitset.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/dwarfgen/dwinl.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/type.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/gc/pprof.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/scope.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/debug_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/branchelim.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/gc/bootstrap.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/cache.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/testdata/scopes.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/test/reproduciblebuilds_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/pkg.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/sizeof_test.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/decls5.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/debug.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/dwarfgen/scope.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/utils.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/branchelim_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/sym.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/inl_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/truncconst_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/nodes_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/importer/testdata/issue20046.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/cycles5.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/test/testdata/reproducible/issue20272.go
No license file was found, but licenses were detected in source scan.

```

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Found in path(s):

```

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/phielim.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/short_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/deadcode_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/block.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/global_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/func.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/decOps.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/location.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/example_test.go

```

```

*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/test/testdata/deferNoReturn_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/AMD64Ops.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/regalloc.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/assert_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/dom_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/importer/support.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/arith_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/chan_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/decompose.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/export_test.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/tighten.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/fuse.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/config.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/ctl_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/lower.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/opt.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/op.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/critical.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/test/testdata/compound_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/map_test.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/rewrite.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/main.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/flagalloc.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/nilcheck.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/passbm_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/compile.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/rulegen.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/sparsetree.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/importC.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/test/testdata/loadstore_test.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/string_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/fp_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/break_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/html.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/regalloc_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/unsafe_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/append_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/sparsemap.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/layout.go
*

```

```

/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/cmp_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/regalloc_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/deadstore.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/ssa_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/print.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/check.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/genericOps.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/sym_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/func_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/id.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/sparseset.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/stackalloc.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/gc/util.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/main.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/cse.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/gen/zeroGen.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/deadstore_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/copyelim.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/deadcode.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/closure_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/test/testdata/addressed_test.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/schedule.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/gen/copyGen.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/bexport.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/shift_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/schedule_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/dom.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/test/testdata/gen/arithBoundaryGen.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssagen/ssa.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/value.go
No license file was found, but licenses were detected in source scan.

```

```

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// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.

```

```

// Lowering arithmetic
(Add(64|32|16|8) ...) => (ADD(Q|L|L|L) ...)
(AddPtr ...) => (ADDQ ...)
(Add(32|64)F ...) => (ADDS(S|D) ...)

```

```

(Sub(64|32|16|8) ...) => (SUB(Q|L|L|L) ...)
(SubPtr ...) => (SUBQ ...)
(Sub(32|64)F ...) => (SUBS(S|D) ...)

```

```

(Mul(64|32|16|8) ...) => (MUL(Q|L|L|L) ...)
(Mul(32|64)F ...) => (MULS(S|D) ...)

(Select0 (Mul64uover x y)) => (Select0 <typ.UInt64> (MULQU x y))
(Select0 (Mul32uover x y)) => (Select0 <typ.UInt32> (MULLU x y))
(Select1 (Mul(64|32)uover x y)) => (SETO (Select1 <types.TypeFlags> (MUL(Q|L)U x y)))

(Hmul(64|32) ...) => (HMUL(Q|L) ...)
(Hmul(64|32)u ...) => (HMUL(Q|L)U ...)

(Div(64|32|16) [a] x y) => (Select0 (DIV(Q|L|W) [a] x y))
(Div8 x y) => (Select0 (DIVW (SignExt8to16 x) (SignExt8to16 y)))
(Div(64|32|16)u x y) => (Select0
  (DIV(Q|L|W)U x y))
(Div8u x y) => (Select0 (DIVWU (ZeroExt8to16 x) (ZeroExt8to16 y)))
(Div(32|64)F ...) => (DIVS(S|D) ...)

(Select0 (Add64carry x y c)) =>
  (Select0 <typ.UInt64> (ADCQ x y (Select1 <types.TypeFlags> (NEGLflags c))))
(Select1 (Add64carry x y c)) =>
  (NEGQ <typ.UInt64> (SBBQcarrymask <typ.UInt64> (Select1 <types.TypeFlags> (ADCQ x y (Select1
  <types.TypeFlags> (NEGLflags c))))))
(Select0 (Sub64borrow x y c)) =>
  (Select0 <typ.UInt64> (SBBQ x y (Select1 <types.TypeFlags> (NEGLflags c))))
(Select1 (Sub64borrow x y c)) =>
  (NEGQ <typ.UInt64> (SBBQcarrymask <typ.UInt64> (Select1 <types.TypeFlags> (SBBQ x y (Select1
  <types.TypeFlags> (NEGLflags c))))))

// Optimize ADCQ and friends
(ADCQ x (MOVQconst [c] carry) && is32Bit(c)) => (ADCQconst x [int32(c)] carry)
(ADCQ x y (FlagEQ)) => (ADDQcarry x y)
(ADCQconst x [c] (FlagEQ)) => (ADDQconstcarry x [c])
(ADDQcarry x (MOVQconst [c])) && is32Bit(c) => (ADDQconstcarry x [int32(c)])
(SBBQ x (MOVQconst [c] borrow) && is32Bit(c)) =>
  (SBBQconst x [int32(c)] borrow)
(SBBQ x y (FlagEQ)) => (SUBQborrow x y)
(SBBQconst x [c] (FlagEQ)) => (SUBQconstborrow x [c])
(SUBQborrow x (MOVQconst [c])) && is32Bit(c) => (SUBQconstborrow x [int32(c)])
(Select1 (NEGLflags (MOVQconst [0]))) => (FlagEQ)
(Select1 (NEGLflags (NEGQ (SBBQcarrymask x)))) => x

(Mul64uhilo ...) => (MULQU2 ...)
(Div128u ...) => (DIVQU2 ...)

(Avg64u ...) => (AVGQU ...)

```

```

(Mod(64|32|16) [a] x y) => (Select1 (DIV(Q|L|W) [a] x y))
(Mod8 x y) => (Select1 (DIVW (SignExt8to16 x) (SignExt8to16 y)))
(Mod(64|32|16)u x y) => (Select1 (DIV(Q|L|W)U x y))
(Mod8u x y) => (Select1 (DIVWU (ZeroExt8to16 x) (ZeroExt8to16 y)))

(And(64|32|16|8) ...) => (AND(Q|L|L|L) ...)
(Or(64|32|16|8) ...) => (OR(Q|L|L|L) ...)
(Xor(64|32|16|8) ...) => (XOR(Q|L|L|L) ...)
(Com(64|32|16|8) ...) => (NOT(Q|L|L|L) ...)

(Neg(64|32|16|8) ...) => (NEG(Q|L|L|L) ...)
(Neg32F x) => (PXOR x (MOVSSconst <typ.Float32> [float32(math.Copysign(0, -1))]))
(Neg64F x) => (PXOR x (MOVSDconst <typ.Float64> [math.Copysign(0,
-1)]))

// Lowering boolean ops
(AndB ...) => (ANDL ...)
(OrB ...) => (ORL ...)
(Not x) => (XORLconst [1] x)

// Lowering pointer arithmetic
(OffPtr [off] ptr) && is32Bit(off) => (ADDQconst [int32(off)] ptr)
(OffPtr [off] ptr) => (ADDQ (MOVQconst [off]) ptr)

// Lowering other arithmetic
(Ctz64 x) && buildcfg.GOAMD64 >= 3 => (TZCNTQ x)
(Ctz32 x) && buildcfg.GOAMD64 >= 3 => (TZCNTL x)
(Ctz64 <t> x) && buildcfg.GOAMD64 < 3 => (CMOVQEQ (Select0 <t> (BSFQ x)) (MOVQconst <t> [64])
(Select1 <types.TypeFlags> (BSFQ x)))
(Ctz32 x) && buildcfg.GOAMD64 < 3 => (Select0 (BSFQ (BTSQconst <typ.UInt64> [32] x)))
(Ctz16 x) => (BSFL (BTS�const <typ.UInt32> [16] x))
(Ctz8 x) => (BSFL (BTS�const <typ.UInt32> [ 8] x))

(Ctz64NonZero x) && buildcfg.GOAMD64 >= 3 => (TZCNTQ x)
(Ctz32NonZero x) && buildcfg.GOAMD64 >= 3 => (TZCNTL x)
(Ctz16NonZero x) && buildcfg.GOAMD64 >= 3 => (TZCNTL x)
(Ctz8NonZero x) && buildcfg.GOAMD64 >= 3 => (TZCNTL x)
(Ctz64NonZero x) && buildcfg.GOAMD64
< 3 => (Select0 (BSFQ x))
(Ctz32NonZero x) && buildcfg.GOAMD64 < 3 => (BSFL x)
(Ctz16NonZero x) && buildcfg.GOAMD64 < 3 => (BSFL x)
(Ctz8NonZero x) && buildcfg.GOAMD64 < 3 => (BSFL x)

// BitLen64 of a 64 bit value x requires checking whether x == 0, since BSRQ is undefined when x == 0.
// However, for zero-extended values, we can cheat a bit, and calculate
// BSR(x<<1 + 1), which is guaranteed to be non-zero, and which conveniently
// places the index of the highest set bit where we want it.
// For GOAMD64>=3, BitLen can be calculated by OperandSize - LZCNT(x).

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```

(BitLen64 <t> x) && buildcfg.GOAMD64 < 3 => (ADDQconst [1] (CMOVQEQ <t> (Select0 <t> (BSRQ x))
(MOVQconst <t> [-1]) (Select1 <types.TypeFlags> (BSRQ x))))
(BitLen32 x) && buildcfg.GOAMD64 < 3 => (Select0 (BSRQ (LEAQ1 <typ.UInt64> [1] (MOVLQZX
<typ.UInt64> x) (MOVLQZX <typ.UInt64> x))))
(BitLen16 x) && buildcfg.GOAMD64 < 3 => (BSRL (LEAL1 <typ.UInt32> [1] (MOVWQZX <typ.UInt32> x)
(MOVWQZX <typ.UInt32> x)))
(BitLen8 x) &&
buildcfg.GOAMD64 < 3 => (BSRL (LEAL1 <typ.UInt32> [1] (MOVBQZX <typ.UInt32> x) (MOVBQZX
<typ.UInt32> x)))
(BitLen64 <t> x) && buildcfg.GOAMD64 >= 3 => (NEGQ (ADDQconst <t> [-64] (LZCNTQ x)))
// Use 64-bit version to allow const-fold remove unnecessary arithmetic.
(BitLen32 <t> x) && buildcfg.GOAMD64 >= 3 => (NEGQ (ADDQconst <t> [-32] (LZCNTL x)))
(BitLen16 <t> x) && buildcfg.GOAMD64 >= 3 => (NEGQ (ADDQconst <t> [-32] (LZCNTL (MOVWQZX
<x.Type> x))))
(BitLen8 <t> x) && buildcfg.GOAMD64 >= 3 => (NEGQ (ADDQconst <t> [-32] (LZCNTL (MOVBQZX
<x.Type> x))))

(Bswap(64|32) ...) => (BSWAP(Q)L ...)

(PopCount(64|32) ...) => (POPCNT(Q)L ...)
(PopCount16 x) => (POPCNTL (MOVWQZX <typ.UInt32> x))
(PopCount8 x) => (POPCNTL (MOVBQZX <typ.UInt32> x))

(Sqrt ...) => (SQRTSD ...)
(Sqrt32 ...) => (SQRTSS ...)

(RoundToEven x) => (ROUNDSD [0] x)
(Floor x) => (ROUNDSD [1] x)
(Ceil x) => (ROUNDSD [2] x)
(Trunc x) => (ROUNDSD [3] x)

(FMA x y z) => (VFMADD231SD z x y)

// Lowering
extension
// Note: we always extend to 64 bits even though some ops don't need that many result bits.
(SignExt8to16 ...) => (MOVBQZX ...)
(SignExt8to32 ...) => (MOVBQZX ...)
(SignExt8to64 ...) => (MOVBQZX ...)
(SignExt16to32 ...) => (MOVWQZX ...)
(SignExt16to64 ...) => (MOVWQZX ...)
(SignExt32to64 ...) => (MOVLQZX ...)

(ZeroExt8to16 ...) => (MOVBQZX ...)
(ZeroExt8to32 ...) => (MOVBQZX ...)
(ZeroExt8to64 ...) => (MOVBQZX ...)
(ZeroExt16to32 ...) => (MOVWQZX ...)
(ZeroExt16to64 ...) => (MOVWQZX ...)

```


(ZeroExt32to64 ...) => (MOVLQZX ...)

(Slicemask <t> x) => (SARQconst (NEGQ <t> x) [63])

(SpectreIndex <t> x y) => (CMOVQCC x (MOVQconst [0]) (CMPQ x y))

(SpectreSliceIndex <t> x y) => (CMOVQHI x (MOVQconst [0]) (CMPQ x y))

// Lowering truncation

// Because we ignore high parts of registers, truncates are just copies.

(Trunc16to8 ...) => (Copy ...)

(Trunc32to8 ...) => (Copy ...)

(Trunc32to16 ...) => (Copy ...)

(Trunc64to8 ...) => (Copy ...)

(Trunc64to16 ...) => (Copy ...)

(Trunc64to32

...) => (Copy ...)

// Lowering float <-> int

(Cvt32to32F ...) => (CVTSL2SS ...)

(Cvt32to64F ...) => (CVTSL2SD ...)

(Cvt64to32F ...) => (CVTSQ2SS ...)

(Cvt64to64F ...) => (CVTSQ2SD ...)

(Cvt32Fto32 ...) => (CVTTSS2SL ...)

(Cvt32Fto64 ...) => (CVTTSS2SQ ...)

(Cvt64Fto32 ...) => (CVTTSD2SL ...)

(Cvt64Fto64 ...) => (CVTTSD2SQ ...)

(Cvt32Fto64F ...) => (CVTSS2SD ...)

(Cvt64Fto32F ...) => (CVTSD2SS ...)

(Round(32|64)F ...) => (Copy ...)

(CvtBoolToUInt8 ...) => (Copy ...)

// Lowering shifts

// Unsigned shifts need to return 0 if shift amount is >= width of shifted value.

// result = (arg << shift) & (shift >= argbits ? 0 : 0xfffffffffffff)

(Lsh64x(64|32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDQ (SHLQ <t> x y) (SBBQcarrymask <t>
(CMP(Q|L|W|B)const y [64])))

(Lsh32x(64|32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDL (SHLL <t> x y) (SBBLcarrymask <t>
(CMP(Q|L|W|B)const y [32])))

(Lsh16x(64|32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDL (SHLL <t> x y) (SBBLcarrymask <t>
(CMP(Q|L|W|B)const
y [32])))

(Lsh8x(64|32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDL (SHLL <t> x y) (SBBLcarrymask <t>
(CMP(Q|L|W|B)const y [32])))

```

(Lsh64x(64|32|16|8) x y) && shiftIsBounded(v) => (SHLQ x y)
(Lsh32x(64|32|16|8) x y) && shiftIsBounded(v) => (SHLL x y)
(Lsh16x(64|32|16|8) x y) && shiftIsBounded(v) => (SHLL x y)
(Lsh8x(64|32|16|8) x y) && shiftIsBounded(v) => (SHLL x y)

(Rsh64Ux(64|32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDQ (SHRQ <t> x y) (SBBQcarrymask <t>
(CMP(Q|L|W|B)const y [64])))
(Rsh32Ux(64|32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDL (SHRL <t> x y) (SBBLcarrymask <t>
(CMP(Q|L|W|B)const y [32])))
(Rsh16Ux(64|32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDL (SHRW <t> x y) (SBBLcarrymask <t>
(CMP(Q|L|W|B)const y [16])))
(Rsh8Ux(64|32|16|8) <t> x y) && !shiftIsBounded(v) => (ANDL (SHRB <t> x y) (SBBLcarrymask <t>
(CMP(Q|L|W|B)const y [8])))

(Rsh64Ux(64|32|16|8) x y) && shiftIsBounded(v) => (SHRQ x y)
(Rsh32Ux(64|32|16|8) x y) && shiftIsBounded(v) =>
(SHRL x y)
(Rsh16Ux(64|32|16|8) x y) && shiftIsBounded(v) => (SHRW x y)
(Rsh8Ux(64|32|16|8) x y) && shiftIsBounded(v) => (SHRB x y)

// Signed right shift needs to return 0/-1 if shift amount is >= width of shifted value.
// We implement this by setting the shift value to -1 (all ones) if the shift value is >= width.
(Rsh64x(64|32|16|8) <t> x y) && !shiftIsBounded(v) => (SARQ <t> x (OR(Q|L|L|L) <y.Type> y (NOT(Q|L|L|L)
<y.Type> (SBB(Q|L|L|L)carrymask <y.Type> (CMP(Q|L|W|B)const y [64])))))
(Rsh32x(64|32|16|8) <t> x y) && !shiftIsBounded(v) => (SARL <t> x (OR(Q|L|L|L) <y.Type> y (NOT(Q|L|L|L)
<y.Type> (SBB(Q|L|L|L)carrymask <y.Type> (CMP(Q|L|W|B)const y [32])))))
(Rsh16x(64|32|16|8) <t> x y) && !shiftIsBounded(v) => (SARW <t> x (OR(Q|L|L|L) <y.Type> y (NOT(Q|L|L|L)
<y.Type> (SBB(Q|L|L|L)carrymask <y.Type> (CMP(Q|L|W|B)const y [16])))))
(Rsh8x(64|32|16|8) <t> x y) && !shiftIsBounded(v) => (SARB <t> x (OR(Q|L|L|L) <y.Type> y (NOT(Q|L|L|L)
<y.Type> (SBB(Q|L|L|L)carrymask <y.Type> (CMP(Q|L|W|B)const
y [8])))))

(Rsh64x(64|32|16|8) x y) && shiftIsBounded(v) => (SARQ x y)
(Rsh32x(64|32|16|8) x y) && shiftIsBounded(v) => (SARL x y)
(Rsh16x(64|32|16|8) x y) && shiftIsBounded(v) => (SARW x y)
(Rsh8x(64|32|16|8) x y) && shiftIsBounded(v) => (SARB x y)

// Prefer SARX/SHLX/SHRX instruction because it has less register restriction on the shift input.
(SAR(Q|L) x y) && buildcfg.GOAMD64 >= 3 => (SARX(Q|L) x y)
(SHL(Q|L) x y) && buildcfg.GOAMD64 >= 3 => (SHLX(Q|L) x y)
(SHR(Q|L) x y) && buildcfg.GOAMD64 >= 3 => (SHRX(Q|L) x y)

// Lowering integer comparisons
(Less(64|32|16|8) x y) => (SETL (CMP(Q|L|W|B) x y))
(Less(64|32|16|8)U x y) => (SETB (CMP(Q|L|W|B) x y))
(Leq(64|32|16|8) x y) => (SETLE (CMP(Q|L|W|B) x y))
(Leq(64|32|16|8)U x y) => (SETBE (CMP(Q|L|W|B) x y))
(Eq(Ptr[64|32|16|8]B) x y) => (SETEQ (CMP(Q|L|W|B) x y))

```

```

(Neq(Ptr|64|32|16|8|B) x y) => (SETNE (CMP(Q|Q|L|W|B|B) x y))

// Lowering floating point comparisons
// Note Go assembler
gets UCOMISx operand order wrong, but it is right here
// and the operands are reversed when generating assembly language.
(Eq(32|64)F x y) => (SETEQF (UCOMIS(S|D) x y))
(Neq(32|64)F x y) => (SETNEF (UCOMIS(S|D) x y))
// Use SETGF/SETGEF with reversed operands to dodge NaN case.
(Less(32|64)F x y) => (SETGF (UCOMIS(S|D) y x))
(Leq(32|64)F x y) => (SETGEF (UCOMIS(S|D) y x))

// Lowering loads
(Load <T> ptr mem) && (is64BitInt(t) || isPtr(t)) => (MOVQload ptr mem)
(Load <T> ptr mem) && is32BitInt(t) => (MOVLload ptr mem)
(Load <T> ptr mem) && is16BitInt(t) => (MOVWload ptr mem)
(Load <T> ptr mem) && (t.IsBoolean() || is8BitInt(t)) => (MOVBload ptr mem)
(Load <T> ptr mem) && is32BitFloat(t) => (MOVSSload ptr mem)
(Load <T> ptr mem) && is64BitFloat(t) => (MOVSDload ptr mem)

// Lowering stores
// These more-specific FP versions of Store pattern should come first.
(Store {t} ptr val mem) && t.Size() == 8 && is64BitFloat(val.Type) => (MOVSDstore ptr val mem)
(Store {t} ptr val mem)
&& t.Size() == 4 && is32BitFloat(val.Type) => (MOVSSstore ptr val mem)

(Store {t} ptr val mem) && t.Size() == 8 => (MOVQstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 => (MOVLstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 2 => (MOVWstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 1 => (MOVBstore ptr val mem)

// Lowering moves
(Move [0] _ _ mem) => mem
(Move [1] dst src mem) => (MOVBstore dst (MOVBload src mem) mem)
(Move [2] dst src mem) => (MOVWstore dst (MOVWload src mem) mem)
(Move [4] dst src mem) => (MOVLstore dst (MOVLload src mem) mem)
(Move [8] dst src mem) => (MOVQstore dst (MOVQload src mem) mem)
(Move [16] dst src mem) && config.useSSE => (MOVQstore dst (MOVQload src mem) mem)
(Move [16] dst src mem) && !config.useSSE =>
(MOVQstore [8] dst (MOVQload [8] src mem)
(MOVQstore dst (MOVQload src mem) mem))

(Move [32] dst src mem) =>
(Move [16]
(OffPtr <dst.Type> dst [16])
(OffPtr <src.Type> src [16])
(Move [16] dst src mem))

```

```

(Move
[48] dst src mem) && config.useSSE =>
(Move [32]
(OffPtr <dst.Type> dst [16])
(OffPtr <src.Type> src [16])
(Move [16] dst src mem))

(Move [64] dst src mem) && config.useSSE =>
(Move [32]
(OffPtr <dst.Type> dst [32])
(OffPtr <src.Type> src [32])
(Move [32] dst src mem))

(Move [3] dst src mem) =>
(MOVBstore [2] dst (MOVBload [2] src mem)
(MOVWstore dst (MOVWload src mem) mem))
(Move [5] dst src mem) =>
(MOVBstore [4] dst (MOVBload [4] src mem)
(MOVLstore dst (MOVLload src mem) mem))
(Move [6] dst src mem) =>
(MOVWstore [4] dst (MOVWload [4] src mem)
(MOVLstore dst (MOVLload src mem) mem))
(Move [7] dst src mem) =>
(MOVLstore [3] dst (MOVLload [3] src mem)
(MOVLstore dst (MOVLload src mem) mem))
(Move [9] dst src mem) =>
(MOVBstore [8] dst (MOVBload [8] src mem)
(MOVQstore dst (MOVQload src mem) mem))
(Move [10] dst src mem) =>
(MOVWstore [8] dst (MOVWload [8] src mem)
(MOVQstore dst (MOVQload src mem) mem))
(Move [12] dst src mem) =>
(MOVLstore [8] dst
(MOVLload [8] src mem)
(MOVQstore dst (MOVQload src mem) mem))
(Move [s] dst src mem) && s == 11 || s >= 13 && s <= 15 =>
(MOVQstore [int32(s-8)] dst (MOVQload [int32(s-8)] src mem)
(MOVQstore dst (MOVQload src mem) mem))

// Adjust moves to be a multiple of 16 bytes.
(Move [s] dst src mem)
&& s > 16 && s%16 != 0 && s%16 <= 8 =>
(Move [s-s%16]
(OffPtr <dst.Type> dst [s%16])
(OffPtr <src.Type> src [s%16])
(MOVQstore dst (MOVQload src mem) mem))
(Move [s] dst src mem)
&& s > 16 && s%16 != 0 && s%16 > 8 && config.useSSE =>

```

```

(Move [s-s%16]
 (OffPtr <dst.Type> dst [s%16])
 (OffPtr <src.Type> src [s%16])
 (MOVOSTore dst (MOVOLoad src mem) mem))
(Move [s] dst src mem)
&& s > 16 && s%16 != 0 && s%16 > 8 && !config.useSSE =>
(Move [s-s%16]
 (OffPtr <dst.Type> dst [s%16])
 (OffPtr <src.Type> src [s%16])
 (MOVQStore [8] dst (MOVQLoad [8] src mem)
 (MOVQStore dst (MOVQLoad src mem) mem)))

// Medium copying uses a duff device.
(Move [s] dst src mem)
&& s > 64 && s <= 16*64
&& s%16 == 0
&& !config.noDuffDevice && logLargeCopy(v, s) =>
(DUFFCOPY [s] dst src mem)

// Large copying uses REP MOVSQ.
(Move [s] dst src mem) && (s > 16*64 || config.noDuffDevice) && s%8 == 0 && logLargeCopy(v, s) =>
(REPMOVSQ dst src (MOVQconst [s/8]) mem)

// Lowering Zero instructions
(Zero [0] _ mem) => mem
(Zero [1] destptr mem) => (MOVBstoreconst [makeValAndOff(0,0)] destptr mem)
(Zero [2] destptr mem) => (MOVWstoreconst [makeValAndOff(0,0)] destptr mem)
(Zero [4] destptr mem) => (MOVLstoreconst [makeValAndOff(0,0)] destptr mem)
(Zero [8] destptr mem) => (MOVQstoreconst [makeValAndOff(0,0)] destptr mem)

(Zero [3] destptr mem) =>
(MOVBstoreconst [makeValAndOff(0,2)] destptr
 (MOVWstoreconst [makeValAndOff(0,0)] destptr mem))
(Zero [5] destptr mem) =>
(MOVBstoreconst [makeValAndOff(0,4)] destptr
 (MOVLstoreconst [makeValAndOff(0,0)] destptr mem))
(Zero [6] destptr mem) =>
(MOVWstoreconst [makeValAndOff(0,4)] destptr
 (MOVLstoreconst [makeValAndOff(0,0)] destptr mem))
(Zero
 [7] destptr mem) =>
(MOVLstoreconst [makeValAndOff(0,3)] destptr
 (MOVLstoreconst [makeValAndOff(0,0)] destptr mem))

// Strip off any fractional word zeroing.
(Zero [s] destptr mem) && s%8 != 0 && s > 8 && !config.useSSE =>
(Zero [s-s%8] (OffPtr <destptr.Type> destptr [s%8])
 (MOVQstoreconst [makeValAndOff(0,0)] destptr mem))

```

```

// Zero small numbers of words directly.
(Zero [16] destptr mem) && !config.useSSE =>
(MOVQstoreconst [makeValAndOff(0,8)] destptr
 (MOVQstoreconst [makeValAndOff(0,0)] destptr mem))
(Zero [24] destptr mem) && !config.useSSE =>
(MOVQstoreconst [makeValAndOff(0,16)] destptr
 (MOVQstoreconst [makeValAndOff(0,8)] destptr
 (MOVQstoreconst [makeValAndOff(0,0)] destptr mem)))
(Zero [32] destptr mem) && !config.useSSE =>
(MOVQstoreconst [makeValAndOff(0,24)] destptr
 (MOVQstoreconst [makeValAndOff(0,16)] destptr
 (MOVQstoreconst [makeValAndOff(0,8)] destptr
 (MOVQstoreconst [makeValAndOff(0,0)] destptr mem))))

(Zero [s] destptr mem) && s > 8 &&
s < 16 && config.useSSE =>
(MOVQstoreconst [makeValAndOff(0,int32(s-8))] destptr
 (MOVQstoreconst [makeValAndOff(0,0)] destptr mem))

// Adjust zeros to be a multiple of 16 bytes.
(Zero [s] destptr mem) && s%16 != 0 && s > 16 && s%16 > 8 && config.useSSE =>
(Zero [s-s%16] (OffPtr <destptr.Type> destptr [s%16])
 (MOVQstoreconst [makeValAndOff(0,0)] destptr mem))

(Zero [s] destptr mem) && s%16 != 0 && s > 16 && s%16 <= 8 && config.useSSE =>
(Zero [s-s%16] (OffPtr <destptr.Type> destptr [s%16])
 (MOVQstoreconst [makeValAndOff(0,0)] destptr mem))

(Zero [16] destptr mem) && config.useSSE =>
(MOVQstoreconst [makeValAndOff(0,0)] destptr mem)
(Zero [32] destptr mem) && config.useSSE =>
(MOVQstoreconst [makeValAndOff(0,16)] destptr
 (MOVQstoreconst [makeValAndOff(0,0)] destptr mem))
(Zero [48] destptr mem) && config.useSSE =>
(MOVQstoreconst [makeValAndOff(0,32)] destptr
 (MOVQstoreconst [makeValAndOff(0,16)] destptr
 (MOVQstoreconst [makeValAndOff(0,0)] destptr mem)))
(Zero [64]
 destptr mem) && config.useSSE =>
(MOVQstoreconst [makeValAndOff(0,48)] destptr
 (MOVQstoreconst [makeValAndOff(0,32)] destptr
 (MOVQstoreconst [makeValAndOff(0,16)] destptr
 (MOVQstoreconst [makeValAndOff(0,0)] destptr mem))))

// Medium zeroing uses a duff device.
(Zero [s] destptr mem)
&& s > 64 && s <= 1024 && s%16 == 0 && !config.noDuffDevice =>

```

```

(DUFFZERO [s] destptr mem)

// Large zeroing uses REP STOSQ.
(Zero [s] destptr mem)
&& (s > 1024 || (config.noDuffDevice && s > 64 || !config.useSSE && s > 32))
&& s%8 == 0 =>
(REPSTOSQ destptr (MOVQconst [s/8]) (MOVQconst [0]) mem)

// Lowering constants
(Const8 [c]) => (MOVLconst [int32(c)])
(Const16 [c]) => (MOVLconst [int32(c)])
(Const32 ...) => (MOVLconst ...)
(Const64 ...) => (MOVQconst ...)
(Const32F ...) => (MOVSSconst ...)
(Const64F ...) => (MOVSDconst ...)
(ConstNil ) => (MOVQconst [0])
(ConstBool [c]) => (MOVLconst [b2i32(c)])

// Lowering calls
(StaticCall ...) => (CALLstatic ...)
(ClosureCall ...) => (CALLclosure ...)
(InterCall ...) => (CALLinter ...)
(TailCall ...) => (CALLtail ...)

// Lowering conditional moves
// If the condition is a SETxx, we can just run a CMOV from the comparison that was
// setting the flags.
// Legend: HI=unsigned ABOVE, CS=unsigned BELOW, CC=unsigned ABOVE EQUAL, LS=unsigned BELOW
EQUAL
(CondSelect <t> x y (SET(EQ|NE|L|G|LE|GE|A|B|AE|BE|EQF|NEF|GF|GEF) cond)) && (is64BitInt(t) || isPtr(t))
=> (CMOVQ(EQ|NE|LT|GT|LE|GE|HI|CS|CC|LS|EQF|NEF|GTF|GEF) y x cond)
(CondSelect <t> x y (SET(EQ|NE|L|G|LE|GE|A|B|AE|BE|EQF|NEF|GF|GEF) cond)) && is32BitInt(t)
=> (CMOVL(EQ|NE|LT|GT|LE|GE|HI|CS|CC|LS|EQF|NEF|GTF|GEF) y x cond)
(CondSelect <t> x y (SET(EQ|NE|L|G|LE|GE|A|B|AE|BE|EQF|NEF|GF|GEF) cond)) && is16BitInt(t)
=> (CMOVW(EQ|NE|LT|GT|LE|GE|HI|CS|CC|LS|EQF|NEF|GTF|GEF) y x cond)

// If the condition does not set the flags, we need to generate a comparison.
(CondSelect <t> x y check) && !check.Type.IsFlags() && check.Type.Size() == 1
=> (CondSelect <t> x y
(MOVQBZX <typ.UInt64> check))
(CondSelect <t> x y check) && !check.Type.IsFlags() && check.Type.Size() == 2
=> (CondSelect <t> x y (MOVWQZX <typ.UInt64> check))
(CondSelect <t> x y check) && !check.Type.IsFlags() && check.Type.Size() == 4
=> (CondSelect <t> x y (MOVLQZX <typ.UInt64> check))

(CondSelect <t> x y check) && !check.Type.IsFlags() && check.Type.Size() == 8 && (is64BitInt(t) || isPtr(t))
=> (CMOVQNE y x (CMPQconst [0] check))

```

```

(CondSelect <t> x y check) && !check.Type.IsFlags() && check.Type.Size() == 8 && is32BitInt(t)
=> (CMOVLNE y x (CMPQconst [0] check))
(CondSelect <t> x y check) && !check.Type.IsFlags() && check.Type.Size() == 8 && is16BitInt(t)
=> (CMOVWNE y x (CMPQconst [0] check))

// Absorb InvertFlags
(CMOVQ(EQ|NE|LT|GT|LE|GE|HI|CS|CC|LS) x y (InvertFlags cond))
=> (CMOVQ(EQ|NE|GT|LT|GE|LE|CS|HI|LS|CC) x y cond)
(CMOVL(EQ|NE|LT|GT|LE|GE|HI|CS|CC|LS) x y (InvertFlags cond))
=> (CMOVL(EQ|NE|GT|LT|GE|LE|CS|HI|LS|CC) x y cond)
(CMOVW(EQ|NE|LT|GT|LE|GE|HI|CS|CC|LS)
x y (InvertFlags cond))
=> (CMOVW(EQ|NE|GT|LT|GE|LE|CS|HI|LS|CC) x y cond)

// Absorb constants generated during lower
(CMOV(QEQ|QLE|QGE|QCC|QLS|LEQ|LLE|LGE|LCC|LLS|WEQ|WLE|WGE|WCC|WLS) _ x (FlagEQ)) => x
(CMOV(QNE|QLT|QGT|QCS|QHI|LNE|LLT|LGT|LCS|LHI|WNE|WLT|WGT|WCS|WHI) y _ (FlagEQ)) => y
(CMOV(QNE|QGT|QGE|QHI|QCC|LNE|LGT|LGE|LHI|LCC|WNE|WGT|WGE|WHI|WCC) _ x (FlagGT_UGT))
=> x
(CMOV(QEQ|QLE|QLT|QLS|QCS|LEQ|LLE|LLT|LLS|LCS|WEQ|WLE|WLT|WLS|WCS) y _ (FlagGT_UGT)) =>
y
(CMOV(QNE|QGT|QGE|QLS|QCS|LNE|LGT|LGE|LLS|LCS|WNE|WGT|WGE|WLS|WCS) _ x (FlagGT_ULT))
=> x
(CMOV(QEQ|QLE|QLT|QHI|QCC|LEQ|LLE|LLT|LHI|LCC|WEQ|WLE|WLT|WHI|WCC) y _ (FlagGT_ULT)) =>
y
(CMOV(QNE|QLT|QLE|QCS|QLS|LNE|LLT|LLE|LCS|LLS|WNE|WLT|WLE|WCS|WLS) _ x (FlagLT_ULT)) =>
x
(CMOV(QEQ|QGT|QGE|QHI|QCC|LEQ|LGT|LGE|LHI|LCC|WEQ|WGT|WGE|WHI|WCC) y _ (FlagLT_ULT))
=> y
(CMOV(QNE|QLT|QLE|QHI|QCC|LNE|LLT|LLE|LHI|LCC|WNE|WLT|WLE|WHI|WCC) _ x (FlagLT_UGT)) =>
x
(CMOV(QEQ|QGT|QGE|QCS|QLS|LEQ|LGT|LGE|LCS|LLS|WEQ|WGT|WGE|WCS|WLS)
y _ (FlagLT_UGT)) => y

// Miscellaneous
(IsNotNil p) => (SETNE (TESTQ p p))
(IsInBounds idx len) => (SETB (CMPQ idx len))
(IsSliceInBounds idx len) => (SETBE (CMPQ idx len))
(NilCheck ...) => (LoweredNilCheck ...)
(GetG mem) && v.Block.Func.OwnAux.Fn.ABI() != obj.ABIInternal => (LoweredGetG mem) // only lower in old
ABI. in new ABI we have a G register.
(GetClosurePtr ...) => (LoweredGetClosurePtr ...)
(GetCallerPC ...) => (LoweredGetCallerPC ...)
(GetCallerSP ...) => (LoweredGetCallerSP ...)

(HasCPUFeature {s}) => (SETNE (CMPLconst [0] (LoweredHasCPUFeature {s})))
(Addr {sym} base) => (LEAQ {sym} base)
(LocalAddr {sym} base _) => (LEAQ {sym} base)

```



```

(MOVBstore [off] {sym} ptr y:(SETL x) mem) && y.Uses == 1 => (SETLstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr y:(SETLE x) mem) && y.Uses == 1 => (SETLEstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr y:(SETG x) mem) && y.Uses == 1 => (SETGstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr y:(SETGE x)
mem) && y.Uses == 1 => (SETGEstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr y:(SETEQ x) mem) && y.Uses == 1 => (SETEQstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr y:(SETNE x) mem) && y.Uses == 1 => (SETNEstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr y:(SETB x) mem) && y.Uses == 1 => (SETBstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr y:(SETBE x) mem) && y.Uses == 1 => (SETBEstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr y:(SETA x) mem) && y.Uses == 1 => (SETAstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr y:(SETAE x) mem) && y.Uses == 1 => (SETAEstore [off] {sym} ptr x mem)

// block rewrites
(If (SETL cmp) yes no) => (LT cmp yes no)
(If (SETLE cmp) yes no) => (LE cmp yes no)
(If (SETG cmp) yes no) => (GT cmp yes no)
(If (SETGE cmp) yes no) => (GE cmp yes no)
(If (SETEQ cmp) yes no) => (EQ cmp yes no)
(If (SETNE cmp) yes no) => (NE cmp yes no)
(If (SETB cmp) yes no) => (ULT cmp yes no)
(If (SETBE cmp) yes no) => (ULE cmp
yes no)
(If (SETA cmp) yes no) => (UGT cmp yes no)
(If (SETAE cmp) yes no) => (UGE cmp yes no)
(If (SETO cmp) yes no) => (OS cmp yes no)

// Special case for floating point - LF/LEF not generated
(If (SETGF cmp) yes no) => (UGT cmp yes no)
(If (SETGEF cmp) yes no) => (UGE cmp yes no)
(If (SETEQF cmp) yes no) => (EQF cmp yes no)
(If (SETNEF cmp) yes no) => (NEF cmp yes no)

(If cond yes no) => (NE (TESTB cond cond) yes no)

(JumpTable idx) => (JUMPTABLE {makeJumpTableSym(b)} idx (LEAQ <typ.Uintptr> {makeJumpTableSym(b)}
(SB)))

// Atomic loads. Other than preserving their ordering with respect to other loads, nothing special here.
(AtomicLoad8 ptr mem) => (MOVBatomicload ptr mem)
(AtomicLoad32 ptr mem) => (MOVLatomicload ptr mem)
(AtomicLoad64 ptr mem) => (MOVQatomicload ptr mem)
(AtomicLoadPtr ptr mem) => (MOVQatomicload ptr mem)

// Atomic stores. We use XCHG to prevent the hardware reordering a subsequent load.
// TODO: most runtime uses of atomic stores don't need that property.
Use normal stores for those?
(AtomicStore8 ptr val mem) => (Select1 (XCHGB <types.NewTuple(typ.Uint8,types.TypeMem)> val ptr mem))

```

```
(AtomicStore32 ptr val mem) => (Select1 (XCHGL <types.NewTuple(typ.UInt32,types.TypeMem)> val ptr mem))
(AtomicStore64 ptr val mem) => (Select1 (XCHGQ <types.NewTuple(typ.UInt64,types.TypeMem)> val ptr mem))
(AtomicStorePtrNoWB ptr val mem) => (Select1 (XCHGQ <types.NewTuple(typ.BytePtr,types.TypeMem)> val ptr mem))
```

```
// Atomic exchanges.
```

```
(AtomicExchange32 ptr val mem) => (XCHGL val ptr mem)
(AtomicExchange64 ptr val mem) => (XCHGQ val ptr mem)
```

```
// Atomic adds.
```

```
(AtomicAdd32 ptr val mem) => (AddTupleFirst32 val (XADDLlock val ptr mem))
(AtomicAdd64 ptr val mem) => (AddTupleFirst64 val (XADDQlock val ptr mem))
(Select0 <t> (AddTupleFirst32 val tuple)) => (ADDL val (Select0 <t> tuple))
(Select1 (AddTupleFirst32 _ tuple)) => (Select1 tuple)
(Select0 <t> (AddTupleFirst64 val tuple)) => (ADDQ val (Select0 <t> tuple))
(Select1 (AddTupleFirst64 _ tuple)) => (Select1 tuple)
```

```
// Atomic compare and swap.
```

```
(AtomicCompareAndSwap32 ptr old new_ mem) => (CMPXCHGLlock ptr old new_ mem)
(AtomicCompareAndSwap64 ptr old new_ mem) => (CMPXCHGQlock ptr old new_ mem)
```

```
// Atomic memory updates.
```

```
(AtomicAnd8 ptr val mem) => (ANDBlock ptr val mem)
(AtomicAnd32 ptr val mem) => (ANDLlock ptr val mem)
(AtomicOr8 ptr val mem) => (ORBlock ptr val mem)
(AtomicOr32 ptr val mem) => (ORLlock ptr val mem)
```

```
// Write barrier.
```

```
(WB ...) => (LoweredWB ...)
```

```
(PanicBounds [kind] x y mem) && boundsABI(kind) == 0 => (LoweredPanicBoundsA [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 1 => (LoweredPanicBoundsB [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 2 => (LoweredPanicBoundsC [kind] x y mem)
```

```
// *****
```

```
// Above: lowering rules
```

```
// Below: optimizations
```

```
// *****
```

```
// TODO: Should the optimizations be a separate pass?
```

```
// Fold boolean tests into blocks
```

```
(NE (TESTB (SETL cmp) (SETL cmp)) yes no) => (LT cmp yes no)
(NE (TESTB (SETLE cmp) (SETLE cmp)) yes no) => (LE cmp yes no)
(NE (TESTB (SETG cmp) (SETG cmp)) yes no) => (GT cmp yes no)
(NE (TESTB (SETGE cmp) (SETGE cmp)) yes no) => (GE cmp yes no)
(NE (TESTB (SETEQ cmp) (SETEQ cmp)) yes no) => (EQ cmp yes no)
```

```

(NE (TESTB (SETNE cmp) (SETNE cmp)) yes no) => (NE cmp yes no)
(NE (TESTB (SETB cmp) (SETB cmp)) yes no) => (ULT cmp yes no)
(NE (TESTB (SETBE cmp) (SETBE cmp)) yes no) => (ULE cmp yes no)
(NE (TESTB (SETA cmp) (SETA cmp)) yes no) => (UGT cmp yes no)
(NE (TESTB (SETAE cmp) (SETAE cmp)) yes no) => (UGE cmp yes no)
(NE (TESTB (SETO cmp) (SETO cmp)) yes no) => (OS cmp yes no)

// Unsigned comparisons to 0/1
(ULT (TEST(Q|L|W|B) x x) yes no) => (First no yes)
(UGE (TEST(Q|L|W|B) x x) yes no) => (First yes no)
(SETB (TEST(Q|L|W|B) x x)) => (ConstBool [false])
(SETAE (TEST(Q|L|W|B) x x)) => (ConstBool [true])

// x & 1 != 0 -> x & 1
(SETNE (TEST(B|W)const [1] x)) => (AND(L|L)const [1] x)
(SETB (BT(L|Q)const
[0] x)) => (AND(L|Q)const [1] x)

// Recognize bit tests: a&(1<<b) != 0 for b suitably bounded
// Note that BTx instructions use the carry bit, so we need to convert tests for zero flag
// into tests for carry flags.
// ULT and SETB check the carry flag; they are identical to CS and SETCS. Same, mutatis
// mutandis, for UGE and SETAE, and CC and SETCC.
((NE|EQ) (TESTL (SHLL (MOVLconst [1]) x) y)) => ((ULT|UGE) (BTL x y))
((NE|EQ) (TESTQ (SHLQ (MOVQconst [1]) x) y)) => ((ULT|UGE) (BTQ x y))
((NE|EQ) (TESTL (SHLXL (MOVLconst [1]) x) y)) => ((ULT|UGE) (BTL x y))
((NE|EQ) (TESTQ (SHLXQ (MOVQconst [1]) x) y)) => ((ULT|UGE) (BTQ x y))
((NE|EQ) (TESTLconst [c] x)) && isUInt32PowerOfTwo(int64(c))
=> ((ULT|UGE) (BTLconst [int8(log32(c))] x))
((NE|EQ) (TESTQconst [c] x)) && isUInt64PowerOfTwo(int64(c))
=> ((ULT|UGE) (BTQconst [int8(log32(c))] x))
((NE|EQ) (TESTQ (MOVQconst [c] x)) && isUInt64PowerOfTwo(c))
=> ((ULT|UGE) (BTQconst [int8(log64(c))] x))
(SET(NE|EQ) (TESTL (SHLL
(MOVLconst [1]) x) y)) => (SET(B|AE) (BTL x y))
(SET(NE|EQ) (TESTQ (SHLQ (MOVQconst [1]) x) y)) => (SET(B|AE) (BTQ x y))
(SET(NE|EQ) (TESTL (SHLXL (MOVLconst [1]) x) y)) => (SET(B|AE) (BTL x y))
(SET(NE|EQ) (TESTQ (SHLXQ (MOVQconst [1]) x) y)) => (SET(B|AE) (BTQ x y))
(SET(NE|EQ) (TESTLconst [c] x)) && isUInt32PowerOfTwo(int64(c))
=> (SET(B|AE) (BTLconst [int8(log32(c))] x))
(SET(NE|EQ) (TESTQconst [c] x)) && isUInt64PowerOfTwo(int64(c))
=> (SET(B|AE) (BTQconst [int8(log32(c))] x))
(SET(NE|EQ) (TESTQ (MOVQconst [c] x)) && isUInt64PowerOfTwo(c))
=> (SET(B|AE) (BTQconst [int8(log64(c))] x))
// SET..store variant
(SET(NE|EQ)store [off] {sym} ptr (TESTL (SHLL (MOVLconst [1]) x) y) mem)
=> (SET(B|AE)store [off] {sym} ptr (BTL x y) mem)
(SET(NE|EQ)store [off] {sym} ptr (TESTQ (SHLQ (MOVQconst [1]) x) y) mem)

```

```

=> (SET(B|AE)store [off] {sym} ptr (BTQ x y) mem)
(SET(NE|EQ)store [off] {sym} ptr (TESTL (SHLXL (MOVLconst [1]) x) y) mem)
=> (SET(B|AE)store [off] {sym}
ptr (BTL x y) mem)
(SET(NE|EQ)store [off] {sym} ptr (TESTQ (SHLXQ (MOVQconst [1]) x) y) mem)
=> (SET(B|AE)store [off] {sym} ptr (BTQ x y) mem)
(SET(NE|EQ)store [off] {sym} ptr (TESTLconst [c] x) mem) && isUint32PowerOfTwo(int64(c))
=> (SET(B|AE)store [off] {sym} ptr (BTLconst [int8(log32(c))] x) mem)
(SET(NE|EQ)store [off] {sym} ptr (TESTQconst [c] x) mem) && isUint64PowerOfTwo(int64(c))
=> (SET(B|AE)store [off] {sym} ptr (BTQconst [int8(log32(c))] x) mem)
(SET(NE|EQ)store [off] {sym} ptr (TESTQ (MOVQconst [c]) x) mem) && isUint64PowerOfTwo(c)
=> (SET(B|AE)store [off] {sym} ptr (BTQconst [int8(log64(c))] x) mem)

// Handle bit-testing in the form (a>>b)&1 != 0 by building the above rules
// and further combining shifts.
(BT(Q|L)const [c] (SHRQconst [d] x)) && (c+d)<64 => (BTQconst [c+d] x)
(BT(Q|L)const [c] (SHLQconst [d] x)) && c>d => (BT(Q|L)const [c-d] x)
(BT(Q|L)const [0] s:(SHRQ x y)) => (BTQ y x)
(BT(Q|L)const [0] s:(SHRXQ x y)) => (BTQ y x)
(BTLconst
[c] (SHRLconst [d] x)) && (c+d)<32 => (BTLconst [c+d] x)
(BTLconst [c] (SHLLconst [d] x)) && c>d => (BTLconst [c-d] x)
(BTLconst [0] s:(SHR(L|XL) x y)) => (BTL y x)

// Rewrite a & 1 != 1 into a & 1 == 0.
// Among other things, this lets us turn (a>>b)&1 != 1 into a bit test.
(SET(NE|EQ) (CMPLconst [1] s:(ANDLconst [1] _))) => (SET(EQ|NE) (CMPLconst [0] s))
(SET(NE|EQ)store [off] {sym} ptr (CMPLconst [1] s:(ANDLconst [1] _) mem) => (SET(EQ|NE)store [off] {sym}
ptr (CMPLconst [0] s) mem)
(SET(NE|EQ) (CMPQconst [1] s:(ANDQconst [1] _))) => (SET(EQ|NE) (CMPQconst [0] s))
(SET(NE|EQ)store [off] {sym} ptr (CMPQconst [1] s:(ANDQconst [1] _) mem) => (SET(EQ|NE)store [off] {sym}
ptr (CMPQconst [0] s) mem)

// Recognize bit setting (a |= 1<<b) and toggling (a ^= 1<<b)
(OR(Q|L) (SHL(Q|L) (MOV(Q|L)const [1]) y) x) => (BTS(Q|L) x y)
(XOR(Q|L) (SHL(Q|L) (MOV(Q|L)const [1]) y) x) => (BTC(Q|L) x y)
(OR(Q|L) (SHLX(Q|L) (MOV(Q|L)const [1]) y) x) => (BTS(Q|L) x y)
(XOR(Q|L) (SHLX(Q|L) (MOV(Q|L)const
[1]) y) x) => (BTC(Q|L) x y)

// Convert ORconst into BTS, if the code gets smaller, with boundary being
// (ORL $40,AX is 3 bytes, ORL $80,AX is 6 bytes).
((ORQ|XORQ)const [c] x) && isUint64PowerOfTwo(int64(c)) && uint64(c) >= 128
=> (BT(S|C)Qconst [int8(log32(c))] x)
((ORL|XORL)const [c] x) && isUint32PowerOfTwo(int64(c)) && uint64(c) >= 128
=> (BT(S|C)Lconst [int8(log32(c))] x)
((ORQ|XORQ) (MOVQconst [c] x) && isUint64PowerOfTwo(c) && uint64(c) >= 128
=> (BT(S|C)Qconst [int8(log64(c))] x)

```

```

((ORL|XORL) (MOVLconst [c] x) && isUInt32PowerOfTwo(int64(c)) && uint64(c) >= 128
=> (BT(S|C)Lconst [int8(log32(c))] x)

// Recognize bit clearing: a &^= 1<<b
(AND(Q|L) (NOT(Q|L) (SHL(Q|L) (MOV(Q|L)const [1] y)) x) => (BTR(Q|L) x y)
(ANDN(Q|L) x (SHL(Q|L) (MOV(Q|L)const [1] y)) => (BTR(Q|L) x y)
(AND(Q|L) (NOT(Q|L) (SHLX(Q|L) (MOV(Q|L)const [1] y)) x) => (BTR(Q|L) x y)
(ANDN(Q|L) x (SHLX(Q|L) (MOV(Q|L)const [1] y)) => (BTR(Q|L) x y)
(ANDQconst [c] x) && isUInt64PowerOfTwo(int64(^c))
&& uint64(^c) >= 128
=> (BTRQconst [int8(log32(^c))] x)
(ANDLconst [c] x) && isUInt32PowerOfTwo(int64(^c)) && uint64(^c) >= 128
=> (BTRLconst [int8(log32(^c))] x)
(ANDQ (MOVQconst [c] x) && isUInt64PowerOfTwo(^c) && uint64(^c) >= 128
=> (BTRQconst [int8(log64(^c))] x)
(ANDL (MOVLconst [c] x) && isUInt32PowerOfTwo(int64(^c)) && uint64(^c) >= 128
=> (BTRLconst [int8(log32(^c))] x)

// Special-case bit patterns on first/last bit.
// generic.rules changes ANDs of high-part/low-part masks into a couple of shifts,
// for instance:
// x & 0xFFFF0000 -> (x >> 16) << 16
// x & 0x80000000 -> (x >> 31) << 31
//
// In case the mask is just one bit (like second example above), it conflicts
// with the above rules to detect bit-testing / bit-clearing of first/last bit.
// We thus special-case them, by detecting the shift patterns.

// Special case resetting first/last bit
(SHL(L|Q)const [1] (SHR(L|Q)const [1] x))
=> (BTR(L|Q)const [0] x)
(SHRLconst [1] (SHLLconst
[1] x))
=> (BTRLconst [31] x)
(SHRQconst [1] (SHLQconst [1] x))
=> (BTRQconst [63] x)

// Special case testing first/last bit (with double-shift generated by generic.rules)
((SETNE|SETEQ|NE|EQ) (TESTQ z1:(SHLQconst [63] (SHRQconst [63] x)) z2)) && z1==z2
=> ((SETB|SETAE|ULT|UGE) (BTQconst [63] x))
((SETNE|SETEQ|NE|EQ) (TESTL z1:(SHLLconst [31] (SHRQconst [31] x)) z2)) && z1==z2
=> ((SETB|SETAE|ULT|UGE) (BTQconst [31] x))
(SET(NE|EQ)store [off] {sym} ptr (TESTQ z1:(SHLQconst [63] (SHRQconst [63] x)) z2) mem) && z1==z2
=> (SET(B|AE)store [off] {sym} ptr (BTQconst [63] x) mem)
(SET(NE|EQ)store [off] {sym} ptr (TESTL z1:(SHLLconst [31] (SHRLconst [31] x)) z2) mem) && z1==z2
=> (SET(B|AE)store [off] {sym} ptr (BTLconst [31] x) mem)

((SETNE|SETEQ|NE|EQ) (TESTQ z1:(SHRQconst [63] (SHLQconst [63] x)) z2)) && z1==z2

```

```

=> ((SETB|SETAE|ULT|UGE) (BTQconst [0] x))
((SETNE|SETEQ|NE|EQ) (TESTL z1:(SHRLconst [31] (SHLLconst [31] x)) z2)) && z1==z2
=> ((SETB|SETAE|ULT|UGE) (BTLconst
[0] x))
(SET(NE|EQ)store [off] {sym} ptr (TESTQ z1:(SHRQconst [63] (SHLQconst [63] x)) z2) mem) && z1==z2
=> (SET(B|AE)store [off] {sym} ptr (BTQconst [0] x) mem)
(SET(NE|EQ)store [off] {sym} ptr (TESTL z1:(SHRLconst [31] (SHLLconst [31] x)) z2) mem) && z1==z2
=> (SET(B|AE)store [off] {sym} ptr (BTLconst [0] x) mem)

// Special-case manually testing last bit with "a>>63 != 0" (without "&1")
((SETNE|SETEQ|NE|EQ) (TESTQ z1:(SHRQconst [63] x) z2)) && z1==z2
=> ((SETB|SETAE|ULT|UGE) (BTQconst [63] x))
((SETNE|SETEQ|NE|EQ) (TESTL z1:(SHRLconst [31] x) z2)) && z1==z2
=> ((SETB|SETAE|ULT|UGE) (BTLconst [31] x))
(SET(NE|EQ)store [off] {sym} ptr (TESTQ z1:(SHRQconst [63] x) z2) mem) && z1==z2
=> (SET(B|AE)store [off] {sym} ptr (BTQconst [63] x) mem)
(SET(NE|EQ)store [off] {sym} ptr (TESTL z1:(SHRLconst [31] x) z2) mem) && z1==z2
=> (SET(B|AE)store [off] {sym} ptr (BTLconst [31] x) mem)

// Fold combinations of bit ops on same bit. An example is math.Copysign(c,-1)
(BTS(Q|L)const
[c] (BTR(Q|L)const [c] x)) => (BTS(Q|L)const [c] x)
(BTS(Q|L)const [c] (BTC(Q|L)const [c] x)) => (BTS(Q|L)const [c] x)
(BTR(Q|L)const [c] (BTS(Q|L)const [c] x)) => (BTR(Q|L)const [c] x)
(BTR(Q|L)const [c] (BTC(Q|L)const [c] x)) => (BTR(Q|L)const [c] x)

// Fold boolean negation into SETcc.
(XORLconst [1] (SETNE x)) => (SETEQ x)
(XORLconst [1] (SETEQ x)) => (SETNE x)
(XORLconst [1] (SETL x)) => (SETGE x)
(XORLconst [1] (SETGE x)) => (SETL x)
(XORLconst [1] (SETLE x)) => (SETG x)
(XORLconst [1] (SETG x)) => (SETLE x)
(XORLconst [1] (SETB x)) => (SETAE x)
(XORLconst [1] (SETAE x)) => (SETB x)
(XORLconst [1] (SETBE x)) => (SETA x)
(XORLconst [1] (SETA x)) => (SETBE x)

// Special case for floating point - LF/LEF not generated
(NE (TESTB (SETGF cmp) (SETGF cmp)) yes no) => (UGT cmp yes no)
(NE (TESTB (SETGEF cmp) (SETGEF cmp)) yes no) => (UGE cmp yes no)
(NE (TESTB (SETEQF cmp) (SETEQF cmp)) yes no) => (EQF cmp yes no)
(NE (TESTB (SETNEF cmp) (SETNEF cmp)) yes
no) => (NEF cmp yes no)

// Disabled because it interferes with the pattern match above and makes worse code.
// (SETNEF x) => (ORQ (SETNE <typ.Int8> x) (SETNAN <typ.Int8> x))
// (SETEQF x) => (ANDQ (SETEQ <typ.Int8> x) (SETORD <typ.Int8> x))

```

```

// fold constants into instructions
(ADDQ x (MOVQconst [c])) && is32Bit(c) => (ADDQconst [int32(c)] x)
(ADDQ x (MOVLconst [c])) => (ADDQconst [c] x)
(ADDL x (MOVLconst [c])) => (ADDLconst [c] x)

(SUBQ x (MOVQconst [c])) && is32Bit(c) => (SUBQconst x [int32(c)])
(SUBQ (MOVQconst [c] x) && is32Bit(c) => (NEGQ (SUBQconst <v.Type> x [int32(c))))
(SUBL x (MOVLconst [c])) => (SUBLconst x [c])
(SUBL (MOVLconst [c] x) => (NEGL (SUBLconst <v.Type> x [c]))

(MULQ x (MOVQconst [c])) && is32Bit(c) => (MULQconst [int32(c)] x)
(MULL x (MOVLconst [c])) => (MULLconst [c] x)

(ANDQ x (MOVQconst [c])) && is32Bit(c) => (ANDQconst [int32(c)] x)
(ANDL x (MOVLconst [c])) => (ANDLconst [c] x)

(AND(L|Q)const [c] (AND(L|Q)const [d] x)) => (AND(L|Q)const [c & d] x)
(XOR(L|Q)const
[c] (XOR(L|Q)const [d] x)) => (XOR(L|Q)const [c ^ d] x)
(OR(L|Q)const [c] (OR(L|Q)const [d] x)) => (OR(L|Q)const [c | d] x)

(BTRLconst [c] (ANDLconst [d] x)) => (ANDLconst [d &^ (1<<uint32(c))] x)
(ANDLconst [c] (BTRLconst [d] x)) => (ANDLconst [c &^ (1<<uint32(d))] x)
(BTRLconst [c] (BTRLconst [d] x)) => (ANDLconst [^(1<<uint32(c) | 1<<uint32(d))] x)

(BTCLconst [c] (XORLconst [d] x)) => (XORLconst [d ^ 1<<uint32(c)] x)
(XORLconst [c] (BTCLconst [d] x)) => (XORLconst [c ^ 1<<uint32(d)] x)
(BTCLconst [c] (BTCLconst [d] x)) => (XORLconst [1<<uint32(c) | 1<<uint32(d)] x)

(BTSLconst [c] (ORLconst [d] x)) => (ORLconst [d | 1<<uint32(c)] x)
(ORLconst [c] (BTSLconst [d] x)) => (ORLconst [c | 1<<uint32(d)] x)
(BTSLconst [c] (BTSLconst [d] x)) => (ORLconst [1<<uint32(c) | 1<<uint32(d)] x)

(BTRQconst [c] (ANDQconst [d] x)) && is32Bit(int64(d) &^ (1<<uint32(c))) => (ANDQconst [d &^
(1<<uint32(c))] x)
(ANDQconst [c] (BTRQconst [d] x)) && is32Bit(int64(c) &^ (1<<uint32(d)))
=> (ANDQconst [c &^ (1<<uint32(d))] x)
(BTRQconst [c] (BTRQconst [d] x)) && is32Bit(^ (1<<uint32(c) | 1<<uint32(d))) => (ANDQconst [^(1<<uint32(c)
| 1<<uint32(d))] x)

(BTCQconst [c] (XORQconst [d] x)) && is32Bit(int64(d) ^ 1<<uint32(c)) => (XORQconst [d ^ 1<<uint32(c)] x)
(XORQconst [c] (BTCQconst [d] x)) && is32Bit(int64(c) ^ 1<<uint32(d)) => (XORQconst [c ^ 1<<uint32(d)] x)
(BTCQconst [c] (BTCQconst [d] x)) && is32Bit(1<<uint32(c) ^ 1<<uint32(d)) => (XORQconst [1<<uint32(c) ^
1<<uint32(d)] x)

(BTSQconst [c] (ORQconst [d] x)) && is32Bit(int64(d) | 1<<uint32(c)) => (ORQconst [d | 1<<uint32(c)] x)
(ORQconst [c] (BTSQconst [d] x)) && is32Bit(int64(c) | 1<<uint32(d)) => (ORQconst [c | 1<<uint32(d)] x)

```

(BTSQconst [c] (BTSQconst [d] x)) && is32Bit(1<<uint32(c) | 1<<uint32(d)) => (ORQconst [1<<uint32(c) | 1<<uint32(d)] x)

(MULLconst [c] (MULLconst [d] x)) => (MULLconst [c * d] x)
(MULQconst [c] (MULQconst [d] x)) && is32Bit(int64(c)*int64(d)) => (MULQconst [c * d] x)

(ORQ x (MOVQconst [c])) && is32Bit(c) => (ORQconst [int32(c)] x)
(ORQ x (MOVLconst [c])) => (ORQconst [c] x)
(ORL x (MOVLconst [c])) => (ORLconst [c] x)

(XORQ x (MOVQconst [c])) && is32Bit(c) => (XORQconst [int32(c)] x)
(XORL x (MOVLconst [c])) => (XORLconst [c] x)

(SHLQ x (MOV(Q|L)const [c])) => (SHLQconst [int8(c&63)] x)
(SHLL x (MOV(Q|L)const [c])) => (SHLLconst [int8(c&31)] x)
(SHLXQ x (MOV(Q|L)const [c])) => (SHLQconst [int8(c&63)] x)
(SHLXL x (MOV(Q|L)const [c])) => (SHLLconst [int8(c&31)] x)

(SHRQ x (MOV(Q|L)const [c])) => (SHRQconst [int8(c&63)] x)
(SHRL x (MOV(Q|L)const [c])) => (SHRLconst [int8(c&31)] x)
(SHRW x (MOV(Q|L)const [c])) && c&31 < 16 => (SHRWconst [int8(c&31)] x)
(SHRW _ (MOV(Q|L)const [c])) && c&31 >= 16 => (MOVLconst [0])
(SHRB x (MOV(Q|L)const [c])) && c&31 < 8 => (SHRBconst [int8(c&31)] x)
(SHRB _ (MOV(Q|L)const [c])) && c&31 >= 8 => (MOVLconst [0])
(SHRXQ x (MOV(Q|L)const [c])) => (SHRQconst [int8(c&63)] x)
(SHRXL x (MOV(Q|L)const [c])) => (SHRLconst [int8(c&31)] x)

(SARQ x (MOV(Q|L)const [c])) => (SARQconst [int8(c&63)] x)
(SARL x (MOV(Q|L)const [c])) => (SARLconst [int8(c&31)] x)
(SARW x (MOV(Q|L)const [c])) => (SARWconst [int8(min(int64(c)&31,15))] x)
(SARB x (MOV(Q|L)const [c])) => (SARBconst [int8(min(int64(c)&31,7))] x)
(SARXQ x (MOV(Q|L)const [c])) => (SARQconst [int8(c&63)] x)
(SARXL x (MOV(Q|L)const [c])) => (SARLconst [int8(c&31)] x)

// Operations which don't affect the low 6/5 bits of the shift amount are NOPs.

((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x (ADDQconst [c] y)) && c & 63 == 0 =>
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x y)
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x (NEGQ <t> (ADDQconst [c] y))) && c & 63 == 0 =>
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x (NEGQ <t> y))
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x (ANDQconst [c] y)) && c & 63 == 63 =>
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x y)
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x (NEGQ <t> (ANDQconst [c] y))) && c & 63 == 63 =>
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x (NEGQ <t> y))

((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL)


```

x (ADDQconst [c] y)) && c & 31 == 0 => ((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x y)
((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x (NEGQ <t> (ADDQconst [c] y))) && c & 31 == 0 =>
((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x (NEGQ <t> y))
((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x (ANDQconst [c] y)) && c & 31 == 31 =>
((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x y)
((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x (NEGQ <t> (ANDQconst [c] y))) && c & 31 == 31 =>
((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x (NEGQ <t> y))

((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x (ADDLconst [c] y)) && c & 63 == 0 =>
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x y)
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x (NEGL <t> (ADDLconst [c] y))) && c & 63 == 0 =>
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x (NEGL <t> y))
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x (ANDLconst [c] y)) && c & 63 == 63 =>
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x y)
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ) x (NEGL <t> (ANDLconst [c] y))) && c & 63 == 63 =>
((SHLQ|SHRQ|SARQ|SHLXQ|SHRXQ|SARXQ)
x (NEGL <t> y))

((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x (ADDLconst [c] y)) && c & 31 == 0 =>
((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x y)
((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x (NEGL <t> (ADDLconst [c] y))) && c & 31 == 0 =>
((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x (NEGL <t> y))
((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x (ANDLconst [c] y)) && c & 31 == 31 =>
((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x y)
((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x (NEGL <t> (ANDLconst [c] y))) && c & 31 == 31 =>
((SHLL|SHRL|SARL|SHLXL|SHRXL|SARXL) x (NEGL <t> y))

// Constant rotate instructions
((ADDQ|ORQ|XORQ) (SHLQconst x [c]) (SHRQconst x [d])) && d==64-c => (ROLQconst x [c])
((ADDL|ORL|XORL) (SHLLconst x [c]) (SHRLconst x [d])) && d==32-c => (ROLLconst x [c])

((ADDL|ORL|XORL) <t> (SHLLconst x [c]) (SHRWconst x [d])) && d==16-c && c < 16 && t.Size() == 2 =>
(ROLWconst x [c])
((ADDL|ORL|XORL) <t> (SHLLconst x [c]) (SHRBconst x [d])) && d==8-c && c < 8 && t.Size() == 1 =>
(ROLBconst x [c])

(ROLQconst [c] (ROLQconst
[d] x)) => (ROLQconst [(c+d)&63] x)
(ROLLconst [c] (ROLLconst [d] x)) => (ROLLconst [(c+d)&31] x)
(ROLWconst [c] (ROLWconst [d] x)) => (ROLWconst [(c+d)&15] x)
(ROLBconst [c] (ROLBconst [d] x)) => (ROLBconst [(c+d)&7] x)

(RotateLeft8 ...) => (ROLB ...)
(RotateLeft16 ...) => (ROLW ...)
(RotateLeft32 ...) => (ROLL ...)
(RotateLeft64 ...) => (ROLQ ...)

// Non-constant rotates.

```

```

// We want to issue a rotate when the Go source contains code like
//   y &= 63
//   x << y | x >> (64-y)
// The shift rules above convert << to SHLx and >> to SHRx.
// SHRx converts its shift argument from 64-y to -y.
// A tricky situation occurs when y==0. Then the original code would be:
//   x << 0 | x >> 64
// But x >> 64 is 0, not x. So there's an additional mask that is ANDED in
// to force the second term to 0. We don't need that mask, but we must match
// it in order to strip it out.
(ORQ (SHLQ x y) (ANDQ (SHRQ x (NEG(Q)L y)) (SBBQcarrymask (CMP(Q)Lconst (NEG(Q)L
(ADD(Q)Lconst (AND(Q)Lconst
y [63]) [-64])) [64]))) => (ROLQ x y)
(ORQ (SHRQ x y) (ANDQ (SHLQ x (NEG(Q)L y)) (SBBQcarrymask (CMP(Q)Lconst (NEG(Q)L
(ADD(Q)Lconst (AND(Q)Lconst y [63]) [-64])) [64]))) => (RORQ x y)
(ORQ (SHLXQ x y) (ANDQ (SHRXQ x (NEG(Q)L y)) (SBBQcarrymask (CMP(Q)Lconst (NEG(Q)L
(ADD(Q)Lconst (AND(Q)Lconst y [63]) [-64])) [64]))) => (ROLQ x y)
(ORQ (SHRXQ x y) (ANDQ (SHLXQ x (NEG(Q)L y)) (SBBQcarrymask (CMP(Q)Lconst (NEG(Q)L
(ADD(Q)Lconst (AND(Q)Lconst y [63]) [-64])) [64]))) => (RORQ x y)

(ORL (SHLL x y) (ANDL (SHRL x (NEG(Q)L y)) (SBBLcarrymask (CMP(Q)Lconst (NEG(Q)L
(ADD(Q)Lconst (AND(Q)Lconst y [31]) [-32])) [32]))) => (ROLL x y)
(ORL (SHRL x y) (ANDL (SHLL x (NEG(Q)L y)) (SBBLcarrymask (CMP(Q)Lconst (NEG(Q)L
(ADD(Q)Lconst (AND(Q)Lconst y [31]) [-32])) [32]))) => (RORL x y)
(ORL (SHLXL x y) (ANDL (SHRXL x (NEG(Q)L y)) (SBBLcarrymask (CMP(Q)Lconst (NEG(Q)L
(ADD(Q)Lconst (AND(Q)Lconst y [31]) [-32])) [32]))) => (ROLL x y)
(ORL (SHRXL x y) (ANDL (SHLXL x (NEG(Q)L
y)) (SBBLcarrymask (CMP(Q)Lconst (NEG(Q)L (ADD(Q)Lconst (AND(Q)Lconst y [31]) [-32])) [32]))) =>
(RORL x y)

// Help with rotate detection
(CMPQconst (NEGQ (ADDQconst [-16] (ANDQconst [15] _))) [32]) => (FlagLT_ULT)
(CMPQconst (NEGQ (ADDQconst [-8] (ANDQconst [7] _))) [32]) => (FlagLT_ULT)

(ORL (SHLL x (AND(Q)Lconst y [15]))
  (ANDL (SHRW x (NEG(Q)L (ADD(Q)Lconst (AND(Q)Lconst y [15]) [-16])))
    (SBBLcarrymask (CMP(Q)Lconst (NEG(Q)L (ADD(Q)Lconst (AND(Q)Lconst y [15]) [-16])) [16])))
  && v.Type.Size() == 2
=> (ROLW x y)
(ORL (SHRW x (AND(Q)Lconst y [15]))
  (SHLL x (NEG(Q)L (ADD(Q)Lconst (AND(Q)Lconst y [15]) [-16])))
  && v.Type.Size() == 2
=> (RORW x y)
(ORL (SHLXL x (AND(Q)Lconst y [15]))
  (ANDL (SHRW x (NEG(Q)L (ADD(Q)Lconst (AND(Q)Lconst y [15]) [-16])))
    (SBBLcarrymask (CMP(Q)Lconst (NEG(Q)L (ADD(Q)Lconst (AND(Q)Lconst y [15]) [-16])) [16])))
  && v.Type.Size() == 2
=> (ROLW x y)

```

```

(ORL (SHRW x (AND(Q|L)const
y [15]))
  (SHLXL x (NEG(Q|L) (ADD(Q|L)const (AND(Q|L)const y [15] [-16])))
  && v.Type.Size() == 2
=> (RORW x y))

(ORL (SHLL x (AND(Q|L)const y [ 7]))
  (ANDL (SHRB x (NEG(Q|L) (ADD(Q|L)const (AND(Q|L)const y [ 7] [-8])))
  (SBBLcarrymask (CMP(Q|L)const (NEG(Q|L) (ADD(Q|L)const (AND(Q|L)const y [ 7] [-8])) [ 8])))
  && v.Type.Size() == 1
=> (ROLB x y))
(ORL (SHRB x (AND(Q|L)const y [ 7]))
  (SHLL x (NEG(Q|L) (ADD(Q|L)const (AND(Q|L)const y [ 7] [-8])))
  && v.Type.Size() == 1
=> (RORB x y))
(ORL (SHLXL x (AND(Q|L)const y [ 7]))
  (ANDL (SHRB x (NEG(Q|L) (ADD(Q|L)const (AND(Q|L)const y [ 7] [-8])))
  (SBBLcarrymask (CMP(Q|L)const (NEG(Q|L) (ADD(Q|L)const (AND(Q|L)const y [ 7] [-8])) [ 8])))
  && v.Type.Size() == 1
=> (ROLB x y))
(ORL (SHRB x (AND(Q|L)const y [ 7]))
  (SHLXL x (NEG(Q|L) (ADD(Q|L)const (AND(Q|L)const y [ 7] [-8])))
  && v.Type.Size() == 1
=> (RORB x y))

// rotate left negative = rotate right
(ROLQ x (NEG(Q|L) y))
=> (RORQ x y)
(ROLL x (NEG(Q|L) y)) => (RORL x y)
(ROLW x (NEG(Q|L) y)) => (RORW x y)
(ROLB x (NEG(Q|L) y)) => (RORB x y)

// rotate right negative = rotate left
(RORQ x (NEG(Q|L) y)) => (ROLQ x y)
(RORL x (NEG(Q|L) y)) => (ROLL x y)
(RORW x (NEG(Q|L) y)) => (ROLW x y)
(RORB x (NEG(Q|L) y)) => (ROLB x y)

// rotate by constants
(ROLQ x (MOV(Q|L)const [c])) => (ROLQconst [int8(c&63)] x)
(ROLL x (MOV(Q|L)const [c])) => (ROLLconst [int8(c&31)] x)
(ROLW x (MOV(Q|L)const [c])) => (ROLWconst [int8(c&15)] x)
(ROLB x (MOV(Q|L)const [c])) => (ROLBconst [int8(c&7)] x)

(RORQ x (MOV(Q|L)const [c])) => (ROLQconst [int8((-c)&63)] x)
(RORL x (MOV(Q|L)const [c])) => (ROLLconst [int8((-c)&31)] x)
(RORW x (MOV(Q|L)const [c])) => (ROLWconst [int8((-c)&15)] x)
(RORB x (MOV(Q|L)const [c])) => (ROLBconst [int8((-c)&7)] x)

```

```

// Constant shift simplifications
((SHLQ|SHRQ|SARQ)const x [0]) => x
((SHLL|SHRL|SARL)const x [0]) => x
((SHRW|SARW)const x [0]) => x
((SHRB|SARB)const x
 [0]) => x
((ROLQ|ROLL|ROLW|ROLB)const x [0]) => x

// Multi-register shifts
(ORQ (SH(R|L)Q lo bits) (SH(L|R)Q hi (NEGQ bits))) => (SH(R|L)DQ lo hi bits)
(ORQ (SH(R|L)XQ lo bits) (SH(L|R)XQ hi (NEGQ bits))) => (SH(R|L)DQ lo hi bits)

// Note: the word and byte shifts keep the low 5 bits (not the low 4 or 3 bits)
// because the x86 instructions are defined to use all 5 bits of the shift even
// for the small shifts. I don't think we'll ever generate a weird shift (e.g.
// (SHRW x (MOVLconst [24])), but just in case.

(CMPQ x (MOVQconst [c])) && is32Bit(c) => (CMPQconst x [int32(c)])
(CMPQ (MOVQconst [c] x) && is32Bit(c) => (InvertFlags (CMPQconst x [int32(c)]))
(CMPL x (MOVLconst [c])) => (CMPLconst x [c])
(CMPL (MOVLconst [c] x) => (InvertFlags (CMPLconst x [c]))
(CMPW x (MOVLconst [c])) => (CMPWconst x [int16(c)])
(CMPW (MOVLconst [c] x) => (InvertFlags (CMPWconst x [int16(c)]))
(CMPB x (MOVLconst [c])) => (CMPBconst x [int8(c)])
(CMPB (MOVLconst [c] x) => (InvertFlags (CMPBconst x
[int8(c)]))

// Canonicalize the order of arguments to comparisons - helps with CSE.
(CMP(Q|L|W|B) x y) && canonLessThan(x,y) => (InvertFlags (CMP(Q|L|W|B) y x))

// Using MOVZX instead of AND is cheaper.
(AND(Q|L)const [ 0xFF] x) => (MOVBQZX x)
(AND(Q|L)const [0xFFFF] x) => (MOVWQZX x)
// This rule is currently invalid because 0xFFFFFFFF is not representable by a signed int32.
// Commenting out for now, because it also can't trigger because of the is32bit guard on the
// ANDQconst lowering-rule, above, prevents 0xFFFFFFFF from matching (for the same reason)
// Using an alternate form of this rule segfaults some binaries because of
// adverse interactions with other passes.
// (ANDQconst [0xFFFFFFFF] x) => (MOVLQZX x)

// strength reduction
// Assumes that the following costs from https://gmpilib.org/~tege/x86-timing.pdf:
// 1 - addq, shlq, leaq, negq, subq
// 3 - imulq
// This limits the rewrites to two instructions.
// Note that negq always operates in-place,
// which can require

```

```

a register-register move
// to preserve the original value,
// so it must be used with care.
(MUL(Q|L)const [-9] x) => (NEG(Q|L) (LEA(Q|L)8 <v.Type> x x))
(MUL(Q|L)const [-5] x) => (NEG(Q|L) (LEA(Q|L)4 <v.Type> x x))
(MUL(Q|L)const [-3] x) => (NEG(Q|L) (LEA(Q|L)2 <v.Type> x x))
(MUL(Q|L)const [-1] x) => (NEG(Q|L) x)
(MUL(Q|L)const [ 0] _) => (MOV(Q|L)const [0])
(MUL(Q|L)const [ 1] x) => x
(MUL(Q|L)const [ 3] x) => (LEA(Q|L)2 x x)
(MUL(Q|L)const [ 5] x) => (LEA(Q|L)4 x x)
(MUL(Q|L)const [ 7] x) => (LEA(Q|L)2 x (LEA(Q|L)2 <v.Type> x x))
(MUL(Q|L)const [ 9] x) => (LEA(Q|L)8 x x)
(MUL(Q|L)const [11] x) => (LEA(Q|L)2 x (LEA(Q|L)4 <v.Type> x x))
(MUL(Q|L)const [13] x) => (LEA(Q|L)4 x (LEA(Q|L)2 <v.Type> x x))
(MUL(Q|L)const [19] x) => (LEA(Q|L)2 x (LEA(Q|L)8 <v.Type> x x))
(MUL(Q|L)const [21] x) => (LEA(Q|L)4 x (LEA(Q|L)4 <v.Type> x x))
(MUL(Q|L)const [25] x) => (LEA(Q|L)8 x (LEA(Q|L)2 <v.Type> x x))
(MUL(Q|L)const [27] x) => (LEA(Q|L)8 (LEA(Q|L)2 <v.Type> x x) (LEA(Q|L)2 <v.Type> x x))
(MUL(Q|L)const
 [37] x) => (LEA(Q|L)4 x (LEA(Q|L)8 <v.Type> x x))
(MUL(Q|L)const [41] x) => (LEA(Q|L)8 x (LEA(Q|L)4 <v.Type> x x))
(MUL(Q|L)const [45] x) => (LEA(Q|L)8 (LEA(Q|L)4 <v.Type> x x) (LEA(Q|L)4 <v.Type> x x))
(MUL(Q|L)const [73] x) => (LEA(Q|L)8 x (LEA(Q|L)8 <v.Type> x x))
(MUL(Q|L)const [81] x) => (LEA(Q|L)8 (LEA(Q|L)8 <v.Type> x x) (LEA(Q|L)8 <v.Type> x x))

(MUL(Q|L)const [c] x) && isPowerOfTwo64(int64(c)+1) && c >= 15 => (SUB(Q|L) (SHL(Q|L)const <v.Type>
[int8(log64(int64(c)+1))] x) x)
(MUL(Q|L)const [c] x) && isPowerOfTwo32(c-1) && c >= 17 => (LEA(Q|L)1 (SHL(Q|L)const <v.Type>
[int8(log32(c-1))] x) x)
(MUL(Q|L)const [c] x) && isPowerOfTwo32(c-2) && c >= 34 => (LEA(Q|L)2 (SHL(Q|L)const <v.Type>
[int8(log32(c-2))] x) x)
(MUL(Q|L)const [c] x) && isPowerOfTwo32(c-4) && c >= 68 => (LEA(Q|L)4 (SHL(Q|L)const <v.Type>
[int8(log32(c-4))] x) x)
(MUL(Q|L)const [c] x) && isPowerOfTwo32(c-8) && c >= 136 => (LEA(Q|L)8 (SHL(Q|L)const <v.Type>
[int8(log32(c-8))] x) x)
(MUL(Q|L)const
 [c] x) && c%3 == 0 && isPowerOfTwo32(c/3) => (SHL(Q|L)const [int8(log32(c/3))] (LEA(Q|L)2 <v.Type> x x))
(MUL(Q|L)const [c] x) && c%5 == 0 && isPowerOfTwo32(c/5) => (SHL(Q|L)const [int8(log32(c/5))]
(LEA(Q|L)4 <v.Type> x x))
(MUL(Q|L)const [c] x) && c%9 == 0 && isPowerOfTwo32(c/9) => (SHL(Q|L)const [int8(log32(c/9))]
(LEA(Q|L)8 <v.Type> x x))

// combine add/shift into LEAQ/LEAL
(ADD(L|Q) x (SHL(L|Q)const [3] y)) => (LEA(L|Q)8 x y)
(ADD(L|Q) x (SHL(L|Q)const [2] y)) => (LEA(L|Q)4 x y)
(ADD(L|Q) x (SHL(L|Q)const [1] y)) => (LEA(L|Q)2 x y)
(ADD(L|Q) x (ADD(L|Q) y y)) => (LEA(L|Q)2 x y)

```

(ADD(L|Q) x (ADD(L|Q) x y)) => (LEA(L|Q)2 y x)

// combine ADDQ/ADDQconst into LEAQ1/LEAL1

(ADD(Q|L)const [c] (ADD(Q|L) x y)) => (LEA(Q|L)1 [c] x y)

(ADD(Q|L) (ADD(Q|L)const [c] x) y) => (LEA(Q|L)1 [c] x y)

(ADD(Q|L)const [c] (SHL(Q|L)const [1] x)) => (LEA(Q|L)1 [c] x x)

// fold ADDQ/ADDL into LEAQ/LEAL

(ADD(Q|L)const [c] (LEA(Q|L) [d] {s} x)) && is32Bit(int64(c)+int64(d)) => (LEA(Q|L) [c+d]
{s} x)

(LEA(Q|L) [c] {s} (ADD(Q|L)const [d] x)) && is32Bit(int64(c)+int64(d)) => (LEA(Q|L) [c+d] {s} x)

(LEA(Q|L) [c] {s} (ADD(Q|L) x y)) && x.Op != OpSB && y.Op != OpSB => (LEA(Q|L)1 [c] {s} x y)

(ADD(Q|L) x (LEA(Q|L) [c] {s} y)) && x.Op != OpSB && y.Op != OpSB => (LEA(Q|L)1 [c] {s} x y)

// fold ADDQconst/ADDLconst into LEAQx/LEALx

(ADD(Q|L)const [c] (LEA(Q|L)1 [d] {s} x y)) && is32Bit(int64(c)+int64(d)) => (LEA(Q|L)1 [c+d] {s} x y)

(ADD(Q|L)const [c] (LEA(Q|L)2 [d] {s} x y)) && is32Bit(int64(c)+int64(d)) => (LEA(Q|L)2 [c+d] {s} x y)

(ADD(Q|L)const [c] (LEA(Q|L)4 [d] {s} x y)) && is32Bit(int64(c)+int64(d)) => (LEA(Q|L)4 [c+d] {s} x y)

(ADD(Q|L)const [c] (LEA(Q|L)8 [d] {s} x y)) && is32Bit(int64(c)+int64(d)) => (LEA(Q|L)8 [c+d] {s} x y)

(LEA(Q|L)1 [c] {s} (ADD(Q|L)const [d] x) y) && is32Bit(int64(c)+int64(d)) && x.Op != OpSB => (LEA(Q|L)1
[c+d] {s} x y)

(LEA(Q|L)2 [c] {s} (ADD(Q|L)const [d] x) y) && is32Bit(int64(c)+int64(d)) && x.Op != OpSB => (LEA(Q|L)2
[c+d] {s} x y)

(LEA(Q|L)2

[c] {s} x (ADD(Q|L)const [d] y)) && is32Bit(int64(c)+2*int64(d)) && y.Op != OpSB => (LEA(Q|L)2 [c+2*d] {s}
x y)

(LEA(Q|L)4 [c] {s} (ADD(Q|L)const [d] x) y) && is32Bit(int64(c)+int64(d)) && x.Op != OpSB => (LEA(Q|L)4
[c+d] {s} x y)

(LEA(Q|L)4 [c] {s} x (ADD(Q|L)const [d] y)) && is32Bit(int64(c)+4*int64(d)) && y.Op != OpSB => (LEA(Q|L)4
[c+4*d] {s} x y)

(LEA(Q|L)8 [c] {s} (ADD(Q|L)const [d] x) y) && is32Bit(int64(c)+int64(d)) && x.Op != OpSB => (LEA(Q|L)8
[c+d] {s} x y)

(LEA(Q|L)8 [c] {s} x (ADD(Q|L)const [d] y)) && is32Bit(int64(c)+8*int64(d)) && y.Op != OpSB => (LEA(Q|L)8
[c+8*d] {s} x y)

// fold shifts into LEAQx/LEALx

(LEA(Q|L)1 [c] {s} x (SHL(Q|L)const [1] y)) => (LEA(Q|L)2 [c] {s} x y)

(LEA(Q|L)1 [c] {s} x (SHL(Q|L)const [2] y)) => (LEA(Q|L)4 [c] {s} x y)

(LEA(Q|L)1 [c] {s} x (SHL(Q|L)const [3] y)) => (LEA(Q|L)8 [c] {s} x y)

(LEA(Q|L)2 [c] {s} x (SHL(Q|L)const [1] y)) => (LEA(Q|L)4 [c] {s} x y)

(LEA(Q|L)2 [c] {s} x (SHL(Q|L)const [2] y)) => (LEA(Q|L)8 [c] {s} x y)

(LEA(Q|L)4

[c] {s} x (SHL(Q|L)const [1] y)) => (LEA(Q|L)8 [c] {s} x y)

// reverse ordering of compare instruction

(SETL (InvertFlags x)) => (SETG x)

(SETG (InvertFlags x)) => (SETL x)

(SETB (InvertFlags x)) => (SETA x)

```

(SETA (InvertFlags x)) => (SETB x)
(SETLE (InvertFlags x)) => (SETGE x)
(SETGE (InvertFlags x)) => (SETLE x)
(SETBE (InvertFlags x)) => (SETAE x)
(SETAE (InvertFlags x)) => (SETBE x)
(SETEQ (InvertFlags x)) => (SETEQ x)
(SETNE (InvertFlags x)) => (SETNE x)

```

```

(SETLstore [off] {sym} ptr (InvertFlags x) mem) => (SETGstore [off] {sym} ptr x mem)
(SETGstore [off] {sym} ptr (InvertFlags x) mem) => (SETLstore [off] {sym} ptr x mem)
(SETBstore [off] {sym} ptr (InvertFlags x) mem) => (SETAstore [off] {sym} ptr x mem)
(SETAstore [off] {sym} ptr (InvertFlags x) mem) => (SETBstore [off] {sym} ptr x mem)
(SETLEstore [off] {sym} ptr (InvertFlags x) mem) => (SETGESTore [off] {sym} ptr x mem)
(SETGESTore [off] {sym} ptr (InvertFlags x) mem) => (SETLEstore [off] {sym} ptr x mem)
(SETBEstore [off]
{sym} ptr (InvertFlags x) mem) => (SETAEstore [off] {sym} ptr x mem)
(SETAEstore [off] {sym} ptr (InvertFlags x) mem) => (SETBEstore [off] {sym} ptr x mem)
(SETEQstore [off] {sym} ptr (InvertFlags x) mem) => (SETEQstore [off] {sym} ptr x mem)
(SETNEstore [off] {sym} ptr (InvertFlags x) mem) => (SETNEstore [off] {sym} ptr x mem)

```

// sign extended loads

// Note: The combined instruction must end up in the same block

// as the original load. If not, we end up making a value with

// memory type live in two different blocks, which can lead to

// multiple memory values alive simultaneously.

// Make sure we don't combine these ops if the load has another use.

// This prevents a single load from being split into multiple loads

// which then might return different values. See test/atomicload.go.

```

(MOVBQ SX x:(MOVBload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVBQ SXload
<v.Type> [off] {sym} ptr mem)

```

```

(MOVBQ SX x:(MOVWload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) =>
@x.Block (MOVBQ SXload <v.Type> [off] {sym} ptr mem)

```

```

(MOVBQ SX x:(MOVLload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVBQ SXload
<v.Type> [off] {sym} ptr mem)

```

```

(MOVBQ SX x:(MOVQload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVBQ SXload
<v.Type> [off] {sym} ptr mem)

```

```

(MOVBQ ZX x:(MOVBload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVBload
<v.Type> [off] {sym} ptr mem)

```

```

(MOVBQ ZX x:(MOVWload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVBload
<v.Type> [off] {sym} ptr mem)

```

```

(MOVBQ ZX x:(MOVLload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVBload
<v.Type> [off] {sym} ptr mem)

```

```

(MOVBQ ZX x:(MOVQload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVBload
<v.Type> [off] {sym} ptr mem)

```

```

(MOVWQ SX x:(MOVWload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block

```

```

(MOVWQ SXload <v.Type> [off] {sym} ptr mem)

```

```

(MOVWQ SX x:(MOVLload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x)

```

```

=> @x.Block (MOVWQSXload <v.Type> [off] {sym} ptr mem)
(MOVWQSX x:(MOVQload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block
(MOVWQSXload <v.Type> [off] {sym} ptr mem)
(MOVWQZX x:(MOVWload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVWload
<v.Type> [off] {sym} ptr mem)
(MOVWQZX x:(MOVQload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVWload
<v.Type> [off] {sym} ptr mem)
(MOVWQZX x:(MOVQload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVWload
<v.Type> [off] {sym} ptr mem)
(MOVLQSX x:(MOVQload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVLQSXload
<v.Type> [off] {sym} ptr mem)
(MOVLQSX x:(MOVQload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVLQSXload
<v.Type> [off] {sym} ptr mem)
(MOVLQZX x:(MOVQload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVLload
<v.Type> [off] {sym} ptr mem)
(MOVLQZX x:(MOVQload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x)
=> @x.Block (MOVLload <v.Type> [off] {sym} ptr mem)

(MOVLQZX x) && zeroUpper32Bits(x,3) => x
(MOVWQZX x) && zeroUpper48Bits(x,3) => x
(MOVBQZX x) && zeroUpper56Bits(x,3) => x

// replace load from same location as preceding store with zero/sign extension (or copy in case of full width)
(MOVBload [off] {sym} ptr (MOVBstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVBQZX x)
(MOVWload [off] {sym} ptr (MOVWstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVWQZX x)
(MOVLload [off] {sym} ptr (MOVLstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVLQZX x)
(MOVQload [off] {sym} ptr (MOVQstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => x
(MOVBQSXload [off] {sym} ptr (MOVBstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVBQSX x)
(MOVWQSXload [off] {sym} ptr (MOVWstore [off2] {sym2} ptr2
x _)) && sym == sym2 && off == off2 && isSamePtr(ptr, ptr2) => (MOVWQSX x)
(MOVLQSXload [off] {sym} ptr (MOVLstore [off2] {sym2} ptr2 x _)) && sym == sym2 && off == off2 &&
isSamePtr(ptr, ptr2) => (MOVLQSX x)

// Fold extensions and ANDs together.
(MOVBQZX (ANDLconst [c] x)) => (ANDLconst [c & 0xff] x)
(MOVWQZX (ANDLconst [c] x)) => (ANDLconst [c & 0xffff] x)
(MOVLQZX (ANDLconst [c] x)) => (ANDLconst [c] x)
(MOVBQSX (ANDLconst [c] x)) && c & 0x80 == 0 => (ANDLconst [c & 0x7f] x)
(MOVWQSX (ANDLconst [c] x)) && c & 0x8000 == 0 => (ANDLconst [c & 0x7fff] x)
(MOVLQSX (ANDLconst [c] x)) && uint32(c) & 0x80000000 == 0 => (ANDLconst [c & 0x7fffffff] x)

// Don't extend before storing
(MOVLstore [off] {sym} ptr (MOVLQSX x) mem) => (MOVLstore [off] {sym} ptr x mem)

```



```

(MOVWstore [off] {sym} ptr (MOVWQSX x) mem) => (MOVWstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVBQSX x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVLstore [off] {sym} ptr (MOVLQZX x) mem) => (MOVLstore [off] {sym}
ptr x mem)
(MOVWstore [off] {sym} ptr (MOVWQZX x) mem) => (MOVWstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVBQZX x) mem) => (MOVBstore [off] {sym} ptr x mem)

// fold constants into memory operations
// Note that this is not always a good idea because if not all the uses of
// the ADDQconst get eliminated, we still have to compute the ADDQconst and we now
// have potentially two live values (ptr and (ADDQconst [off] ptr)) instead of one.
// Nevertheless, let's do it!
(MOV(Q|L|W|B|SS|SD|O)load [off1] {sym} (ADDQconst [off2] ptr) mem) && is32Bit(int64(off1)+int64(off2)) =>
(MOV(Q|L|W|B|SS|SD|O)load [off1+off2] {sym} ptr mem)
(MOV(Q|L|W|B|SS|SD|O)store [off1] {sym} (ADDQconst [off2] ptr) val mem) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOV(Q|L|W|B|SS|SD|O)store [off1+off2] {sym} ptr val mem)
(SET(L|G|B|A|LE|GE|BE|AE|EQ|NE)store [off1] {sym} (ADDQconst [off2] base) val mem) &&
is32Bit(int64(off1)+int64(off2)) =>
(SET(L|G|B|A|LE|GE|BE|AE|EQ|NE)store [off1+off2] {sym}
base val mem)
((ADD|SUB|AND|OR|XOR)Qload [off1] {sym} val (ADDQconst [off2] base) mem) &&
is32Bit(int64(off1)+int64(off2)) =>
((ADD|SUB|AND|OR|XOR)Qload [off1+off2] {sym} val base mem)
((ADD|SUB|AND|OR|XOR)Lload [off1] {sym} val (ADDQconst [off2] base) mem) &&
is32Bit(int64(off1)+int64(off2)) =>
((ADD|SUB|AND|OR|XOR)Lload [off1+off2] {sym} val base mem)
(CMP(Q|L|W|B)load [off1] {sym} (ADDQconst [off2] base) val mem) && is32Bit(int64(off1)+int64(off2)) =>
(CMP(Q|L|W|B)load [off1+off2] {sym} base val mem)
(CMP(Q|L|W|B)constload [valoff1] {sym} (ADDQconst [off2] base) mem) &&
ValAndOff(valoff1).canAdd32(off2) =>
(CMP(Q|L|W|B)constload [ValAndOff(valoff1).addOffset32(off2)] {sym} base mem)

((ADD|SUB|MUL|DIV)SSload [off1] {sym} val (ADDQconst [off2] base) mem) &&
is32Bit(int64(off1)+int64(off2)) =>
((ADD|SUB|MUL|DIV)SSload [off1+off2] {sym} val base mem)
((ADD|SUB|MUL|DIV)SDload [off1] {sym} val (ADDQconst [off2] base) mem) &&
is32Bit(int64(off1)+int64(off2)) =>
((ADD|SUB|MUL|DIV)SDload
[off1+off2] {sym} val base mem)
((ADD|AND|OR|XOR)Qconstmodify [valoff1] {sym} (ADDQconst [off2] base) mem) &&
ValAndOff(valoff1).canAdd32(off2) =>
((ADD|AND|OR|XOR)Qconstmodify [ValAndOff(valoff1).addOffset32(off2)] {sym} base mem)
((ADD|AND|OR|XOR)Lconstmodify [valoff1] {sym} (ADDQconst [off2] base) mem) &&
ValAndOff(valoff1).canAdd32(off2) =>
((ADD|AND|OR|XOR)Lconstmodify [ValAndOff(valoff1).addOffset32(off2)] {sym} base mem)
((ADD|SUB|AND|OR|XOR)Qmodify [off1] {sym} (ADDQconst [off2] base) val mem) &&
is32Bit(int64(off1)+int64(off2)) =>

```

```

((ADD|SUB|AND|OR|XOR)Qmodify [off1+off2] {sym} base val mem)
((ADD|SUB|AND|OR|XOR)Lmodify [off1] {sym} (ADDQconst [off2] base) val mem) &&
is32Bit(int64(off1)+int64(off2)) =>
((ADD|SUB|AND|OR|XOR)Lmodify [off1+off2] {sym} base val mem)

// Fold constants into stores.
(MOVQstore [off] {sym} ptr (MOVQconst [c] mem) && validVal(c) =>
(MOVQstoreconst [makeValAndOff(int32(c),off)] {sym} ptr mem)
(MOVLstore [off] {sym} ptr (MOV(L|Q)const [c]
mem) =>
(MOVLstoreconst [makeValAndOff(int32(c),off)] {sym} ptr mem)
(MOVWstore [off] {sym} ptr (MOV(L|Q)const [c] mem) =>
(MOVWstoreconst [makeValAndOff(int32(int16(c)),off)] {sym} ptr mem)
(MOVBstore [off] {sym} ptr (MOV(L|Q)const [c] mem) =>
(MOVBstoreconst [makeValAndOff(int32(int8(c)),off)] {sym} ptr mem)

// Fold address offsets into constant stores.
(MOV(Q|L|W|B|O)storeconst [sc] {s} (ADDQconst [off] ptr) mem) && ValAndOff(sc).canAdd32(off) =>
(MOV(Q|L|W|B|O)storeconst [ValAndOff(sc).addOffset32(off)] {s} ptr mem)

// We need to fold LEAQ into the MOVx ops so that the live variable analysis knows
// what variables are being read/written by the ops.
(MOV(Q|L|W|B|SS|SD|O|BQ SX|WQ SX|LQ SX)load [off1] {sym1} (LEAQ [off2] {sym2} base) mem)
&& is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) =>
(MOV(Q|L|W|B|SS|SD|O|BQ SX|WQ SX|LQ SX)load [off1+off2] {mergeSym(sym1,sym2)} base mem)
(MOV(Q|L|W|B|SS|SD|O)store [off1] {sym1} (LEAQ [off2] {sym2} base) val mem)
&& is32Bit(int64(off1)+int64(off2))
&& canMergeSym(sym1, sym2) =>
(MOV(Q|L|W|B|SS|SD|O)store [off1+off2] {mergeSym(sym1,sym2)} base val mem)
(MOV(Q|L|W|B|O)storeconst [sc] {sym1} (LEAQ [off] {sym2} ptr) mem) && canMergeSym(sym1, sym2) &&
ValAndOff(sc).canAdd32(off) =>
(MOV(Q|L|W|B|O)storeconst [ValAndOff(sc).addOffset32(off)] {mergeSym(sym1, sym2)} ptr mem)
(SET(L|G|B|A|LE|GE|BE|AE|EQ|NE)store [off1] {sym1} (LEAQ [off2] {sym2} base) val mem)
&& is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) =>
(SET(L|G|B|A|LE|GE|BE|AE|EQ|NE)store [off1+off2] {mergeSym(sym1,sym2)} base val mem)
((ADD|SUB|AND|OR|XOR)Qload [off1] {sym1} val (LEAQ [off2] {sym2} base) mem)
&& is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) =>
((ADD|SUB|AND|OR|XOR)Qload [off1+off2] {mergeSym(sym1,sym2)} val base mem)
((ADD|SUB|AND|OR|XOR)Lload [off1] {sym1} val (LEAQ [off2] {sym2} base) mem)
&& is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) =>
((ADD|SUB|AND|OR|XOR)Lload [off1+off2] {mergeSym(sym1,sym2)}
val base mem)
(CMP(Q|L|W|B)load [off1] {sym1} (LEAQ [off2] {sym2} base) val mem)
&& is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) =>
(CMP(Q|L|W|B)load [off1+off2] {mergeSym(sym1,sym2)} base val mem)
(CMP(Q|L|W|B)constload [valoff1] {sym1} (LEAQ [off2] {sym2} base) mem)
&& ValAndOff(valoff1).canAdd32(off2) && canMergeSym(sym1, sym2) =>
(CMP(Q|L|W|B)constload [ValAndOff(valoff1).addOffset32(off2)] {mergeSym(sym1,sym2)} base mem)

```

```

((ADD|SUB|MUL|DIV)SSload [off1] {sym1} val (LEAQ [off2] {sym2} base) mem)
&& is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) =>
((ADD|SUB|MUL|DIV)SSload [off1+off2] {mergeSym(sym1,sym2)} val base mem)
((ADD|SUB|MUL|DIV)SDload [off1] {sym1} val (LEAQ [off2] {sym2} base) mem)
&& is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) =>
((ADD|SUB|MUL|DIV)SDload [off1+off2] {mergeSym(sym1,sym2)} val base mem)
((ADD|AND|OR|XOR)Qconstmodify [valoff1] {sym1} (LEAQ [off2] {sym2} base) mem)
&& ValAndOff(valoff1).canAdd32(off2)
&& canMergeSym(sym1, sym2) =>
((ADD|AND|OR|XOR)Qconstmodify [ValAndOff(valoff1).addOffset32(off2)] {mergeSym(sym1,sym2)} base
mem)
((ADD|AND|OR|XOR)Lconstmodify [valoff1] {sym1} (LEAQ [off2] {sym2} base) mem)
&& ValAndOff(valoff1).canAdd32(off2) && canMergeSym(sym1, sym2) =>
((ADD|AND|OR|XOR)Lconstmodify [ValAndOff(valoff1).addOffset32(off2)] {mergeSym(sym1,sym2)} base
mem)
((ADD|SUB|AND|OR|XOR)Qmodify [off1] {sym1} (LEAQ [off2] {sym2} base) val mem)
&& is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) =>
((ADD|SUB|AND|OR|XOR)Qmodify [off1+off2] {mergeSym(sym1,sym2)} base val mem)
((ADD|SUB|AND|OR|XOR)Lmodify [off1] {sym1} (LEAQ [off2] {sym2} base) val mem)
&& is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2) =>
((ADD|SUB|AND|OR|XOR)Lmodify [off1+off2] {mergeSym(sym1,sym2)} base val mem)

// fold LEAQs together
(LEAQ [off1] {sym1} (LEAQ [off2] {sym2} x) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) =>
  (LEAQ [off1+off2] {mergeSym(sym1,sym2)})
x)

// LEAQ into LEAQ1
(LEAQ1 [off1] {sym1} (LEAQ [off2] {sym2} x) y) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) && x.Op != OpSB =>
  (LEAQ1 [off1+off2] {mergeSym(sym1,sym2)} x y)

// LEAQ1 into LEAQ
(LEAQ [off1] {sym1} (LEAQ1 [off2] {sym2} x) y) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) =>
  (LEAQ1 [off1+off2] {mergeSym(sym1,sym2)} x y)

// LEAQ into LEAQ[248]
(LEAQ2 [off1] {sym1} (LEAQ [off2] {sym2} x) y) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) && x.Op != OpSB =>
  (LEAQ2 [off1+off2] {mergeSym(sym1,sym2)} x y)
(LEAQ4 [off1] {sym1} (LEAQ [off2] {sym2} x) y) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) && x.Op != OpSB =>
  (LEAQ4 [off1+off2] {mergeSym(sym1,sym2)} x y)
(LEAQ8 [off1] {sym1} (LEAQ [off2] {sym2} x) y) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) && x.Op != OpSB =>

```

```

    (LEAQ8 [off1+off2] {mergeSym(sym1,sym2)} x y)

// LEAQ[248] into LEAQ
(LEAQ
 [off1] {sym1} (LEAQ2 [off2] {sym2} x y)) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1, sym2)
=>
    (LEAQ2 [off1+off2] {mergeSym(sym1,sym2)} x y)
(LEAQ [off1] {sym1} (LEAQ4 [off2] {sym2} x y)) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) =>
    (LEAQ4 [off1+off2] {mergeSym(sym1,sym2)} x y)
(LEAQ [off1] {sym1} (LEAQ8 [off2] {sym2} x y)) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) =>
    (LEAQ8 [off1+off2] {mergeSym(sym1,sym2)} x y)

// LEAQ[1248] into LEAQ[1248]. Only some such merges are possible.
(LEAQ1 [off1] {sym1} x (LEAQ1 [off2] {sym2} y y)) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
    (LEAQ2 [off1+off2] {mergeSym(sym1, sym2)} x y)
(LEAQ1 [off1] {sym1} x (LEAQ1 [off2] {sym2} x y)) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
    (LEAQ2 [off1+off2] {mergeSym(sym1, sym2)} y x)
(LEAQ2 [off1] {sym1} x (LEAQ1 [off2] {sym2} y y)) && is32Bit(int64(off1)+2*int64(off2)) && sym2 == nil
=>
    (LEAQ4 [off1+2*off2] {sym1} x y)
(LEAQ4 [off1] {sym1} x (LEAQ1 [off2] {sym2} y y)) && is32Bit(int64(off1)+4*int64(off2)) && sym2 == nil =>
    (LEAQ8 [off1+4*off2] {sym1} x y)
// TODO: more?

// Lower LEAQ2/4/8 when the offset is a constant
(LEAQ2 [off] {sym} x (MOV(Q)Lconst [scale])) && is32Bit(int64(off)+int64(scale)*2) =>
    (LEAQ [off+int32(scale)*2] {sym} x)
(LEAQ4 [off] {sym} x (MOV(Q)Lconst [scale])) && is32Bit(int64(off)+int64(scale)*4) =>
    (LEAQ [off+int32(scale)*4] {sym} x)
(LEAQ8 [off] {sym} x (MOV(Q)Lconst [scale])) && is32Bit(int64(off)+int64(scale)*8) =>
    (LEAQ [off+int32(scale)*8] {sym} x)

// Absorb InvertFlags into branches.
(LT (InvertFlags cmp) yes no) => (GT cmp yes no)
(GT (InvertFlags cmp) yes no) => (LT cmp yes no)
(LE (InvertFlags cmp) yes no) => (GE cmp yes no)
(GE (InvertFlags cmp) yes no) => (LE cmp yes no)
(ULT (InvertFlags cmp) yes no) => (UGT cmp yes no)
(UGT (InvertFlags cmp) yes no) => (ULT cmp yes no)
(ULE (InvertFlags cmp) yes no) => (UGE
cmp yes no)
(UGE (InvertFlags cmp) yes no) => (ULE cmp yes no)
(EQ (InvertFlags cmp) yes no) => (EQ cmp yes no)
(NE (InvertFlags cmp) yes no) => (NE cmp yes no)

```

```

// Constant comparisons.
(CMPQconst (MOVQconst [x] [y]) && x==int64(y) => (FlagEQ)
(CMPQconst (MOVQconst [x] [y]) && x<int64(y) && uint64(x)<uint64(int64(y)) => (FlagLT_ULT)
(CMPQconst (MOVQconst [x] [y]) && x<int64(y) && uint64(x)>uint64(int64(y)) => (FlagLT_UGT)
(CMPQconst (MOVQconst [x] [y]) && x>int64(y) && uint64(x)<uint64(int64(y)) => (FlagGT_ULT)
(CMPQconst (MOVQconst [x] [y]) && x>int64(y) && uint64(x)>uint64(int64(y)) => (FlagGT_UGT)
(CMPLconst (MOVLconst [x] [y]) && x==y => (FlagEQ)
(CMPLconst (MOVLconst [x] [y]) && x<y && uint32(x)<uint32(y) => (FlagLT_ULT)
(CMPLconst (MOVLconst [x] [y]) && x<y && uint32(x)>uint32(y) => (FlagLT_UGT)
(CMPLconst (MOVLconst [x] [y]) && x>y && uint32(x)<uint32(y) => (FlagGT_ULT)
(CMPLconst (MOVLconst [x] [y]) && x>y && uint32(x)>uint32(y) => (FlagGT_UGT)
(CMPWconst (MOVLconst
[x] [y]) && int16(x)==y => (FlagEQ)
(CMPWconst (MOVLconst [x] [y]) && int16(x)<y && uint16(x)<uint16(y) => (FlagLT_ULT)
(CMPWconst (MOVLconst [x] [y]) && int16(x)<y && uint16(x)>uint16(y) => (FlagLT_UGT)
(CMPWconst (MOVLconst [x] [y]) && int16(x)>y && uint16(x)<uint16(y) => (FlagGT_ULT)
(CMPWconst (MOVLconst [x] [y]) && int16(x)>y && uint16(x)>uint16(y) => (FlagGT_UGT)
(CMPBconst (MOVLconst [x] [y]) && int8(x)==y => (FlagEQ)
(CMPBconst (MOVLconst [x] [y]) && int8(x)<y && uint8(x)<uint8(y) => (FlagLT_ULT)
(CMPBconst (MOVLconst [x] [y]) && int8(x)<y && uint8(x)>uint8(y) => (FlagLT_UGT)
(CMPBconst (MOVLconst [x] [y]) && int8(x)>y && uint8(x)<uint8(y) => (FlagGT_ULT)
(CMPBconst (MOVLconst [x] [y]) && int8(x)>y && uint8(x)>uint8(y) => (FlagGT_UGT)

// CMPQconst requires a 32 bit const, but we can still constant-fold 64 bit consts.
// In theory this applies to any of the simplifications above,
// but CMPQ is the only one I've actually seen occur.
(CMPQ (MOVQconst [x] (MOVQconst [y]))
&& x==y => (FlagEQ)
(CMPQ (MOVQconst [x] (MOVQconst [y])) && x<y && uint64(x)<uint64(y) => (FlagLT_ULT)
(CMPQ (MOVQconst [x] (MOVQconst [y])) && x<y && uint64(x)>uint64(y) => (FlagLT_UGT)
(CMPQ (MOVQconst [x] (MOVQconst [y])) && x>y && uint64(x)<uint64(y) => (FlagGT_ULT)
(CMPQ (MOVQconst [x] (MOVQconst [y])) && x>y && uint64(x)>uint64(y) => (FlagGT_UGT)

// Other known comparisons.
(CMPQconst (MOVBQZX _) [c]) && 0xFF < c => (FlagLT_ULT)
(CMPQconst (MOVWQZX _) [c]) && 0xFFFF < c => (FlagLT_ULT)
(CMPLconst (SHRLconst _ [c] [n]) && 0 <= n && 0 < c && c <= 32 && (1<<uint64(32-c)) <= uint64(n) =>
(FlagLT_ULT)
(CMPQconst (SHRQconst _ [c] [n]) && 0 <= n && 0 < c && c <= 64 && (1<<uint64(64-c)) <= uint64(n) =>
(FlagLT_ULT)
(CMPQconst (ANDQconst _ [m] [n]) && 0 <= m && m < n => (FlagLT_ULT)
(CMPQconst (ANDLconst _ [m] [n]) && 0 <= m && m < n => (FlagLT_ULT)
(CMPLconst (ANDLconst _ [m] [n]) && 0 <= m && m < n => (FlagLT_ULT)
(CMPWconst (ANDLconst _ [m] [n]) && 0 <= int16(m) && int16(m)
< n => (FlagLT_ULT)
(CMPBconst (ANDLconst _ [m] [n]) && 0 <= int8(m) && int8(m) < n => (FlagLT_ULT)

```

```

// TESTQ c c sets flags like CMPQ c 0.
(TESTQconst [c] (MOVQconst [d])) && int64(c) == d && c == 0 => (FlagEQ)
(TESTLconst [c] (MOVLconst [c])) && c == 0 => (FlagEQ)
(TESTQconst [c] (MOVQconst [d])) && int64(c) == d && c < 0 => (FlagLT_UGT)
(TESTLconst [c] (MOVLconst [c])) && c < 0 => (FlagLT_UGT)
(TESTQconst [c] (MOVQconst [d])) && int64(c) == d && c > 0 => (FlagGT_UGT)
(TESTLconst [c] (MOVLconst [c])) && c > 0 => (FlagGT_UGT)

// TODO: DIVxU also.

// Absorb flag constants into SBB ops.
(SBBQcarrymask (FlagEQ)) => (MOVQconst [0])
(SBBQcarrymask (FlagLT_ULT)) => (MOVQconst [-1])
(SBBQcarrymask (FlagLT_UGT)) => (MOVQconst [0])
(SBBQcarrymask (FlagGT_ULT)) => (MOVQconst [-1])
(SBBQcarrymask (FlagGT_UGT)) => (MOVQconst [0])
(SBBLcarrymask (FlagEQ)) => (MOVLconst [0])
(SBBLcarrymask (FlagLT_ULT)) => (MOVLconst [-1])
(SBBLcarrymask (FlagLT_UGT)) => (MOVLconst [0])
(SBBLcarrymask
(FlagGT_ULT)) => (MOVLconst [-1])
(SBBLcarrymask (FlagGT_UGT)) => (MOVLconst [0])

// Absorb flag constants into branches.
((EQ|LE|GE|ULE|UGE) (FlagEQ) yes no) => (First yes no)
((NE|LT|GT|ULT|UGT) (FlagEQ) yes no) => (First no yes)
((NE|LT|LE|ULT|ULE) (FlagLT_ULT) yes no) => (First yes no)
((EQ|GT|GE|UGT|UGE) (FlagLT_ULT) yes no) => (First no yes)
((NE|LT|LE|UGT|UGE) (FlagLT_UGT) yes no) => (First yes no)
((EQ|GT|GE|ULT|ULE) (FlagLT_UGT) yes no) => (First no yes)
((NE|GT|GE|ULT|ULE) (FlagGT_ULT) yes no) => (First yes no)
((EQ|LT|LE|UGT|UGE) (FlagGT_ULT) yes no) => (First no yes)
((NE|GT|GE|UGT|UGE) (FlagGT_UGT) yes no) => (First yes no)
((EQ|LT|LE|ULT|ULE) (FlagGT_UGT) yes no) => (First no yes)

// Absorb flag constants into SETxx ops.
((SETEQ|SETLE|SETGE|SETBE|SETAE) (FlagEQ)) => (MOVLconst [1])
((SETNE|SETL|SETG|SETB|SETA) (FlagEQ)) => (MOVLconst [0])
((SETNE|SETL|SETLE|SETB|SETBE) (FlagLT_ULT)) => (MOVLconst [1])
((SETEQ|SETG|SETGE|SETA|SETAE) (FlagLT_ULT))
=> (MOVLconst [0])
((SETNE|SETL|SETLE|SETA|SETAE) (FlagLT_UGT)) => (MOVLconst [1])
((SETEQ|SETG|SETGE|SETB|SETBE) (FlagLT_UGT)) => (MOVLconst [0])
((SETNE|SETG|SETGE|SETB|SETBE) (FlagGT_ULT)) => (MOVLconst [1])
((SETEQ|SETL|SETLE|SETA|SETAE) (FlagGT_ULT)) => (MOVLconst [0])
((SETNE|SETG|SETGE|SETA|SETAE) (FlagGT_UGT)) => (MOVLconst [1])
((SETEQ|SETL|SETLE|SETB|SETBE) (FlagGT_UGT)) => (MOVLconst [0])

```

(SETEQstore [off] {sym} ptr (FlagEQ) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)
(SETEQstore [off] {sym} ptr (FlagLT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)
(SETEQstore [off] {sym} ptr (FlagLT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)
(SETEQstore [off] {sym} ptr (FlagGT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)
(SETEQstore [off] {sym} ptr (FlagGT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETNEstore [off] {sym} ptr (FlagEQ) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)
(SETNEstore [off] {sym} ptr (FlagLT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)
(SETNEstore [off] {sym} ptr (FlagLT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)
(SETNEstore [off] {sym} ptr (FlagGT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)
(SETNEstore [off] {sym} ptr (FlagGT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)

(SETLstore [off] {sym} ptr (FlagEQ) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)
(SETLstore [off] {sym} ptr (FlagLT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)
(SETLstore [off] {sym} ptr (FlagLT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)
(SETLstore [off] {sym} ptr (FlagGT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)
(SETLstore [off] {sym} ptr (FlagGT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETLEstore [off] {sym} ptr (FlagEQ) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)
(SETLEstore [off] {sym} ptr (FlagLT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)
(SETLEstore [off] {sym} ptr (FlagLT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)
(SETLEstore [off] {sym} ptr (FlagGT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)
(SETLEstore [off] {sym} ptr (FlagGT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETGstore [off] {sym} ptr (FlagEQ) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)
(SETGstore [off] {sym} ptr (FlagLT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETGstore [off] {sym} ptr (FlagLT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETGstore [off] {sym} ptr (FlagGT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)

(SETGstore [off] {sym} ptr (FlagGT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)

(SETGEstore [off] {sym} ptr (FlagEQ) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)

(SETGEstore [off] {sym} ptr (FlagLT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETGEstore [off] {sym} ptr (FlagLT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETGEstore [off] {sym} ptr (FlagGT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)

(SETGEstore [off] {sym} ptr (FlagGT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)

(SETBstore [off] {sym} ptr (FlagEQ) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETBstore [off] {sym} ptr (FlagLT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)

(SETBstore [off] {sym} ptr (FlagLT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETBstore [off] {sym} ptr (FlagGT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)

(SETBstore [off] {sym} ptr (FlagGT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETBEstore [off] {sym} ptr (FlagEQ) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)

(SETBEstore [off] {sym} ptr (FlagLT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)

(SETBEstore [off] {sym} ptr (FlagLT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETBEstore [off] {sym} ptr (FlagGT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)

(SETBEstore [off] {sym} ptr (FlagGT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETAstore [off] {sym} ptr (FlagEQ) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETAstore [off] {sym} ptr (FlagLT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)

(SETAstore [off] {sym} ptr (FlagLT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1]) mem)

(SETAstore [off] {sym} ptr (FlagGT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0]) mem)


```

(SETAstore [off] {sym} ptr (FlagGT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1])
mem)

(SETAestore [off] {sym} ptr (FlagEQ) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1])
mem)
(SETAestore [off] {sym} ptr (FlagLT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0])
mem)
(SETAestore [off] {sym} ptr (FlagLT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1])
mem)
(SETAestore [off] {sym} ptr (FlagGT_ULT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [0])
mem)
(SETAestore [off] {sym} ptr (FlagGT_UGT) mem) => (MOVBstore [off] {sym} ptr (MOVLconst <typ.UInt8> [1])
mem)

// Remove redundant *const ops
(ADDQconst [0] x) => x
(ADDLconst [c] x) && c==0 => x
(SUBQconst [0] x)
=> x
(SUBLconst [c] x) && c==0 => x
(ANDQconst [0] _) => (MOVQconst [0])
(ANDLconst [c] _) && c==0 => (MOVLconst [0])
(ANDQconst [-1] x) => x
(ANDLconst [c] x) && c==-1 => x
(ORQconst [0] x) => x
(ORLconst [c] x) && c==0 => x
(ORQconst [-1] _) => (MOVQconst [-1])
(ORLconst [c] _) && c==-1 => (MOVLconst [-1])
(XORQconst [0] x) => x
(XORLconst [c] x) && c==0 => x
// TODO: since we got rid of the W/B versions, we might miss
// things like (ANDLconst [0x100] x) which were formerly
// (ANDBconst [0] x). Probably doesn't happen very often.
// If we cared, we might do:
// (ANDLconst <t> [c] x) && t.Size()==1 && int8(x)==0 -> (MOVLconst [0])

// Remove redundant ops
// Not in generic rules, because they may appear after lowering e. g. Slicemask
(NEG(Q|L) (NEG(Q|L) x)) => x
(NEG(Q|L) s:(SUB(Q|L) x y)) && s.Uses == 1 => (SUB(Q|L) y x)

// Convert constant subtracts to constant adds
(SUBQconst [c] x) && c != -(1<<31) => (ADDQconst [-c]
x)
(SUBLconst [c] x) => (ADDLconst [-c] x)

// generic constant folding
// TODO: more of this

```

```

(ADDQconst [c] (MOVQconst [d])) => (MOVQconst [int64(c)+d])
(ADDLconst [c] (MOVLconst [d])) => (MOVLconst [c+d])
(ADDQconst [c] (ADDQconst [d] x)) && is32Bit(int64(c)+int64(d)) => (ADDQconst [c+d] x)
(ADDLconst [c] (ADDLconst [d] x)) => (ADDLconst [c+d] x)
(SUBQconst (MOVQconst [d]) [c]) => (MOVQconst [d-int64(c)])
(SUBQconst (SUBQconst x [d]) [c]) && is32Bit(int64(-c)-int64(d)) => (ADDQconst [-c-d] x)
(SARQconst [c] (MOVQconst [d])) => (MOVQconst [d>>uint64(c)])
(SARLconst [c] (MOVLconst [d])) => (MOVLconst [int64(int32(d))>>uint64(c)])
(SARWconst [c] (MOVQconst [d])) => (MOVQconst [int64(int16(d))>>uint64(c)])
(SARBconst [c] (MOVQconst [d])) => (MOVQconst [int64(int8(d))>>uint64(c)])
(NEGQ (MOVQconst [c])) => (MOVQconst [-c])
(NEGL (MOVLconst [c])) => (MOVLconst [-c])
(MULQconst [c] (MOVQconst [d])) => (MOVQconst [int64(c)*d])
(MULLconst [c] (MOVLconst [d])) => (MOVLconst [c*d])
(ANDQconst [c]
(MOVQconst [d])) => (MOVQconst [int64(c)&d])
(ANDLconst [c] (MOVLconst [d])) => (MOVLconst [c&d])
(ORQconst [c] (MOVQconst [d])) => (MOVQconst [int64(c)|d])
(ORLconst [c] (MOVLconst [d])) => (MOVLconst [c|d])
(XORQconst [c] (MOVQconst [d])) => (MOVQconst [int64(c)^d])
(XORLconst [c] (MOVLconst [d])) => (MOVLconst [c^d])
(NOTQ (MOVQconst [c])) => (MOVQconst [^c])
(NOTL (MOVLconst [c])) => (MOVLconst [^c])
(BTSQconst [c] (MOVQconst [d])) => (MOVQconst [d|(1<<uint32(c))])
(BTSLconst [c] (MOVLconst [d])) => (MOVLconst [d|(1<<uint32(c))])
(BTRQconst [c] (MOVQconst [d])) => (MOVQconst [d&^(1<<uint32(c))])
(BTRLconst [c] (MOVLconst [d])) => (MOVLconst [d&^(1<<uint32(c))])
(BTCQconst [c] (MOVQconst [d])) => (MOVQconst [d^(1<<uint32(c))])
(BTCLconst [c] (MOVLconst [d])) => (MOVLconst [d^(1<<uint32(c))])

```

```

// If c or d doesn't fit into 32 bits, then we can't construct ORQconst,
// but we can still constant-fold.
// In theory this applies to any of the simplifications above,
// but ORQ is the only
// one I've actually seen occur.
(ORQ (MOVQconst [c]) (MOVQconst [d])) => (MOVQconst [c|d])

```

```

// generic simplifications
// TODO: more of this
(ADDQ x (NEGQ y)) => (SUBQ x y)
(ADDL x (NEGL y)) => (SUBL x y)
(SUBQ x x) => (MOVQconst [0])
(SUBL x x) => (MOVLconst [0])
(ANDQ x x) => x
(ANDL x x) => x
(ORQ x x) => x
(ORL x x) => x
(XORQ x x) => (MOVQconst [0])

```

```

(XORL x x) => (MOVLconst [0])

(SHLLconst [d] (MOVLconst [c])) => (MOVLconst [c << uint64(d)])
(SHLQconst [d] (MOVQconst [c])) => (MOVQconst [c << uint64(d)])
(SHLQconst [d] (MOVLconst [c])) => (MOVQconst [int64(c) << uint64(d)])

// Fold NEG into ADDconst/MULconst. Take care to keep c in 32 bit range.
(NEGQ (ADDQconst [c] (NEGQ x))) && c != -(1<<31) => (ADDQconst [-c] x)
(MULQconst [c] (NEGQ x)) && c != -(1<<31) => (MULQconst [-c] x)

// checking AND against 0.
(CMPQconst a:(ANDQ x y) [0]) && a.Uses == 1 => (TESTQ x y)
(CMPLconst a:(ANDL x y) [0]) && a.Uses == 1 => (TESTL x y)
(CMPWconst a:(ANDL x y) [0]) && a.Uses == 1 => (TESTW
x y)
(CMPBconst a:(ANDL x y) [0]) && a.Uses == 1 => (TESTB x y)
(CMPQconst a:(ANDQconst [c] x) [0]) && a.Uses == 1 => (TESTQconst [c] x)
(CMPLconst a:(ANDLconst [c] x) [0]) && a.Uses == 1 => (TESTLconst [c] x)
(CMPWconst a:(ANDLconst [c] x) [0]) && a.Uses == 1 => (TESTWconst [int16(c)] x)
(CMPBconst a:(ANDLconst [c] x) [0]) && a.Uses == 1 => (TESTBconst [int8(c)] x)

// Convert TESTx to TESTxconst if possible.
(TESTQ (MOVQconst [c] x) && is32Bit(c) => (TESTQconst [int32(c)] x)
(TESTL (MOVLconst [c] x) => (TESTLconst [c] x)
(TESTW (MOVLconst [c] x) => (TESTWconst [int16(c)] x)
(TESTB (MOVLconst [c] x) => (TESTBconst [int8(c)] x)

// TEST %reg,%reg is shorter than CMP
(CMPQconst x [0]) => (TESTQ x x)
(CMPLconst x [0]) => (TESTL x x)
(CMPWconst x [0]) => (TESTW x x)
(CMPBconst x [0]) => (TESTB x x)
(TESTQconst [-1] x) && x.Op != OpAMD64MOVQconst => (TESTQ x x)
(TESTLconst [-1] x) && x.Op != OpAMD64MOVLconst => (TESTL x x)
(TESTWconst [-1] x) && x.Op != OpAMD64MOVLconst => (TESTW x x)
(TESTBconst
[-1] x) && x.Op != OpAMD64MOVLconst => (TESTB x x)

// Convert LEAQ1 back to ADDQ if we can
(LEAQ1 [0] x y) && v.Aux == nil => (ADDQ x y)

// Combining byte loads into larger (unaligned) loads.
// There are many ways these combinations could occur. This is
// designed to match the way encoding/binary.LittleEndian does it.

// Little-endian loads

(OR(L|Q)          x0:(MOVBload [i0] {s} p mem)

```

```
sh:(SHL(L|Q)const [8] x1:(MOVBlload [i1] {s} p mem)))
&& i1 == i0+1
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVWload [i0] {s} p mem)
```

```
(OR(L|Q)          x0:(MOVBlload [i] {s} p0 mem)
  sh:(SHL(L|Q)const [8] x1:(MOVBlload [i] {s} p1 mem)))
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses == 1
&& sequentialAddresses(p0, p1, 1)
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVWload [i] {s} p0 mem)
```

```
(OR(L|Q)          x0:(MOVWload
[i0] {s} p mem)
  sh:(SHL(L|Q)const [16] x1:(MOVWload [i1] {s} p mem)))
&& i1 == i0+2
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVLload [i0] {s} p mem)
```

```
(OR(L|Q)          x0:(MOVWload [i] {s} p0 mem)
  sh:(SHL(L|Q)const [16] x1:(MOVWload [i] {s} p1 mem)))
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses == 1
&& sequentialAddresses(p0, p1, 2)
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVLload [i] {s} p0 mem)
```

```
(ORQ          x0:(MOVLload [i0] {s} p mem)
  sh:(SHLQconst [32] x1:(MOVLload [i1] {s} p mem)))
&& i1 == i0+4
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
```

=> @mergePoint(b,x0,x1) (MOVQload [i0] {s} p mem)

```
(ORQ          x0:(MOVLload [i] {s} p0 mem)
  sh:(SHLQconst [32] x1:(MOVLload [i] {s} p1 mem)))
&& x0.Uses == 1
&& x1.Uses ==
1
&& sh.Uses == 1
&& sequentialAddresses(p0, p1, 4)
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVQload [i] {s} p0 mem)
```

```
(OR(L|Q)
  s1:(SHL(L|Q)const [j1] x1:(MOVBlload [i1] {s} p mem))
  or:(OR(L|Q)
    s0:(SHL(L|Q)const [j0] x0:(MOVBlload [i0] {s} p mem))
  y))
&& i1 == i0+1
&& j1 == j0+8
&& j0 % 16 == 0
&& x0.Uses == 1
&& x1.Uses == 1
&& s0.Uses == 1
&& s1.Uses == 1
&& or.Uses == 1
&& mergePoint(b,x0,x1,y) != nil
&& clobber(x0, x1, s0, s1, or)
=> @mergePoint(b,x0,x1,y) (OR(L|Q) <v.Type> (SHL(L|Q)const <v.Type> [j0] (MOVWload [i0] {s} p mem)) y)
```

```
(OR(L|Q)
  s1:(SHL(L|Q)const [j1] x1:(MOVBlload [i] {s} p1 mem))
  or:(OR(L|Q)
    s0:(SHL(L|Q)const [j0] x0:(MOVBlload [i] {s} p0 mem))
  y))
&& j1 == j0+8
&& j0 % 16 == 0
&& x0.Uses == 1
&& x1.Uses == 1
&& s0.Uses == 1
&& s1.Uses == 1
&& or.Uses == 1
&& sequentialAddresses(p0, p1, 1)
&& mergePoint(b,x0,x1,y) != nil
&& clobber(x0, x1, s0, s1, or)
=> @mergePoint(b,x0,x1,y) (OR(L|Q) <v.Type> (SHL(L|Q)const <v.Type> [j0] (MOVWload [i] {s} p0 mem)) y)
```

(ORQ

```

s1:(SHLQconst [j1] x1:(MOVWload [i1] {s} p mem))
or:(ORQ
  s0:(SHLQconst [j0] x0:(MOVWload [i0] {s} p mem))
y))
&& i1 == i0+2
&& j1 == j0+16
&& j0 % 32 == 0
&& x0.Uses == 1
&& x1.Uses == 1
&& s0.Uses == 1
&& s1.Uses == 1
&& or.Uses == 1
&& mergePoint(b,x0,x1,y) != nil
&& clobber(x0, x1, s0, s1, or)
=> @mergePoint(b,x0,x1,y) (ORQ <v.Type> (SHLQconst <v.Type> [j0] (MOVLload [i0] {s} p mem)) y)

```

```

(ORQ
  s1:(SHLQconst [j1] x1:(MOVWload [i] {s} p1 mem))
  or:(ORQ
    s0:(SHLQconst [j0] x0:(MOVWload [i] {s} p0 mem))
  y))
&& j1 == j0+16
&& j0 % 32 == 0
&& x0.Uses == 1
&& x1.Uses == 1
&& s0.Uses == 1
&& s1.Uses == 1
&& or.Uses == 1
&& sequentialAddresses(p0, p1, 2)
&& mergePoint(b,x0,x1,y) != nil
&& clobber(x0, x1, s0, s1, or)
=> @mergePoint(b,x0,x1,y) (ORQ <v.Type> (SHLQconst <v.Type> [j0] (MOVLload [i] {s} p0 mem))
y)

```

// Big-endian loads

```

(OR(L|Q)
  x1:(MOVBlload [i1] {s} p mem)
  sh:(SHL(L|Q)const [8] x0:(MOVBlload [i0] {s} p mem)))
&& i1 == i0+1
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (ROLWconst <v.Type> [8] (MOVWload [i0] {s} p mem))

```

```

(OR(L|Q)

```

```

        x1:(MOVBload [i] {s} p1 mem)
    sh:(SHL(L|Q)const [8] x0:(MOVBload [i] {s} p0 mem)))
    && x0.Uses == 1
    && x1.Uses == 1
    && sh.Uses == 1
    && sequentialAddresses(p0, p1, 1)
    && mergePoint(b,x0,x1) != nil
    && clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (ROLWconst <v.Type> [8] (MOVWload [i] {s} p0 mem))

```

(OR(L|Q))

```

        r1:(ROLWconst [8] x1:(MOVWload [i1] {s} p mem))
    sh:(SHL(L|Q)const [16] r0:(ROLWconst [8] x0:(MOVWload [i0] {s} p mem)))
    && i1 == i0+2
    && x0.Uses == 1
    && x1.Uses == 1
    && r0.Uses == 1
    && r1.Uses == 1
    && sh.Uses == 1
    && mergePoint(b,x0,x1) != nil
    && clobber(x0, x1, r0, r1, sh)
=> @mergePoint(b,x0,x1) (BSWAPL <v.Type> (MOVLload [i0] {s} p mem))

```

(OR(L|Q))

```

        r1:(ROLWconst [8] x1:(MOVWload [i] {s} p1 mem))
    sh:(SHL(L|Q)const [16] r0:(ROLWconst [8] x0:(MOVWload [i] {s} p0 mem)))
    && x0.Uses == 1
    && x1.Uses == 1
    && r0.Uses == 1
    && r1.Uses == 1
    && sh.Uses == 1
    && sequentialAddresses(p0, p1, 2)
    && mergePoint(b,x0,x1) != nil
    && clobber(x0, x1, r0, r1, sh)
=> @mergePoint(b,x0,x1) (BSWAPL <v.Type> (MOVLload [i] {s} p0 mem))

```

(ORQ)

```

        r1:(BSWAPL x1:(MOVLload [i1] {s} p mem))
    sh:(SHLQconst [32] r0:(BSWAPL x0:(MOVLload [i0] {s} p mem))))
    && i1 == i0+4
    && x0.Uses == 1
    && x1.Uses == 1
    && r0.Uses == 1
    && r1.Uses == 1
    && sh.Uses == 1
    && mergePoint(b,x0,x1) != nil
    && clobber(x0, x1, r0, r1, sh)
=> @mergePoint(b,x0,x1) (BSWAPQ <v.Type> (MOVQload [i0] {s} p mem))

```

(ORQ

```
    r1:(BSWAPL x1:(MOVLload [i] {s} p1 mem))
  sh:(SHLQconst [32]
r0:(BSWAPL x0:(MOVLload [i] {s} p0 mem))))
  && x0.Uses == 1
  && x1.Uses == 1
  && r0.Uses == 1
  && r1.Uses == 1
  && sh.Uses == 1
  && sequentialAddresses(p0, p1, 4)
  && mergePoint(b,x0,x1) != nil
  && clobber(x0, x1, r0, r1, sh)
=> @mergePoint(b,x0,x1) (BSWAPQ <v.Type> (MOVQload [i] {s} p0 mem))
```

(OR(L|Q)

```
  s0:(SHL(L|Q)const [j0] x0:(MOVBlload [i0] {s} p mem))
  or:(OR(L|Q)
    s1:(SHL(L|Q)const [j1] x1:(MOVBlload [i1] {s} p mem))
  y))
  && i1 == i0+1
  && j1 == j0-8
  && j1 % 16 == 0
  && x0.Uses == 1
  && x1.Uses == 1
  && s0.Uses == 1
  && s1.Uses == 1
  && or.Uses == 1
  && mergePoint(b,x0,x1,y) != nil
  && clobber(x0, x1, s0, s1, or)
=> @mergePoint(b,x0,x1,y) (OR(L|Q) <v.Type> (SHL(L|Q)const <v.Type> [j1] (ROLWconst <typ.UInt16> [8]
(MOVWload [i0] {s} p mem))) y)
```

(OR(L|Q)

```
  s0:(SHL(L|Q)const [j0] x0:(MOVBlload [i] {s} p0 mem))
  or:(OR(L|Q)
    s1:(SHL(L|Q)const [j1] x1:(MOVBlload [i] {s} p1 mem))
  y))
  && j1 == j0-8
  && j1 % 16 == 0
  && x0.Uses == 1
  && x1.Uses == 1
  && s0.Uses == 1
  && s1.Uses == 1
  && or.Uses == 1
  && sequentialAddresses(p0, p1, 1)
  && mergePoint(b,x0,x1,y) != nil
  && clobber(x0, x1, s0, s1, or)
```



```
=> @mergePoint(b,x0,x1,y) (OR(L|Q) <v.Type> (SHL(L|Q)const <v.Type> [j1] (ROLWconst <typ.UInt16> [8]
(MOVWload [i] {s} p0 mem))) y)
```

```
(ORQ
```

```
  s0:(SHLQconst [j0] r0:(ROLWconst [8] x0:(MOVWload [i0] {s} p mem)))
```

```
  or:(ORQ
```

```
    s1:(SHLQconst [j1] r1:(ROLWconst [8] x1:(MOVWload [i1] {s} p mem)))
```

```
  y))
```

```
  && i1 == i0+2
```

```
  && j1 == j0-16
```

```
  && j1 % 32 == 0
```

```
  && x0.Uses == 1
```

```
  && x1.Uses == 1
```

```
  && r0.Uses == 1
```

```
  && r1.Uses == 1
```

```
  && s0.Uses == 1
```

```
  && s1.Uses == 1
```

```
  && or.Uses == 1
```

```
  && mergePoint(b,x0,x1,y) != nil
```

```
  && clobber(x0, x1, r0, r1, s0, s1, or)
```

```
=> @mergePoint(b,x0,x1,y) (ORQ <v.Type> (SHLQconst <v.Type> [j1] (BSWAPL <typ.UInt32> (MOVLload
[i0] {s} p mem))) y)
```

```
(ORQ
```

```
  s0:(SHLQconst [j0] r0:(ROLWconst [8] x0:(MOVWload [i] {s} p0 mem)))
```

```
  or:(ORQ
```

```
    s1:(SHLQconst [j1] r1:(ROLWconst [8] x1:(MOVWload [i]
```

```
    {s} p1 mem)))
```

```
  y))
```

```
  && j1 == j0-16
```

```
  && j1 % 32 == 0
```

```
  && x0.Uses == 1
```

```
  && x1.Uses == 1
```

```
  && r0.Uses == 1
```

```
  && r1.Uses == 1
```

```
  && s0.Uses == 1
```

```
  && s1.Uses == 1
```

```
  && or.Uses == 1
```

```
  && sequentialAddresses(p0, p1, 2)
```

```
  && mergePoint(b,x0,x1,y) != nil
```

```
  && clobber(x0, x1, r0, r1, s0, s1, or)
```

```
=> @mergePoint(b,x0,x1,y) (ORQ <v.Type> (SHLQconst <v.Type> [j1] (BSWAPL <typ.UInt32> (MOVLload [i]
{s} p0 mem))) y)
```

```
// Combine 2 byte stores + shift into rolw 8 + word store
```

```
(MOVBstore [i] {s} p w
```

```
  x0:(MOVBstore [i-1] {s} p (SHRWconst [8] w) mem))
```

```
  && x0.Uses == 1
```

```

&& clobber(x0)
=> (MOVWstore [i-1] {s} p (ROLWconst <typ.UInt16> [8] w) mem)
(MOVBstore [i] {s} p1 w
x0:(MOVBstore [i] {s} p0 (SHRWconst [8] w) mem))
&& x0.Uses == 1
&& sequentialAddresses(p0, p1, 1)
&& clobber(x0)
=> (MOVWstore [i] {s} p0 (ROLWconst <typ.UInt16> [8] w) mem)

```

```
// Combine stores + shifts into bswap and larger (unaligned) stores
```

```

(MOVBstore [i] {s} p w
x2:(MOVBstore [i-1] {s} p (SHRLconst [8] w)
x1:(MOVBstore
[i-2] {s} p (SHRLconst [16] w)
x0:(MOVBstore [i-3] {s} p (SHRLconst [24] w) mem))))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& clobber(x0, x1, x2)
=> (MOVLstore [i-3] {s} p (BSWAPL <typ.UInt32> w) mem)
(MOVBstore [i] {s} p3 w
x2:(MOVBstore [i] {s} p2 (SHRLconst [8] w)
x1:(MOVBstore [i] {s} p1 (SHRLconst [16] w)
x0:(MOVBstore [i] {s} p0 (SHRLconst [24] w) mem))))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& sequentialAddresses(p0, p1, 1)
&& sequentialAddresses(p1, p2, 1)
&& sequentialAddresses(p2, p3, 1)
&& clobber(x0, x1, x2)
=> (MOVLstore [i] {s} p0 (BSWAPL <typ.UInt32> w) mem)

```

```

(MOVBstore [i] {s} p w
x6:(MOVBstore [i-1] {s} p (SHRQconst [8] w)
x5:(MOVBstore [i-2] {s} p (SHRQconst [16] w)
x4:(MOVBstore [i-3] {s} p (SHRQconst [24] w)
x3:(MOVBstore [i-4] {s} p (SHRQconst [32] w)
x2:(MOVBstore [i-5] {s} p (SHRQconst [40] w)
x1:(MOVBstore [i-6] {s} p (SHRQconst [48] w)
x0:(MOVBstore [i-7] {s} p (SHRQconst [56] w) mem))))))))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& x3.Uses == 1
&& x4.Uses == 1
&& x5.Uses == 1
&& x6.Uses == 1

```

```

&& clobber(x0, x1, x2, x3, x4, x5, x6)
=> (MOVQstore [i-7] {s} p (BSWAPQ <typ.UInt64> w) mem)
(MOVBstore [i] {s} p7 w
x6:(MOVBstore [i] {s} p6 (SHRQconst [8] w)
x5:(MOVBstore [i] {s} p5 (SHRQconst [16] w)
x4:(MOVBstore [i] {s} p4 (SHRQconst [24] w)
x3:(MOVBstore [i] {s} p3 (SHRQconst [32] w)
x2:(MOVBstore [i] {s} p2 (SHRQconst [40] w)
x1:(MOVBstore [i] {s} p1 (SHRQconst [48] w)
x0:(MOVBstore [i] {s} p0 (SHRQconst [56] w) mem))))))
&& x0.Uses == 1
&& x1.Uses == 1
&& x2.Uses == 1
&& x3.Uses == 1
&& x4.Uses == 1
&& x5.Uses == 1
&& x6.Uses == 1
&& sequentialAddresses(p0, p1, 1)
&& sequentialAddresses(p1, p2, 1)
&& sequentialAddresses(p2, p3, 1)
&& sequentialAddresses(p3, p4, 1)
&& sequentialAddresses(p4, p5, 1)
&& sequentialAddresses(p5, p6, 1)
&& sequentialAddresses(p6, p7, 1)
&& clobber(x0, x1, x2, x3, x4, x5,
x6)
=> (MOVQstore [i] {s} p0 (BSWAPQ <typ.UInt64> w) mem)

// Combine constant stores into larger (unaligned) stores.
(MOVBstoreconst [c] {s} p x:(MOVBstoreconst [a] {s} p mem))
&& x.Uses == 1
&& a.Off() + 1 == c.Off()
&& clobber(x)
=> (MOVWstoreconst [makeValAndOff(a.Val()&0xff | c.Val()<<8, a.Off())] {s} p mem)
(MOVBstoreconst [a] {s} p x:(MOVBstoreconst [c] {s} p mem))
&& x.Uses == 1
&& a.Off() + 1 == c.Off()
&& clobber(x)
=> (MOVWstoreconst [makeValAndOff(a.Val()&0xff | c.Val()<<8, a.Off())] {s} p mem)
(MOVWstoreconst [c] {s} p x:(MOVWstoreconst [a] {s} p mem))
&& x.Uses == 1
&& a.Off() + 2 == c.Off()
&& clobber(x)
=> (MOVLstoreconst [makeValAndOff(a.Val()&0xffff | c.Val()<<16, a.Off())] {s} p mem)
(MOVWstoreconst [a] {s} p x:(MOVWstoreconst [c] {s} p mem))
&& x.Uses == 1
&& a.Off() + 2 == c.Off()
&& clobber(x)

```

```

=> (MOVLstoreconst [makeValAndOff(a.Val()&0xffff | c.Val()<<16, a.Off())] {s} p mem)
(MOVLstoreconst [c] {s} p x:(MOVLstoreconst [a] {s}
p mem))
&& x.Uses == 1
&& a.Off() + 4 == c.Off()
&& clobber(x)
=> (MOVQstore [a.Off()] {s} p (MOVQconst [a.Val64()&0xffffffff | c.Val64()<<32] mem)
(MOVLstoreconst [a] {s} p x:(MOVLstoreconst [c] {s} p mem))
&& x.Uses == 1
&& a.Off() + 4 == c.Off()
&& clobber(x)
=> (MOVQstore [a.Off()] {s} p (MOVQconst [a.Val64()&0xffffffff | c.Val64()<<32] mem)
(MOVQstoreconst [c] {s} p x:(MOVQstoreconst [a] {s} p mem))
&& config.useSSE
&& x.Uses == 1
&& a.Off() + 8 == c.Off()
&& a.Val() == 0
&& c.Val() == 0
&& clobber(x)
=> (MOVQstoreconst [makeValAndOff(0,a.Off())] {s} p mem)
(MOVQstoreconst [a] {s} p x:(MOVQstoreconst [c] {s} p mem))
&& config.useSSE
&& x.Uses == 1
&& a.Off() + 8 == c.Off()
&& a.Val() == 0
&& c.Val() == 0
&& clobber(x)
=> (MOVQstoreconst [makeValAndOff(0,a.Off())] {s} p mem)

// Combine stores into larger (unaligned) stores. Little endian.
(MOVBstore [i] {s} p (SHR(W|L|Q)const [8] w) x:(MOVBstore [i-1] {s} p w mem))
&& x.Uses == 1
&&
clobber(x)
=> (MOVWstore [i-1] {s} p w mem)
(MOVBstore [i] {s} p w x:(MOVBstore [i+1] {s} p (SHR(W|L|Q)const [8] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVWstore [i] {s} p w mem)
(MOVBstore [i] {s} p (SHR(L|Q)const [j] w) x:(MOVBstore [i-1] {s} p w0:(SHR(L|Q)const [j-8] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVWstore [i-1] {s} p w0 mem)
(MOVBstore [i] {s} p1 (SHR(W|L|Q)const [8] w) x:(MOVBstore [i] {s} p0 w mem))
&& x.Uses == 1
&& sequentialAddresses(p0, p1, 1)
&& clobber(x)
=> (MOVWstore [i] {s} p0 w mem)

```

```

(MOVBstore [i] {s} p0 w x:(MOVBstore [i] {s} p1 (SHR(W|L|Q)const [8] w) mem))
&& x.Uses == 1
&& sequentialAddresses(p0, p1, 1)
&& clobber(x)
=> (MOVWstore [i] {s} p0 w mem)
(MOVBstore [i] {s} p1 (SHR(L|Q)const [j] w) x:(MOVBstore [i] {s} p0 w0:(SHR(L|Q)const [j-8] w) mem))
&& x.Uses == 1
&& sequentialAddresses(p0, p1, 1)
&& clobber(x)
=> (MOVWstore [i] {s} p0 w0 mem)

(MOVWstore [i] {s} p (SHR(L|Q)const [16] w) x:(MOVWstore [i-2] {s} p w
mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVLstore [i-2] {s} p w mem)
(MOVWstore [i] {s} p (SHR(L|Q)const [j] w) x:(MOVWstore [i-2] {s} p w0:(SHR(L|Q)const [j-16] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVLstore [i-2] {s} p w0 mem)
(MOVWstore [i] {s} p1 (SHR(L|Q)const [16] w) x:(MOVWstore [i] {s} p0 w mem))
&& x.Uses == 1
&& sequentialAddresses(p0, p1, 2)
&& clobber(x)
=> (MOVLstore [i] {s} p0 w mem)
(MOVWstore [i] {s} p1 (SHR(L|Q)const [j] w) x:(MOVWstore [i] {s} p0 w0:(SHR(L|Q)const [j-16] w) mem))
&& x.Uses == 1
&& sequentialAddresses(p0, p1, 2)
&& clobber(x)
=> (MOVLstore [i] {s} p0 w0 mem)

(MOVLstore [i] {s} p (SHRQconst [32] w) x:(MOVLstore [i-4] {s} p w mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVQstore [i-4] {s} p w mem)
(MOVLstore [i] {s} p (SHRQconst [j] w) x:(MOVLstore [i-4] {s} p w0:(SHRQconst [j-32] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVQstore [i-4] {s} p w0 mem)
(MOVLstore [i] {s} p1 (SHRQconst [32] w) x:(MOVLstore [i] {s} p0
w mem))
&& x.Uses == 1
&& sequentialAddresses(p0, p1, 4)
&& clobber(x)
=> (MOVQstore [i] {s} p0 w mem)
(MOVLstore [i] {s} p1 (SHRQconst [j] w) x:(MOVLstore [i] {s} p0 w0:(SHRQconst [j-32] w) mem))
&& x.Uses == 1
&& sequentialAddresses(p0, p1, 4)

```

```

&& clobber(x)
=> (MOVQstore [i] {s} p0 w0 mem)

(MOVBstore [7] {s} p1 (SHRQconst [56] w)
x1:(MOVWstore [5] {s} p1 (SHRQconst [40] w)
x2:(MOVLstore [1] {s} p1 (SHRQconst [8] w)
x3:(MOVBstore [0] {s} p1 w mem)))
&& x1.Uses == 1
&& x2.Uses == 1
&& x3.Uses == 1
&& clobber(x1, x2, x3)
=> (MOVQstore {s} p1 w mem)

(MOVBstore [i] {s} p
x1:(MOVBload [j] {s2} p2 mem)
  mem2:(MOVBstore [i-1] {s} p
    x2:(MOVBload [j-1] {s2} p2 mem) mem))
&& x1.Uses == 1
&& x2.Uses == 1
&& mem2.Uses == 1
&& clobber(x1, x2, mem2)
=> (MOVWstore [i-1] {s} p (MOVWload [j-1] {s2} p2 mem) mem)

(MOVWstore [i] {s} p
x1:(MOVWload [j] {s2} p2 mem)
  mem2:(MOVWstore [i-2] {s} p
    x2:(MOVWload [j-2] {s2} p2 mem) mem))
&&
x1.Uses == 1
&& x2.Uses == 1
&& mem2.Uses == 1
&& clobber(x1, x2, mem2)
=> (MOVLstore [i-2] {s} p (MOVLload [j-2] {s2} p2 mem) mem)

(MOVLstore [i] {s} p
x1:(MOVLload [j] {s2} p2 mem)
  mem2:(MOVLstore [i-4] {s} p
    x2:(MOVLload [j-4] {s2} p2 mem) mem))
&& x1.Uses == 1
&& x2.Uses == 1
&& mem2.Uses == 1
&& clobber(x1, x2, mem2)
=> (MOVQstore [i-4] {s} p (MOVQload [j-4] {s2} p2 mem) mem)

// Merge load and op
// TODO: add indexed variants?
((ADD|SUB|AND|OR|XOR)Q x 1:(MOVQload [off] {sym} ptr mem)) && canMergeLoadClobber(v, l, x) &&
clobber(l) => ((ADD|SUB|AND|OR|XOR)Qload x [off] {sym} ptr mem)

```

```

((ADD|SUB|AND|OR|XOR)L x l:(MOVLload [off] {sym} ptr mem)) && canMergeLoadClobber(v, l, x) &&
clobber(l) => ((ADD|SUB|AND|OR|XOR)Lload x [off] {sym} ptr mem)
((ADD|SUB|MUL|DIV)SD x l:(MOVSDload [off] {sym} ptr mem)) && canMergeLoadClobber(v, l, x) &&
clobber(l) => ((ADD|SUB|MUL|DIV)SDload x [off] {sym} ptr mem)
((ADD|SUB|MUL|DIV)SS x l:(MOVSSload [off] {sym} ptr mem)) &&
canMergeLoadClobber(v, l, x) && clobber(l) => ((ADD|SUB|MUL|DIV)SSload x [off] {sym} ptr mem)
(MOVLstore {sym} [off] ptr y:((ADD|AND|OR|XOR)Lload x [off] {sym} ptr mem) mem) && y.Uses==1 &&
clobber(y) => ((ADD|AND|OR|XOR)Lmodify [off] {sym} ptr x mem)
(MOVLstore {sym} [off] ptr y:((ADD|SUB|AND|OR|XOR)L l:(MOVLload [off] {sym} ptr mem) x) mem) &&
y.Uses==1 && l.Uses==1 && clobber(y, l) =>
((ADD|SUB|AND|OR|XOR)Lmodify [off] {sym} ptr x mem)
(MOVQstore {sym} [off] ptr y:((ADD|AND|OR|XOR)Qload x [off] {sym} ptr mem) mem) && y.Uses==1 &&
clobber(y) => ((ADD|AND|OR|XOR)Qmodify [off] {sym} ptr x mem)
(MOVQstore {sym} [off] ptr y:((ADD|SUB|AND|OR|XOR)Q l:(MOVQload [off] {sym} ptr mem) x) mem) &&
y.Uses==1 && l.Uses==1 && clobber(y, l) =>
((ADD|SUB|AND|OR|XOR)Qmodify [off] {sym} ptr x mem)

```

// Merge ADDQconst and LEAQ into atomic loads.

```

(MOV(Q|L|B)atomicload [off1] {sym} (ADDQconst [off2] ptr mem) && is32Bit(int64(off1)+int64(off2)) =>
(MOV(Q|L|B)atomicload [off1+off2] {sym} ptr mem)
(MOV(Q|L|B)atomicload
[off1] {sym1} (LEAQ [off2] {sym2} ptr mem) && is32Bit(int64(off1)+int64(off2)) && canMergeSym(sym1,
sym2) =>
(MOV(Q|L|B)atomicload [off1+off2] {mergeSym(sym1, sym2)} ptr mem)

```

// Merge ADDQconst and LEAQ into atomic stores.

```

(XCHGQ [off1] {sym} val (ADDQconst [off2] ptr mem) && is32Bit(int64(off1)+int64(off2)) =>
(XCHGQ [off1+off2] {sym} val ptr mem)
(XCHGQ [off1] {sym1} val (LEAQ [off2] {sym2} ptr mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) && ptr.Op != OpSB =>
(XCHGQ [off1+off2] {mergeSym(sym1, sym2)} val ptr mem)
(XCHGL [off1] {sym} val (ADDQconst [off2] ptr mem) && is32Bit(int64(off1)+int64(off2)) =>
(XCHGL [off1+off2] {sym} val ptr mem)
(XCHGL [off1] {sym1} val (LEAQ [off2] {sym2} ptr mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) && ptr.Op != OpSB =>
(XCHGL [off1+off2] {mergeSym(sym1, sym2)} val ptr mem)

```

// Merge ADDQconst into atomic adds.

// TODO: merging LEAQ doesn't work, assembler doesn't like the resulting instructions.

```

(XADDQlock [off1] {sym} val (ADDQconst [off2] ptr mem) && is32Bit(int64(off1)+int64(off2)) =>
(XADDQlock [off1+off2] {sym} val ptr mem)
(XADDLlock [off1] {sym} val (ADDQconst [off2] ptr mem) && is32Bit(int64(off1)+int64(off2)) =>
(XADDLlock [off1+off2] {sym} val ptr mem)

```

// Merge ADDQconst into atomic compare and swaps.

// TODO: merging LEAQ doesn't work, assembler doesn't like the resulting instructions.

```

(CMPXCHGQlock [off1] {sym} (ADDQconst [off2] ptr) old new_ mem) && is32Bit(int64(off1)+int64(off2)) =>

```

```

(CMPXCHGQlock [off1+off2] {sym} ptr old new_ mem)
(CMPXCHGLlock [off1] {sym} (ADDQconst [off2] ptr) old new_ mem) && is32Bit(int64(off1)+int64(off2)) =>
(CMPXCHGLlock [off1+off2] {sym} ptr old new_ mem)

// We don't need the conditional move if we know the arg of BSF is not zero.
(CMOVQEQ x_ (Select1 (BS(F|R)Q (ORQconst [c] _))) && c != 0 => x
// Extension is unnecessary for trailing zeros.
(BSFQ (ORQconst <t> [1<<8] (MOVBQZX x))) => (BSFQ (ORQconst <t> [1<<8]
x))
(BSFQ (ORQconst <t> [1<<16] (MOVWQZX x))) => (BSFQ (ORQconst <t> [1<<16] x))

// Redundant sign/zero extensions
// Note: see issue 21963. We have to make sure we use the right type on
// the resulting extension (the outer type, not the inner type).
(MOVLQZX (MOVLQZX x)) => (MOVLQZX x)
(MOVLQZX (MOVWQZX x)) => (MOVWQZX x)
(MOVLQZX (MOVBQZX x)) => (MOVBQZX x)
(MOVWQZX (MOVWQZX x)) => (MOVWQZX x)
(MOVWQZX (MOVBQZX x)) => (MOVBQZX x)
(MOVBQZX (MOVBQZX x)) => (MOVBQZX x)
(MOVLQZX (MOVLQZX x)) => (MOVLQZX x)
(MOVLQZX (MOVWQZX x)) => (MOVWQZX x)
(MOVLQZX (MOVBQZX x)) => (MOVBQZX x)
(MOVWQZX (MOVWQZX x)) => (MOVWQZX x)
(MOVWQZX (MOVBQZX x)) => (MOVBQZX x)
(MOVBQZX (MOVBQZX x)) => (MOVBQZX x)

(MOVQstore [off] {sym} ptr a:((ADD|AND|OR|XOR)Qconst [c] l:(MOVQload [off] {sym} ptr2 mem)) mem)
&& isSamePtr(ptr, ptr2) && a.Uses == 1 && l.Uses == 1 && clobber(l, a) =>
((ADD|AND|OR|XOR)Qconstmodify {sym} [makeValAndOff(int32(c),off)] ptr mem)
(MOVLstore [off] {sym} ptr a:((ADD|AND|OR|XOR)Lconst
[c] l:(MOVLload [off] {sym} ptr2 mem)) mem)
&& isSamePtr(ptr, ptr2) && a.Uses == 1 && l.Uses == 1 && clobber(l, a) =>
((ADD|AND|OR|XOR)Lconstmodify {sym} [makeValAndOff(int32(c),off)] ptr mem)

// float <-> int register moves, with no conversion.
// These come up when compiling math.{Float{32,64}bits,Float{32,64}frombits}.
(MOVQload [off] {sym} ptr (MOVSDstore [off] {sym} ptr val _)) => (MOVQf2i val)
(MOVLload [off] {sym} ptr (MOVSSstore [off] {sym} ptr val _)) => (MOVLf2i val)
(MOVSDload [off] {sym} ptr (MOVQstore [off] {sym} ptr val _)) => (MOVQi2f val)
(MOVSSload [off] {sym} ptr (MOVLstore [off] {sym} ptr val _)) => (MOVLi2f val)

// Other load-like ops.
(ADDQload x [off] {sym} ptr (MOVSDstore [off] {sym} ptr y _)) => (ADDQ x (MOVQf2i y))
(ADDLload x [off] {sym} ptr (MOVSSstore [off] {sym} ptr y _)) => (ADDL x (MOVLf2i y))
(SUBQload x [off] {sym} ptr (MOVSDstore [off] {sym} ptr y _)) => (SUBQ x (MOVQf2i y))
(SUBLload x [off] {sym} ptr (MOVSSstore [off] {sym} ptr y _)) => (SUBL

```



```

x (MOVLf2i y))
(ANDQload x [off] {sym} ptr (MOVSDstore [off] {sym} ptr y _)) => (ANDQ x (MOVQf2i y))
(ANDLload x [off] {sym} ptr (MOVSSstore [off] {sym} ptr y _)) => (ANDL x (MOVLf2i y))
( ORQload x [off] {sym} ptr (MOVSDstore [off] {sym} ptr y _)) => ( ORQ x (MOVQf2i y))
( ORLload x [off] {sym} ptr (MOVSSstore [off] {sym} ptr y _)) => ( ORL x (MOVLf2i y))
(XORQload x [off] {sym} ptr (MOVSDstore [off] {sym} ptr y _)) => (XORQ x (MOVQf2i y))
(XORLload x [off] {sym} ptr (MOVSSstore [off] {sym} ptr y _)) => (XORL x (MOVLf2i y))

(ADDSDload x [off] {sym} ptr (MOVQstore [off] {sym} ptr y _)) => (ADDSD x (MOVQi2f y))
(ADDSSload x [off] {sym} ptr (MOVLstore [off] {sym} ptr y _)) => (ADDSS x (MOVLi2f y))
(SUBSDload x [off] {sym} ptr (MOVQstore [off] {sym} ptr y _)) => (SUBSD x (MOVQi2f y))
(SUBSSload x [off] {sym} ptr (MOVLstore [off] {sym} ptr y _)) => (SUBSS x (MOVLi2f y))
(MULSDload x [off] {sym} ptr (MOVQstore [off] {sym} ptr y _)) => (MULSD x (MOVQi2f y))
(MULSSload x [off] {sym} ptr (MOVLstore
[off] {sym} ptr y _)) => (MULSS x (MOVLi2f y))

// Redirect stores to use the other register set.
(MOVQstore [off] {sym} ptr (MOVQf2i val) mem) => (MOVSDstore [off] {sym} ptr val mem)
(MOVLstore [off] {sym} ptr (MOVLf2i val) mem) => (MOVSSstore [off] {sym} ptr val mem)
(MOVSDstore [off] {sym} ptr (MOVQi2f val) mem) => (MOVQstore [off] {sym} ptr val mem)
(MOVSSstore [off] {sym} ptr (MOVLi2f val) mem) => (MOVLstore [off] {sym} ptr val mem)

// Load args directly into the register class where it will be used.
// We do this by just modifying the type of the Arg.
(MOVQf2i <t> (Arg <u> [off] {sym})) && t.Size() == u.Size() => @b.Func.Entry (Arg <t> [off] {sym})
(MOVLf2i <t> (Arg <u> [off] {sym})) && t.Size() == u.Size() => @b.Func.Entry (Arg <t> [off] {sym})
(MOVQi2f <t> (Arg <u> [off] {sym})) && t.Size() == u.Size() => @b.Func.Entry (Arg <t> [off] {sym})
(MOVLi2f <t> (Arg <u> [off] {sym})) && t.Size() == u.Size() => @b.Func.Entry (Arg <t> [off] {sym})

// LEAQ is rematerializeable,
so this helps to avoid register spill.
// See issue 22947 for details
(ADD(Q|L)const [off] x:(SP)) => (LEA(Q|L) [off] x)

// HMULx is commutative, but its first argument must go in AX.
// If possible, put a rematerializeable value in the first argument slot,
// to reduce the odds that another value will be have to spilled
// specifically to free up AX.
(HMUL(Q|L) x y) && !x.rematerializeable() && y.rematerializeable() => (HMUL(Q|L) y x)
(HMUL(Q|L)U x y) && !x.rematerializeable() && y.rematerializeable() => (HMUL(Q|L)U y x)

// Fold loads into compares
// Note: these may be undone by the flagalloc pass.
(CMP(Q|L|W|B) l:(MOV(Q|L|W|B)load {sym} [off] ptr mem) x) && canMergeLoad(v, l) && clobber(l) =>
(CMP(Q|L|W|B)load {sym} [off] ptr x mem)
(CMP(Q|L|W|B) x l:(MOV(Q|L|W|B)load {sym} [off] ptr mem)) && canMergeLoad(v, l) && clobber(l) =>
(InvertFlags (CMP(Q|L|W|B)load {sym} [off] ptr x mem))

```

```

(CMP(Q|L)const l:(MOV(Q|L)load {sym} [off] ptr mem) [c])
  && l.Uses == 1
  && clobber(l) =>
@l.Block
(CMP(Q|L)constload {sym} [makeValAndOff(c,off)] ptr mem)
(CMP(W|B)const l:(MOV(W|B)load {sym} [off] ptr mem) [c])
  && l.Uses == 1
  && clobber(l) =>
@l.Block (CMP(W|B)constload {sym} [makeValAndOff(int32(c),off)] ptr mem)

(CMPQload {sym} [off] ptr (MOVQconst [c] mem) && validVal(c) => (CMPQconstload {sym}
[makeValAndOff(int32(c),off)] ptr mem)
(CMPLload {sym} [off] ptr (MOVLconst [c] mem) => (CMPLconstload {sym} [makeValAndOff(c,off)] ptr mem)
(CMPWload {sym} [off] ptr (MOVLconst [c] mem) => (CMPWconstload {sym}
[makeValAndOff(int32(int16(c)),off)] ptr mem)
(CMPBload {sym} [off] ptr (MOVLconst [c] mem) => (CMPBconstload {sym}
[makeValAndOff(int32(int8(c)),off)] ptr mem)

(TEST(Q|L|W|B) l:(MOV(Q|L|W|B)load {sym} [off] ptr mem) l2)
  && l == l2
  && l.Uses == 2
  && clobber(l) =>
@l.Block (CMP(Q|L|W|B)constload {sym} [makeValAndOff(0, off)] ptr mem)

// Convert ANDload to MOVload when we can do the AND in a containing TEST op.
// Only do when it's within the same block,
// so we don't have flags live across basic block boundaries.
// See issue 44228.
(TEST(Q|L) a:(AND(Q|L)load [off] {sym} x ptr mem) a) && a.Uses == 2 && a.Block == v.Block && clobber(a)
=> (TEST(Q|L) (MOV(Q|L)load <a.Type> [off] {sym} ptr mem) x)

(MOVBload [off] {sym} (SB) _) && symIsRO(sym) => (MOVLconst [int32(read8(sym, int64(off)))]))
(MOVWload [off] {sym} (SB) _) && symIsRO(sym) => (MOVLconst [int32(read16(sym, int64(off),
config.ctx.Arch.ByteOrder))])
(MOVLload [off] {sym} (SB) _) && symIsRO(sym) => (MOVQconst [int64(read32(sym, int64(off),
config.ctx.Arch.ByteOrder))])
(MOVQload [off] {sym} (SB) _) && symIsRO(sym) => (MOVQconst [int64(read64(sym, int64(off),
config.ctx.Arch.ByteOrder))])
(MOVOstore [dstOff] {dstSym} ptr (MOVQload [srcOff] {srcSym} (SB) _) mem) && symIsRO(srcSym) =>
(MOVQstore [dstOff+8] {dstSym} ptr (MOVQconst [int64(read64(srcSym, int64(srcOff)+8,
config.ctx.Arch.ByteOrder))])
(MOVQstore [dstOff] {dstSym} ptr (MOVQconst [int64(read64(srcSym, int64(srcOff),
config.ctx.Arch.ByteOrder))]) mem))

// Arch-specific inlining for small or disjoint runtime.memmove
// Match post-lowering calls, memory version.
(SelectN [0] call:(CALLstatic {sym} s1:(MOVQstoreconst _ [sc] s2:(MOVQstore _ src s3:(MOVQstore _ dst
mem))))))

```

```

&& sc.Val64() >= 0
&& isSameCall(sym, "runtime.memmove")
&& s1.Uses == 1 && s2.Uses == 1 && s3.Uses == 1
&& isInlinableMemmove(dst, src, sc.Val64(), config)
&& clobber(s1, s2, s3, call)
=> (Move [sc.Val64()] dst src mem)

// Match post-lowering calls, register version.
(SelectN [0] call:(CALLstatic {sym} dst src (MOVQconst [sz] mem))
&& sz >= 0
&& isSameCall(sym, "runtime.memmove")
&& call.Uses == 1
&& isInlinableMemmove(dst, src, sz, config)
&& clobber(call)
=> (Move [sz] dst src mem)

// Prefetch instructions
(PrefetchCache ...) => (PrefetchT0 ...)
(PrefetchCacheStreamed ...) => (PrefetchNTA ...)

// CPUID feature: BMI1.
(AND(Q|L) x (NOT(Q|L) y)) && buildcfg.GOAMD64 >= 3 => (ANDN(Q|L) x y)
(AND(Q|L) x
(NEG(Q|L) x)) && buildcfg.GOAMD64 >= 3 => (BSI(Q|L) x)
(XOR(Q|L) x (ADD(Q|L)const [-1] x)) && buildcfg.GOAMD64 >= 3 => (BLSMSK(Q|L) x)
(AND(Q|L) x (ADD(Q|L)const [-1] x)) && buildcfg.GOAMD64 >= 3 => (BLSR(Q|L) x)

(BSWAP(Q|L) (BSWAP(Q|L) p)) => p

// CPUID feature: MOVBE.
(MOV(Q|L)store [i] {s} p x:(BSWAP(Q|L) w) mem) && x.Uses == 1 && buildcfg.GOAMD64 >= 3 =>
(MOVBE(Q|L)store [i] {s} p w mem)
(MOVBE(Q|L)store [i] {s} p x:(BSWAP(Q|L) w) mem) && x.Uses == 1 => (MOV(Q|L)store [i]
{s} p w mem)
(BSWAP(Q|L) x:(MOV(Q|L)load [i] {s} p mem)) && x.Uses == 1 && buildcfg.GOAMD64 >= 3 => @x.Block
(MOVBE(Q|L)load [i] {s} p mem)
(BSWAP(Q|L) x:(MOVBE(Q|L)load [i] {s} p mem)) && x.Uses == 1 => @x.Block
(MOV(Q|L)load [i] {s} p mem)
(MOVWstore [i] {s} p x:(ROLWconst [8] w) mem) && x.Uses == 1 && buildcfg.GOAMD64 >= 3 =>
(MOVBEWstore [i] {s} p w mem)
(MOVBEWstore [i] {s} p x:(ROLWconst [8] w) mem) && x.Uses == 1 => (MOVWstore [i] {s}
p w mem)

(ORQ x0:(MOVBELload [i0] {s} p mem)
sh:(SHLQconst [32] x1:(MOVBELload [i1] {s} p mem)))
&& i0 == i1+4
&& x0.Uses == 1
&& x1.Uses == 1

```

```
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVBEQload [i1] {s} p mem)
```

```
(ORQ          x0:(MOVBELload [i] {s} p0 mem)
  sh:(SHLQconst [32] x1:(MOVBELload [i] {s} p1 mem)))
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses == 1
&& sequentialAddresses(p1, p0, 4)
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVBEQload [i] {s} p1 mem)
```

```
(SARX(Q|L) l:(MOV(Q|L)load [off] {sym} ptr mem) x) && canMergeLoad(v, l) && clobber(l) =>
(SARX(Q|L)load [off] {sym} ptr x mem)
(SHLX(Q|L) l:(MOV(Q|L)load [off] {sym} ptr mem) x) && canMergeLoad(v, l) && clobber(l) =>
(SHLX(Q|L)load [off] {sym} ptr x mem)
(SHRX(Q|L) l:(MOV(Q|L)load [off] {sym} ptr mem) x) && canMergeLoad(v, l) && clobber(l) =>
(SHRX(Q|L)load [off] {sym} ptr x mem)
```

```
((SHL|SHR|SAR)XQload
 [off] {sym} ptr (MOVQconst [c] mem) => ((SHL|SHR|SAR)Qconst [int8(c&63)] (MOVQload [off] {sym} ptr
 mem))
((SHL|SHR|SAR)XQload [off] {sym} ptr (MOVLconst [c] mem) => ((SHL|SHR|SAR)Qconst [int8(c&63)]
 (MOVQload [off] {sym} ptr mem))
((SHL|SHR|SAR)XLload [off] {sym} ptr (MOVLconst [c] mem) => ((SHL|SHR|SAR)Lconst [int8(c&31)]
 (MOVLload [off] {sym} ptr mem))
```

Found in path(s):

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/AMD64.rules
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2022 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

```
(Add(Ptr|64|32|16|8) ...) => (ADDV ...)
(Add(32|64)F ...) => (ADD(F|D) ...)
```

```
(Sub(Ptr|64|32|16|8) ...) => (SUBV ...)
(Sub(32|64)F ...) => (SUB(F|D) ...)
```

```
(Mul(64|32|16|8) x y) => (Select1 (MULVU x y))
(Mul(32|64)F ...) => (MUL(F|D) ...)
(Mul64uhilo ...) => (MULVU ...)
(Select0 (Mul64uover x y)) => (Select1 <typ.UInt64> (MULVU x y))
```

(Select1 (Mul64uover x y)) => (SGTU <typ.Bool> (Select0 <typ.UInt64> (MULVU x y)) (MOVVconst <typ.UInt64> [0]))

(Hmul64 x y) => (Select0 (MULV x y))

(Hmul64u x y) => (Select0 (MULVU x y))

(Hmul32 x y) => (SRAVconst (Select1 <typ.Int64> (MULV (SignExt32to64 x) (SignExt32to64 y))) [32])

(Hmul32u x y) => (SRLVconst (Select1 <typ.UInt64> (MULVU (ZeroExt32to64 x) (ZeroExt32to64 y))) [32])

(Div64 x y) => (Select1 (DIVV x y))

(Div64u x y)

=> (Select1 (DIVVU x y))

(Div32 x y) => (Select1 (DIVV (SignExt32to64 x) (SignExt32to64 y)))

(Div32u x y) => (Select1 (DIVVU (ZeroExt32to64 x) (ZeroExt32to64 y)))

(Div16 x y) => (Select1 (DIVV (SignExt16to64 x) (SignExt16to64 y)))

(Div16u x y) => (Select1 (DIVVU (ZeroExt16to64 x) (ZeroExt16to64 y)))

(Div8 x y) => (Select1 (DIVV (SignExt8to64 x) (SignExt8to64 y)))

(Div8u x y) => (Select1 (DIVVU (ZeroExt8to64 x) (ZeroExt8to64 y)))

(Div(32|64)F ...) => (DIV(F|D) ...)

(Mod64 x y) => (Select0 (DIVV x y))

(Mod64u x y) => (Select0 (DIVVU x y))

(Mod32 x y) => (Select0 (DIVV (SignExt32to64 x) (SignExt32to64 y)))

(Mod32u x y) => (Select0 (DIVVU (ZeroExt32to64 x) (ZeroExt32to64 y)))

(Mod16 x y) => (Select0 (DIVV (SignExt16to64 x) (SignExt16to64 y)))

(Mod16u x y) => (Select0 (DIVVU (ZeroExt16to64 x) (ZeroExt16to64 y)))

(Mod8 x y) => (Select0 (DIVV (SignExt8to64 x) (SignExt8to64 y)))

(Mod8u x y) => (Select0 (DIVVU (ZeroExt8to64 x) (ZeroExt8to64 y)))

// (x + y) / 2 with x>=y => (x - y) / 2 + y

(Avg64u

<t> x y) => (ADDV (SRLVconst <t> (SUBV <t> x y) [1]) y)

(And(64|32|16|8) ...) => (AND ...)

(Or(64|32|16|8) ...) => (OR ...)

(Xor(64|32|16|8) ...) => (XOR ...)

// shifts

// hardware instruction uses only the low 6 bits of the shift

// we compare to 64 to ensure Go semantics for large shifts

(Lsh64x64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SLLV <t> x y))

(Lsh64x32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SLLV <t> x (ZeroExt32to64 y)))

(Lsh64x16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SLLV <t> x (ZeroExt16to64 y)))

(Lsh64x8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SLLV <t> x (ZeroExt8to64 y)))

(Lsh32x64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SLLV <t> x y))

(Lsh32x32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SLLV <t> x (ZeroExt32to64 y)))
(Lsh32x16 <t>
x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SLLV <t> x (ZeroExt16to64 y)))
(Lsh32x8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SLLV <t> x (ZeroExt8to64 y)))

(Lsh16x64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SLLV <t> x y))
(Lsh16x32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SLLV <t> x (ZeroExt32to64 y)))
(Lsh16x16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SLLV <t> x (ZeroExt16to64 y)))
(Lsh16x8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SLLV <t> x (ZeroExt8to64 y)))

(Lsh8x64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SLLV <t> x y))
(Lsh8x32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SLLV <t> x (ZeroExt32to64 y)))
(Lsh8x16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SLLV <t> x (ZeroExt16to64 y)))
(Lsh8x8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SLLV <t> x (ZeroExt8to64 y)))

(Rsh64Ux64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SRLV <t> x y))
(Rsh64Ux32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SRLV <t> x (ZeroExt32to64 y)))
(Rsh64Ux16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SRLV <t> x (ZeroExt16to64 y)))
(Rsh64Ux8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SRLV <t> x (ZeroExt8to64 y)))

(Rsh32Ux64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SRLV <t> (ZeroExt32to64 x) y))
(Rsh32Ux32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SRLV <t> (ZeroExt32to64 x) (ZeroExt32to64 y)))
(Rsh32Ux16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SRLV <t> (ZeroExt32to64 x) (ZeroExt16to64 y)))
(Rsh32Ux8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SRLV <t> (ZeroExt32to64 x) (ZeroExt8to64 y)))

(Rsh16Ux64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SRLV <t> (ZeroExt16to64 x) y))
(Rsh16Ux32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SRLV <t> (ZeroExt16to64 x) (ZeroExt32to64 y)))
(Rsh16Ux16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SRLV <t> (ZeroExt16to64 x) (ZeroExt16to64 y)))

(Rsh16Ux8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SRLV <t> (ZeroExt16to64 x) (ZeroExt8to64 y)))

(Rsh8Ux64 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) y)) (SRLV <t> (ZeroExt8to64 x) y))

(Rsh8Ux32 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt32to64 y))) (SRLV <t> (ZeroExt8to64 x) (ZeroExt32to64 y)))

(Rsh8Ux16 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt16to64 y))) (SRLV <t> (ZeroExt8to64 x) (ZeroExt16to64 y)))

(Rsh8Ux8 <t> x y) => (AND (NEGV <t> (SGTU (MOVVconst <typ.UInt64> [64]) (ZeroExt8to64 y))) (SRLV <t> (ZeroExt8to64 x) (ZeroExt8to64 y)))

(Rsh64x64 <t> x y) => (SRAV x (OR <t> (NEGV <t> (SGTU y (MOVVconst <typ.UInt64> [63]))) y))

(Rsh64x32 <t> x y) => (SRAV x (OR <t> (NEGV <t> (SGTU (ZeroExt32to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt32to64 y)))

(Rsh64x16 <t> x y) => (SRAV x (OR <t> (NEGV <t> (SGTU (ZeroExt16to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt16to64 y)))

(Rsh64x8 <t> x y) => (SRAV x (OR <t> (NEGV <t> (SGTU (ZeroExt8to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt8to64 y)))

(Rsh32x64 <t> x y) => (SRAV (SignExt32to64 x) (OR <t> (NEGV <t> (SGTU y (MOVVconst <typ.UInt64> [63]))) y))

(Rsh32x32 <t> x y) => (SRAV (SignExt32to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt32to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt32to64 y)))

(Rsh32x16 <t> x y) => (SRAV (SignExt32to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt16to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt16to64 y)))

(Rsh32x8 <t> x y) => (SRAV (SignExt32to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt8to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt8to64 y)))

(Rsh16x64 <t> x y) => (SRAV (SignExt16to64 x) (OR <t> (NEGV <t> (SGTU y (MOVVconst <typ.UInt64> [63]))) y))

(Rsh16x32 <t> x y) => (SRAV (SignExt16to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt32to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt32to64 y)))

(Rsh16x16 <t> x y) => (SRAV (SignExt16to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt16to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt16to64 y)))

(Rsh16x8 <t> x y) => (SRAV (SignExt16to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt8to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt8to64 y)))

(Rsh8x64 <t> x y) => (SRAV (SignExt8to64 x) (OR <t> (NEGV <t> (SGTU y (MOVVconst <typ.UInt64> [63]))) y))

(Rsh8x32 <t> x y) => (SRAV (SignExt8to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt32to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt32to64 y)))

(Rsh8x16 <t> x y) => (SRAV (SignExt8to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt16to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt16to64 y)))

(Rsh8x8 <t> x y) => (SRAV (SignExt8to64 x) (OR <t> (NEGV <t> (SGTU (ZeroExt8to64 y) (MOVVconst <typ.UInt64> [63]))) (ZeroExt8to64 y)))

```

// rotates
(RotateLeft8 <t> x (MOVVconst [c])) => (Or8 (Lsh8x64 <t> x (MOVVconst [c&7])) (Rsh8Ux64 <t> x
(MOVVconst [-c&7])))
(RotateLeft16 <t> x (MOVVconst [c])) => (Or16 (Lsh16x64 <t> x (MOVVconst [c&15])) (Rsh16Ux64 <t> x
(MOVVconst [-c&15])))
(RotateLeft32 <t> x (MOVVconst [c])) => (Or32 (Lsh32x64 <t> x (MOVVconst [c&31])) (Rsh32Ux64 <t> x
(MOVVconst [-c&31])))
(RotateLeft64 <t> x (MOVVconst [c])) => (Or64 (Lsh64x64 <t> x (MOVVconst [c&63])) (Rsh64Ux64 <t> x
(MOVVconst [-c&63])))

// unary ops
(Neg(64|32|16|8) ...) => (NEGV ...)
(Neg(32|64)F ...) => (NEG(F|D) ...)

(Com(64|32|16|8) x) => (NOR (MOVVconst [0]) x)

(Sqrt ...) => (SQRTD ...)
(Sqrt32 ...) => (SQRTF ...)

// boolean ops -- booleans are
represented with 0=false, 1=true
(AndB ...) => (AND ...)
(OrB ...) => (OR ...)
(EqB x y) => (XOR (MOVVconst [1]) (XOR <typ.Bool> x y))
(NeqB ...) => (XOR ...)
(Not x) => (XORconst [1] x)

// constants
(Const(64|32|16|8) [val]) => (MOVVconst [int64(val)])
(Const(32|64)F [val]) => (MOV(F|D)const [float64(val)])
(ConstNil) => (MOVVconst [0])
(ConstBool [t]) => (MOVVconst [int64(b2i(t))])

(Slicemask <t> x) => (SRAVconst (NEGV <t> x) [63])

// truncations
// Because we ignore high parts of registers, truncates are just copies.
(Trunc16to8 ...) => (Copy ...)
(Trunc32to8 ...) => (Copy ...)
(Trunc32to16 ...) => (Copy ...)
(Trunc64to8 ...) => (Copy ...)
(Trunc64to16 ...) => (Copy ...)
(Trunc64to32 ...) => (Copy ...)

// Zero-/Sign-extensions
(ZeroExt8to16 ...) => (MOVBUreg ...)
(ZeroExt8to32 ...) => (MOVBUreg ...)

```


(ZeroExt16to32 ...) => (MOVHUreg ...)
(ZeroExt8to64 ...) => (MOVBUreg ...)
(ZeroExt16to64 ...) => (MOVHUreg ...)
(ZeroExt32to64 ...) => (MOVWUreg ...)

(SignExt8to16 ...) => (MOVBreg
...)
(SignExt8to32 ...) => (MOVBreg ...)
(SignExt16to32 ...) => (MOVHreg ...)
(SignExt8to64 ...) => (MOVBreg ...)
(SignExt16to64 ...) => (MOVHreg ...)
(SignExt32to64 ...) => (MOVWreg ...)

// float <=> int conversion

(Cvt32to32F ...) => (MOVWF ...)
(Cvt32to64F ...) => (MOVWD ...)
(Cvt64to32F ...) => (MOVVF ...)
(Cvt64to64F ...) => (MOVVD ...)
(Cvt32Fto32 ...) => (TRUNCFW ...)
(Cvt64Fto32 ...) => (TRUNCDW ...)
(Cvt32Fto64 ...) => (TRUNCFV ...)
(Cvt64Fto64 ...) => (TRUNCDV ...)
(Cvt32Fto64F ...) => (MOVFD ...)
(Cvt64Fto32F ...) => (MOVDF ...)

(CvtBoolToUint8 ...) => (Copy ...)

(Round(32|64)F ...) => (Copy ...)

// comparisons

(Eq8 x y) => (SGTU (MOVVconst [1]) (XOR (ZeroExt8to64 x) (ZeroExt8to64 y)))
(Eq16 x y) => (SGTU (MOVVconst [1]) (XOR (ZeroExt16to64 x) (ZeroExt16to64 y)))
(Eq32 x y) => (SGTU (MOVVconst [1]) (XOR (ZeroExt32to64 x) (ZeroExt32to64 y)))
(Eq64 x y) => (SGTU (MOVVconst [1]) (XOR x y))
(EqPtr x y) => (SGTU (MOVVconst [1]) (XOR x y))
(Eq(32|64)F x y) => (FPFlagTrue (CMPEQ(F|D)
x y))

(Neq8 x y) => (SGTU (XOR (ZeroExt8to64 x) (ZeroExt8to64 y)) (MOVVconst [0]))
(Neq16 x y) => (SGTU (XOR (ZeroExt16to32 x) (ZeroExt16to64 y)) (MOVVconst [0]))
(Neq32 x y) => (SGTU (XOR (ZeroExt32to64 x) (ZeroExt32to64 y)) (MOVVconst [0]))
(Neq64 x y) => (SGTU (XOR x y) (MOVVconst [0]))
(NeqPtr x y) => (SGTU (XOR x y) (MOVVconst [0]))
(Neq(32|64)F x y) => (FPFlagFalse (CMPEQ(F|D) x y))

(Less8 x y) => (SGT (SignExt8to64 y) (SignExt8to64 x))
(Less16 x y) => (SGT (SignExt16to64 y) (SignExt16to64 x))
(Less32 x y) => (SGT (SignExt32to64 y) (SignExt32to64 x))

```

(Less64 x y) => (SGT y x)
(Less(32|64)F x y) => (FPFlagTrue (CMPGT(F|D) y x)) // reverse operands to work around NaN

(Less8U x y) => (SGTU (ZeroExt8to64 y) (ZeroExt8to64 x))
(Less16U x y) => (SGTU (ZeroExt16to64 y) (ZeroExt16to64 x))
(Less32U x y) => (SGTU (ZeroExt32to64 y) (ZeroExt32to64 x))
(Less64U x y) => (SGTU y x)

(Leq8 x y) => (XOR (MOVVconst [1]) (SGT (SignExt8to64 x) (SignExt8to64 y)))
(Leq16 x y) => (XOR
  (MOVVconst [1]) (SGT (SignExt16to64 x) (SignExt16to64 y)))
(Leq32 x y) => (XOR (MOVVconst [1]) (SGT (SignExt32to64 x) (SignExt32to64 y)))
(Leq64 x y) => (XOR (MOVVconst [1]) (SGT x y))
(Leq(32|64)F x y) => (FPFlagTrue (CMPGE(F|D) y x)) // reverse operands to work around NaN

(Leq8U x y) => (XOR (MOVVconst [1]) (SGTU (ZeroExt8to64 x) (ZeroExt8to64 y)))
(Leq16U x y) => (XOR (MOVVconst [1]) (SGTU (ZeroExt16to64 x) (ZeroExt16to64 y)))
(Leq32U x y) => (XOR (MOVVconst [1]) (SGTU (ZeroExt32to64 x) (ZeroExt32to64 y)))
(Leq64U x y) => (XOR (MOVVconst [1]) (SGTU x y))

(OffPtr [off] ptr:(SP)) => (MOVVaddr [int32(off)] ptr)
(OffPtr [off] ptr) => (ADDVconst [off] ptr)

(Addr {sym} base) => (MOVVaddr {sym} base)
(LocalAddr {sym} base _) => (MOVVaddr {sym} base)

// loads
(Load <t> ptr mem) && t.IsBoolean() => (MOVBUload ptr mem)
(Load <t> ptr mem) && (is8BitInt(t) && isSigned(t)) => (MOVBlload ptr mem)
(Load <t> ptr mem) && (is8BitInt(t) && !isSigned(t)) => (MOVBUload ptr mem)
(Load <t> ptr mem) &&
  (is16BitInt(t) && isSigned(t)) => (MOVHload ptr mem)
(Load <t> ptr mem) && (is16BitInt(t) && !isSigned(t)) => (MOVHUload ptr mem)
(Load <t> ptr mem) && (is32BitInt(t) && isSigned(t)) => (MOVWload ptr mem)
(Load <t> ptr mem) && (is32BitInt(t) && !isSigned(t)) => (MOVWUload ptr mem)
(Load <t> ptr mem) && (is64BitInt(t) || isPtr(t)) => (MOVVload ptr mem)
(Load <t> ptr mem) && is32BitFloat(t) => (MOVFlload ptr mem)
(Load <t> ptr mem) && is64BitFloat(t) => (MOVDload ptr mem)

// stores
(Store {t} ptr val mem) && t.Size() == 1 => (MOVBstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 2 => (MOVHstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && !is32BitFloat(val.Type) => (MOVWstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 8 && !is64BitFloat(val.Type) => (MOVVstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && is32BitFloat(val.Type) => (MOVFstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 8 && is64BitFloat(val.Type) => (MOVDstore ptr val mem)

//

```

```

zeroing
(Zero [0] _ mem) => mem
(Zero [1] ptr mem) => (MOVBstore ptr (MOVVconst [0]) mem)
(Zero [2] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore ptr (MOVVconst [0]) mem)
(Zero [2] ptr mem) =>
(MOVBstore [1] ptr (MOVVconst [0])
(MOVBstore [0] ptr (MOVVconst [0]) mem))
(Zero [4] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore ptr (MOVVconst [0]) mem)
(Zero [4] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore [2] ptr (MOVVconst [0])
(MOVHstore [0] ptr (MOVVconst [0]) mem))
(Zero [4] ptr mem) =>
(MOVBstore [3] ptr (MOVVconst [0])
(MOVBstore [2] ptr (MOVVconst [0])
(MOVBstore [1] ptr (MOVVconst [0])
(MOVBstore [0] ptr (MOVVconst [0]) mem))))
(Zero [8] {t} ptr mem) && t.Alignment()%8 == 0 =>
(MOVVstore ptr (MOVVconst [0]) mem)
(Zero [8] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore [4] ptr (MOVVconst [0])
(MOVWstore [0] ptr (MOVVconst [0]) mem))
(Zero [8] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore [6] ptr (MOVVconst [0])
(MOVHstore [4] ptr
(MOVVconst [0])
(MOVHstore [2] ptr (MOVVconst [0])
(MOVHstore [0] ptr (MOVVconst [0]) mem))))
(Zero [3] ptr mem) =>
(MOVBstore [2] ptr (MOVVconst [0])
(MOVBstore [1] ptr (MOVVconst [0])
(MOVBstore [0] ptr (MOVVconst [0]) mem)))
(Zero [6] {t} ptr mem) && t.Alignment()%2 == 0 =>
(MOVHstore [4] ptr (MOVVconst [0])
(MOVHstore [2] ptr (MOVVconst [0])
(MOVHstore [0] ptr (MOVVconst [0]) mem)))
(Zero [12] {t} ptr mem) && t.Alignment()%4 == 0 =>
(MOVWstore [8] ptr (MOVVconst [0])
(MOVWstore [4] ptr (MOVVconst [0])
(MOVWstore [0] ptr (MOVVconst [0]) mem)))
(Zero [16] {t} ptr mem) && t.Alignment()%8 == 0 =>
(MOVVstore [8] ptr (MOVVconst [0])
(MOVVstore [0] ptr (MOVVconst [0]) mem))
(Zero [24] {t} ptr mem) && t.Alignment()%8 == 0 =>
(MOVVstore [16] ptr (MOVVconst [0])
(MOVVstore [8] ptr (MOVVconst [0])

```

```

(MOVVstore [0] ptr (MOVVconst [0] mem)))

// medium zeroing uses a duff device
// 8, and 128 are magic constants, see runtime/mkduff.go
(Zero [s] {t} ptr mem)
&&
s%8 == 0 && s > 24 && s <= 8*128
&& t.Alignment()%8 == 0 && !config.noDuffDevice =>
(DUFFZERO [8 * (128 - s/8)] ptr mem)

// large or unaligned zeroing uses a loop
(Zero [s] {t} ptr mem)
&& (s > 8*128 || config.noDuffDevice) || t.Alignment()%8 != 0 =>
(LoweredZero [t.Alignment()])
ptr
(ADDVconst <ptr.Type> ptr [s-moveSize(t.Alignment(), config)])
mem)

// moves
(Move [0] _ _ mem) => mem
(Move [1] dst src mem) => (MOVBstore dst (MOVBload src mem) mem)
(Move [2] {t} dst src mem) && t.Alignment()%2 == 0 =>
(MOVHstore dst (MOVHload src mem) mem)
(Move [2] dst src mem) =>
(MOVBstore [1] dst (MOVBload [1] src mem)
(MOVBstore dst (MOVBload src mem) mem))
(Move [4] {t} dst src mem) && t.Alignment()%4 == 0 =>
(MOVWstore dst (MOVWload src mem) mem)
(Move [4] {t} dst src mem) && t.Alignment()%2 == 0 =>
(MOVHstore [2] dst (MOVHload [2] src mem)
(MOVHstore dst (MOVHload src mem) mem))
(Move [4] dst src mem) =>
(MOVBstore [3] dst (MOVBload [3] src mem)
(MOVBstore [2] dst (MOVBload
[2] src mem)
(MOVBstore [1] dst (MOVBload [1] src mem)
(MOVBstore dst (MOVBload src mem) mem))))
(Move [8] {t} dst src mem) && t.Alignment()%8 == 0 =>
(MOVVstore dst (MOVVload src mem) mem)
(Move [8] {t} dst src mem) && t.Alignment()%4 == 0 =>
(MOVWstore [4] dst (MOVWload [4] src mem)
(MOVWstore dst (MOVWload src mem) mem))
(Move [8] {t} dst src mem) && t.Alignment()%2 == 0 =>
(MOVHstore [6] dst (MOVHload [6] src mem)
(MOVHstore [4] dst (MOVHload [4] src mem)
(MOVHstore [2] dst (MOVHload [2] src mem)
(MOVHstore dst (MOVHload src mem) mem))))

```

```

(Move [3] dst src mem) =>
(MOVBstore [2] dst (MOVBload [2] src mem)
 (MOVBstore [1] dst (MOVBload [1] src mem)
 (MOVBstore dst (MOVBload src mem) mem)))
(Move [6] {t} dst src mem) && t.Alignment()%2 == 0 =>
(MOVHstore [4] dst (MOVHload [4] src mem)
 (MOVHstore [2] dst (MOVHload [2] src mem)
 (MOVHstore dst (MOVHload src mem) mem)))
(Move [12] {t} dst src mem) && t.Alignment()%4 == 0 =>
(MOVWstore [8] dst (MOVWload
 [8] src mem)
 (MOVWstore [4] dst (MOVWload [4] src mem)
 (MOVWstore dst (MOVWload src mem) mem)))
(Move [16] {t} dst src mem) && t.Alignment()%8 == 0 =>
(MOVVstore [8] dst (MOVVload [8] src mem)
 (MOVVstore dst (MOVVload src mem) mem))
(Move [24] {t} dst src mem) && t.Alignment()%8 == 0 =>
(MOVVstore [16] dst (MOVVload [16] src mem)
 (MOVVstore [8] dst (MOVVload [8] src mem)
 (MOVVstore dst (MOVVload src mem) mem)))

// medium move uses a duff device
(Move [s] {t} dst src mem)
&& s%8 == 0 && s >= 24 && s <= 8*128 && t.Alignment()%8 == 0
&& !config.noDuffDevice && logLargeCopy(v, s) =>
(DUFFCOPY [16 * (128 - s/8)] dst src mem)
// 16 and 128 are magic constants. 16 is the number of bytes to encode:
// MOVV (R1), R23
// ADDV $8, R1
// MOVV R23, (R2)
// ADDV $8, R2
// and 128 is the number of such blocks. See runtime/duff_mips64.s:duffcopy.

// large or unaligned move uses a loop
(Move [s] {t} dst src mem)
&& s > 24 && logLargeCopy(v, s) || t.Alignment()%8 != 0 =>
(LoweredMove
 [t.Alignment()]
 dst
 src
 (ADDVconst <src.Type> src [s-moveSize(t.Alignment(), config)])
 mem)

// calls
(StaticCall ...) => (CALLstatic ...)
(ClosureCall ...) => (CALLclosure ...)
(InterCall ...) => (CALLinter ...)
(TailCall ...) => (CALLtail ...)

```

```

// atomic intrinsics
(AtomicLoad(8|32|64) ...) => (LoweredAtomicLoad(8|32|64) ...)
(AtomicLoadPtr ...) => (LoweredAtomicLoad64 ...)

(AtomicStore(8|32|64) ...) => (LoweredAtomicStore(8|32|64) ...)
(AtomicStorePtrNoWB ...) => (LoweredAtomicStore64 ...)

(AtomicExchange(32|64) ...) => (LoweredAtomicExchange(32|64) ...)

(AtomicAdd(32|64) ...) => (LoweredAtomicAdd(32|64) ...)

(AtomicCompareAndSwap32 ptr old new mem) => (LoweredAtomicCas32 ptr (SignExt32to64 old) new mem)
(AtomicCompareAndSwap64 ...) => (LoweredAtomicCas64 ...)

// checks
(NilCheck ...) => (LoweredNilCheck ...)
(IsNotNil ptr) => (SGTU ptr (MOVVconst [0]))
(IsInBounds idx len) => (SGTU len idx)
(IsSliceInBounds idx len) => (XOR (MOVVconst [1]) (SGTU idx len))

//
pseudo-ops
(GetClosurePtr ...) => (LoweredGetClosurePtr ...)
(GetCallerSP ...) => (LoweredGetCallerSP ...)
(GetCallerPC ...) => (LoweredGetCallerPC ...)

(If cond yes no) => (NE cond yes no)

// Write barrier.
(WB ...) => (LoweredWB ...)

(PanicBounds [kind] x y mem) && boundsABI(kind) == 0 => (LoweredPanicBoundsA [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 1 => (LoweredPanicBoundsB [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 2 => (LoweredPanicBoundsC [kind] x y mem)

// Optimizations

// Absorb boolean tests into block
(NE (FPFlagTrue cmp) yes no) => (FPT cmp yes no)
(NE (FPFlagFalse cmp) yes no) => (FPF cmp yes no)
(EQ (FPFlagTrue cmp) yes no) => (FPF cmp yes no)
(EQ (FPFlagFalse cmp) yes no) => (FPT cmp yes no)
(NE (XORconst [1] cmp:(SGT _ _)) yes no) => (EQ cmp yes no)
(NE (XORconst [1] cmp:(SGTU _ _)) yes no) => (EQ cmp yes no)
(NE (XORconst [1] cmp:(SGTconst _)) yes no) => (EQ cmp yes no)
(NE (XORconst [1] cmp:(SGTUconst _)) yes no) =>

```

```

(EQ cmp yes no)
(EQ (XORconst [1] cmp:(SGT _ _)) yes no) => (NE cmp yes no)
(EQ (XORconst [1] cmp:(SGTU _ _)) yes no) => (NE cmp yes no)
(EQ (XORconst [1] cmp:(SGTconst _)) yes no) => (NE cmp yes no)
(EQ (XORconst [1] cmp:(SGTUconst _)) yes no) => (NE cmp yes no)
(NE (SGTUconst [1] x) yes no) => (EQ x yes no)
(EQ (SGTUconst [1] x) yes no) => (NE x yes no)
(NE (SGTU x (MOVVconst [0])) yes no) => (NE x yes no)
(EQ (SGTU x (MOVVconst [0])) yes no) => (EQ x yes no)
(NE (SGTconst [0] x) yes no) => (LTZ x yes no)
(EQ (SGTconst [0] x) yes no) => (GEZ x yes no)
(NE (SGT x (MOVVconst [0])) yes no) => (GTZ x yes no)
(EQ (SGT x (MOVVconst [0])) yes no) => (LEZ x yes no)

// fold offset into address
(ADDVconst [off1] (MOVVaddr [off2] {sym} ptr) && is32Bit(off1+int64(off2))) => (MOVVaddr
[int32(off1)+int32(off2)] {sym} ptr)

// fold address into load/store
(MOVBlload [off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVBlload
[off1+int32(off2)] {sym} ptr mem)
(MOVBUload [off1]
{sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVBUload [off1+int32(off2)] {sym} ptr
mem)
(MOVHload [off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVHload
[off1+int32(off2)] {sym} ptr mem)
(MOVHUload [off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVHUload
[off1+int32(off2)] {sym} ptr mem)
(MOVWload [off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVWload
[off1+int32(off2)] {sym} ptr mem)
(MOVWUload [off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVWUload
[off1+int32(off2)] {sym} ptr mem)
(MOVVload [off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVVload
[off1+int32(off2)] {sym} ptr mem)
(MOVFlload [off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVFlload
[off1+int32(off2)] {sym} ptr mem)
(MOVDload [off1] {sym} (ADDVconst [off2] ptr) mem) && is32Bit(int64(off1)+off2) => (MOVDload
[off1+int32(off2)]
{sym} ptr mem)

(MOVBstore [off1] {sym} (ADDVconst [off2] ptr) val mem) && is32Bit(int64(off1)+off2) => (MOVBstore
[off1+int32(off2)] {sym} ptr val mem)
(MOVHstore [off1] {sym} (ADDVconst [off2] ptr) val mem) && is32Bit(int64(off1)+off2) => (MOVHstore
[off1+int32(off2)] {sym} ptr val mem)
(MOVWstore [off1] {sym} (ADDVconst [off2] ptr) val mem) && is32Bit(int64(off1)+off2) => (MOVWstore
[off1+int32(off2)] {sym} ptr val mem)
(MOVVstore [off1] {sym} (ADDVconst [off2] ptr) val mem) && is32Bit(int64(off1)+off2) => (MOVVstore
[off1+int32(off2)] {sym} ptr val mem)

```

(MOVfstore [off1] {sym} (ADDVconst [off2] ptr val mem) && is32Bit(int64(off1)+off2) => (MOVfstore [off1+int32(off2)] {sym} ptr val mem)
(MOVDstore [off1] {sym} (ADDVconst [off2] ptr val mem) && is32Bit(int64(off1)+off2) => (MOVDstore [off1+int32(off2)] {sym} ptr val mem)
(MOVBstorezero [off1] {sym} (ADDVconst [off2] ptr mem) && is32Bit(int64(off1)+off2) => (MOVBstorezero [off1+int32(off2)] {sym} ptr mem)
(MOVHstorezero [off1]
{sym} (ADDVconst [off2] ptr mem) && is32Bit(int64(off1)+off2) => (MOVHstorezero [off1+int32(off2)] {sym} ptr mem)
(MOVWstorezero [off1] {sym} (ADDVconst [off2] ptr mem) && is32Bit(int64(off1)+off2) => (MOVWstorezero [off1+int32(off2)] {sym} ptr mem)
(MOVVstorezero [off1] {sym} (ADDVconst [off2] ptr mem) && is32Bit(int64(off1)+off2) => (MOVVstorezero [off1+int32(off2)] {sym} ptr mem)

(MOVBload [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2)) =>
(MOVBload [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVBULoad [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2)) =>
(MOVBULoad [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVHload [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2)) =>
(MOVHload [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVHULoad [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem)
&& canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2)) =>
(MOVHULoad [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVWload [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2)) =>
(MOVWload [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVWULoad [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2)) =>
(MOVWULoad [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVVload [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2)) =>
(MOVVload [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVFlod [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2)) =>
(MOVFlod [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVDload [off1] {sym1} (MOVVaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2)) =>
(MOVDload
[off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)

(MOVBstore [off1] {sym1} (MOVVaddr [off2] {sym2} ptr val mem) && canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2)) =>
(MOVBstore [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr val mem)
(MOVHstore [off1] {sym1} (MOVVaddr [off2] {sym2} ptr val mem) && canMergeSym(sym1,sym2) && is32Bit(int64(off1)+int64(off2)) =>


```

(MOVHstore [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr val mem)
(MOVWstore [off1] {sym1} (MOVVaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVWstore [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr val mem)
(MOVVstore [off1] {sym1} (MOVVaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVVstore [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr val mem)
(MOVFstore [off1] {sym1} (MOVVaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVFstore [off1+int32(off2)] {mergeSym(sym1,sym2)}
ptr val mem)
(MOVDstore [off1] {sym1} (MOVVaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVDstore [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr val mem)
(MOVBstorezero [off1] {sym1} (MOVVaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVBstorezero [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVHstorezero [off1] {sym1} (MOVVaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVHstorezero [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVWstorezero [off1] {sym1} (MOVVaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVWstorezero [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)
(MOVVstorezero [off1] {sym1} (MOVVaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2) &&
is32Bit(int64(off1)+int64(off2)) =>
(MOVVstorezero [off1+int32(off2)] {mergeSym(sym1,sym2)} ptr mem)

(LoweredAtomicStore(32|64)
ptr (MOVVconst [0]) mem) => (LoweredAtomicStorezero(32|64) ptr mem)
(LoweredAtomicAdd32 ptr (MOVVconst [c]) mem) && is32Bit(c) => (LoweredAtomicAddconst32 [int32(c)] ptr
mem)
(LoweredAtomicAdd64 ptr (MOVVconst [c]) mem) && is32Bit(c) => (LoweredAtomicAddconst64 [c] ptr mem)

// don't extend after proper load
(MOVBreg x:(MOVBload __)) => (MOVVreg x)
(MOVBUreg x:(MOVBUload __)) => (MOVVreg x)
(MOVHreg x:(MOVBload __)) => (MOVVreg x)
(MOVHreg x:(MOVBUload __)) => (MOVVreg x)
(MOVHreg x:(MOVHload __)) => (MOVVreg x)
(MOVHUreg x:(MOVBUload __)) => (MOVVreg x)
(MOVHUreg x:(MOVHload __)) => (MOVVreg x)
(MOVWreg x:(MOVBload __)) => (MOVVreg x)
(MOVWreg x:(MOVBUload __)) => (MOVVreg x)
(MOVWreg x:(MOVHload __)) => (MOVVreg x)
(MOVWreg x:(MOVHload __)) => (MOVVreg x)
(MOVWreg x:(MOVHload __)) => (MOVVreg x)
(MOVWUreg x:(MOVBUload __)) => (MOVVreg x)
(MOVWUreg x:(MOVHload __)) => (MOVVreg x)

```

(MOVWUreg x:(MOVWUload _ _)) => (MOVVreg x)

// fold double extensions

(MOVBreg

x:(MOVBreg _) => (MOVVreg x)

(MOVBUreg x:(MOVBUreg _) => (MOVVreg x)

(MOVHreg x:(MOVBreg _) => (MOVVreg x)

(MOVHreg x:(MOVBUreg _) => (MOVVreg x)

(MOVHreg x:(MOVHreg _) => (MOVVreg x)

(MOVHUreg x:(MOVBUreg _) => (MOVVreg x)

(MOVHUreg x:(MOVHUreg _) => (MOVVreg x)

(MOVWreg x:(MOVBreg _) => (MOVVreg x)

(MOVWreg x:(MOVBUreg _) => (MOVVreg x)

(MOVWreg x:(MOVHreg _) => (MOVVreg x)

(MOVWreg x:(MOVWreg _) => (MOVVreg x)

(MOVWUreg x:(MOVBUreg _) => (MOVVreg x)

(MOVWUreg x:(MOVHUreg _) => (MOVVreg x)

(MOVWUreg x:(MOVWUreg _) => (MOVVreg x)

// don't extend before store

(MOVBstore [off] {sym} ptr (MOVBreg x) mem) => (MOVBstore [off] {sym} ptr x mem)

(MOVBstore [off] {sym} ptr (MOVBUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)

(MOVBstore [off] {sym} ptr (MOVHreg x) mem) => (MOVBstore [off] {sym} ptr x mem)

(MOVBstore [off] {sym} ptr (MOVHUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)

(MOVBstore [off] {sym} ptr (MOVWreg x) mem) => (MOVBstore [off] {sym} ptr x mem)

(MOVBstore

[off] {sym} ptr (MOVWUreg x) mem) => (MOVBstore [off] {sym} ptr x mem)

(MOVHstore [off] {sym} ptr (MOVHreg x) mem) => (MOVHstore [off] {sym} ptr x mem)

(MOVHstore [off] {sym} ptr (MOVHUreg x) mem) => (MOVHstore [off] {sym} ptr x mem)

(MOVHstore [off] {sym} ptr (MOVWreg x) mem) => (MOVHstore [off] {sym} ptr x mem)

(MOVHstore [off] {sym} ptr (MOVWUreg x) mem) => (MOVHstore [off] {sym} ptr x mem)

(MOVWstore [off] {sym} ptr (MOVWreg x) mem) => (MOVWstore [off] {sym} ptr x mem)

(MOVWstore [off] {sym} ptr (MOVWUreg x) mem) => (MOVWstore [off] {sym} ptr x mem)

// if a register move has only 1 use, just use the same register without emitting instruction

// MOVVnop doesn't emit instruction, only for ensuring the type.

(MOVVreg x) && x.Uses == 1 => (MOVVnop x)

// fold constant into arithmetic ops

(ADDV x (MOVVconst [c])) && is32Bit(c) => (ADDVconst [c] x)

(SUBV x (MOVVconst [c])) && is32Bit(c) => (SUBVconst [c] x)

(AND x (MOVVconst [c])) && is32Bit(c) => (ANDconst [c] x)

(OR x (MOVVconst

[c])) && is32Bit(c) => (ORconst [c] x)

(XOR x (MOVVconst [c])) && is32Bit(c) => (XORconst [c] x)

(NOR x (MOVVconst [c])) && is32Bit(c) => (NORconst [c] x)

(SLLV _ (MOVVconst [c])) && uint64(c)>=64 => (MOVVconst [0])

```

(SRLV _ (MOVVconst [c])) && uint64(c)>=64 => (MOVVconst [0])
(SRAV x (MOVVconst [c])) && uint64(c)>=64 => (SRAVconst x [63])
(SLLV x (MOVVconst [c])) => (SLLVconst x [c])
(SRLV x (MOVVconst [c])) => (SRLVconst x [c])
(SRAV x (MOVVconst [c])) => (SRAVconst x [c])

(SGT (MOVVconst [c] x) && is32Bit(c) => (SGTconst [c] x)
(SGTU (MOVVconst [c] x) && is32Bit(c) => (SGTUconst [c] x)

// mul by constant
(Select1 (MULVU x (MOVVconst [-1]))) => (NEGV x)
(Select1 (MULVU _ (MOVVconst [0]))) => (MOVVconst [0])
(Select1 (MULVU x (MOVVconst [1]))) => x
(Select1 (MULVU x (MOVVconst [c]))) && isPowerOfTwo64(c) => (SLLVconst [log64(c)] x)

// div by constant
(Select1 (DIVVU x (MOVVconst [1]))) => x
(Select1 (DIVVU x (MOVVconst [c]))) && isPowerOfTwo64(c) => (SRLVconst [log64(c)]
x)
(Select0 (DIVVU _ (MOVVconst [1]))) => (MOVVconst [0]) // mod
(Select0 (DIVVU x (MOVVconst [c]))) && isPowerOfTwo64(c) => (ANDconst [c-1] x) // mod

// generic simplifications
(ADDV x (NEGV y)) => (SUBV x y)
(SUBV x x) => (MOVVconst [0])
(SUBV (MOVVconst [0] x) => (NEGV x)
(AND x x) => x
(OR x x) => x
(XOR x x) => (MOVVconst [0])

// remove redundant *const ops
(ADDVconst [0] x) => x
(SUBVconst [0] x) => x
(ANDconst [0] _) => (MOVVconst [0])
(ANDconst [-1] x) => x
(ORconst [0] x) => x
(ORconst [-1] _) => (MOVVconst [-1])
(XORconst [0] x) => x
(XORconst [-1] x) => (NORconst [0] x)

// generic constant folding
(ADDVconst [c] (MOVVconst [d])) => (MOVVconst [c+d])
(ADDVconst [c] (ADDVconst [d] x)) && is32Bit(c+d) => (ADDVconst [c+d] x)
(ADDVconst [c] (SUBVconst [d] x)) && is32Bit(c-d) => (ADDVconst [c-d] x)
(SUBVconst [c] (MOVVconst [d])) => (MOVVconst [d-c])
(SUBVconst [c] (SUBVconst [d] x)) && is32Bit(-c-d) => (ADDVconst [-c-d] x)
(SUBVconst [c] (ADDVconst

```

```

[d] x) && is32Bit(-c+d) => (ADDVconst [-c+d] x)
(SLLVconst [c] (MOVVconst [d])) => (MOVVconst [d<<uint64(c)])
(SRLVconst [c] (MOVVconst [d])) => (MOVVconst [int64(uint64(d)>>uint64(c))])
(SRAVconst [c] (MOVVconst [d])) => (MOVVconst [d>>uint64(c)])
(Select1 (MULVU (MOVVconst [c]) (MOVVconst [d]))) => (MOVVconst [c*d])
(Select1 (DIVV (MOVVconst [c]) (MOVVconst [d]))) && d != 0 => (MOVVconst [c/d])
(Select1 (DIVVU (MOVVconst [c]) (MOVVconst [d]))) && d != 0 => (MOVVconst [int64(uint64(c)/uint64(d))])
(Select0 (DIVV (MOVVconst [c]) (MOVVconst [d]))) && d != 0 => (MOVVconst [c%d]) // mod
(Select0 (DIVVU (MOVVconst [c]) (MOVVconst [d]))) && d != 0 => (MOVVconst [int64(uint64(c)%uint64(d))])
// mod
(ANDconst [c] (MOVVconst [d])) => (MOVVconst [c&d])
(ANDconst [c] (ANDconst [d] x)) => (ANDconst [c&d] x)
(ORconst [c] (MOVVconst [d])) => (MOVVconst [c|d])
(ORconst [c] (ORconst [d] x)) && is32Bit(c|d) => (ORconst [c|d] x)
(XORconst [c] (MOVVconst [d])) => (MOVVconst [c^d])
(XORconst
[c] (XORconst [d] x)) && is32Bit(c^d) => (XORconst [c^d] x)
(NORconst [c] (MOVVconst [d])) => (MOVVconst [^(c|d)])
(NEGV (MOVVconst [c])) => (MOVVconst [-c])
(MOVBreg (MOVVconst [c])) => (MOVVconst [int64(int8(c))])
(MOVBUreg (MOVVconst [c])) => (MOVVconst [int64(uint8(c))])
(MOVHreg (MOVVconst [c])) => (MOVVconst [int64(int16(c))])
(MOVHUreg (MOVVconst [c])) => (MOVVconst [int64(uint16(c))])
(MOVWreg (MOVVconst [c])) => (MOVVconst [int64(int32(c))])
(MOVWUreg (MOVVconst [c])) => (MOVVconst [int64(uint32(c))])
(MOVVreg (MOVVconst [c])) => (MOVVconst [c])

// constant comparisons
(SGTconst [c] (MOVVconst [d])) && c>d => (MOVVconst [1])
(SGTconst [c] (MOVVconst [d])) && c<=d => (MOVVconst [0])
(SGTUconst [c] (MOVVconst [d])) && uint64(c)>uint64(d) => (MOVVconst [1])
(SGTUconst [c] (MOVVconst [d])) && uint64(c)<=uint64(d) => (MOVVconst [0])

// other known comparisons
(SGTconst [c] (MOVBreg _)) && 0x7f < c => (MOVVconst [1])
(SGTconst [c] (MOVBreg _)) && c <= -0x80 => (MOVVconst [0])
(SGTconst
[c] (MOVBUreg _)) && 0xff < c => (MOVVconst [1])
(SGTconst [c] (MOVBUreg _)) && c < 0 => (MOVVconst [0])
(SGTUconst [c] (MOVBUreg _)) && 0xff < uint64(c) => (MOVVconst [1])
(SGTconst [c] (MOVHreg _)) && 0x7fff < c => (MOVVconst [1])
(SGTconst [c] (MOVHreg _)) && c <= -0x8000 => (MOVVconst [0])
(SGTconst [c] (MOVHUreg _)) && 0xffff < c => (MOVVconst [1])
(SGTconst [c] (MOVHUreg _)) && c < 0 => (MOVVconst [0])
(SGTUconst [c] (MOVHUreg _)) && 0xffff < uint64(c) => (MOVVconst [1])
(SGTconst [c] (MOVWUreg _)) && c < 0 => (MOVVconst [0])
(SGTconst [c] (ANDconst [m] _)) && 0 <= m && m < c => (MOVVconst [1])
(SGTUconst [c] (ANDconst [m] _)) && uint64(m) < uint64(c) => (MOVVconst [1])

```

```
(SGTconst [c] (SRLVconst _ [d])) && 0 <= c && 0 < d && d <= 63 && 0xffffffff>>uint64(d) < uint64(c)
=> (MOVVconst [1])
(SGTUconst [c] (SRLVconst _ [d])) && 0 < d && d <= 63 && 0xffffffff>>uint64(d) < uint64(c) =>
(MOVVconst [1])
```

```
// absorb constants into branches
```

```
(EQ (MOVVconst [0])
yes no) => (First yes no)
(EQ (MOVVconst [c]) yes no) && c != 0 => (First no yes)
(NE (MOVVconst [0]) yes no) => (First no yes)
(NE (MOVVconst [c]) yes no) && c != 0 => (First yes no)
(LTZ (MOVVconst [c]) yes no) && c < 0 => (First yes no)
(LTZ (MOVVconst [c]) yes no) && c >= 0 => (First no yes)
(LEZ (MOVVconst [c]) yes no) && c <= 0 => (First yes no)
(LEZ (MOVVconst [c]) yes no) && c > 0 => (First no yes)
(GTZ (MOVVconst [c]) yes no) && c > 0 => (First yes no)
(GTZ (MOVVconst [c]) yes no) && c <= 0 => (First no yes)
(GEZ (MOVVconst [c]) yes no) && c >= 0 => (First yes no)
(GEZ (MOVVconst [c]) yes no) && c < 0 => (First no yes)
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/LOONG64.rules
No license file was found, but licenses were detected in source scan.
```

```
// Copyright 2016 The Go Authors. All rights reserved.
```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/amd64/ssa.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/printer.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/cse_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/sizeof_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/dumper_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/rewrite_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/mips/galign.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/lca.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/arm64/ssa.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/phi_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/riscv64/galign.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/builtin_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/lca_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/s390x/ssa.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/test/testdata/flowgraph_generator1.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/tokens.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/fixbugs_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/importer/testdata/issue15920.go
```

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/printer_test.go
 *
 /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/alg.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/ARM64Ops.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/386Ops.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/noder/lex_test.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/importer/testdata/p.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/writebarrier.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/likelyadjust.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/riscv64/ggen.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/iface_test.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/PPC64Ops.go
 *
 /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/loopreschedchecks.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
 zip/compile/internal/importer/testdata/versions/test.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/stackframe.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
 zip/compile/internal/types2/testdata/check/conversions1.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/magic.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
 zip/compile/internal/types2/testdata/check/decls4.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/dumper.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/s390x/galign.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/parser.go
 *
 /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/riscv64/ssa.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
 zip/compile/internal/test/testdata/namedReturn_test.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/copyelim_test.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/noder/noder.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
 zip/compile/internal/test/testdata/gen/arithConstGen.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/shortcircuit_test.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/dec64Ops.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/sizeof_test.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/ARMOps.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/importer/testdata/a.go
 *
 /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/mips/ggen.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ppc64/ssa.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/checkbce.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/mkbuiltin.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/scanner.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/float_test.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/trim.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/source.go
 * /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/s390x/ggen.go

```

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/test/testdata/sqrtConst_test.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/mips64/ssa.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/object_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/importer/testdata/b.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/RISCV64Ops.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/phiopt.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/shortcircuit.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/arm/ssa.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/MIPS64Ops.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/riscv64/gsubr.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/dupLoad_test.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/nodes.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/shift_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/gc/trace.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/mips/ssa.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/prove.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/MIPSOps.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/reflectdata/alg.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/test/testdata/gen/constFoldGen.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/scanner_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/dwarfgen/scope_test.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/S390XOps.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/divconst_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/sizes_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/syntax.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssagen/phi.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/writebarrier_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/x86/ssa.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/parser_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/base/timings.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/zcse.go

```

No license file was found, but licenses were detected in source scan.

```

// Copyright 2015 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.

```

```

// Simplifications that apply to all backend architectures. As an example, this
// Go source code
//
// y := 0 * x
//
// can be translated into y := 0 without losing any information, which saves a

```

```

// pointless multiplication instruction. Other .rules files in this directory
// (for example AMD64.rules) contain rules specific to the architecture in the
// filename. The rules here apply to every architecture.
//
// The code for parsing this file lives in rulegen.go; this file generates
// ssa/rewritegeneric.go.

// values are specified using the following format:
// (op <type> [auxint] {aux} arg0 arg1 ...)
// the type, aux, and auxint fields are optional
// on the matching side
// - the type, aux, and auxint fields must match if they are specified.
// - the first
// occurrence of a variable defines that variable. Subsequent
// uses must match (be == to) the first use.
// - v is defined to be the value matched.
// - an additional conditional can be provided after the match pattern with "&&".
// on the generated side
// - the type of the top-level expression is the same as the one on the left-hand side.
// - the type of any subexpressions must be specified explicitly (or
// be specified in the op's type field).
// - auxint will be 0 if not specified.
// - aux will be nil if not specified.

// blocks are specified using the following format:
// (kind controlvalue succ0 succ1 ...)
// controlvalue must be "nil" or a value expression
// succ* fields must be variables
// For now, the generated successors must be a permutation of the matched successors.

// constant folding
(Trunc16to8 (Const16 [c])) => (Const8 [int8(c)])
(Trunc32to8 (Const32 [c])) => (Const8 [int8(c)])
(Trunc32to16 (Const32 [c])) => (Const16 [int16(c)])
(Trunc64to8
 (Const64 [c])) => (Const8 [int8(c)])
(Trunc64to16 (Const64 [c])) => (Const16 [int16(c)])
(Trunc64to32 (Const64 [c])) => (Const32 [int32(c)])
(Cvt64Fto32F (Const64F [c])) => (Const32F [float32(c)])
(Cvt32Fto64F (Const32F [c])) => (Const64F [float64(c)])
(Cvt32to32F (Const32 [c])) => (Const32F [float32(c)])
(Cvt32to64F (Const32 [c])) => (Const64F [float64(c)])
(Cvt64to32F (Const64 [c])) => (Const32F [float32(c)])
(Cvt64to64F (Const64 [c])) => (Const64F [float64(c)])
(Cvt32Fto32 (Const32F [c])) => (Const32 [int32(c)])
(Cvt32Fto64 (Const32F [c])) => (Const64 [int64(c)])
(Cvt64Fto32 (Const64F [c])) => (Const32 [int32(c)])
(Cvt64Fto64 (Const64F [c])) => (Const64 [int64(c)])

```



```

(Round32F x:(Const32F)) => x
(Round64F x:(Const64F)) => x
(CvtBoolToUInt8 (ConstBool [false])) => (Const8 [0])
(CvtBoolToUInt8 (ConstBool [true])) => (Const8 [1])

(Trunc16to8 (ZeroExt8to16 x)) => x
(Trunc32to8 (ZeroExt8to32 x)) => x
(Trunc32to16 (ZeroExt8to32 x)) => (ZeroExt8to16 x)
(Trunc32to16
(ZeroExt16to32 x)) => x
(Trunc64to8 (ZeroExt8to64 x)) => x
(Trunc64to16 (ZeroExt8to64 x)) => (ZeroExt8to16 x)
(Trunc64to16 (ZeroExt16to64 x)) => x
(Trunc64to32 (ZeroExt8to64 x)) => (ZeroExt8to32 x)
(Trunc64to32 (ZeroExt16to64 x)) => (ZeroExt16to32 x)
(Trunc64to32 (ZeroExt32to64 x)) => x
(Trunc16to8 (SignExt8to16 x)) => x
(Trunc32to8 (SignExt8to32 x)) => x
(Trunc32to16 (SignExt8to32 x)) => (SignExt8to16 x)
(Trunc32to16 (SignExt16to32 x)) => x
(Trunc64to8 (SignExt8to64 x)) => x
(Trunc64to16 (SignExt8to64 x)) => (SignExt8to16 x)
(Trunc64to16 (SignExt16to64 x)) => x
(Trunc64to32 (SignExt8to64 x)) => (SignExt8to32 x)
(Trunc64to32 (SignExt16to64 x)) => (SignExt16to32 x)
(Trunc64to32 (SignExt32to64 x)) => x

(ZeroExt8to16 (Const8 [c])) => (Const16 [int16(uint8(c))])
(ZeroExt8to32 (Const8 [c])) => (Const32 [int32(uint8(c))])
(ZeroExt8to64 (Const8 [c])) => (Const64 [int64(uint8(c))])
(ZeroExt16to32 (Const16 [c])) => (Const32 [int32(uint16(c))])
(ZeroExt16to64
(Const16 [c])) => (Const64 [int64(uint16(c))])
(ZeroExt32to64 (Const32 [c])) => (Const64 [int64(uint32(c))])
(SignExt8to16 (Const8 [c])) => (Const16 [int16(c)])
(SignExt8to32 (Const8 [c])) => (Const32 [int32(c)])
(SignExt8to64 (Const8 [c])) => (Const64 [int64(c)])
(SignExt16to32 (Const16 [c])) => (Const32 [int32(c)])
(SignExt16to64 (Const16 [c])) => (Const64 [int64(c)])
(SignExt32to64 (Const32 [c])) => (Const64 [int64(c)])

(Neg8 (Const8 [c])) => (Const8 [-c])
(Neg16 (Const16 [c])) => (Const16 [-c])
(Neg32 (Const32 [c])) => (Const32 [-c])
(Neg64 (Const64 [c])) => (Const64 [-c])
(Neg32F (Const32F [c])) && c != 0 => (Const32F [-c])
(Neg64F (Const64F [c])) && c != 0 => (Const64F [-c])

```

(Add8 (Const8 [c]) (Const8 [d])) => (Const8 [c+d])
(Add16 (Const16 [c]) (Const16 [d])) => (Const16 [c+d])
(Add32 (Const32 [c]) (Const32 [d])) => (Const32 [c+d])
(Add64 (Const64 [c]) (Const64 [d])) => (Const64 [c+d])
(Add32F (Const32F [c]) (Const32F [d])) && c+d == c+d
=> (Const32F [c+d])
(Add64F (Const64F [c]) (Const64F [d])) && c+d == c+d => (Const64F [c+d])
(AddPtr <t> x (Const64 [c])) => (OffPtr <t> x [c])
(AddPtr <t> x (Const32 [c])) => (OffPtr <t> x [int64(c)])

(Sub8 (Const8 [c]) (Const8 [d])) => (Const8 [c-d])
(Sub16 (Const16 [c]) (Const16 [d])) => (Const16 [c-d])
(Sub32 (Const32 [c]) (Const32 [d])) => (Const32 [c-d])
(Sub64 (Const64 [c]) (Const64 [d])) => (Const64 [c-d])
(Sub32F (Const32F [c]) (Const32F [d])) && c-d == c-d => (Const32F [c-d])
(Sub64F (Const64F [c]) (Const64F [d])) && c-d == c-d => (Const64F [c-d])

(Mul8 (Const8 [c]) (Const8 [d])) => (Const8 [c*d])
(Mul16 (Const16 [c]) (Const16 [d])) => (Const16 [c*d])
(Mul32 (Const32 [c]) (Const32 [d])) => (Const32 [c*d])
(Mul64 (Const64 [c]) (Const64 [d])) => (Const64 [c*d])
(Mul32F (Const32F [c]) (Const32F [d])) && c*d == c*d => (Const32F [c*d])
(Mul64F (Const64F [c]) (Const64F [d])) && c*d == c*d => (Const64F [c*d])

(And8 (Const8 [c]) (Const8 [d])) =>
(Const8 [c&d])
(And16 (Const16 [c]) (Const16 [d])) => (Const16 [c&d])
(And32 (Const32 [c]) (Const32 [d])) => (Const32 [c&d])
(And64 (Const64 [c]) (Const64 [d])) => (Const64 [c&d])

(Or8 (Const8 [c]) (Const8 [d])) => (Const8 [c|d])
(Or16 (Const16 [c]) (Const16 [d])) => (Const16 [c|d])
(Or32 (Const32 [c]) (Const32 [d])) => (Const32 [c|d])
(Or64 (Const64 [c]) (Const64 [d])) => (Const64 [c|d])

(Xor8 (Const8 [c]) (Const8 [d])) => (Const8 [c^d])
(Xor16 (Const16 [c]) (Const16 [d])) => (Const16 [c^d])
(Xor32 (Const32 [c]) (Const32 [d])) => (Const32 [c^d])
(Xor64 (Const64 [c]) (Const64 [d])) => (Const64 [c^d])

(Ctz64 (Const64 [c])) && config.PtrSize == 4 => (Const32 [int32(ntz64(c))])
(Ctz32 (Const32 [c])) && config.PtrSize == 4 => (Const32 [int32(ntz32(c))])
(Ctz16 (Const16 [c])) && config.PtrSize == 4 => (Const32 [int32(ntz16(c))])
(Ctz8 (Const8 [c])) && config.PtrSize == 4 => (Const32 [int32(ntz8(c))])

(Ctz64 (Const64 [c])) && config.PtrSize ==
8 => (Const64 [int64(ntz64(c))])
(Ctz32 (Const32 [c])) && config.PtrSize == 8 => (Const64 [int64(ntz32(c))])

```

(Ctz16 (Const16 [c])) && config.PtrSize == 8 => (Const64 [int64(ntz16(c))])
(Ctz8 (Const8 [c])) && config.PtrSize == 8 => (Const64 [int64(ntz8(c))])

(Div8 (Const8 [c]) (Const8 [d])) && d != 0 => (Const8 [c/d])
(Div16 (Const16 [c]) (Const16 [d])) && d != 0 => (Const16 [c/d])
(Div32 (Const32 [c]) (Const32 [d])) && d != 0 => (Const32 [c/d])
(Div64 (Const64 [c]) (Const64 [d])) && d != 0 => (Const64 [c/d])
(Div8u (Const8 [c]) (Const8 [d])) && d != 0 => (Const8 [int8(uint8(c)/uint8(d))])
(Div16u (Const16 [c]) (Const16 [d])) && d != 0 => (Const16 [int16(uint16(c)/uint16(d))])
(Div32u (Const32 [c]) (Const32 [d])) && d != 0 => (Const32 [int32(uint32(c)/uint32(d))])
(Div64u (Const64 [c]) (Const64 [d])) && d != 0 => (Const64 [int64(uint64(c)/uint64(d))])
(Div32F (Const32F [c]) (Const32F [d])) && c/d == c/d => (Const32F [c/d])
(Div64F (Const64F [c]) (Const64F [d]))
&& c/d == c/d => (Const64F [c/d])
(Select0 (Div128u (Const64 [0]) lo y)) => (Div64u lo y)
(Select1 (Div128u (Const64 [0]) lo y)) => (Mod64u lo y)

(Not (ConstBool [c])) => (ConstBool [!c])

// Convert x * 1 to x.
(Mul(8|16|32|64) (Const(8|16|32|64) [1]) x) => x

// Convert x * -1 to -x.
(Mul(8|16|32|64) (Const(8|16|32|64) [-1]) x) => (Neg(8|16|32|64) x)

// Convert multiplication by a power of two to a shift.
(Mul8 <t> n (Const8 [c])) && isPowerOfTwo8(c) => (Lsh8x64 <t> n (Const64 <typ.UInt64> [log8(c)]))
(Mul16 <t> n (Const16 [c])) && isPowerOfTwo16(c) => (Lsh16x64 <t> n (Const64 <typ.UInt64> [log16(c)]))
(Mul32 <t> n (Const32 [c])) && isPowerOfTwo32(c) => (Lsh32x64 <t> n (Const64 <typ.UInt64> [log32(c)]))
(Mul64 <t> n (Const64 [c])) && isPowerOfTwo64(c) => (Lsh64x64 <t> n (Const64 <typ.UInt64> [log64(c)]))
(Mul8 <t> n (Const8 [c])) && t.IsSigned() && isPowerOfTwo8(-c) => (Neg8 (Lsh8x64 <t> n (Const64
<typ.UInt64> [log8(-c)])))
(Mul16 <t> n (Const16 [c])) && t.IsSigned()
&& isPowerOfTwo16(-c) => (Neg16 (Lsh16x64 <t> n (Const64 <typ.UInt64> [log16(-c)])))
(Mul32 <t> n (Const32 [c])) && t.IsSigned() && isPowerOfTwo32(-c) => (Neg32 (Lsh32x64 <t> n (Const64
<typ.UInt64> [log32(-c)])))
(Mul64 <t> n (Const64 [c])) && t.IsSigned() && isPowerOfTwo64(-c) => (Neg64 (Lsh64x64 <t> n (Const64
<typ.UInt64> [log64(-c)])))

(Mod8 (Const8 [c]) (Const8 [d])) && d != 0 => (Const8 [c % d])
(Mod16 (Const16 [c]) (Const16 [d])) && d != 0 => (Const16 [c % d])
(Mod32 (Const32 [c]) (Const32 [d])) && d != 0 => (Const32 [c % d])
(Mod64 (Const64 [c]) (Const64 [d])) && d != 0 => (Const64 [c % d])

(Mod8u (Const8 [c]) (Const8 [d])) && d != 0 => (Const8 [int8(uint8(c) % uint8(d))])
(Mod16u (Const16 [c]) (Const16 [d])) && d != 0 => (Const16 [int16(uint16(c) % uint16(d))])
(Mod32u (Const32 [c]) (Const32 [d])) && d != 0 => (Const32 [int32(uint32(c) % uint32(d))])
(Mod64u (Const64 [c]) (Const64 [d])) && d != 0 => (Const64 [int64(uint64(c) % uint64(d))])

```

```

(Lsh64x64 (Const64 [c])
 (Const64 [d])) => (Const64 [c << uint64(d)])
(Rsh64x64 (Const64 [c]) (Const64 [d])) => (Const64 [c >> uint64(d)])
(Rsh64Ux64 (Const64 [c]) (Const64 [d])) => (Const64 [int64(uint64(c) >> uint64(d))])
(Lsh32x64 (Const32 [c]) (Const64 [d])) => (Const32 [c << uint64(d)])
(Rsh32x64 (Const32 [c]) (Const64 [d])) => (Const32 [c >> uint64(d)])
(Rsh32Ux64 (Const32 [c]) (Const64 [d])) => (Const32 [int32(uint32(c) >> uint64(d))])
(Lsh16x64 (Const16 [c]) (Const64 [d])) => (Const16 [c << uint64(d)])
(Rsh16x64 (Const16 [c]) (Const64 [d])) => (Const16 [c >> uint64(d)])
(Rsh16Ux64 (Const16 [c]) (Const64 [d])) => (Const16 [int16(uint16(c) >> uint64(d))])
(Lsh8x64 (Const8 [c]) (Const64 [d])) => (Const8 [c << uint64(d)])
(Rsh8x64 (Const8 [c]) (Const64 [d])) => (Const8 [c >> uint64(d)])
(Rsh8Ux64 (Const8 [c]) (Const64 [d])) => (Const8 [int8(uint8(c) >> uint64(d))])

// Fold IsInBounds when the range of the index cannot exceed the limit.
(IsInBounds (ZeroExt8to32 _) (Const32 [c])) && (1 <<
8) <= c => (ConstBool [true])
(IsInBounds (ZeroExt8to64 _) (Const64 [c])) && (1 << 8) <= c => (ConstBool [true])
(IsInBounds (ZeroExt16to32 _) (Const32 [c])) && (1 << 16) <= c => (ConstBool [true])
(IsInBounds (ZeroExt16to64 _) (Const64 [c])) && (1 << 16) <= c => (ConstBool [true])
(IsInBounds x x) => (ConstBool [false])
(IsInBounds (And8 (Const8 [c]) _) (Const8 [d])) && 0 <= c && c < d => (ConstBool [true])
(IsInBounds (ZeroExt8to16 (And8 (Const8 [c]) _)) (Const16 [d])) && 0 <= c && int16(c) < d => (ConstBool
[true])
(IsInBounds (ZeroExt8to32 (And8 (Const8 [c]) _)) (Const32 [d])) && 0 <= c && int32(c) < d => (ConstBool
[true])
(IsInBounds (ZeroExt8to64 (And8 (Const8 [c]) _)) (Const64 [d])) && 0 <= c && int64(c) < d => (ConstBool
[true])
(IsInBounds (And16 (Const16 [c]) _) (Const16 [d])) && 0 <= c && c < d => (ConstBool [true])
(IsInBounds (ZeroExt16to32 (And16 (Const16 [c]) _)) (Const32 [d])) && 0 <= c && int32(c) < d => (ConstBool
[true])
(IsInBounds
(ZeroExt16to64 (And16 (Const16 [c]) _)) (Const64 [d])) && 0 <= c && int64(c) < d => (ConstBool [true])
(IsInBounds (And32 (Const32 [c]) _) (Const32 [d])) && 0 <= c && c < d => (ConstBool [true])
(IsInBounds (ZeroExt32to64 (And32 (Const32 [c]) _)) (Const64 [d])) && 0 <= c && int64(c) < d => (ConstBool
[true])
(IsInBounds (And64 (Const64 [c]) _) (Const64 [d])) && 0 <= c && c < d => (ConstBool [true])
(IsInBounds (Const32 [c]) (Const32 [d])) => (ConstBool [0 <= c && c < d])
(IsInBounds (Const64 [c]) (Const64 [d])) => (ConstBool [0 <= c && c < d])
// (Mod64u x y) is always between 0 (inclusive) and y (exclusive).
(IsInBounds (Mod32u _ y) y) => (ConstBool [true])
(IsInBounds (Mod64u _ y) y) => (ConstBool [true])
// Right shifting an unsigned number limits its value.
(IsInBounds (ZeroExt8to64 (Rsh8Ux64 _ (Const64 [c]))) (Const64 [d])) && 0 < c && c < 8 && 1<<uint( 8-c)-1
< d => (ConstBool [true])
(IsInBounds (ZeroExt8to32 (Rsh8Ux64 _ (Const64

```

```

[c])) (Const32 [d])) && 0 < c && c < 8 && 1<<uint( 8-c)-1 < d => (ConstBool [true])
(IsInBounds (ZeroExt8to16 (Rsh8Ux64 _ (Const64 [c]))) (Const16 [d])) && 0 < c && c < 8 && 1<<uint( 8-c)-1
< d => (ConstBool [true])
(IsInBounds (Rsh8Ux64 _ (Const64 [c])) (Const64 [d])) && 0 < c && c < 8 && 1<<uint( 8-c)-1 < d =>
(ConstBool [true])
(IsInBounds (ZeroExt16to64 (Rsh16Ux64 _ (Const64 [c]))) (Const64 [d])) && 0 < c && c < 16 && 1<<uint(16-c)-
1 < d => (ConstBool [true])
(IsInBounds (ZeroExt16to32 (Rsh16Ux64 _ (Const64 [c]))) (Const64 [d])) && 0 < c && c < 16 && 1<<uint(16-c)-
1 < d => (ConstBool [true])
(IsInBounds (Rsh16Ux64 _ (Const64 [c])) (Const64 [d])) && 0 < c && c < 16 && 1<<uint(16-c)-1 < d
=> (ConstBool [true])
(IsInBounds (ZeroExt32to64 (Rsh32Ux64 _ (Const64 [c]))) (Const64 [d])) && 0 < c && c < 32 && 1<<uint(32-c)-
1 < d => (ConstBool [true])
(IsInBounds (Rsh32Ux64 _ (Const64 [c])) (Const64 [d])) && 0 < c && c < 32 && 1<<uint(32-c)-1
< d => (ConstBool [true])
(IsInBounds (Rsh64Ux64 _ (Const64 [c])) (Const64 [d])) && 0 < c && c < 64 && 1<<uint(64-c)-1 < d
=> (ConstBool [true])

```

```

(IsSliceInBounds x x) => (ConstBool [true])
(IsSliceInBounds (And32 (Const32 [c] _) (Const32 [d])) && 0 <= c && c <= d => (ConstBool [true])
(IsSliceInBounds (And64 (Const64 [c] _) (Const64 [d])) && 0 <= c && c <= d => (ConstBool [true])
(IsSliceInBounds (Const32 [0] _) => (ConstBool [true])
(IsSliceInBounds (Const64 [0] _) => (ConstBool [true])
(IsSliceInBounds (Const32 [c] (Const32 [d])) => (ConstBool [0 <= c && c <= d])
(IsSliceInBounds (Const64 [c] (Const64 [d])) => (ConstBool [0 <= c && c <= d])
(IsSliceInBounds (SliceLen x) (SliceCap x)) => (ConstBool [true])

```

```

(Eq(64|32|16|8) x x) => (ConstBool [true])
(EqB (ConstBool [c]) (ConstBool [d])) => (ConstBool [c == d])
(EqB (ConstBool [false] x) => (Not x)
(EqB (ConstBool [true] x) => x

```

```

(Neq(64|32|16|8) x x) => (ConstBool [false])
(NeqB (ConstBool [c]) (ConstBool
[d])) => (ConstBool [c != d])
(NeqB (ConstBool [false] x) => x
(NeqB (ConstBool [true] x) => (Not x)
(NeqB (Not x) (Not y)) => (NeqB x y)

```

```

(Eq64 (Const64 <t> [c]) (Add64 (Const64 <t> [d] x)) => (Eq64 (Const64 <t> [c-d] x)
(Eq32 (Const32 <t> [c]) (Add32 (Const32 <t> [d] x)) => (Eq32 (Const32 <t> [c-d] x)
(Eq16 (Const16 <t> [c]) (Add16 (Const16 <t> [d] x)) => (Eq16 (Const16 <t> [c-d] x)
(Eq8 (Const8 <t> [c]) (Add8 (Const8 <t> [d] x)) => (Eq8 (Const8 <t> [c-d] x)

```

```

(Neq64 (Const64 <t> [c]) (Add64 (Const64 <t> [d] x)) => (Neq64 (Const64 <t> [c-d] x)
(Neq32 (Const32 <t> [c]) (Add32 (Const32 <t> [d] x)) => (Neq32 (Const32 <t> [c-d] x)
(Neq16 (Const16 <t> [c]) (Add16 (Const16 <t> [d] x)) => (Neq16 (Const16 <t> [c-d] x)
(Neq8 (Const8 <t> [c]) (Add8 (Const8 <t> [d] x)) => (Neq8 (Const8 <t> [c-d] x)

```

```

// signed integer range: ( c <= x && x (<|<=) d ) -> ( unsigned(x-c) (<|<=) unsigned(d-c) )
(AndB (Leq64 (Const64 [c]) x) ((Less|Leq)64 x (Const64 [d]))) && d >= c =>
((Less|Leq)64U (Sub64 <x.Type> x (Const64 <x.Type> [c])) (Const64 <x.Type> [d-c]))
(AndB (Leq32 (Const32 [c]) x) ((Less|Leq)32 x (Const32 [d]))) && d >= c => ((Less|Leq)32U (Sub32 <x.Type> x
(Const32 <x.Type> [c])) (Const32 <x.Type> [d-c]))
(AndB (Leq16 (Const16 [c]) x) ((Less|Leq)16 x (Const16 [d]))) && d >= c => ((Less|Leq)16U (Sub16 <x.Type> x
(Const16 <x.Type> [c])) (Const16 <x.Type> [d-c]))
(AndB (Leq8 (Const8 [c]) x) ((Less|Leq)8 x (Const8 [d]))) && d >= c => ((Less|Leq)8U (Sub8 <x.Type> x
(Const8 <x.Type> [c])) (Const8 <x.Type> [d-c]))

// signed integer range: ( c < x && x (<|<=) d ) -> ( unsigned(x-(c+1)) (<|<=) unsigned(d-(c+1)) )
(AndB (Less64 (Const64 [c]) x) ((Less|Leq)64 x (Const64 [d]))) && d >= c+1 && c+1 > c => ((Less|Leq)64U
(Sub64 <x.Type> x (Const64 <x.Type> [c+1])) (Const64 <x.Type> [d-c-1]))
(AndB (Less32 (Const32 [c]) x) ((Less|Leq)32 x (Const32 [d]))) && d >= c+1 && c+1 > c => ((Less|Leq)32U
(Sub32 <x.Type> x (Const32 <x.Type> [c+1])) (Const32 <x.Type>
[d-c-1]))
(AndB (Less16 (Const16 [c]) x) ((Less|Leq)16 x (Const16 [d]))) && d >= c+1 && c+1 > c => ((Less|Leq)16U
(Sub16 <x.Type> x (Const16 <x.Type> [c+1])) (Const16 <x.Type> [d-c-1]))
(AndB (Less8 (Const8 [c]) x) ((Less|Leq)8 x (Const8 [d]))) && d >= c+1 && c+1 > c => ((Less|Leq)8U (Sub8
<x.Type> x (Const8 <x.Type> [c+1])) (Const8 <x.Type> [d-c-1]))

// unsigned integer range: ( c <= x && x (<|<=) d ) -> ( x-c (<|<=) d-c )
(AndB (Leq64U (Const64 [c]) x) ((Less|Leq)64U x (Const64 [d]))) && uint64(d) >= uint64(c) => ((Less|Leq)64U
(Sub64 <x.Type> x (Const64 <x.Type> [c])) (Const64 <x.Type> [d-c]))
(AndB (Leq32U (Const32 [c]) x) ((Less|Leq)32U x (Const32 [d]))) && uint32(d) >= uint32(c) => ((Less|Leq)32U
(Sub32 <x.Type> x (Const32 <x.Type> [c])) (Const32 <x.Type> [d-c]))
(AndB (Leq16U (Const16 [c]) x) ((Less|Leq)16U x (Const16 [d]))) && uint16(d) >= uint16(c) => ((Less|Leq)16U
(Sub16 <x.Type> x (Const16 <x.Type> [c])) (Const16 <x.Type> [d-c]))
(AndB (Leq8U (Const8 [c]) x) ((Less|Leq)8U
x (Const8 [d]))) && uint8(d) >= uint8(c) => ((Less|Leq)8U (Sub8 <x.Type> x (Const8 <x.Type> [c])) (Const8
<x.Type> [d-c]))

// unsigned integer range: ( c < x && x (<|<=) d ) -> ( x-(c+1) (<|<=) d-(c+1) )
(AndB (Less64U (Const64 [c]) x) ((Less|Leq)64U x (Const64 [d]))) && uint64(d) >= uint64(c+1) && uint64(c+1)
> uint64(c) => ((Less|Leq)64U (Sub64 <x.Type> x (Const64 <x.Type> [c+1])) (Const64 <x.Type> [d-c-1]))
(AndB (Less32U (Const32 [c]) x) ((Less|Leq)32U x (Const32 [d]))) && uint32(d) >= uint32(c+1) && uint32(c+1)
> uint32(c) => ((Less|Leq)32U (Sub32 <x.Type> x (Const32 <x.Type> [c+1])) (Const32 <x.Type> [d-c-1]))
(AndB (Less16U (Const16 [c]) x) ((Less|Leq)16U x (Const16 [d]))) && uint16(d) >= uint16(c+1) && uint16(c+1)
> uint16(c) => ((Less|Leq)16U (Sub16 <x.Type> x (Const16 <x.Type> [c+1])) (Const16 <x.Type> [d-c-1]))
(AndB (Less8U (Const8 [c]) x) ((Less|Leq)8U x (Const8 [d]))) && uint8(d) >= uint8(c+1) && uint8(c+1) >
uint8(c) => ((Less|Leq)8U (Sub8 <x.Type>
x (Const8 <x.Type> [c+1])) (Const8 <x.Type> [d-c-1]))

// signed integer range: ( c (<|<=) x || x < d ) -> ( unsigned(c-d) (<|<=) unsigned(x-d) )
(OrB ((Less|Leq)64 (Const64 [c]) x) (Less64 x (Const64 [d]))) && c >= d => ((Less|Leq)64U (Const64 <x.Type>
[c-d]) (Sub64 <x.Type> x (Const64 <x.Type> [d])))
(OrB ((Less|Leq)32 (Const32 [c]) x) (Less32 x (Const32 [d]))) && c >= d => ((Less|Leq)32U (Const32 <x.Type>

```

```

[c-d] (Sub32 <x.Type> x (Const32 <x.Type> [d])))
(OrB ((Less|Leq)16 (Const16 [c]) x) (Less16 x (Const16 [d]))) && c >= d => ((Less|Leq)16U (Const16 <x.Type>
[c-d] (Sub16 <x.Type> x (Const16 <x.Type> [d])))
(OrB ((Less|Leq)8 (Const8 [c]) x) (Less8 x (Const8 [d]))) && c >= d => ((Less|Leq)8U (Const8 <x.Type> [c-d])
(Sub8 <x.Type> x (Const8 <x.Type> [d])))

// signed integer range: ( c (<|<=) x || x <= d ) -> ( unsigned(c-(d+1)) (<|<=) unsigned(x-(d+1)) )
(OrB ((Less|Leq)64 (Const64 [c]) x) (Leq64 x (Const64 [d]))) && c >= d+1 && d+1 > d => ((Less|Leq)64U
(Const64
<x.Type> [c-d-1]) (Sub64 <x.Type> x (Const64 <x.Type> [d+1])))
(OrB ((Less|Leq)32 (Const32 [c]) x) (Leq32 x (Const32 [d]))) && c >= d+1 && d+1 > d => ((Less|Leq)32U
(Const32 <x.Type> [c-d-1]) (Sub32 <x.Type> x (Const32 <x.Type> [d+1])))
(OrB ((Less|Leq)16 (Const16 [c]) x) (Leq16 x (Const16 [d]))) && c >= d+1 && d+1 > d => ((Less|Leq)16U
(Const16 <x.Type> [c-d-1]) (Sub16 <x.Type> x (Const16 <x.Type> [d+1])))
(OrB ((Less|Leq)8 (Const8 [c]) x) (Leq8 x (Const8 [d]))) && c >= d+1 && d+1 > d => ((Less|Leq)8U (Const8
<x.Type> [c-d-1]) (Sub8 <x.Type> x (Const8 <x.Type> [d+1])))

// unsigned integer range: ( c (<|<=) x || x < d ) -> ( c-d (<|<=) x-d )
(OrB ((Less|Leq)64U (Const64 [c]) x) (Less64U x (Const64 [d]))) && uint64(c) >= uint64(d) => ((Less|Leq)64U
(Const64 <x.Type> [c-d]) (Sub64 <x.Type> x (Const64 <x.Type> [d])))
(OrB ((Less|Leq)32U (Const32 [c]) x) (Less32U x (Const32 [d]))) && uint32(c) >= uint32(d) => ((Less|Leq)32U
(Const32 <x.Type> [c-d]) (Sub32 <x.Type> x (Const32 <x.Type>
[d])))
(OrB ((Less|Leq)16U (Const16 [c]) x) (Less16U x (Const16 [d]))) && uint16(c) >= uint16(d) => ((Less|Leq)16U
(Const16 <x.Type> [c-d]) (Sub16 <x.Type> x (Const16 <x.Type> [d])))
(OrB ((Less|Leq)8U (Const8 [c]) x) (Less8U x (Const8 [d]))) && uint8(c) >= uint8(d) => ((Less|Leq)8U
(Const8 <x.Type> [c-d]) (Sub8 <x.Type> x (Const8 <x.Type> [d])))

// unsigned integer range: ( c (<|<=) x || x <= d ) -> ( c-(d+1) (<|<=) x-(d+1) )
(OrB ((Less|Leq)64U (Const64 [c]) x) (Leq64U x (Const64 [d]))) && uint64(c) >= uint64(d+1) && uint64(d+1) >
uint64(d) => ((Less|Leq)64U (Const64 <x.Type> [c-d-1]) (Sub64 <x.Type> x (Const64 <x.Type> [d+1])))
(OrB ((Less|Leq)32U (Const32 [c]) x) (Leq32U x (Const32 [d]))) && uint32(c) >= uint32(d+1) && uint32(d+1) >
uint32(d) => ((Less|Leq)32U (Const32 <x.Type> [c-d-1]) (Sub32 <x.Type> x (Const32 <x.Type> [d+1])))
(OrB ((Less|Leq)16U (Const16 [c]) x) (Leq16U x (Const16 [d]))) && uint16(c) >= uint16(d+1) && uint16(d+1) >
uint16(d) => ((Less|Leq)16U (Const16
<x.Type> [c-d-1]) (Sub16 <x.Type> x (Const16 <x.Type> [d+1])))
(OrB ((Less|Leq)8U (Const8 [c]) x) (Leq8U x (Const8 [d]))) && uint8(c) >= uint8(d+1) && uint8(d+1) >
uint8(d) => ((Less|Leq)8U (Const8 <x.Type> [c-d-1]) (Sub8 <x.Type> x (Const8 <x.Type> [d+1])))

// Canonicalize x-const to x+(-const)
(Sub64 x (Const64 <t> [c])) && x.Op != OpConst64 => (Add64 (Const64 <t> [-c]) x)
(Sub32 x (Const32 <t> [c])) && x.Op != OpConst32 => (Add32 (Const32 <t> [-c]) x)
(Sub16 x (Const16 <t> [c])) && x.Op != OpConst16 => (Add16 (Const16 <t> [-c]) x)
(Sub8 x (Const8 <t> [c])) && x.Op != OpConst8 => (Add8 (Const8 <t> [-c]) x)

// fold negation into comparison operators
(Not (Eq(64|32|16|8|B|Ptr|64F|32F) x y)) => (Neq(64|32|16|8|B|Ptr|64F|32F) x y)
(Not (Neq(64|32|16|8|B|Ptr|64F|32F) x y)) => (Eq(64|32|16|8|B|Ptr|64F|32F) x y)

```

```

(Not (Less(64|32|16|8) x y)) => (Leq(64|32|16|8) y x)
(Not (Less(64|32|16|8)U x y)) => (Leq(64|32|16|8)U y x)
(Not (Leq(64|32|16|8) x y)) => (Less(64|32|16|8)
y x)
(Not (Leq(64|32|16|8)U x y)) => (Less(64|32|16|8)U y x)

// Distribute multiplication c * (d+x) -> c*d + c*x. Useful for:
// a[i].b = ...; a[i+1].b = ...
(Mul64 (Const64 <t> [c]) (Add64 <t> (Const64 <t> [d]) x)) =>
(Add64 (Const64 <t> [c*d]) (Mul64 <t> (Const64 <t> [c]) x))
(Mul32 (Const32 <t> [c]) (Add32 <t> (Const32 <t> [d]) x)) =>
(Add32 (Const32 <t> [c*d]) (Mul32 <t> (Const32 <t> [c]) x))

// Rewrite x*y ± x*z to x*(y±z)
(Add(64|32|16|8) <t> (Mul(64|32|16|8) x y) (Mul(64|32|16|8) x z))
=> (Mul(64|32|16|8) x (Add(64|32|16|8) <t> y z))
(Sub(64|32|16|8) <t> (Mul(64|32|16|8) x y) (Mul(64|32|16|8) x z))
=> (Mul(64|32|16|8) x (Sub(64|32|16|8) <t> y z))

// rewrite shifts of 8/16/32 bit consts into 64 bit consts to reduce
// the number of the other rewrite rules for const shifts
(Lsh64x32 <t> x (Const32 [c])) => (Lsh64x64 x (Const64 <t> [int64(uint32(c))]))
(Lsh64x16 <t> x (Const16 [c])) => (Lsh64x64 x (Const64 <t> [int64(uint16(c))]))
(Lsh64x8 <t> x (Const8 [c]))
=> (Lsh64x64 x (Const64 <t> [int64(uint8(c))]))
(Rsh64x32 <t> x (Const32 [c])) => (Rsh64x64 x (Const64 <t> [int64(uint32(c))]))
(Rsh64x16 <t> x (Const16 [c])) => (Rsh64x64 x (Const64 <t> [int64(uint16(c))]))
(Rsh64x8 <t> x (Const8 [c])) => (Rsh64x64 x (Const64 <t> [int64(uint8(c))]))
(Rsh64Ux32 <t> x (Const32 [c])) => (Rsh64Ux64 x (Const64 <t> [int64(uint32(c))]))
(Rsh64Ux16 <t> x (Const16 [c])) => (Rsh64Ux64 x (Const64 <t> [int64(uint16(c))]))
(Rsh64Ux8 <t> x (Const8 [c])) => (Rsh64Ux64 x (Const64 <t> [int64(uint8(c))]))

(Lsh32x32 <t> x (Const32 [c])) => (Lsh32x64 x (Const64 <t> [int64(uint32(c))]))
(Lsh32x16 <t> x (Const16 [c])) => (Lsh32x64 x (Const64 <t> [int64(uint16(c))]))
(Lsh32x8 <t> x (Const8 [c])) => (Lsh32x64 x (Const64 <t> [int64(uint8(c))]))
(Rsh32x32 <t> x (Const32 [c])) => (Rsh32x64 x (Const64 <t> [int64(uint32(c))]))
(Rsh32x16 <t> x (Const16 [c])) => (Rsh32x64 x (Const64 <t> [int64(uint16(c))]))
(Rsh32x8 <t> x (Const8 [c])) => (Rsh32x64 x (Const64
<t> [int64(uint8(c))]))
(Rsh32Ux32 <t> x (Const32 [c])) => (Rsh32Ux64 x (Const64 <t> [int64(uint32(c))]))
(Rsh32Ux16 <t> x (Const16 [c])) => (Rsh32Ux64 x (Const64 <t> [int64(uint16(c))]))
(Rsh32Ux8 <t> x (Const8 [c])) => (Rsh32Ux64 x (Const64 <t> [int64(uint8(c))]))

(Lsh16x32 <t> x (Const32 [c])) => (Lsh16x64 x (Const64 <t> [int64(uint32(c))]))
(Lsh16x16 <t> x (Const16 [c])) => (Lsh16x64 x (Const64 <t> [int64(uint16(c))]))
(Lsh16x8 <t> x (Const8 [c])) => (Lsh16x64 x (Const64 <t> [int64(uint8(c))]))
(Rsh16x32 <t> x (Const32 [c])) => (Rsh16x64 x (Const64 <t> [int64(uint32(c))]))

```



```

(Rsh16x16 <t> x (Const16 [c])) => (Rsh16x64 x (Const64 <t> [int64(uint16(c))]))
(Rsh16x8 <t> x (Const8 [c])) => (Rsh16x64 x (Const64 <t> [int64(uint8(c))]))
(Rsh16Ux32 <t> x (Const32 [c])) => (Rsh16Ux64 x (Const64 <t> [int64(uint32(c))]))
(Rsh16Ux16 <t> x (Const16 [c])) => (Rsh16Ux64 x (Const64 <t> [int64(uint16(c))]))
(Rsh16Ux8 <t> x (Const8 [c])) => (Rsh16Ux64 x (Const64 <t> [int64(uint8(c))]))

```

```

(Lsh8x32

```

```

  <t> x (Const32 [c])) => (Lsh8x64 x (Const64 <t> [int64(uint32(c))]))
(Lsh8x16 <t> x (Const16 [c])) => (Lsh8x64 x (Const64 <t> [int64(uint16(c))]))
(Lsh8x8 <t> x (Const8 [c])) => (Lsh8x64 x (Const64 <t> [int64(uint8(c))]))
(Rsh8x32 <t> x (Const32 [c])) => (Rsh8x64 x (Const64 <t> [int64(uint32(c))]))
(Rsh8x16 <t> x (Const16 [c])) => (Rsh8x64 x (Const64 <t> [int64(uint16(c))]))
(Rsh8x8 <t> x (Const8 [c])) => (Rsh8x64 x (Const64 <t> [int64(uint8(c))]))
(Rsh8Ux32 <t> x (Const32 [c])) => (Rsh8Ux64 x (Const64 <t> [int64(uint32(c))]))
(Rsh8Ux16 <t> x (Const16 [c])) => (Rsh8Ux64 x (Const64 <t> [int64(uint16(c))]))
(Rsh8Ux8 <t> x (Const8 [c])) => (Rsh8Ux64 x (Const64 <t> [int64(uint8(c))]))

```

```

// shifts by zero

```

```

(Lsh(64|32|16|8)x64 x (Const64 [0])) => x
(Rsh(64|32|16|8)x64 x (Const64 [0])) => x
(Rsh(64|32|16|8)Ux64 x (Const64 [0])) => x

```

```

// rotates by multiples of register width

```

```

(RotateLeft64 x (Const64 [c])) && c%64 == 0 => x
(RotateLeft32 x (Const32 [c])
&& c%32 == 0 => x
(RotateLeft16 x (Const16 [c])) && c%16 == 0 => x
(RotateLeft8 x (Const8 [c])) && c%8 == 0 => x

```

```

// zero shifted

```

```

(Lsh64x(64|32|16|8) (Const64 [0]) _) => (Const64 [0])
(Rsh64x(64|32|16|8) (Const64 [0]) _) => (Const64 [0])
(Rsh64Ux(64|32|16|8) (Const64 [0]) _) => (Const64 [0])
(Lsh32x(64|32|16|8) (Const32 [0]) _) => (Const32 [0])
(Rsh32x(64|32|16|8) (Const32 [0]) _) => (Const32 [0])
(Rsh32Ux(64|32|16|8) (Const32 [0]) _) => (Const32 [0])
(Lsh16x(64|32|16|8) (Const16 [0]) _) => (Const16 [0])
(Rsh16x(64|32|16|8) (Const16 [0]) _) => (Const16 [0])
(Rsh16Ux(64|32|16|8) (Const16 [0]) _) => (Const16 [0])
(Lsh8x(64|32|16|8) (Const8 [0]) _) => (Const8 [0])
(Rsh8x(64|32|16|8) (Const8 [0]) _) => (Const8 [0])
(Rsh8Ux(64|32|16|8) (Const8 [0]) _) => (Const8 [0])

```

```

// large left shifts of all values, and right shifts of unsigned values

```

```

((Lsh64|Rsh64U)x64 _ (Const64 [c])) && uint64(c) >= 64 => (Const64 [0])
((Lsh32|Rsh32U)x64 _ (Const64 [c])) && uint64(c) >= 32 => (Const32
[0])
((Lsh16|Rsh16U)x64 _ (Const64 [c])) && uint64(c) >= 16 => (Const16 [0])

```

```
((Lsh8|Rsh8U)x64 _ (Const64 [c])) && uint64(c) >= 8 => (Const8 [0])
```

```
// combine const shifts
```

```
(Lsh64x64 <t> (Lsh64x64 x (Const64 [c])) (Const64 [d])) && !uaddOvf(c,d) => (Lsh64x64 x (Const64 <t> [c+d]))  
(Lsh32x64 <t> (Lsh32x64 x (Const64 [c])) (Const64 [d])) && !uaddOvf(c,d) => (Lsh32x64 x (Const64 <t> [c+d]))  
(Lsh16x64 <t> (Lsh16x64 x (Const64 [c])) (Const64 [d])) && !uaddOvf(c,d) => (Lsh16x64 x (Const64 <t> [c+d]))  
(Lsh8x64 <t> (Lsh8x64 x (Const64 [c])) (Const64 [d])) && !uaddOvf(c,d) => (Lsh8x64 x (Const64 <t> [c+d]))
```

```
(Rsh64x64 <t> (Rsh64x64 x (Const64 [c])) (Const64 [d])) && !uaddOvf(c,d) => (Rsh64x64 x (Const64 <t> [c+d]))  
(Rsh32x64 <t> (Rsh32x64 x (Const64 [c])) (Const64 [d])) && !uaddOvf(c,d) => (Rsh32x64 x (Const64 <t> [c+d]))  
(Rsh16x64 <t> (Rsh16x64 x (Const64 [c])) (Const64 [d])) && !uaddOvf(c,d) => (Rsh16x64 x (Const64 <t> [c+d]))  
(Rsh8x64 <t> (Rsh8x64 x (Const64 [c])) (Const64 [d]))  
&& !uaddOvf(c,d) => (Rsh8x64 x (Const64 <t> [c+d]))
```

```
(Rsh64Ux64 <t> (Rsh64Ux64 x (Const64 [c])) (Const64 [d])) && !uaddOvf(c,d) => (Rsh64Ux64 x (Const64 <t>  
[c+d]))  
(Rsh32Ux64 <t> (Rsh32Ux64 x (Const64 [c])) (Const64 [d])) && !uaddOvf(c,d) => (Rsh32Ux64 x (Const64 <t>  
[c+d]))  
(Rsh16Ux64 <t> (Rsh16Ux64 x (Const64 [c])) (Const64 [d])) && !uaddOvf(c,d) => (Rsh16Ux64 x (Const64 <t>  
[c+d]))  
(Rsh8Ux64 <t> (Rsh8Ux64 x (Const64 [c])) (Const64 [d])) && !uaddOvf(c,d) => (Rsh8Ux64 x (Const64 <t>  
[c+d]))
```

```
// Remove signed right shift before an unsigned right shift that extracts the sign bit.
```

```
(Rsh8Ux64 (Rsh8x64 x _) (Const64 <t> [7] )) => (Rsh8Ux64 x (Const64 <t> [7] ))  
(Rsh16Ux64 (Rsh16x64 x _) (Const64 <t> [15])) => (Rsh16Ux64 x (Const64 <t> [15]))  
(Rsh32Ux64 (Rsh32x64 x _) (Const64 <t> [31])) => (Rsh32Ux64 x (Const64 <t> [31]))  
(Rsh64Ux64 (Rsh64x64 x _) (Const64 <t> [63])) => (Rsh64Ux64 x (Const64 <t> [63]))
```

```
// ((x >> c1) << c2) >> c3
```

```
(Rsh(64|32|16|8)Ux64 (Lsh(64|32|16|8)x64 (Rsh(64|32|16|8)Ux64  
x (Const64 [c1])) (Const64 [c2])) (Const64 [c3]))  
&& uint64(c1) >= uint64(c2) && uint64(c3) >= uint64(c2) && !uaddOvf(c1-c2, c3)  
=> (Rsh(64|32|16|8)Ux64 x (Const64 <typ.UInt64> [c1-c2+c3]))
```

```
// ((x << c1) >> c2) << c3
```

```
(Lsh(64|32|16|8)x64 (Rsh(64|32|16|8)Ux64 (Lsh(64|32|16|8)x64 x (Const64 [c1])) (Const64 [c2])) (Const64 [c3]))  
&& uint64(c1) >= uint64(c2) && uint64(c3) >= uint64(c2) && !uaddOvf(c1-c2, c3)  
=> (Lsh(64|32|16|8)x64 x (Const64 <typ.UInt64> [c1-c2+c3]))
```

```
// (x >> c) & uppermask = 0
```

```
(And64 (Const64 [m]) (Rsh64Ux64 _ (Const64 [c]))) && c >= int64(64-ntz64(m)) => (Const64 [0])  
(And32 (Const32 [m]) (Rsh32Ux64 _ (Const64 [c]))) && c >= int64(32-ntz32(m)) => (Const32 [0])  
(And16 (Const16 [m]) (Rsh16Ux64 _ (Const64 [c]))) && c >= int64(16-ntz16(m)) => (Const16 [0])  
(And8 (Const8 [m]) (Rsh8Ux64 _ (Const64 [c]))) && c >= int64(8-ntz8(m)) => (Const8 [0])
```

```
// (x << c) & lowermask = 0
```

```
(And64 (Const64 [m]) (Lsh64x64 _ (Const64 [c]))) && c >= int64(64-nlz64(m)) =>
```

```

(Const64 [0])
(And32 (Const32 [m]) (Lsh32x64 _ (Const64 [c]))) && c >= int64(32-nlz32(m)) => (Const32 [0])
(And16 (Const16 [m]) (Lsh16x64 _ (Const64 [c]))) && c >= int64(16-nlz16(m)) => (Const16 [0])
(And8 (Const8 [m]) (Lsh8x64 _ (Const64 [c]))) && c >= int64(8-nlz8(m)) => (Const8 [0])

// replace shifts with zero extensions
(Rsh16Ux64 (Lsh16x64 x (Const64 [8])) (Const64 [8])) => (ZeroExt8to16 (Trunc16to8 <typ.UInt8> x))
(Rsh32Ux64 (Lsh32x64 x (Const64 [24])) (Const64 [24])) => (ZeroExt8to32 (Trunc32to8 <typ.UInt8> x))
(Rsh64Ux64 (Lsh64x64 x (Const64 [56])) (Const64 [56])) => (ZeroExt8to64 (Trunc64to8 <typ.UInt8> x))
(Rsh32Ux64 (Lsh32x64 x (Const64 [16])) (Const64 [16])) => (ZeroExt16to32 (Trunc32to16 <typ.UInt16> x))
(Rsh64Ux64 (Lsh64x64 x (Const64 [48])) (Const64 [48])) => (ZeroExt16to64 (Trunc64to16 <typ.UInt16> x))
(Rsh64Ux64 (Lsh64x64 x (Const64 [32])) (Const64 [32])) => (ZeroExt32to64 (Trunc64to32 <typ.UInt32> x))

// replace shifts with sign extensions
(Rsh16x64
(Lsh16x64 x (Const64 [8])) (Const64 [8])) => (SignExt8to16 (Trunc16to8 <typ.Int8> x))
(Rsh32x64 (Lsh32x64 x (Const64 [24])) (Const64 [24])) => (SignExt8to32 (Trunc32to8 <typ.Int8> x))
(Rsh64x64 (Lsh64x64 x (Const64 [56])) (Const64 [56])) => (SignExt8to64 (Trunc64to8 <typ.Int8> x))
(Rsh32x64 (Lsh32x64 x (Const64 [16])) (Const64 [16])) => (SignExt16to32 (Trunc32to16 <typ.Int16> x))
(Rsh64x64 (Lsh64x64 x (Const64 [48])) (Const64 [48])) => (SignExt16to64 (Trunc64to16 <typ.Int16> x))
(Rsh64x64 (Lsh64x64 x (Const64 [32])) (Const64 [32])) => (SignExt32to64 (Trunc64to32 <typ.Int32> x))

// constant comparisons
(Eq(64|32|16|8) (Const(64|32|16|8) [c]) (Const(64|32|16|8) [d])) => (ConstBool [c == d])
(Neq(64|32|16|8) (Const(64|32|16|8) [c]) (Const(64|32|16|8) [d])) => (ConstBool [c != d])
(Less(64|32|16|8) (Const(64|32|16|8) [c]) (Const(64|32|16|8) [d])) => (ConstBool [c < d])
(Leq(64|32|16|8) (Const(64|32|16|8) [c]) (Const(64|32|16|8) [d])) => (ConstBool [c <= d])

(Less64U (Const64
[c]) (Const64 [d])) => (ConstBool [uint64(c) < uint64(d)])
(Less32U (Const32 [c]) (Const32 [d])) => (ConstBool [uint32(c) < uint32(d)])
(Less16U (Const16 [c]) (Const16 [d])) => (ConstBool [uint16(c) < uint16(d)])
(Less8U (Const8 [c]) (Const8 [d])) => (ConstBool [uint8(c) < uint8(d)])

(Leq64U (Const64 [c]) (Const64 [d])) => (ConstBool [uint64(c) <= uint64(d)])
(Leq32U (Const32 [c]) (Const32 [d])) => (ConstBool [uint32(c) <= uint32(d)])
(Leq16U (Const16 [c]) (Const16 [d])) => (ConstBool [uint16(c) <= uint16(d)])
(Leq8U (Const8 [c]) (Const8 [d])) => (ConstBool [uint8(c) <= uint8(d)])

(Leq8 (Const8 [0]) (And8 _ (Const8 [c]))) && c >= 0 => (ConstBool [true])
(Leq16 (Const16 [0]) (And16 _ (Const16 [c]))) && c >= 0 => (ConstBool [true])
(Leq32 (Const32 [0]) (And32 _ (Const32 [c]))) && c >= 0 => (ConstBool [true])
(Leq64 (Const64 [0]) (And64 _ (Const64 [c]))) && c >= 0 => (ConstBool [true])

(Leq8 (Const8 [0]) (Rsh8Ux64 _ (Const64 [c]))) && c > 0 => (ConstBool [true])
(Leq16
(Const16 [0]) (Rsh16Ux64 _ (Const64 [c]))) && c > 0 => (ConstBool [true])
(Leq32 (Const32 [0]) (Rsh32Ux64 _ (Const64 [c]))) && c > 0 => (ConstBool [true])

```

```

(Leq64 (Const64 [0]) (Rsh64Ux64 _ (Const64 [c]))) && c > 0 => (ConstBool [true])

(Less(64|32|16|8) (Const(64|32|16|8) <t> [0]) x) && isNonNegative(x) => (Neq(64|32|16|8) (Const(64|32|16|8) <t>
[0]) x)
(Less(64|32|16|8) x (Const(64|32|16|8) <t> [1])) && isNonNegative(x) => (Eq(64|32|16|8) (Const(64|32|16|8) <t>
[0]) x)

// constant floating point comparisons
(Eq32F (Const32F [c]) (Const32F [d])) => (ConstBool [c == d])
(Eq64F (Const64F [c]) (Const64F [d])) => (ConstBool [c == d])
(Neq32F (Const32F [c]) (Const32F [d])) => (ConstBool [c != d])
(Neq64F (Const64F [c]) (Const64F [d])) => (ConstBool [c != d])
(Less32F (Const32F [c]) (Const32F [d])) => (ConstBool [c < d])
(Less64F (Const64F [c]) (Const64F [d])) => (ConstBool [c < d])
(Leq32F (Const32F [c]) (Const32F [d])) => (ConstBool [c <= d])
(Leq64F (Const64F [c]) (Const64F
[d])) => (ConstBool [c <= d])

// simplifications
(Or(64|32|16|8) x x) => x
(Or(64|32|16|8) (Const(64|32|16|8) [0]) x) => x
(Or(64|32|16|8) (Const(64|32|16|8) [-1]) _) => (Const(64|32|16|8) [-1])
(Or(64|32|16|8) (Com(64|32|16|8) x) x) => (Const(64|32|16|8) [-1])

(And(64|32|16|8) x x) => x
(And(64|32|16|8) (Const(64|32|16|8) [-1]) x) => x
(And(64|32|16|8) (Const(64|32|16|8) [0]) _) => (Const(64|32|16|8) [0])
(And(64|32|16|8) (Com(64|32|16|8) x) x) => (Const(64|32|16|8) [0])

(Xor(64|32|16|8) x x) => (Const(64|32|16|8) [0])
(Xor(64|32|16|8) (Const(64|32|16|8) [0]) x) => x
(Xor(64|32|16|8) (Com(64|32|16|8) x) x) => (Const(64|32|16|8) [-1])

(Add(64|32|16|8) (Const(64|32|16|8) [0]) x) => x
(Sub(64|32|16|8) x x) => (Const(64|32|16|8) [0])
(Mul(64|32|16|8) (Const(64|32|16|8) [0]) _) => (Const(64|32|16|8) [0])

(Com(64|32|16|8) (Com(64|32|16|8) x)) => x
(Com(64|32|16|8) (Const(64|32|16|8) [c])) => (Const(64|32|16|8) [^c])

(Neg(64|32|16|8) (Sub(64|32|16|8) x y)) => (Sub(64|32|16|8)
y x)
(Add(64|32|16|8) x (Neg(64|32|16|8) y)) => (Sub(64|32|16|8) x y)

(Xor(64|32|16|8) (Const(64|32|16|8) [-1]) x) => (Com(64|32|16|8) x)

(Sub(64|32|16|8) (Neg(64|32|16|8) x) (Com(64|32|16|8) x)) => (Const(64|32|16|8) [1])
(Sub(64|32|16|8) (Com(64|32|16|8) x) (Neg(64|32|16|8) x)) => (Const(64|32|16|8) [-1])

```

```

(Add(64|32|16|8) (Com(64|32|16|8) x) x) => (Const(64|32|16|8) [-1])

// ^x-1 == ^x+1 == -x
(Add(64|32|16|8) (Const(64|32|16|8) [1]) (Com(64|32|16|8) x)) => (Neg(64|32|16|8) x)
(Com(64|32|16|8) (Add(64|32|16|8) (Const(64|32|16|8) [-1]) x)) => (Neg(64|32|16|8) x)

// -(-x) == x
(Neg(64|32|16|8) (Neg(64|32|16|8) x)) => x

// -^x == x+1
(Neg(64|32|16|8) <t> (Com(64|32|16|8) x)) => (Add(64|32|16|8) (Const(64|32|16|8) <t> [1]) x)

(And(64|32|16|8) x (And(64|32|16|8) x y)) => (And(64|32|16|8) x y)
(Or(64|32|16|8) x (Or(64|32|16|8) x y)) => (Or(64|32|16|8) x y)
(Xor(64|32|16|8) x (Xor(64|32|16|8) x y)) => y

// Unsigned comparisons to zero.
(Less(64U|32U|16U|8U)
 _ (Const(64|32|16|8) [0])) => (ConstBool [false])
(Leq(64U|32U|16U|8U) (Const(64|32|16|8) [0]) _) => (ConstBool [true])

// Ands clear bits. Ors set bits.
// If a subsequent Or will set all the bits
// that an And cleared, we can skip the And.
// This happens in bitmasking code like:
// x &^= 3 << shift // clear two old bits
// x |= v << shift // set two new bits
// when shift is a small constant and v ends up a constant 3.
(Or8 (And8 x (Const8 [c2])) (Const8 <t> [c1])) && ^c1 | c2 == 0 => (Or8 (Const8 <t> [c1]) x)
(Or16 (And16 x (Const16 [c2])) (Const16 <t> [c1])) && ^c1 | c2 == 0 => (Or16 (Const16 <t> [c1]) x)
(Or32 (And32 x (Const32 [c2])) (Const32 <t> [c1])) && ^c1 | c2 == 0 => (Or32 (Const32 <t> [c1]) x)
(Or64 (And64 x (Const64 [c2])) (Const64 <t> [c1])) && ^c1 | c2 == 0 => (Or64 (Const64 <t> [c1]) x)

(Trunc64to8 (And64 (Const64 [y]) x)) && y&0xFF == 0xFF => (Trunc64to8 x)
(Trunc64to16 (And64 (Const64 [y]) x)) && y&0xFFFF == 0xFFFF => (Trunc64to16 x)
(Trunc64to32
 (And64 (Const64 [y]) x)) && y&0xFFFFFFFF == 0xFFFFFFFF => (Trunc64to32 x)
(Trunc32to8 (And32 (Const32 [y]) x)) && y&0xFF == 0xFF => (Trunc32to8 x)
(Trunc32to16 (And32 (Const32 [y]) x)) && y&0xFFFF == 0xFFFF => (Trunc32to16 x)
(Trunc16to8 (And16 (Const16 [y]) x)) && y&0xFF == 0xFF => (Trunc16to8 x)

(ZeroExt8to64 (Trunc64to8 x:(Rsh64Ux64 _ (Const64 [s]))) && s >= 56 => x
(ZeroExt16to64 (Trunc64to16 x:(Rsh64Ux64 _ (Const64 [s]))) && s >= 48 => x
(ZeroExt32to64 (Trunc64to32 x:(Rsh64Ux64 _ (Const64 [s]))) && s >= 32 => x
(ZeroExt8to32 (Trunc32to8 x:(Rsh32Ux64 _ (Const64 [s]))) && s >= 24 => x
(ZeroExt16to32 (Trunc32to16 x:(Rsh32Ux64 _ (Const64 [s]))) && s >= 16 => x
(ZeroExt8to16 (Trunc16to8 x:(Rsh16Ux64 _ (Const64 [s]))) && s >= 8 => x

```

```

(SignExt8to64 (Trunc64to8 x:(Rsh64x64 _ (Const64 [s]))) && s >= 56 => x
(SignExt16to64 (Trunc64to16 x:(Rsh64x64 _ (Const64 [s]))) && s >= 48 => x
(SignExt32to64 (Trunc64to32 x:(Rsh64x64 _ (Const64 [s]))) && s >= 32 => x
(SignExt8to32
  (Trunc32to8 x:(Rsh32x64 _ (Const64 [s]))) && s >= 24 => x
(SignExt16to32 (Trunc32to16 x:(Rsh32x64 _ (Const64 [s]))) && s >= 16 => x
(SignExt8to16 (Trunc16to8 x:(Rsh16x64 _ (Const64 [s]))) && s >= 8 => x

(Slicemask (Const32 [x])) && x > 0 => (Const32 [-1])
(Slicemask (Const32 [0])) => (Const32 [0])
(Slicemask (Const64 [x])) && x > 0 => (Const64 [-1])
(Slicemask (Const64 [0])) => (Const64 [0])

// simplifications often used for lengths. e.g. len(s[i:i+5])==5
(Sub(64|32|16|8) (Add(64|32|16|8) x y) x) => y
(Sub(64|32|16|8) (Add(64|32|16|8) x y) y) => x
(Sub(64|32|16|8) (Sub(64|32|16|8) x y) x) => (Neg(64|32|16|8) y)
(Sub(64|32|16|8) x (Add(64|32|16|8) x y)) => (Neg(64|32|16|8) y)
(Add(64|32|16|8) x (Sub(64|32|16|8) y x)) => y
(Add(64|32|16|8) x (Add(64|32|16|8) y (Sub(64|32|16|8) z x))) => (Add(64|32|16|8) y z)

// basic phi simplifications
(Phi (Const8 [c]) (Const8 [c])) => (Const8 [c])
(Phi (Const16 [c]) (Const16 [c])) => (Const16 [c])
(Phi (Const32
  [c]) (Const32 [c])) => (Const32 [c])
(Phi (Const64 [c]) (Const64 [c])) => (Const64 [c])

// slice and interface comparisons
// The frontend ensures that we can only compare against nil,
// so we need only compare the first word (interface type or slice ptr).
(EqInter x y) => (EqPtr (ITab x) (ITab y))
(NeqInter x y) => (NeqPtr (ITab x) (ITab y))
(EqSlice x y) => (EqPtr (SlicePtr x) (SlicePtr y))
(NeqSlice x y) => (NeqPtr (SlicePtr x) (SlicePtr y))

// Load of store of same address, with compatibly typed value and same size
(Load <t1> p1 (Store {t2} p2 x _))
  && isSamePtr(p1, p2)
  && t1.Compare(x.Type) == types.CMPEq
  && t1.Size() == t2.Size()
=> x
(Load <t1> p1 (Store {t2} p2 _ (Store {t3} p3 x _)))
  && isSamePtr(p1, p3)
  && t1.Compare(x.Type) == types.CMPEq
  && t1.Size() == t2.Size()
  && disjoint(p3, t3.Size(), p2, t2.Size())
=> x

```

```

(Load <t1> p1 (Store {t2} p2 _ (Store {t3} p3 _ (Store {t4} p4 x _))))
  && isSamePtr(p1, p4)
  && t1.Compare(x.Type) == types.CMPeq
  && t1.Size() == t2.Size()
  &&
  disjoint(p4, t4.Size(), p2, t2.Size())
  && disjoint(p4, t4.Size(), p3, t3.Size())
=> x
(Load <t1> p1 (Store {t2} p2 _ (Store {t3} p3 _ (Store {t4} p4 _ (Store {t5} p5 x _))))
  && isSamePtr(p1, p5)
  && t1.Compare(x.Type) == types.CMPeq
  && t1.Size() == t2.Size()
  && disjoint(p5, t5.Size(), p2, t2.Size())
  && disjoint(p5, t5.Size(), p3, t3.Size())
  && disjoint(p5, t5.Size(), p4, t4.Size())
=> x

// Pass constants through math.Float{32,64}bits and math.Float{32,64}frombits
  (Load <t1> p1 (Store {t2} p2 (Const64 [x] _)) && isSamePtr(p1,p2) && sizeof(t2) == 8 && is64BitFloat(t1)
  && !math.IsNaN(math.Float64frombits(uint64(x))) => (Const64F [math.Float64frombits(uint64(x))])
  (Load <t1> p1 (Store {t2} p2 (Const32 [x] _)) && isSamePtr(p1,p2) && sizeof(t2) == 4 && is32BitFloat(t1)
  && !math.IsNaN(float64(math.Float32frombits(uint32(x)))) => (Const32F [math.Float32frombits(uint32(x))])
(Load <t1> p1 (Store {t2} p2 (Const64F [x] _)) && isSamePtr(p1,p2) && sizeof(t2)
== 8 && is64BitInt(t1) => (Const64 [int64(math.Float64bits(x))])
(Load <t1> p1 (Store {t2} p2 (Const32F [x] _)) && isSamePtr(p1,p2) && sizeof(t2) == 4 && is32BitInt(t1) =>
(Const32 [int32(math.Float32bits(x))])

// Float Loads up to Zeros so they can be constant folded.
(Load <t1> op:(OffPtr [o1] p1)
(Store {t2} p2 _
  mem:(Zero [n] p3 _))
  && o1 >= 0 && o1+t1.Size() <= n && isSamePtr(p1, p3)
  && fe.CanSSA(t1)
  && disjoint(op, t1.Size(), p2, t2.Size())
=> @mem.Block (Load <t1> (OffPtr <op.Type> [o1] p3) mem)
(Load <t1> op:(OffPtr [o1] p1)
(Store {t2} p2 _
(Store {t3} p3 _
  mem:(Zero [n] p4 _)))
  && o1 >= 0 && o1+t1.Size() <= n && isSamePtr(p1, p4)
  && fe.CanSSA(t1)
  && disjoint(op, t1.Size(), p2, t2.Size())
  && disjoint(op, t1.Size(), p3, t3.Size())
=> @mem.Block (Load <t1> (OffPtr <op.Type> [o1] p4) mem)
(Load <t1> op:(OffPtr [o1] p1)
(Store {t2} p2 _
(Store {t3} p3 _
(Store {t4} p4 _

```

```

    mem:(Zero [n] p5 _))))
    && o1 >= 0 && o1+t1.Size() <= n && isSamePtr(p1,
    p5)
    && fe.CanSSA(t1)
    && disjoint(op, t1.Size(), p2, t2.Size())
    && disjoint(op, t1.Size(), p3, t3.Size())
    && disjoint(op, t1.Size(), p4, t4.Size())
    => @mem.Block (Load <t1> (OffPtr <op.Type> [o1] p5) mem)
(Load <t1> op:(OffPtr [o1] p1)
(Store {t2} p2 _
(Store {t3} p3 _
(Store {t4} p4 _
(Store {t5} p5 _
    mem:(Zero [n] p6 _))))))
    && o1 >= 0 && o1+t1.Size() <= n && isSamePtr(p1, p6)
    && fe.CanSSA(t1)
    && disjoint(op, t1.Size(), p2, t2.Size())
    && disjoint(op, t1.Size(), p3, t3.Size())
    && disjoint(op, t1.Size(), p4, t4.Size())
    && disjoint(op, t1.Size(), p5, t5.Size())
    => @mem.Block (Load <t1> (OffPtr <op.Type> [o1] p6) mem)

// Zero to Load forwarding.
(Load <t1> (OffPtr [o] p1) (Zero [n] p2 _))
    && t1.IsBoolean()
    && isSamePtr(p1, p2)
    && n >= o + 1
    => (ConstBool [false])
(Load <t1> (OffPtr [o] p1) (Zero [n] p2 _))
    && is8BitInt(t1)
    && isSamePtr(p1, p2)
    && n >= o + 1
    => (Const8 [0])
(Load <t1> (OffPtr [o] p1) (Zero [n] p2 _))
    && is16BitInt(t1)
    && isSamePtr(p1,
    p2)
    && n >= o + 2
    => (Const16 [0])
(Load <t1> (OffPtr [o] p1) (Zero [n] p2 _))
    && is32BitInt(t1)
    && isSamePtr(p1, p2)
    && n >= o + 4
    => (Const32 [0])
(Load <t1> (OffPtr [o] p1) (Zero [n] p2 _))
    && is64BitInt(t1)
    && isSamePtr(p1, p2)
    && n >= o + 8

```



```

=> (Const64 [0])
(Load <t1> (OffPtr [o] p1) (Zero [n] p2 _))
  && is32BitFloat(t1)
  && isSamePtr(p1, p2)
  && n >= o + 4
=> (Const32F [0])
(Load <t1> (OffPtr [o] p1) (Zero [n] p2 _))
  && is64BitFloat(t1)
  && isSamePtr(p1, p2)
  && n >= o + 8
=> (Const64F [0])

// Eliminate stores of values that have just been loaded from the same location.
// We also handle the common case where there are some intermediate stores.
(Store {t1} p1 (Load <t2> p2 mem) mem)
  && isSamePtr(p1, p2)
  && t2.Size() == t1.Size()
=> mem
(Store {t1} p1 (Load <t2> p2 oldmem) mem:(Store {t3} p3 _ oldmem))
  && isSamePtr(p1, p2)
  && t2.Size() == t1.Size()
  && disjoint(p1, t1.Size(), p3, t3.Size())
=> mem
(Store {t1} p1 (Load <t2> p2 oldmem) mem:(Store {t3} p3 _ (Store
{t4} p4 _ oldmem)))
  && isSamePtr(p1, p2)
  && t2.Size() == t1.Size()
  && disjoint(p1, t1.Size(), p3, t3.Size())
  && disjoint(p1, t1.Size(), p4, t4.Size())
=> mem
(Store {t1} p1 (Load <t2> p2 oldmem) mem:(Store {t3} p3 _ (Store {t4} p4 _ (Store {t5} p5 _ oldmem))))
  && isSamePtr(p1, p2)
  && t2.Size() == t1.Size()
  && disjoint(p1, t1.Size(), p3, t3.Size())
  && disjoint(p1, t1.Size(), p4, t4.Size())
  && disjoint(p1, t1.Size(), p5, t5.Size())
=> mem

// Don't Store zeros to cleared variables.
(Store {t} (OffPtr [o] p1) x mem:(Zero [n] p2 _))
  && isConstZero(x)
  && o >= 0 && t.Size() + o <= n && isSamePtr(p1, p2)
=> mem
(Store {t1} op:(OffPtr [o1] p1) x mem:(Store {t2} p2 _ (Zero [n] p3 _)))
  && isConstZero(x)
  && o1 >= 0 && t1.Size() + o1 <= n && isSamePtr(p1, p3)
  && disjoint(op, t1.Size(), p2, t2.Size())
=> mem

```

```

(Store {t1} op:(OffPtr [o1] p1) x mem:(Store {t2} p2 _ (Store {t3} p3 _ (Zero [n] p4 _))))
  && isConstZero(x)
  && o1 >= 0 && t1.Size() + o1 <= n && isSamePtr(p1, p4)
  && disjoint(op,
  t1.Size(), p2, t2.Size())
  && disjoint(op, t1.Size(), p3, t3.Size())
=> mem
(Store {t1} op:(OffPtr [o1] p1) x mem:(Store {t2} p2 _ (Store {t3} p3 _ (Store {t4} p4 _ (Zero [n] p5 _))))
  && isConstZero(x)
  && o1 >= 0 && t1.Size() + o1 <= n && isSamePtr(p1, p5)
  && disjoint(op, t1.Size(), p2, t2.Size())
  && disjoint(op, t1.Size(), p3, t3.Size())
  && disjoint(op, t1.Size(), p4, t4.Size())
=> mem

// Collapse OffPtr
(OffPtr (OffPtr p [y]) [x]) => (OffPtr p [x+y])
(OffPtr p [0]) && v.Type.Compare(p.Type) == types.CMPeq => p

// indexing operations
// Note: bounds check has already been done
(PtrIndex <t> ptr idx) && config.PtrSize == 4 && is32Bit(t.Elem().Size()) => (AddPtr ptr (Mul32 <typ.Int> idx
(Const32 <typ.Int> [int32(t.Elem().Size())]))
(PtrIndex <t> ptr idx) && config.PtrSize == 8 => (AddPtr ptr (Mul64 <typ.Int> idx (Const64 <typ.Int>
[t.Elem().Size()])))

// struct operations
(StructSelect (StructMake1 x)) => x
(StructSelect [0] (StructMake2 x _)) => x
(StructSelect
  [1] (StructMake2 _ x)) => x
(StructSelect [0] (StructMake3 x _ _)) => x
(StructSelect [1] (StructMake3 _ x _)) => x
(StructSelect [2] (StructMake3 _ _ x)) => x
(StructSelect [0] (StructMake4 x _ _ _)) => x
(StructSelect [1] (StructMake4 _ x _ _)) => x
(StructSelect [2] (StructMake4 _ _ x _)) => x
(StructSelect [3] (StructMake4 _ _ _ x)) => x

(Load <t> _ _) && t.IsStruct() && t.NumFields() == 0 && fe.CanSSA(t) =>
  (StructMake0)
(Load <t> ptr mem) && t.IsStruct() && t.NumFields() == 1 && fe.CanSSA(t) =>
  (StructMake1
    (Load <t.FieldType(0)> (OffPtr <t.FieldType(0).PtrTo()> [0] ptr) mem))
(Load <t> ptr mem) && t.IsStruct() && t.NumFields() == 2 && fe.CanSSA(t) =>
  (StructMake2
    (Load <t.FieldType(0)> (OffPtr <t.FieldType(0).PtrTo()> [0] ptr) mem)
    (Load <t.FieldType(1)> (OffPtr <t.FieldType(1).PtrTo()> [t.FieldOff(1)] ptr) mem))

```

```

(Load <t> ptr mem) && t.IsStruct() && t.NumFields() == 3 && fe.CanSSA(t) =>
(StructMake3
  (Load <t.FieldType(0)> (OffPtr <t.FieldType(0).PtrTo())>
[0]      ptr) mem)
  (Load <t.FieldType(1)> (OffPtr <t.FieldType(1).PtrTo())> [t.FieldOff(1)] ptr) mem)
  (Load <t.FieldType(2)> (OffPtr <t.FieldType(2).PtrTo())> [t.FieldOff(2)] ptr) mem))
(Load <t> ptr mem) && t.IsStruct() && t.NumFields() == 4 && fe.CanSSA(t) =>
(StructMake4
  (Load <t.FieldType(0)> (OffPtr <t.FieldType(0).PtrTo())> [0]      ptr) mem)
  (Load <t.FieldType(1)> (OffPtr <t.FieldType(1).PtrTo())> [t.FieldOff(1)] ptr) mem)
  (Load <t.FieldType(2)> (OffPtr <t.FieldType(2).PtrTo())> [t.FieldOff(2)] ptr) mem)
  (Load <t.FieldType(3)> (OffPtr <t.FieldType(3).PtrTo())> [t.FieldOff(3)] ptr) mem))

(StructSelect [i] x:(Load <t> ptr mem)) && !fe.CanSSA(t) =>
@x.Block (Load <v.Type> (OffPtr <v.Type.PtrTo())> [t.FieldOff(int(i))] ptr) mem)

(Store _ (StructMake0) mem) => mem
(Store dst (StructMake1 <t> f0) mem) =>
(Store {t.FieldType(0)} (OffPtr <t.FieldType(0).PtrTo())> [0] dst) f0 mem)
(Store dst (StructMake2 <t> f0 f1) mem) =>
(Store {t.FieldType(1)}
  (OffPtr <t.FieldType(1).PtrTo())> [t.FieldOff(1)] dst)
f1
(Store {t.FieldType(0)}
  (OffPtr <t.FieldType(0).PtrTo())> [0] dst)
f0 mem))
(Store dst (StructMake3 <t> f0 f1 f2) mem) =>
(Store {t.FieldType(2)}
  (OffPtr <t.FieldType(2).PtrTo())> [t.FieldOff(2)] dst)
f2
(Store {t.FieldType(1)}
  (OffPtr <t.FieldType(1).PtrTo())> [t.FieldOff(1)] dst)
f1
(Store {t.FieldType(0)}
  (OffPtr <t.FieldType(0).PtrTo())> [0] dst)
f0 mem)))
(Store dst (StructMake4 <t> f0 f1 f2 f3) mem) =>
(Store {t.FieldType(3)}
  (OffPtr <t.FieldType(3).PtrTo())> [t.FieldOff(3)] dst)
f3
(Store {t.FieldType(2)}
  (OffPtr <t.FieldType(2).PtrTo())> [t.FieldOff(2)] dst)
f2
(Store {t.FieldType(1)}
  (OffPtr <t.FieldType(1).PtrTo())> [t.FieldOff(1)] dst)
f1
(Store {t.FieldType(0)}
  (OffPtr <t.FieldType(0).PtrTo())> [0] dst)

```

```

f0 mem))))

// Putting struct{*byte} and similar into direct
interfaces.
(IMake _typ (StructMake1 val)) => (IMake _typ val)
(StructSelect [0] (IData x)) => (IData x)

// un-SSAable values use mem->mem copies
(Store {t} dst (Load src mem) mem) && !fe.CanSSA(t) =>
(Move {t} [t.Size()] dst src mem)
(Store {t} dst (Load src mem) (VarDef {x} mem)) && !fe.CanSSA(t) =>
(Move {t} [t.Size()] dst src (VarDef {x} mem))

// array ops
(ArraySelect (ArrayMake1 x)) => x

(Load <t> _ _) && t.IsArray() && t.NumElem() == 0 =>
(ArrayMake0)

(Load <t> ptr mem) && t.IsArray() && t.NumElem() == 1 && fe.CanSSA(t) =>
(ArrayMake1 (Load <t.Elem(> ptr mem))

(Store _ (ArrayMake0) mem) => mem
(Store dst (ArrayMake1 e) mem) => (Store {e.Type} dst e mem)

// Putting [1]*byte and similar into direct interfaces.
(IMake _typ (ArrayMake1 val)) => (IMake _typ val)
(ArraySelect [0] (IData x)) => (IData x)

// string ops
// Decomposing StringMake and lowering of StringPtr and StringLen
// happens in a later pass, dec, so that these operations are available
// to other passes
for optimizations.
(StringPtr (StringMake (Addr <t> {s} base) _)) => (Addr <t> {s} base)
(StringLen (StringMake _ (Const64 <t> [c]))) => (Const64 <t> [c])
(ConstString {str}) && config.PtrSize == 4 && str == "" =>
(StringMake (ConstNil) (Const32 <typ.Int> [0]))
(ConstString {str}) && config.PtrSize == 8 && str == "" =>
(StringMake (ConstNil) (Const64 <typ.Int> [0]))
(ConstString {str}) && config.PtrSize == 4 && str != "" =>
(StringMake
  (Addr <typ.BytePtr> {fe.StringData(str)}
  (SB))
  (Const32 <typ.Int> [int32(len(str))]))
(ConstString {str}) && config.PtrSize == 8 && str != "" =>
(StringMake
  (Addr <typ.BytePtr> {fe.StringData(str)}

```

```

(SB))
(Const64 <typ.Int> [int64(len(str))])

// slice ops
// Only a few slice rules are provided here. See dec.rules for
// a more comprehensive set.
(SliceLen (SliceMake _ (Const64 <t> [c]) _)) => (Const64 <t> [c])
(SliceCap (SliceMake _ _ (Const64 <t> [c]))) => (Const64 <t> [c])
(SliceLen (SliceMake _ (Const32 <t> [c])
_) => (Const32 <t> [c])
(SliceCap (SliceMake _ _ (Const32 <t> [c]))) => (Const32 <t> [c])
(SlicePtr (SliceMake (SlicePtr x) _)) => (SlicePtr x)
(SliceLen (SliceMake _ (SliceLen x) _)) => (SliceLen x)
(SliceCap (SliceMake _ _ (SliceCap x))) => (SliceCap x)
(SliceCap (SliceMake _ _ (SliceLen x))) => (SliceLen x)
(ConstSlice) && config.PtrSize == 4 =>
(SliceMake
  (ConstNil <v.Type.Elem().PtrTo(>))
  (Const32 <typ.Int> [0])
  (Const32 <typ.Int> [0]))
(ConstSlice) && config.PtrSize == 8 =>
(SliceMake
  (ConstNil <v.Type.Elem().PtrTo(>))
  (Const64 <typ.Int> [0])
  (Const64 <typ.Int> [0]))

// interface ops
(ConstInterface) =>
(IMake
  (ConstNil <typ.Uintptr>)
  (ConstNil <typ.BytePtr>))

(NilCheck (GetG mem) mem) => mem

(If (Not cond) yes no) => (If cond no yes)
(If (ConstBool [c]) yes no) && c => (First yes no)
(If (ConstBool [c]) yes no) && !c => (First no yes)

// Get rid of Convert ops for pointer arithmetic on unsafe.Pointer.
(Convert (Add(64|32) (Convert ptr
mem) off) mem) => (AddPtr ptr off)
(Convert (Convert ptr mem) mem) => ptr

// strength reduction of divide by a constant.
// See ../magic.go for a detailed description of these algorithms.

// Unsigned divide by power of 2. Strength reduce to a shift.
(Div8u n (Const8 [c])) && isPowerOfTwo8(c) => (Rsh8Ux64 n (Const64 <typ.UInt64> [log8(c)]))

```

```

(Div16u n (Const16 [c])) && isPowerOfTwo16(c) => (Rsh16Ux64 n (Const64 <typ.UInt64> [log16(c)]))
(Div32u n (Const32 [c])) && isPowerOfTwo32(c) => (Rsh32Ux64 n (Const64 <typ.UInt64> [log32(c)]))
(Div64u n (Const64 [c])) && isPowerOfTwo64(c) => (Rsh64Ux64 n (Const64 <typ.UInt64> [log64(c)]))
(Div64u n (Const64 [-1<<63]))          => (Rsh64Ux64 n (Const64 <typ.UInt64> [63]))

// Signed non-negative divide by power of 2.
(Div8 n (Const8 [c])) && isNonNegative(n) && isPowerOfTwo8(c) => (Rsh8Ux64 n (Const64 <typ.UInt64>
[log8(c)]))
(Div16 n (Const16 [c])) && isNonNegative(n) && isPowerOfTwo16(c) => (Rsh16Ux64 n (Const64 <typ.UInt64>
[log16(c)]))
(Div32
n (Const32 [c])) && isNonNegative(n) && isPowerOfTwo32(c) => (Rsh32Ux64 n (Const64 <typ.UInt64>
[log32(c)]))
(Div64 n (Const64 [c])) && isNonNegative(n) && isPowerOfTwo64(c) => (Rsh64Ux64 n (Const64 <typ.UInt64>
[log64(c)]))
(Div64 n (Const64 [-1<<63])) && isNonNegative(n)          => (Const64 [0])

// Unsigned divide, not a power of 2. Strength reduce to a multiply.
// For 8-bit divides, we just do a direct 9-bit by 8-bit multiply.
(Div8u x (Const8 [c])) && umagicOK8(c) =>
(Trunc32to8
(Rsh32Ux64 <typ.UInt32>
(Mul32 <typ.UInt32>
(Const32 <typ.UInt32> [int32(1<<8+umagic8(c).m)]))
(ZeroExt8to32 x))
(Const64 <typ.UInt64> [8+umagic8(c).s])))

// For 16-bit divides on 64-bit machines, we do a direct 17-bit by 16-bit multiply.
(Div16u x (Const16 [c])) && umagicOK16(c) && config.RegSize == 8 =>
(Trunc64to16
(Rsh64Ux64 <typ.UInt64>
(Mul64 <typ.UInt64>
(Const64 <typ.UInt64> [int64(1<<16+umagic16(c).m)]))
(ZeroExt16to64
x))
(Const64 <typ.UInt64> [16+umagic16(c).s])))

// For 16-bit divides on 32-bit machines
(Div16u x (Const16 [c])) && umagicOK16(c) && config.RegSize == 4 && umagic16(c).m&1 == 0 =>
(Trunc32to16
(Rsh32Ux64 <typ.UInt32>
(Mul32 <typ.UInt32>
(Const32 <typ.UInt32> [int32(1<<15+umagic16(c).m/2)]))
(ZeroExt16to32 x))
(Const64 <typ.UInt64> [16+umagic16(c).s-1])))
(Div16u x (Const16 [c])) && umagicOK16(c) && config.RegSize == 4 && c&1 == 0 =>
(Trunc32to16
(Rsh32Ux64 <typ.UInt32>

```

```

(Mul32 <typ.UInt32>
  (Const32 <typ.UInt32> [int32(1<<15+(umagic16(c).m+1)/2)])
  (Rsh32Ux64 <typ.UInt32> (ZeroExt16to32 x) (Const64 <typ.UInt64> [1])))
(Const64 <typ.UInt64> [16+umagic16(c).s-2]))
(Div16u x (Const16 [c])) && umagicOK16(c) && config.RegSize == 4 && config.useAvg =>
(Trunc32to16
  (Rsh32Ux64 <typ.UInt32>
    (Avg32u
      (Lsh32x64 <typ.UInt32> (ZeroExt16to32 x) (Const64 <typ.UInt64> [16])))
      (Mul32 <typ.UInt32>
        (Const32 <typ.UInt32> [int32(umagic16(c).m)])
        (ZeroExt16to32 x)))
      (Const64 <typ.UInt64> [16+umagic16(c).s-1])))

// For 32-bit divides on 32-bit machines
(Div32u x (Const32 [c])) && umagicOK32(c) && config.RegSize == 4 && umagic32(c).m&1 == 0 &&
config.useHmul =>
(Rsh32Ux64 <typ.UInt32>
  (Hmul32u <typ.UInt32>
    (Const32 <typ.UInt32> [int32(1<<31+umagic32(c).m/2)])
    x)
    (Const64 <typ.UInt64> [umagic32(c).s-1]))
(Div32u x (Const32 [c])) && umagicOK32(c) && config.RegSize == 4 && c&1 == 0 && config.useHmul =>
(Rsh32Ux64 <typ.UInt32>
  (Hmul32u <typ.UInt32>
    (Const32 <typ.UInt32> [int32(1<<31+(umagic32(c).m+1)/2)])
    (Rsh32Ux64 <typ.UInt32> x (Const64 <typ.UInt64> [1])))
    (Const64 <typ.UInt64> [umagic32(c).s-2]))
(Div32u x (Const32 [c])) && umagicOK32(c) && config.RegSize == 4 && config.useAvg && config.useHmul =>
(Rsh32Ux64 <typ.UInt32>
  (Avg32u
    x
    (Hmul32u <typ.UInt32>
      (Const32 <typ.UInt32> [int32(umagic32(c).m)])
      x)
      (Const64 <typ.UInt64> [umagic32(c).s-1]))

// For 32-bit divides on 64-bit machines
// We'll use a regular (non-hi) multiply for this case.
(Div32u x (Const32 [c])) && umagicOK32(c) && config.RegSize == 8 && umagic32(c).m&1 == 0 =>
(Trunc64to32
  (Rsh64Ux64 <typ.UInt64>
    (Mul64 <typ.UInt64>
      (Const64 <typ.UInt64> [int64(1<<31+umagic32(c).m/2)])
      (ZeroExt32to64 x))
      (Const64 <typ.UInt64> [32+umagic32(c).s-1]))
(Div32u x (Const32 [c])) && umagicOK32(c) && config.RegSize == 8 && c&1 == 0 =>
(Trunc64to32

```

```

(Rsh64Ux64 <typ.UInt64>
(Mul64 <typ.UInt64>
  (Const64 <typ.UInt64> [int64(1<<31+(umagic32(c).m+1)/2)])
  (Rsh64Ux64 <typ.UInt64> (ZeroExt32to64 x) (Const64 <typ.UInt64> [1])))
  (Const64 <typ.UInt64> [32+umagic32(c).s-2])))
(Div32u x (Const32 [c])) && umagicOK32(c) && config.RegSize == 8 && config.useAvg =>
(Trunc64to32
  (Rsh64Ux64 <typ.UInt64>
  (Avg64u
    (Lsh64x64 <typ.UInt64> (ZeroExt32to64
x) (Const64 <typ.UInt64> [32])))
  (Mul64 <typ.UInt64>
    (Const64 <typ.UInt32> [int64(umagic32(c).m)])
    (ZeroExt32to64 x)))
  (Const64 <typ.UInt64> [32+umagic32(c).s-1])))

// For unsigned 64-bit divides on 32-bit machines,
// if the constant fits in 16 bits (so that the last term
// fits in 32 bits), convert to three 32-bit divides by a constant.
//
// If  $1 \ll 32 = Q * c + R$ 
// and  $x = hi \ll 32 + lo$ 
//
// Then  $x = (hi/c*c + hi\%c) \ll 32 + lo$ 
//  $= hi/c*c \ll 32 + hi\%c \ll 32 + lo$ 
//  $= hi/c*c \ll 32 + (hi\%c)*(Q*c+R) + lo/c*c + lo\%c$ 
//  $= hi/c*c \ll 32 + (hi\%c)*Q*c + lo/c*c + (hi\%c*R+lo\%c)$ 
// and  $x / c = (hi/c) \ll 32 + (hi\%c)*Q + lo/c + (hi\%c*R+lo\%c)/c$ 
(Div64u x (Const64 [c])) && c > 0 && c <= 0xFFFF && umagicOK32(int32(c)) && config.RegSize == 4 &&
config.useHmul =>
(Add64
  (Add64 <typ.UInt64>
  (Add64 <typ.UInt64>
  (Lsh64x64 <typ.UInt64>
  (ZeroExt32to64
  (Div32u <typ.UInt32>
  (Trunc64to32 <typ.UInt32> (Rsh64Ux64
<typ.UInt64> x (Const64 <typ.UInt64> [32])))
  (Const32 <typ.UInt32> [int32(c)])))
  (Const64 <typ.UInt64> [32]))
  (ZeroExt32to64 (Div32u <typ.UInt32> (Trunc64to32 <typ.UInt32> x) (Const32 <typ.UInt32> [int32(c)]))))
  (Mul64 <typ.UInt64>
  (ZeroExt32to64 <typ.UInt64>
  (Mod32u <typ.UInt32>
  (Trunc64to32 <typ.UInt32> (Rsh64Ux64 <typ.UInt64> x (Const64 <typ.UInt64> [32])))
  (Const32 <typ.UInt32> [int32(c)])))
  (Const64 <typ.UInt64> [int64((1<<32)/c)])))
  (ZeroExt32to64

```



```

(Div32u <typ.UInt32>
(Add32 <typ.UInt32>
  (Mod32u <typ.UInt32> (Trunc64to32 <typ.UInt32> x) (Const32 <typ.UInt32> [int32(c)]))
  (Mul32 <typ.UInt32>
    (Mod32u <typ.UInt32>
      (Trunc64to32 <typ.UInt32> (Rsh64Ux64 <typ.UInt64> x (Const64 <typ.UInt64> [32])))
      (Const32 <typ.UInt32> [int32(c)]))
      (Const32 <typ.UInt32> [int32((1<<32)%c)])))

(Const32 <typ.UInt32> [int32(c)])))

// For 64-bit divides on 64-bit machines
// (64-bit divides on 32-bit machines are lowered to a runtime call by the walk pass.)
(Div64u x (Const64 [c])) && umagicOK64(c) && config.RegSize == 8 && umagic64(c).m&1 == 0 &&
config.useHmul =>
(Rsh64Ux64 <typ.UInt64>
  (Hmul64u <typ.UInt64>
    (Const64 <typ.UInt64> [int64(1<<63+umagic64(c).m/2)])
    x)
    (Const64 <typ.UInt64> [umagic64(c).s-1]))
(Div64u x (Const64 [c])) && umagicOK64(c) && config.RegSize == 8 && c&1 == 0 && config.useHmul =>
(Rsh64Ux64 <typ.UInt64>
  (Hmul64u <typ.UInt64>
    (Const64 <typ.UInt64> [int64(1<<63+(umagic64(c).m+1)/2)])
    (Rsh64Ux64 <typ.UInt64> x (Const64 <typ.UInt64> [1])))
    (Const64 <typ.UInt64> [umagic64(c).s-2]))
(Div64u x (Const64 [c])) && umagicOK64(c) && config.RegSize == 8 && config.useAvg && config.useHmul =>
(Rsh64Ux64 <typ.UInt64>
  (Avg64u
    x
    (Hmul64u <typ.UInt64>
      (Const64 <typ.UInt64> [int64(umagic64(c).m)])

      x))
    (Const64 <typ.UInt64> [umagic64(c).s-1]))

// Signed divide by a negative constant. Rewrite to divide by a positive constant.
(Div8 <t> n (Const8 [c])) && c < 0 && c != -1<<7 => (Neg8 (Div8 <t> n (Const8 <t> [-c])))
(Div16 <t> n (Const16 [c])) && c < 0 && c != -1<<15 => (Neg16 (Div16 <t> n (Const16 <t> [-c])))
(Div32 <t> n (Const32 [c])) && c < 0 && c != -1<<31 => (Neg32 (Div32 <t> n (Const32 <t> [-c])))
(Div64 <t> n (Const64 [c])) && c < 0 && c != -1<<63 => (Neg64 (Div64 <t> n (Const64 <t> [-c])))

// Dividing by the most-negative number. Result is always 0 except
// if the input is also the most-negative number.
// We can detect that using the sign bit of x & -x.
(Div8 <t> x (Const8 [-1<<7 ])) => (Rsh8Ux64 (And8 <t> x (Neg8 <t> x)) (Const64 <typ.UInt64> [7 ]))
(Div16 <t> x (Const16 [-1<<15])) => (Rsh16Ux64 (And16 <t> x (Neg16 <t> x)) (Const64 <typ.UInt64> [15]))
(Div32 <t> x (Const32 [-1<<31])) => (Rsh32Ux64 (And32 <t> x (Neg32 <t> x)) (Const64 <typ.UInt64>

```

```

[31]))
(Div64 <t> x (Const64 [-1<<63])) => (Rsh64Ux64 (And64 <t> x (Neg64 <t> x)) (Const64 <typ.UInt64> [63]))

// Signed divide by power of 2.
// n / c =    n >> log(c) if n >= 0
//    = (n+c-1) >> log(c) if n < 0
// We conditionally add c-1 by adding n>>63>>(64-log(c)) (first shift signed, second shift unsigned).
(Div8 <t> n (Const8 [c])) && isPowerOfTwo8(c) =>
(Rsh8x64
  (Add8 <t> n (Rsh8Ux64 <t> (Rsh8x64 <t> n (Const64 <typ.UInt64> [ 7])) (Const64 <typ.UInt64> [int64( 8-
log8(c))])))
  (Const64 <typ.UInt64> [int64(log8(c))]))
(Div16 <t> n (Const16 [c])) && isPowerOfTwo16(c) =>
(Rsh16x64
  (Add16 <t> n (Rsh16Ux64 <t> (Rsh16x64 <t> n (Const64 <typ.UInt64> [15])) (Const64 <typ.UInt64> [int64(16-
log16(c))])))
  (Const64 <typ.UInt64> [int64(log16(c))]))
(Div32 <t> n (Const32 [c])) && isPowerOfTwo32(c) =>
(Rsh32x64
  (Add32 <t> n (Rsh32Ux64 <t> (Rsh32x64 <t> n (Const64 <typ.UInt64> [31])) (Const64 <typ.UInt64> [int64(32-
log32(c))])))
  (Const64 <typ.UInt64> [int64(log32(c))]))
(Div64
  <t> n (Const64 [c])) && isPowerOfTwo64(c) =>
(Rsh64x64
  (Add64 <t> n (Rsh64Ux64 <t> (Rsh64x64 <t> n (Const64 <typ.UInt64> [63])) (Const64 <typ.UInt64> [int64(64-
log64(c))])))
  (Const64 <typ.UInt64> [int64(log64(c))]))

// Signed divide, not a power of 2. Strength reduce to a multiply.
(Div8 <t> x (Const8 [c])) && smagicOK8(c) =>
(Sub8 <t>
  (Rsh32x64 <t>
    (Mul32 <typ.UInt32>
      (Const32 <typ.UInt32> [int32(smagic8(c).m)])
      (SignExt8to32 x))
    (Const64 <typ.UInt64> [8+smagic8(c).s]))
  (Rsh32x64 <t>
    (SignExt8to32 x)
    (Const64 <typ.UInt64> [31])))
(Div16 <t> x (Const16 [c])) && smagicOK16(c) =>
(Sub16 <t>
  (Rsh32x64 <t>
    (Mul32 <typ.UInt32>
      (Const32 <typ.UInt32> [int32(smagic16(c).m)])
      (SignExt16to32 x))
    (Const64 <typ.UInt64> [16+smagic16(c).s]))
  (Rsh32x64 <t>

```

```

        (SignExt16to32 x)
        (Const64 <typ.UInt64> [31]))))
(Div32 <t> x (Const32 [c])) && smagicOK32(c) && config.RegSize
== 8 =>
(Sub32 <t>
  (Rsh64x64 <t>
    (Mul64 <typ.UInt64>
      (Const64 <typ.UInt64> [int64(smagic32(c).m)])
      (SignExt32to64 x))
    (Const64 <typ.UInt64> [32+smagic32(c).s]))
  (Rsh64x64 <t>
    (SignExt32to64 x)
    (Const64 <typ.UInt64> [63]))))
(Div32 <t> x (Const32 [c])) && smagicOK32(c) && config.RegSize == 4 && smagic32(c).m&1 == 0 &&
config.useHmul =>
(Sub32 <t>
  (Rsh32x64 <t>
    (Hmul32 <t>
      (Const32 <typ.UInt32> [int32(smagic32(c).m/2)])
      x)
      (Const64 <typ.UInt64> [smagic32(c).s-1]))
    (Rsh32x64 <t>
      x
      (Const64 <typ.UInt64> [31]))))
(Div32 <t> x (Const32 [c])) && smagicOK32(c) && config.RegSize == 4 && smagic32(c).m&1 != 0 &&
config.useHmul =>
(Sub32 <t>
  (Rsh32x64 <t>
    (Add32 <t>
      (Hmul32 <t>
        (Const32 <typ.UInt32> [int32(smagic32(c).m)])
        x)
        x)
      (Const64 <typ.UInt64> [smagic32(c).s]))
    (Rsh32x64 <t>
      x
      (Const64 <typ.UInt64> [31]))))
(Div64 <t> x (Const64
[c])) && smagicOK64(c) && smagic64(c).m&1 == 0 && config.useHmul =>
(Sub64 <t>
  (Rsh64x64 <t>
    (Hmul64 <t>
      (Const64 <typ.UInt64> [int64(smagic64(c).m/2)])
      x)
      (Const64 <typ.UInt64> [smagic64(c).s-1]))
    (Rsh64x64 <t>
      x
      (Const64 <typ.UInt64> [63]))))

```

```

(Div64 <t> x (Const64 [c])) && smagicOK64(c) && smagic64(c).m&1 != 0 && config.useHmul =>
(Sub64 <t>
(Rsh64x64 <t>
(Add64 <t>
(Hmul64 <t>
(Const64 <typ.UInt64> [int64(smagic64(c).m)])
x)
x)
(Const64 <typ.UInt64> [smagic64(c).s]))
(Rsh64x64 <t>
x
(Const64 <typ.UInt64> [63])))

```

// Unsigned mod by power of 2 constant.

```

(Mod8u <t> n (Const8 [c])) && isPowerOfTwo8(c) => (And8 n (Const8 <t> [c-1]))
(Mod16u <t> n (Const16 [c])) && isPowerOfTwo16(c) => (And16 n (Const16 <t> [c-1]))
(Mod32u <t> n (Const32 [c])) && isPowerOfTwo32(c) => (And32 n (Const32 <t> [c-1]))
(Mod64u <t> n (Const64 [c])) && isPowerOfTwo64(c) => (And64 n (Const64
<t> [c-1]))
(Mod64u <t> n (Const64 [-1<<63])) => (And64 n (Const64 <t> [1<<63-1]))

```

// Signed non-negative mod by power of 2 constant.

```

(Mod8 <t> n (Const8 [c])) && isNonNegative(n) && isPowerOfTwo8(c) => (And8 n (Const8 <t> [c-1]))
(Mod16 <t> n (Const16 [c])) && isNonNegative(n) && isPowerOfTwo16(c) => (And16 n (Const16 <t> [c-1]))
(Mod32 <t> n (Const32 [c])) && isNonNegative(n) && isPowerOfTwo32(c) => (And32 n (Const32 <t> [c-1]))
(Mod64 <t> n (Const64 [c])) && isNonNegative(n) && isPowerOfTwo64(c) => (And64 n (Const64 <t> [c-1]))
(Mod64 n (Const64 [-1<<63])) && isNonNegative(n) => n

```

// Signed mod by negative constant.

```

(Mod8 <t> n (Const8 [c])) && c < 0 && c != -1<<7 => (Mod8 <t> n (Const8 <t> [-c]))
(Mod16 <t> n (Const16 [c])) && c < 0 && c != -1<<15 => (Mod16 <t> n (Const16 <t> [-c]))
(Mod32 <t> n (Const32 [c])) && c < 0 && c != -1<<31 => (Mod32 <t> n (Const32 <t> [-c]))
(Mod64 <t> n (Const64 [c])) && c < 0 && c != -1<<63 => (Mod64 <t>
n (Const64 <t> [-c]))

```

// All other mods by constants, do A%B = A-(A/B*B).

// This implements % with two * and a bunch of ancillary ops.

// One of the * is free if the user's code also computes A/B.

```

(Mod8 <t> x (Const8 [c])) && x.Op != OpConst8 && (c > 0 || c == -1<<7)
=> (Sub8 x (Mul8 <t> (Div8 <t> x (Const8 <t> [c])) (Const8 <t> [c])))
(Mod16 <t> x (Const16 [c])) && x.Op != OpConst16 && (c > 0 || c == -1<<15)
=> (Sub16 x (Mul16 <t> (Div16 <t> x (Const16 <t> [c])) (Const16 <t> [c])))
(Mod32 <t> x (Const32 [c])) && x.Op != OpConst32 && (c > 0 || c == -1<<31)
=> (Sub32 x (Mul32 <t> (Div32 <t> x (Const32 <t> [c])) (Const32 <t> [c])))
(Mod64 <t> x (Const64 [c])) && x.Op != OpConst64 && (c > 0 || c == -1<<63)
=> (Sub64 x (Mul64 <t> (Div64 <t> x (Const64 <t> [c])) (Const64 <t> [c])))
(Mod8u <t> x (Const8 [c])) && x.Op != OpConst8 && c > 0 && umagicOK8(c)
=> (Sub8 x (Mul8 <t> (Div8u <t> x (Const8 <t> [c])) (Const8 <t> [c])))

```

```

(Mod16u <t> x (Const16 [c])) &&
x.Op != OpConst16 && c > 0 && umagicOK16(c)
=> (Sub16 x (Mul16 <t> (Div16u <t> x (Const16 <t> [c])) (Const16 <t> [c])))
(Mod32u <t> x (Const32 [c])) && x.Op != OpConst32 && c > 0 && umagicOK32(c)
=> (Sub32 x (Mul32 <t> (Div32u <t> x (Const32 <t> [c])) (Const32 <t> [c])))
(Mod64u <t> x (Const64 [c])) && x.Op != OpConst64 && c > 0 && umagicOK64(c)
=> (Sub64 x (Mul64 <t> (Div64u <t> x (Const64 <t> [c])) (Const64 <t> [c])))

// For architectures without rotates on less than 32-bits, promote these checks to 32-bit.
(Eq8 (Mod8u x (Const8 [c])) (Const8 [0])) && x.Op != OpConst8 && udivisibleOK8(c) &&
!hasSmallRotate(config) =>
(Eq32 (Mod32u <typ.UInt32> (ZeroExt8to32 <typ.UInt32> x) (Const32 <typ.UInt32> [int32(uint8(c))])) (Const32
<typ.UInt32> [0]))
(Eq16 (Mod16u x (Const16 [c])) (Const16 [0])) && x.Op != OpConst16 && udivisibleOK16(c) &&
!hasSmallRotate(config) =>
(Eq32 (Mod32u <typ.UInt32> (ZeroExt16to32 <typ.UInt32> x) (Const32 <typ.UInt32> [int32(uint16(c))]))
(Const32 <typ.UInt32>
[0]))
(Eq8 (Mod8 x (Const8 [c])) (Const8 [0])) && x.Op != OpConst8 && sdivisibleOK8(c) &&
!hasSmallRotate(config) =>
(Eq32 (Mod32 <typ.Int32> (SignExt8to32 <typ.Int32> x) (Const32 <typ.Int32> [int32(c)])) (Const32 <typ.Int32>
[0]))
(Eq16 (Mod16 x (Const16 [c])) (Const16 [0])) && x.Op != OpConst16 && sdivisibleOK16(c) &&
!hasSmallRotate(config) =>
(Eq32 (Mod32 <typ.Int32> (SignExt16to32 <typ.Int32> x) (Const32 <typ.Int32> [int32(c)])) (Const32 <typ.Int32>
[0]))

// Divisibility checks x%c == 0 convert to multiply and rotate.
// Note, x%c == 0 is rewritten as x == c*(x/c) during the opt pass
// where (x/c) is performed using multiplication with magic constants.
// To rewrite x%c == 0 requires pattern matching the rewritten expression
// and checking that the division by the same constant wasn't already calculated.
// This check is made by counting uses of the magic constant multiplication.
// Note that if there were an intermediate opt pass, this rule could be applied
// directly
on the Div op and magic division rewrites could be delayed to late opt.

// Unsigned divisibility checks convert to multiply and rotate.
(Eq8 x (Mul8 (Const8 [c])
(Trunc32to8
(Rsh32Ux64
mul:(Mul32
(Const32 [m])
(ZeroExt8to32 x)
(Const64 [s])))
)
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1

```

```

&& m == int32(1<<8+umagic8(c).m) && s == 8+umagic8(c).s
&& x.Op != OpConst8 && udivisibleOK8(c)
=> (Leq8U
  (RotateLeft8 <typ.UInt8>
    (Mul8 <typ.UInt8>
      (Const8 <typ.UInt8> [int8(udivisible8(c).m)])
      x)
      (Const8 <typ.UInt8> [int8(8-udivisible8(c).k)])
    )
    (Const8 <typ.UInt8> [int8(udivisible8(c).max)])
  )

(Eq16 x (Mul16 (Const16 [c])
  (Trunc64to16
    (Rsh64Ux64
      mul:(Mul64
        (Const64 [m])
        (ZeroExt16to64 x))
        (Const64 [s])))
  )
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int64(1<<16+umagic16(c).m) && s == 16+umagic16(c).s
&& x.Op != OpConst16 && udivisibleOK16(c)
=> (Leq16U
  (RotateLeft16
    <typ.UInt16>
      (Mul16 <typ.UInt16>
        (Const16 <typ.UInt16> [int16(udivisible16(c).m)])
        x)
        (Const16 <typ.UInt16> [int16(16-udivisible16(c).k)])
      )
      (Const16 <typ.UInt16> [int16(udivisible16(c).max)])
    )
  )

(Eq16 x (Mul16 (Const16 [c])
  (Trunc32to16
    (Rsh32Ux64
      mul:(Mul32
        (Const32 [m])
        (ZeroExt16to32 x))
        (Const64 [s])))
  )
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int32(1<<15+umagic16(c).m/2) && s == 16+umagic16(c).s-1
&& x.Op != OpConst16 && udivisibleOK16(c)
=> (Leq16U

```

```

(RotateLeft16 <typ.UInt16>
(Mul16 <typ.UInt16>
(Const16 <typ.UInt16> [int16(udivisible16(c).m)])
x)
(Const16 <typ.UInt16> [int16(16-udivisible16(c).k)])
)
(Const16 <typ.UInt16> [int16(udivisible16(c).max)])
)

(Eq16 x (Mul16 (Const16 [c])
(Trunc32to16
(Rsh32Ux64
mul:(Mul32
(Const32 [m])
(Rsh32Ux64 (ZeroExt16to32 x) (Const64 [1])))
(Const64 [s])))
)
)
&& v.Block.Func.pass.name
!= "opt" && mul.Uses == 1
&& m == int32(1<<15+(umagic16(c).m+1)/2) && s == 16+umagic16(c).s-2
&& x.Op != OpConst16 && udivisibleOK16(c)
=> (Leq16U
(RotateLeft16 <typ.UInt16>
(Mul16 <typ.UInt16>
(Const16 <typ.UInt16> [int16(udivisible16(c).m)])
x)
(Const16 <typ.UInt16> [int16(16-udivisible16(c).k)])
)
(Const16 <typ.UInt16> [int16(udivisible16(c).max)])
)
)

(Eq16 x (Mul16 (Const16 [c])
(Trunc32to16
(Rsh32Ux64
(Avg32u
(Lsh32x64 (ZeroExt16to32 x) (Const64 [16]))
mul:(Mul32
(Const32 [m])
(ZeroExt16to32 x)))
(Const64 [s])))
)
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int32(umagic16(c).m) && s == 16+umagic16(c).s-1
&& x.Op != OpConst16 && udivisibleOK16(c)
=> (Leq16U
(RotateLeft16 <typ.UInt16>

```

```

(Mul16 <typ.UInt16>
  (Const16 <typ.UInt16> [int16(udivisible16(c).m)])
  x)
(Const16 <typ.UInt16> [int16(16-udivisible16(c).k)])
)
(Const16 <typ.UInt16>
[int16(udivisible16(c).max)])
)

(Eq32 x (Mul32 (Const32 [c])
  (Rsh32Ux64
  mul:(Hmul32u
  (Const32 [m])
  x)
  (Const64 [s]))
)
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int32(1<<31+umagic32(c).m/2) && s == umagic32(c).s-1
&& x.Op != OpConst32 && udivisibleOK32(c)
=> (Leq32U
  (RotateLeft32 <typ.UInt32>
  (Mul32 <typ.UInt32>
  (Const32 <typ.UInt32> [int32(udivisible32(c).m)])
  x)
  (Const32 <typ.UInt32> [int32(32-udivisible32(c).k)])
  )
  (Const32 <typ.UInt32> [int32(udivisible32(c).max)])
  )
)

(Eq32 x (Mul32 (Const32 [c])
  (Rsh32Ux64
  mul:(Hmul32u
  (Const32 <typ.UInt32> [m])
  (Rsh32Ux64 x (Const64 [1])))
  (Const64 [s]))
)
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int32(1<<31+(umagic32(c).m+1)/2) && s == umagic32(c).s-2
&& x.Op != OpConst32 && udivisibleOK32(c)
=> (Leq32U
  (RotateLeft32 <typ.UInt32>
  (Mul32 <typ.UInt32>
  (Const32 <typ.UInt32> [int32(udivisible32(c).m)])
  x)
  (Const32

```



```

<typ.UInt32> [int32(32-udivisible32(c).k)])
)
(Const32 <typ.UInt32> [int32(udivisible32(c).max)])
)

```

```

(Eq32 x (Mul32 (Const32 [c])
(Rsh32Ux64
(Avg32u
x
mul:(Hmul32u
(Const32 [m])
x))
(Const64 [s]))
)
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int32(umagic32(c).m) && s == umagic32(c).s-1
&& x.Op != OpConst32 && udivisibleOK32(c)
=> (Leq32U
(RotateLeft32 <typ.UInt32>
(Mul32 <typ.UInt32>
(Const32 <typ.UInt32> [int32(udivisible32(c).m)])
x)
(Const32 <typ.UInt32> [int32(32-udivisible32(c).k)])
)
(Const32 <typ.UInt32> [int32(udivisible32(c).max)])
)
)

```

```

(Eq32 x (Mul32 (Const32 [c])
(Trunc64to32
(Rsh64Ux64
mul:(Mul64
(Const64 [m])
(ZeroExt32to64 x))
(Const64 [s])))
)
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int64(1<<(31+umagic32(c).m/2) && s == 32+umagic32(c).s-1
&& x.Op != OpConst32 && udivisibleOK32(c)
=> (Leq32U
(RotateLeft32
<typ.UInt32>
(Mul32 <typ.UInt32>
(Const32 <typ.UInt32> [int32(udivisible32(c).m)])
x)
(Const32 <typ.UInt32> [int32(32-udivisible32(c).k)])
)
)
)

```

```

(Const32 <typ.UInt32> [int32(udivisible32(c).max)])
)

(Eq32 x (Mul32 (Const32 [c])
(Trunc64to32
(Rsh64Ux64
mul:(Mul64
(Const64 [m])
(Rsh64Ux64 (ZeroExt32to64 x) (Const64 [1])))
(Const64 [s])))
)
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int64(1<<31+(umagic32(c).m+1)/2) && s == 32+umagic32(c).s-2
&& x.Op != OpConst32 && udivisibleOK32(c)
=> (Leq32U
(RotateLeft32 <typ.UInt32>
(Mul32 <typ.UInt32>
(Const32 <typ.UInt32> [int32(udivisible32(c).m)])
x)
(Const32 <typ.UInt32> [int32(32-udivisible32(c).k)])
)
(Const32 <typ.UInt32> [int32(udivisible32(c).max)])
)

(Eq32 x (Mul32 (Const32 [c])
(Trunc64to32
(Rsh64Ux64
(Avg64u
(Lsh64x64 (ZeroExt32to64 x) (Const64 [32]))
mul:(Mul64
(Const64 [m])

(ZeroExt32to64 x)))
(Const64 [s])))
)
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int64(umagic32(c).m) && s == 32+umagic32(c).s-1
&& x.Op != OpConst32 && udivisibleOK32(c)
=> (Leq32U
(RotateLeft32 <typ.UInt32>
(Mul32 <typ.UInt32>
(Const32 <typ.UInt32> [int32(udivisible32(c).m)])
x)
(Const32 <typ.UInt32> [int32(32-udivisible32(c).k)])
)
(Const32 <typ.UInt32> [int32(udivisible32(c).max)])
)

```

```

)

(Eq64 x (Mul64 (Const64 [c])
(Rsh64Ux64
mul:(Hmul64u
(Const64 [m])
x)
(Const64 [s]))
)
) && v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int64(1<<63+umagic64(c).m/2) && s == umagic64(c).s-1
&& x.Op != OpConst64 && udivisibleOK64(c)
=> (Leq64U
(RotateLeft64 <typ.UInt64>
(Mul64 <typ.UInt64>
(Const64 <typ.UInt64> [int64(udivisible64(c).m)])
x)
(Const64 <typ.UInt64> [64-udivisible64(c).k])
)
(Const64 <typ.UInt64> [int64(udivisible64(c).max)])
)
)
(Eq64 x (Mul64 (Const64 [c])
(Rsh64Ux64
mul:(Hmul64u
(Const64
[m])
(Rsh64Ux64 x (Const64 [1])))
(Const64 [s]))
)
) && v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int64(1<<63+(umagic64(c).m+1)/2) && s == umagic64(c).s-2
&& x.Op != OpConst64 && udivisibleOK64(c)
=> (Leq64U
(RotateLeft64 <typ.UInt64>
(Mul64 <typ.UInt64>
(Const64 <typ.UInt64> [int64(udivisible64(c).m)])
x)
(Const64 <typ.UInt64> [64-udivisible64(c).k])
)
(Const64 <typ.UInt64> [int64(udivisible64(c).max)])
)
)
(Eq64 x (Mul64 (Const64 [c])
(Rsh64Ux64
(Avg64u
x
mul:(Hmul64u
(Const64 [m])
x))
)
)

```

```

(Const64 [s]))
)
) && v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int64(umagic64(c).m) && s == umagic64(c).s-1
&& x.Op != OpConst64 && udivisibleOK64(c)
=> (Leq64U
(RotateLeft64 <typ.UInt64>
(Mul64 <typ.UInt64>
(Const64 <typ.UInt64> [int64(udivisible64(c).m)])
x)
(Const64 <typ.UInt64> [64-udivisible64(c).k])
)
(Const64 <typ.UInt64> [int64(udivisible64(c).max)])
)

//
Signed divisibility checks convert to multiply, add and rotate.
(Eq8 x (Mul8 (Const8 [c])
(Sub8
(Rsh32x64
mul:(Mul32
(Const32 [m])
(SignExt8to32 x))
(Const64 [s]))
(Rsh32x64
(SignExt8to32 x)
(Const64 [31])))
)
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int32(smagic8(c).m) && s == 8+smagic8(c).s
&& x.Op != OpConst8 && sdivisibleOK8(c)
=> (Leq8U
(RotateLeft8 <typ.UInt8>
(Add8 <typ.UInt8>
(Mul8 <typ.UInt8>
(Const8 <typ.UInt8> [int8(sdivisible8(c).m)])
x)
(Const8 <typ.UInt8> [int8(sdivisible8(c).a)])
)
(Const8 <typ.UInt8> [int8(8-sdivisible8(c).k)])
)
(Const8 <typ.UInt8> [int8(sdivisible8(c).max)])
)

(Eq16 x (Mul16 (Const16 [c])
(Sub16
(Rsh32x64

```

```

mul:(Mul32
  (Const32 [m])
  (SignExt16to32 x))
(Const64 [s]))
(Rsh32x64
  (SignExt16to32 x)
  (Const64 [31]))
)
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int32(smagic16(c).m) && s == 16+smagic16(c).s
&& x.Op != OpConst16 && sdivisibleOK16(c)
=> (Leq16U
  (RotateLeft16 <typ.UInt16>
    (Add16 <typ.UInt16>
      (Mul16 <typ.UInt16>
        (Const16 <typ.UInt16> [int16(sdivisible16(c).m)])
        x)
        (Const16 <typ.UInt16> [int16(sdivisible16(c).a)])
      )
      (Const16 <typ.UInt16> [int16(16-sdivisible16(c).k)])
    )
    (Const16 <typ.UInt16> [int16(sdivisible16(c).max)])
  )
)
(Eq32 x (Mul32 (Const32 [c])
  (Sub32
    (Rsh64x64
      mul:(Mul64
        (Const64 [m])
        (SignExt32to64 x))
        (Const64 [s]))
      (Rsh64x64
        (SignExt32to64 x)
        (Const64 [63]))
    )
  )
  && v.Block.Func.pass.name != "opt" && mul.Uses == 1
  && m == int64(smagic32(c).m) && s == 32+smagic32(c).s
  && x.Op != OpConst32 && sdivisibleOK32(c)
=> (Leq32U
  (RotateLeft32 <typ.UInt32>
    (Add32 <typ.UInt32>
      (Mul32 <typ.UInt32>
        (Const32 <typ.UInt32> [int32(sdivisible32(c).m)])
        x)
        (Const32 <typ.UInt32> [int32(sdivisible32(c).a)])
      )
    )
  )
)

```

```

(Const32
<typ.UInt32> [int32(32-sdivisible32(c).k)])
)
(Const32 <typ.UInt32> [int32(sdivisible32(c).max)])
)

(Eq32 x (Mul32 (Const32 [c])
(Sub32
(Rsh32x64
mul:(Hmul32
(Const32 [m])
x)
(Const64 [s]))
(Rsh32x64
x
(Const64 [31])))
)
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int32(smagic32(c).m/2) && s == smagic32(c).s-1
&& x.Op != OpConst32 && sdivisibleOK32(c)
=> (Leq32U
(RotateLeft32 <typ.UInt32>
(Add32 <typ.UInt32>
(Mul32 <typ.UInt32>
(Const32 <typ.UInt32> [int32(sdivisible32(c).m)])
x)
(Const32 <typ.UInt32> [int32(sdivisible32(c).a)])
)
(Const32 <typ.UInt32> [int32(32-sdivisible32(c).k)])
)
(Const32 <typ.UInt32> [int32(sdivisible32(c).max)])
)
)

```

```

(Eq32 x (Mul32 (Const32 [c])
(Sub32
(Rsh32x64
(Add32
mul:(Hmul32
(Const32 [m])
x)
x)
(Const64 [s]))
(Rsh32x64
x
(Const64 [31])))
)
)

```

```

    && v.Block.Func.pass.name != "opt" && mul.Uses == 1
    && m == int32(smagic32(c).m) && s == smagic32(c).s
    && x.Op != OpConst32 && sdivisibleOK32(c)
=> (Leq32U
  (RotateLeft32 <typ.UInt32>
  (Add32 <typ.UInt32>
  (Mul32 <typ.UInt32>
  (Const32 <typ.UInt32> [int32(sdivisible32(c).m)])
  x)
  (Const32 <typ.UInt32> [int32(sdivisible32(c).a)])
  )
  (Const32 <typ.UInt32> [int32(32-sdivisible32(c).k)])
  )
  (Const32 <typ.UInt32> [int32(sdivisible32(c).max)])
  )

```

```

(Eq64 x (Mul64 (Const64 [c])
(Sub64
  (Rsh64x64
  mul:(Hmul64
  (Const64 [m])
  x)
  (Const64 [s]))
  (Rsh64x64
  x
  (Const64 [63])))
)
)

```

```

    && v.Block.Func.pass.name != "opt" && mul.Uses == 1
    && m == int64(smagic64(c).m/2) && s == smagic64(c).s-1
    && x.Op != OpConst64 && sdivisibleOK64(c)
=> (Leq64U
  (RotateLeft64 <typ.UInt64>
  (Add64 <typ.UInt64>
  (Mul64 <typ.UInt64>
  (Const64 <typ.UInt64> [int64(sdivisible64(c).m)])
  x)
  (Const64 <typ.UInt64>
[int64(sdivisible64(c).a)])
  )
  (Const64 <typ.UInt64> [64-sdivisible64(c).k])
  )
  (Const64 <typ.UInt64> [int64(sdivisible64(c).max)])
  )

```

```

(Eq64 x (Mul64 (Const64 [c])
(Sub64
  (Rsh64x64

```

```

(Add64
  mul:(Hmul64
    (Const64 [m])
    x)
  x)
(Const64 [s]))
(Rsh64x64
  x
  (Const64 [63]))
)
)
&& v.Block.Func.pass.name != "opt" && mul.Uses == 1
&& m == int64(smagic64(c).m) && s == smagic64(c).s
&& x.Op != OpConst64 && sdivisibleOK64(c)
=> (Leq64U
  (RotateLeft64 <typ.UInt64>
    (Add64 <typ.UInt64>
      (Mul64 <typ.UInt64>
        (Const64 <typ.UInt64> [int64(sdivisible64(c).m)])
        x)
      (Const64 <typ.UInt64> [int64(sdivisible64(c).a)])
    )
    (Const64 <typ.UInt64> [64-sdivisible64(c).k])
  )
  (Const64 <typ.UInt64> [int64(sdivisible64(c).max)])
)

// Divisibility check for signed integers for power of two constant are simple mask.
// However, we must match against the rewritten n%c == 0 -> n - c*(n/c) ==
0 -> n == c*(n/c)
// where n/c contains fixup code to handle signed n.
((Eq8|Neq8) n (Lsh8x64
  (Rsh8x64
    (Add8 <t> n (Rsh8Ux64 <t> (Rsh8x64 <t> n (Const64 <typ.UInt64> [ 7])) (Const64 <typ.UInt64> [kbar])))
    (Const64 <typ.UInt64> [k]))
  (Const64 <typ.UInt64> [k]))
) && k > 0 && k < 7 && kbar == 8 - k
=> ((Eq8|Neq8) (And8 <t> n (Const8 <t> [1<<uint(k)-1])) (Const8 <t> [0]))

((Eq16|Neq16) n (Lsh16x64
  (Rsh16x64
    (Add16 <t> n (Rsh16Ux64 <t> (Rsh16x64 <t> n (Const64 <typ.UInt64> [15])) (Const64 <typ.UInt64> [kbar])))
    (Const64 <typ.UInt64> [k]))
  (Const64 <typ.UInt64> [k]))
) && k > 0 && k < 15 && kbar == 16 - k
=> ((Eq16|Neq16) (And16 <t> n (Const16 <t> [1<<uint(k)-1])) (Const16 <t> [0]))

((Eq32|Neq32) n (Lsh32x64

```



```

(Rsh32x64
  (Add32 <t> n (Rsh32Ux64 <t> (Rsh32x64 <t> n (Const64 <typ.UInt64> [31])) (Const64 <typ.UInt64> [kbar])))
  (Const64 <typ.UInt64> [k]))
(Const64 <typ.UInt64> [k]))
) && k > 0 && k < 31 && kbar == 32 - k
=> ((Eq32|Neq32) (And32 <t> n (Const32
<t> [1<<uint(k)-1])) (Const32 <t> [0]))

```

```

((Eq64|Neq64) n (Lsh64x64
  (Rsh64x64
    (Add64 <t> n (Rsh64Ux64 <t> (Rsh64x64 <t> n (Const64 <typ.UInt64> [63])) (Const64 <typ.UInt64> [kbar])))
    (Const64 <typ.UInt64> [k]))
  (Const64 <typ.UInt64> [k]))
) && k > 0 && k < 63 && kbar == 64 - k
=> ((Eq64|Neq64) (And64 <t> n (Const64 <t> [1<<uint(k)-1])) (Const64 <t> [0]))

```

```

(Eq(8|16|32|64) s:(Sub(8|16|32|64) x y) (Const(8|16|32|64) [0])) && s.Uses == 1 => (Eq(8|16|32|64) x y)
(Neq(8|16|32|64) s:(Sub(8|16|32|64) x y) (Const(8|16|32|64) [0])) && s.Uses == 1 => (Neq(8|16|32|64) x y)

```

// Optimize bitsets

```

(Eq8 (And8 <t> x (Const8 <t> [y])) (Const8 <t> [y])) && oneBit8(y)
=> (Neq8 (And8 <t> x (Const8 <t> [y])) (Const8 <t> [0]))
(Eq16 (And16 <t> x (Const16 <t> [y])) (Const16 <t> [y])) && oneBit16(y)
=> (Neq16 (And16 <t> x (Const16 <t> [y])) (Const16 <t> [0]))
(Eq32 (And32 <t> x (Const32 <t> [y])) (Const32 <t> [y])) && oneBit32(y)
=> (Neq32 (And32 <t> x (Const32 <t> [y])) (Const32 <t>
[0]))
(Eq64 (And64 <t> x (Const64 <t> [y])) (Const64 <t> [y])) && oneBit64(y)
=> (Neq64 (And64 <t> x (Const64 <t> [y])) (Const64 <t> [0]))
(Neq8 (And8 <t> x (Const8 <t> [y])) (Const8 <t> [y])) && oneBit8(y)
=> (Eq8 (And8 <t> x (Const8 <t> [y])) (Const8 <t> [0]))
(Neq16 (And16 <t> x (Const16 <t> [y])) (Const16 <t> [y])) && oneBit16(y)
=> (Eq16 (And16 <t> x (Const16 <t> [y])) (Const16 <t> [0]))
(Neq32 (And32 <t> x (Const32 <t> [y])) (Const32 <t> [y])) && oneBit32(y)
=> (Eq32 (And32 <t> x (Const32 <t> [y])) (Const32 <t> [0]))
(Neq64 (And64 <t> x (Const64 <t> [y])) (Const64 <t> [y])) && oneBit64(y)
=> (Eq64 (And64 <t> x (Const64 <t> [y])) (Const64 <t> [0]))

```

// Reassociate expressions involving

// constants such that constants come first,

// exposing obvious constant-folding opportunities.

// Reassociate (op (op y C) x) to (op C (op x y)) or similar, where C

// is constant, which pushes constants to the outside

// of the expression. At that point, any constant-folding

// opportunities

should be obvious.

// Note: don't include AddPtr here! In order to maintain the

// invariant that pointers must stay within the pointed-to object,

```

// we can't pull part of a pointer computation above the AddPtr.
// See issue 37881.
// Note: we don't need to handle any (x-C) cases because we already rewrite
// (x-C) to (x+(-C)).

// x + (C + z) -> C + (x + z)
(Add64 (Add64 i:(Const64 <t>) z) x) && (z.Op != OpConst64 && x.Op != OpConst64) => (Add64 i (Add64 <t> z
x))
(Add32 (Add32 i:(Const32 <t>) z) x) && (z.Op != OpConst32 && x.Op != OpConst32) => (Add32 i (Add32 <t> z
x))
(Add16 (Add16 i:(Const16 <t>) z) x) && (z.Op != OpConst16 && x.Op != OpConst16) => (Add16 i (Add16 <t> z
x))
(Add8 (Add8 i:(Const8 <t>) z) x) && (z.Op != OpConst8 && x.Op != OpConst8) => (Add8 i (Add8 <t> z x))

// x + (C - z) -> C + (x - z)
(Add64 (Sub64 i:(Const64 <t>) z) x) && (z.Op != OpConst64 && x.Op != OpConst64) => (Add64 i (Sub64 <t> x
z))
(Add32 (Sub32 i:(Const32 <t>) z) x) && (z.Op != OpConst32
&& x.Op != OpConst32) => (Add32 i (Sub32 <t> x z))
(Add16 (Sub16 i:(Const16 <t>) z) x) && (z.Op != OpConst16 && x.Op != OpConst16) => (Add16 i (Sub16 <t> x
z))
(Add8 (Sub8 i:(Const8 <t>) z) x) && (z.Op != OpConst8 && x.Op != OpConst8) => (Add8 i (Sub8 <t> x z))

// x - (C - z) -> x + (z - C) -> (x + z) - C
(Sub64 x (Sub64 i:(Const64 <t>) z)) && (z.Op != OpConst64 && x.Op != OpConst64) => (Sub64 (Add64 <t> x z)
i)
(Sub32 x (Sub32 i:(Const32 <t>) z)) && (z.Op != OpConst32 && x.Op != OpConst32) => (Sub32 (Add32 <t> x z)
i)
(Sub16 x (Sub16 i:(Const16 <t>) z)) && (z.Op != OpConst16 && x.Op != OpConst16) => (Sub16 (Add16 <t> x z)
i)
(Sub8 x (Sub8 i:(Const8 <t>) z)) && (z.Op != OpConst8 && x.Op != OpConst8) => (Sub8 (Add8 <t> x z) i)

// x - (z + C) -> x + (-z - C) -> (x - z) - C
(Sub64 x (Add64 z i:(Const64 <t>))) && (z.Op != OpConst64 && x.Op != OpConst64) => (Sub64 (Sub64 <t> x z)
i)
(Sub32 x (Add32 z i:(Const32 <t>))) && (z.Op != OpConst32 && x.Op != OpConst32) => (Sub32 (Sub32
<t> x z) i)
(Sub16 x (Add16 z i:(Const16 <t>))) && (z.Op != OpConst16 && x.Op != OpConst16) => (Sub16 (Sub16 <t> x z)
i)
(Sub8 x (Add8 z i:(Const8 <t>))) && (z.Op != OpConst8 && x.Op != OpConst8) => (Sub8 (Sub8 <t> x z) i)

// (C - z) - x -> C - (z + x)
(Sub64 (Sub64 i:(Const64 <t>) z) x) && (z.Op != OpConst64 && x.Op != OpConst64) => (Sub64 i (Add64 <t> z
x))
(Sub32 (Sub32 i:(Const32 <t>) z) x) && (z.Op != OpConst32 && x.Op != OpConst32) => (Sub32 i (Add32 <t> z
x))
(Sub16 (Sub16 i:(Const16 <t>) z) x) && (z.Op != OpConst16 && x.Op != OpConst16) => (Sub16 i (Add16 <t> z
x))

```

```

(Sub8 (Sub8 i:(Const8 <t>) z) x) && (z.Op != OpConst8 && x.Op != OpConst8) => (Sub8 i (Add8 <t> z x))

// (z + C) -x -> C + (z - x)
(Sub64 (Add64 z i:(Const64 <t>)) x) && (z.Op != OpConst64 && x.Op != OpConst64) => (Add64 i (Sub64 <t> z
x))
(Sub32 (Add32 z i:(Const32 <t>)) x) && (z.Op != OpConst32 && x.Op != OpConst32) => (Add32 i (Sub32 <t> z
x))
(Sub16 (Add16 z i:(Const16 <t>)) x) && (z.Op != OpConst16
&& x.Op != OpConst16) => (Add16 i (Sub16 <t> z x))
(Sub8 (Add8 z i:(Const8 <t>)) x) && (z.Op != OpConst8 && x.Op != OpConst8) => (Add8 i (Sub8 <t> z x))

// x & (C & z) -> C & (x & z)
(And64 (And64 i:(Const64 <t>) z) x) && (z.Op != OpConst64 && x.Op != OpConst64) => (And64 i (And64 <t> z
x))
(And32 (And32 i:(Const32 <t>) z) x) && (z.Op != OpConst32 && x.Op != OpConst32) => (And32 i (And32 <t> z
x))
(And16 (And16 i:(Const16 <t>) z) x) && (z.Op != OpConst16 && x.Op != OpConst16) => (And16 i (And16 <t> z
x))
(And8 (And8 i:(Const8 <t>) z) x) && (z.Op != OpConst8 && x.Op != OpConst8) => (And8 i (And8 <t> z x))

// x | (C | z) -> C | (x | z)
(Or64 (Or64 i:(Const64 <t>) z) x) && (z.Op != OpConst64 && x.Op != OpConst64) => (Or64 i (Or64 <t> z x))
(Or32 (Or32 i:(Const32 <t>) z) x) && (z.Op != OpConst32 && x.Op != OpConst32) => (Or32 i (Or32 <t> z x))
(Or16 (Or16 i:(Const16 <t>) z) x) && (z.Op != OpConst16 && x.Op != OpConst16) => (Or16 i (Or16 <t> z x))
(Or8 (Or8 i:(Const8
<t>) z) x) && (z.Op != OpConst8 && x.Op != OpConst8) => (Or8 i (Or8 <t> z x))

// x ^ (C ^ z) -> C ^ (x ^ z)
(Xor64 (Xor64 i:(Const64 <t>) z) x) && (z.Op != OpConst64 && x.Op != OpConst64) => (Xor64 i (Xor64 <t> z
x))
(Xor32 (Xor32 i:(Const32 <t>) z) x) && (z.Op != OpConst32 && x.Op != OpConst32) => (Xor32 i (Xor32 <t> z
x))
(Xor16 (Xor16 i:(Const16 <t>) z) x) && (z.Op != OpConst16 && x.Op != OpConst16) => (Xor16 i (Xor16 <t> z
x))
(Xor8 (Xor8 i:(Const8 <t>) z) x) && (z.Op != OpConst8 && x.Op != OpConst8) => (Xor8 i (Xor8 <t> z x))

// x * (D * z) = D * (x * z)
(Mul64 (Mul64 i:(Const64 <t>) z) x) && (z.Op != OpConst64 && x.Op != OpConst64) => (Mul64 i (Mul64 <t> x
z))
(Mul32 (Mul32 i:(Const32 <t>) z) x) && (z.Op != OpConst32 && x.Op != OpConst32) => (Mul32 i (Mul32 <t> x
z))
(Mul16 (Mul16 i:(Const16 <t>) z) x) && (z.Op != OpConst16 && x.Op != OpConst16) => (Mul16 i (Mul16 <t> x
z))
(Mul8 (Mul8 i:(Const8 <t>) z) x) && (z.Op != OpConst8 && x.Op != OpConst8) => (Mul8
i (Mul8 <t> x z))

// C + (D + x) -> (C + D) + x
(Add64 (Const64 <t> [c]) (Add64 (Const64 <t> [d]) x)) => (Add64 (Const64 <t> [c+d]) x)

```

(Add32 (Const32 <t> [c]) (Add32 (Const32 <t> [d]) x)) => (Add32 (Const32 <t> [c+d]) x)
(Add16 (Const16 <t> [c]) (Add16 (Const16 <t> [d]) x)) => (Add16 (Const16 <t> [c+d]) x)
(Add8 (Const8 <t> [c]) (Add8 (Const8 <t> [d]) x)) => (Add8 (Const8 <t> [c+d]) x)

// C + (D - x) -> (C + D) - x

(Add64 (Const64 <t> [c]) (Sub64 (Const64 <t> [d]) x)) => (Sub64 (Const64 <t> [c+d]) x)
(Add32 (Const32 <t> [c]) (Sub32 (Const32 <t> [d]) x)) => (Sub32 (Const32 <t> [c+d]) x)
(Add16 (Const16 <t> [c]) (Sub16 (Const16 <t> [d]) x)) => (Sub16 (Const16 <t> [c+d]) x)
(Add8 (Const8 <t> [c]) (Sub8 (Const8 <t> [d]) x)) => (Sub8 (Const8 <t> [c+d]) x)

// C - (D - x) -> (C - D) + x

(Sub64 (Const64 <t> [c]) (Sub64 (Const64 <t> [d]) x)) => (Add64 (Const64 <t> [c-d]) x)
(Sub32 (Const32 <t> [c]) (Sub32 (Const32 <t> [d]) x)) => (Add32 (Const32 <t> [c-d]) x)
(Sub16 (Const16 <t> [c]) (Sub16 (Const16 <t> [d]) x)) => (Add16 (Const16 <t> [c-d]) x)
(Sub8 (Const8 <t> [c]) (Sub8 (Const8 <t> [d]) x)) => (Add8 (Const8 <t> [c-d]) x)

// C - (D + x) -> (C - D) - x

(Sub64 (Const64 <t> [c]) (Add64 (Const64 <t> [d]) x)) => (Sub64 (Const64 <t> [c-d]) x)
(Sub32 (Const32 <t> [c]) (Add32 (Const32 <t> [d]) x)) => (Sub32 (Const32 <t> [c-d]) x)
(Sub16 (Const16 <t> [c]) (Add16 (Const16 <t> [d]) x)) => (Sub16 (Const16 <t> [c-d]) x)
(Sub8 (Const8 <t> [c]) (Add8 (Const8 <t> [d]) x)) => (Sub8 (Const8 <t> [c-d]) x)

// C & (D & x) -> (C & D) & x

(And64 (Const64 <t> [c]) (And64 (Const64 <t> [d]) x)) => (And64 (Const64 <t> [c&d]) x)
(And32 (Const32 <t> [c]) (And32 (Const32 <t> [d]) x)) => (And32 (Const32 <t> [c&d]) x)
(And16 (Const16 <t> [c]) (And16 (Const16 <t> [d]) x)) => (And16 (Const16 <t> [c&d]) x)
(And8 (Const8 <t> [c]) (And8 (Const8 <t> [d]) x)) => (And8 (Const8 <t> [c&d]) x)

// C | (D | x) -> (C | D) | x

(Or64 (Const64 <t> [c]) (Or64 (Const64 <t> [d]) x)) =>
(Or64 (Const64 <t> [c|d]) x)
(Or32 (Const32 <t> [c]) (Or32 (Const32 <t> [d]) x)) => (Or32 (Const32 <t> [c|d]) x)
(Or16 (Const16 <t> [c]) (Or16 (Const16 <t> [d]) x)) => (Or16 (Const16 <t> [c|d]) x)
(Or8 (Const8 <t> [c]) (Or8 (Const8 <t> [d]) x)) => (Or8 (Const8 <t> [c|d]) x)

// C ^ (D ^ x) -> (C ^ D) ^ x

(Xor64 (Const64 <t> [c]) (Xor64 (Const64 <t> [d]) x)) => (Xor64 (Const64 <t> [c^d]) x)
(Xor32 (Const32 <t> [c]) (Xor32 (Const32 <t> [d]) x)) => (Xor32 (Const32 <t> [c^d]) x)
(Xor16 (Const16 <t> [c]) (Xor16 (Const16 <t> [d]) x)) => (Xor16 (Const16 <t> [c^d]) x)
(Xor8 (Const8 <t> [c]) (Xor8 (Const8 <t> [d]) x)) => (Xor8 (Const8 <t> [c^d]) x)

// C * (D * x) = (C * D) * x

(Mul64 (Const64 <t> [c]) (Mul64 (Const64 <t> [d]) x)) => (Mul64 (Const64 <t> [c*d]) x)
(Mul32 (Const32 <t> [c]) (Mul32 (Const32 <t> [d]) x)) => (Mul32 (Const32 <t> [c*d]) x)
(Mul16 (Const16 <t> [c]) (Mul16 (Const16 <t> [d]) x)) => (Mul16 (Const16 <t> [c*d]) x)
(Mul8 (Const8 <t> [c]) (Mul8 (Const8 <t> [d]) x)) => (Mul8 (Const8 <t> [c*d]) x)

```

x)) => (Mul8 (Const8 <t> [c*d]) x)

// floating point optimizations
(Mul(32|64)F x (Const(32|64)F [1])) => x
(Mul32F x (Const32F [-1])) => (Neg32F x)
(Mul64F x (Const64F [-1])) => (Neg64F x)
(Mul32F x (Const32F [2])) => (Add32F x x)
(Mul64F x (Const64F [2])) => (Add64F x x)

(Div32F x (Const32F <t> [c])) && reciprocalExact32(c) => (Mul32F x (Const32F <t> [1/c]))
(Div64F x (Const64F <t> [c])) && reciprocalExact64(c) => (Mul64F x (Const64F <t> [1/c]))

// rewrite single-precision sqrt expression "float32(math.Sqrt(float64(x)))"
(Cvt64Fto32F sqrt0:(Sqrt (Cvt32Fto64F x))) && sqrt0.Uses==1 => (Sqrt32 x)

(Sqrt (Const64F [c])) && !math.IsNaN(math.Sqrt(c)) => (Const64F [math.Sqrt(c)])

// for rewriting results of some late-expanded rewrites (below)
(SelectN [0] (MakeResult x ____)) => x
(SelectN [1] (MakeResult x y ____)) => y
(SelectN [2] (MakeResult x y z ____)) => z

// for late-expanded calls, recognize newobject and remove zeroing and nilchecks
(Zero (SelectN [0] call:(StaticLECall _ _))
 mem:(SelectN [1] call))
&& isSameCall(call.Aux, "runtime.newobject")
=> mem

(Store (SelectN [0] call:(StaticLECall _ _)) x mem:(SelectN [1] call))
&& isConstZero(x)
&& isSameCall(call.Aux, "runtime.newobject")
=> mem

(Store (OffPtr (SelectN [0] call:(StaticLECall _ _))) x mem:(SelectN [1] call))
&& isConstZero(x)
&& isSameCall(call.Aux, "runtime.newobject")
=> mem

(NilCheck (SelectN [0] call:(StaticLECall _ _)) _)
&& isSameCall(call.Aux, "runtime.newobject")
&& warnRule(fe.Debug_checknil(), v, "removed nil check")
=> (Invalid)

(NilCheck (OffPtr (SelectN [0] call:(StaticLECall _ _))) _)
&& isSameCall(call.Aux, "runtime.newobject")
&& warnRule(fe.Debug_checknil(), v, "removed nil check")
=> (Invalid)

```

```

// for late-expanded calls, recognize memequal applied to a single constant byte
// Support is limited by 1, 2, 4, 8 byte sizes
(StaticLECall {callAux} sptr (Addr {scon} (SB)) (Const64 [1]) mem)
  && isSameCall(callAux, "runtime.memequal")
  && symIsRO(scon)
  => (MakeResult
    (Eq8 (Load <typ.Int8> sptr mem) (Const8 <typ.Int8> [int8(read8(scon,0))])) mem)

(StaticLECall {callAux} sptr (Addr {scon} (SB)) (Const64 [2]) mem)
  && isSameCall(callAux, "runtime.memequal")
  && symIsRO(scon)
  && canLoadUnaligned(config)
  => (MakeResult (Eq16 (Load <typ.Int16> sptr mem) (Const16 <typ.Int16>
[int16(read16(scon,0,config.ctx.Arch.ByteOrder))])) mem)

(StaticLECall {callAux} sptr (Addr {scon} (SB)) (Const64 [4]) mem)
  && isSameCall(callAux, "runtime.memequal")
  && symIsRO(scon)
  && canLoadUnaligned(config)
  => (MakeResult (Eq32 (Load <typ.Int32> sptr mem) (Const32 <typ.Int32>
[int32(read32(scon,0,config.ctx.Arch.ByteOrder))])) mem)

(StaticLECall {callAux} sptr (Addr {scon} (SB)) (Const64 [8]) mem)
  && isSameCall(callAux, "runtime.memequal")
  && symIsRO(scon)
  && canLoadUnaligned(config) && config.PtrSize == 8
  => (MakeResult (Eq64 (Load <typ.Int64> sptr mem) (Const64 <typ.Int64>
[int64(read64(scon,0,config.ctx.Arch.ByteOrder))])) mem)

// Evaluate constant
address comparisons.
(EqPtr x x) => (ConstBool [true])
(NeqPtr x x) => (ConstBool [false])
(EqPtr (Addr {x} _) (Addr {y} _)) => (ConstBool [x == y])
(EqPtr (Addr {x} _) (OffPtr [o] (Addr {y} _))) => (ConstBool [x == y && o == 0])
(EqPtr (OffPtr [o1] (Addr {x} _)) (OffPtr [o2] (Addr {y} _))) => (ConstBool [x == y && o1 == o2])
(NeqPtr (Addr {x} _) (Addr {y} _)) => (ConstBool [x != y])
(NeqPtr (Addr {x} _) (OffPtr [o] (Addr {y} _))) => (ConstBool [x != y || o != 0])
(NeqPtr (OffPtr [o1] (Addr {x} _)) (OffPtr [o2] (Addr {y} _))) => (ConstBool [x != y || o1 != o2])
(EqPtr (LocalAddr {x} _) (LocalAddr {y} _)) => (ConstBool [x == y])
(EqPtr (LocalAddr {x} _) (OffPtr [o] (LocalAddr {y} _))) => (ConstBool [x == y && o == 0])
(EqPtr (OffPtr [o1] (LocalAddr {x} _)) (OffPtr [o2] (LocalAddr {y} _))) => (ConstBool [x == y && o1 == o2])
(NeqPtr (LocalAddr {x} _) (LocalAddr {y} _)) => (ConstBool [x != y])
(NeqPtr (LocalAddr {x} _) (OffPtr [o] (LocalAddr {y} _))) => (ConstBool
[x != y || o != 0])
(NeqPtr (OffPtr [o1] (LocalAddr {x} _)) (OffPtr [o2] (LocalAddr {y} _))) => (ConstBool [x != y || o1 != o2])
(EqPtr (OffPtr [o1] p1) p2) && isSamePtr(p1, p2) => (ConstBool [o1 == 0])
(NeqPtr (OffPtr [o1] p1) p2) && isSamePtr(p1, p2) => (ConstBool [o1 != 0])

```

```

(EqPtr (OffPtr [o1] p1) (OffPtr [o2] p2)) && isSamePtr(p1, p2) => (ConstBool [o1 == o2])
(NeqPtr (OffPtr [o1] p1) (OffPtr [o2] p2)) && isSamePtr(p1, p2) => (ConstBool [o1 != o2])
(EqPtr (Const(32|64) [c]) (Const(32|64) [d])) => (ConstBool [c == d])
(NeqPtr (Const(32|64) [c]) (Const(32|64) [d])) => (ConstBool [c != d])

(EqPtr (LocalAddr _ _) (Addr _)) => (ConstBool [false])
(EqPtr (OffPtr (LocalAddr _ _)) (Addr _)) => (ConstBool [false])
(EqPtr (LocalAddr _ _) (OffPtr (Addr _))) => (ConstBool [false])
(EqPtr (OffPtr (LocalAddr _ _)) (OffPtr (Addr _))) => (ConstBool [false])
(NeqPtr (LocalAddr _ _) (Addr _)) => (ConstBool [true])
(NeqPtr (OffPtr (LocalAddr _ _)) (Addr _)) => (ConstBool [true])
(NeqPtr
  (LocalAddr _ _) (OffPtr (Addr _))) => (ConstBool [true])
(NeqPtr (OffPtr (LocalAddr _ _)) (OffPtr (Addr _))) => (ConstBool [true])

// Simplify address comparisons.
(EqPtr (AddPtr p1 o1) p2) && isSamePtr(p1, p2) => (Not (IsNonNil o1))
(NeqPtr (AddPtr p1 o1) p2) && isSamePtr(p1, p2) => (IsNonNil o1)
(EqPtr (Const(32|64) [0]) p) => (Not (IsNonNil p))
(NeqPtr (Const(32|64) [0]) p) => (IsNonNil p)
(EqPtr (ConstNil) p) => (Not (IsNonNil p))
(NeqPtr (ConstNil) p) => (IsNonNil p)

// Evaluate constant user nil checks.
(IsNonNil (ConstNil)) => (ConstBool [false])
(IsNonNil (Const(32|64) [c])) => (ConstBool [c != 0])
(IsNonNil (Addr _)) => (ConstBool [true])
(IsNonNil (LocalAddr _ _)) => (ConstBool [true])

// Inline small or disjoint runtime.memmove calls with constant length.
// See the comment in op Move in genericOps.go for discussion of the type.
//
// Note that we've lost any knowledge of the type and alignment requirements
// of the source and destination. We only know the size,
// and that the type
// contains no pointers.
// The type of the move is not necessarily v.Args[0].Type().Elem()!
// See issue 55122 for details.
//
// Because expand calls runs after prove, constants useful to this pattern may not appear.
// Both versions need to exist; the memory and register variants.
//
// Match post-expansion calls, memory version.
(SelectN [0] call:(StaticCall {sym} s1:(Store _ (Const(64|32) [sz]) s2:(Store _ src s3:(Store {t} _ dst mem))))
&& sz >= 0
&& isSameCall(sym, "runtime.memmove")
&& s1.Uses == 1 && s2.Uses == 1 && s3.Uses == 1
&& isInlinableMemmove(dst, src, int64(sz), config)

```

```

&& clobber(s1, s2, s3, call)
=> (Move {types.Types[types.TUINT8]} [int64(sz)] dst src mem)

// Match post-expansion calls, register version.
(SelectN [0] call:(StaticCall {sym} dst src (Const(64|32) [sz]) mem))
&& sz >= 0
&& call.Uses == 1 // this will exclude all calls with results
&& isSameCall(sym, "runtime.memmove")
&& isInlinableMemmove(dst, src, int64(sz), config)
&&
clobber(call)
=> (Move {types.Types[types.TUINT8]} [int64(sz)] dst src mem)

// Match pre-expansion calls.
(SelectN [0] call:(StaticLECall {sym} dst src (Const(64|32) [sz]) mem))
&& sz >= 0
&& call.Uses == 1 // this will exclude all calls with results
&& isSameCall(sym, "runtime.memmove")
&& isInlinableMemmove(dst, src, int64(sz), config)
&& clobber(call)
=> (Move {types.Types[types.TUINT8]} [int64(sz)] dst src mem)

// De-virtualize late-expanded interface calls into late-expanded static calls.
// Note that (ITab (IMake)) doesn't get rewritten until after the first opt pass,
// so this rule should trigger reliably.
// devirtLECall removes the first argument, adds the devirtualized symbol to the AuxCall, and changes the opcode
(InterLECall [argsize] {auxCall} (Load (OffPtr [off] (ITab (IMake (Addr {itab} (SB)) _)) _)) _)) &&
devirtLESym(v, auxCall, itab, off) !=
  nil => devirtLECall(v, devirtLESym(v, auxCall, itab, off))

// Move and Zero optimizations.
// Move source and
destination may overlap.

// Convert Moves into Zeros when the source is known to be zeros.
(Move {t} [n] dst1 src mem:(Zero {t} [n] dst2 _)) && isSamePtr(src, dst2)
=> (Zero {t} [n] dst1 mem)
(Move {t} [n] dst1 src mem:(VarDef (Zero {t} [n] dst0 _))) && isSamePtr(src, dst0)
=> (Zero {t} [n] dst1 mem)
(Move {t} [n] dst (Addr {sym} (SB)) mem) && symIsROZero(sym) => (Zero {t} [n] dst mem)

// Don't Store to variables that are about to be overwritten by Move/Zero.
(Zero {t1} [n] p1 store:(Store {t2} (OffPtr [o2] p2) _ mem))
&& isSamePtr(p1, p2) && store.Uses == 1
&& n >= o2 + t2.Size()
&& clobber(store)
=> (Zero {t1} [n] p1 mem)
(Move {t1} [n] dst1 src1 store:(Store {t2} op:(OffPtr [o2] dst2) _ mem))

```



```

&& isSamePtr(dst1, dst2) && store.Uses == 1
&& n >= o2 + t2.Size()
&& disjoint(src1, n, op, t2.Size())
&& clobber(store)
=> (Move {t1} [n] dst1 src1 mem)

// Don't Move to variables that are immediately completely overwritten.
(Zero {t} [n] dst1 move:(Move {t} [n] dst2 _ mem))
&&
move.Uses == 1
&& isSamePtr(dst1, dst2)
&& clobber(move)
=> (Zero {t} [n] dst1 mem)
(Move {t} [n] dst1 src1 move:(Move {t} [n] dst2 _ mem))
&& move.Uses == 1
&& isSamePtr(dst1, dst2) && disjoint(src1, n, dst2, n)
&& clobber(move)
=> (Move {t} [n] dst1 src1 mem)
(Zero {t} [n] dst1 vardef:(VarDef {x} move:(Move {t} [n] dst2 _ mem)))
&& move.Uses == 1 && vardef.Uses == 1
&& isSamePtr(dst1, dst2)
&& clobber(move, vardef)
=> (Zero {t} [n] dst1 (VarDef {x} mem))
(Move {t} [n] dst1 src1 vardef:(VarDef {x} move:(Move {t} [n] dst2 _ mem)))
&& move.Uses == 1 && vardef.Uses == 1
&& isSamePtr(dst1, dst2) && disjoint(src1, n, dst2, n)
&& clobber(move, vardef)
=> (Move {t} [n] dst1 src1 (VarDef {x} mem))
(Store {t1} op1:(OffPtr [o1] p1) d1
m2:(Store {t2} op2:(OffPtr [0] p2) d2
m3:(Move [n] p3 _ mem)))
&& m2.Uses == 1 && m3.Uses == 1
&& o1 == t2.Size()
&& n == t2.Size() + t1.Size()
&& isSamePtr(p1, p2) && isSamePtr(p2, p3)
&& clobber(m2, m3)
=> (Store {t1} op1 d1 (Store {t2}
op2 d2 mem))
(Store {t1} op1:(OffPtr [o1] p1) d1
m2:(Store {t2} op2:(OffPtr [o2] p2) d2
m3:(Store {t3} op3:(OffPtr [0] p3) d3
m4:(Move [n] p4 _ mem)))
&& m2.Uses == 1 && m3.Uses == 1 && m4.Uses == 1
&& o2 == t3.Size()
&& o1-o2 == t2.Size()
&& n == t3.Size() + t2.Size() + t1.Size()
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4)
&& clobber(m2, m3, m4)

```

```

=> (Store {t1} op1 d1 (Store {t2} op2 d2 (Store {t3} op3 d3 mem)))
(Store {t1} op1:(OffPtr [o1] p1) d1
 m2:(Store {t2} op2:(OffPtr [o2] p2) d2
 m3:(Store {t3} op3:(OffPtr [o3] p3) d3
 m4:(Store {t4} op4:(OffPtr [0] p4) d4
 m5:(Move [n] p5 _ mem))))
&& m2.Uses == 1 && m3.Uses == 1 && m4.Uses == 1 && m5.Uses == 1
&& o3 == t4.Size()
&& o2-o3 == t3.Size()
&& o1-o2 == t2.Size()
&& n == t4.Size() + t3.Size() + t2.Size() + t1.Size()
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4) && isSamePtr(p4, p5)
&& clobber(m2, m3, m4, m5)
=> (Store {t1} op1 d1 (Store {t2} op2 d2 (Store {t3} op3 d3 (Store
 {t4} op4 d4 mem))))

// Don't Zero variables that are immediately completely overwritten
// before being accessed.
(Move {t} [n] dst1 src1 zero:(Zero {t} [n] dst2 mem))
&& zero.Uses == 1
&& isSamePtr(dst1, dst2) && disjoint(src1, n, dst2, n)
&& clobber(zero)
=> (Move {t} [n] dst1 src1 mem)
(Move {t} [n] dst1 src1 vardef:(VarDef {x} zero:(Zero {t} [n] dst2 mem)))
&& zero.Uses == 1 && vardef.Uses == 1
&& isSamePtr(dst1, dst2) && disjoint(src1, n, dst2, n)
&& clobber(zero, vardef)
=> (Move {t} [n] dst1 src1 (VarDef {x} mem))
(Store {t1} op1:(OffPtr [o1] p1) d1
 m2:(Store {t2} op2:(OffPtr [0] p2) d2
 m3:(Zero [n] p3 mem)))
&& m2.Uses == 1 && m3.Uses == 1
&& o1 == t2.Size()
&& n == t2.Size() + t1.Size()
&& isSamePtr(p1, p2) && isSamePtr(p2, p3)
&& clobber(m2, m3)
=> (Store {t1} op1 d1 (Store {t2} op2 d2 mem))
(Store {t1} op1:(OffPtr [o1] p1) d1
 m2:(Store {t2} op2:(OffPtr [o2] p2) d2
 m3:(Store {t3} op3:(OffPtr [0] p3) d3
 m4:(Zero [n] p4 mem))))
&& m2.Uses == 1 &&
m3.Uses == 1 && m4.Uses == 1
&& o2 == t3.Size()
&& o1-o2 == t2.Size()
&& n == t3.Size() + t2.Size() + t1.Size()
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4)
&& clobber(m2, m3, m4)

```

```

=> (Store {t1} op1 d1 (Store {t2} op2 d2 (Store {t3} op3 d3 mem)))
(Store {t1} op1:(OffPtr [o1] p1) d1
m2:(Store {t2} op2:(OffPtr [o2] p2) d2
m3:(Store {t3} op3:(OffPtr [o3] p3) d3
m4:(Store {t4} op4:(OffPtr [0] p4) d4
m5:(Zero [n] p5 mem))))
&& m2.Uses == 1 && m3.Uses == 1 && m4.Uses == 1 && m5.Uses == 1
&& o3 == t4.Size()
&& o2-o3 == t3.Size()
&& o1-o2 == t2.Size()
&& n == t4.Size() + t3.Size() + t2.Size() + t1.Size()
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4) && isSamePtr(p4, p5)
&& clobber(m2, m3, m4, m5)
=> (Store {t1} op1 d1 (Store {t2} op2 d2 (Store {t3} op3 d3 (Store {t4} op4 d4 mem))))

```

```

// Don't Move from memory if the values are likely to already be
// in registers.

```

```

(Move {t1} [n] dst p1
mem:(Store {t2} op2:(OffPtr <tt2> [o2] p2) d1
(Store
{t3} op3:(OffPtr <tt3> [0] p3) d2 _)))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3)
&& t2.Alignment() <= t1.Alignment()
&& t3.Alignment() <= t1.Alignment()
&& registerizable(b, t2)
&& registerizable(b, t3)
&& o2 == t3.Size()
&& n == t2.Size() + t3.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
(Store {t3} (OffPtr <tt3> [0] dst) d2 mem))
(Move {t1} [n] dst p1
mem:(Store {t2} op2:(OffPtr <tt2> [o2] p2) d1
(Store {t3} op3:(OffPtr <tt3> [o3] p3) d2
(Store {t4} op4:(OffPtr <tt4> [0] p4) d3 _))))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4)
&& t2.Alignment() <= t1.Alignment()
&& t3.Alignment() <= t1.Alignment()
&& t4.Alignment() <= t1.Alignment()
&& registerizable(b, t2)
&& registerizable(b, t3)
&& registerizable(b, t4)
&& o3 == t4.Size()
&& o2-o3 == t3.Size()
&& n == t2.Size() + t3.Size() + t4.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
(Store {t3} (OffPtr <tt3> [o3] dst) d2
(Store {t4} (OffPtr <tt4> [0] dst) d3 mem)))
(Move {t1} [n]

```

```

dst p1
mem:(Store {t2} op2:(OffPtr <tt2> [o2] p2) d1
  (Store {t3} op3:(OffPtr <tt3> [o3] p3) d2
    (Store {t4} op4:(OffPtr <tt4> [o4] p4) d3
      (Store {t5} op5:(OffPtr <tt5> [0] p5) d4 _))))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4) && isSamePtr(p4, p5)
&& t2.Alignment() <= t1.Alignment()
&& t3.Alignment() <= t1.Alignment()
&& t4.Alignment() <= t1.Alignment()
&& t5.Alignment() <= t1.Alignment()
&& registerizable(b, t2)
&& registerizable(b, t3)
&& registerizable(b, t4)
&& registerizable(b, t5)
&& o4 == t5.Size()
&& o3-o4 == t4.Size()
&& o2-o3 == t3.Size()
&& n == t2.Size() + t3.Size() + t4.Size() + t5.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
  (Store {t3} (OffPtr <tt3> [o3] dst) d2
    (Store {t4} (OffPtr <tt4> [o4] dst) d3
      (Store {t5} (OffPtr <tt5> [0] dst) d4 mem))))

```

// Same thing but with VarDef in the middle.

```

(Move {t1} [n] dst p1
mem:(VarDef
  (Store {t2} op2:(OffPtr <tt2> [o2] p2) d1
    (Store {t3} op3:(OffPtr <tt3> [0] p3) d2
      _))))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3)
&& t2.Alignment() <= t1.Alignment()
&& t3.Alignment() <= t1.Alignment()
&& registerizable(b, t2)
&& registerizable(b, t3)
&& o2 == t3.Size()
&& n == t2.Size() + t3.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
  (Store {t3} (OffPtr <tt3> [0] dst) d2 mem))
(Move {t1} [n] dst p1
mem:(VarDef
  (Store {t2} op2:(OffPtr <tt2> [o2] p2) d1
    (Store {t3} op3:(OffPtr <tt3> [o3] p3) d2
      (Store {t4} op4:(OffPtr <tt4> [0] p4) d3 _))))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4)
&& t2.Alignment() <= t1.Alignment()
&& t3.Alignment() <= t1.Alignment()
&& t4.Alignment() <= t1.Alignment()
&& registerizable(b, t2)

```

```

&& registerizable(b, t3)
&& registerizable(b, t4)
&& o3 == t4.Size()
&& o2-o3 == t3.Size()
&& n == t2.Size() + t3.Size() + t4.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
  (Store {t3} (OffPtr <tt3> [o3] dst) d2
   (Store {t4} (OffPtr <tt4> [0] dst) d3 mem)))
(Move {t1} [n] dst p1
mem:(VarDef
  (Store
   {t2} op2:(OffPtr <tt2> [o2] p2) d1
   (Store {t3} op3:(OffPtr <tt3> [o3] p3) d2
    (Store {t4} op4:(OffPtr <tt4> [o4] p4) d3
     (Store {t5} op5:(OffPtr <tt5> [0] p5) d4 _))))))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4) && isSamePtr(p4, p5)
&& t2.Alignment() <= t1.Alignment()
&& t3.Alignment() <= t1.Alignment()
&& t4.Alignment() <= t1.Alignment()
&& t5.Alignment() <= t1.Alignment()
&& registerizable(b, t2)
&& registerizable(b, t3)
&& registerizable(b, t4)
&& registerizable(b, t5)
&& o4 == t5.Size()
&& o3-o4 == t4.Size()
&& o2-o3 == t3.Size()
&& n == t2.Size() + t3.Size() + t4.Size() + t5.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
  (Store {t3} (OffPtr <tt3> [o3] dst) d2
   (Store {t4} (OffPtr <tt4> [o4] dst) d3
    (Store {t5} (OffPtr <tt5> [0] dst) d4 mem))))

// Prefer to Zero and Store than to Move.
(Move {t1} [n] dst p1
mem:(Store {t2} op2:(OffPtr <tt2> [o2] p2) d1
  (Zero {t3} [n] p3 _)))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3)
&&
t2.Alignment() <= t1.Alignment()
&& t3.Alignment() <= t1.Alignment()
&& registerizable(b, t2)
&& n >= o2 + t2.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
  (Zero {t1} [n] dst mem))
(Move {t1} [n] dst p1
mem:(Store {t2} (OffPtr <tt2> [o2] p2) d1
  (Store {t3} (OffPtr <tt3> [o3] p3) d2

```

```

(Zero {t4} [n] p4 _)))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4)
&& t2.Alignment() <= t1.Alignment()
&& t3.Alignment() <= t1.Alignment()
&& t4.Alignment() <= t1.Alignment()
&& registerizable(b, t2)
&& registerizable(b, t3)
&& n >= o2 + t2.Size()
&& n >= o3 + t3.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
(Store {t3} (OffPtr <tt3> [o3] dst) d2
(Zero {t1} [n] dst mem)))
(Move {t1} [n] dst p1
mem:(Store {t2} (OffPtr <tt2> [o2] p2) d1
(Store {t3} (OffPtr <tt3> [o3] p3) d2
(Store {t4} (OffPtr <tt4> [o4] p4) d3
(Zero {t5} [n] p5 _))))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4) && isSamePtr(p4, p5)
&& t2.Alignment() <= t1.Alignment()
&&
t3.Alignment() <= t1.Alignment()
&& t4.Alignment() <= t1.Alignment()
&& t5.Alignment() <= t1.Alignment()
&& registerizable(b, t2)
&& registerizable(b, t3)
&& registerizable(b, t4)
&& n >= o2 + t2.Size()
&& n >= o3 + t3.Size()
&& n >= o4 + t4.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
(Store {t3} (OffPtr <tt3> [o3] dst) d2
(Store {t4} (OffPtr <tt4> [o4] dst) d3
(Zero {t1} [n] dst mem)))
(Move {t1} [n] dst p1
mem:(Store {t2} (OffPtr <tt2> [o2] p2) d1
(Store {t3} (OffPtr <tt3> [o3] p3) d2
(Store {t4} (OffPtr <tt4> [o4] p4) d3
(Store {t5} (OffPtr <tt5> [o5] p5) d4
(Zero {t6} [n] p6 _))))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4) && isSamePtr(p4, p5) && isSamePtr(p5, p6)
&& t2.Alignment() <= t1.Alignment()
&& t3.Alignment() <= t1.Alignment()
&& t4.Alignment() <= t1.Alignment()
&& t5.Alignment() <= t1.Alignment()
&& t6.Alignment() <= t1.Alignment()
&& registerizable(b, t2)
&& registerizable(b, t3)
&& registerizable(b,

```

```

t4)
&& registerizable(b, t5)
&& n >= o2 + t2.Size()
&& n >= o3 + t3.Size()
&& n >= o4 + t4.Size()
&& n >= o5 + t5.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
(Store {t3} (OffPtr <tt3> [o3] dst) d2
(Store {t4} (OffPtr <tt4> [o4] dst) d3
(Store {t5} (OffPtr <tt5> [o5] dst) d4
(Zero {t1} [n] dst mem))))))
(Move {t1} [n] dst p1
mem:(VarDef
(Store {t2} op2:(OffPtr <tt2> [o2] p2) d1
(Zero {t3} [n] p3 _))))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3)
&& t2.Alignment() <= t1.Alignment()
&& t3.Alignment() <= t1.Alignment()
&& registerizable(b, t2)
&& n >= o2 + t2.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
(Zero {t1} [n] dst mem))
(Move {t1} [n] dst p1
mem:(VarDef
(Store {t2} (OffPtr <tt2> [o2] p2) d1
(Store {t3} (OffPtr <tt3> [o3] p3) d2
(Zero {t4} [n] p4 _))))))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4)
&& t2.Alignment() <= t1.Alignment()
&& t3.Alignment() <= t1.Alignment()
&& t4.Alignment() <= t1.Alignment()
&&
registerizable(b, t2)
&& registerizable(b, t3)
&& n >= o2 + t2.Size()
&& n >= o3 + t3.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
(Store {t3} (OffPtr <tt3> [o3] dst) d2
(Zero {t1} [n] dst mem))))
(Move {t1} [n] dst p1
mem:(VarDef
(Store {t2} (OffPtr <tt2> [o2] p2) d1
(Store {t3} (OffPtr <tt3> [o3] p3) d2
(Store {t4} (OffPtr <tt4> [o4] p4) d3
(Zero {t5} [n] p5 _))))))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4) && isSamePtr(p4, p5)
&& t2.Alignment() <= t1.Alignment()
&& t3.Alignment() <= t1.Alignment()

```

```

&& t4.Alignment() <= t1.Alignment()
&& t5.Alignment() <= t1.Alignment()
&& registerizable(b, t2)
&& registerizable(b, t3)
&& registerizable(b, t4)
&& n >= o2 + t2.Size()
&& n >= o3 + t3.Size()
&& n >= o4 + t4.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
  (Store {t3} (OffPtr <tt3> [o3] dst) d2
    (Store {t4} (OffPtr <tt4> [o4] dst) d3
      (Zero {t1} [n] dst mem))))
(Move {t1} [n] dst p1
mem:(VarDef
  (Store {t2} (OffPtr
<tt2> [o2] p2) d1
  (Store {t3} (OffPtr <tt3> [o3] p3) d2
  (Store {t4} (OffPtr <tt4> [o4] p4) d3
  (Store {t5} (OffPtr <tt5> [o5] p5) d4
  (Zero {t6} [n] p6 _))))))
&& isSamePtr(p1, p2) && isSamePtr(p2, p3) && isSamePtr(p3, p4) && isSamePtr(p4, p5) && isSamePtr(p5, p6)
&& t2.Alignment() <= t1.Alignment()
&& t3.Alignment() <= t1.Alignment()
&& t4.Alignment() <= t1.Alignment()
&& t5.Alignment() <= t1.Alignment()
&& t6.Alignment() <= t1.Alignment()
&& registerizable(b, t2)
&& registerizable(b, t3)
&& registerizable(b, t4)
&& registerizable(b, t5)
&& n >= o2 + t2.Size()
&& n >= o3 + t3.Size()
&& n >= o4 + t4.Size()
&& n >= o5 + t5.Size()
=> (Store {t2} (OffPtr <tt2> [o2] dst) d1
  (Store {t3} (OffPtr <tt3> [o3] dst) d2
    (Store {t4} (OffPtr <tt4> [o4] dst) d3
      (Store {t5} (OffPtr <tt5> [o5] dst) d4
        (Zero {t1} [n] dst mem))))))

(SelectN [0] call:(StaticLECall {sym} a x)) && needRaceCleanup(sym, call) && clobber(call) => x
(SelectN [0] call:(StaticLECall
  {sym} x)) && needRaceCleanup(sym, call) && clobber(call) => x

// Collapse moving A -> B -> C into just A -> C.
// Later passes (deadstore, elim unread auto) will remove the A -> B move, if possible.
// This happens most commonly when B is an autotmp inserted earlier
// during compilation to ensure correctness.

```



```

// Take care that overlapping moves are preserved.
// Restrict this optimization to the stack, to avoid duplicating loads from the heap;
// see CL 145208 for discussion.
(Move {t1} [s] dst tmp1 midmem:(Move {t2} [s] tmp2 src _))
  && t1.Compare(t2) == types.CMPeq
  && isSamePtr(tmp1, tmp2)
  && isStackPtr(src) && !isVolatile(src)
  && disjoint(src, s, tmp2, s)
  && (disjoint(src, s, dst, s) || isInlinableMemmove(dst, src, s, config))
=> (Move {t1} [s] dst src midmem)

// Same, but for large types that require VarDefs.
(Move {t1} [s] dst tmp1 midmem:(VarDef (Move {t2} [s] tmp2 src _)))
  && t1.Compare(t2) == types.CMPeq
  && isSamePtr(tmp1, tmp2)
  && isStackPtr(src) && !isVolatile(src)
  &&
  disjoint(src, s, tmp2, s)
  && (disjoint(src, s, dst, s) || isInlinableMemmove(dst, src, s, config))
=> (Move {t1} [s] dst src midmem)

// Don't zero the same bits twice.
(Zero {t} [s] dst1 zero:(Zero {t} [s] dst2 _)) && isSamePtr(dst1, dst2) => zero
(Zero {t} [s] dst1 vardef:(VarDef (Zero {t} [s] dst2 _))) && isSamePtr(dst1, dst2) => vardef

// Elide self-moves. This only happens rarely (e.g test/fixedbugs/bug277.go).
// However, this rule is needed to prevent the previous rule from looping forever in such cases.
(Move dst src mem) && isSamePtr(dst, src) => mem

```

Found in path(s):

```

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/generic.rules
No license file was found, but licenses were detected in source scan.

```

```

// Copyright 2016 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.

```

```

// Lowering arithmetic
(Add(64|Ptr) ...) => (ADD ...)
(Add(32|16|8) ...) => (ADDW ...)
(Add32F x y) => (Select0 (FADDS x y))
(Add64F x y) => (Select0 (FADD x y))

(Sub(64|Ptr) ...) => (SUB ...)
(Sub(32|16|8) ...) => (SUBW ...)
(Sub32F x y) => (Select0 (FSUBS x y))
(Sub64F x y) => (Select0 (FSUB x y))

```

(Mul64 ...) => (MULLD ...)
 (Mul(32|16|8) ...) => (MULLW ...)
 (Mul32F ...) => (FMULS ...)
 (Mul64F ...) => (FMUL ...)
 (Mul64uhilo ...) => (MLGR ...)

(Div32F ...) => (FDIVS ...)
 (Div64F ...) => (FDIV ...)

(Div64 x y) => (DIVD x y)
 (Div64u ...) => (DIVDU ...)
 // DIVW/DIVWU has a 64-bit dividend and a 32-bit divisor,
 // so a sign/zero extension of the dividend is required.
 (Div32 x y) => (DIVW (MOVWreg x) y)
 (Div32u x y) => (DIVWU (MOVWZreg x) y)
 (Div16 x y) => (DIVW
 (MOVHreg x) (MOVHreg y))
 (Div16u x y) => (DIVWU (MOVHZreg x) (MOVHZreg y))
 (Div8 x y) => (DIVW (MOVBreg x) (MOVBreg y))
 (Div8u x y) => (DIVWU (MOVBZreg x) (MOVBZreg y))

(Hmul(64|64u) ...) => (MULH(D|DU) ...)
 (Hmul32 x y) => (SRDconst [32] (MULLD (MOVWreg x) (MOVWreg y)))
 (Hmul32u x y) => (SRDconst [32] (MULLD (MOVWZreg x) (MOVWZreg y)))

(Mod64 x y) => (MODD x y)
 (Mod64u ...) => (MODDU ...)
 // MODW/MODWU has a 64-bit dividend and a 32-bit divisor,
 // so a sign/zero extension of the dividend is required.
 (Mod32 x y) => (MODW (MOVWreg x) y)
 (Mod32u x y) => (MODWU (MOVWZreg x) y)
 (Mod16 x y) => (MODW (MOVHreg x) (MOVHreg y))
 (Mod16u x y) => (MODWU (MOVHZreg x) (MOVHZreg y))
 (Mod8 x y) => (MODW (MOVBreg x) (MOVBreg y))
 (Mod8u x y) => (MODWU (MOVBZreg x) (MOVBZreg y))

// (x + y) / 2 with x>=y -> (x - y) / 2 + y
 (Avg64u <t> x y) => (ADD (SRDconst <t> (SUB <t> x y) [1]) y)

(And64 ...) => (AND ...)
 (And(32|16|8) ...) => (ANDW ...)

(Or64 ...) => (OR ...)
 (Or(32|16|8) ...)
 => (ORW ...)

(Xor64 ...) => (XOR ...)
 (Xor(32|16|8) ...) => (XORW ...)

```

(Neg64 ...) => (NEG ...)
(Neg(32|16|8) ...) => (NEGW ...)
(Neg32F ...) => (FNEGS ...)
(Neg64F ...) => (FNEG ...)

(Com64 ...) => (NOT ...)
(Com(32|16|8) ...) => (NOTW ...)
(NOT x) => (XOR (MOVDconst [-1]) x)
(NOTW x) => (XORWconst [-1] x)

// Lowering boolean ops
(AndB ...) => (ANDW ...)
(OrB ...) => (ORW ...)
(Not x) => (XORWconst [1] x)

// Lowering pointer arithmetic
(OffPtr [off] ptr:(SP)) => (MOVDaddr [int32(off)] ptr)
(OffPtr [off] ptr) && is32Bit(off) => (ADDconst [int32(off)] ptr)
(OffPtr [off] ptr) => (ADD (MOVDconst [off]) ptr)

// TODO: optimize these cases?
(Ctz64NonZero ...) => (Ctz64 ...)
(Ctz32NonZero ...) => (Ctz32 ...)

// Ctz(x) = 64 - findLeftmostOne((x-1)&^x)
(Ctz64 <t> x) => (SUB (MOVDconst [64]) (FLOGR (AND <t> (SUBconst <t> [1] x) (NOT <t> x))))
(Ctz32 <t> x) => (SUB (MOVDconst [64]) (FLOGR (MOVWZreg (ANDW <t> (SUBWconst <t> [1] x) (NOTW
<t> x))))))

(BitLen64 x) => (SUB (MOVDconst [64]) (FLOGR
x))

// POPCNT treats the input register as a vector of 8 bytes, producing
// a population count for each individual byte. For inputs larger than
// a single byte we therefore need to sum the individual bytes produced
// by the POPCNT instruction. For example, the following instruction
// sequence could be used to calculate the population count of a 4-byte
// value:
//
// MOVD $0x12345678, R1 // R1=0x12345678 <-- input
// POPCNT R1, R2 // R2=0x02030404
// SRW $16, R2, R3 // R3=0x00000203
// ADDW R2, R3, R4 // R4=0x02030607
// SRW $8, R4, R5 // R5=0x00020306
// ADDW R4, R5, R6 // R6=0x0205090d
// MOVWZ R6, R7 // R7=0x0000000d <-- result is 13
//

```

```

(PopCount8 x) => (POPCNT (MOVBZreg x))
(PopCount16 x) => (MOVBZreg (SumBytes2 (POPCNT <typ.UInt16> x)))
(PopCount32 x) => (MOVBZreg (SumBytes4 (POPCNT <typ.UInt32> x)))
(PopCount64 x) => (MOVBZreg (SumBytes8 (POPCNT <typ.UInt64> x)))

// SumBytes{2,4,8} pseudo operations
sum the values of the rightmost
// 2, 4 or 8 bytes respectively. The result is a single byte however
// other bytes might contain junk so a zero extension is required if
// the desired output type is larger than 1 byte.
(SumBytes2 x) => (ADDW (SRWconst <typ.UInt8> x [8]) x)
(SumBytes4 x) => (SumBytes2 (ADDW <typ.UInt16> (SRWconst <typ.UInt16> x [16]) x))
(SumBytes8 x) => (SumBytes4 (ADDW <typ.UInt32> (SRDconst <typ.UInt32> x [32]) x))

(Bswap64 ...) => (MOVDBR ...)
(Bswap32 ...) => (MOVWBR ...)

// add with carry
(Select0 (Add64carry x y c))
=> (Select0 <typ.UInt64> (ADDE x y (Select1 <types.TypeFlags> (ADDCconst c [-1]))))
(Select1 (Add64carry x y c))
=> (Select0 <typ.UInt64> (ADDE (MOVDconst [0]) (MOVDconst [0]) (Select1 <types.TypeFlags> (ADDE x y
(Select1 <types.TypeFlags> (ADDCconst c [-1]))))))

// subtract with borrow
(Select0 (Sub64borrow x y c))
=> (Select0 <typ.UInt64> (SUBE x y (Select1 <types.TypeFlags> (SUBC (MOVDconst [0]) c))))
(Select1 (Sub64borrow x y c))
=> (NEG (Select0 <typ.UInt64> (SUBE (MOVDconst [0]) (MOVDconst [0]) (Select1 <types.TypeFlags> (SUBE
x y (Select1 <types.TypeFlags> (SUBC (MOVDconst [0]) c))))))

// math package intrinsics
(Sqrt ...) => (FSQRT ...)
(Floor x) => (FIDBR [7] x)
(Ceil x) => (FIDBR [6] x)
(Trunc x) => (FIDBR [5] x)
(RoundToEven x) => (FIDBR [4] x)
(Round x) => (FIDBR [1] x)
(FMA x y z) => (FMADD z x y)

(Sqrt32 ...) => (FSQRTS ...)

// Atomic loads and stores.
// The SYNC instruction (fast-BCR-serialization) prevents store-load
// reordering. Other sequences of memory operations (load-load,
// store-store and load-store) are already guaranteed not to be reordered.
(AtomicLoad(8|32|Acq32|64|Ptr) ptr mem) => (MOV(BZ|WZ|WZ|D|D)atomicload ptr mem)
(AtomicStore(8|32|64|PtrNoWB) ptr val mem) => (SYNC (MOV(B|W|D|D)atomicstore ptr val mem))

```

```

// Store-release doesn't require store-load ordering.
(AtomicStoreRel32 ptr val mem) => (MOVWatomicstore ptr val mem)

// Atomic adds.
(AtomicAdd32
 ptr val mem) => (AddTupleFirst32 val (LAA ptr val mem))
(AtomicAdd64 ptr val mem) => (AddTupleFirst64 val (LAAG ptr val mem))
(Select0 <t> (AddTupleFirst32 val tuple)) => (ADDW val (Select0 <t> tuple))
(Select1 (AddTupleFirst32 _ tuple)) => (Select1 tuple)
(Select0 <t> (AddTupleFirst64 val tuple)) => (ADD val (Select0 <t> tuple))
(Select1 (AddTupleFirst64 _ tuple)) => (Select1 tuple)

// Atomic exchanges.
(AtomicExchange32 ptr val mem) => (LoweredAtomicExchange32 ptr val mem)
(AtomicExchange64 ptr val mem) => (LoweredAtomicExchange64 ptr val mem)

// Atomic compare and swap.
(AtomicCompareAndSwap32 ptr old new_ mem) => (LoweredAtomicCas32 ptr old new_ mem)
(AtomicCompareAndSwap64 ptr old new_ mem) => (LoweredAtomicCas64 ptr old new_ mem)

// Atomic and: *(*uint8)(ptr) &= val
//
// Round pointer down to nearest word boundary and pad value with ones before
// applying atomic AND operation to target word.
//
// *(*uint32)(ptr &^ 3) &= rotateleft(uint32(val) | 0xfffff00,
((3 << 3) ^ ((ptr & 3) << 3))
//
(AtomicAnd8 ptr val mem)
=> (LANfloor
 ptr
 (RLL <typ.UInt32>
 (ORWconst <typ.UInt32> val [-1<<8])
 (RXSBG <typ.UInt32> {s390x.NewRotateParams(59, 60, 3)} (MOVDconst [3<<3]) ptr))
 mem)

// Atomic or: *(*uint8)(ptr) |= val
//
// Round pointer down to nearest word boundary and pad value with zeros before
// applying atomic OR operation to target word.
//
// *(*uint32)(ptr &^ 3) |= uint32(val) << ((3 << 3) ^ ((ptr & 3) << 3))
//
(AtomicOr8 ptr val mem)
=> (LAOfloor
 ptr
 (SLW <typ.UInt32>

```

```

(MOVBZreg <typ.UInt32> val)
(RXSBG <typ.UInt32> {s390x.NewRotateParams(59, 60, 3)} (MOVDconst [3<<3]) ptr)
mem)

(AtomicAnd32 ...) => (LAN ...)
(AtomicOr32 ...) => (LAO ...)

// Lowering extension
// Note: we always extend to 64 bits even though some ops don't need that many result bits.
(SignExt8to(16|32|64) ...) => (MOVBreg ...)
(SignExt16to(32|64) ...) => (MOVHreg ...)
(SignExt32to64
...) => (MOVWreg ...)

(ZeroExt8to(16|32|64) ...) => (MOVBZreg ...)
(ZeroExt16to(32|64) ...) => (MOVHZreg ...)
(ZeroExt32to64 ...) => (MOVWZreg ...)

(Slicemask <t> x) => (SRADconst (NEG <t> x) [63])

// Lowering truncation
// Because we ignore high parts of registers, truncates are just copies.
(Trunc(16|32|64)to8 ...) => (Copy ...)
(Trunc(32|64)to16 ...) => (Copy ...)
(Trunc64to32 ...) => (Copy ...)

// Lowering float <-> int
(Cvt32to32F ...) => (CEFBRA ...)
(Cvt32to64F ...) => (CDFBRA ...)
(Cvt64to32F ...) => (CEGBRA ...)
(Cvt64to64F ...) => (CDGBRA ...)

(Cvt32Fto32 ...) => (CFEBRA ...)
(Cvt32Fto64 ...) => (CGEBRA ...)
(Cvt64Fto32 ...) => (CFDBRA ...)
(Cvt64Fto64 ...) => (CGDBRA ...)

// Lowering float <-> uint
(Cvt32Uto32F ...) => (CELFBR ...)
(Cvt32Uto64F ...) => (CDLFBR ...)
(Cvt64Uto32F ...) => (CELGBR ...)
(Cvt64Uto64F ...) => (CDLGBR ...)

(Cvt32Fto32U ...) => (CLFEBR ...)
(Cvt32Fto64U ...) => (CLGEBR ...)
(Cvt64Fto32U ...) => (CLFDBR ...)
(Cvt64Fto64U ...) => (CLGDBR ...)

```

```

//
Lowering float32 <-> float64
(Cvt32Fto64F ...) => (LDEBR ...)
(Cvt64Fto32F ...) => (LEDBR ...)

(CvtBoolToUint8 ...) => (Copy ...)

(Round(32|64)F ...) => (LoweredRound(32|64)F ...)

// Lowering shifts

// Lower bounded shifts first. No need to check shift value.
(Lsh64x(64|32|16|8) x y) && shiftIsBounded(v) => (SLD x y)
(Lsh32x(64|32|16|8) x y) && shiftIsBounded(v) => (SLW x y)
(Lsh16x(64|32|16|8) x y) && shiftIsBounded(v) => (SLW x y)
(Lsh8x(64|32|16|8) x y) && shiftIsBounded(v) => (SLW x y)
(Rsh64Ux(64|32|16|8) x y) && shiftIsBounded(v) => (SRD x y)
(Rsh32Ux(64|32|16|8) x y) && shiftIsBounded(v) => (SRW x y)
(Rsh16Ux(64|32|16|8) x y) && shiftIsBounded(v) => (SRW (MOVHZreg x) y)
(Rsh8Ux(64|32|16|8) x y) && shiftIsBounded(v) => (SRW (MOVHZreg x) y)
(Rsh64x(64|32|16|8) x y) && shiftIsBounded(v) => (SRAD x y)
(Rsh32x(64|32|16|8) x y) && shiftIsBounded(v) => (SRAW x y)
(Rsh16x(64|32|16|8) x y) && shiftIsBounded(v) => (SRAW (MOVHreg x) y)
(Rsh8x(64|32|16|8) x y) && shiftIsBounded(v)
=> (SRAW (MOVBreg x) y)

// Unsigned shifts need to return 0 if shift amount is >= width of shifted value.
// result = shift >= 64 ? 0 : arg << shift
(Lsh(64|32|16|8)x64 <t> x y) => (LOCGR {s390x.GreaterOrEqual} <t> (SL(D|W|W|W) <t> x y) (MOVDconst [0])
(CMPUconst y [64]))
(Lsh(64|32|16|8)x32 <t> x y) => (LOCGR {s390x.GreaterOrEqual} <t> (SL(D|W|W|W) <t> x y) (MOVDconst [0])
(CMPWUconst y [64]))
(Lsh(64|32|16|8)x16 <t> x y) => (LOCGR {s390x.GreaterOrEqual} <t> (SL(D|W|W|W) <t> x y) (MOVDconst [0])
(CMPWUconst (MOVHZreg y) [64]))
(Lsh(64|32|16|8)x8 <t> x y) => (LOCGR {s390x.GreaterOrEqual} <t> (SL(D|W|W|W) <t> x y) (MOVDconst [0])
(CMPWUconst (MOVBZreg y) [64]))

(Rsh(64|32)Ux64 <t> x y) => (LOCGR {s390x.GreaterOrEqual} <t> (SR(D|W) <t> x y) (MOVDconst [0])
(CMPUconst y [64]))
(Rsh(64|32)Ux32 <t> x y) => (LOCGR {s390x.GreaterOrEqual} <t> (SR(D|W) <t> x y) (MOVDconst [0])
(CMPWUconst y [64]))
(Rsh(64|32)Ux16 <t> x y) => (LOCGR {s390x.GreaterOrEqual} <t> (SR(D|W) <t> x y) (MOVDconst
[0]) (CMPWUconst (MOVHZreg y) [64]))
(Rsh(64|32)Ux8 <t> x y) => (LOCGR {s390x.GreaterOrEqual} <t> (SR(D|W) <t> x y) (MOVDconst [0])
(CMPWUconst (MOVBZreg y) [64]))

(Rsh(16|8)Ux64 <t> x y) => (LOCGR {s390x.GreaterOrEqual} <t> (SRW <t> (MOV(H|B)Zreg x) y) (MOVDconst
[0]) (CMPUconst y [64]))

```

```

(Rsh(16|8)Ux32 <t> x y) => (LOCGR {s390x.GreaterOrEqual} <t> (SRW <t> (MOV(H|B)Zreg x) y) (MOVDconst
[0]) (CMPWUconst y [64]))
(Rsh(16|8)Ux16 <t> x y) => (LOCGR {s390x.GreaterOrEqual} <t> (SRW <t> (MOV(H|B)Zreg x) y) (MOVDconst
[0]) (CMPWUconst (MOVHZreg y) [64]))
(Rsh(16|8)Ux8 <t> x y) => (LOCGR {s390x.GreaterOrEqual} <t> (SRW <t> (MOV(H|B)Zreg x) y) (MOVDconst
[0]) (CMPWUconst (MOVBZreg y) [64]))

// Signed right shift needs to return 0/-1 if shift amount is >= width of shifted value.
// We implement this by setting the shift value to 63 (all ones) if the shift value is more than 63.
// result = arg >> (shift >= 64 ? 63 : shift)
(Rsh(64|32)x64 x y) => (SRA(D|W) x (LOCGR {s390x.GreaterOrEqual}
<y.Type> y (MOVDconst <y.Type> [63]) (CMPUconst y [64])))
(Rsh(64|32)x32 x y) => (SRA(D|W) x (LOCGR {s390x.GreaterOrEqual} <y.Type> y (MOVDconst <y.Type> [63])
(CMPWUconst y [64])))
(Rsh(64|32)x16 x y) => (SRA(D|W) x (LOCGR {s390x.GreaterOrEqual} <y.Type> y (MOVDconst <y.Type> [63])
(CMPWUconst (MOVHZreg y) [64])))
(Rsh(64|32)x8 x y) => (SRA(D|W) x (LOCGR {s390x.GreaterOrEqual} <y.Type> y (MOVDconst <y.Type> [63])
(CMPWUconst (MOVBZreg y) [64])))

(Rsh(16|8)x64 x y) => (SRAW (MOV(H|B)reg x) (LOCGR {s390x.GreaterOrEqual} <y.Type> y (MOVDconst
<y.Type> [63]) (CMPUconst y [64])))
(Rsh(16|8)x32 x y) => (SRAW (MOV(H|B)reg x) (LOCGR {s390x.GreaterOrEqual} <y.Type> y (MOVDconst
<y.Type> [63]) (CMPWUconst y [64])))
(Rsh(16|8)x16 x y) => (SRAW (MOV(H|B)reg x) (LOCGR {s390x.GreaterOrEqual} <y.Type> y (MOVDconst
<y.Type> [63]) (CMPWUconst (MOVHZreg y) [64])))
(Rsh(16|8)x8 x y) => (SRAW (MOV(H|B)reg x) (LOCGR {s390x.GreaterOrEqual} <y.Type> y (MOVDconst
<y.Type> [63]) (CMPWUconst (MOVBZreg
y) [64])))

// Lowering rotates
(RotateLeft8 <t> x (MOVDconst [c])) => (Or8 (Lsh8x64 <t> x (MOVDconst [c&7])) (Rsh8Ux64 <t> x
(MOVDconst [-c&7])))
(RotateLeft16 <t> x (MOVDconst [c])) => (Or16 (Lsh16x64 <t> x (MOVDconst [c&15])) (Rsh16Ux64 <t> x
(MOVDconst [-c&15])))
(RotateLeft32 ...) => (RLL ...)
(RotateLeft64 ...) => (RLLG ...)

// Lowering comparisons
(Less64 x y) => (LOCGR {s390x.Less} (MOVDconst [0]) (MOVDconst [1]) (CMP x y))
(Less32 x y) => (LOCGR {s390x.Less} (MOVDconst [0]) (MOVDconst [1]) (CMPW x y))
(Less(16|8) x y) => (LOCGR {s390x.Less} (MOVDconst [0]) (MOVDconst [1]) (CMPW (MOV(H|B)reg x)
(MOV(H|B)reg y)))
(Less64U x y) => (LOCGR {s390x.Less} (MOVDconst [0]) (MOVDconst [1]) (CMPU x y))
(Less32U x y) => (LOCGR {s390x.Less} (MOVDconst [0]) (MOVDconst [1]) (CMPWU x y))
(Less(16|8)U x y) => (LOCGR {s390x.Less} (MOVDconst [0]) (MOVDconst [1]) (CMPWU (MOV(H|B)Zreg x)
(MOV(H|B)Zreg y)))
(Less64F x y) => (LOCGR {s390x.Less} (MOVDconst [0]) (MOVDconst

```



```

[1]) (FCMP x y)
(Less32F x y) => (LOCGR {s390x.Less} (MOVDconst [0]) (MOVDconst [1]) (FCMPS x y))

(Leq64 x y) => (LOCGR {s390x.LessOrEqual} (MOVDconst [0]) (MOVDconst [1]) (CMP x y))
(Leq32 x y) => (LOCGR {s390x.LessOrEqual} (MOVDconst [0]) (MOVDconst [1]) (CMPW x y))
(Leq(16|8) x y) => (LOCGR {s390x.LessOrEqual} (MOVDconst [0]) (MOVDconst [1]) (CMPW (MOV(H|B)reg
x) (MOV(H|B)reg y)))
(Leq64U x y) => (LOCGR {s390x.LessOrEqual} (MOVDconst [0]) (MOVDconst [1]) (CMPU x y))
(Leq32U x y) => (LOCGR {s390x.LessOrEqual} (MOVDconst [0]) (MOVDconst [1]) (CMPWU x y))
(Leq(16|8)U x y) => (LOCGR {s390x.LessOrEqual} (MOVDconst [0]) (MOVDconst [1]) (CMPWU
(MOV(H|B)Zreg x) (MOV(H|B)Zreg y)))
(Leq64F x y) => (LOCGR {s390x.LessOrEqual} (MOVDconst [0]) (MOVDconst [1]) (FCMP x y))
(Leq32F x y) => (LOCGR {s390x.LessOrEqual} (MOVDconst [0]) (MOVDconst [1]) (FCMPS x y))

(Eq(64|Ptr) x y) => (LOCGR {s390x.Equal} (MOVDconst [0]) (MOVDconst [1]) (CMP x y))
(Eq32 x y) => (LOCGR
{s390x.Equal} (MOVDconst [0]) (MOVDconst [1]) (CMPW x y))
(Eq(16|8|B) x y) => (LOCGR {s390x.Equal} (MOVDconst [0]) (MOVDconst [1]) (CMPW (MOV(H|B|B)reg x)
(MOV(H|B|B)reg y)))
(Eq64F x y) => (LOCGR {s390x.Equal} (MOVDconst [0]) (MOVDconst [1]) (FCMP x y))
(Eq32F x y) => (LOCGR {s390x.Equal} (MOVDconst [0]) (MOVDconst [1]) (FCMPS x y))

(Neq(64|Ptr) x y) => (LOCGR {s390x.NotEqual} (MOVDconst [0]) (MOVDconst [1]) (CMP x y))
(Neq32 x y) => (LOCGR {s390x.NotEqual} (MOVDconst [0]) (MOVDconst [1]) (CMPW x y))
(Neq(16|8|B) x y) => (LOCGR {s390x.NotEqual} (MOVDconst [0]) (MOVDconst [1]) (CMPW (MOV(H|B|B)reg
x) (MOV(H|B|B)reg y)))
(Neq64F x y) => (LOCGR {s390x.NotEqual} (MOVDconst [0]) (MOVDconst [1]) (FCMP x y))
(Neq32F x y) => (LOCGR {s390x.NotEqual} (MOVDconst [0]) (MOVDconst [1]) (FCMPS x y))

// Lowering loads
(Load <t> ptr mem) && (is64BitInt(t) || isPtr(t)) => (MOVDload ptr mem)
(Load <t> ptr mem) && is32BitInt(t) && isSigned(t) => (MOVWload ptr mem)
(Load <t>
ptr mem) && is32BitInt(t) && !isSigned(t) => (MOVWZload ptr mem)
(Load <t> ptr mem) && is16BitInt(t) && isSigned(t) => (MOVHload ptr mem)
(Load <t> ptr mem) && is16BitInt(t) && !isSigned(t) => (MOVHZload ptr mem)
(Load <t> ptr mem) && is8BitInt(t) && isSigned(t) => (MOVBlload ptr mem)
(Load <t> ptr mem) && (t.IsBoolean() || (is8BitInt(t) && !isSigned(t))) => (MOVBZload ptr mem)
(Load <t> ptr mem) && is32BitFloat(t) => (FMOVSload ptr mem)
(Load <t> ptr mem) && is64BitFloat(t) => (FMOVDload ptr mem)

// Lowering stores
// These more-specific FP versions of Store pattern should come first.
(Store {t} ptr val mem) && t.Size() == 8 && is64BitFloat(val.Type) => (FMOVDstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && is32BitFloat(val.Type) => (FMOVSstore ptr val mem)

(Store {t} ptr val mem) && t.Size() == 8 => (MOVDstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 => (MOVWstore ptr val mem)

```

```

(Store {t} ptr val mem) && t.Size() == 2 => (MOVHstore ptr val mem)
(Store {t}
ptr val mem) && t.Size() == 1 => (MOVBstore ptr val mem)

// Lowering moves

// Load and store for small copies.
(Move [0] _ _ mem) => mem
(Move [1] dst src mem) => (MOVBstore dst (MOVBZload src mem) mem)
(Move [2] dst src mem) => (MOVHstore dst (MOVHZload src mem) mem)
(Move [4] dst src mem) => (MOVWstore dst (MOVWZload src mem) mem)
(Move [8] dst src mem) => (MOVDstore dst (MOVDload src mem) mem)
(Move [16] dst src mem) =>
(MOVDstore [8] dst (MOVDload [8] src mem)
(MOVDstore dst (MOVDload src mem) mem))
(Move [24] dst src mem) =>
(MOVDstore [16] dst (MOVDload [16] src mem)
(MOVDstore [8] dst (MOVDload [8] src mem)
(MOVDstore dst (MOVDload src mem) mem)))
(Move [3] dst src mem) =>
(MOVBstore [2] dst (MOVBZload [2] src mem)
(MOVHstore dst (MOVHZload src mem) mem))
(Move [5] dst src mem) =>
(MOVBstore [4] dst (MOVBZload [4] src mem)
(MOVWstore dst (MOVWZload src mem) mem))
(Move [6] dst src mem) =>
(MOVHstore [4] dst (MOVHZload [4] src mem)
(MOVWstore
dst (MOVWZload src mem) mem))
(Move [7] dst src mem) =>
(MOVBstore [6] dst (MOVBZload [6] src mem)
(MOVHstore [4] dst (MOVHZload [4] src mem)
(MOVWstore dst (MOVWZload src mem) mem)))

// MVC for other moves. Use up to 4 instructions (sizes up to 1024 bytes).
(Move [s] dst src mem) && s > 0 && s <= 256 && logLargeCopy(v, s) =>
(MVC [makeValAndOff(int32(s), 0)] dst src mem)
(Move [s] dst src mem) && s > 256 && s <= 512 && logLargeCopy(v, s) =>
(MVC [makeValAndOff(int32(s)-256, 256)] dst src (MVC [makeValAndOff(256, 0)] dst src mem))
(Move [s] dst src mem) && s > 512 && s <= 768 && logLargeCopy(v, s) =>
(MVC [makeValAndOff(int32(s)-512, 512)] dst src (MVC [makeValAndOff(256, 256)] dst src (MVC
[makeValAndOff(256, 0)] dst src mem)))
(Move [s] dst src mem) && s > 768 && s <= 1024 && logLargeCopy(v, s) =>
(MVC [makeValAndOff(int32(s)-768, 768)] dst src (MVC [makeValAndOff(256, 512)] dst src (MVC
[makeValAndOff(256, 256)] dst src (MVC [makeValAndOff(256, 0)] dst src mem))))

//

```

Move more than 1024 bytes using a loop.

(Move [s] dst src mem) && s > 1024 && logLargeCopy(v, s) =>

(LoweredMove [s%256] dst src (ADD <src.Type> src (MOVDconst [(s/256)*256])) mem)

// Lowering Zero instructions

(Zero [0] _ mem) => mem

(Zero [1] destptr mem) => (MOVBstoreconst [0] destptr mem)

(Zero [2] destptr mem) => (MOVHstoreconst [0] destptr mem)

(Zero [4] destptr mem) => (MOVWstoreconst [0] destptr mem)

(Zero [8] destptr mem) => (MOVDstoreconst [0] destptr mem)

(Zero [3] destptr mem) =>

(MOVBstoreconst [makeValAndOff(0,2)] destptr

(MOVHstoreconst [0] destptr mem))

(Zero [5] destptr mem) =>

(MOVBstoreconst [makeValAndOff(0,4)] destptr

(MOVWstoreconst [0] destptr mem))

(Zero [6] destptr mem) =>

(MOVHstoreconst [makeValAndOff(0,4)] destptr

(MOVWstoreconst [0] destptr mem))

(Zero [7] destptr mem) =>

(MOVWstoreconst [makeValAndOff(0,3)] destptr

(MOVWstoreconst [0] destptr mem))

(Zero [s] destptr mem) && s > 0 && s <= 1024 =>

(CLEAR [makeValAndOff(int32(s), 0)] destptr

mem)

// Zero more than 1024 bytes using a loop.

(Zero [s] destptr mem) && s > 1024 =>

(LoweredZero [s%256] destptr (ADDconst <destptr.Type> destptr [(int32(s)/256)*256]) mem)

// Lowering constants

(Const(64|32|16|8) [val]) => (MOVDconst [int64(val)])

(Const(32|64)F ...) => (FMOV(S|D)const ...)

(ConstNil) => (MOVDconst [0])

(ConstBool [t]) => (MOVDconst [b2i(t)])

// Lowering calls

(StaticCall ...) => (CALLstatic ...)

(ClosureCall ...) => (CALLclosure ...)

(InterCall ...) => (CALLinter ...)

(TailCall ...) => (CALLtail ...)

// Miscellaneous

(IsNotNil p) => (LOCGR {s390x.NotEqual} (MOVDconst [0]) (MOVDconst [1]) (CMPconst p [0]))

(IsInBounds idx len) => (LOCGR {s390x.Less} (MOVDconst [0]) (MOVDconst [1]) (CMPU idx len))

(IsSliceInBounds idx len) => (LOCGR {s390x.LessOrEqual} (MOVDconst [0]) (MOVDconst [1]) (CMPU idx len))

(NilCheck ...) => (LoweredNilCheck ...)

```

(GetG ...) => (LoweredGetG ...)
(GetClosurePtr ...) => (LoweredGetClosurePtr ...)
(GetCallerSP ...) => (LoweredGetCallerSP
...)
(GetCallerPC ...) => (LoweredGetCallerPC ...)
(Addr {sym} base) => (MOVDaddr {sym} base)
(LocalAddr {sym} base _) => (MOVDaddr {sym} base)
(ITab (Load ptr mem)) => (MOVDload ptr mem)

// block rewrites
(If cond yes no) => (CLIJ {s390x.LessOrGreater} (MOVBZreg <typ.Bool> cond) [0] yes no)

// Write barrier.
(WB ...) => (LoweredWB ...)

(PanicBounds [kind] x y mem) && boundsABI(kind) == 0 => (LoweredPanicBoundsA [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 1 => (LoweredPanicBoundsB [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 2 => (LoweredPanicBoundsC [kind] x y mem)

// *****
// Above: lowering rules
// Below: optimizations
// *****
// TODO: Should the optimizations be a separate pass?

// Note: when removing unnecessary sign/zero extensions.
//
// After a value is spilled it is restored using a sign- or zero-extension
// to register-width as appropriate for its type. For example, a uint8 will
//
// be restored using a MOVBZ (llgc) instruction which will zero extend the
// 8-bit value to 64-bits.
//
// This is a hazard when folding sign- and zero-extensions since we need to
// ensure not only that the value in the argument register is correctly
// extended but also that it will still be correctly extended if it is
// spilled and restored.
//
// In general this means we need type checks when the RHS of a rule is an
// OpCopy (i.e. "... x:(...) ..." -> x").

// Merge double extensions.
(MOV(H|HZ)reg e:(MOV(B|BZ)reg x)) && clobberIfDead(e) => (MOV(B|BZ)reg x)
(MOV(W|WZ)reg e:(MOV(B|BZ)reg x)) && clobberIfDead(e) => (MOV(B|BZ)reg x)
(MOV(W|WZ)reg e:(MOV(H|HZ)reg x)) && clobberIfDead(e) => (MOV(H|HZ)reg x)

// Bypass redundant sign extensions.
(MOV(B|BZ)reg e:(MOVBreg x)) && clobberIfDead(e) => (MOV(B|BZ)reg x)

```

```

(MOV(B|BZ)reg e:(MOVHreg x)) && clobberIfDead(e) => (MOV(B|BZ)reg x)
(MOV(B|BZ)reg e:(MOVWreg x)) && clobberIfDead(e) => (MOV(B|BZ)reg x)
(MOV(H|HZ)reg e:(MOVHreg x)) &&
clobberIfDead(e) => (MOV(H|HZ)reg x)
(MOV(H|HZ)reg e:(MOVWreg x)) && clobberIfDead(e) => (MOV(H|HZ)reg x)
(MOV(W|WZ)reg e:(MOVWreg x)) && clobberIfDead(e) => (MOV(W|WZ)reg x)

```

```
// Bypass redundant zero extensions.
```

```

(MOV(B|BZ)reg e:(MOVBZreg x)) && clobberIfDead(e) => (MOV(B|BZ)reg x)
(MOV(B|BZ)reg e:(MOVHZreg x)) && clobberIfDead(e) => (MOV(B|BZ)reg x)
(MOV(B|BZ)reg e:(MOVWZreg x)) && clobberIfDead(e) => (MOV(B|BZ)reg x)
(MOV(H|HZ)reg e:(MOVHZreg x)) && clobberIfDead(e) => (MOV(H|HZ)reg x)
(MOV(H|HZ)reg e:(MOVWZreg x)) && clobberIfDead(e) => (MOV(H|HZ)reg x)
(MOV(W|WZ)reg e:(MOVWZreg x)) && clobberIfDead(e) => (MOV(W|WZ)reg x)

```

```
// Remove zero extensions after zero extending load.
```

```
// Note: take care that if x is spilled it is restored correctly.
```

```

(MOV(B|H|W)Zreg x:(MOVBZload _ _)) && (!x.Type.IsSigned() || x.Type.Size() > 1) => x
(MOV(H|W)Zreg x:(MOVHZload _ _)) && (!x.Type.IsSigned() || x.Type.Size() > 2) => x
(MOVWZreg x:(MOVWZload _ _)) && (!x.Type.IsSigned() ||
x.Type.Size() > 4) => x

```

```
// Remove sign extensions after sign extending load.
```

```
// Note: take care that if x is spilled it is restored correctly.
```

```

(MOV(B|H|W)reg x:(MOVBload _ _)) && (x.Type.IsSigned() || x.Type.Size() == 8) => x
(MOV(H|W)reg x:(MOVHload _ _)) && (x.Type.IsSigned() || x.Type.Size() == 8) => x
(MOVWreg x:(MOVWload _ _)) && (x.Type.IsSigned() || x.Type.Size() == 8) => x

```

```
// Remove sign extensions after zero extending load.
```

```
// These type checks are probably unnecessary but do them anyway just in case.
```

```

(MOV(H|W)reg x:(MOVBZload _ _)) && (!x.Type.IsSigned() || x.Type.Size() > 1) => x
(MOVWreg x:(MOVHZload _ _)) && (!x.Type.IsSigned() || x.Type.Size() > 2) => x

```

```
// Fold sign and zero extensions into loads.
```

```
//
```

```
// Note: The combined instruction must end up in the same block
```

```
// as the original load. If not, we end up making a value with
```

```
// memory type live in two different blocks, which can lead to
```

```
// multiple memory values alive simultaneously.
```

```
//
```

```
//
```

```
Make sure we don't combine these ops if the load has another use.
```

```
// This prevents a single load from being split into multiple loads
```

```
// which then might return different values. See test/atomicload.go.
```

```
(MOV(B|H|W)Zreg <t> x:(MOV(B|H|W)load [o] {s} p mem))
```

```
&& x.Uses == 1
```

```
&& clobber(x)
```

```
=> @x.Block (MOV(B|H|W)Zload <t> [o] {s} p mem)
```

```

(MOV(B|H|W)reg <t> x:(MOV(B|H|W)Zload [o] {s} p mem))
  && x.Uses == 1
  && clobber(x)
=> @x.Block (MOV(B|H|W)load <t> [o] {s} p mem)

// Remove zero extensions after argument load.
(MOVBZreg x:(Arg <t>)) && !t.IsSigned() && t.Size() == 1 => x
(MOVHZreg x:(Arg <t>)) && !t.IsSigned() && t.Size() <= 2 => x
(MOVWZreg x:(Arg <t>)) && !t.IsSigned() && t.Size() <= 4 => x

// Remove sign extensions after argument load.
(MOVBreg x:(Arg <t>)) && t.IsSigned() && t.Size() == 1 => x
(MOVHreg x:(Arg <t>)) && t.IsSigned() && t.Size() <= 2 => x
(MOVWreg x:(Arg <t>)) && t.IsSigned() && t.Size() <= 4 => x

// Fold zero extensions into constants.
(MOVBZreg (MOVDconst
[c])) => (MOVDconst [int64( uint8(c))])
(MOVHZreg (MOVDconst [c])) => (MOVDconst [int64(uint16(c))])
(MOVWZreg (MOVDconst [c])) => (MOVDconst [int64(uint32(c))])

// Fold sign extensions into constants.
(MOVBreg (MOVDconst [c])) => (MOVDconst [int64( int8(c))])
(MOVHreg (MOVDconst [c])) => (MOVDconst [int64(int16(c))])
(MOVWreg (MOVDconst [c])) => (MOVDconst [int64(int32(c))])

// Remove zero extension of conditional move.
// Note: only for MOVBZreg for now since it is added as part of 'if' statement lowering.
(MOVBZreg x:(LOCGR (MOVDconst [c]) (MOVDconst [d]) _))
  && int64(uint8(c)) == c
  && int64(uint8(d)) == d
  && (!x.Type.IsSigned() || x.Type.Size() > 1)
=> x

// Fold boolean tests into blocks.
// Note: this must match If statement lowering.
(CLIJ {s390x.LessOrGreater} (LOCGR {d} (MOVDconst [0]) (MOVDconst [x]) cmp) [0] yes no)
  && int32(x) != 0
=> (BRC {d} cmp yes no)

// Canonicalize BRC condition code mask by removing impossible conditions.
// Integer comparisons
cannot generate the unordered condition.
(BRC {c} x:((CMP|CMPW|CMPU|CMPWU) _ _) yes no) && c&s390x.Unordered != 0 => (BRC
{c&^s390x.Unordered} x yes no)
(BRC {c} x:((CMP|CMPW|CMPU|CMPWU)const _) yes no) && c&s390x.Unordered != 0 => (BRC
{c&^s390x.Unordered} x yes no)

```

```

// Compare-and-branch.
// Note: bit 3 (unordered) must not be set so we mask out s390x.Unordered.
(BRC {c} (CMP x y) yes no) => (CGRJ {c&^s390x.Unordered} x y yes no)
(BRC {c} (CMPW x y) yes no) => (CRJ {c&^s390x.Unordered} x y yes no)
(BRC {c} (CMPU x y) yes no) => (CLGRJ {c&^s390x.Unordered} x y yes no)
(BRC {c} (CMPWU x y) yes no) => (CLRJ {c&^s390x.Unordered} x y yes no)

// Compare-and-branch (immediate).
// Note: bit 3 (unordered) must not be set so we mask out s390x.Unordered.
(BRC {c} (CMPconst x [y]) yes no) && y == int32( int8(y)) => (CGIJ {c&^s390x.Unordered} x [ int8(y)] yes no)
(BRC {c} (CMPWconst x [y]) yes no) && y == int32( int8(y)) => (CIJ {c&^s390x.Unordered} x [ int8(y)] yes
no)
(BRC
{c} (CMPUconst x [y]) yes no) && y == int32(uint8(y)) => (CLGIJ {c&^s390x.Unordered} x [uint8(y)] yes no)
(BRC {c} (CMPWUconst x [y]) yes no) && y == int32(uint8(y)) => (CLIJ {c&^s390x.Unordered} x [uint8(y)] yes
no)

// Absorb immediate into compare-and-branch.
(C(R|GR)J {c} x (MOVDconst [y]) yes no) && is8Bit(y) => (C(I|GI)J {c} x [ int8(y)] yes no)
(CL(R|GR)J {c} x (MOVDconst [y]) yes no) && isU8Bit(y) => (CL(I|GI)J {c} x [uint8(y)] yes no)
(C(R|GR)J {c} (MOVDconst [x]) y yes no) && is8Bit(x) => (C(I|GI)J {c.ReverseComparison() } y [ int8(x)] yes
no)
(CL(R|GR)J {c} (MOVDconst [x]) y yes no) && isU8Bit(x) => (CL(I|GI)J {c.ReverseComparison() } y [uint8(x)]
yes no)

// Prefer comparison with immediate to compare-and-branch.
(CGRJ {c} x (MOVDconst [y]) yes no) && !is8Bit(y) && is32Bit(y) => (BRC {c} (CMPconst x [int32(y)]) yes
no)
(CRJ {c} x (MOVDconst [y]) yes no) && !is8Bit(y) && is32Bit(y) => (BRC {c} (CMPWconst x [int32(y)]) yes
no)
(CLGRJ {c} x (MOVDconst [y]) yes
no) && !isU8Bit(y) && isU32Bit(y) => (BRC {c} (CMPUconst x [int32(y)]) yes no)
(CLRJ {c} x (MOVDconst [y]) yes no) && !isU8Bit(y) && isU32Bit(y) => (BRC {c} (CMPWUconst x [int32(y)])
yes no)
(CGRJ {c} (MOVDconst [x]) y yes no) && !is8Bit(x) && is32Bit(x) => (BRC {c.ReverseComparison() }
(CMPconst y [int32(x)]) yes no)
(CRJ {c} (MOVDconst [x]) y yes no) && !is8Bit(x) && is32Bit(x) => (BRC {c.ReverseComparison() }
(CMPWconst y [int32(x)]) yes no)
(CLGRJ {c} (MOVDconst [x]) y yes no) && !isU8Bit(x) && isU32Bit(x) => (BRC {c.ReverseComparison() }
(CMPUconst y [int32(x)]) yes no)
(CLRJ {c} (MOVDconst [x]) y yes no) && !isU8Bit(x) && isU32Bit(x) => (BRC {c.ReverseComparison() }
(CMPWUconst y [int32(x)]) yes no)

// Absorb sign/zero extensions into 32-bit compare-and-branch.
(CIJ {c} (MOV(W|WZ)reg x) [y] yes no) => (CIJ {c} x [y] yes no)
(CLIJ {c} (MOV(W|WZ)reg x) [y] yes no) => (CLIJ {c} x [y] yes no)

// Bring out-of-range signed immediates into range by varying branch condition.

```

```

(BRC
 {s390x.Less}      (CMPconst x [ 128]) yes no => (CGIJ {s390x.LessOrEqual} x [ 127] yes no)
(BRC {s390x.Less}      (CMPWconst x [ 128]) yes no => (CIJ {s390x.LessOrEqual} x [ 127] yes no)
(BRC {s390x.LessOrEqual} (CMPconst x [-129]) yes no => (CGIJ {s390x.Less} x [-128] yes no)
(BRC {s390x.LessOrEqual} (CMPWconst x [-129]) yes no => (CIJ {s390x.Less} x [-128] yes no)
(BRC {s390x.Greater}      (CMPconst x [-129]) yes no => (CGIJ {s390x.GreaterOrEqual} x [-128] yes no)
(BRC {s390x.Greater}      (CMPWconst x [-129]) yes no => (CIJ {s390x.GreaterOrEqual} x [-128] yes no)
(BRC {s390x.GreaterOrEqual} (CMPconst x [ 128]) yes no => (CGIJ {s390x.Greater} x [ 127] yes no)
(BRC {s390x.GreaterOrEqual} (CMPWconst x [ 128]) yes no => (CIJ {s390x.Greater} x [ 127] yes no)

// Bring out-of-range unsigned immediates into range by varying branch condition.
(BRC {s390x.Less}      (CMP(WU|U)const x [256]) yes no => (C(L|LG)IJ
 {s390x.LessOrEqual} x [255] yes no)
(BRC {s390x.GreaterOrEqual} (CMP(WU|U)const x [256]) yes no => (C(L|LG)IJ {s390x.Greater} x [255] yes
no)

// Bring out-of-range immediates into range by switching signedness (only == and !=).
(BRC {c} (CMPconst x [y]) yes no) && y == int32(uint8(y)) && (c == s390x.Equal || c == s390x.LessOrGreater)
=> (CLGIJ {c} x [uint8(y)] yes no)
(BRC {c} (CMPWconst x [y]) yes no) && y == int32(uint8(y)) && (c == s390x.Equal || c ==
s390x.LessOrGreater) => (CLIJ {c} x [uint8(y)] yes no)
(BRC {c} (CMPUconst x [y]) yes no) && y == int32(int8(y)) && (c == s390x.Equal || c == s390x.LessOrGreater)
=> (CGIJ {c} x [int8(y)] yes no)
(BRC {c} (CMPWUconst x [y]) yes no) && y == int32(int8(y)) && (c == s390x.Equal || c ==
s390x.LessOrGreater) => (CIJ {c} x [int8(y)] yes no)

// Fold constants into instructions.
(ADD x (MOVDconst [c])) && is32Bit(c) => (ADDconst [int32(c)] x)
(ADDW x (MOVDconst [c])) => (ADDWconst [int32(c)] x)

(SUB x (MOVDconst [c]))
&& is32Bit(c) => (SUBconst x [int32(c)])
(SUB (MOVDconst [c]) x) && is32Bit(c) => (NEG (SUBconst <v.Type> x [int32(c)]))
(SUBW x (MOVDconst [c])) => (SUBWconst x [int32(c)])
(SUBW (MOVDconst [c]) x) => (NEGW (SUBWconst <v.Type> x [int32(c)]))

(MULLD x (MOVDconst [c])) && is32Bit(c) => (MULLDconst [int32(c)] x)
(MULLW x (MOVDconst [c])) => (MULLWconst [int32(c)] x)

// NILF instructions leave the high 32 bits unchanged which is
// equivalent to the leftmost 32 bits being set.
// TODO(mundaym): modify the assembler to accept 64-bit values
// and use isU32Bit(^c).
(AND x (MOVDconst [c]))
&& s390x.NewRotateParams(0, 63, 0).OutMerge(uint64(c)) != nil
=> (RISBGZ x {*s390x.NewRotateParams(0, 63, 0).OutMerge(uint64(c))})
(AND x (MOVDconst [c]))
&& is32Bit(c)

```



```

&& c < 0
=> (ANDconst [c] x)
(AND x (MOVDconst [c]))
&& is32Bit(c)
&& c >= 0
=> (MOVWZreg (ANDWconst <typ.UInt32> [int32(c)] x))

(ANDW x (MOVDconst [c])) => (ANDWconst [int32(c)] x)

((AND|ANDW)const [c] ((AND|ANDW)const
[d] x)) => ((AND|ANDW)const [c&d] x)

((OR|XOR) x (MOVDconst [c])) && isU32Bit(c) => ((OR|XOR)const [c] x)
((OR|XOR)W x (MOVDconst [c])) => ((OR|XOR)Wconst [int32(c)] x)

// Constant shifts.
(S(LD|RD|RAD) x (MOVDconst [c])) => (S(LD|RD|RAD)const x [uint8(c&63)])
(S(LW|RW|RAW) x (MOVDconst [c])) && c&32 == 0 => (S(LW|RW|RAW)const x [uint8(c&31)])
(S(LW|RW) _ (MOVDconst [c])) && c&32 != 0 => (MOVDconst [0])
(SRAW x (MOVDconst [c])) && c&32 != 0 => (SRAWconst x [31])

// Shifts only use the rightmost 6 bits of the shift value.
(S(LD|RD|RAD|LW|RW|RAW) x (RISBGZ y {r}))
&& r.Amount == 0
&& r.OutMask()&63 == 63
=> (S(LD|RD|RAD|LW|RW|RAW) x y)
(S(LD|RD|RAD|LW|RW|RAW) x (AND (MOVDconst [c]) y))
=> (S(LD|RD|RAD|LW|RW|RAW) x (ANDWconst <typ.UInt32> [int32(c&63)] y))
(S(LD|RD|RAD|LW|RW|RAW) x (ANDWconst [c] y)) && c&63 == 63
=> (S(LD|RD|RAD|LW|RW|RAW) x y)
(SLD x (MOV(W|H|B|WZ|HZ|BZ)reg y)) => (SLD x y)
(SRD x (MOV(W|H|B|WZ|HZ|BZ)reg y)) => (SRD x y)
(SRAD x (MOV(W|H|B|WZ|HZ|BZ)reg
y)) => (SRAD x y)
(SLW x (MOV(W|H|B|WZ|HZ|BZ)reg y)) => (SLW x y)
(SRW x (MOV(W|H|B|WZ|HZ|BZ)reg y)) => (SRW x y)
(SRAW x (MOV(W|H|B|WZ|HZ|BZ)reg y)) => (SRAW x y)

// Match rotate by constant.
(RLLG x (MOVDconst [c])) => (RISBGZ x {s390x.NewRotateParams(0, 63, uint8(c&63))})
(RLL x (MOVDconst [c])) => (RLLconst x [uint8(c&31)])

// Match rotate by constant pattern.
((ADD|OR|XOR) (SLDconst x [c]) (SRDconst x [64-c])) => (RISBGZ x {s390x.NewRotateParams(0, 63, c)})
((ADD|OR|XOR)W (SLWconst x [c]) (SRWconst x [32-c])) => (RLLconst x [c])

// Signed 64-bit comparison with immediate.
(CMP x (MOVDconst [c])) && is32Bit(c) => (CMPconst x [int32(c)])

```

```

(CMP (MOVDconst [c] x) && is32Bit(c) => (InvertFlags (CMPconst x [int32(c)]))

// Unsigned 64-bit comparison with immediate.
(CMPU x (MOVDconst [c])) && isU32Bit(c) => (CMPUconst x [int32(c)])
(CMPU (MOVDconst [c] x) && isU32Bit(c) => (InvertFlags (CMPUconst x [int32(c)]))

// Signed and unsigned 32-bit comparison with immediate.
(CMP(W|WU)
 x (MOVDconst [c])) => (CMP(W|WU)const x [int32(c)])
(CMP(W|WU) (MOVDconst [c] x) => (InvertFlags (CMP(W|WU)const x [int32(c)]))

// Match (x >> c) << d to 'rotate then insert selected bits [into zero]'.
(SLDconst (SRDconst x [c] [d]) => (RISBGZ x {s390x.NewRotateParams(uint8(max8(0, int8(c-d))), 63-d,
uint8(int8(d-c)&63)}))

// Match (x << c) >> d to 'rotate then insert selected bits [into zero]'.
(SRDconst (SLDconst x [c] [d]) => (RISBGZ x {s390x.NewRotateParams(d, uint8(min8(63, int8(63-c+d))),
uint8(int8(c-d)&63)}))

// Absorb input zero extension into 'rotate then insert selected bits [into zero]'.
(RISBGZ (MOVWZreg x) {r}) && r.InMerge(0xffffffff) != nil => (RISBGZ x {*r.InMerge(0xffffffff)})
(RISBGZ (MOVHZreg x) {r}) && r.InMerge(0x0000ffff) != nil => (RISBGZ x {*r.InMerge(0x0000ffff)})
(RISBGZ (MOVBZreg x) {r}) && r.InMerge(0x000000ff) != nil => (RISBGZ x {*r.InMerge(0x000000ff)})

// Absorb 'rotate then insert selected bits [into zero]' into zero extension.
(MOVWZreg
 (RISBGZ x {r})) && r.OutMerge(0xffffffff) != nil => (RISBGZ x {*r.OutMerge(0xffffffff)})
(MOVHZreg (RISBGZ x {r})) && r.OutMerge(0x0000ffff) != nil => (RISBGZ x {*r.OutMerge(0x0000ffff)})
(MOVBZreg (RISBGZ x {r})) && r.OutMerge(0x000000ff) != nil => (RISBGZ x {*r.OutMerge(0x000000ff)})

// Absorb shift into 'rotate then insert selected bits [into zero]'.
//
// Any unsigned shift can be represented as a rotate and mask operation:
//
// x << c => RotateLeft64(x, c) & (^uint64(0) << c)
// x >> c => RotateLeft64(x, -c) & (^uint64(0) >> c)
//
// Therefore when a shift is used as the input to a rotate then insert
// selected bits instruction we can merge the two together. We just have
// to be careful that the resultant mask is representable (non-zero and
// contiguous). For example, assuming that x is variable and c, y and m
// are constants, a shift followed by a rotate then insert selected bits
// could be represented as:
//
// RotateLeft64(RotateLeft64(x, c) & (^uint64(0)
<< c), y) & m
//
// We can split the rotation by y into two, one rotate for x and one for

```



```

&& (r.Start+r.Amount)&63 <= c // equivalent to most significant bit of x
=> (RISBGZ x {s390x.NewRotateParams(r.Start, r.Start, -r.Start&63)})

// Canonicalize the order of arguments to comparisons - helps with CSE.
((CMP|CMPW|CMPU|CMPWU) x y) && canonLessThan(x,y) => (InvertFlags ((CMP|CMPW|CMPU|CMPWU) y
x))

// Use sign/zero extend instead of RISBGZ.
(RISBGZ x {r}) && r == s390x.NewRotateParams(56, 63, 0) => (MOVBZreg x)
(RISBGZ x {r}) && r == s390x.NewRotateParams(48, 63, 0) => (MOVHZreg x)
(RISBGZ x {r}) && r == s390x.NewRotateParams(32, 63, 0) => (MOVWZreg x)

// Use sign/zero extend instead of ANDW.
(ANDWconst [0x00ff] x) => (MOVBZreg x)
(ANDWconst [0xffff] x) => (MOVHZreg x)

// Strength reduce multiplication
to the sum (or difference) of two powers of two.
//
// Examples:
// 5x -> 4x + 1x
// 10x -> 8x + 2x
// 120x -> 128x - 8x
// -120x -> 8x - 128x
//
// We know that the rightmost bit of any positive value, once isolated, must either
// be a power of 2 (because it is a single bit) or 0 (if the original value is 0).
// In all of these rules we use a rightmost bit calculation to determine one operand
// for the addition or subtraction. We then just need to calculate if the other
// operand is a valid power of 2 before we can match the rule.
//
// Notes:
// - the generic rules have already matched single powers of two so we ignore them here
// - isPowerOfTwo32 asserts that its argument is greater than 0
// - c&(c-1) = clear rightmost bit
// - c&^(c-1) = isolate rightmost bit

// c = 2 + 2 => c - 2 = 2
(MULL(D|W)const <t> x [c]) && isPowerOfTwo32(c&(c-1))
=> ((ADD|ADDW) (SL(D|W)const <t> x [uint8(log32(c&(c-1))]))
(SL(D|W)const <t> x [uint8(log32(c&^(c-1))]))))

//
c = 2 - 2 => c + 2 = 2
(MULL(D|W)const <t> x [c]) && isPowerOfTwo32(c+(c&^(c-1)))
=> ((SUB|SUBW) (SL(D|W)const <t> x [uint8(log32(c+(c&^(c-1))]))))
(SL(D|W)const <t> x [uint8(log32(c&^(c-1))]))))

```

```

// c = 2 - 2 => -c + 2 = 2
(MULL(D|W)const <t> x [c]) && isPowerOfTwo32(-c+(-c^(-c-1)))
=> ((SUB|SUBW) (SL(D|W)const <t> x [uint8(log32(-c+(-c^(-c-1)))])
      (SL(D|W)const <t> x [uint8(log32(-c+(-c^(-c-1))))]))

// Fold ADD into MOVDaddr. Odd offsets from SB shouldn't be folded (LARL can't handle them).
(ADDconst [c] (MOVDaddr [d] {s} x:(SB))) && ((c+d)&1 == 0) && is32Bit(int64(c)+int64(d)) => (MOVDaddr
[c+d] {s} x)
(ADDconst [c] (MOVDaddr [d] {s} x)) && x.Op != OpSB && is20Bit(int64(c)+int64(d)) => (MOVDaddr [c+d]
{s} x)
(ADD idx (MOVDaddr [c] {s} ptr)) && ptr.Op != OpSB => (MOVDaddridx [c] {s} ptr idx)

// fold ADDconst into MOVDaddrx
(ADDconst [c] (MOVDaddridx [d] {s} x y)) && is20Bit(int64(c)+int64(d)) => (MOVDaddridx [c+d] {s} x y)
(MOVDaddridx
[c] {s} (ADDconst [d] x) y) && is20Bit(int64(c)+int64(d)) => (MOVDaddridx [c+d] {s} x y)
(MOVDaddridx [c] {s} x (ADDconst [d] y)) && is20Bit(int64(c)+int64(d)) => (MOVDaddridx [c+d] {s} x y)

// reverse ordering of compare instruction
(LOCGR {c} x y (InvertFlags cmp)) => (LOCGR {c.ReverseComparison()} x y cmp)

// replace load from same location as preceding store with copy
(MOVDload [off] {sym} ptr1 (MOVDstore [off] {sym} ptr2 x _)) && isSamePtr(ptr1, ptr2) => x
(MOVWload [off] {sym} ptr1 (MOVWstore [off] {sym} ptr2 x _)) && isSamePtr(ptr1, ptr2) => (MOVWreg x)
(MOVHload [off] {sym} ptr1 (MOVHstore [off] {sym} ptr2 x _)) && isSamePtr(ptr1, ptr2) => (MOVHreg x)
(MOVBload [off] {sym} ptr1 (MOVBstore [off] {sym} ptr2 x _)) && isSamePtr(ptr1, ptr2) => (MOVBreg x)
(MOVWZload [off] {sym} ptr1 (MOVWstore [off] {sym} ptr2 x _)) && isSamePtr(ptr1, ptr2) => (MOVWZreg x)
(MOVHZload [off] {sym} ptr1 (MOVHstore [off] {sym} ptr2 x _)) && isSamePtr(ptr1, ptr2) => (MOVHZreg x)
(MOVBZload
[off] {sym} ptr1 (MOVBstore [off] {sym} ptr2 x _)) && isSamePtr(ptr1, ptr2) => (MOVBZreg x)
(MOVDload [off] {sym} ptr1 (FMOVDstore [off] {sym} ptr2 x _)) && isSamePtr(ptr1, ptr2) => (LGDR x)
(FMOVDload [off] {sym} ptr1 (MOVDstore [off] {sym} ptr2 x _)) && isSamePtr(ptr1, ptr2) => (LDGR x)
(FMOVDload [off] {sym} ptr1 (FMOVDstore [off] {sym} ptr2 x _)) && isSamePtr(ptr1, ptr2) => x
(FMOVSload [off] {sym} ptr1 (FMOVSstore [off] {sym} ptr2 x _)) && isSamePtr(ptr1, ptr2) => x

// prefer FPR <-> GPR moves over combined load ops
(MULLDload <t> [off] {sym} x ptr1 (FMOVDstore [off] {sym} ptr2 y _)) && isSamePtr(ptr1, ptr2) => (MULLD x
(LGDR <t> y))
(ADDload <t> [off] {sym} x ptr1 (FMOVDstore [off] {sym} ptr2 y _)) && isSamePtr(ptr1, ptr2) => (ADD x
(LGDR <t> y))
(SUBload <t> [off] {sym} x ptr1 (FMOVDstore [off] {sym} ptr2 y _)) && isSamePtr(ptr1, ptr2) => (SUB x
(LGDR <t> y))
(ORload <t> [off] {sym} x ptr1 (FMOVDstore [off] {sym} ptr2 y _)) && isSamePtr(ptr1, ptr2) => (OR
x (LGDR <t> y))
(ANDload <t> [off] {sym} x ptr1 (FMOVDstore [off] {sym} ptr2 y _)) && isSamePtr(ptr1, ptr2) => (AND x
(LGDR <t> y))
(XORload <t> [off] {sym} x ptr1 (FMOVDstore [off] {sym} ptr2 y _)) && isSamePtr(ptr1, ptr2) => (XOR x
(LGDR <t> y))

```

```

// detect attempts to set/clear the sign bit
// may need to be reworked when NIHH/OIHH are added
(RISBGZ (LGDR <t> x) {r}) && r == s390x.NewRotateParams(1, 63, 0) => (LGDR <t> (LPDFR <x.Type> x))
(LDGR <t> (RISBGZ x {r})) && r == s390x.NewRotateParams(1, 63, 0) => (LPDFR (LDGR <t> x))
(OR (MOVDconst [-1<<63]) (LGDR <t> x)) => (LGDR <t> (LNDFR <x.Type> x))
(LDGR <t> (OR (MOVDconst [-1<<63]) x)) => (LNDFR (LDGR <t> x))

// detect attempts to set the sign bit with load
(LDGR <t> x:(ORload <t1> [off] {sym} (MOVDconst [-1<<63]) ptr mem)) && x.Uses == 1 && clobber(x) =>
@x.Block (LNDFR <t> (LDGR <t> (MOVDload <t1> [off] {sym} ptr mem)))

// detect copysign
(OR (RISBGZ (LGDR x) {r}) (LGDR (LPDFR <t> y)))
&& r == s390x.NewRotateParams(0,
0, 0)
=> (LGDR (CPSDR <t> y x))
(OR (RISBGZ (LGDR x) {r}) (MOVDconst [c]))
&& c >= 0
&& r == s390x.NewRotateParams(0, 0, 0)
=> (LGDR (CPSDR <x.Type> (FMOVDconst <x.Type> [math.Float64frombits(uint64(c))]) x))
(CPSDR y (FMOVDconst [c])) && !math.Signbit(c) => (LPDFR y)
(CPSDR y (FMOVDconst [c])) && math.Signbit(c) => (LNDFR y)

// absorb negations into set/clear sign bit
(FNEG (LPDFR x)) => (LNDFR x)
(FNEG (LNDFR x)) => (LPDFR x)
(FNEGS (LPDFR x)) => (LNDFR x)
(FNEGS (LNDFR x)) => (LPDFR x)

// no need to convert float32 to float64 to set/clear sign bit
(LEDDBR (LPDFR (LDEBR x))) => (LPDFR x)
(LEDDBR (LNDFR (LDEBR x))) => (LNDFR x)

// remove unnecessary FPR <-> GPR moves
(LDGR (LGDR x)) => x
(LGDR (LDGR x)) => x

// Don't extend before storing
(MOVWstore [off] {sym} ptr (MOVWreg x) mem) => (MOVWstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVHreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVBreg x) mem) => (MOVBstore [off] {sym} ptr
x mem)
(MOVWstore [off] {sym} ptr (MOVWZreg x) mem) => (MOVWstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOVHZreg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (MOVBZreg x) mem) => (MOVBstore [off] {sym} ptr x mem)

// Fold constants into memory operations.

```

```

// Note that this is not always a good idea because if not all the uses of
// the ADDconst get eliminated, we still have to compute the ADDconst and we now
// have potentially two live values (ptr and (ADDconst [off] ptr)) instead of one.
// Nevertheless, let's do it!
(MOVDload [off1] {sym} (ADDconst [off2] ptr mem) && is20Bit(int64(off1)+int64(off2)) => (MOVDload
[off1+off2] {sym} ptr mem)
(MOVWload [off1] {sym} (ADDconst [off2] ptr mem) && is20Bit(int64(off1)+int64(off2)) => (MOVWload
[off1+off2] {sym} ptr mem)
(MOVHload [off1] {sym} (ADDconst [off2] ptr mem) && is20Bit(int64(off1)+int64(off2)) => (MOVHload
[off1+off2] {sym} ptr mem)
(MOVBload [off1] {sym} (ADDconst [off2] ptr
mem) && is20Bit(int64(off1)+int64(off2)) => (MOVBload [off1+off2] {sym} ptr mem)
(MOVWZload [off1] {sym} (ADDconst [off2] ptr mem) && is20Bit(int64(off1)+int64(off2)) => (MOVWZload
[off1+off2] {sym} ptr mem)
(MOVHZload [off1] {sym} (ADDconst [off2] ptr mem) && is20Bit(int64(off1)+int64(off2)) => (MOVHZload
[off1+off2] {sym} ptr mem)
(MOVBZload [off1] {sym} (ADDconst [off2] ptr mem) && is20Bit(int64(off1)+int64(off2)) => (MOVBZload
[off1+off2] {sym} ptr mem)
(FMOVSload [off1] {sym} (ADDconst [off2] ptr mem) && is20Bit(int64(off1)+int64(off2)) => (FMOVSload
[off1+off2] {sym} ptr mem)
(FMOVDload [off1] {sym} (ADDconst [off2] ptr mem) && is20Bit(int64(off1)+int64(off2)) => (FMOVDload
[off1+off2] {sym} ptr mem)

(MOVDstore [off1] {sym} (ADDconst [off2] ptr val mem) && is20Bit(int64(off1)+int64(off2)) => (MOVDstore
[off1+off2] {sym} ptr val mem)
(MOVWstore [off1] {sym} (ADDconst [off2] ptr val mem) && is20Bit(int64(off1)+int64(off2)) => (MOVWstore
[off1+off2] {sym} ptr val
mem)
(MOVHstore [off1] {sym} (ADDconst [off2] ptr val mem) && is20Bit(int64(off1)+int64(off2)) => (MOVHstore
[off1+off2] {sym} ptr val mem)
(MOVBstore [off1] {sym} (ADDconst [off2] ptr val mem) && is20Bit(int64(off1)+int64(off2)) => (MOVBstore
[off1+off2] {sym} ptr val mem)
(FMOVSstore [off1] {sym} (ADDconst [off2] ptr val mem) && is20Bit(int64(off1)+int64(off2)) => (FMOVSstore
[off1+off2] {sym} ptr val mem)
(FMOVDstore [off1] {sym} (ADDconst [off2] ptr val mem) && is20Bit(int64(off1)+int64(off2)) =>
(FMOVDstore [off1+off2] {sym} ptr val mem)

(ADDload [off1] {sym} x (ADDconst [off2] ptr mem) && ptr.Op != OpSB && is20Bit(int64(off1)+int64(off2))
=> (ADDload [off1+off2] {sym} x ptr mem)
(ADDWload [off1] {sym} x (ADDconst [off2] ptr mem) && ptr.Op != OpSB && is20Bit(int64(off1)+int64(off2))
=> (ADDWload [off1+off2] {sym} x ptr mem)
(MULLDload [off1] {sym} x (ADDconst [off2] ptr mem) && ptr.Op != OpSB &&
is20Bit(int64(off1)+int64(off2)) => (MULLDload [off1+off2] {sym} x
ptr mem)
(MULLWload [off1] {sym} x (ADDconst [off2] ptr mem) && ptr.Op != OpSB &&
is20Bit(int64(off1)+int64(off2)) => (MULLWload [off1+off2] {sym} x ptr mem)
(SUBload [off1] {sym} x (ADDconst [off2] ptr mem) && ptr.Op != OpSB && is20Bit(int64(off1)+int64(off2))
=> (SUBload [off1+off2] {sym} x ptr mem)

```

```

(SUBWload [off1] {sym} x (ADDconst [off2] ptr) mem) && ptr.Op != OpSB && is20Bit(int64(off1)+int64(off2))
=> (SUBWload [off1+off2] {sym} x ptr mem)

(ANDload [off1] {sym} x (ADDconst [off2] ptr) mem) && ptr.Op != OpSB && is20Bit(int64(off1)+int64(off2))
=> (ANDload [off1+off2] {sym} x ptr mem)
(ANDWload [off1] {sym} x (ADDconst [off2] ptr) mem) && ptr.Op != OpSB && is20Bit(int64(off1)+int64(off2))
=> (ANDWload [off1+off2] {sym} x ptr mem)
(ORload [off1] {sym} x (ADDconst [off2] ptr) mem) && ptr.Op != OpSB && is20Bit(int64(off1)+int64(off2))
=> (ORload [off1+off2] {sym} x ptr mem)
(ORWload [off1] {sym} x (ADDconst [off2] ptr) mem) && ptr.Op != OpSB && is20Bit(int64(off1)+int64(off2))
=> (ORWload [off1+off2] {sym} x ptr mem)
(XORload [off1] {sym} x (ADDconst [off2] ptr) mem) && ptr.Op != OpSB && is20Bit(int64(off1)+int64(off2))
=> (XORload [off1+off2] {sym} x ptr mem)
(XORWload [off1] {sym} x (ADDconst [off2] ptr) mem) && ptr.Op != OpSB && is20Bit(int64(off1)+int64(off2))
=> (XORWload [off1+off2] {sym} x ptr mem)

// Fold constants into stores.
(MOVDstore [off] {sym} ptr (MOVDconst [c]) mem) && is16Bit(c) && isU12Bit(int64(off)) && ptr.Op != OpSB
=>
(MOVDstoreconst [makeValAndOff(int32(c),off)] {sym} ptr mem)
(MOVWstore [off] {sym} ptr (MOVDconst [c]) mem) && is16Bit(c) && isU12Bit(int64(off)) && ptr.Op != OpSB
=>
(MOVWstoreconst [makeValAndOff(int32(c),off)] {sym} ptr mem)
(MOVHstore [off] {sym} ptr (MOVDconst [c]) mem) && isU12Bit(int64(off)) && ptr.Op != OpSB =>
(MOVHstoreconst [makeValAndOff(int32(int16(c)),off)] {sym} ptr mem)
(MOVBstore [off] {sym} ptr (MOVDconst [c]) mem) && is20Bit(int64(off)) && ptr.Op != OpSB =>
(MOVBstoreconst
[makeValAndOff(int32(int8(c)),off)] {sym} ptr mem)

// Fold address offsets into constant stores.
(MOVDstoreconst [sc] {s} (ADDconst [off] ptr) mem) && isU12Bit(sc.Off64()+int64(off)) =>
(MOVDstoreconst [sc.addOffset32(off)] {s} ptr mem)
(MOVWstoreconst [sc] {s} (ADDconst [off] ptr) mem) && isU12Bit(sc.Off64()+int64(off)) =>
(MOVWstoreconst [sc.addOffset32(off)] {s} ptr mem)
(MOVHstoreconst [sc] {s} (ADDconst [off] ptr) mem) && isU12Bit(sc.Off64()+int64(off)) =>
(MOVHstoreconst [sc.addOffset32(off)] {s} ptr mem)
(MOVBstoreconst [sc] {s} (ADDconst [off] ptr) mem) && is20Bit(sc.Off64()+int64(off)) =>
(MOVBstoreconst [sc.addOffset32(off)] {s} ptr mem)

// Merge address calculations into loads and stores.
// Offsets from SB must not be merged into unaligned memory accesses because
// loads/stores using PC-relative addressing directly must be aligned to the
// size of the target.
(MOVDload [off1] {sym1} (MOVDaddr <t> [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1,
sym2) && (base.Op != OpSB || (t.IsPtr() && t.Elem().Alignment()%8 == 0 && (off1+off2)%8 == 0)) =>
(MOVDload [off1+off2] {mergeSym(sym1,sym2)} base mem)
(MOVWZload [off1] {sym1} (MOVDaddr <t> [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2))

```



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&& canMergeSym(sym1, sym2) && (base.Op != OpSB || (t.IsPtr() && t.Elem().Alignment()%4 == 0 &&
(off1+off2)%4 == 0)) =>
(MOVWZload [off1+off2] {mergeSym(sym1,sym2)} base mem)
(MOVHZload [off1] {sym1} (MOVDaddr <t> [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) && (base.Op != OpSB || (t.IsPtr() && t.Elem().Alignment()%2 == 0 &&
(off1+off2)%2 == 0)) =>
(MOVHZload [off1+off2] {mergeSym(sym1,sym2)} base mem)
(MOVBZload [off1] {sym1} (MOVDaddr [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
(MOVBZload [off1+off2] {mergeSym(sym1,sym2)} base mem)
(FMOVSLoad [off1] {sym1} (MOVDaddr [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2))
&& canMergeSym(sym1, sym2) =>
(FMOVSLoad [off1+off2] {mergeSym(sym1,sym2)} base mem)
(FMOVDload [off1] {sym1} (MOVDaddr [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
(FMOVDload [off1+off2] {mergeSym(sym1,sym2)} base mem)

(MOVWload [off1] {sym1} (MOVDaddr <t> [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) && (base.Op != OpSB || (t.IsPtr() && t.Elem().Alignment()%4 == 0 &&
(off1+off2)%4 == 0)) =>
(MOVWload [off1+off2] {mergeSym(sym1,sym2)} base mem)
(MOVHload [off1] {sym1} (MOVDaddr <t> [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) && (base.Op != OpSB || (t.IsPtr() && t.Elem().Alignment()%2 == 0 &&
(off1+off2)%2 == 0)) =>
(MOVHload [off1+off2] {mergeSym(sym1,sym2)} base mem)
(MOVBload [off1] {sym1} (MOVDaddr [off2] {sym2} base) mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
(MOVBload [off1+off2] {mergeSym(sym1,sym2)} base mem)

(MOVDstore
[off1] {sym1} (MOVDaddr <t> [off2] {sym2} base) val mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) && (base.Op != OpSB || (t.IsPtr() && t.Elem().Alignment()%8 == 0 &&
(off1+off2)%8 == 0)) =>
(MOVDstore [off1+off2] {mergeSym(sym1,sym2)} base val mem)
(MOVWstore [off1] {sym1} (MOVDaddr <t> [off2] {sym2} base) val mem) && is32Bit(int64(off1)+int64(off2))
&& canMergeSym(sym1, sym2) && (base.Op != OpSB || (t.IsPtr() && t.Elem().Alignment()%4 == 0 &&
(off1+off2)%4 == 0)) =>
(MOVWstore [off1+off2] {mergeSym(sym1,sym2)} base val mem)
(MOVHstore [off1] {sym1} (MOVDaddr <t> [off2] {sym2} base) val mem) && is32Bit(int64(off1)+int64(off2))
&& canMergeSym(sym1, sym2) && (base.Op != OpSB || (t.IsPtr() && t.Elem().Alignment()%2 == 0 &&
(off1+off2)%2 == 0)) =>
(MOVHstore [off1+off2] {mergeSym(sym1,sym2)} base val mem)
(MOVBstore [off1] {sym1} (MOVDaddr [off2] {sym2} base) val mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
(MOVBstore [off1+off2]
{mergeSym(sym1,sym2)} base val mem)
(FMOVSSstore [off1] {sym1} (MOVDaddr [off2] {sym2} base) val mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>

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(FMOVStore [off1+off2] {mergeSym(sym1,sym2)} base val mem)
(FMOVStore [off1] {sym1} (MOVDAddr [off2] {sym2} base) val mem) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) =>
(FMOVStore [off1+off2] {mergeSym(sym1,sym2)} base val mem)

(ADDLoad [o1] {s1} x (MOVDAddr [o2] {s2} ptr) mem) && ptr.Op != OpSB && is20Bit(int64(o1)+int64(o2))
&& canMergeSym(s1, s2) => (ADDLoad [o1+o2] {mergeSym(s1, s2)} x ptr mem)
(ADDWLoad [o1] {s1} x (MOVDAddr [o2] {s2} ptr) mem) && ptr.Op != OpSB && is20Bit(int64(o1)+int64(o2))
&& canMergeSym(s1, s2) => (ADDWLoad [o1+o2] {mergeSym(s1, s2)} x ptr mem)
(MULLDLoad [o1] {s1} x (MOVDAddr [o2] {s2} ptr) mem) && ptr.Op != OpSB && is20Bit(int64(o1)+int64(o2))
&& canMergeSym(s1, s2) => (MULLDLoad [o1+o2] {mergeSym(s1, s2)} x ptr mem)
(MULLWLoad [o1] {s1} x (MOVDAddr [o2]
{s2} ptr) mem) && ptr.Op != OpSB && is20Bit(int64(o1)+int64(o2)) && canMergeSym(s1, s2) => (MULLWLoad
[o1+o2] {mergeSym(s1, s2)} x ptr mem)
(SUBLoad [o1] {s1} x (MOVDAddr [o2] {s2} ptr) mem) && ptr.Op != OpSB && is20Bit(int64(o1)+int64(o2))
&& canMergeSym(s1, s2) => (SUBLoad [o1+o2] {mergeSym(s1, s2)} x ptr mem)
(SUBWLoad [o1] {s1} x (MOVDAddr [o2] {s2} ptr) mem) && ptr.Op != OpSB && is20Bit(int64(o1)+int64(o2))
&& canMergeSym(s1, s2) => (SUBWLoad [o1+o2] {mergeSym(s1, s2)} x ptr mem)

(ANDLoad [o1] {s1} x (MOVDAddr [o2] {s2} ptr) mem) && ptr.Op != OpSB && is20Bit(int64(o1)+int64(o2))
&& canMergeSym(s1, s2) => (ANDLoad [o1+o2] {mergeSym(s1, s2)} x ptr mem)
(ANDWLoad [o1] {s1} x (MOVDAddr [o2] {s2} ptr) mem) && ptr.Op != OpSB && is20Bit(int64(o1)+int64(o2))
&& canMergeSym(s1, s2) => (ANDWLoad [o1+o2] {mergeSym(s1, s2)} x ptr mem)
(ORLoad [o1] {s1} x (MOVDAddr [o2] {s2} ptr) mem) && ptr.Op != OpSB && is20Bit(int64(o1)+int64(o2)) &&
canMergeSym(s1, s2) => (ORLoad [o1+o2]
{mergeSym(s1, s2)} x ptr mem)
(ORWLoad [o1] {s1} x (MOVDAddr [o2] {s2} ptr) mem) && ptr.Op != OpSB && is20Bit(int64(o1)+int64(o2))
&& canMergeSym(s1, s2) => (ORWLoad [o1+o2] {mergeSym(s1, s2)} x ptr mem)
(XORLoad [o1] {s1} x (MOVDAddr [o2] {s2} ptr) mem) && ptr.Op != OpSB && is20Bit(int64(o1)+int64(o2))
&& canMergeSym(s1, s2) => (XORLoad [o1+o2] {mergeSym(s1, s2)} x ptr mem)
(XORWLoad [o1] {s1} x (MOVDAddr [o2] {s2} ptr) mem) && ptr.Op != OpSB && is20Bit(int64(o1)+int64(o2))
&& canMergeSym(s1, s2) => (XORWLoad [o1+o2] {mergeSym(s1, s2)} x ptr mem)

// Cannot store constant to SB directly (no 'move relative long immediate' instructions).
(MOVDStoreConst [sc] {sym1} (MOVDAddr [off] {sym2} ptr) mem) && ptr.Op != OpSB &&
canMergeSym(sym1, sym2) && sc.canAdd32(off) =>
(MOVDStoreConst [sc.addOffset32(off)] {mergeSym(sym1, sym2)} ptr mem)
(MOVWStoreConst [sc] {sym1} (MOVDAddr [off] {sym2} ptr) mem) && ptr.Op != OpSB &&
canMergeSym(sym1, sym2) && sc.canAdd32(off) =>
(MOVWStoreConst
[sc.addOffset32(off)] {mergeSym(sym1, sym2)} ptr mem)
(MOVHStoreConst [sc] {sym1} (MOVDAddr [off] {sym2} ptr) mem) && ptr.Op != OpSB &&
canMergeSym(sym1, sym2) && sc.canAdd32(off) =>
(MOVHStoreConst [sc.addOffset32(off)] {mergeSym(sym1, sym2)} ptr mem)
(MOVBStoreConst [sc] {sym1} (MOVDAddr [off] {sym2} ptr) mem) && ptr.Op != OpSB && canMergeSym(sym1,
sym2) && sc.canAdd32(off) =>
(MOVBStoreConst [sc.addOffset32(off)] {mergeSym(sym1, sym2)} ptr mem)

```

```

// MOVDaddr into MOVDaddridx
(MOVDaddridx [off1] {sym1} (MOVDaddr [off2] {sym2} x) y) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) && x.Op != OpSB =>
    (MOVDaddridx [off1+off2] {mergeSym(sym1,sym2)} x y)
(MOVDaddridx [off1] {sym1} x (MOVDaddr [off2] {sym2} y)) && is32Bit(int64(off1)+int64(off2)) &&
canMergeSym(sym1, sym2) && y.Op != OpSB =>
    (MOVDaddridx [off1+off2] {mergeSym(sym1,sym2)} x y)

// Absorb InvertFlags into branches.
(BRC {c} (InvertFlags cmp) yes no) => (BRC {c.ReverseComparison()} cmp yes no)

//
Constant comparisons.
(CMPconst (MOVDconst [x] [y]) && x==int64(y) => (FlagEQ)
(CMPconst (MOVDconst [x] [y]) && x<int64(y) => (FlagLT)
(CMPconst (MOVDconst [x] [y]) && x>int64(y) => (FlagGT)
(CMPUconst (MOVDconst [x] [y]) && uint64(x)==uint64(y) => (FlagEQ)
(CMPUconst (MOVDconst [x] [y]) && uint64(x)<uint64(y) => (FlagLT)
(CMPUconst (MOVDconst [x] [y]) && uint64(x)>uint64(y) => (FlagGT)

(CMPWconst (MOVDconst [x] [y]) && int32(x)==int32(y) => (FlagEQ)
(CMPWconst (MOVDconst [x] [y]) && int32(x)<int32(y) => (FlagLT)
(CMPWconst (MOVDconst [x] [y]) && int32(x)>int32(y) => (FlagGT)
(CMPWUconst (MOVDconst [x] [y]) && uint32(x)==uint32(y) => (FlagEQ)
(CMPWUconst (MOVDconst [x] [y]) && uint32(x)<uint32(y) => (FlagLT)
(CMPWUconst (MOVDconst [x] [y]) && uint32(x)>uint32(y) => (FlagGT)

(CMP(W|WU)const (MOVBZreg _) [c]) && 0xff < c => (FlagLT)
(CMP(W|WU)const (MOVHZreg _) [c]) && 0xffff < c => (FlagLT)

(CMPconst (SRDconst _ [c] [n]) && c > 0 && n < 0 => (FlagGT)
(CMPWconst
(SRWconst _ [c] [n]) && c > 0 && n < 0 => (FlagGT)

(CMPUconst (SRDconst _ [c] [n]) && c > 0 && c < 64 && (1<<uint(64-c)) <= uint64(n) => (FlagLT)
(CMPWUconst (SRWconst _ [c] [n]) && c > 0 && c < 32 && (1<<uint(32-c)) <= uint32(n) => (FlagLT)

(CMPWconst (ANDWconst _ [m] [n]) && int32(m) >= 0 && int32(m) < int32(n) => (FlagLT)
(CMPWUconst (ANDWconst _ [m] [n]) && uint32(m) < uint32(n) => (FlagLT)

(CMPconst (RISBGZ x {r}) [c]) && c > 0 && r.OutMask() < uint64(c) => (FlagLT)
(CMPUconst (RISBGZ x {r}) [c]) && r.OutMask() < uint64(uint32(c)) => (FlagLT)

// Constant compare-and-branch with immediate.
(CGIJ {c} (MOVDconst [x] [y] yes no) && c&s390x.Equal != 0 && int64(x) == int64(y) => (First yes no)
(CGIJ {c} (MOVDconst [x] [y] yes no) && c&s390x.Less != 0 && int64(x) < int64(y) => (First yes no)
(CGIJ {c} (MOVDconst [x] [y] yes no) && c&s390x.Greater != 0 && int64(x) > int64(y) => (First yes no)
(CIJ {c} (MOVDconst [x] [y] yes no) && c&s390x.Equal != 0 &&

```

```

int32(x) == int32(y) => (First yes no)
(CIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Less != 0 && int32(x) < int32(y) => (First yes no)
(CIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Greater != 0 && int32(x) > int32(y) => (First yes no)
(CLGIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Equal != 0 && uint64(x) == uint64(y) => (First yes no)
(CLGIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Less != 0 && uint64(x) < uint64(y) => (First yes no)
(CLGIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Greater != 0 && uint64(x) > uint64(y) => (First yes no)
(CLIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Equal != 0 && uint32(x) == uint32(y) => (First yes no)
(CLIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Less != 0 && uint32(x) < uint32(y) => (First yes no)
(CLIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Greater != 0 && uint32(x) > uint32(y) => (First yes no)
(CGIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Equal == 0 && int64(x) == int64(y) => (First no yes)
(CGIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Less == 0 && int64(x) < int64(y) => (First no yes)
(CGIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Greater == 0 && int64(x) > int64(y) => (First no yes)
(CIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Equal == 0 && int32(x) == int32(y) => (First no yes)
(CIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Less == 0 && int32(x) < int32(y) => (First no yes)
(CIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Greater == 0 && int32(x) > int32(y) => (First no yes)
(CLGIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Equal == 0 && uint64(x) == uint64(y) => (First no yes)
(CLGIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Less == 0 && uint64(x) < uint64(y) => (First no yes)
(CLGIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Greater == 0 && uint64(x) > uint64(y) => (First no yes)
(CLIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Equal == 0 && uint32(x) == uint32(y) => (First no yes)
(CLIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Less == 0 && uint32(x) < uint32(y) => (First no yes)
(CLIJ {c} (MOVDconst [x]) [y] yes no) && c&s390x.Greater == 0 && uint32(x) > uint32(y) => (First no yes)

// Constant compare-and-branch with immediate when unsigned comparison with zero.
(C(L|LG)IJ {s390x.GreaterOrEqual} _ [0] yes no) => (First yes no)
(C(L|LG)IJ {s390x.Less} _ [0] yes no) => (First no yes)

// Constant compare-and-branch when operands match.
(C(GR|R|LGR|LR)J {c} x y yes no) && x == y && c&s390x.Equal != 0 => (First yes no)
(C(GR|R|LGR|LR)J {c} x y yes no) && x == y && c&s390x.Equal == 0 => (First no yes)

// Convert 64-bit comparisons to 32-bit comparisons and signed comparisons
// to unsigned comparisons.
// Helps simplify constant comparison detection.
(CM(P|PU)const (MOV(W|WZ)reg x) [c]) => (CMP(W|WU)const x [c])
(CM(P|P|PU|PU)const x:(MOV(H|HZ|H|HZ)reg _) [c]) => (CMP(W|W|WU|WU)const x [c])
(CM(P|P|PU|PU)const x:(MOV(B|BZ|B|BZ)reg _) [c]) => (CMP(W|W|WU|WU)const x [c])
(CMPconst
  (MOV(WZ|W)reg x:(ANDWconst [m] _) [c]) && int32(m) >= 0 && c >= 0 => (CMPWUconst x [c])
  (CMPUconst (MOV(WZ|W)reg x:(ANDWconst [m] _) [c]) && int32(m) >= 0 && c >= 0 => (CMPWUconst x [c])
  (CMPconst x:(SRDconst _ [c]) [n]) && c > 0 && n >= 0 => (CMPUconst x [n])
  (CMPWconst x:(SRWconst _ [c]) [n]) && c > 0 && n >= 0 => (CMPWUconst x [n])

// Absorb sign and zero extensions into 32-bit comparisons.
(CMP(W|W|WU|WU) x (MOV(W|WZ|W|WZ)reg y)) => (CMP(W|W|WU|WU) x y)
(CMP(W|W|WU|WU) (MOV(W|WZ|W|WZ)reg x) y) => (CMP(W|W|WU|WU) x y)
(CMP(W|W|WU|WU)const (MOV(W|WZ|W|WZ)reg x) [c]) => (CMP(W|W|WU|WU)const x [c])

```

```

// Absorb flag constants into branches.
(BRC {c} (FlagEQ) yes no) && c&s390x.Equal != 0 => (First yes no)
(BRC {c} (FlagLT) yes no) && c&s390x.Less != 0 => (First yes no)
(BRC {c} (FlagGT) yes no) && c&s390x.Greater != 0 => (First yes no)
(BRC {c} (FlagOV) yes no) && c&s390x.Unordered != 0 => (First yes no)

(BRC {c} (FlagEQ) yes no) && c&s390x.Equal ==
0 => (First no yes)
(BRC {c} (FlagLT) yes no) && c&s390x.Less == 0 => (First no yes)
(BRC {c} (FlagGT) yes no) && c&s390x.Greater == 0 => (First no yes)
(BRC {c} (FlagOV) yes no) && c&s390x.Unordered == 0 => (First no yes)

// Absorb flag constants into SETxx ops.
(LOCGR {c} _ x (FlagEQ)) && c&s390x.Equal != 0 => x
(LOCGR {c} _ x (FlagLT)) && c&s390x.Less != 0 => x
(LOCGR {c} _ x (FlagGT)) && c&s390x.Greater != 0 => x
(LOCGR {c} _ x (FlagOV)) && c&s390x.Unordered != 0 => x

(LOCGR {c} x _ (FlagEQ)) && c&s390x.Equal == 0 => x
(LOCGR {c} x _ (FlagLT)) && c&s390x.Less == 0 => x
(LOCGR {c} x _ (FlagGT)) && c&s390x.Greater == 0 => x
(LOCGR {c} x _ (FlagOV)) && c&s390x.Unordered == 0 => x

// Remove redundant *const ops
(ADDconst [0] x) => x
(ADDWconst [c] x) && int32(c)==0 => x
(SUBconst [0] x) => x
(SUBWconst [c] x) && int32(c) == 0 => x
(ANDconst [0] _) => (MOVDconst [0])
(ANDWconst [c] _) && int32(c)==0 => (MOVDconst [0])
(ANDconst [-1] x)
=> x
(ANDWconst [c] x) && int32(c)==-1 => x
(ORconst [0] x) => x
(ORWconst [c] x) && int32(c)==0 => x
(ORconst [-1] _) => (MOVDconst [-1])
(ORWconst [c] _) && int32(c)==-1 => (MOVDconst [-1])
(XORconst [0] x) => x
(XORWconst [c] x) && int32(c)==0 => x

// Shifts by zero (may be inserted during multiplication strength reduction).
((SLD|SLW|SRD|SRW|SRAD|SRAW)const x [0]) => x

// Convert constant subtracts to constant adds.
(SUBconst [c] x) && c != -(1<<31) => (ADDconst [-c] x)
(SUBWconst [c] x) => (ADDWconst [-int32(c)] x)

```

```

// generic constant folding
// TODO: more of this
(ADDconst [c] (MOVDconst [d])) => (MOVDconst [int64(c)+d])
(ADDWconst [c] (MOVDconst [d])) => (MOVDconst [int64(c)+d])
(ADDconst [c] (ADDconst [d] x)) && is32Bit(int64(c)+int64(d)) => (ADDconst [c+d] x)
(ADDWconst [c] (ADDWconst [d] x)) => (ADDWconst [int32(c+d)] x)
(SUBconst (MOVDconst [d]) [c]) => (MOVDconst [d-int64(c)])
(SUBconst (SUBconst x [d])
 [c]) && is32Bit(-int64(c)-int64(d)) => (ADDconst [-c-d] x)
(SRADconst [c] (MOVDconst [d])) => (MOVDconst [d>>uint64(c)])
(SRAWconst [c] (MOVDconst [d])) => (MOVDconst [int64(int32(d))>>uint64(c)])
(NEG (MOVDconst [c])) => (MOVDconst [-c])
(NEGW (MOVDconst [c])) => (MOVDconst [int64(int32(-c))])
(MULLDconst [c] (MOVDconst [d])) => (MOVDconst [int64(c)*d])
(MULLWconst [c] (MOVDconst [d])) => (MOVDconst [int64(c*int32(d))])
(AND (MOVDconst [c]) (MOVDconst [d])) => (MOVDconst [c&d])
(ANDconst [c] (MOVDconst [d])) => (MOVDconst [c&d])
(ANDWconst [c] (MOVDconst [d])) => (MOVDconst [int64(c)&d])
(OR (MOVDconst [c]) (MOVDconst [d])) => (MOVDconst [c|d])
(ORconst [c] (MOVDconst [d])) => (MOVDconst [c|d])
(ORWconst [c] (MOVDconst [d])) => (MOVDconst [int64(c)|d])
(XOR (MOVDconst [c]) (MOVDconst [d])) => (MOVDconst [c^d])
(XORconst [c] (MOVDconst [d])) => (MOVDconst [c^d])
(XORWconst [c] (MOVDconst [d])) => (MOVDconst [int64(c)^d])
(LoweredRound32F x:(FMOVScost)) => x
(LoweredRound64F x:(FMOVDconst))
=> x

// generic simplifications
// TODO: more of this
(ADD x (NEG y)) => (SUB x y)
(ADDW x (NEGW y)) => (SUBW x y)
(SUB x x) => (MOVDconst [0])
(SUBW x x) => (MOVDconst [0])
(AND x x) => x
(ANDW x x) => x
(OR x x) => x
(ORW x x) => x
(XOR x x) => (MOVDconst [0])
(XORW x x) => (MOVDconst [0])
(NEG (ADDconst [c] (NEG x))) && c != -(1<<31) => (ADDconst [-c] x)
(MOVBZreg (ANDWconst [m] x)) => (MOVWZreg (ANDWconst <typ.UInt32> [int32(uint8(m))] x))
(MOVHZreg (ANDWconst [m] x)) => (MOVWZreg (ANDWconst <typ.UInt32> [int32(uint16(m))] x))
(MOVBreg (ANDWconst [m] x)) && int8(m) >= 0 => (MOVWZreg (ANDWconst <typ.UInt32> [int32(
uint8(m))] x))
(MOVHreg (ANDWconst [m] x)) && int16(m) >= 0 => (MOVWZreg (ANDWconst <typ.UInt32>
[int32(uint16(m))] x))

```

```

// carry flag generation
// (only constant fold carry of zero)
(Select1 (ADDCconst (MOVDconst [c]) [d]))
  && uint64(c+int64(d)) >= uint64(c) && c+int64(d) == 0
=> (FlagEQ)
(Select1 (ADDCconst (MOVDconst [c]) [d]))
  && uint64(c+int64(d))
  >= uint64(c) && c+int64(d) != 0
=> (FlagLT)

// borrow flag generation
// (only constant fold borrow of zero)
(Select1 (SUBC (MOVDconst [c]) (MOVDconst [d])))
  && uint64(d) <= uint64(c) && c-d == 0
=> (FlagGT)
(Select1 (SUBC (MOVDconst [c]) (MOVDconst [d])))
  && uint64(d) <= uint64(c) && c-d != 0
=> (FlagOV)

// add with carry
(ADDE x y (FlagEQ)) => (ADDC x y)
(ADDE x y (FlagLT)) => (ADDC x y)
(ADDC x (MOVDconst [c])) && is16Bit(c) => (ADDCconst x [int16(c)])
(Select0 (ADDCconst (MOVDconst [c]) [d])) => (MOVDconst [c+int64(d)])

// subtract with borrow
(SUBE x y (FlagGT)) => (SUBC x y)
(SUBE x y (FlagOV)) => (SUBC x y)
(Select0 (SUBC (MOVDconst [c]) (MOVDconst [d]))) => (MOVDconst [c-d])

// collapse carry chain
(ADDE x y (Select1 (ADDCconst [-1] (Select0 (ADDE (MOVDconst [0]) (MOVDconst [0]) c))))
=> (ADDE x y c)

// collapse borrow chain
(SUBE x y (Select1 (SUBC (MOVDconst [0]) (NEG (Select0 (SUBE (MOVDconst [0]) (MOVDconst [0]) c))))))
=> (SUBE x y c)

// branch on carry
(C(G|LG)IJ
 {s390x.Equal}      (Select0 (ADDE (MOVDconst [0]) (MOVDconst [0]) carry)) [0]) => (BRC {s390x.NoCarry}
 carry)
(C(G|LG)IJ {s390x.Equal}      (Select0 (ADDE (MOVDconst [0]) (MOVDconst [0]) carry)) [1]) => (BRC
 {s390x.Carry} carry)
(C(G|LG)IJ {s390x.LessOrGreater} (Select0 (ADDE (MOVDconst [0]) (MOVDconst [0]) carry)) [0]) => (BRC
 {s390x.Carry} carry)
(C(G|LG)IJ {s390x.LessOrGreater} (Select0 (ADDE (MOVDconst [0]) (MOVDconst [0]) carry)) [1]) => (BRC
 {s390x.NoCarry} carry)

```

```

(C(G|LG)IJ {s390x.Greater} (Select0 (ADDE (MOVDconst [0]) (MOVDconst [0]) carry)) [0]) => (BRC
{s390x.Carry} carry)

// branch on borrow
(C(G|LG)IJ {s390x.Equal} (NEG (Select0 (SUBE (MOVDconst [0]) (MOVDconst [0]) borrow))) [0]) =>
(BRC {s390x.NoBorrow} borrow)
(C(G|LG)IJ {s390x.Equal} (NEG (Select0 (SUBE (MOVDconst [0]) (MOVDconst [0]) borrow))) [1]) =>
(BRC {s390x.Borrow} borrow)
(C(G|LG)IJ {s390x.LessOrGreater} (NEG (Select0 (SUBE (MOVDconst [0]) (MOVDconst [0]) borrow)))
[0]) => (BRC {s390x.Borrow} borrow)
(C(G|LG)IJ {s390x.LessOrGreater} (NEG (Select0 (SUBE (MOVDconst [0]) (MOVDconst [0]) borrow))) [1]) =>
(BRC {s390x.NoBorrow} borrow)
(C(G|LG)IJ {s390x.Greater} (NEG (Select0 (SUBE (MOVDconst [0]) (MOVDconst [0]) borrow))) [0]) =>
(BRC {s390x.Borrow} borrow)

// fused multiply-add
(Select0 (F(ADD|SUB) (FMUL y z) x)) => (FM(ADD|SUB) x y z)
(Select0 (F(ADDS|SUBS) (FMULS y z) x)) => (FM(ADDS|SUBS) x y z)

// Convert floating point comparisons against zero into 'load and test' instructions.
(F(CMP|CMPS) x (FMOV(D|S)const [0.0])) => (LT(D|E)BR x)
(F(CMP|CMPS) (FMOV(D|S)const [0.0]) x) => (InvertFlags (LT(D|E)BR <v.Type> x))

// FSUB, FSUBS, FADD, FADDS now produce a condition code representing the
// comparison of the result with 0.0. If a compare with zero instruction
// (e.g. LTDBR) is following one of those instructions, we can use the
// generated flag and remove the comparison instruction.
// Note: when inserting Select1 ops we need to ensure
they are in the
// same block as their argument. We could also use @x.Block for this
// but moving the flag generating value to a different block seems to
// increase the likelihood that the flags value will have to be regenerated
// by flagalloc which is not what we want.
(LTDBR (Select0 x:(F(ADD|SUB) _ _)) && b == x.Block => (Select1 x)
(LTEBR (Select0 x:(F(ADDS|SUBS) _ _)) && b == x.Block => (Select1 x)

// Fold memory operations into operations.
// Exclude global data (SB) because these instructions cannot handle relative addresses.
// TODO(mundaym): indexed versions of these?
((ADD|SUB|MULLD|AND|OR|XOR) <t> x g:(MOVDload [off] {sym} ptr mem))
&& ptr.Op != OpSB
&& is20Bit(int64(off))
&& canMergeLoadClobber(v, g, x)
&& clobber(g)
=> ((ADD|SUB|MULLD|AND|OR|XOR)load <t> [off] {sym} x ptr mem)
((ADD|SUB|MULL|AND|OR|XOR)W <t> x g:(MOVWload [off] {sym} ptr mem))
&& ptr.Op != OpSB
&& is20Bit(int64(off))

```



```

&& canMergeLoadClobber(v, g, x)
&& clobber(g)
=> ((ADD|SUB|MULL|AND|OR|XOR)Wload
<t> [off] {sym} x ptr mem)
((ADD|SUB|MULL|AND|OR|XOR)W <t> x g:(MOVWZload [off] {sym} ptr mem))
&& ptr.Op != OpSB
&& is20Bit(int64(off))
&& canMergeLoadClobber(v, g, x)
&& clobber(g)
=> ((ADD|SUB|MULL|AND|OR|XOR)Wload <t> [off] {sym} x ptr mem)

// Combine constant stores into larger (unaligned) stores.
// Avoid SB because constant stores to relative offsets are
// emulated by the assembler and also can't handle unaligned offsets.
(MOVBstoreconst [c] {s} p x:(MOVBstoreconst [a] {s} p mem))
&& p.Op != OpSB
&& x.Uses == 1
&& a.Off() + 1 == c.Off()
&& clobber(x)
=> (MOVHstoreconst [makeValAndOff(c.Val()&0xff | a.Val()<<8, a.Off())] {s} p mem)
(MOVHstoreconst [c] {s} p x:(MOVHstoreconst [a] {s} p mem))
&& p.Op != OpSB
&& x.Uses == 1
&& a.Off() + 2 == c.Off()
&& clobber(x)
=> (MOVWstore [a.Off()] {s} p (MOVDconst [int64(c.Val()&0xffff | a.Val()<<16)]) mem)
(MOVWstoreconst [c] {s} p x:(MOVWstoreconst [a] {s} p mem))
&& p.Op != OpSB
&&
x.Uses == 1
&& a.Off() + 4 == c.Off()
&& clobber(x)
=> (MOVDstore [a.Off()] {s} p (MOVDconst [c.Val64()&0xffffffff | a.Val64()<<32]) mem)

// Combine stores into larger (unaligned) stores.
// It doesn't work on global data (based on SB) because stores with relative addressing
// require that the memory operand be aligned.
(MOVBstore [i] {s} p w x:(MOVBstore [i-1] {s} p (SRDconst [8] w) mem))
&& p.Op != OpSB
&& x.Uses == 1
&& clobber(x)
=> (MOVHstore [i-1] {s} p w mem)
(MOVBstore [i] {s} p w0:(SRDconst [j] w) x:(MOVBstore [i-1] {s} p (SRDconst [j+8] w) mem))
&& p.Op != OpSB
&& x.Uses == 1
&& clobber(x)
=> (MOVHstore [i-1] {s} p w0 mem)
(MOVBstore [i] {s} p w x:(MOVBstore [i-1] {s} p (SRWconst [8] w) mem))

```

```

&& p.Op != OpSB
&& x.Uses == 1
&& clobber(x)
=> (MOVHstore [i-1] {s} p w mem)
(MOVBstore [i] {s} p w0:(SRWconst [j] w)x:(MOVBstore [i-1] {s} p (SRWconst [j+8] w) mem))
&& p.Op != OpSB
&& x.Uses == 1
&& clobber(x)
=> (MOVHstore [i-1] {s} p w0 mem)
(MOVHstore
[i] {s} p w x:(MOVHstore [i-2] {s} p (SRDconst [16] w) mem))
&& p.Op != OpSB
&& x.Uses == 1
&& clobber(x)
=> (MOVWstore [i-2] {s} p w mem)
(MOVHstore [i] {s} p w0:(SRDconst [j] w)x:(MOVHstore [i-2] {s} p (SRDconst [j+16] w) mem))
&& p.Op != OpSB
&& x.Uses == 1
&& clobber(x)
=> (MOVWstore [i-2] {s} p w0 mem)
(MOVHstore [i] {s} p w x:(MOVHstore [i-2] {s} p (SRWconst [16] w) mem))
&& p.Op != OpSB
&& x.Uses == 1
&& clobber(x)
=> (MOVWstore [i-2] {s} p w mem)
(MOVHstore [i] {s} p w0:(SRWconst [j] w)x:(MOVHstore [i-2] {s} p (SRWconst [j+16] w) mem))
&& p.Op != OpSB
&& x.Uses == 1
&& clobber(x)
=> (MOVWstore [i-2] {s} p w0 mem)
(MOVWstore [i] {s} p (SRDconst [32] w)x:(MOVWstore [i-4] {s} p w mem))
&& p.Op != OpSB
&& x.Uses == 1
&& clobber(x)
=> (MOVDstore [i-4] {s} p w mem)
(MOVWstore [i] {s} p w0:(SRDconst [j] w)x:(MOVWstore [i-4] {s} p (SRDconst [j+32] w) mem))
&& p.Op != OpSB
&& x.Uses == 1
&& clobber(x)
=> (MOVDstore [i-4] {s}
p w0 mem)

```

// Combine stores into larger (unaligned) stores with the bytes reversed (little endian).

// Store-with-bytes-reversed instructions do not support relative memory addresses,

// so these stores can't operate on global data (SB).

```
(MOVBstore [i] {s} p (SRDconst [8] w)x:(MOVBstore [i-1] {s} p w mem))
```

```
&& p.Op != OpSB
```

```
&& x.Uses == 1
```

```

&& clobber(x)
=> (MOVHBRstore [i-1] {s} p w mem)
(MOVBstore [i] {s} p (SRDconst [j] w) x:(MOVBstore [i-1] {s} p w0:(SRDconst [j-8] w) mem))
&& p.Op != OpSB
&& x.Uses == 1
&& clobber(x)
=> (MOVHBRstore [i-1] {s} p w0 mem)
(MOVBstore [i] {s} p (SRWconst [8] w) x:(MOVBstore [i-1] {s} p w mem))
&& p.Op != OpSB
&& x.Uses == 1
&& clobber(x)
=> (MOVHBRstore [i-1] {s} p w mem)
(MOVBstore [i] {s} p (SRWconst [j] w) x:(MOVBstore [i-1] {s} p w0:(SRWconst [j-8] w) mem))
&& p.Op != OpSB
&& x.Uses == 1
&& clobber(x)
=> (MOVHBRstore [i-1] {s} p w0 mem)
(MOVHBRstore [i] {s} p (SRDconst [16] w) x:(MOVHBRstore [i-2] {s} p w mem))
&&
x.Uses == 1
&& clobber(x)
=> (MOVWBRstore [i-2] {s} p w mem)
(MOVHBRstore [i] {s} p (SRDconst [j] w) x:(MOVHBRstore [i-2] {s} p w0:(SRDconst [j-16] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVWBRstore [i-2] {s} p w0 mem)
(MOVHBRstore [i] {s} p (SRWconst [16] w) x:(MOVHBRstore [i-2] {s} p w mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVWBRstore [i-2] {s} p w mem)
(MOVHBRstore [i] {s} p (SRWconst [j] w) x:(MOVHBRstore [i-2] {s} p w0:(SRWconst [j-16] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVWBRstore [i-2] {s} p w0 mem)
(MOVWBRstore [i] {s} p (SRDconst [32] w) x:(MOVWBRstore [i-4] {s} p w mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVDBRstore [i-4] {s} p w mem)
(MOVWBRstore [i] {s} p (SRDconst [j] w) x:(MOVWBRstore [i-4] {s} p w0:(SRDconst [j-32] w) mem))
&& x.Uses == 1
&& clobber(x)
=> (MOVDBRstore [i-4] {s} p w0 mem)

(MOVBstore [7] {s} p1 (SRDconst w)
x1:(MOVHBRstore [5] {s} p1 (SRDconst w)
x2:(MOVWBRstore [1] {s} p1 (SRDconst w)
x3:(MOVBstore [0] {s}

```

```

p1 w mem))))
&& x1.Uses == 1
&& x2.Uses == 1
&& x3.Uses == 1
&& clobber(x1, x2, x3)
=> (MOVDBRstore {s} p1 w mem)

// Combining byte loads into larger (unaligned) loads.

// Big-endian loads

(ORW      x1:(MOVBZload [i1] {s} p mem)
  sh:(SLWconst [8] x0:(MOVBZload [i0] {s} p mem)))
&& i1 == i0+1
&& p.Op != OpSB
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVHZload [i0] {s} p mem)

(OR      x1:(MOVBZload [i1] {s} p mem)
  sh:(SLDconst [8] x0:(MOVBZload [i0] {s} p mem)))
&& i1 == i0+1
&& p.Op != OpSB
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVHZload [i0] {s} p mem)

(ORW      x1:(MOVHZload [i1] {s} p mem)
  sh:(SLWconst [16] x0:(MOVHZload [i0] {s} p mem)))
&& i1 == i0+2
&& p.Op != OpSB
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses
== 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVWZload [i0] {s} p mem)

(OR      x1:(MOVHZload [i1] {s} p mem)
  sh:(SLDconst [16] x0:(MOVHZload [i0] {s} p mem)))
&& i1 == i0+2

```

```
&& p.Op != OpSB
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVWZload [i0] {s} p mem)
```

```
(OR      x1:(MOVWZload [i1] {s} p mem)
  sh:(SLDconst [32] x0:(MOVWZload [i0] {s} p mem)))
&& i1 == i0+4
&& p.Op != OpSB
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVDload [i0] {s} p mem)
```

```
(ORW
  s0:(SLWconst [j0] x0:(MOVBZload [i0] {s} p mem))
  or:(ORW
    s1:(SLWconst [j1] x1:(MOVBZload [i1] {s} p mem))
  y))
&& i1 == i0+1
&& j1 == j0-8
&& j1 % 16 == 0
&& x0.Uses == 1
&& x1.Uses == 1
&& s0.Uses == 1
&& s1.Uses == 1
&& or.Uses == 1
&&
mergePoint(b,x0,x1,y) != nil
&& clobber(x0, x1, s0, s1, or)
=> @mergePoint(b,x0,x1,y) (ORW <v.Type> (SLWconst <v.Type> [j1] (MOVHZload [i0] {s} p mem)) y)
```

```
(OR
  s0:(SLDconst [j0] x0:(MOVBZload [i0] {s} p mem))
  or:(OR
    s1:(SLDconst [j1] x1:(MOVBZload [i1] {s} p mem))
  y))
&& i1 == i0+1
&& j1 == j0-8
&& j1 % 16 == 0
&& x0.Uses == 1
&& x1.Uses == 1
&& s0.Uses == 1
```

```

&& s1.Uses == 1
&& or.Uses == 1
&& mergePoint(b,x0,x1,y) != nil
&& clobber(x0, x1, s0, s1, or)
=> @mergePoint(b,x0,x1,y) (OR <v.Type> (SLDconst <v.Type> [j1] (MOVHZload [i0] {s} p mem)) y)

```

```

(OR
  s0:(SLDconst [j0] x0:(MOVHZload [i0] {s} p mem))
  or:(OR
    s1:(SLDconst [j1] x1:(MOVHZload [i1] {s} p mem))
  y))
&& i1 == i0+2
&& j1 == j0-16
&& j1 % 32 == 0
&& x0.Uses == 1
&& x1.Uses == 1
&& s0.Uses == 1
&& s1.Uses == 1
&& or.Uses == 1
&& mergePoint(b,x0,x1,y) != nil
&& clobber(x0, x1, s0, s1, or)
=> @mergePoint(b,x0,x1,y) (OR <v.Type> (SLDconst <v.Type> [j1] (MOVWZload
[i0] {s} p mem)) y)

```

// Little-endian loads

```

(ORW      x0:(MOVBZload [i0] {s} p mem)
  sh:(SLWconst [8] x1:(MOVBZload [i1] {s} p mem)))
&& p.Op != OpSB
&& i1 == i0+1
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVHZreg (MOVHBRload [i0] {s} p mem))

```

```

(OR      x0:(MOVBZload [i0] {s} p mem)
  sh:(SLDconst [8] x1:(MOVBZload [i1] {s} p mem)))
&& p.Op != OpSB
&& i1 == i0+1
&& x0.Uses == 1
&& x1.Uses == 1
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, sh)
=> @mergePoint(b,x0,x1) (MOVHZreg (MOVHBRload [i0] {s} p mem))

```

```
(ORW          r0:(MOVHZreg x0:(MOVHBRload [i0] {s} p mem))
  sh:(SLWconst [16] r1:(MOVHZreg x1:(MOVHBRload [i1] {s} p mem))))
&& i1 == i0+2
&& x0.Uses == 1
&& x1.Uses == 1
&& r0.Uses == 1
&& r1.Uses == 1
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, r0, r1, sh)
=> @mergePoint(b,x0,x1)
(MOVWBRload [i0] {s} p mem)
```

```
(OR          r0:(MOVHZreg x0:(MOVHBRload [i0] {s} p mem))
  sh:(SLDconst [16] r1:(MOVHZreg x1:(MOVHBRload [i1] {s} p mem))))
&& i1 == i0+2
&& x0.Uses == 1
&& x1.Uses == 1
&& r0.Uses == 1
&& r1.Uses == 1
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, r0, r1, sh)
=> @mergePoint(b,x0,x1) (MOVWZreg (MOVWBRload [i0] {s} p mem))
```

```
(OR          r0:(MOVWZreg x0:(MOVWBRload [i0] {s} p mem))
  sh:(SLDconst [32] r1:(MOVWZreg x1:(MOVWBRload [i1] {s} p mem))))
&& i1 == i0+4
&& x0.Uses == 1
&& x1.Uses == 1
&& r0.Uses == 1
&& r1.Uses == 1
&& sh.Uses == 1
&& mergePoint(b,x0,x1) != nil
&& clobber(x0, x1, r0, r1, sh)
=> @mergePoint(b,x0,x1) (MOVDDBRload [i0] {s} p mem)
```

```
(ORW
  s1:(SLWconst [j1] x1:(MOVVBZload [i1] {s} p mem))
  or:(ORW
    s0:(SLWconst [j0] x0:(MOVVBZload [i0] {s} p mem))
  y))
&& p.Op != OpSB
&& i1 == i0+1
&& j1 == j0+8
&& j0 % 16 == 0
&& x0.Uses == 1
```

```

    && x1.Uses == 1
    && s0.Uses == 1
    && s1.Uses == 1
    && or.Uses == 1
    && mergePoint(b,x0,x1,y) != nil
    && clobber(x0, x1, s0, s1, or)
    => @mergePoint(b,x0,x1,y) (ORW <v.Type> (SLWconst <v.Type> [j0] (MOVHZreg (MOVHBRload [i0] {s} p
mem))) y)

```

```

(OR
  s1:(SLDconst [j1] x1:(MOVBZload [i1] {s} p mem))
  or:(OR
    s0:(SLDconst [j0] x0:(MOVBZload [i0] {s} p mem))
  y))

```

```

&& p.Op != OpSB
&& i1 == i0+1
&& j1 == j0+8
&& j0 % 16 == 0
&& x0.Uses == 1
&& x1.Uses == 1
&& s0.Uses == 1
&& s1.Uses == 1
&& or.Uses == 1
&& mergePoint(b,x0,x1,y) != nil
&& clobber(x0, x1, s0, s1, or)
=> @mergePoint(b,x0,x1,y) (OR <v.Type> (SLDconst <v.Type> [j0] (MOVHZreg (MOVHBRload [i0] {s} p
mem))) y)

```

```

(OR
  s1:(SLDconst [j1] r1:(MOVHZreg x1:(MOVHBRload [i1] {s} p mem)))
  or:(OR
    s0:(SLDconst [j0] r0:(MOVHZreg x0:(MOVHBRload [i0] {s} p mem)))
  y))

```

```

&& i1 == i0+2
&& j1 == j0+16
&& j0 % 32 == 0
&& x0.Uses == 1
&& x1.Uses == 1
&& r0.Uses == 1
&& r1.Uses == 1
&&
s0.Uses == 1
&& s1.Uses == 1
&& or.Uses == 1
&& mergePoint(b,x0,x1,y) != nil
&& clobber(x0, x1, r0, r1, s0, s1, or)
=> @mergePoint(b,x0,x1,y) (OR <v.Type> (SLDconst <v.Type> [j0] (MOVWZreg (MOVWBRload [i0] {s} p
mem))) y)

```



```

// Combine stores into store multiples.
// 32-bit
(MOVWstore [i] {s} p w1 x:(MOVWstore [i-4] {s} p w0 mem))
  && p.Op != OpSB
  && x.Uses == 1
  && is20Bit(int64(i)-4)
  && clobber(x)
=> (STM2 [i-4] {s} p w0 w1 mem)
(MOVWstore [i] {s} p w2 x:(STM2 [i-8] {s} p w0 w1 mem))
  && x.Uses == 1
  && is20Bit(int64(i)-8)
  && clobber(x)
=> (STM3 [i-8] {s} p w0 w1 w2 mem)
(MOVWstore [i] {s} p w3 x:(STM3 [i-12] {s} p w0 w1 w2 mem))
  && x.Uses == 1
  && is20Bit(int64(i)-12)
  && clobber(x)
=> (STM4 [i-12] {s} p w0 w1 w2 w3 mem)
(STM2 [i] {s} p w2 w3 x:(STM2 [i-8] {s} p w0 w1 mem))
  && x.Uses == 1
  && is20Bit(int64(i)-8)
  && clobber(x)
=> (STM4 [i-8] {s} p w0 w1 w2 w3 mem)
// 64-bit
(MOVDstore [i] {s} p w1 x:(MOVDstore [i-8] {s} p w0 mem))
  && p.Op != OpSB
  && x.Uses == 1
  && is20Bit(int64(i)-8)
  && clobber(x)
=> (STMG2 [i-8] {s} p w0 w1 mem)
(MOVDstore [i] {s} p w2 x:(STMG2 [i-16] {s} p w0 w1 mem))
  && x.Uses == 1
  && is20Bit(int64(i)-16)
  && clobber(x)
=> (STMG3 [i-16] {s} p w0 w1 w2 mem)
(MOVDstore [i] {s} p w3 x:(STMG3 [i-24] {s} p w0 w1 w2 mem))
  && x.Uses == 1
  && is20Bit(int64(i)-24)
  && clobber(x)
=> (STMG4 [i-24] {s} p w0 w1 w2 w3 mem)
(STMG2 [i] {s} p w2 w3 x:(STMG2 [i-16] {s} p w0 w1 mem))
  && x.Uses == 1
  && is20Bit(int64(i)-16)
  && clobber(x)
=> (STMG4 [i-16] {s} p w0 w1 w2 w3 mem)

// Convert 32-bit store multiples into 64-bit stores.

```

(STM2 [i] {s} p (SRDconst [32] x) x mem) => (MOVDstore [i] {s} p x mem)

Found in path(s):

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/S390X.rules
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Found in path(s):

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/basic.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/universe.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/check.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/named.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/importer/testdata/exports.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/dwarfgen/dwarf.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/decls0.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/pointer.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/map.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/chan.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/gotos.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/labels.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/inline/inl.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/fmt.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/resolver_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/scc.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/importer/exportdata.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/tuple.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssagen/pgen.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/gc/compile.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/check_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/importer/gcimporter.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/importer/gcimporter_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/slice.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/array.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/typeparam.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/type.go
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// Lowering arithmetic

```

(Add(Ptr|64|32|16|8) ...) => (ADD ...)
(Add64F ...) => (FADD ...)
(Add32F ...) => (FADDS ...)

(Sub(Ptr|64|32|16|8) ...) => (SUB ...)
(Sub32F ...) => (FSUBS ...)
(Sub64F ...) => (FSUB ...)

// Combine 64 bit integer multiply and adds
(ADD l:(MULLD x y) z) && buildcfg.GOPPC64 >= 9 && l.Uses == 1 && clobber(l) => (MADDLD x y z)

(Mod16 x y) => (Mod32 (SignExt16to32 x) (SignExt16to32 y))
(Mod16u x y) => (Mod32u (ZeroExt16to32 x) (ZeroExt16to32 y))
(Mod8 x y) => (Mod32 (SignExt8to32 x) (SignExt8to32 y))
(Mod8u x y) => (Mod32u (ZeroExt8to32 x) (ZeroExt8to32 y))
(Mod64 x y) && buildcfg.GOPPC64 >= 9 => (MODSD x y)
(Mod64 x y) && buildcfg.GOPPC64 <= 8 => (SUB x (MULLD y (DIVD x y)))
(Mod64u x y) && buildcfg.GOPPC64 >= 9 => (MODUD x y)
(Mod64u x y)
&& buildcfg.GOPPC64 <= 8 => (SUB x (MULLD y (DIVDU x y)))
(Mod32 x y) && buildcfg.GOPPC64 >= 9 => (MODSW x y)
(Mod32 x y) && buildcfg.GOPPC64 <= 8 => (SUB x (MULLW y (DIVW x y)))
(Mod32u x y) && buildcfg.GOPPC64 >= 9 => (MODUW x y)
(Mod32u x y) && buildcfg.GOPPC64 <= 8 => (SUB x (MULLW y (DIVWU x y)))

// (x + y) / 2 with x>=y => (x - y) / 2 + y
(Avg64u <t> x y) => (ADD (SRDconst <t>) (SUB <t> x y) [1]) y

(Mul64 ...) => (MULLD ...)
(Mul(32|16|8) ...) => (MULLW ...)
(Mul64uhilo ...) => (LoweredMuluhilo ...)

(Div64 [false] x y) => (DIVD x y)
(Div64u ...) => (DIVDU ...)
(Div32 [false] x y) => (DIVW x y)
(Div32u ...) => (DIVWU ...)
(Div16 [false] x y) => (DIVW (SignExt16to32 x) (SignExt16to32 y))
(Div16u x y) => (DIVWU (ZeroExt16to32 x) (ZeroExt16to32 y))
(Div8 x y) => (DIVW (SignExt8to32 x) (SignExt8to32 y))
(Div8u x y) => (DIVWU (ZeroExt8to32 x) (ZeroExt8to32 y))

(Hmul(64|64u|32|32u) ...) => (MULH(D|DU|W|WU) ...)

(Mul32F ...) => (FMULS ...)
(Mul64F ...) => (FMUL ...)

(Div32F ...)

```

```

=> (FDIVS ...)
(Div64F ...) => (FDIV ...)

// Lowering float <=> int
(Cvt32to32F x) => (FCFIDS (MTVSRD (SignExt32to64 x)))
(Cvt32to64F x) => (FCFID (MTVSRD (SignExt32to64 x)))
(Cvt64to32F x) => (FCFIDS (MTVSRD x))
(Cvt64to64F x) => (FCFID (MTVSRD x))

(Cvt32Fto32 x) => (MFVSRD (FCTIWZ x))
(Cvt32Fto64 x) => (MFVSRD (FCTIDZ x))
(Cvt64Fto32 x) => (MFVSRD (FCTIWZ x))
(Cvt64Fto64 x) => (MFVSRD (FCTIDZ x))

(Cvt32Fto64F ...) => (Copy ...) // Note v will have the wrong type for patterns dependent on Float32/Float64
(Cvt64Fto32F ...) => (FRSP ...)

(CvtBoolToUInt8 ...) => (Copy ...)

(Round(32|64)F ...) => (LoweredRound(32|64)F ...)

(Sqrt ...) => (FSQRT ...)
(Sqrt32 ...) => (FSQRTS ...)
(Floor ...) => (FFLOOR ...)
(Ceil ...) => (FCEIL ...)
(Trunc ...) => (FTRUNC ...)
(Round ...) => (FROUND ...)
(Copysign x y) => (FCPSGN y x)
(Abs ...) => (FABS ...)
(FMA ...) => (FMADD ...)

// Lowering extension
// Note: we always extend to 64 bits even though some ops don't need that many result bits.
(SignExt8to(16|32|64)
...) => (MOVBreg ...)
(SignExt16to(32|64) ...) => (MOVHreg ...)
(SignExt32to64 ...) => (MOVWreg ...)

(ZeroExt8to(16|32|64) ...) => (MOVBZreg ...)
(ZeroExt16to(32|64) ...) => (MOVHZreg ...)
(ZeroExt32to64 ...) => (MOVWZreg ...)

(Trunc(16|32|64)to8 <t> x) && isSigned(t) => (MOVBreg x)
(Trunc(16|32|64)to8 x) => (MOVBZreg x)
(Trunc(32|64)to16 <t> x) && isSigned(t) => (MOVHreg x)
(Trunc(32|64)to16 x) => (MOVHZreg x)
(Trunc64to32 <t> x) && isSigned(t) => (MOVWreg x)
(Trunc64to32 x) => (MOVWZreg x)

```

```

// Lowering constants
(Const(64|32|16|8) [val]) => (MOVDconst [int64(val)])
(Const(32|64)F ...) => (FMOV(S|D)const ...)
(ConstNil) => (MOVDconst [0])
(ConstBool [t]) => (MOVDconst [b2i(t)])

// Carrying addition.
(Select0 (Add64carry x y c) => (Select0 <typ.UInt64> (ADDE x y (Select1 <typ.UInt64> (ADDCconst c [-1])))))
(Select1 (Add64carry x y c) => (ADDZEzero (Select1 <typ.UInt64> (ADDE x y (Select1 <typ.UInt64> (ADDCconst c [-1]))))))
// Fold initial carry bit if
0.
(ADDE x y (Select1 <typ.UInt64> (ADDCconst (MOVDconst [0]) [-1]))) => (ADDC x y)
// Fold transfer of CA -> GPR -> CA. Note 2 uses when feeding into a chained Add64carry.
(Select1 (ADDCconst n:(ADDZEzero x) [-1])) && n.Uses <= 2 => x

// Borrowing subtraction.
(Select0 (Sub64borrow x y c) => (Select0 <typ.UInt64> (SUBE x y (Select1 <typ.UInt64> (SUBCconst c [0])))))
(Select1 (Sub64borrow x y c) => (NEG (SUBZEzero (Select1 <typ.UInt64> (SUBE x y (Select1 <typ.UInt64> (SUBCconst c [0]))))))
// Fold initial borrow bit if 0.
(SUBE x y (Select1 <typ.UInt64> (SUBCconst (MOVDconst [0]) [0]))) => (SUBC x y)
// Fold transfer of CA -> GPR -> CA. Note 2 uses when feeding into a chained Sub64borrow.
(Select1 (SUBCconst n:(NEG (SUBZEzero x)) [0])) && n.Uses <= 2 => x

// Constant folding
(FABS (FMOVDconst [x])) => (FMOVDconst [math.Abs(x)])
(FSQRT (FMOVDconst [x])) && x >= 0 => (FMOVDconst [math.Sqrt(x)])
(FFLOOR (FMOVDconst [x])) => (FMOVDconst [math.Floor(x)])
(FCEIL (FMOVDconst [x])) => (FMOVDconst [math.Ceil(x)])
(FTRUNC (FMOVDconst [x])) => (FMOVDconst [math.Trunc(x)])

// Rotates
(RotateLeft8 <t> x (MOVDconst [c])) => (Or8 (Lsh8x64 <t> x (MOVDconst [c&7])) (Rsh8Ux64 <t> x (MOVDconst [-c&7])))
(RotateLeft16 <t> x (MOVDconst [c])) => (Or16 (Lsh16x64 <t> x (MOVDconst [c&15])) (Rsh16Ux64 <t> x (MOVDconst [-c&15])))
(RotateLeft32 x (MOVDconst [c])) => (ROTLWconst [c&31] x)
(RotateLeft64 x (MOVDconst [c])) => (ROTLconst [c&63] x)

// Rotate generation with const shift
(ADD (SLDconst x [c]) (SRDconst x [d])) && d == 64-c => (ROTLconst [c] x)
(OR (SLDconst x [c]) (SRDconst x [d])) && d == 64-c => (ROTLconst [c] x)
(XOR (SLDconst x [c]) (SRDconst x [d])) && d == 64-c => (ROTLconst [c] x)

```

```

(ADD (SLWconst x [c]) (SRWconst x [d])) && d == 32-c => (ROTLWconst [c] x)
( OR (SLWconst x [c]) (SRWconst x [d])) && d == 32-c => (ROTLWconst [c] x)
(XOR (SLWconst x [c]) (SRWconst x [d])) && d == 32-c => (ROTLWconst [c] x)

// Rotate generation with non-const shift
// these match
patterns from math/bits/RotateLeft[32|64], but there could be others
(ADD (SLD x (ANDconst [63] y)) (SRD x (SUB <typ.UInt> (MOVDconst [64]) (ANDconst <typ.UInt> [63] y))))
=> (ROTL x y)
(ADD (SLD x (ANDconst [63] y)) (SRD x (SUBFCconst <typ.UInt> [64] (ANDconst <typ.UInt> [63] y)))) =>
(ROTL x y)
( OR (SLD x (ANDconst [63] y)) (SRD x (SUB <typ.UInt> (MOVDconst [64]) (ANDconst <typ.UInt> [63] y))))
=> (ROTL x y)
( OR (SLD x (ANDconst [63] y)) (SRD x (SUBFCconst <typ.UInt> [64] (ANDconst <typ.UInt> [63] y)))) =>
(ROTL x y)
(XOR (SLD x (ANDconst [63] y)) (SRD x (SUB <typ.UInt> (MOVDconst [64]) (ANDconst <typ.UInt> [63] y))))
=> (ROTL x y)
(XOR (SLD x (ANDconst [63] y)) (SRD x (SUBFCconst <typ.UInt> [64] (ANDconst <typ.UInt> [63] y)))) =>
(ROTL x y)

(ADD (SLW x (ANDconst [31] y)) (SRW x (SUBFCconst <typ.UInt> [32] (ANDconst <typ.UInt> [31] y)))) =>
(ROTLW x y)
(ADD (SLW x (ANDconst [31] y)) (SRW x (SUB <typ.UInt> (MOVDconst [32]) (ANDconst <typ.UInt> [31] y))))
=> (ROTLW x y)
( OR (SLW
x (ANDconst [31] y)) (SRW x (SUBFCconst <typ.UInt> [32] (ANDconst <typ.UInt> [31] y)))) => (ROTLW x y)
( OR (SLW x (ANDconst [31] y)) (SRW x (SUB <typ.UInt> (MOVDconst [32]) (ANDconst <typ.UInt> [31] y))))
=> (ROTLW x y)
(XOR (SLW x (ANDconst [31] y)) (SRW x (SUBFCconst <typ.UInt> [32] (ANDconst <typ.UInt> [31] y)))) =>
(ROTLW x y)
(XOR (SLW x (ANDconst [31] y)) (SRW x (SUB <typ.UInt> (MOVDconst [32]) (ANDconst <typ.UInt> [31] y))))
=> (ROTLW x y)

// Lowering rotates
(RotateLeft32 x y) => (ROTLW x y)
(RotateLeft64 x y) => (ROTL x y)

// Constant rotate generation
(ROTLW x (MOVDconst [c])) => (ROTLWconst x [c&31])
(ROTL x (MOVDconst [c])) => (ROTLconst x [c&63])

// Combine rotate and mask operations
(ANDconst [m] (ROTLWconst [r] x)) && isPPC64WordRotateMask(m) => (RLWINM
[encodePPC64RotateMask(r,m,32)] x)
(AND (MOVDconst [m]) (ROTLWconst [r] x)) && isPPC64WordRotateMask(m) => (RLWINM

```

```

[encodePPC64RotateMask(r,m,32)] x)
(ANDconst [m] (ROTLW x r)) && isPPC64WordRotateMask(m) =>
(RLWNM [encodePPC64RotateMask(0,m,32)] x r)
(AND (MOVDconst [m]) (ROTLW x r)) && isPPC64WordRotateMask(m) => (RLWNM
[encodePPC64RotateMask(0,m,32)] x r)

// Note, any rotated word bitmask is still a valid word bitmask.
(ROTLWconst [r] (AND (MOVDconst [m]) x)) && isPPC64WordRotateMask(m) => (RLWINM
[encodePPC64RotateMask(r,rotateLeft32(m,r),32)] x)
(ROTLWconst [r] (ANDconst [m] x)) && isPPC64WordRotateMask(m) => (RLWINM
[encodePPC64RotateMask(r,rotateLeft32(m,r),32)] x)

(ANDconst [m] (SRWconst x [s])) && mergePPC64RShiftMask(m,s,32) == 0 => (MOVDconst [0])
(ANDconst [m] (SRWconst x [s])) && mergePPC64AndSrwi(m,s) != 0 => (RLWINM
[mergePPC64AndSrwi(m,s)] x)
(AND (MOVDconst [m]) (SRWconst x [s])) && mergePPC64RShiftMask(m,s,32) == 0 => (MOVDconst [0])
(AND (MOVDconst [m]) (SRWconst x [s])) && mergePPC64AndSrwi(m,s) != 0 => (RLWINM
[mergePPC64AndSrwi(m,s)] x)

(SRWconst (ANDconst [m] x) [s]) && mergePPC64RShiftMask(m>>uint(s),s,32) == 0 => (MOVDconst [0])
(SRWconst (ANDconst [m] x) [s])
&& mergePPC64AndSrwi(m>>uint(s),s) != 0 => (RLWINM [mergePPC64AndSrwi(m>>uint(s),s)] x)
(SRWconst (AND (MOVDconst [m]) x) [s]) && mergePPC64RShiftMask(m>>uint(s),s,32) == 0 => (MOVDconst
[0])
(SRWconst (AND (MOVDconst [m]) x) [s]) && mergePPC64AndSrwi(m>>uint(s),s) != 0 => (RLWINM
[mergePPC64AndSrwi(m>>uint(s),s)] x)

// Merge shift right + shift left and clear left (e.g for a table lookup)
(CLRLSLDI [c] (SRWconst [s] x)) && mergePPC64ClrslldiSrwi(int64(c),s) != 0 => (RLWINM
[mergePPC64ClrslldiSrwi(int64(c),s)] x)
(SLDconst [l] (SRWconst [r] x)) && mergePPC64SldiSrwi(l,r) != 0 => (RLWINM [mergePPC64SldiSrwi(l,r)] x)
// The following reduction shows up frequently too. e.g b[(x>>14)&0xFF]
(CLRLSLDI [c] i:(RLWINM [s] x)) && mergePPC64ClrslldiRlwinm(c,s) != 0 => (RLWINM
[mergePPC64ClrslldiRlwinm(c,s)] x)

// large constant shifts
(Lsh64x64 _ (MOVDconst [c])) && uint64(c) >= 64 => (MOVDconst [0])
(Rsh64Ux64 _ (MOVDconst [c])) && uint64(c) >= 64 => (MOVDconst [0])
(Lsh32x64 _ (MOVDconst [c]))
&& uint64(c) >= 32 => (MOVDconst [0])
(Rsh32Ux64 _ (MOVDconst [c])) && uint64(c) >= 32 => (MOVDconst [0])
(Lsh16x64 _ (MOVDconst [c])) && uint64(c) >= 16 => (MOVDconst [0])
(Rsh16Ux64 _ (MOVDconst [c])) && uint64(c) >= 16 => (MOVDconst [0])
(Lsh8x64 _ (MOVDconst [c])) && uint64(c) >= 8 => (MOVDconst [0])
(Rsh8Ux64 _ (MOVDconst [c])) && uint64(c) >= 8 => (MOVDconst [0])

// large constant signed right shift, we leave the sign bit
(Rsh64x64 x (MOVDconst [c])) && uint64(c) >= 64 => (SRADconst x [63])

```

```
(Rsh32x64 x (MOVDconst [c])) && uint64(c) >= 32 => (SRAWconst x [63])
(Rsh16x64 x (MOVDconst [c])) && uint64(c) >= 16 => (SRAWconst (SignExt16to32 x) [63])
(Rsh8x64 x (MOVDconst [c])) && uint64(c) >= 8 => (SRAWconst (SignExt8to32 x) [63])
```

```
// constant shifts
```

```
(Lsh64x64 x (MOVDconst [c])) && uint64(c) < 64 => (SLDconst x [c])
(Rsh64x64 x (MOVDconst [c])) && uint64(c) < 64 => (SRADconst x [c])
(Rsh64Ux64 x (MOVDconst [c])) && uint64(c) < 64 => (SRDconst x [c])
(Lsh32x64 x (MOVDconst
[c])) && uint64(c) < 32 => (SLWconst x [c])
(Rsh32x64 x (MOVDconst [c])) && uint64(c) < 32 => (SRAWconst x [c])
(Rsh32Ux64 x (MOVDconst [c])) && uint64(c) < 32 => (SRWconst x [c])
(Lsh16x64 x (MOVDconst [c])) && uint64(c) < 16 => (SLWconst x [c])
(Rsh16x64 x (MOVDconst [c])) && uint64(c) < 16 => (SRAWconst (SignExt16to32 x) [c])
(Rsh16Ux64 x (MOVDconst [c])) && uint64(c) < 16 => (SRWconst (ZeroExt16to32 x) [c])
(Lsh8x64 x (MOVDconst [c])) && uint64(c) < 8 => (SLWconst x [c])
(Rsh8x64 x (MOVDconst [c])) && uint64(c) < 8 => (SRAWconst (SignExt8to32 x) [c])
(Rsh8Ux64 x (MOVDconst [c])) && uint64(c) < 8 => (SRWconst (ZeroExt8to32 x) [c])
```

```
(Lsh64x32 x (MOVDconst [c])) && uint32(c) < 64 => (SLDconst x [c&63])
(Rsh64x32 x (MOVDconst [c])) && uint32(c) < 64 => (SRADconst x [c&63])
(Rsh64Ux32 x (MOVDconst [c])) && uint32(c) < 64 => (SRDconst x [c&63])
(Lsh32x32 x (MOVDconst [c])) && uint32(c) < 32 => (SLWconst x [c&31])
(Rsh32x32 x (MOVDconst [c])) && uint32(c) < 32 => (SRAWconst
x [c&31])
(Rsh32Ux32 x (MOVDconst [c])) && uint32(c) < 32 => (SRWconst x [c&31])
(Lsh16x32 x (MOVDconst [c])) && uint32(c) < 16 => (SLWconst x [c&31])
(Rsh16x32 x (MOVDconst [c])) && uint32(c) < 16 => (SRAWconst (SignExt16to32 x) [c&15])
(Rsh16Ux32 x (MOVDconst [c])) && uint32(c) < 16 => (SRWconst (ZeroExt16to32 x) [c&15])
(Lsh8x32 x (MOVDconst [c])) && uint32(c) < 8 => (SLWconst x [c&7])
(Rsh8x32 x (MOVDconst [c])) && uint32(c) < 8 => (SRAWconst (SignExt8to32 x) [c&7])
(Rsh8Ux32 x (MOVDconst [c])) && uint32(c) < 8 => (SRWconst (ZeroExt8to32 x) [c&7])
```

```
// Lower bounded shifts first. No need to check shift value.
```

```
(Lsh64x(64|32|16|8) x y) && shiftIsBounded(v) => (SLD x y)
(Lsh32x(64|32|16|8) x y) && shiftIsBounded(v) => (SLW x y)
(Lsh16x(64|32|16|8) x y) && shiftIsBounded(v) => (SLW x y)
(Lsh8x(64|32|16|8) x y) && shiftIsBounded(v) => (SLW x y)
(Rsh64Ux(64|32|16|8) x y) && shiftIsBounded(v) => (SRD x y)
(Rsh32Ux(64|32|16|8) x y) && shiftIsBounded(v) => (SRW x y)
(Rsh16Ux(64|32|16|8)
x y) && shiftIsBounded(v) => (SRW (MOVHZreg x) y)
(Rsh8Ux(64|32|16|8) x y) && shiftIsBounded(v) => (SRW (MOVBZreg x) y)
(Rsh64x(64|32|16|8) x y) && shiftIsBounded(v) => (SRAD x y)
(Rsh32x(64|32|16|8) x y) && shiftIsBounded(v) => (SRAW x y)
(Rsh16x(64|32|16|8) x y) && shiftIsBounded(v) => (SRAW (MOVHreg x) y)
(Rsh8x(64|32|16|8) x y) && shiftIsBounded(v) => (SRAW (MOVBreg x) y)
```



```

// non-constant rotates
// These are subexpressions found in statements that can become rotates
// In these cases the shift count is known to be < 64 so the more complicated expressions
// with Mask & Carry is not needed
(Lsh64x64 x (AND y (MOVDconst [63]))) => (SLD x (ANDconst <typ.Int64> [63] y))
(Lsh64x64 x (ANDconst <typ.Int64> [63] y)) => (SLD x (ANDconst <typ.Int64> [63] y))
(Rsh64Ux64 x (AND y (MOVDconst [63]))) => (SRD x (ANDconst <typ.Int64> [63] y))
(Rsh64Ux64 x (ANDconst <typ.UInt> [63] y)) => (SRD x (ANDconst <typ.UInt> [63] y))
(Rsh64Ux64 x (SUB <typ.UInt> (MOVDconst [64]) (ANDconst
<typ.UInt> [63] y))) => (SRD x (SUB <typ.UInt> (MOVDconst [64]) (ANDconst <typ.UInt> [63] y)))
(Rsh64Ux64 x (SUBFCconst <typ.UInt> [64] (ANDconst <typ.UInt> [63] y))) => (SRD x (SUBFCconst
<typ.UInt> [64] (ANDconst <typ.UInt> [63] y)))
(Rsh64Ux64 x (SUB <typ.UInt> (MOVDconst [64]) (AND <typ.UInt> y (MOVDconst [63]))) => (SRD x (SUB
<typ.UInt> (MOVDconst [64]) (ANDconst <typ.UInt> [63] y)))
(Rsh64Ux64 x (SUBFCconst <typ.UInt> [64] (AND <typ.UInt> y (MOVDconst [63]))) => (SRD x (SUBFCconst
<typ.UInt> [64] (ANDconst <typ.UInt> [63] y)))
(Rsh64x64 x (AND y (MOVDconst [63]))) => (SRAD x (ANDconst <typ.Int64> [63] y))
(Rsh64x64 x (ANDconst <typ.UInt> [63] y)) => (SRAD x (ANDconst <typ.UInt> [63] y))
(Rsh64x64 x (SUB <typ.UInt> (MOVDconst [64]) (ANDconst <typ.UInt> [63] y))) => (SRAD x (SUB <typ.UInt>
(MOVDconst [64]) (ANDconst <typ.UInt> [63] y)))
(Rsh64x64 x (SUBFCconst <typ.UInt> [64] (ANDconst <typ.UInt> [63] y))) => (SRAD x (SUBFCconst
<typ.UInt> [64] (ANDconst <typ.UInt> [63]
y)))
(Rsh64x64 x (SUB <typ.UInt> (MOVDconst [64]) (AND <typ.UInt> y (MOVDconst [63]))) => (SRAD x (SUB
<typ.UInt> (MOVDconst [64]) (ANDconst <typ.UInt> [63] y)))
(Rsh64x64 x (SUBFCconst <typ.UInt> [64] (AND <typ.UInt> y (MOVDconst [63]))) => (SRAD x (SUBFCconst
<typ.UInt> [64] (ANDconst <typ.UInt> [63] y)))

(Lsh64x64 x y) => (SLD x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [64])))
(Rsh64x64 x y) => (SRAD x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [64])))
(Rsh64Ux64 x y) => (SRD x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [64])))

(Lsh32x64 x (AND y (MOVDconst [31]))) => (SLW x (ANDconst <typ.Int32> [31] y))
(Lsh32x64 x (ANDconst <typ.Int32> [31] y)) => (SLW x (ANDconst <typ.Int32> [31] y))

(Rsh32Ux64 x (AND y (MOVDconst [31]))) => (SRW x (ANDconst <typ.Int32> [31] y))
(Rsh32Ux64 x (ANDconst <typ.UInt> [31] y)) => (SRW x (ANDconst <typ.UInt> [31] y))
(Rsh32Ux64 x (SUB <typ.UInt> (MOVDconst [32]) (ANDconst <typ.UInt> [31] y))) => (SRW x (SUB <typ.UInt>
(MOVDconst
[32]) (ANDconst <typ.UInt> [31] y)))
(Rsh32Ux64 x (SUBFCconst <typ.UInt> [32] (ANDconst <typ.UInt> [31] y))) => (SRW x (SUBFCconst
<typ.UInt> [32] (ANDconst <typ.UInt> [31] y)))
(Rsh32Ux64 x (SUB <typ.UInt> (MOVDconst [32]) (AND <typ.UInt> y (MOVDconst [31]))) => (SRW x (SUB
<typ.UInt> (MOVDconst [32]) (ANDconst <typ.UInt> [31] y)))
(Rsh32Ux64 x (SUBFCconst <typ.UInt> [32] (AND <typ.UInt> y (MOVDconst [31]))) => (SRW x (SUBFCconst
<typ.UInt> [32] (ANDconst <typ.UInt> [31] y)))

(Rsh32x64 x (AND y (MOVDconst [31]))) => (SRAW x (ANDconst <typ.Int32> [31] y))

```

(Rsh32x64 x (ANDconst <typ.UInt> [31] y)) => (SRAW x (ANDconst <typ.UInt> [31] y))
 (Rsh32x64 x (SUB <typ.UInt> (MOVDconst [32]) (ANDconst <typ.UInt> [31] y))) => (SRAW x (SUB <typ.UInt>
 (MOVDconst [32]) (ANDconst <typ.UInt> [31] y)))
 (Rsh32x64 x (SUBFCconst <typ.UInt> [32] (ANDconst <typ.UInt> [31] y))) => (SRAW x (SUBFCconst
 <typ.UInt> [32] (ANDconst <typ.UInt> [31] y)))
 (Rsh32x64 x (SUB <typ.UInt> (MOVDconst [32]) (AND <typ.UInt>
 y (MOVDconst [31]))) => (SRAW x (SUB <typ.UInt> (MOVDconst [32]) (ANDconst <typ.UInt> [31] y)))
 (Rsh32x64 x (SUBFCconst <typ.UInt> [32] (AND <typ.UInt> y (MOVDconst [31]))) => (SRAW x (SUBFCconst
 <typ.UInt> [32] (ANDconst <typ.UInt> [31] y)))

(Rsh32x64 x y) => (SRAW x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [32]))))
 (Rsh32Ux64 x y) => (SRW x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [32]))))
 (Lsh32x64 x y) => (SLW x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [32]))))

(Rsh16x64 x y) => (SRAW (SignExt16to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [16]))))
 (Rsh16Ux64 x y) => (SRW (ZeroExt16to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [16]))))
 (Lsh16x64 x y) => (SLW x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [16]))))

(Rsh8x64 x y) => (SRAW (SignExt8to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [8]))))
 (Rsh8Ux64 x y) => (SRW (ZeroExt8to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [8]))))
 (Lsh8x64
 x y) => (SLW x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [8]))))

(Rsh64x32 x y) => (SRAD x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [64]))))
 (Rsh64Ux32 x y) => (SRD x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [64]))))
 (Lsh64x32 x y) => (SLD x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [64]))))
 (Rsh32x32 x y) => (SRAW x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [32]))))
 (Rsh32Ux32 x y) => (SRW x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [32]))))
 (Lsh32x32 x y) => (SLW x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [32]))))

(Rsh16x32 x y) => (SRAW (SignExt16to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [16]))))
 (Rsh16Ux32 x y) => (SRW (ZeroExt16to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [16]))))
 (Lsh16x32 x y) => (SLW x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [16]))))

(Rsh8x32 x y) => (SRAW (SignExt8to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [8]))))
 (Rsh8Ux32
 x y) => (SRW (ZeroExt8to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [8]))))
 (Lsh8x32 x y) => (SLW x (ISEL [0] y (MOVDconst [-1]) (CMPU y (MOVDconst [8]))))

(Rsh64x16 x y) => (SRAD x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt16to64 y) (MOVDconst [64]))))
 (Rsh64Ux16 x y) => (SRD x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt16to64 y) (MOVDconst [64]))))
 (Lsh64x16 x y) => (SLD x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt16to64 y) (MOVDconst [64]))))

(Rsh32x16 x y) => (SRAW x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt16to64 y) (MOVDconst [32]))))
 (Rsh32Ux16 x y) => (SRW x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt16to64 y) (MOVDconst [32]))))
 (Lsh32x16 x y) => (SLW x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt16to64 y) (MOVDconst [32]))))

```

(Rsh16x16 x y) => (SRAW (SignExt16to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt16to64 y)
(MOVDconst [16])))
(Rsh16Ux16 x y) => (SRW (ZeroExt16to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt16to64
y) (MOVDconst [16])))
(Lsh16x16 x y) => (SLW x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt16to64 y) (MOVDconst
[16])))

(Rsh8x16 x y) => (SRAW (SignExt8to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt16to64 y)
(MOVDconst [8])))
(Rsh8Ux16 x y) => (SRW (ZeroExt8to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt16to64 y)
(MOVDconst [8])))
(Lsh8x16 x y) => (SLW x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt16to64 y) (MOVDconst
[8])))

(Rsh64x8 x y) => (SRAD x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt8to64 y) (MOVDconst [64])))
(Rsh64Ux8 x y) => (SRD x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt8to64 y) (MOVDconst [64])))
(Lsh64x8 x y) => (SLD x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt8to64 y) (MOVDconst [64])))

(Rsh32x8 x y) => (SRAW x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt8to64 y) (MOVDconst [32])))
(Rsh32Ux8 x y) => (SRW x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt8to64 y) (MOVDconst [32])))
(Lsh32x8 x y) => (SLW
x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt8to64 y) (MOVDconst [32])))

(Rsh16x8 x y) => (SRAW (SignExt16to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt8to64 y)
(MOVDconst [16])))
(Rsh16Ux8 x y) => (SRW (ZeroExt16to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt8to64 y)
(MOVDconst [16])))
(Lsh16x8 x y) => (SLW x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt8to64 y) (MOVDconst
[16])))

(Rsh8x8 x y) => (SRAW (SignExt8to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt8to64 y) (MOVDconst
[8])))
(Rsh8Ux8 x y) => (SRW (ZeroExt8to32 x) (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt8to64 y) (MOVDconst
[8])))
(Lsh8x8 x y) => (SLW x (ISEL [0] y (MOVDconst [-1]) (CMPU (ZeroExt8to64 y) (MOVDconst [8])))

// Cleaning up shift ops
(ISEL [0] (ANDconst [d] y) (MOVDconst [-1]) (CMPU (ANDconst [d] y) (MOVDconst [c]))) && c >= d =>
(ANDconst [d] y)
(ISEL [0] (ANDconst [d] y) (MOVDconst [-1]) (CMPUconst [c] (ANDconst [d] y))) && c >= d => (ANDconst [d]
y)
(ORN x (MOVDconst [-1])) => x

(S(RAD|RD|LD) x (MOVDconst [c])) => (S(RAD|RD|LD)const [c&63 | (c>>6&1*63)] x)
(S(RAW|RW|LW) x (MOVDconst [c])) => (S(RAW|RW|LW)const [c&31 | (c>>5&1*31)] x)

(Addr {sym} base) => (MOVDaddr {sym} [0] base)

```

```

(LocalAddr {sym} base _) => (MOVDaddr {sym} base)
(OffPtr [off] ptr) => (ADD (MOVDconst <typ.Int64> [off]) ptr)

// TODO: optimize these cases?
(Ctz32NonZero ...) => (Ctz32 ...)
(Ctz64NonZero ...) => (Ctz64 ...)

(Ctz64 x) && buildcfg.GOPPC64<=8 => (POPCNTD (ANDN <typ.Int64> (ADDconst <typ.Int64> [-1] x) x))
(Ctz64 x) => (CNTTZD x)
(Ctz32 x) && buildcfg.GOPPC64<=8 => (POPCNTW (MOVWZreg (ANDN <typ.Int> (ADDconst <typ.Int> [-1] x) x)))
(Ctz32 x) => (CNTTZW (MOVWZreg x))
(Ctz16 x) => (POPCNTW (MOVHZreg (ANDN <typ.Int16> (ADDconst <typ.Int16> [-1] x) x)))
(Ctz8 x) => (POPCNTB (MOVBZreg (ANDN <typ.UInt8> (ADDconst <typ.UInt8> [-1] x) x)))

(BitLen64 x) => (SUBFCconst [64] (CNTLZD <typ.Int> x))
(BitLen32 x) => (SUBFCconst [32] (CNTLZW <typ.Int> x))

(PopCount64
...) => (POPCNTD ...)
(PopCount32 x) => (POPCNTW (MOVWZreg x))
(PopCount16 x) => (POPCNTW (MOVHZreg x))
(PopCount8 x) => (POPCNTB (MOVBZreg x))

(And(64|32|16|8) ...) => (AND ...)
(Or(64|32|16|8) ...) => (OR ...)
(Xor(64|32|16|8) ...) => (XOR ...)

(Neg(64|32|16|8) ...) => (NEG ...)
(Neg64F ...) => (FNEG ...)
(Neg32F ...) => (FNEG ...)

(Com(64|32|16|8) x) => (NOR x x)

// Lowering boolean ops
(AndB ...) => (AND ...)
(OrB ...) => (OR ...)
(Not x) => (XORconst [1] x)

// Merge logical operations
(AND x (NOR y y)) => (ANDN x y)
(OR x (NOR y y)) => (ORN x y)

// Lowering comparisons
(EqB x y) => (ANDconst [1] (EQV x y))
// Sign extension dependence on operand sign sets up for sign/zero-extension elision later
(Eq8 x y) && isSigned(x.Type) && isSigned(y.Type) => (Equal (CMPW (SignExt8to32 x) (SignExt8to32 y)))
(Eq16 x y) && isSigned(x.Type) && isSigned(y.Type) => (Equal (CMPW (SignExt16to32 x) (SignExt16to32 y)))

```

```

(Eq8 x y) => (Equal (CMPW (ZeroExt8to32 x) (ZeroExt8to32 y)))
(Eq16 x
 y) => (Equal (CMPW (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Eq32 x y) => (Equal (CMPW x y))
(Eq64 x y) => (Equal (CMP x y))
(Eq32F x y) => (Equal (FCMPU x y))
(Eq64F x y) => (Equal (FCMPU x y))
(EqPtr x y) => (Equal (CMP x y))

(NeqB ...) => (XOR ...)
// Like Eq8 and Eq16, prefer sign extension likely to enable later elision.
(Neq8 x y) && isSigned(x.Type) && isSigned(y.Type) => (NotEqual (CMPW (SignExt8to32 x) (SignExt8to32 y)))
(Neq16 x y) && isSigned(x.Type) && isSigned(y.Type) => (NotEqual (CMPW (SignExt16to32 x) (SignExt16to32
 y)))
(Neq8 x y) => (NotEqual (CMPW (ZeroExt8to32 x) (ZeroExt8to32 y)))
(Neq16 x y) => (NotEqual (CMPW (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Neq32 x y) => (NotEqual (CMPW x y))
(Neq64 x y) => (NotEqual (CMP x y))
(Neq32F x y) => (NotEqual (FCMPU x y))
(Neq64F x y) => (NotEqual (FCMPU x y))
(NeqPtr x y) => (NotEqual (CMP x y))

(Less8 x y) => (LessThan (CMPW (SignExt8to32 x) (SignExt8to32 y)))
(Less16 x y) => (LessThan (CMPW (SignExt16to32 x) (SignExt16to32
 y)))
(Less32 x y) => (LessThan (CMPW x y))
(Less64 x y) => (LessThan (CMP x y))
(Less32F x y) => (FLessThan (FCMPU x y))
(Less64F x y) => (FLessThan (FCMPU x y))

(Less8U x y) => (LessThan (CMPWU (ZeroExt8to32 x) (ZeroExt8to32 y)))
(Less16U x y) => (LessThan (CMPWU (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Less32U x y) => (LessThan (CMPWU x y))
(Less64U x y) => (LessThan (CMPU x y))

(Leq8 x y) => (LessEqual (CMPW (SignExt8to32 x) (SignExt8to32 y)))
(Leq16 x y) => (LessEqual (CMPW (SignExt16to32 x) (SignExt16to32 y)))
(Leq32 x y) => (LessEqual (CMPW x y))
(Leq64 x y) => (LessEqual (CMP x y))
(Leq32F x y) => (FLessEqual (FCMPU x y))
(Leq64F x y) => (FLessEqual (FCMPU x y))

(Leq8U x y) => (LessEqual (CMPWU (ZeroExt8to32 x) (ZeroExt8to32 y)))
(Leq16U x y) => (LessEqual (CMPWU (ZeroExt16to32 x) (ZeroExt16to32 y)))
(Leq32U x y) => (LessEqual (CMPWU x y))
(Leq64U x y) => (LessEqual (CMPU x y))

// Absorb pseudo-ops into blocks.

```

```

(If (Equal cc) yes no) => (EQ cc yes no)
(If (NotEqual cc) yes
no) => (NE cc yes no)
(If (LessThan cc) yes no) => (LT cc yes no)
(If (LessEqual cc) yes no) => (LE cc yes no)
(If (GreaterThan cc) yes no) => (GT cc yes no)
(If (GreaterEqual cc) yes no) => (GE cc yes no)
(If (FLessThan cc) yes no) => (FLT cc yes no)
(If (FLessEqual cc) yes no) => (FLE cc yes no)
(If (FGreaterThan cc) yes no) => (FGT cc yes no)
(If (FGreaterEqual cc) yes no) => (FGE cc yes no)

```

```

(If cond yes no) => (NE (CMPWconst [0] (ANDconst <typ.UInt32> [1] cond)) yes no)

```

```

// Absorb boolean tests into block

```

```

(NE (CMPWconst [0] (ANDconst [1] (Equal cc))) yes no) => (EQ cc yes no)
(NE (CMPWconst [0] (ANDconst [1] (NotEqual cc))) yes no) => (NE cc yes no)
(NE (CMPWconst [0] (ANDconst [1] (LessThan cc))) yes no) => (LT cc yes no)
(NE (CMPWconst [0] (ANDconst [1] (LessEqual cc))) yes no) => (LE cc yes no)
(NE (CMPWconst [0] (ANDconst [1] (GreaterThan cc))) yes no) => (GT cc yes no)
(NE (CMPWconst [0] (ANDconst [1] (GreaterEqual cc))) yes no) => (GE cc yes no)
(NE (CMPWconst [0] (ANDconst
[1] (FLessThan cc))) yes no) => (FLT cc yes no)
(NE (CMPWconst [0] (ANDconst [1] (FLessEqual cc))) yes no) => (FLE cc yes no)
(NE (CMPWconst [0] (ANDconst [1] (FGreaterThan cc))) yes no) => (FGT cc yes no)
(NE (CMPWconst [0] (ANDconst [1] (FGreaterEqual cc))) yes no) => (FGE cc yes no)

```

```

// Elide compares of bit tests // TODO need to make both CC and result of ANDCC available.

```

```

(EQ (CMPconst [0] (ANDconst [c] x)) yes no) => (EQ (ANDCCconst [c] x) yes no)
(NE (CMPconst [0] (ANDconst [c] x)) yes no) => (NE (ANDCCconst [c] x) yes no)
(EQ (CMPWconst [0] (ANDconst [c] x)) yes no) => (EQ (ANDCCconst [c] x) yes no)
(NE (CMPWconst [0] (ANDconst [c] x)) yes no) => (NE (ANDCCconst [c] x) yes no)

```

```

// absorb flag constants into branches

```

```

(EQ (FlagEQ) yes no) => (First yes no)
(EQ (FlagLT) yes no) => (First no yes)
(EQ (FlagGT) yes no) => (First no yes)

```

```

(NE (FlagEQ) yes no) => (First no yes)
(NE (FlagLT) yes no) => (First yes no)
(NE (FlagGT) yes no) => (First yes no)

```

```

(LT (FlagEQ) yes no) => (First
no yes)
(LT (FlagLT) yes no) => (First yes no)
(LT (FlagGT) yes no) => (First no yes)

```

```

(LE (FlagEQ) yes no) => (First yes no)

```

```

(LE (FlagLT) yes no) => (First yes no)
(LE (FlagGT) yes no) => (First no yes)

(GT (FlagEQ) yes no) => (First no yes)
(GT (FlagLT) yes no) => (First no yes)
(GT (FlagGT) yes no) => (First yes no)

(GE (FlagEQ) yes no) => (First yes no)
(GE (FlagLT) yes no) => (First no yes)
(GE (FlagGT) yes no) => (First yes no)

// absorb InvertFlags into branches
(LT (InvertFlags cmp) yes no) => (GT cmp yes no)
(GT (InvertFlags cmp) yes no) => (LT cmp yes no)
(LE (InvertFlags cmp) yes no) => (GE cmp yes no)
(GE (InvertFlags cmp) yes no) => (LE cmp yes no)
(EQ (InvertFlags cmp) yes no) => (EQ cmp yes no)
(NE (InvertFlags cmp) yes no) => (NE cmp yes no)

// constant comparisons
(CMPWconst (MOVDconst [x] [y]) && int32(x)==int32(y) => (FlagEQ)
(CMPWconst (MOVDconst [x] [y]) && int32(x)<int32(y) => (FlagLT)
(CMPWconst (MOVDconst [x] [y]) && int32(x)>int32(y) => (FlagGT)

(CMPconst
(MOVDconst [x] [y]) && x==y => (FlagEQ)
(CMPconst (MOVDconst [x] [y]) && x<y => (FlagLT)
(CMPconst (MOVDconst [x] [y]) && x>y => (FlagGT)

(CMPWUconst (MOVDconst [x] [y]) && int32(x)==int32(y) => (FlagEQ)
(CMPWUconst (MOVDconst [x] [y]) && uint32(x)<uint32(y) => (FlagLT)
(CMPWUconst (MOVDconst [x] [y]) && uint32(x)>uint32(y) => (FlagGT)

(CMPUconst (MOVDconst [x] [y]) && x==y => (FlagEQ)
(CMPUconst (MOVDconst [x] [y]) && uint64(x)<uint64(y) => (FlagLT)
(CMPUconst (MOVDconst [x] [y]) && uint64(x)>uint64(y) => (FlagGT)

// other known comparisons
//(CMPconst (MOVBUreg _) [c]) && 0xff < c => (FlagLT)
//(CMPconst (MOVHUreg _) [c]) && 0xffff < c => (FlagLT)
//(CMPconst (ANDconst _ [m] [n]) && 0 <= int32(m) && int32(m) < int32(n) => (FlagLT)
//(CMPconst (SRLconst _ [c] [n]) && 0 <= n && 0 < c && c <= 32 && (1<<uint32(32-c)) <= uint32(n) =>
(FlagLT)

// absorb flag constants into boolean values
(Equal (FlagEQ)) => (MOVDconst [1])
(Equal (FlagLT)) => (MOVDconst [0])
(Equal

```

```

(FlagGT)) => (MOVDconst [0])

(NotEqual (FlagEQ)) => (MOVDconst [0])
(NotEqual (FlagLT)) => (MOVDconst [1])
(NotEqual (FlagGT)) => (MOVDconst [1])

(LessThan (FlagEQ)) => (MOVDconst [0])
(LessThan (FlagLT)) => (MOVDconst [1])
(LessThan (FlagGT)) => (MOVDconst [0])

(LessEqual (FlagEQ)) => (MOVDconst [1])
(LessEqual (FlagLT)) => (MOVDconst [1])
(LessEqual (FlagGT)) => (MOVDconst [0])

(GreaterThan (FlagEQ)) => (MOVDconst [0])
(GreaterThan (FlagLT)) => (MOVDconst [0])
(GreaterThan (FlagGT)) => (MOVDconst [1])

(GreaterEqual (FlagEQ)) => (MOVDconst [1])
(GreaterEqual (FlagLT)) => (MOVDconst [0])
(GreaterEqual (FlagGT)) => (MOVDconst [1])

// absorb InvertFlags into boolean values
(Equal (InvertFlags x)) => (Equal x)
(NotEqual (InvertFlags x)) => (NotEqual x)
(LessThan (InvertFlags x)) => (GreaterThan x)
(GreaterThan (InvertFlags x)) => (LessThan x)
(LessEqual (InvertFlags x)) => (GreaterEqual x)
(GreaterEqual (InvertFlags x)) => (LessEqual x)

// Elide compares of bit tests // TODO need to
make both CC and result of ANDCC available.
((EQ|NE|LT|LE|GT|GE) (CMPconst [0] (ANDconst [c] x)) yes no) => ((EQ|NE|LT|LE|GT|GE) (ANDCCconst [c]
x) yes no)
((EQ|NE|LT|LE|GT|GE) (CMPWconst [0] (ANDconst [c] x)) yes no) => ((EQ|NE|LT|LE|GT|GE) (ANDCCconst [c]
x) yes no)
((EQ|NE|LT|LE|GT|GE) (CMPconst [0] z:(AND x y)) yes no) && z.Uses == 1 => ((EQ|NE|LT|LE|GT|GE)
(ANDCC x y) yes no)
((EQ|NE|LT|LE|GT|GE) (CMPconst [0] z:(OR x y)) yes no) && z.Uses == 1 => ((EQ|NE|LT|LE|GT|GE) (ORCC x
y) yes no)
((EQ|NE|LT|LE|GT|GE) (CMPconst [0] z:(XOR x y)) yes no) && z.Uses == 1 => ((EQ|NE|LT|LE|GT|GE)
(XORCC x y) yes no)

// Only lower after bool is lowered. It should always lower. This helps ensure the folding below happens reliably.
(CondSelect x y bool) && flagArg(bool) == nil => (ISEL [6] x y (ANDCCconst [1] bool))
// Fold any CR -> GPR -> CR transfers when applying the above rule.
(ISEL [6] x y (ANDCCconst [1] (ISELB [c] one cmp))) => (ISEL [c] x y cmp)

```



```

// Lowering loads
(Load <T> ptr mem) && (is64BitInt(t)
|| isPtr(t)) => (MOVDload ptr mem)
(Load <T> ptr mem) && is32BitInt(t) && isSigned(t) => (MOVWload ptr mem)
(Load <T> ptr mem) && is32BitInt(t) && !isSigned(t) => (MOVWZload ptr mem)
(Load <T> ptr mem) && is16BitInt(t) && isSigned(t) => (MOVHload ptr mem)
(Load <T> ptr mem) && is16BitInt(t) && !isSigned(t) => (MOVHZload ptr mem)
(Load <T> ptr mem) && t.IsBoolean() => (MOVBZload ptr mem)
(Load <T> ptr mem) && is8BitInt(t) && isSigned(t) => (MOVBreg (MOVBZload ptr mem)) // PPC has no signed-
byte load.
(Load <T> ptr mem) && is8BitInt(t) && !isSigned(t) => (MOVBZload ptr mem)

(Load <T> ptr mem) && is32BitFloat(t) => (FMOVSload ptr mem)
(Load <T> ptr mem) && is64BitFloat(t) => (FMOVDload ptr mem)

(Store {t} ptr val mem) && t.Size() == 8 && is64BitFloat(val.Type) => (FMOVDstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 8 && is32BitFloat(val.Type) => (FMOVDstore ptr val mem) // glitch from
(Cvt32Fto64F x) => x -- type is wrong
(Store {t} ptr val mem) && t.Size() == 4
&& is32BitFloat(val.Type) => (FMOVSstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 8 && !is64BitFloat(val.Type) => (MOVDstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 4 && is32BitInt(val.Type) => (MOVWstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 2 => (MOVHstore ptr val mem)
(Store {t} ptr val mem) && t.Size() == 1 => (MOVBstore ptr val mem)

// Using Zero instead of LoweredZero allows the
// target address to be folded where possible.
(Zero [0] _ mem) => mem
(Zero [1] destptr mem) => (MOVBstorezero destptr mem)
(Zero [2] destptr mem) =>
(MOVHstorezero destptr mem)
(Zero [3] destptr mem) =>
(MOVBstorezero [2] destptr
(MOVHstorezero destptr mem))
(Zero [4] destptr mem) =>
(MOVWstorezero destptr mem)
(Zero [5] destptr mem) =>
(MOVBstorezero [4] destptr
(MOVWstorezero destptr mem))
(Zero [6] destptr mem) =>
(MOVHstorezero [4] destptr
(MOVWstorezero destptr mem))
(Zero [7] destptr mem) =>
(MOVBstorezero [6] destptr
(MOVHstorezero [4] destptr
(MOVWstorezero
destptr mem))))

```

```

(Zero [8] {t} destptr mem) => (MOVDstorezero destptr mem)
(Zero [12] {t} destptr mem) =>
    (MOVWstorezero [8] destptr
     (MOVDstorezero [0] destptr mem))
(Zero [16] {t} destptr mem) =>
    (MOVDstorezero [8] destptr
     (MOVDstorezero [0] destptr mem))
(Zero [24] {t} destptr mem) =>
    (MOVDstorezero [16] destptr
     (MOVDstorezero [8] destptr
      (MOVDstorezero [0] destptr mem)))
(Zero [32] {t} destptr mem) =>
    (MOVDstorezero [24] destptr
     (MOVDstorezero [16] destptr
      (MOVDstorezero [8] destptr
       (MOVDstorezero [0] destptr mem))))

// Handle cases not handled above
// Lowered Short cases do not generate loops, and as a result don't clobber
// the address registers or flags.
(Zero [s] ptr mem) && buildcfg.GOPPC64 <= 8 && s < 64 => (LoweredZeroShort [s] ptr mem)
(Zero [s] ptr mem) && buildcfg.GOPPC64 <= 8 => (LoweredZero
[s] ptr mem)
(Zero [s] ptr mem) && s < 128 && buildcfg.GOPPC64 >= 9 => (LoweredQuadZeroShort [s] ptr mem)
(Zero [s] ptr mem) && buildcfg.GOPPC64 >= 9 => (LoweredQuadZero [s] ptr mem)

// moves
(Move [0] _ _ mem) => mem
(Move [1] dst src mem) => (MOVBstore dst (MOVBZload src mem) mem)
(Move [2] dst src mem) =>
    (MOVHstore dst (MOVHZload src mem) mem)
(Move [4] dst src mem) =>
    (MOVWstore dst (MOVWZload src mem) mem)
// MOVD for load and store must have offsets that are multiple of 4
(Move [8] {t} dst src mem) =>
    (MOVDstore dst (MOVDload src mem) mem)
(Move [3] dst src mem) =>
    (MOVBstore [2] dst (MOVBZload [2] src mem)
     (MOVHstore dst (MOVHload src mem) mem))
(Move [5] dst src mem) =>
    (MOVBstore [4] dst (MOVBZload [4] src mem)
     (MOVWstore dst (MOVWZload src mem) mem))
(Move [6] dst src mem) =>
    (MOVHstore [4] dst (MOVHZload [4] src mem)
     (MOVWstore dst (MOVWZload src mem) mem))
(Move [7] dst src mem)
=>
    (MOVBstore [6] dst (MOVBZload [6] src mem)

```

```

(MOVHstore [4] dst (MOVHZload [4] src mem)
 (MOVWstore dst (MOVWZload src mem) mem)))

// Large move uses a loop. Since the address is computed and the
// offset is zero, any alignment can be used.
(Move [s] dst src mem) && s > 8 && buildcfg.GOPPC64 <= 8 && logLargeCopy(v, s) =>
 (LoweredMove [s] dst src mem)
(Move [s] dst src mem) && s > 8 && s <= 64 && buildcfg.GOPPC64 >= 9 =>
 (LoweredQuadMoveShort [s] dst src mem)
(Move [s] dst src mem) && s > 8 && buildcfg.GOPPC64 >= 9 && logLargeCopy(v, s) =>
 (LoweredQuadMove [s] dst src mem)

// Calls
// Lowering calls
(StaticCall ...) => (CALLstatic ...)
(ClosureCall ...) => (CALLclosure ...)
(InterCall ...) => (CALLinter ...)
(TailCall ...) => (CALLtail ...)

// Miscellaneous
(GetClosurePtr ...) => (LoweredGetClosurePtr ...)
(GetCallerSP ...) => (LoweredGetCallerSP ...)
(GetCallerPC ...) => (LoweredGetCallerPC ...)
(IsNotNil ptr)
=> (NotEqual (CMPconst [0] ptr))
(IsInBounds idx len) => (LessThan (CMPU idx len))
(IsSliceInBounds idx len) => (LessEqual (CMPU idx len))
(NilCheck ...) => (LoweredNilCheck ...)

// Write barrier.
(WB ...) => (LoweredWB ...)

// Publication barrier as intrinsic
(PubBarrier ...) => (LoweredPubBarrier ...)

(PanicBounds [kind] x y mem) && boundsABI(kind) == 0 => (LoweredPanicBoundsA [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 1 => (LoweredPanicBoundsB [kind] x y mem)
(PanicBounds [kind] x y mem) && boundsABI(kind) == 2 => (LoweredPanicBoundsC [kind] x y mem)

// Optimizations
// Note that PPC "logical" immediates come in 0:15 and 16:31 unsigned immediate forms,
// so ORconst, XORconst easily expand into a pair.

// Include very-large constants in the const-const case.
(AND (MOVDconst [c]) (MOVDconst [d])) => (MOVDconst [c&d])
(OR (MOVDconst [c]) (MOVDconst [d])) => (MOVDconst [c|d])
(XOR (MOVDconst [c]) (MOVDconst [d])) => (MOVDconst [c^d])
(ORN (MOVDconst [c]) (MOVDconst

```

```

[d])) => (MOVDconst [c^d])
(ANDN (MOVDconst [c]) (MOVDconst [d])) => (MOVDconst [c&^d])
(NOR (MOVDconst [c]) (MOVDconst [d])) => (MOVDconst [^(c|d)])

// Discover consts
(AND x (MOVDconst [c])) && isU16Bit(c) => (ANDconst [c] x)
(XOR x (MOVDconst [c])) && isU32Bit(c) => (XORconst [c] x)
(OR x (MOVDconst [c])) && isU32Bit(c) => (ORconst [c] x)

// Simplify consts
(ANDconst [c] (ANDconst [d] x)) => (ANDconst [c&d] x)
(ORconst [c] (ORconst [d] x)) => (ORconst [c|d] x)
(XORconst [c] (XORconst [d] x)) => (XORconst [c^d] x)
(ANDconst [-1] x) => x
(ANDconst [0] _) => (MOVDconst [0])
(XORconst [0] x) => x
(ORconst [-1] _) => (MOVDconst [-1])
(ORconst [0] x) => x

// zero-extend of small and => small and
(MOVBZreg y:(ANDconst [c] _) && uint64(c) <= 0xFF => y)
(MOVHZreg y:(ANDconst [c] _) && uint64(c) <= 0xFFFF => y)
(MOVWZreg y:(ANDconst [c] _) && uint64(c) <= 0xFFFFFFFF => y)
(MOVWZreg y:(AND (MOVDconst [c]) _) && uint64(c) <= 0xFFFFFFFF => y)

// sign extend of small-positive and =>
small-positive-and
(MOVBreg y:(ANDconst [c] _) && uint64(c) <= 0x7F => y)
(MOVHreg y:(ANDconst [c] _) && uint64(c) <= 0x7FFF => y)
(MOVWreg y:(ANDconst [c] _) && uint64(c) <= 0xFFFF => y // 0xFFFF is largest immediate constant, when
regarded as 32-bit is > 0)
(MOVWreg y:(AND (MOVDconst [c]) _) && uint64(c) <= 0x7FFFFFFF => y)

// small and of zero-extend => either zero-extend or small and
(ANDconst [c] y:(MOVBZreg _) && c&0xFF == 0xFF => y)
(ANDconst [0xFF] (MOVBreg x)) => (MOVBZreg x)
(ANDconst [c] y:(MOVHZreg _) && c&0xFFFF == 0xFFFF => y)
(ANDconst [0xFFFF] (MOVHreg x)) => (MOVHZreg x)

(AND (MOVDconst [c]) y:(MOVWZreg _) && c&0xFFFFFFFF == 0xFFFFFFFF => y)
(AND (MOVDconst [0xFFFFFFFF]) y:(MOVWreg x)) => (MOVWZreg x)
// normal case
(ANDconst [c] (MOVBZreg x)) => (ANDconst [c&0xFF] x)
(ANDconst [c] (MOVHZreg x)) => (ANDconst [c&0xFFFF] x)
(ANDconst [c] (MOVWZreg x)) => (ANDconst [c&0xFFFFFFFF] x)

// Eliminate unnecessary sign/zero extend following right shift
(MOV(B|H|W)Zreg (SRWconst

```

```
[c] (MOVBZreg x)) => (SRWconst [c] (MOVBZreg x))
(MOV(H|W)Zreg (SRWconst [c] (MOVHZreg x))) => (SRWconst [c] (MOVHZreg x))
(MOVWZreg (SRWconst [c] (MOVWZreg x))) => (SRWconst [c] (MOVWZreg x))
(MOV(B|H|W)reg (SRAWconst [c] (MOVBreg x))) => (SRAWconst [c] (MOVBreg x))
(MOV(H|W)reg (SRAWconst [c] (MOVHreg x))) => (SRAWconst [c] (MOVHreg x))
(MOVWreg (SRAWconst [c] (MOVWreg x))) => (SRAWconst [c] (MOVWreg x))
```

```
(MOVWZreg (SRWconst [c] x)) && sizeof(x.Type) <= 32 => (SRWconst [c] x)
(MOVHZreg (SRWconst [c] x)) && sizeof(x.Type) <= 16 => (SRWconst [c] x)
(MOVBZreg (SRWconst [c] x)) && sizeof(x.Type) == 8 => (SRWconst [c] x)
(MOVWreg (SRAWconst [c] x)) && sizeof(x.Type) <= 32 => (SRAWconst [c] x)
(MOVHreg (SRAWconst [c] x)) && sizeof(x.Type) <= 16 => (SRAWconst [c] x)
(MOVBreg (SRAWconst [c] x)) && sizeof(x.Type) == 8 => (SRAWconst [c] x)
```

```
// initial right shift will handle sign/zero extend
```

```
(MOVBZreg (SRDconst [c] x)) && c>=56 => (SRDconst [c] x)
(MOVBreg (SRDconst [c] x)) && c>56 => (SRDconst
[c] x)
(MOVBreg (SRDconst [c] x)) && c==56 => (SRADconst [c] x)
(MOVBreg (SRADconst [c] x)) && c>=56 => (SRADconst [c] x)
(MOVBZreg (SRWconst [c] x)) && c>=24 => (SRWconst [c] x)
(MOVBreg (SRWconst [c] x)) && c>24 => (SRWconst [c] x)
(MOVBreg (SRWconst [c] x)) && c==24 => (SRAWconst [c] x)
(MOVBreg (SRAWconst [c] x)) && c>=24 => (SRAWconst [c] x)
```

```
(MOVHZreg (SRDconst [c] x)) && c>=48 => (SRDconst [c] x)
(MOVHreg (SRDconst [c] x)) && c>48 => (SRDconst [c] x)
(MOVHreg (SRDconst [c] x)) && c==48 => (SRADconst [c] x)
(MOVHreg (SRADconst [c] x)) && c>=48 => (SRADconst [c] x)
(MOVHZreg (SRWconst [c] x)) && c>=16 => (SRWconst [c] x)
(MOVHreg (SRWconst [c] x)) && c>16 => (SRWconst [c] x)
(MOVHreg (SRAWconst [c] x)) && c>=16 => (SRAWconst [c] x)
(MOVHreg (SRWconst [c] x)) && c==16 => (SRAWconst [c] x)
```

```
(MOVWZreg (SRDconst [c] x)) && c>=32 => (SRDconst [c] x)
(MOVWreg (SRDconst [c] x)) && c>32 => (SRDconst [c] x)
(MOVWreg (SRADconst [c] x)) && c>=32 => (SRADconst [c] x)
(MOVWreg (SRDconst
[c] x)) && c==32 => (SRADconst [c] x)
```

```
// Various redundant zero/sign extension combinations.
```

```
(MOVBZreg y:(MOVBZreg _)) => y // repeat
(MOVBreg y:(MOVBreg _)) => y // repeat
(MOVBreg (MOVBZreg x)) => (MOVBreg x)
(MOVBZreg (MOVBreg x)) => (MOVBZreg x)
```

```
// H - there are more combinations than these
```

```
(MOVHZreg y:(MOVHZreg _) => y // repeat
(MOVHZreg y:(MOVZreg _) => y // wide of narrow
(MOVHZreg y:(MOVHBRload _ _) => y
```

```
(MOVHreg y:(MOVHreg _) => y // repeat
(MOVHreg y:(MOVZreg _) => y // wide of narrow
```

```
(MOVHreg y:(MOVHZreg x) => (MOVHreg x)
(MOVHZreg y:(MOVHreg x) => (MOVHZreg x)
```

// W - there are more combinations than these

```
(MOVWZreg y:(MOVWZreg _) => y // repeat
(MOVWZreg y:(MOVHZreg _) => y // wide of narrow
(MOVWZreg y:(MOVZreg _) => y // wide of narrow
(MOVWZreg y:(MOVHBRload _ _) => y
(MOVWZreg y:(MOVWBRload _ _) => y
```

```
(MOVWreg y:(MOVWreg _) => y // repeat
(MOVWreg y:(MOVHreg _) => y // wide of narrow
(MOVWreg y:(MOVZreg _) => y // wide of narrow
```

```
(MOVWreg y:(MOVWZreg
x) => (MOVWreg x)
(MOVWZreg y:(MOVWreg x) => (MOVWZreg x)
```

// Truncate then logical then truncate: omit first, lesser or equal truncate

```
(MOVWZreg ((OR|XOR|AND) <t> x (MOVWZreg y))) => (MOVWZreg ((OR|XOR|AND) <t> x y))
(MOVHZreg ((OR|XOR|AND) <t> x (MOVWZreg y))) => (MOVHZreg ((OR|XOR|AND) <t> x y))
(MOVHZreg ((OR|XOR|AND) <t> x (MOVHZreg y))) => (MOVHZreg ((OR|XOR|AND) <t> x y))
(MOVZreg ((OR|XOR|AND) <t> x (MOVWZreg y))) => (MOVZreg ((OR|XOR|AND) <t> x y))
(MOVZreg ((OR|XOR|AND) <t> x (MOVHZreg y))) => (MOVZreg ((OR|XOR|AND) <t> x y))
(MOVZreg ((OR|XOR|AND) <t> x (MOVZreg y))) => (MOVZreg ((OR|XOR|AND) <t> x y))
```

```
(MOV(B|H|W)Zreg z:(ANDconst [c] (MOVZload ptr x))) => z
(MOVZreg z:(AND y (MOVZload ptr x))) => z
(MOV(H|W)Zreg z:(ANDconst [c] (MOVHZload ptr x))) => z
(MOVHZreg z:(AND y (MOVHZload ptr x))) => z
(MOVWZreg z:(ANDconst [c] (MOVWZload ptr x))) => z
(MOVWZreg z:(AND y (MOVWZload ptr x))) => z
```

// Arithmetic constant ops

```
(ADD x (MOVDconst [c])) && is32Bit(c)
=> (ADDconst [c] x)
(ADDconst [c] (ADDconst [d] x)) && is32Bit(c+d) => (ADDconst [c+d] x)
(ADDconst [0] x) => x
(SUB x (MOVDconst [c])) && is32Bit(-c) => (ADDconst [-c] x)
```

```

(ADDconst [c] (MOVDaddr [d] {sym} x)) && is32Bit(c+int64(d)) => (MOVDaddr [int32(c+int64(d))] {sym} x)
(ADDconst [c] x:(SP)) && is32Bit(c) => (MOVDaddr [int32(c)] x) // so it is rematerializeable

(MULL(W|D) x (MOVDconst [c])) && is16Bit(c) => (MULL(W|D)const [int32(c)] x)

// Subtract from (with carry, but ignored) constant.
// Note, these clobber the carry bit.
(SUB (MOVDconst [c] x) && is32Bit(c) => (SUBFCconst [c] x)
(SUBFCconst [c] (NEG x)) => (ADDconst [c] x)
(SUBFCconst [c] (SUBFCconst [d] x)) && is32Bit(c-d) => (ADDconst [c-d] x)
(SUBFCconst [0] x) => (NEG x)
(ADDconst [c] (SUBFCconst [d] x)) && is32Bit(c+d) => (SUBFCconst [c+d] x)
(NEG (ADDconst [c] x)) && is32Bit(-c) => (SUBFCconst [-c] x)
(NEG (SUBFCconst [c] x)) && is32Bit(-c) => (ADDconst [-c] x)
(NEG (SUB x y)) => (SUB y x)
(NEG (NEG x)) => x

// Use
register moves instead of stores and loads to move int<=>float values
// Common with math Float64bits, Float64frombits
(MOVDload [off] {sym} ptr (FMOVDstore [off] {sym} ptr x _)) => (MFVSRD x)
(FMOVDload [off] {sym} ptr (MOVDstore [off] {sym} ptr x _)) => (MTVSRD x)

(FMOVDstore [off] {sym} ptr (MTVSRD x) mem) => (MOVDstore [off] {sym} ptr x mem)
(MOVDstore [off] {sym} ptr (MFVSRD x) mem) => (FMOVDstore [off] {sym} ptr x mem)

(MTVSRD (MOVDconst [c])) && !math.IsNaN(math.Float64frombits(uint64(c))) => (FMOVDconst
[math.Float64frombits(uint64(c))])
(MFVSRD (FMOVDconst [c])) => (MOVDconst [int64(math.Float64bits(c))])

(MTVSRD x:(MOVDload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (FMOVDload [off]
{sym} ptr mem)
(MFVSRD x:(FMOVDload [off] {sym} ptr mem)) && x.Uses == 1 && clobber(x) => @x.Block (MOVDload [off]
{sym} ptr mem)

// Fold offsets for stores.
(MOVDstore [off1] {sym} (ADDconst [off2] x) val mem) && is16Bit(int64(off1)+off2) => (MOVDstore
[off1+int32(off2)]
{sym} x val mem)
(MOVWstore [off1] {sym} (ADDconst [off2] x) val mem) && is16Bit(int64(off1)+off2) => (MOVWstore
[off1+int32(off2)] {sym} x val mem)
(MOVHstore [off1] {sym} (ADDconst [off2] x) val mem) && is16Bit(int64(off1)+off2) => (MOVHstore
[off1+int32(off2)] {sym} x val mem)
(MOVBstore [off1] {sym} (ADDconst [off2] x) val mem) && is16Bit(int64(off1)+off2) => (MOVBstore
[off1+int32(off2)] {sym} x val mem)

(FMOVSstore [off1] {sym} (ADDconst [off2] ptr) val mem) && is16Bit(int64(off1)+off2) => (FMOVSstore

```

```

[off1+int32(off2)] {sym} ptr val mem)
(FMOVDstore [off1] {sym} (ADDconst [off2] ptr) val mem) && is16Bit(int64(off1)+off2) => (FMOVDstore
[off1+int32(off2)] {sym} ptr val mem)

// Fold address into load/store.
// The assembler needs to generate several instructions and use
// temp register for accessing global, and each time it will reload
// the temp register. So don't fold address of global, unless there
// is only one use.
(MOVBstore [off1] {sym1} p:(MOVDaddr [off2] {sym2} ptr)
val mem) && canMergeSym(sym1,sym2)
&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses == 1) =>
    (MOVBstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(MOVHstore [off1] {sym1} p:(MOVDaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2)
&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses == 1) =>
    (MOVHstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(MOVWstore [off1] {sym1} p:(MOVDaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2)
&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses == 1) =>
    (MOVWstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(MOVDstore [off1] {sym1} p:(MOVDaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2)
&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses == 1) =>
    (MOVDstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)

(FMOVStore [off1] {sym1} p:(MOVDaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2)
&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses ==
1) =>
    (FMOVStore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)
(FMOVDstore [off1] {sym1} p:(MOVDaddr [off2] {sym2} ptr) val mem) && canMergeSym(sym1,sym2)
&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses == 1) =>
    (FMOVDstore [off1+off2] {mergeSym(sym1,sym2)} ptr val mem)

(MOVBZload [off1] {sym1} p:(MOVDaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2)
&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses == 1) =>
    (MOVBZload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVHload [off1] {sym1} p:(MOVDaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2)
&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses == 1) =>
    (MOVHload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVHZload [off1] {sym1} p:(MOVDaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2)
&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses == 1) =>
    (MOVHZload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVWload [off1] {sym1} p:(MOVDaddr [off2] {sym2}
ptr) mem) && canMergeSym(sym1,sym2)
&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses == 1) =>
    (MOVWload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVWZload [off1] {sym1} p:(MOVDaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2)
&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses == 1) =>
    (MOVWZload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(MOVDload [off1] {sym1} p:(MOVDaddr [off2] {sym2} ptr) mem) && canMergeSym(sym1,sym2)

```



```

&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses == 1) =>
    (MOVDload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(FMOVSload [off1] {sym1} p:(MOVDaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2)
&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses == 1) =>
    (FMOVSload [off1+off2] {mergeSym(sym1,sym2)} ptr mem)
(FMOVDload [off1] {sym1} p:(MOVDaddr [off2] {sym2} ptr mem) && canMergeSym(sym1,sym2)
&& is16Bit(int64(off1+off2)) && (ptr.Op != OpSB || p.Uses == 1) =>
    (FMOVDload [off1+off2]
{mergeSym(sym1,sym2)} ptr mem)

// Fold offsets for loads.
(FMOVSload [off1] {sym} (ADDconst [off2] ptr mem) && is16Bit(int64(off1)+off2) => (FMOVSload
[off1+int32(off2)] {sym} ptr mem)
(FMOVDload [off1] {sym} (ADDconst [off2] ptr mem) && is16Bit(int64(off1)+off2) => (FMOVDload
[off1+int32(off2)] {sym} ptr mem)

(MOVDload [off1] {sym} (ADDconst [off2] x mem) && is16Bit(int64(off1)+off2) => (MOVDload
[off1+int32(off2)] {sym} x mem)
(MOVWload [off1] {sym} (ADDconst [off2] x mem) && is16Bit(int64(off1)+off2) => (MOVWload
[off1+int32(off2)] {sym} x mem)
(MOVWZload [off1] {sym} (ADDconst [off2] x mem) && is16Bit(int64(off1)+off2) => (MOVWZload
[off1+int32(off2)] {sym} x mem)
(MOVHload [off1] {sym} (ADDconst [off2] x mem) && is16Bit(int64(off1)+off2) => (MOVHload
[off1+int32(off2)] {sym} x mem)
(MOVHZload [off1] {sym} (ADDconst [off2] x mem) && is16Bit(int64(off1)+off2) => (MOVHZload
[off1+int32(off2)] {sym} x mem)
(MOVBZload [off1] {sym} (ADDconst [off2] x mem) && is16Bit(int64(off1)+off2)
=> (MOVBZload [off1+int32(off2)] {sym} x mem)

// Determine load + addressing that can be done as a register indexed load
(MOV(D|W|WZ|H|HZ|BZ)load [0] {sym} p:(ADD ptr idx mem) && sym == nil && p.Uses == 1 =>
(MOV(D|W|WZ|H|HZ|BZ)loadidx ptr idx mem)

// Determine if there is benefit to using a non-indexed load, since that saves the load
// of the index register. With MOVDload and MOVWload, there is no benefit if the offset
// value is not a multiple of 4, since that results in an extra instruction in the base
// register address computation.
(MOV(D|W)loadidx ptr (MOVDconst [c] mem) && is16Bit(c) && c%4 == 0 => (MOV(D|W)load [int32(c)] ptr
mem)
(MOV(WZ|H|HZ|BZ)loadidx ptr (MOVDconst [c] mem) && is16Bit(c) => (MOV(WZ|H|HZ|BZ)load [int32(c)]
ptr mem)
(MOV(D|W)loadidx (MOVDconst [c] ptr mem) && is16Bit(c) && c%4 == 0 => (MOV(D|W)load [int32(c)] ptr
mem)
(MOV(WZ|H|HZ|BZ)loadidx (MOVDconst [c] ptr mem) && is16Bit(c) => (MOV(WZ|H|HZ|BZ)load [int32(c)]
ptr mem)

// Store of zero

```

```

=> storezero
(MOVDstore [off] {sym} ptr (MOVDconst [0]) mem) => (MOVDstorezero [off] {sym} ptr mem)
(MOVWstore [off] {sym} ptr (MOVDconst [0]) mem) => (MOVWstorezero [off] {sym} ptr mem)
(MOVHstore [off] {sym} ptr (MOVDconst [0]) mem) => (MOVHstorezero [off] {sym} ptr mem)
(MOVBstore [off] {sym} ptr (MOVDconst [0]) mem) => (MOVBstorezero [off] {sym} ptr mem)

// Fold offsets for storezero
(MOVDstorezero [off1] {sym} (ADDconst [off2] x) mem) && is16Bit(int64(off1)+off2) =>
  (MOVDstorezero [off1+int32(off2)] {sym} x mem)
(MOVWstorezero [off1] {sym} (ADDconst [off2] x) mem) && is16Bit(int64(off1)+off2) =>
  (MOVWstorezero [off1+int32(off2)] {sym} x mem)
(MOVHstorezero [off1] {sym} (ADDconst [off2] x) mem) && is16Bit(int64(off1)+off2) =>
  (MOVHstorezero [off1+int32(off2)] {sym} x mem)
(MOVBstorezero [off1] {sym} (ADDconst [off2] x) mem) && is16Bit(int64(off1)+off2) =>
  (MOVBstorezero [off1+int32(off2)] {sym} x mem)

// Stores with addressing that can be done as indexed stores
(MOV(D|W|H|B)store
 [0] {sym} p:(ADD ptr idx) val mem) && sym == nil && p.Uses == 1 => (MOV(D|W|H|B)storeidx ptr idx val
 mem)

// Stores with constant index values can be done without indexed instructions
// No need to lower the idx cases if c%4 is not 0
(MOVDstoreidx ptr (MOVDconst [c]) val mem) && is16Bit(c) && c%4 == 0 => (MOVDstore [int32(c)] ptr val
 mem)
(MOV(W|H|B)storeidx ptr (MOVDconst [c]) val mem) && is16Bit(c) => (MOV(W|H|B)store [int32(c)] ptr val
 mem)
(MOVDstoreidx (MOVDconst [c]) ptr val mem) && is16Bit(c) && c%4 == 0 => (MOVDstore [int32(c)] ptr val
 mem)
(MOV(W|H|B)storeidx (MOVDconst [c]) ptr val mem) && is16Bit(c) => (MOV(W|H|B)store [int32(c)] ptr val
 mem)

// Fold symbols into storezero
(MOVDstorezero [off1] {sym1} p:(MOVDaddr [off2] {sym2} x) mem) && canMergeSym(sym1,sym2)
 && (x.Op != OpSB || p.Uses == 1) =>
  (MOVDstorezero [off1+off2] {mergeSym(sym1,sym2)} x mem)
(MOVWstorezero [off1] {sym1} p:(MOVDaddr [off2] {sym2} x) mem) && canMergeSym(sym1,sym2)
 && (x.Op !=
 OpSB || p.Uses == 1) =>
  (MOVWstorezero [off1+off2] {mergeSym(sym1,sym2)} x mem)
(MOVHstorezero [off1] {sym1} p:(MOVDaddr [off2] {sym2} x) mem) && canMergeSym(sym1,sym2)
 && (x.Op != OpSB || p.Uses == 1) =>
  (MOVHstorezero [off1+off2] {mergeSym(sym1,sym2)} x mem)
(MOVBstorezero [off1] {sym1} p:(MOVDaddr [off2] {sym2} x) mem) && canMergeSym(sym1,sym2)
 && (x.Op != OpSB || p.Uses == 1) =>
  (MOVBstorezero [off1+off2] {mergeSym(sym1,sym2)} x mem)

// atomic intrinsics

```

```

(AtomicLoad(8|32|64|Ptr) ptr mem) => (LoweredAtomicLoad(8|32|64|Ptr) [1] ptr mem)
(AtomicLoadAcq(32|64) ptr mem) => (LoweredAtomicLoad(32|64) [0] ptr mem)

(AtomicStore(8|32|64) ptr val mem) => (LoweredAtomicStore(8|32|64) [1] ptr val mem)
(AtomicStoreRel(32|64) ptr val mem) => (LoweredAtomicStore(32|64) [0] ptr val mem)
//(AtomicStorePtrNoWB ptr val mem) => (STLR ptr val mem)

(AtomicExchange(32|64) ...) => (LoweredAtomicExchange(32|64) ...)

(AtomicAdd(32|64) ...) => (LoweredAtomicAdd(32|64) ...)

(AtomicCompareAndSwap(32|64)
 ptr old new_ mem) => (LoweredAtomicCas(32|64) [1] ptr old new_ mem)
(AtomicCompareAndSwapRel32 ptr old new_ mem) => (LoweredAtomicCas32 [0] ptr old new_ mem)

(AtomicAnd8 ...) => (LoweredAtomicAnd8 ...)
(AtomicAnd32 ...) => (LoweredAtomicAnd32 ...)
(AtomicOr8 ...) => (LoweredAtomicOr8 ...)
(AtomicOr32 ...) => (LoweredAtomicOr32 ...)

(Slicemask <t> x) => (SRADconst (NEG <t> x) [63])

// Note that MOV??reg returns a 64-bit int, x is not necessarily that wide
// This may interact with other patterns in the future. (Compare with arm64)
(MOV(B|H|W)Zreg x:(MOVBZload __ _)) => x
(MOV(B|H|W)Zreg x:(MOVBZloadidx __ _)) => x
(MOV(H|W)Zreg x:(MOVHZload __ _)) => x
(MOV(H|W)Zreg x:(MOVHZloadidx __ _)) => x
(MOV(H|W)reg x:(MOVHload __ _)) => x
(MOV(H|W)reg x:(MOVHloadidx __ _)) => x
(MOVWZreg x:(MOVWZload __ _)) => x
(MOVWZreg x:(MOVWZloadidx __ _)) => x
(MOVWreg x:(MOVWload __ _)) => x
(MOVWreg x:(MOVWloadidx __ _)) => x
(MOVBZreg x:(Select0 (LoweredAtomicLoad8 _
 _))) => x
(MOVWZreg x:(Select0 (LoweredAtomicLoad32 _ _))) => x

// don't extend if argument is already extended
(MOVBreg x:(Arg <t>)) && is8BitInt(t) && isSigned(t) => x
(MOVBZreg x:(Arg <t>)) && is8BitInt(t) && !isSigned(t) => x
(MOVHreg x:(Arg <t>)) && (is8BitInt(t) || is16BitInt(t)) && isSigned(t) => x
(MOVHZreg x:(Arg <t>)) && (is8BitInt(t) || is16BitInt(t)) && !isSigned(t) => x
(MOVWreg x:(Arg <t>)) && (is8BitInt(t) || is16BitInt(t) || is32BitInt(t)) && isSigned(t) => x
(MOVWZreg x:(Arg <t>)) && (is8BitInt(t) || is16BitInt(t) || is32BitInt(t)) && !isSigned(t) => x

(MOVBZreg (MOVDconst [c])) => (MOVDconst [int64(uint8(c))])
(MOVBreg (MOVDconst [c])) => (MOVDconst [int64(int8(c))])

```

```

(MOVHZreg (MOVDconst [c])) => (MOVDconst [int64(uint16(c))])
(MOVHreg (MOVDconst [c])) => (MOVDconst [int64(int16(c))])
(MOVWreg (MOVDconst [c])) => (MOVDconst [int64(int32(c))])
(MOVWZreg (MOVDconst [c])) => (MOVDconst [int64(uint32(c))])

// Implement clrldi and clrslwi extended mnemonics as described
in
// ISA 3.0 section C.8. AuxInt field contains values needed for
// the instructions, packed together since there is only one available.
(SLDconst [c] z:(MOVBZreg x)) && c < 8 && z.Uses == 1 => (CLRLSLDI [newPPC64ShiftAuxInt(c,56,63,64)]
x)
(SLDconst [c] z:(MOVHZreg x)) && c < 16 && z.Uses == 1 => (CLRLSLDI [newPPC64ShiftAuxInt(c,48,63,64)]
x)
(SLDconst [c] z:(MOVWZreg x)) && c < 32 && z.Uses == 1 => (CLRLSLDI [newPPC64ShiftAuxInt(c,32,63,64)]
x)

(SLDconst [c] z:(ANDconst [d] x)) && z.Uses == 1 && isPPC64ValidShiftMask(d) && c <= (64-
getPPC64ShiftMaskLength(d)) => (CLRLSLDI [newPPC64ShiftAuxInt(c,64-getPPC64ShiftMaskLength(d),63,64)]
x)
(SLDconst [c] z:(AND (MOVDconst [d] x)) && z.Uses == 1 && isPPC64ValidShiftMask(d) && c <= (64-
getPPC64ShiftMaskLength(d)) => (CLRLSLDI [newPPC64ShiftAuxInt(c,64-getPPC64ShiftMaskLength(d),63,64)]
x)
(SLWconst [c] z:(MOVBZreg x)) && z.Uses == 1 && c < 8 => (CLRLSLWI [newPPC64ShiftAuxInt(c,24,31,32)]
x)
(SLWconst [c] z:(MOVHZreg x)) && z.Uses ==
1 && c < 16 => (CLRLSLWI [newPPC64ShiftAuxInt(c,16,31,32)] x)
(SLWconst [c] z:(ANDconst [d] x)) && z.Uses == 1 && isPPC64ValidShiftMask(d) && c <= (32-
getPPC64ShiftMaskLength(d)) => (CLRLSLWI [newPPC64ShiftAuxInt(c,32-
getPPC64ShiftMaskLength(d),31,32)] x)
(SLWconst [c] z:(AND (MOVDconst [d] x)) && z.Uses == 1 && isPPC64ValidShiftMask(d) && c <= (32-
getPPC64ShiftMaskLength(d)) => (CLRLSLWI [newPPC64ShiftAuxInt(c,32-
getPPC64ShiftMaskLength(d),31,32)] x)
// special case for power9
(SL(W|D)const [c] z:(MOVWreg x)) && c < 32 && buildcfg.GOPPC64 >= 9 => (EXTSWSLconst [c] x)

// Lose widening ops fed to stores
(MOVBstore [off] {sym} ptr (MOV(B|BZ|H|HZ|W|WZ)reg x) mem) => (MOVBstore [off] {sym} ptr x mem)
(MOVHstore [off] {sym} ptr (MOV(H|HZ|W|WZ)reg x) mem) => (MOVHstore [off] {sym} ptr x mem)
(MOVWstore [off] {sym} ptr (MOV(W|WZ)reg x) mem) => (MOVWstore [off] {sym} ptr x mem)
(MOVBstore [off] {sym} ptr (SRWconst (MOV(H|HZ)reg x) [c]) mem) && c <= 8 => (MOVBstore [off] {sym} ptr
(SRWconst <typ.UInt32>
x [c]) mem)
(MOVBstore [off] {sym} ptr (SRWconst (MOV(W|WZ)reg x) [c]) mem) && c <= 24 => (MOVBstore [off] {sym}
ptr (SRWconst <typ.UInt32> x [c]) mem)
(MOVBstoreidx ptr idx (MOV(B|BZ|H|HZ|W|WZ)reg x) mem) => (MOVBstoreidx ptr idx x mem)
(MOVHstoreidx ptr idx (MOV(H|HZ|W|WZ)reg x) mem) => (MOVHstoreidx ptr idx x mem)
(MOVWstoreidx ptr idx (MOV(W|WZ)reg x) mem) => (MOVWstoreidx ptr idx x mem)
(MOVBstoreidx ptr idx (SRWconst (MOV(H|HZ)reg x) [c]) mem) && c <= 8 => (MOVBstoreidx ptr idx

```

```

(SRWconst <typ.UInt32> x [c]) mem)
(MOVBstoreidx ptr idx (SRWconst (MOV(W|WZ)reg x) [c]) mem) && c <= 24 => (MOVBstoreidx ptr idx
(SRWconst <typ.UInt32> x [c]) mem)
(MOVHBRstore {sym} ptr (MOV(H|HZ|W|WZ)reg x) mem) => (MOVHBRstore {sym} ptr x mem)
(MOVWBRstore {sym} ptr (MOV(W|WZ)reg x) mem) => (MOVWBRstore {sym} ptr x mem)

// Lose W-widening ops fed to compare-W
(CMPW x (MOVWreg y)) => (CMPW x y)
(CMPW (MOVWreg x) y) => (CMPW x y)
(CMPWU x (MOVWZreg y)) => (CMPWU x y)
(CMPWU (MOVWZreg x) y) => (CMPWU
x y)

(CMP x (MOVDconst [c])) && is16Bit(c) => (CMPconst x [c])
(CMP (MOVDconst [c]) y) && is16Bit(c) => (InvertFlags (CMPconst y [c]))
(CMPW x (MOVDconst [c])) && is16Bit(c) => (CMPWconst x [int32(c)])
(CMPW (MOVDconst [c]) y) && is16Bit(c) => (InvertFlags (CMPWconst y [int32(c)]))

(CMPU x (MOVDconst [c])) && isU16Bit(c) => (CMPUconst x [c])
(CMPU (MOVDconst [c]) y) && isU16Bit(c) => (InvertFlags (CMPUconst y [c]))
(CMPWU x (MOVDconst [c])) && isU16Bit(c) => (CMPWUconst x [int32(c)])
(CMPWU (MOVDconst [c]) y) && isU16Bit(c) => (InvertFlags (CMPWUconst y [int32(c)]))

// Canonicalize the order of arguments to comparisons - helps with CSE.
((CMP|CMPW|CMPU|CMPWU) x y) && canonLessThan(x,y) => (InvertFlags ((CMP|CMPW|CMPU|CMPWU) y
x))

// ISEL auxInt values 0=LT 1=GT 2=EQ arg2 ? arg0 : arg1
// ISEL auxInt values 4=GE 5=LE 6=NE !arg2 ? arg1 : arg0
// ISELB special case where arg0, arg1 values are 0, 1

(Equal cmp) => (ISELB [2] (MOVDconst [1]) cmp)
(NotEqual cmp) => (ISELB [6] (MOVDconst
[1]) cmp)
(LessThan cmp) => (ISELB [0] (MOVDconst [1]) cmp)
(FLessThan cmp) => (ISELB [0] (MOVDconst [1]) cmp)
(FLessEqual cmp) => (ISEL [2] (MOVDconst [1]) (ISELB [0] (MOVDconst [1]) cmp) cmp)
(GreaterEqual cmp) => (ISELB [4] (MOVDconst [1]) cmp)
(GreaterThan cmp) => (ISELB [1] (MOVDconst [1]) cmp)
(FGreaterThan cmp) => (ISELB [1] (MOVDconst [1]) cmp)
(FGreaterEqual cmp) => (ISEL [2] (MOVDconst [1]) (ISELB [1] (MOVDconst [1]) cmp) cmp)
(LessEqual cmp) => (ISELB [5] (MOVDconst [1]) cmp)

(ISELB [0] _ (FlagLT)) => (MOVDconst [1])
(ISELB [0] _ (FlagGT|EQ)) => (MOVDconst [0])
(ISELB [1] _ (FlagGT)) => (MOVDconst [1])
(ISELB [1] _ (FlagLT|EQ)) => (MOVDconst [0])
(ISELB [2] _ (FlagEQ)) => (MOVDconst [1])

```

```

(ISELB [2] _ (Flag(LT|GT))) => (MOVDconst [0])
(ISELB [4] _ (FlagLT)) => (MOVDconst [0])
(ISELB [4] _ (Flag(GT|EQ))) => (MOVDconst [1])
(ISELB [5] _ (FlagGT)) => (MOVDconst [0])
(ISELB [5] _ (Flag(LT|EQ))) => (MOVDconst [1])
(ISELB [6] _ (FlagEQ)) => (MOVDconst [0])
(ISELB [6]
_ (Flag(LT|GT))) => (MOVDconst [1])

(ISEL [2] x _ (FlagEQ)) => x
(ISEL [2] _ y (Flag(LT|GT))) => y

(ISEL [6] _ y (FlagEQ)) => y
(ISEL [6] x _ (Flag(LT|GT))) => x

(ISEL [0] _ y (Flag(EQ|GT))) => y
(ISEL [0] x _ (FlagLT)) => x

(ISEL [5] _ x (Flag(EQ|LT))) => x
(ISEL [5] y _ (FlagGT)) => y

(ISEL [1] _ y (Flag(EQ|LT))) => y
(ISEL [1] x _ (FlagGT)) => x

(ISEL [4] x _ (Flag(EQ|GT))) => x
(ISEL [4] _ y (FlagLT)) => y

(ISELB [n] (MOVDconst [1]) (InvertFlags bool) && n%4 == 0 => (ISELB [n+1] (MOVDconst [1]) bool)
(ISELB [n] (MOVDconst [1]) (InvertFlags bool) && n%4 == 1 => (ISELB [n-1] (MOVDconst [1]) bool)
(ISELB [n] (MOVDconst [1]) (InvertFlags bool) && n%4 == 2 => (ISELB [n] (MOVDconst [1]) bool)
(ISEL [n] x y (InvertFlags bool) && n%4 == 0 => (ISEL [n+1] x y bool)
(ISEL [n] x y (InvertFlags bool) && n%4 == 1 => (ISEL [n-1] x y bool)
(ISEL [n] x y (InvertFlags bool) && n%4 == 2 => (ISEL [n] x y bool)
(XORconst [1] (ISELB [6] (MOVDconst [1]) cmp)) => (ISELB [2] (MOVDconst [1]) cmp)
(XORconst
[1] (ISELB [5] (MOVDconst [1]) cmp)) => (ISELB [1] (MOVDconst [1]) cmp)
(XORconst [1] (ISELB [4] (MOVDconst [1]) cmp)) => (ISELB [0] (MOVDconst [1]) cmp)

// A particular pattern seen in cgo code:
(AND (MOVDconst [c] x:(MOVBZload _ _)) => (ANDconst [c&0xFF] x)

// floating point negative abs
(FNEG (FABS x)) => (FNABS x)
(FNEG (FNABS x)) => (FABS x)

// floating-point fused multiply-add/sub
(FADD (FMUL x y) z) => (FMADD x y z)
(FSUB (FMUL x y) z) => (FMSUB x y z)

```

(FADDS (FMULS x y) z) => (FMADDS x y z)

(FSUBS (FMULS x y) z) => (FMSUBS x y z)

// The following statements are found in encoding/binary functions UintXX (load) and PutUintXX (store)

// and convert the statements in these functions from multiple single byte loads or stores to

// the single largest possible load or store.

// Some are marked big or little endian based on the order in which the bytes are loaded or stored,

// not on the ordering of the machine. These are intended for little endian machines.

// To implement

for big endian machines, most rules would have to be duplicated but the

// resulting rule would be reversed, i. e., MOVHZload on little endian would be MOVHBRload on big endian

// and vice versa.

// b[0] | b[1]<<8 => load 16-bit Little endian

(OR <t> x0:(MOVBZload [i0] {s} p mem)

o1:(SL(W|D)const x1:(MOVBZload [i1] {s} p mem) [8]))

&& !config.BigEndian

&& i1 == i0+1

&& x0.Uses == 1 && x1.Uses == 1

&& o1.Uses == 1

&& mergePoint(b, x0, x1) != nil

&& clobber(x0, x1, o1)

=> @mergePoint(b,x0,x1) (MOVHZload <t> {s} [i0] p mem)

// b[0]<<8 | b[1] => load 16-bit Big endian on Little endian arch.

// Use byte-reverse indexed load for 2 bytes.

(OR <t> x0:(MOVBZload [i1] {s} p mem)

o1:(SL(W|D)const x1:(MOVBZload [i0] {s} p mem) [8]))

&& !config.BigEndian

&& i1 == i0+1

&& x0.Uses == 1 && x1.Uses == 1

&& o1.Uses == 1

&& mergePoint(b, x0, x1) != nil

&& clobber(x0, x1, o1)

=> @mergePoint(b,x0,x1) (MOVHBRload <t> (MOVDaddr <typ.Uintptr> [i0] {s} p mem)

// b[0]<<n+8 | b[1]<<n

=> load 16-bit Big endian (where n%8== 0)

// Use byte-reverse indexed load for 2 bytes,

// then shift left to the correct position. Used to match subrules

// from longer rules.

(OR <t> s0:(SL(W|D)const x0:(MOVBZload [i1] {s} p mem) [n1])

s1:(SL(W|D)const x1:(MOVBZload [i0] {s} p mem) [n2]))

&& !config.BigEndian

&& i1 == i0+1

&& n1%8 == 0

&& n2 == n1+8

&& x0.Uses == 1 && x1.Uses == 1

```

&& s0.Uses == 1 && s1.Uses == 1
&& mergePoint(b, x0, x1) != nil
&& clobber(x0, x1, s0, s1)
=> @mergePoint(b,x0,x1) (SLDconst <t> (MOVHBRload <t> (MOVDaddr <typ.Uintptr> [i0] {s} p) mem) [n1])

// b[0] | b[1]<<8 | b[2]<<16 | b[3]<<24 => load 32-bit Little endian
// Use byte-reverse indexed load for 4 bytes.
(OR <t> s1:(SL(W|D)const x2:(MOVBZload [i3] {s} p) mem) [24])
o0:(OR <t> s0:(SL(W|D)const x1:(MOVBZload [i2] {s} p) mem) [16])
x0:(MOVHZload [i0] {s} p) mem)))
&& !config.BigEndian
&& i2 == i0+2
&& i3 == i0+3
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1
&& o0.Uses == 1
&& s0.Uses == 1 &&
s1.Uses == 1
&& mergePoint(b, x0, x1, x2) != nil
&& clobber(x0, x1, x2, s0, s1, o0)
=> @mergePoint(b,x0,x1,x2) (MOVWZload <t> {s} [i0] p) mem)

// b[0]<<24 | b[1]<<16 | b[2]<<8 | b[3] => load 32-bit Big endian order on Little endian arch
// Use byte-reverse indexed load for 4 bytes with computed address.
// Could be used to match subrules of a longer rule.
(OR <t> s1:(SL(W|D)const x2:(MOVBZload [i0] {s} p) mem) [24])
o0:(OR <t> s0:(SL(W|D)const x1:(MOVBZload [i1] {s} p) mem) [16])
x0:(MOVHBRload <t> (MOVDaddr <typ.Uintptr> [i2] {s} p) mem)))
&& !config.BigEndian
&& i1 == i0+1
&& i2 == i0+2
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1
&& o0.Uses == 1
&& s0.Uses == 1 && s1.Uses == 1
&& mergePoint(b, x0, x1, x2) != nil
&& clobber(x0, x1, x2, s0, s1, o0)
=> @mergePoint(b,x0,x1,x2) (MOVWBRload <t> (MOVDaddr <typ.Uintptr> [i0] {s} p) mem)

// b[3] | b[2]<<8 | b[1]<<16 | b[0]<<24 => load 32-bit Big endian order on Little endian arch
// Use byte-reverse indexed load for 4 bytes
with computed address.
// Could be used to match subrules of a longer rule.
(OR <t> x0:(MOVBZload [i3] {s} p) mem)
o0:(OR <t> s0:(SL(W|D)const x1:(MOVBZload [i2] {s} p) mem) [8])
s1:(SL(W|D)const x2:(MOVHBRload <t> (MOVDaddr <typ.Uintptr> [i0] {s} p) mem) [16]))
&& !config.BigEndian
&& i2 == i0+2
&& i3 == i0+3
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1

```



```

&& o0.Uses == 1
&& s0.Uses == 1 && s1.Uses == 1
&& mergePoint(b, x0, x1, x2) != nil
&& clobber(x0, x1, x2, s0, s1, o0)
=> @mergePoint(b,x0,x1,x2) (MOVWBRload <t> (MOVDaddr <typ.Uintptr> [i0] {s} p mem)

// b[0]<<56 | b[1]<<48 | b[2]<<40 | b[3]<<32 => load 32-bit Big endian order on Little endian arch
// Use byte-reverse indexed load to for 4 bytes with computed address.
// Used to match longer rules.
(OR <t> s2:(SLDconst x2:(MOVBZload [i3] {s} p mem) [32])
o0:(OR <t> s1:(SLDconst x1:(MOVBZload [i2] {s} p mem) [40])
s0:(SLDconst x0:(MOVHBRload <t> (MOVDaddr <typ.Uintptr> [i0] {s} p mem) [48])))
&& !config.BigEndian
&&
i2 == i0+2
&& i3 == i0+3
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1
&& o0.Uses == 1
&& s0.Uses == 1 && s1.Uses == 1 && s2.Uses == 1
&& mergePoint(b, x0, x1, x2) != nil
&& clobber(x0, x1, x2, s0, s1, s2, o0)
=> @mergePoint(b,x0,x1,x2) (SLDconst <t> (MOVWBRload <t> (MOVDaddr <typ.Uintptr> [i0] {s} p mem)
[32])

// b[3]<<32 | b[2]<<40 | b[1]<<48 | b[0]<<56 => load 32-bit Big endian order on Little endian arch
// Use byte-reverse indexed load for 4 bytes with constant address.
// Used to match longer rules.
(OR <t> s2:(SLDconst x2:(MOVBZload [i0] {s} p mem) [56])
o0:(OR <t> s1:(SLDconst x1:(MOVBZload [i1] {s} p mem) [48])
s0:(SLDconst x0:(MOVHBRload <t> (MOVDaddr <typ.Uintptr> [i2] {s} p mem) [32])))
&& !config.BigEndian
&& i1 == i0+1
&& i2 == i0+2
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1
&& o0.Uses == 1
&& s0.Uses == 1 && s1.Uses == 1 && s2.Uses == 1
&& mergePoint(b, x0, x1, x2) != nil

&& clobber(x0, x1, x2, s0, s1, s2, o0)
=> @mergePoint(b,x0,x1,x2) (SLDconst <t> (MOVWBRload <t> (MOVDaddr <typ.Uintptr> [i0] {s} p)
mem) [32])

// b[0] | b[1]<<8 | b[2]<<16 | b[3]<<24 | b[4] <<32 | b[5]<<40 | b[6]<<48 | b[7]<<56 => load 64-bit Little endian
// Rules with commutative ops and many operands will result in extremely large functions in rewritePPC64,
// so matching shorter previously defined subrules is important.
// Offset must be multiple of 4 for MOVD
(OR <t> s6:(SLDconst x7:(MOVBZload [i7] {s} p mem) [56])
o5:(OR <t> s5:(SLDconst x6:(MOVBZload [i6] {s} p mem) [48])

```

```

o4:(OR <t> s4:(SLDconst x5:(MOVBZload [i5] {s} p mem) [40])
o3:(OR <t> s3:(SLDconst x4:(MOVBZload [i4] {s} p mem) [32])
x0:(MOVWZload {s} [i0] p mem))))))
&& !config.BigEndian
&& i4 == i0+4
&& i5 == i0+5
&& i6 == i0+6
&& i7 == i0+7
&& x0.Uses == 1 && x4.Uses == 1 && x5.Uses == 1 && x6.Uses == 1 && x7.Uses == 1
&& o3.Uses == 1 && o4.Uses == 1 && o5.Uses == 1
&& s3.Uses == 1 && s4.Uses
== 1 && s5.Uses == 1 && s6.Uses == 1
&& mergePoint(b, x0, x4, x5, x6, x7) != nil
&& clobber(x0, x4, x5, x6, x7, s3, s4, s5, s6, o3, o4, o5)
=> @mergePoint(b,x0,x4,x5,x6,x7) (MOVDload <t> {s} [i0] p mem)

// b[7] | b[6]<<8 | b[5]<<16 | b[4]<<24 | b[3]<<32 | b[2]<<40 | b[1]<<48 | b[0]<<56 load 64-bit Big endian ordered
bytes on Little endian arch
// Use byte-reverse indexed load of 8 bytes.
// Rules with commutative ops and many operands can result in extremely large functions in rewritePPC64,
// so matching shorter previously defined subrules is important.
(OR <t> s0:(SLDconst x0:(MOVBZload [i0] {s} p mem) [56])
o0:(OR <t> s1:(SLDconst x1:(MOVBZload [i1] {s} p mem) [48])
o1:(OR <t> s2:(SLDconst x2:(MOVBZload [i2] {s} p mem) [40])
o2:(OR <t> s3:(SLDconst x3:(MOVBZload [i3] {s} p mem) [32])
x4:(MOVWBRload <t> (MOVDaddr <typ.Uintptr> [i4] p mem))))))
&& !config.BigEndian
&& i1 == i0+1
&& i2 == i0+2
&& i3 == i0+3
&& i4 == i0+4
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 &&
x3.Uses == 1 && x4.Uses == 1
&& o0.Uses == 1 && o1.Uses == 1 && o2.Uses == 1
&& s0.Uses == 1 && s1.Uses == 1 && s2.Uses == 1 && s3.Uses == 1
&& mergePoint(b, x0, x1, x2, x3, x4) != nil
&& clobber(x0, x1, x2, x3, x4, o0, o1, o2, s0, s1, s2, s3)
=> @mergePoint(b,x0,x1,x2,x3,x4) (MOVDBRload <t> (MOVDaddr <typ.Uintptr> [i0] {s} p mem)

// b[0]<<56 | b[1]<<48 | b[2]<<40 | b[3]<<32 | b[4]<<24 | b[5]<<16 | b[6]<<8 | b[7] => load 64-bit Big endian
ordered bytes on Little endian arch
// Use byte-reverse indexed load of 8 bytes.
// Rules with commutative ops and many operands can result in extremely large functions in rewritePPC64,
// so matching shorter previously defined subrules is important.
(OR <t> x7:(MOVBZload [i7] {s} p mem)
o5:(OR <t> s6:(SLDconst x6:(MOVBZload [i6] {s} p mem) [8])
o4:(OR <t> s5:(SLDconst x5:(MOVBZload [i5] {s} p mem) [16])
o3:(OR <t> s4:(SLDconst x4:(MOVBZload [i4] {s} p mem) [24])

```

```

s0:(SL(W|D)const x3:(MOVWBRload <t> (MOVDaddr <typ.Uintptr> [i0] {s} p) mem)
[32]))))))
&& !config.BigEndian
&& i4 == i0+4
&& i5 == i0+5
&& i6 == i0+6
&& i7 == i0+7
&& x3.Uses == 1 && x4.Uses == 1 && x5.Uses == 1 && x6.Uses == 1 && x7.Uses == 1
&& o3.Uses == 1 && o4.Uses == 1 && o5.Uses == 1
&& s0.Uses == 1 && s4.Uses == 1 && s5.Uses == 1 && s6.Uses == 1
&& mergePoint(b, x3, x4, x5, x6, x7) != nil
&& clobber(x3, x4, x5, x6, x7, o3, o4, o5, s0, s4, s5, s6)
=> @mergePoint(b,x3,x4,x5,x6,x7) (MOVDBRload <t> (MOVDaddr <typ.Uintptr> [i0] {s} p) mem)

```

// 2 byte store Little endian as in:

```
// b[0] = byte(v >> 16)
```

```
// b[1] = byte(v >> 24)
```

// Added for use in matching longer rules.

```

(MOVBstore [i1] {s} p (SR(W|D)const w [24])
  x0:(MOVBstore [i0] {s} p (SR(W|D)const w [16]) mem))
  && !config.BigEndian
  && x0.Uses == 1
  && i1 == i0+1
  && clobber(x0)
  => (MOVHstore [i0] {s} p (SRWconst <typ.Uint16> w [16]) mem)

```

// 2 byte store Little endian as in:

```
// b[0] = byte(v)
```

```
// b[1] = byte(v >> 8)
```

```

(MOVBstore [i1]
 {s} p (SR(W|D)const w [8])
 x0:(MOVBstore [i0] {s} p w mem))
&& !config.BigEndian
&& x0.Uses == 1
&& i1 == i0+1
&& clobber(x0)
=> (MOVHstore [i0] {s} p w mem)

```

// 4 byte store Little endian as in:

```
// b[0:1] = uint16(v)
```

```
// b[2:3] = uint16(v >> 16)
```

```

(MOVHstore [i1] {s} p (SR(W|D)const w [16])
 x0:(MOVHstore [i0] {s} p w mem))
&& !config.BigEndian
&& x0.Uses == 1
&& i1 == i0+2
&& clobber(x0)
=> (MOVWstore [i0] {s} p w mem)

```

```

// 4 byte store Big endian as in:
//  b[0] = byte(v >> 24)
//  b[1] = byte(v >> 16)
//  b[2] = byte(v >> 8)
//  b[3] = byte(v)
// Use byte-reverse indexed 4 byte store.
(MOVBstore [i3] {s} p w
x0:(MOVBstore [i2] {s} p (SRWconst w [8])
x1:(MOVBstore [i1] {s} p (SRWconst w [16])
x2:(MOVBstore [i0] {s} p (SRWconst w [24]) mem))))
&& !config.BigEndian
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1
&& i1 == i0+1 && i2 == i0+2 && i3 == i0+3
&& clobber(x0, x1, x2)
=> (MOVWBRstore (MOVDaddr <typ.Uintptr> [i0] {s} p) w mem)

// The
2 byte store appears after the 4 byte store so that the
// match for the 2 byte store is not done first.
// If the 4 byte store is based on the 2 byte store then there are
// variations on the MOVDaddr subrule that would require additional
// rules to be written.

// 2 byte store Big endian as in:
//  b[0] = byte(v >> 8)
//  b[1] = byte(v)
(MOVBstore [i1] {s} p w x0:(MOVBstore [i0] {s} p (SRWconst w [8]) mem))
&& !config.BigEndian
&& x0.Uses == 1
&& i1 == i0+1
&& clobber(x0)
=> (MOVHBRstore (MOVDaddr <typ.Uintptr> [i0] {s} p) w mem)

// 8 byte store Little endian as in:
// b[0] = byte(v)
// b[1] = byte(v >> 8)
// b[2] = byte(v >> 16)
// b[3] = byte(v >> 24)
// b[4] = byte(v >> 32)
// b[5] = byte(v >> 40)
// b[6] = byte(v >> 48)
// b[7] = byte(v >> 56)
// Built on previously defined rules
// Offset must be multiple of 4 for MOVDstore
(MOVBstore [i7] {s} p (SRDconst w [56])
x0:(MOVBstore [i6] {s} p (SRDconst w [48])
x1:(MOVBstore [i5] {s} p (SRDconst w [40])

```

```

x2:(MOVBstore
[i4] {s} p (SRDconst w [32])
x3:(MOVWstore [i0] {s} p w mem))))))
&& !config.BigEndian
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1
&& i4 == i0+4 && i5 == i0+5 && i6 == i0+6 && i7 == i0+7
&& clobber(x0, x1, x2, x3)
=> (MOVDstore [i0] {s} p w mem)

// 8 byte store Big endian as in:
// b[0] = byte(v >> 56)
// b[1] = byte(v >> 48)
// b[2] = byte(v >> 40)
// b[3] = byte(v >> 32)
// b[4] = byte(v >> 24)
// b[5] = byte(v >> 16)
// b[6] = byte(v >> 8)
// b[7] = byte(v)
// Use byte-reverse indexed 8 byte store.
(MOVBstore [i7] {s} p w
  x0:(MOVBstore [i6] {s} p (SRDconst w [8])
  x1:(MOVBstore [i5] {s} p (SRDconst w [16])
  x2:(MOVBstore [i4] {s} p (SRDconst w [24])
  x3:(MOVBstore [i3] {s} p (SRDconst w [32])
  x4:(MOVBstore [i2] {s} p (SRDconst w [40])
  x5:(MOVBstore [i1] {s} p (SRDconst w [48])
  x6:(MOVBstore [i0] {s} p (SRDconst w [56] mem))))))
&& !config.BigEndian
&& x0.Uses == 1 && x1.Uses == 1 && x2.Uses == 1 && x3.Uses == 1 && x4.Uses == 1 && x5.Uses == 1
&& x6.Uses == 1
&& i1 == i0+1 && i2 == i0+2 && i3 == i0+3 && i4 == i0+4 && i5 == i0+5 && i6 == i0+6 && i7 == i0+7
&& clobber(x0, x1, x2, x3, x4, x5, x6)
=> (MOVDstore (MOVDaddr <typ.Uintptr> [i0] {s} p) w mem)

// Arch-specific inlining for small or disjoint runtime.memmove
(SelectN [0] call:(CALLstatic {sym} s1:(MOVDstore _ (MOVDconst [sz]) s2:(MOVDstore _ src s3:(MOVDstore
{t} _ dst mem))))
&& sz >= 0
&& isSameCall(sym, "runtime.memmove")
&& s1.Uses == 1 && s2.Uses == 1 && s3.Uses == 1
&& isInlinableMemmove(dst, src, sz, config)
&& clobber(s1, s2, s3, call)
=> (Move [sz] dst src mem)

// Match post-lowering calls, register version.
(SelectN [0] call:(CALLstatic {sym} dst src (MOVDconst [sz] mem))
&& sz >= 0
&& isSameCall(sym, "runtime.memmove")

```

```

    && call.Uses == 1
    && isInlinableMemmove(dst,
src, sz, config)
    && clobber(call)
    => (Move [sz] dst src mem)

// Prefetch instructions (TH specified using aux field)
// For DCBT Ra,Rb,TH, A value of TH indicates:
//   0, hint this cache line will be used soon. (PrefetchCache)
//   16, hint this cache line will not be used for long. (PrefetchCacheStreamed)
// See ISA 3.0 Book II 4.3.2 for more detail. https://openpower.foundation/specifications/isa/
(PrefetchCache ptr mem)    => (DCBT ptr mem [0])
(PrefetchCacheStreamed ptr mem) => (DCBT ptr mem [16])

```

Found in path(s):

```

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/PPC64.rules
No license file was found, but licenses were detected in source scan.

```

```

// Copyright 2020 The Go Authors. All rights reserved.

```

Found in path(s):

```

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/main0.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixdbugs/issue40056.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixdbugs/issue40301.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/test/testdata/reproducible/issue38068.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixdbugs/issue39768.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/bench_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixdbugs/issue46090.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/testing.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/testdata/tparams.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/type_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/builtins1.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixdbugs/issue39699.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixdbugs/issue42758.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/positions.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixdbugs/issue39664.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-

```

zip/compile/internal/types2/testdata/fixebugs/issue39982.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/visit.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue43190.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue42695.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/abi/abiutils.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/flags_arm64_test.s
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/staticdata/embed.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/rewriteCond_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/devirtualize/devirtualize.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/flags_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue39693.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/mknode.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue40684.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/funcinference.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue40038.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/testdata/smoketest.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/main1.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue39948.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/func.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/copy.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/base/print.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue39755.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/mulconst_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue43125.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/flags_amd64_test.s
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/issues1.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue39976.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue39938.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/errors_test.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/name.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-

```
zip/compile/internal/types2/testdata/fixebugs/issue39680.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/addressingmodes.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/stmt.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/expand_calls.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue40057.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/typeparams.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/mini.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue20583.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue39754.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue41124.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/package.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/bench_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue39723.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue43124.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue39634.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/abiutils_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue39725.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue48951.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/expr.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/tuple.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue43110.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/importer_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixebugs/issue39711.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/testing_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/abiutilsaux_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/unify.go
No license file was found, but licenses were detected in source scan.
```

```
<!--
```

```
// Copyright 2018 The Go Authors. All rights reserved.
```

```
// Use of this source code is governed by a BSD-style
```

```
// license that can be found in the LICENSE file.
```

```
-->
```


Introduction to the Go compiler

``cmd/compile`` contains the main packages that form the Go compiler. The compiler may be logically split in four phases, which we will briefly describe alongside the list of packages that contain their code.

You may sometimes hear the terms "front-end" and "back-end" when referring to the compiler. Roughly speaking, these translate to the first two and last two phases we are going to list here. A third term, "middle-end", often refers to much of the work that happens in the second phase.

Note that the ``go/*`` family of packages, such as ``go/parser`` and ``go/types``, are mostly unused by the compiler. Since the compiler was initially written in C, the ``go/*`` packages were developed to enable writing tools working with Go code, such as ``gofmt`` and ``vet``. However, over time the compiler's internal APIs have slowly evolved to be more familiar to users of the ``go/*`` packages.

It should be clarified that the name "gc" stands for "Go compiler", and has little to do with uppercase "GC", which stands for garbage collection.

1. Parsing

* ``cmd/compile/internal/syntax`` (lexer, parser, syntax tree)

In the first phase of compilation, source code is tokenized (lexical analysis), parsed (syntax analysis), and a syntax tree is constructed for each source file.

Each syntax tree is an exact representation of the respective source file, with nodes corresponding to the various elements of the source such as expressions, declarations, and statements. The syntax tree also includes position information which is used for error reporting and the creation of debugging information.

2. Type checking

* ``cmd/compile/internal/types2`` (type checking)

The `types2` package is a port of ``go/types`` to use the `syntax` package's AST instead of ``go/ast``.

3. IR construction ("noding")

* ``cmd/compile/internal/types`` (compiler types)
* ``cmd/compile/internal/ir`` (compiler AST)
* ``cmd/compile/internal/typecheck`` (AST transformations)

* ``cmd/compile/internal/noder`` (create compiler AST)

The compiler middle end uses its own AST definition and representation of Go types carried over from when it was written in C. All of its code is written in terms of these, so the next step after type checking is to convert the syntax and types2 representations to ir and types. This process is referred to as "noding."

There are currently two noding implementations:

1. irgen (aka "-G=3" or sometimes "noder2") is the implementation used starting with Go 1.18, and
2. Unified IR is another, in-development implementation (enabled with ``GOEXPERIMENT=unified``), which also implements import/export and inlining.

Up through Go 1.18, there was a third noding implementation (just "noder" or "-G=0"), which directly converted the pre-type-checked syntax representation into IR and then invoked package typecheck's type checker. This implementation was removed after Go 1.18, so now package typecheck is only used for IR transformations.

4. Middle end

- * ``cmd/compile/internal/deadcode`` (dead code elimination)
- * ``cmd/compile/internal/inline`` (function call inlining)
- * ``cmd/compile/internal/devirtualize`` (devirtualization of known interface method calls)
- * ``cmd/compile/internal/escape`` (escape analysis)

Several optimization passes are performed on the IR representation: dead code elimination, (early) devirtualization, function call inlining, and escape analysis.

5. Walk

- * ``cmd/compile/internal/walk`` (order of evaluation, desugaring)

The final pass over the IR representation is "walk," which serves two purposes:

1. It decomposes complex statements into individual, simpler statements, introducing temporary variables and respecting order of evaluation. This step is also referred to as "order."
2. It desugars higher-level Go constructs into more primitive ones. For example, ``switch`` statements are turned into binary search or jump tables, and operations on maps and channels are replaced with runtime calls.

6. Generic SSA

- * ``cmd/compile/internal/ssa`` (SSA passes and rules)
- * ``cmd/compile/internal/ssagen`` (converting IR to SSA)

In this phase, IR is converted into Static Single Assignment (SSA) form, a lower-level intermediate representation with specific properties that make it easier to implement optimizations and to eventually generate machine code from it.

During this conversion, function intrinsics are applied. These are special functions that the compiler has been taught to replace with heavily optimized code on a case-by-case basis.

Certain nodes are also lowered into simpler components during the AST to SSA conversion, so that the rest of the compiler can work with them. For instance, the copy builtin is replaced by memory moves, and range loops are rewritten into
for loops. Some of these currently happen before the conversion to SSA due to historical reasons, but the long-term plan is to move all of them here.

Then, a series of machine-independent passes and rules are applied. These do not concern any single computer architecture, and thus run on all ``GOARCH`` variants. These passes include dead code elimination, removal of unneeded nil checks, and removal of unused branches. The generic rewrite rules mainly concern expressions, such as replacing some expressions with constant values, and optimizing multiplications and float operations.

7. Generating machine code

- * ``cmd/compile/internal/ssa`` (SSA lowering and arch-specific passes)
- * ``cmd/internal/obj`` (machine code generation)

The machine-dependent phase of the compiler begins with the "lower" pass, which rewrites generic values into their machine-specific variants. For example, on amd64 memory operands are possible, so many load-store operations may be combined.

Note that the
lower pass runs all machine-specific rewrite rules, and thus it currently applies lots of optimizations too.

Once the SSA has been "lowered" and is more specific to the target architecture, the final code optimization passes are run. This includes yet another dead code elimination pass, moving values closer to their uses, the removal of local variables that are never read from, and register allocation.

Other important pieces of work done as part of this step include stack frame

layout, which assigns stack offsets to local variables, and pointer liveness analysis, which computes which on-stack pointers are live at each GC safe point.

At the end of the SSA generation phase, Go functions have been transformed into a series of obj.Prog instructions. These are passed to the assembler (cmd/internal/obj), which turns them into machine code and writes out the final object file. The object file will also contain reflect data, export data, and debugging information.

Further reading

To dig deeper into how the SSA package works, including its passes and rules, head to [cmd/compile/internal/ssa/README.md](internal/ssa/README.md).

Found in path(s):

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/README.md

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Found in path(s):

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/escape/solve.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/numberlines.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/testdata/slice_test.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-

zip/compile/internal/types2/testdata/fixdbugs/issue23203b.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/escape/stmt.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/base/mapfile_mmap.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/testdata/sample.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/escape/call.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/poset.go

*

/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/base/mapfile_read.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-

zip/compile/internal/importer/testdata/issue25596.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-

zip/compile/internal/importer/testdata/issue25301.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-

zip/compile/internal/syntax/testdata/issue23434.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/escape/escape.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/escape/graph.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-

zip/compile/internal/types2/testdata/check/issue25008/issue25008b.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/infer.go

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-

zip/compile/internal/types2/testdata/fixdbugs/issue28251.go

*

```

/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/escape/assign.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types/identity.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/zeroextension_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/test/lang_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/syntax/testdata/issue31092.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/syntax/testdata/issue23385.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/check/issue25008/issue25008a.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/types2/subst.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/iimport.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ir/dump.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixedbugs/issue26390.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/test/testdata/reproducible/issue27013.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/syntax/testdata/issue20789.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/escape/expr.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/escape/utils.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/pos.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/typecheck/iexport.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/syntax/error_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/wasm/ssa.go
*
/opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/biasedsparsemap.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/importer/iimport.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/gen/WasmOps.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/poset_test.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/ssa/loopbce.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/escape/leaks.go
* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/fixedbugs/issue23203a.go
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```

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```

Found in path(s):

```

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-zip/compile/internal/objw/prog.go

```

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// are free to use their own name for that type parameter. That is, the

Found in path(s):

* /opt/cola/permits/1662035280_1692956359.5733373/0/compile-
zip/compile/internal/types2/testdata/examples/methods.go

1.167 cmd/doc (devel)

1.167.1 Available under license :

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Found in path(s):

* /opt/cola/permits/1662035323_1692956368.3274302/0/doc-zip/doc/main.go
* /opt/cola/permits/1662035323_1692956368.3274302/0/doc-zip/doc/testdata/pkg.go
* /opt/cola/permits/1662035323_1692956368.3274302/0/doc-zip/doc/dirs.go
* /opt/cola/permits/1662035323_1692956368.3274302/0/doc-zip/doc/doc_test.go
* /opt/cola/permits/1662035323_1692956368.3274302/0/doc-zip/doc/pkg.go

1.168 cmd/objdump (devel)

1.168.1 Available under license :

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Found in path(s):

* /opt/cola/permits/1662035335_1692956451.497634/0/objdump-1-zip/objdump/objdump_test.go

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Found in path(s):

* /opt/cola/permits/1662035335_1692956451.497634/0/objdump-1-zip/objdump/testdata/testfilenum/b.go
* /opt/cola/permits/1662035335_1692956451.497634/0/objdump-1-zip/objdump/testdata/testfilenum/a.go
* /opt/cola/permits/1662035335_1692956451.497634/0/objdump-1-zip/objdump/testdata/testfilenum/c.go

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Found in path(s):

* /opt/cola/permits/1662035335_1692956451.497634/0/objdump-1-zip/objdump/main.go

1.169 cmd/link (devel)

1.169.1 Available under license :

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```
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```

Found in path(s):

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/loadpe/ldpe.go
```

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```
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```

Found in path(s):

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/go_test.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-
```

```
zip/link/internal/ld/testdata/deadcode/ifacemethod3.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/benchmark/bench.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/heap.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/outbuf_linux.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-
```

```
zip/link/internal/ld/testdata/issue39757/issue39757main.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/testdata/testIndexMismatch/b.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/testdata/deadcode/reflectcall.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/fallocate_test.go
```

```
*
```

```
/opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/outbuf_nofallocate.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/testdata/testIndexMismatch/main.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/heap_test.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/testdata/issue38192/online.s
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/data_test.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/testdata/deadcode/typedesc.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/outbuf_darwin.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-
```

```
zip/link/internal/ld/testdata/deadcode/ifacemethod4.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/testdata/pe-llvm/main.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/testdata/pe-binutils/main.go
```

```
*
```

```
/opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/testdata/testHashedSyms/p.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/outbuf_test.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/testdata/deadcode/ifacemethod.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/asmb.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/testdata/testRO/x.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/testdata/issue39256/x.s
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/benchmark/bench_test.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/errors.go
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/testdata/issue39256/x.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/deadcode_test.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-
zip/link/internal/ld/testdata/deadcode/ifacemethod2.go
*
/opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/testdata/testIndexMismatch/a.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/target.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/outbuf_notdarwin.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/testdata/issue38192/main.go
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```

```
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```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/dwtest/dwtest.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/cgo_test.go
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```

```
Found in path(s):
```

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/x86/asm.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/s390x/l.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/link.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/symtab.go
*
/opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/sym/symkind.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ppc64/asm.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/mips64/obj.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/s390x/asm.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/s390x/obj.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/mips64/l.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/amd64/asm.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/arm64/obj.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ppc64/obj.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/arm/obj.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/arm/asm.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/amd64/l.go
*
/opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/lib.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/x86/l.go
```



```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/sym.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/arm/l.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/ar.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/main.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/x86/obj.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/amd64/obj.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/arm64/l.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/arm64/asm.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/ld.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/sym/segment.go
*
```

```
/opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ppc64/l.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/mips64/asm.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/data.go
```

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```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/mips/obj.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/mips/asm.go
```

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```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/testdata/stackcheck/main.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/stackcheck.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/stackcheck_test.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/testdata/stackcheck/main.s
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/loong64/obj.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/loong64/l.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/loong64/asm.go
```

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Found in path(s):

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/pe.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/go.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/macho.go
```

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/doc.go

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Found in path(s):

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Found in path(s):

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/sym/library.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/dwarf_test.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/sym/symbol.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/nooptcgolink_test.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/dwarf_test.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/outbuf.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/sym/reloc.go

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Found in path(s):

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/deadcode.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/riscv64/l.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/testdata/issue32233/lib/ObjC.m

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/execarchive_noexec.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/testdata/issue32233/lib/lib.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/elf_test.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/issue33808_test.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/loader/loader_test.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/elf_test.go

*

```
/opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/testdata/issue32233/main/main.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/riscv64/obj.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/sym/compilation_unit.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/dwarf.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/outbuf_windows.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/riscv64/asm.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/loader/loader.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/execarchive.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/outbuf_mmap.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/outbuf_nommap.go
No license file was found, but licenses were detected in source scan.
```

```
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// version.
```

Found in path(s):

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/loader/symbolbuilder.go
No license file was found, but licenses were detected in source scan.
```

```
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```

Found in path(s):

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/loadxcoff/ldxcoff.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/wasm/asm.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/testdata/issue10978/main.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/ld_test.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/wasm/obj.go
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/xcoff.go
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```

```
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// proprietary sections like __apple_types.
```

Found in path(s):

```
* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/macho_combine_dwarf.go
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```

```
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/*
```

```
Derived from Plan 9 from User Space's src/libmach/elf.h, elf.c
https://github.com/9fans/plan9port/tree/master/src/libmach/
```

```
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```

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*/

Found in path(s):

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/loadelf/ldelf.go

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Found in path(s):

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/linkbig_test.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/config.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/link_test.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/typelink.go

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/*

Derived from Plan 9 from User Space's src/libmach/elf.h, elf.c

<https://github.com/9fans/plan9port/tree/master/src/libmach/>

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*/

Found in path(s):

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/loadmacho/ldmacho.go

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Found in path(s):

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/pcln.go

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Found in path(s):

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/main.go

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/util.go

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/*

* Derived from:

* \$FreeBSD: src/sys/sys/elf32.h,v 1.8.14.1 2005/12/30 22:13:58 marcel Exp \$

* \$FreeBSD: src/sys/sys/elf64.h,v 1.10.14.1 2005/12/30 22:13:58 marcel Exp \$

* \$FreeBSD: src/sys/sys/elf_common.h,v 1.15.8.1 2005/12/30 22:13:58 marcel Exp \$

* \$FreeBSD: src/sys/alpha/include/elf.h,v 1.14 2003/09/25 01:10:22 peter Exp \$

* \$FreeBSD: src/sys/amd64/include/elf.h,v 1.18 2004/08/03 08:21:48 dfr Exp \$

* \$FreeBSD: src/sys/arm/include/elf.h,v 1.5.2.1 2006/06/30 21:42:52 cognet Exp \$

* \$FreeBSD: src/sys/i386/include/elf.h,v 1.16 2004/08/02 19:12:17 dfr Exp \$

* \$FreeBSD: src/sys/powerpc/include/elf.h,v 1.7 2004/11/02 09:47:01 ssouhlal Exp \$

* \$FreeBSD: src/sys/sparc64/include/elf.h,v 1.12 2003/09/25 01:10:26 peter Exp \$

*

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*
*/

Found in path(s):

* /opt/cola/permits/1662035274_1692956391.9396112/0/link-zip/link/internal/ld/elf.go

1.170 cmd/pack (devel)

1.170.1 Available under license :

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Found in path(s):

* /opt/cola/permits/1662035331_1692956456.474398/0/pack-zip/pack/doc.go

* /opt/cola/permits/1662035331_1692956456.474398/0/pack-zip/pack/pack_test.go

* /opt/cola/permits/1662035331_1692956456.474398/0/pack-zip/pack/pack.go

1.171 cmd/vet (devel)

1.171.1 Available under license :

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Found in path(s):

* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/atomic/atomic.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/deadcode/deadcode.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/assign/assign.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/buildtag/buildtag.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/vet_test.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/nilfunc/nilfunc.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/asm/asm1.s
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/buildtag/buildtag2.go
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Found in path(s):

* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/buildtag/buildtag4.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/buildtag/buildtag5.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/buildtag/buildtag3.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/buildtag/buildtag7.s
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/buildtag/buildtag6.s
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Found in path(s):

* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/lostcancel/lostcancel.go
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Found in path(s):

* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/shift/shift.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/bool/bool.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/unsafepr/unsafepr.go
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Found in path(s):

* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/structtag/structtag.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/asm/asm.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/print/print.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/method/method.go
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Found in path(s):

* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/testingpkg/tests.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/testingpkg/tests_test.go

```
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/unmarshal/unmarshal.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/httpresponse/httpresponse.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/copylock/copylock.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/doc.go
No license file was found, but licenses were detected in source scan.
```

```
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```

Found in path(s):

```
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/rangeloop/rangeloop.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/main.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/composite/composite.go
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```

```
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```

Found in path(s):

```
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/cgo/cgo.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/tagtest/file1.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/tagtest/file2.go
* /opt/cola/permits/1662035283_1692956488.1126251/0/vet-zip/vet/testdata/unused/unused.go
```

1.172 cmd/covdata (devel)

1.172.1 Available under license :

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```
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```

Found in path(s):

```
* /opt/cola/permits/1662410826_1699981270.097847/0/covdata-zip/covdata/covdata.go
* /opt/cola/permits/1662410826_1699981270.097847/0/covdata-zip/covdata/testdata/prog1.go
* /opt/cola/permits/1662410826_1699981270.097847/0/covdata-zip/covdata/subtractintersect.go
* /opt/cola/permits/1662410826_1699981270.097847/0/covdata-zip/covdata/tool_test.go
* /opt/cola/permits/1662410826_1699981270.097847/0/covdata-zip/covdata/doc.go
* /opt/cola/permits/1662410826_1699981270.097847/0/covdata-zip/covdata/merge.go
* /opt/cola/permits/1662410826_1699981270.097847/0/covdata-zip/covdata/testdata/prog2.go
* /opt/cola/permits/1662410826_1699981270.097847/0/covdata-zip/covdata/dump.go
* /opt/cola/permits/1662410826_1699981270.097847/0/covdata-zip/covdata/argsmerge.go
* /opt/cola/permits/1662410826_1699981270.097847/0/covdata-zip/covdata/export_test.go
* /opt/cola/permits/1662410826_1699981270.097847/0/covdata-zip/covdata/testdata/dep.go
*
/opt/cola/permits/1662410826_1699981270.097847/0/covdata-zip/covdata/metamerge.go
```


1.173 libgpg-error 1.37-1

1.173.1 Available under license :

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1.174 logr v1.2.4

1.174.1 Available under license :

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/*!

- * Bootstrap Table of Contents v0.4.1 (<http://afeld.github.io/bootstrap-toc/>)
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Found in path(s):

- * /opt/cola/permits/1679307840_1684350625.2594848/0/dbosak01-logr-v1-2-4-0-g8c5ac86-1-tar-gz/dbosak01-logr-8c5ac86/docs/bootstrap-toc.css
- * /opt/cola/permits/1679307840_1684350625.2594848/0/dbosak01-logr-v1-2-4-0-g8c5ac86-1-tar-gz/dbosak01-logr-

8c5ac86/docs/bootstrap-toc.js

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/*

Source: <https://github.com/algolia/docsearch/>

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*/

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* /opt/cola/permits/1679307840_1684350625.2594848/0/dbosak01-logr-v1-2-4-0-g8c5ac86-1-tar-gz/dbosak01-logr-8c5ac86/docs/docsearch.css

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Package: logr

Title: Creates Log Files

Version: 1.2.4

Authors@R:

```
person(given = "David",
       family = "Bosak",
       role = c("aut", "cre"),
       email = "dbosak01@gmail.com")
```

Description: Contains functions to help create log files. The package aims to overcome the difficulty of the base R sink() command. The log_print() function will print to both the console and the file log, without interfering in other write operations.

License: CC0

Encoding: UTF-8

URL: <https://logr.r-sassy.org>

BugReports: <https://github.com/dbosak01/logr/issues>

Depends: R (>= 3.4.0)

Suggests: knitr,

rmarkdown,

testthat,

tidylog,

dplyr,

utils

Imports: withr

VignetteBuilder: knitr

Roxygen: list(markdown = TRUE)

RoxygenNote: 7.1.1

Found in path(s):

* /opt/cola/permits/1679307840_1684350625.2594848/0/dbosak01-logr-v1-2-4-0-g8c5ac86-1-tar-gz/dbosak01-logr-8c5ac86/DESCRIPTION

1.175 ca-certificates 20230311ubuntu0.20.04.1

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Files: *

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Source: <http://ftp.debian.org/debian/pool/main/c/ca-certificates/>

Files: debian/*

examples/*

Makefile

mozilla/*

sbin/*

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@end enumerate

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1.181 prometheus-procfs 0.11.0

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1.183 go-openapi-swag 0.22.4

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1.184 x-sync 0.3.0

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1.185 prometheus-client 1.16.0

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1.186 x-oauth2 0.10.0

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1.187 clientmodel v0.4.0

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```

package spec

```
// License information for the exposed API.
//
// For more information: http://goo.gl/8us55a#licenseObject
type License struct {
    Name string `json:"name,omitempty"`
    URL  string `json:"url,omitempty"`
}
# This source code was written by the Go contributors.
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# visible at https://tip.golang.org/CONTRIBUTORS.
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```

package spec


```
import "testing"

func TestIntegrationLicense(t *testing.T) {
    license := License{Name: "the name", URL: "the url"}
    const licenseJSON = `{"name":"the name","url":"the url"}`
    const licenseYAML = "name: the name\nurl: the url\n"

    assertSerializeJSON(t, license, licenseJSON)
    assertParsesJSON(t, licenseJSON, license)
}
```

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1.189 x-exp 0.0.0-20230713183714-613f0c0eb8a1

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1.196 common v0.44.0

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```
import: ../../../../fossene/db/schema/thing.yml
```

```
fields:
```

```
  site: string
```

```
  author: root
```

1.198 prometheus-client v1.16.0

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Support for streaming Protocol Buffer messages for the Go language (golang).

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1.199 x-sync v0.3.0

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1.200 knadh-koanf 2.0.1

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1.201 zerolog 1.30.0

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layout: docs

page_title: 'Commands: license'

description: |

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- [`license get`][`get`] - Get the current license from a server
- [`license inspect`][`inspect`] - Inspect and validate a license

[`get`]: /nomad/docs/commands/license/get 'Get the current license from a server'

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layout: docs
page_title: Nomad Enterprise Licensing
description: >-
Learn about how Nomad Enterprise licensing works.

Nomad Enterprise Licensing

Licensing capabilities were added to Nomad Enterprise v0.12.0. Each server in the cluster must have a license to start. Nomad Enterprise can be downloaded from the [releases site].

Click [here](<https://www.hashicorp.com/go/nomad-enterprise>) to set up a demo of Nomad Enterprise or [here](</nomad/tutorials/enterprise/hashicorp-enterprise-license#request-a-trial-license>) for instructions on how to get a trial license.

~> **Note:** A Nomad Enterprise cluster cannot be downgraded to the open source version of Nomad. Servers running the open source version of Nomad will panic if they are joined to a Nomad Enterprise cluster, due to raft entries relating to Enterprise features not being parseable by open source Nomad.

Expiring Licenses

Nomad Enterprise licenses have an expiration time. You can read and validate the license on a running server, on disk, or in your environment with the `[nomad license` commands](/nomad/docs/commands/license)`.

Before upgrading Nomad or replacing your license with a new one, you should always run `[nomad license inspect`](/nomad/docs/commands/license/inspect)` to ensure the license is valid with your server binary.

As a Nomad Enterprise license approaches its expiration time, Nomad servers will periodically log a warning message about the approaching expiration. Below shows log excerpts of the warnings.

```
...
2021-03-29T15:02:28.100-0400 [WARN] nomad.licensing: license expiring: time_left=5m0s
2021-03-29T15:03:28.103-0400 [WARN] nomad.licensing: license expiring: time_left=4m0s
2021-03-29T15:04:28.106-0400 [WARN] nomad.licensing: license expiring: time_left=3m0s
2021-03-29T15:05:28.109-0400 [WARN] nomad.licensing: license expiring: time_left=2m0s
2021-03-29T15:06:28.112-0400 [WARN] nomad.licensing: license expiring: time_left=1m0s
2021-03-29T15:07:28.114-0400
[WARN] nomad.licensing: license expiring: time_left=0s
2021-03-29T15:07:58.104-0400 [ERROR] nomad.licensing: license expired, please update license: error="invalid
license or license is expired"
...
```

When the license expires, enterprise functionality will become limited. Only read operations on enterprise endpoints will be supported, and write operations will return an error.

Configuring the License

See the server `[license configuration]` reference documentation on all the options to set an enterprise license. Nomad will load the license file from disk or environment when it starts.

~> **Note:** An Enterprise license `[tutorial](/nomad/tutorials/enterprise/hashicorp-enterprise-license)` is available to help you install the license on the server.

In order to immediately alert operators of a bad configuration setting, if a license configuration option is an invalid or expired license, the Nomad server will exit with an error.

```
...
NOMAD_LICENSE=misconfigured nomad agent -dev
==>
No configuration files loaded
==> Starting Nomad agent...
```

==> Error starting agent: server setup failed: failed to initialize enterprise licensing: a file license was configured but the license is invalid: error decoding version: expected integer
...

See the [License commands](/nomad/docs/commands/license) for more information on interacting with the Enterprise License.

[releases site]: <https://releases.hashicorp.com/nomad>

[license configuration]: /nomad/docs/configuration/server#license_path

[license endpoint]: /nomad/api-docs/operator/license#updating-the-nomad-enterprise-license

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package command

```
import (  
    "fmt"  
    "strings"  
    "time"  
  
    "github.com/hashicorp/nomad/api"  
    "github.com/mitchellh/cli"  
)  
  
var _ cli.Command = &LicenseCommand{ }  
  
type LicenseCommand struct {  
    Meta  
}  
  
func (l *LicenseCommand) Help() string {  
    helpText := `  
Usage: nomad license <subcommand> [options] [args]  
  
This command has subcommands for managing the Nomad Enterprise license.  
For more detailed examples see:  
https://www.nomadproject.io/docs/commands/license/  
  
Retrieve the server's license:  
  
$ nomad license get  
  
`  
    return strings.TrimSpace(helpText)  
}  
  
func (l *LicenseCommand) Synopsis() string {  
    return "Interact with Nomad Enterprise License"}
```

```

}

func (l *LicenseCommand) Name() string { return "license" }

func (l *LicenseCommand) Run(args []string) int {
    return cli.RunResultHelp
}

func OutputLicenseReply(ui cli.Ui, resp *api.LicenseReply) int {
    now := time.Now()
    expired := resp.License.ExpirationTime.Before(now)
    terminated
    := resp.License.TerminationTime.Before(now)
    outputLicenseInfo(ui, resp.License, expired, terminated)
    if expired {
        return 1
    }
    return 0
}

func outputLicenseInfo(ui cli.Ui, lic *api.License, expired, terminated bool) {
    expStr := ""
    if expired {
        expStr = fmt.Sprintf("Expired At%s", lic.ExpirationTime.String())
    } else {
        expStr = fmt.Sprintf("Expires At%s", lic.ExpirationTime.String())
    }
    termStr := ""
    if terminated {
        termStr = fmt.Sprintf("Terminated At%s", lic.TerminationTime.String())
    } else {
        termStr = fmt.Sprintf("Terminates At%s", lic.TerminationTime.String())
    }

    validity := "valid"
    if expired {
        validity = "expired!"
    }

    output := []string{
        fmt.Sprintf("Product%s", lic.Product),
        fmt.Sprintf("License Status%s", validity),
        fmt.Sprintf("License ID%s", lic.LicenseID),
        fmt.Sprintf("Customer ID%s", lic.CustomerID),
        fmt.Sprintf("Issued At%s", lic.IssueTime),
        expStr,
        termStr,
        fmt.Sprintf("Datacenter%s", lic.InstallationID),
    }
}

```

```

ui.Output(formatKV(output))

if
len(lic.Modules) > 0 {
ui.Output("Modules:")
for _, mod := range lic.Modules {
ui.Output(fmt.Sprintf("\t%s", mod))
}
}
if len(lic.Features) > 0 {
ui.Output("Licensed Features:")
for _, f := range lic.Features {
ui.Output(fmt.Sprintf("\t%s", f))
}
}
}
// Copyright (c) HashiCorp, Inc.
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//go:build !ent

package nomad

func (c *LicenseConfig) Validate() error {
return nil
}
---
layout: api
page_title: License - Operator - HTTP API
description: |-
The /operator/license endpoints allow for retrieving the Nomad Enterprise License.
---

# License Operator HTTP API

<EnterpriseAlert />

## Get Nomad Enterprise License Info

This endpoint gets information about the current license.

| Method | Path | Produces |
| ----- | ----- | ----- |
| `GET` | `/v1/operator/license` | `application/json` |

The table below shows this endpoint's support for
[blocking queries](/nomad/api-docs#blocking-queries) and
[required ACLs](/nomad/api-docs#acls).

```



```
| Blocking Queries | ACL Required |
| ----- | ----- |
| `NO` | `operator:read` |
```

Sample Request

```
```shell-session
$ curl \
 https://localhost:4646/v1/operator/license
```
```

Sample Response

```
```json
{
 "KnownLeader": false,
 "LastContact": 0,
 "LastIndex": 0,
 "License": {
 "CustomerID": "customer name",
 "ExpirationTime":
 "2020-06-01T14:50:16.581304556-04:00",
 "Features": [
 "Automated Upgrades",
 "Enhanced Read Scalability",
 "Redundancy Zones",
 "Namespaces",
 "Resource Quotas",
 "Preemption",
 "Audit Logging",
 "Setinel Policies"
],
 "Flags": {
 "modules": ["governance-policy"]
 },
 "InstallationID": "*",
 "IssueTime": "2020-06-01T08:50:16.581304556-04:00",
 "LicenseID": "6f706a45-bdac-4a70-968b-d93784894653",
 "Modules": ["governance-policy"],
 "Product": "nomad",
 "StartTime": "2020-06-01T08:50:16.581304556-04:00",
 "TerminationTime": "2020-06-01T14:50:16.581304556-04:00"
 },
 "RequestTime": 0
}
```
```

```
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```

```
package command
```

```
import (
    "fmt"

    "github.com/hashicorp/nomad/api"
    "github.com/posener/complete"
)
```

```
type LicenseGetCommand struct {
    Meta
}
```

```
func (c *LicenseGetCommand) Help() string {
    helpText := `
Usage: nomad license get [options]
```

Gets the license loaded by the server. The command is not forwarded to the Nomad leader, and will return the license from the specific server being contacted.

When ACLs are enabled, this command requires a token with the 'operator:read' capability.

General Options:

```
` + generalOptionsUsage(usageOptsDefault|usageOptsNoNamespace)
```

```
return helpText
}
```

```
func (c *LicenseGetCommand) AutocompleteFlags() complete.Flags {
    return complete.Flags{}
}
```

```
func (c *LicenseGetCommand) AutocompleteArgs() complete.Predictor {
    return complete.PredictNothing
}
```

```
func (c *LicenseGetCommand) Synopsis() string {
    return "Retrieve the current Nomad Enterprise License"
}
```

```
func (c *LicenseGetCommand)
```

```

Name() string { return "license get" }

func (c *LicenseGetCommand) Run(args []string) int {
    flags := c.Meta.FlagSet(c.Name(), FlagSetClient)
    flags.Usage = func() { c.Ui.Output(c.Help()) }

    if err := flags.Parse(args); err != nil {
        c.Ui.Error(fmt.Sprintf("Error parsing flags: %s", err))
        return 1
    }

    client, err := c.Meta.Client()
    if err != nil {
        c.Ui.Error(fmt.Sprintf("Error initializing client: %s", err))
        return 1
    }

    resp, _, err := client.Operator().LicenseGet(&api.QueryOptions{})
    if err != nil {
        c.Ui.Error(fmt.Sprintf("Error getting license: %v", err))
        return 1
    }

    return OutputLicenseReply(c.Ui, resp)
}
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// SPDX-License-Identifier: BUSL-1.1

```

```
package nomad
```

```
import (
    "slices"
    "time"
)
```

```
// LicenseConfig allows for tunable licensing config
// primarily used for enterprise testing
type LicenseConfig struct {
    // BuildDate is the time of the git commit used to build the program.
    BuildDate time.Time

```

```
// LicenseEnvBytes is the license bytes to use for the server's license
LicenseEnvBytes string

```

```
// LicensePath is the path to use for the server's license
LicensePath string

```

```
// AdditionalPubKeys is a set of public keys to

```

```

AdditionalPubKeys []string
}

func (c *LicenseConfig) Copy() *LicenseConfig {
if c == nil {
return nil
}

nc := *c
nc.AdditionalPubKeys = slices.Clone(c.AdditionalPubKeys)
return &nc
}

```

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layout: docs

page_title: Nomad Enterprise License FAQ

description: >-

Frequently Asked Questions pertaining to Nomad Enterprise Licensing.

Frequently Asked Questions (FAQ)

This FAQ is for the license changes introduced in Nomad Enterprise version v1.6.0+ent.

For license-related FAQ for earlier versions, please refer to earlier versions of this document using the version drop-down on this page, e.g. [v1.5.x](/nomad/docs/v1.5.x/enterprise/license/faq).

Q: Can I get a quick summary of the Nomad changes?

Starting with Nomad Enterprise v1.6.0, license expiration is different.

For trial licenses, the behavior remains the same. Enterprise features will stop working when the license expires, and a server can not start with an expired license.

For new "non-terminating" contract licenses, instead of expiration being compared to the current time, expiration time is compared to the build date of the Nomad binary, which you can find in the output of the `[nomad version](/nomad/docs/commands/version)` command.

The practical result is that newer contract licenses will work in perpetuity for any v1.6.0+ version of Nomad built prior to the expiration time of the license. No features will stop working, and server agents can be restarted safely.

However, if you try to upgrade to a newer binary past license expiration, the server will not start. To proactively avoid that, you can test a new binary with your license using the new `[nomad license inspect]` command before trying to upgrade your servers.

Q: What resources are available?

The list below is a great starting point for learning more about license usage in general.

- [\[v1.6.0 Upgrade Guide\]](#)(/nomad/docs/upgrade/upgrade-specific#enterprise-license-validation-with-builddate)
- [\[Nomad License Documentation\]](#)(/nomad/docs/enterprise/license)
- [\[License configuration values documentation\]](#)(/nomad/docs/configuration/server#license_path)
- [\[Install a HashiCorp Enterprise License Tutorial\]](#)(/nomad/tutorials/enterprise/hashicorp-enterprise-license)

##

Q: Does this affect older versions of Nomad?

This change only affects Nomad Enterprise version v1.6.0+ent and later.

Q: Does the license have to be present on Nomad client nodes?

Only Nomad server nodes need to have the license present. Nomad agents running with the `-dev`` flag will also need a license.

Q: What are some pitfalls that could be experienced during an upgrade because of the license changes?

If you have an expired license that has not yet become fully nonfunctional (i.e. it is in grace period between `ExpirationTime` and `TerminationTime`), then a Nomad server will not be able to start using a new v1.6.0+ binary.

Before shutting down a server agent to replace it with a new version, be sure to run `[nomad license inspect]` with the new binary.

Q: How can a user get their existing license?

If you are an existing HashiCorp enterprise customer you may contact your organization's customer

success manager (CSM) or email support-software@hashicorp.com for information on how to get your organization's enterprise license.

You can use ``nomad license get`` to retrieve information about the license, but not the license itself.

Q: What happens when a license expires?

All features will continue to work until you attempt to upgrade Nomad that is newer than your license expiration time.

In that case, the server agent will fail to start, and you'll need to roll back to the previous working version and acquire a new license to use with the newer Nomad version before attempting the upgrade again.

Q: Are licenses cluster-specific? node-specific?

Licenses can be reused on different nodes and different clusters.

Q: Where can users get a trial license for Nomad?

Visit <https://nomadproject.io/trial> for a free 30-day trial license.

Q: When a Nomad client agent restarts, will it still need a license file?

Every time ``nomad agent`` runs as a server (or in ``-dev``), it requires a license.

Q: May I downgrade Nomad Enterprise from v1.6.0 to an earlier version?

Yes, if you upgrade a server to 1.6.0+ but it fails to start due to license expiration, you can roll back to a previous working version with the old expiration logic.

If a server fails to start for any other reason aside from license expiration, roll back to a previous version is not supported due to the Nomad state store not having forward compatibility, and may result in a crash loop.

Q: Is there a tutorial available for the license configuration steps?

Please visit the [Enterprise License Tutorial](/nomad/tutorials/enterprise/hashicorp-enterprise-license).

```
[license inspect]: /nomad/docs/commands/license/inspect
```

```
// Copyright (c) HashiCorp, Inc.
```

```
// SPDX-License-Identifier: BUSL-1.1
```

```
package command
```

```
import (
```

```
    "testing"
```

```
    "time"
```

```
    "github.com/hashicorp/nomad/api"
```

```
    "github.com/hashicorp/nomad/ci"
```

```

"github.com/mitchellh/cli"
"github.com/stretchr/testify/require"
)

var _ cli.Command = &LicenseGetCommand{ }

func TestCommand_LicenseGet_OSSErr(t *testing.T) {
    ci.Parallel(t)

    srv, _, url := testServer(t, false, nil)
    defer srv.Shutdown()

    ui := cli.NewMockUi()
    cmd := &LicenseGetCommand{Meta: Meta{Ui: ui}}

    code := cmd.Run([]string{"-address=" + url})
    if srv.Enterprise {
        require.Equal(t, 0, code)
    } else {
        require.Equal(t, 1, code)
        require.Contains(t, ui.ErrorWriter.String(), "Nomad Enterprise only endpoint")
    }
}

func TestOutputLicenseReply(t *testing.T) {
    ci.Parallel(t)

    now := time.Now()
    lic := &api.LicenseReply{
        License: &api.License{
            LicenseID:    "licenseID",
            CustomerID:   "customerID",
            InstallationID: "*",
            IssueTime:     now,
            StartTime:    now,
            ExpirationTime:
                now.Add(1 * time.Hour),
            TerminationTime: now,
            Product:      "nomad",
            Flags: map[string]interface{}{
                "": nil,
            },
        },
    }

    ui := cli.NewMockUi()

    require.Equal(t, 0, OutputLicenseReply(ui, lic))
}

```



```
out := ui.OutputWriter.String()
require.Contains(t, out, "Customer ID")
require.Contains(t, out, "License ID")
}
---
layout: docs
page_title: 'Commands: license inspect'
description: |
The license inspect command is used to inspect and validate an enterprise license.
---
```

Command: license inspect

```
<EnterpriseAlert>
This command is only present in Nomad Enterprise.
</EnterpriseAlert>
```

The `license inspect` command is used to inspect and validate a Nomad Enterprise license. It will read the license from a file on disk or an environment variable and exit non-0 if the license is not valid with the Nomad binary.

This command should always be run with the new binary before upgrading Nomad on a server, as the server agent will not start with an invalid license.

Usage

```
```plaintext
nomad license inspect [/path/to/license.hcl]
```
```

Examples

With a license file argument:

```
```shell-session
$ nomad license inspect /path/to/nomad/license.hcl
Source: /path/to/nomad/license.hcl
Product: nomad
License ID: aaaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa
Customer ID: bbbbbbbb-bbbb-bbbb-bbbb-bbbbbbbbbbbb
Installation
ID: *
Issue Time: 2021-12-01 17:49:23.021041516 +0000 UTC
Start Time: 2021-12-01 00:00:00 +0000 UTC
Expiration Time: 2023-12-01 00:00:00 +0000 UTC
Termination Time: 2024-01-01 00:00:00 +0000 UTC
Build Date: 2000-01-01 00:00:00 +0000 UTC
```
```

```
Flags: {
  "modules": [
    "multicenter-and-efficiency",
    "governance-policy"
  ]
}
```

License is valid

With a license file environment variable:

```
```shell-session
$ export NOMAD_LICENSE_PATH=/path/to/nomad/license.hcl
$ nomad license inspect
Source: /path/to/nomad/license.hcl (path from the NOMAD_LICENSE_PATH environment variable)
Product: nomad
....
License is valid

```

With a license string environment variable:

```
```shell-session
$ export NOMAD_LICENSE=full-license-text-string
$ nomad license inspect
Source: NOMAD_LICENSE environment variable
....
License is valid
---
```

Example error

```
```shell-session
$ nomad license inspect license.hcl
...
Validation Errors:
* license is no longer valid
* license expiration
date is before version build date: expiration=2023-01-13T23:59:59Z build=2023-03-17T00:00:00Z

```

layout: docs

page\_title: 'Commands: license get'

description: |

The license get command is used to get the current license.

---

# Command: license get

The `license get` command is used to retrieve the current Nomad Enterprise license. The command is not forwarded to the Nomad leader, and will return the license from the specific server being contacted.

~> License commands are new in Nomad 0.12.0 and are only available with Nomad Enterprise.

## Usage

```
```plaintext
nomad license get [options]
```
```

When ACLs are enabled, this command requires a token with the 'operator:read' capability.

## General Options

```
@include 'general_options_no_namespace.mdx'
```

## Examples

```
```shell-session
$ nomad license get
```

```
Product      = nomad
License Status = valid
License ID    = e23f63b1-00ec-4e67-e926-c22e7937ceec
Customer ID   = 350356e5-8aec-bdf4-8510-b205079ccad2
Issued At     = 2021-03-31 14:21:16.969610774 +0000 UTC
Expires At    = 2020-05-09 00:00:00 +0000 UTC
Terminates At = 2020-05-10
              00:00:00 +0000 UTC
Datacenter    = *
Modules:
  governance-policy
Licensed Features:
  Automated Upgrades
  Enhanced Read Scalability
  Redundancy Zones
  Namespaces
  Resource Quotas
  Preemption
  Audit Logging
  Sentinel Policies
```
```

```
```shell-session
$ nomad license get -stale=true

Product      = nomad
License Status = valid
License ID   = 8c647f6c-1e6d-18d8-7f05-92c4d8110b2d
Customer ID  = 350356e5-8aec-bdf4-8510-b205079ccad2
Issued At    = 2021-03-31 14:21:16.969610774 +0000 UTC
Expires At   = 2022-04-01 00:00:00 +0000 UTC
Terminates At = 2022-04-04 00:00:00 +0000 UTC
Datacenter   = *
Modules:
  governance-policy
  multicluster-and-efficiency
Licensed Features:
  Automated Upgrades
  Enhanced Read Scalability
  Redundancy Zones
  Namespaces
  Resource Quotas
  Audit Logging
  Sentinel Policies
  Multiregion Deployments
  Automated Backups

  Multi-Vault Namespaces
```
```

# 1.203 zerolog v1.30.0

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[localtime.go](https://github.com/pelletier/localtime.go), [localtime\\_test.go](https://github.com/pelletier/localtime_test.go):

Originals:

<https://raw.githubusercontent.com/googleapis/google-cloud-go/ed46f5086358513cf8c25f8e3f022cb838a49d66/civil/civil.go>

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Changes:

- \* Renamed files from civil\* to localtime\*.
- \* Package changed from civil to toml.
- \* 'Local' prefix added to all structs.

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## 1.224 go-restful 3.10.2

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

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## 1.231 libcap 0.7.9-2.1build1

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5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

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To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the program's name and a brief idea of what it does.>  
Copyright (C) <year> <name of author>

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

```
Gnomovision version 69, Copyright (C) year name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute
it
under certain conditions; type `show c' for details.
```

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

```
Yoyodyne, Inc., hereby disclaims all copyright interest in the program
`Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License.

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Version 2, June 1991

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[This is the first released version of the library GPL. It is numbered 2 because it goes with version 2 of the ordinary GPL.]

Preamble

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When

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Our method of protecting your rights has two steps: (1) copyright the library, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the library.

Also, for each distributor's protection, we want to make certain that everyone understands that there is no warranty for this free library. If the library is modified by someone else and passed on, we want its recipients to know that what they have is not the original version, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that companies distributing free software will individually obtain patent licenses, thus in effect transforming the program into proprietary software. To prevent this,

we

have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License, which was designed for utility programs. This license, the GNU Library General Public License, applies to certain designated libraries. This license is quite different from the ordinary one; be sure to read it in full, and don't assume that anything in it is the same as in the ordinary license.

The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion



of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of

a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a

derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials

specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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<signature of Ty Coon>, 1 April 1990  
Ty Coon, President of Vice

That's all there is to it!

# 1.234 procps 2:3.3.16-1ubuntu2.4

## 1.234.1 Available under license :

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c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

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entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

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The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as

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```
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```
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```

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## 1.235 githubcommattngoisatty v0.0.20

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?RCS:  
?MAKE:d\_fchdir: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_fchdir:  
?S: This variable conditionally defines the HAS\_FCHDIR symbol, which  
?S: indicates to the C program that the fchdir() routine is available.  
?S:.  
?C:HAS\_FCHDIR:  
?C: This symbol, if defined, indicates that the fchdir routine is  
?C: available to change directory using a file descriptor.  
?C:.  
?H:#\$d\_fchdir HAS\_FCHDIR /\*\*/  
?H:.  
?LINT:set d\_fchdir  
: see if fchdir exists  
set fchdir d\_fchdir  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fchdir.U

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?RCS:  
?MAKE:d\_lgamma\_r: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_lgamma\_r:  
?S: This variable conditionally defines the HAS\_LGAMMA\_R symbol, which  
?S: indicates to the C program that the lgamma\_r() routine is available  
?S: for the log gamma function, without using the global signgam variable.  
?S:.  
?C:HAS\_LGAMMA\_R:  
?C: This symbol, if defined, indicates that the lgamma\_r routine is  
?C: available to do the log gamma function without using the global  
?C: signgam variable.  
?C:.  
?H:#\$d\_lgamma\_r HAS\_LGAMMA\_R /\*\*/  
?H:.  
?LINT:set d\_lgamma\_r  
: see if lgamma\_r exists  
set lgamma\_r d\_lgamma\_r  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_lgamma\_r.U

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?RCS:

?MAKE:d\_expm1: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_expm1:

?S: This variable conditionally defines the HAS\_EXPM1 symbol, which

?S: indicates to the C program that the expm1() routine is available.

?S:.

?C:HAS\_EXPM1:

?C: This symbol, if defined, indicates that the expm1 routine is

?C: available to do the exp(x) - 1 when x is near 1 function.

?C:.

?H:#\$d\_expm1 HAS\_EXPM1 /\*\*/

?H:.

?LINT:set d\_expm1

: see if expm1 exists

set expm1 d\_expm1

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_expm1.U

No license file was found, but licenses were detected in source scan.

/\*

\* \$Id: getopt.C,v 3.0.1.1 1994/01/24 13:58:40 ram Exp ram \$

\*

\* Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

\*

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\* You may reuse parts of this distribution only within the terms of

\* that same Artistic Licence; a copy of which may be found at the root

\* of the source tree for dist 4.0.

\*

\* Original Author: unknown, got this off net.sources

\*

\* \$Log: getopt.C,v \$

\* Revision 3.0.1.1 1994/01/24 13:58:40 ram

\* patch16: created

\*

\*/

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/lib/C/fake/getopt.C

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:i\_quadmath: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_quadmath:

?S: This variable conditionally defines I\_QUADMATH, which indicates

?S: to the C program that it should include <quadmath.h>.

?S:.

?C:I\_QUADMATH:

?C: This symbol, if defined, indicates that <quadmath.h> exists and

?C: should be included.

?C:.

?H:#\$i\_quadmath I\_QUADMATH /\*\*/

?H:.

?LINT:set i\_quadmath

: see if this is a quadmath.h system

set quadmath.h i\_quadmath

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_quadmath.U

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?RCS: \$Id\$

?RCS:

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?RCS:

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?RCS: License or the Artistic License, as specified in the WRITEME file.

?RCS:

?MAKE:d\_writev: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_writev:

?S: This variable conditionally defines the HAS\_WRITEV symbol, which

?S: indicates to the C program that the writev() routine is available.

?S:.

?C:HAS\_WRITEV:

?C: This symbol, if defined, indicates that the writev routine is

?C: available to do scatter writes.

?C:.  
?H:#\$d\_writev HAS\_WRITEV /\*\*/  
?H:.  
?LINT:set d\_writev  
: see if writev exists  
set writev d\_writev  
eval \$inlibc

Found in path(s):  
\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_writev.U  
No license file was found, but licenses were detected in source scan.

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:  
?MAKE:d\_round: Inlibc  
?MAKE: -pick add \$@ %<

?S:d\_round:  
?S: This variable conditionally defines the HAS\_ROUND symbol, which  
?S: indicates to the C program that the round() routine is available.

?S:.  
?C:HAS\_ROUND:  
?C: This symbol, if defined, indicates that the round routine is  
?C: available to round to nearest integer, away from zero.

?C:.  
?H:#\$d\_round HAS\_ROUND /\*\*/  
?H:.

?LINT:set d\_round  
: see if round exists  
set round d\_round  
eval \$inlibc

Found in path(s):  
\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_round.U  
No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.

?RCS:  
?MAKE:d\_getmnt: Inlibc  
?MAKE: -pick add \$@ %<

?S:d\_getmnt:

?S: This variable conditionally defines the HAS\_GETMNT symbol, which

?S: indicates to the C program that the getmnt() routine is available

?S: to retrieve one or more mount info blocks by filename.

?S:.

?C:HAS\_GETMNT:

?C: This symbol, if defined, indicates that the getmnt routine is

?C: available to get filesystem mount info by filename.

?C:.

?H:#\$d\_getmnt HAS\_GETMNT /\*\*/

?H:.

?LINT:set d\_getmnt

: see if getmnt exists

set getmnt d\_getmnt

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_getmnt.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2017 Dagfinn Ilmari Mannsåker

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_strnlen: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_strnlen:

?S: This variable conditionally defines the HAS\_STRNLEN symbol, which

?S: indicates to the C program that the strnlen () routine is available.

?S:.

?C:HAS\_STRNLEN:

?C: This symbol, if defined, indicates that the strnlen () routine is

?C: available to check the length of a string up to a maximum.

?C:.

?H:#\$d\_strnlen HAS\_STRNLEN /\*\*/

?H:.

?LINT:set d\_strnlen

: see if strnlen exists

set strnlen d\_strnlen

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_strnlen.U

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
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?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_getfsstat : Inlibc
?MAKE: -pick add $@ %<
?S:d_getfsstat:
?S: This variable conditionally defines the HAS_GETFSSTAT symbol, which
?S: indicates to the C program that the getfsstat() routine is available.
?S:.
?C:HAS_GETFSSTAT:
?C: This symbol, if defined, indicates that the getfsstat routine is
?C: available to stat filesystems in bulk.
?C:.
?H:#$d_getfsstat HAS_GETFSSTAT /**/
?H:.
?LINT:set d_getfsstat
: see if getfsstat exists
set getfsstat d_getfsstat
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_getfsstat.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 2003 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_scalbnl: Inlibc
?MAKE: -pick add $@ %<
?S:d_scalbnl:
?S: This variable conditionally defines the HAS_SCALBNL symbol, which
?S: indicates to the C program that the scalbnl() routine is available.
?S: If ilogbl is also present we can emulate frexpl.
?S:.
?C:HAS_SCALBNL:
?C: This symbol, if defined, indicates that the scalbnl routine is
?C: available. If ilogbl is also present we can emulate frexpl.
```



?C:.  
?H:#\$d\_scalbnl HAS\_SCALBNL /\*\*/  
?H:.  
?LINT:set d\_scalbnl  
: see if scalbnl exists  
set scalbnl d\_scalbnl  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_scalbnl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
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?RCS:  
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?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_qgcvt: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_qgcvt:  
?S: This variable conditionally defines the HAS\_QGCVT symbol, which  
?S: indicates to the C program that the qgcvt() routine is available.  
?S:.  
?C:HAS\_QGCVT:  
?C: This symbol, if defined, indicates that the qgcvt routine is  
?C: available to convert long doubles ("quad doubles") to strings.  
?C: This is a low-level routine hopefully faster than sprintf.  
?C:.  
?H:#\$d\_qgcvt HAS\_QGCVT /\*\*/  
?H:.  
?LINT:set d\_qgcvt  
: see if qgcvt exists  
set qgcvt d\_qgcvt  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_qgcvt.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 2019 Karl Williamson  
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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_towupper: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_towupper:

?S: This variable conditionally defines the HAS\_TOWUPPER symbol, which

?S: indicates to the C program that the towupper() routine is available.

?S:.

?C:HAS\_TOWUPPER:

?C: This symbol, if defined, indicates that the towupper () routine is

?C: available to do case conversion.

?C:.

?H:#\$d\_towupper HAS\_TOWUPPER /\*\*/

?H:.

?LINT:set d\_towupper

: see if towupper exists

set towupper d\_towupper

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_towupper.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_poll.U,v \$

?RCS:

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?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:i\_langinfo: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_langinfo:

?S: This variable conditionally defines the I\_LANGINFO symbol,

?S: and indicates whether a C program should include <langinfo.h>.

?S:.

?C:I\_LANGINFO:

?C: This symbol, if defined, indicates that <langinfo.h> exists and

?C: should be included.

?C:.

?H:#\$i\_langinfo I\_LANGINFO /\*\*/

?H:.

?LINT:set i\_langinfo

: see if this is a langinfo.h system

set langinfo.h i\_langinfo

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_langinfo.U

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_lrintl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_lrintl:

?S: This variable conditionally defines the HAS\_LRINTL symbol, which

?S: indicates to the C program that the lrintl() routine is available

?S: to return the integral value closest to a long double (according

?S: to the current rounding mode).

?S:.

?C:HAS\_LRINTL:

?C: This symbol, if defined, indicates that the lrintl routine is

?C: available to return the integral value closest to a long double

?C: (according to the current rounding mode).

?C:.

?H:#\$d\_lrintl HAS\_LRINTL /\*\*/

?H:.

?LINT:set d\_lrintl

: see if lrintl exists

set lrintl d\_lrintl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_lrintl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_sysmount.U,v \$

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:i\_sysmount: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_sysmount:

?S: This variable conditionally defines the I\_SYSMOUNT symbol,

?S: and indicates whether a C program should include <sys/mount.h>.

?S:.

?C:I\_SYS\_MOUNT:

?C: This symbol, if defined, indicates that <sys/mount.h> exists and

```
?C: should be included.
?C:.
?H:#$i_sysmount I_SYS_MOUNT /**/
?H:.
?LINT:set i_sysmount
: see if this is a sys/mount.h system
set sys/mount.h i_sysmount
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_sysmount.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Null.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: Null.U,v $
?RCS: Revision 3.0 1993/08/18 12:05:10 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit ends up producing shell code to set all variables to ". This
?X: probably isn't necessary, but I'm paranoid. About certain things.
?X:
?MAKE:Null: Head
?MAKE: -pick add.Null $@ %<
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Null.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_sysuio.U,v $
?RCS:
?RCS: Copyright (c) 1998 Jarkko Hietaniemi
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?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:i_sysuio: Inhdr
```

?MAKE: -pick add \$@ %<  
?S:i\_sysuio:  
?S: This variable conditionally defines the I\_SYSUIO symbol, and indicates  
?S: whether a C program should include <sys/uio.h>.  
?S:.  
?C:I\_SYSUIO:  
?C: This symbol, if defined, indicates that <sys/uio.h> exists and  
?C: should be included.  
?C:.  
?H:#\$i\_sysuio I\_SYSUIO /\*\*/  
?H:.  
?LINT:set i\_sysuio  
: see if this is a sys/uio.h system  
set sys/uio.h i\_sysuio  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i\_sysuio.U

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?RCS:

?MAKE:d\_nan: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_nan:

?S: This variable conditionally defines HAS\_NAN if nan() is

?S: available to generate NaN.

?S:.

?C:HAS\_NAN:

?C: This symbol, if defined, indicates that the nan routine is

?C: available to generate NaN.

?C:.

?H:#\$d\_nan HAS\_NAN /\*\*/  
?H:.

?LINT:set d\_nan

: see if nan exists

set nan d\_nan

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_nan.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:  
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?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?MAKE:full\_ar: ar  
?MAKE: -pick add \$@ %<  
?S:full\_ar:  
?S: This variable contains the full pathname to 'ar', whether or  
?S: not the user has specified 'portability'. This is only used  
?S: in the Makefile.SH.  
?S:.  
: Store the full pathname to the ar program for use in the C program  
: Respect a hint or command line value for full\_ar.  
case "\$full\_ar" in  
") full\_ar=\$ar ;;  
esac

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/Loc\_ar.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_shadow.U,v \$  
?RCS:  
?RCS: Copyright (c) 2000 Jarkko Hietaniemi  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:i\_prot: Inhdr Hasfield  
?MAKE: -pick add \$@ %<  
?S:i\_prot:  
?S: This variable conditionally defines the I\_PROT symbol, and indicates  
?S: whether a C program should include <prot.h>.  
?S:.  
?C:I\_PROT:  
?C: This symbol, if defined, indicates that <prot.h> exists and  
?C: should be included.  
?C:.  
?H:#\$i\_prot I\_PROT /\*\*/  
?H:.  
?LINT:set i\_prot  
: see if this is a prot.h system  
set prot.h i\_prot

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_prot.U

No license file was found, but licenses were detected in source scan.

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?RCS:

?RCS: Copyright (c) 2009 H.Merijn Brand

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_getnameinfo: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_getnameinfo:

?S: This variable conditionally defines the HAS\_GETNAMEINFO symbol,

?S: which indicates to the C program that the getnameinfo() function

?S: is available.

?S:.

?C:HAS\_GETNAMEINFO:

?C: This symbol, if defined, indicates that the getnameinfo() function

?C: is available for use.

?C:.

?H:#\$d\_getnameinfo HAS\_GETNAMEINFO /\*\*/

?H:.

?LINT:set d\_getnameinfo

: see if getnameinfo exists

set getnameinfo d\_getnameinfo

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_getnameinfo.U

No license file was found, but licenses were detected in source scan.

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?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_recvmsg: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_recvmsg:

?S: This variable conditionally defines the HAS\_RECVMSG symbol, which

?S: indicates to the C program that the recvmsg() routine is available.

?S:.

?C:HAS\_RECVMSG:

?C: This symbol, if defined, indicates that the recvmsg routine is

?C: available to send structured socket messages.

?C:.

?H:#\$d\_recvmsg HAS\_RECVMSG /\*\*/

?H:.

?LINT:set d\_recvmsg

: see if recvmsg exists

set recvmsg d\_recvmsg

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_recvmsg.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_sendmsg: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_sendmsg:

?S: This variable conditionally defines the HAS\_SENDMSG symbol, which

?S: indicates to the C program that the sendmsg() routine is available.

?S:.

?C:HAS\_SENDMSG:

?C: This symbol, if defined, indicates that the sendmsg routine is

?C: available to send structured socket messages.

?C:.

?H:#\$d\_sendmsg HAS\_SENDMSG /\*\*/

?H:.

?LINT:set d\_sendmsg

: see if sendmsg exists

set sendmsg d\_sendmsg

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_sendmsg.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$



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?RCS:  
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?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_readv: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_readv:  
?S: This variable conditionally defines the HAS\_READV symbol, which  
?S: indicates to the C program that the readv() routine is available.  
?S:.  
?C:HAS\_READV:  
?C: This symbol, if defined, indicates that the readv routine is  
?C: available to do gather reads. You will also need <sys/uio.h>  
?C: and there I\_SYSUIO.  
?C:.  
?H:#\$d\_readv HAS\_READV /\*\*/  
?H:.  
?LINT:set d\_readv  
: see if readv exists  
set readv d\_readv  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_readv.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_bfd.U,v \$  
?RCS:  
?RCS: Copyright (c) 2014 H.Merijn Brand  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:i\_bfd: Inhdr Hasfield  
?MAKE: -pick add \$@ %<  
?S:i\_bfd:  
?S: This variable conditionally defines the I\_BFD symbol, and  
?S: indicates whether a C program can include <bfd.h>.  
?S:.  
?C:I\_BFD:  
?C: This symbol, if defined, indicates that <bfd.h> exists and  
?C: can be included.  
?C:.  
?H:#\$i\_bfd I\_BFD /\*\*/  
?H:.

```
?LINT:set i_bfd
: see if this is a bfd.h system
set bfd.h i_bfd
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_bfd.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_sunmath.U,v $
```

```
?RCS:
```

```
?RCS: Copyright (c) 2000 Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:i_sunmath: Inhdr Hasfield
```

```
?MAKE: -pick add $@ %<
```

```
?S:i_sunmath:
```

```
?S: This variable conditionally defines the I_SUNMATH symbol, and indicates
```

```
?S: whether a C program should include <sunmath.h>.
```

```
?S:.
```

```
?C:I_SUNMATH:
```

```
?C: This symbol, if defined, indicates that <sunmath.h> exists and
```

```
?C: should be included.
```

```
?C:.
```

```
?H:#$i_sunmath I_SUNMATH /**/
```

```
?H:.
```

```
?LINT:set i_sunmath
```

```
: see if this is a sunmath.h system
```

```
set sunmath.h i_sunmath
```

```
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_sunmath.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1998 Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:d_atoll: Inlibc
```

```
?MAKE: -pick add $@ %<
```

?S:d\_atoll:  
?S: This variable conditionally defines the HAS\_ATOLL symbol, which  
?S: indicates to the C program that the atoll() routine is available.  
?S:.  
?C:HAS\_ATOLL:  
?C: This symbol, if defined, indicates that the atoll routine is  
?C: available to convert strings into long longs.  
?C:.  
?H:#\$d\_atoll HAS\_ATOLL /\*\*/  
?H:.  
?LINT:set d\_atoll  
: see if atoll exists  
set atoll d\_atoll  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/atoll.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 2009 H.Merijn Brand  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_inetpton: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_inetpton:  
?S: This variable conditionally defines the HAS\_INETPTON symbol,  
?S: which indicates to the C program that the inet\_pton() function  
?S: is available.  
?S:.  
?C:HAS\_INETPTON:  
?C: This symbol, if defined, indicates that the inet\_pton() function  
?C: is available to parse IPv4 and IPv6 strings.  
?C:.  
?H:#\$d\_inetpton HAS\_INETPTON /\*\*/  
?H:.  
?LINT:set d\_inetpton  
: see if inet\_pton exists  
set inet\_pton d\_inetpton  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_inetpton.U

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?RCS:

?MAKE:d\_remainder: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_remainder:

?S: This variable conditionally defines the HAS\_REMAINDER symbol, which

?S: indicates to the C program that the remainder() routine is available.

?S:.

?C:HAS\_REMAINDER:

?C: This symbol, if defined, indicates that the remainder routine is

?C: available to return the floating-point remainder.

?C:.

?H:#\$d\_remainder HAS\_REMAINDER /\*\*/

?H:.

?LINT:set d\_remainder

: see if remainder exists

set remainder d\_remainder

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_remainder.U

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Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/files/Jmake.tmpl

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_syslog.U,v \$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:i\_syslog: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_syslog:

?S: This variable conditionally defines the I\_SYSLOG symbol,

?S: and indicates whether a C program should include <syslog.h>.

?S:.

?C:I\_SYSLOG:

?C: This symbol, if defined, indicates that <syslog.h> exists and

?C: should be included.

?C:.

?H:#\$i\_syslog I\_SYSLOG /\*\*/

?H:.

?LINT:set i\_syslog

: see if this is a syslog.h system

set syslog.h i\_syslog

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_syslog.U

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\* Feel free to modify any of this as the need arises.&nbsp;&nbsp; Note, however,

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/metaconfig.html

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_sysmode.U,v \$

?RCS:

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?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:i\_sysmode: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_sysmode:

?S: This variable conditionally defines the I\_SYSMODE symbol,

?S: and indicates whether a C program should include <sys/mode.h>.

?S:.

?C:I\_SYSMODE:

?C: This symbol, if defined, indicates that <sys/mode.h> exists and

?C: should be included.

?C:.

?H:#\$i\_sysmode I\_SYSMODE /\*\*/

?H:.

?LINT:set i\_sysmode

: see if this is a sys/mode.h system

set sys/mode.h i\_sysmode

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/perl/i\_sysmode.U

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?RCS:

?MAKE:d\_fdclose: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fdclose:

?S: This variable conditionally defines the HAS\_FDCLOSE symbol, which

?S: indicates to the C program that the fdclose() routine is available.

?S:.

?C:HAS\_FDCLOSE:

?C: This symbol, if defined, indicates that the fdclose routine is

?C: available to free a FILE structure without closing the underlying

?C: file descriptor. This function appeared in FreeBSD 10.2.

?C:.

?H:#\$d\_fdclose HAS\_FDCLOSE /\*\*/

?H:.

?LINT:set d\_fdclose

: see if fdclose exists

set fdclose d\_fdclose

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/perl/d\_fdclose.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_isfinitel: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_isfinitel:

?S: This variable conditionally defines the HAS\_ISFINITEL symbol, which

?S: indicates to the C program that the isfinitel() routine is available.

?S:.

?C:HAS\_ISFINITEL:

?C: This symbol, if defined, indicates that the isfinitel routine is

?C: available to check whether a long double is finite.

?C: (non-infinity non-NaN).

?C:.

?H:#\$d\_isfinitel HAS\_ISFINITEL /\*\*/

?H:

?LINT:set d\_isfinitel

: see if isfinitel exists

set isfinitel d\_isfinitel

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_isfinitel.U

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?RCS: \$Id\$

?RCS:

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?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_strtod\_l: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_strtod\_l:

?S: This variable conditionally defines the HAS\_STRTOD\_L symbol, which

?S: indicates to the C program that the strtod\_l() routine is available.

?S:.

?C:HAS\_STRTOD\_L:

?C: This symbol, if defined, indicates that the strtod\_l routine is

?C: available to convert strings to long doubles.

?C:.

?H:#\$d\_strtod\_l HAS\_STRTOD\_L /\*\*/

?H:

?LINT:set d\_strtod\_l

: see if strtod\_l exists

set strtod\_l d\_strtod\_l

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_strtod\_l.U

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?RCS:

?MAKE:d\_lround: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_lround:

?S: This variable conditionally defines the HAS\_LROUND symbol, which

?S: indicates to the C program that the lround() routine is available

?S: to return the integral value nearest to x.

?S:.

?C:HAS\_LROUND:

?C: This symbol, if defined, indicates that the lround routine is

?C: available to return the nearest integral value.

?C:.

?H:#\$d\_lround HAS\_LROUND /\*\*/

?H:.

?LINT:set d\_lround

: see if lround exists

set lround d\_lround

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_lround.U

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?RCS:

?MAKE:d\_nextafter: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_nextafter:

?S: This variable conditionally defines HAS\_NEXTAFTER if nextafter()

?S: is available to return the next machine representable double from

?S: x in direction y.

?S:.

?C:HAS\_NEXTAFTER:

?C: This symbol, if defined, indicates that the nextafter routine is

?C: available to return the next machine representable double from

?C: x in direction y.

?C:.

?H:#\$d\_nextafter HAS\_NEXTAFTER /\*\*/

?H:.

?LINT:set d\_nextafter

: see if nextafter exists

set nextafter d\_nextafter

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_nextafter.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998 Jarkko Hietaniemi



```

?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_fseeko: Inlibc longsize
?MAKE: -pick add $@ %<
?S:d_fseeko:
?S: This variable conditionally defines the HAS_FSEEKO symbol, which
?S: indicates to the C program that the fseeko() routine is available.
?S:.
?C:HAS_FSEEKO:
?C: This symbol, if defined, indicates that the fseeko routine is
?C: available to fseek beyond 32 bits (useful for ILP32 hosts).
?C:.
?H:#$d_fseeko HAS_FSEEKO /**/
?H:.
?LINT:set d_fseeko
: see if fseeko exists
set fseeko d_fseeko
eval $inlibc
case "$longsize" in
8) echo "(Your long is 64 bits, so you could use fseek.)" ;;
)
esac

```

Found in path(s):

```

* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_fseeko.U

```

No license file was found, but licenses were detected in source scan.

```

/*
* $Id: rename.C,v 3.0.1.1 1994/01/24 13:58:42 ram Exp ram $
*
* Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
*
* You may redistribute only under the terms of the Artistic Licence,
* as specified in the README file that comes with the distribution.
* You may reuse parts of this distribution only within the terms of
* that same Artistic Licence; a copy of which may be found at the root
* of the source tree for dist 4.0.
*
* $Log: rename.C,v $
* Revision 3.0.1.1 1994/01/24 13:58:42 ram
* patch16: created
*
*/

```

Found in path(s):

```

* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

```

5.30.0/dist/lib/C/fake/rename.C

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?RCS:

?MAKE:d\_log1p: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_log1p:

?S: This variable conditionally defines the HAS\_LOG1P symbol, which

?S: indicates to the C program that the logp1() routine is available

?S: to compute  $\log(1 + x)$  for values of  $x$  close to zero.

?S:.

?C:HAS\_LOG1P:

?C: This symbol, if defined, indicates that the log1p routine is

?C: available to do the logarithm of 1 plus argument function.

?C:.

?H:#\$d\_log1p HAS\_LOG1P /\*\*/

?H:.

?LINT:set d\_log1p

: see if log1p exists

set log1p d\_log1p

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/perl/d\_log1p.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_setitimer: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_setitimer:

?S: This variable conditionally defines the HAS\_SETITIMER symbol, which

?S: indicates to the C program that the setitimer() routine is available.

?S:.

?C:HAS\_SETITIMER:

?C: This symbol, if defined, indicates that the setitimer routine is

?C: available to set interval timers.

?C:.

?H:#\$d\_setitimer HAS\_SETITIMER /\*\*/

?H:.

?LINT:set d\_setitimer  
: see if setitimer exists  
set setitimer d\_setitimer  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_setitimer.U

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?RCS:

?MAKE:d\_fmin: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fmin:

?S: This variable conditionally defines the HAS\_FMIN symbol, which

?S: indicates to the C program that the fmin() routine is available.

?S:.

?C:HAS\_FMIN:

?C: This symbol, if defined, indicates that the fmin routine is

?C: available to do the minimum function.

?C:.

?H:#\$d\_fmin HAS\_FMIN /\*\*/

?H:.

?LINT:set d\_fmin

: see if fmin exists

set fmin d\_fmin

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fmin.U

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?RCS:

?MAKE:d\_fegetround: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fegetround:

?S: This variable conditionally defines HAS\_FEGETROUND if fegetround() is

?S: available to get the floating point rounding mode.

?S:.

?C:HAS\_FEGETROUND:

?C: This symbol, if defined, indicates that the fegetround routine is

?C: available to return the macro corresponding to the current rounding

?C: mode.

?C:.  
?H:#\$d\_fegetround HAS\_FEGETROUND /\*\*/  
?H:.  
?LINT:set d\_fegetround  
: see if fegetround exists  
set fegetround d\_fegetround  
eval \$inlibc

Found in path(s):  
\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fegetround.U  
No license file was found, but licenses were detected in source scan.

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?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_llroundl: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_llroundl:  
?S: This variable conditionally defines the HAS\_LLROUNDL symbol, which  
?S: indicates to the C program that the llroundl() routine is available  
?S: to return the long long value nearest to x away from zero.  
?S:.  
?C:HAS\_LLROUNDL:  
?C: This symbol, if defined, indicates that the llroundl routine is  
?C: available to return the nearest long long value away from zero of  
?C: the long double argument value.  
?C:.  
?H:#\$d\_llroundl HAS\_LLROUNDL /\*\*/  
?H:.  
?LINT:set d\_llroundl  
: see if llroundl exists  
set llroundl d\_llroundl  
eval \$inlibc

Found in path(s):  
\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_llroundl.U  
No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 2000 Jarkko Hietaniemi  
?RCS:  
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?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_finite: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_finite:

?S: This variable conditionally defines the HAS\_FINITE symbol, which

?S: indicates to the C program that the finite() routine is available.

?S:.

?C:HAS\_FINITE:

?C: This symbol, if defined, indicates that the finite routine is

?C: available to check whether a double is finite (non-infinity non-NaN).

?C:.

?H:#\$d\_finite HAS\_FINITE /\*\*/

?H:.

?LINT:set d\_finite

: see if finite exists

set finite d\_finite

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_finite.U

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?RCS:

?MAKE:i\_fenv: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_fenv:

?S: This variable conditionally defines the I\_FENV symbol, which

?S: indicates to the C program that <fenv.h> exists and should

?S: be included.

?S:.

?C:I\_FENV:

?C: This symbol, if defined, indicates to the C program that it should

?C: include <fenv.h> to get the floating point environment definitions.

?C:.

?H:#\$i\_fenv I\_FENV /\*\*/

?H:.

?LINT:set i\_fenv

: see if this is a fenv.h system

set fenv.h i\_fenv

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_fenv.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:  
?RCS: Copyright (c) 1998, Jarkko Hietaniemi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?X:  
?X: Useless unit dropped. Use randfunc instead.  
?X:  
?LINT:empty

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/randbits.U

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:  
?MAKE:d\_fdim: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_fdim:  
?S: This variable conditionally defines the HAS\_FDIM symbol, which  
?S: indicates to the C program that the fdim() routine is available.  
?S:.  
?C:HAS\_FDIM:  
?C: This symbol, if defined, indicates that the fdim routine is  
?C: available to do the positive difference function.  
?C:.  
?H:#\$d\_fdim HAS\_FDIM /\*\*/

?H:.  
?LINT:set d\_fdim  
: see if fdim exists  
set fdim d\_fdim  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fdim.U

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_accessx: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_accessx:

?S: This variable conditionally defines the HAS\_ACCESSX symbol, which

?S: indicates to the C program that the accessx() routine is available.

?S:.

?C:HAS\_ACCESSX :

?C: This symbol, if defined, indicates that the accessx routine is

?C: available to do extended access checks.

?C:.

?H:#\$d\_accessx HAS\_ACCESSX /\*\*/

?H:.

?LINT:set d\_accessx

: see if accessx exists

set accessx d\_accessx

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/acl/d\_accessx.U

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?RCS:

?MAKE:d\_setproctitle: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_setproctitle:

?S: This variable conditionally defines the HAS\_SETPROCTITLE symbol,

?S: which indicates to the C program that the setproctitle() routine

?S: is available.

?S:.

?C:HAS\_SETPROCTITLE:

?C: This symbol, if defined, indicates that the setproctitle routine is

?C: available to set process title.

?C:.

?H:#\$d\_setproctitle HAS\_SETPROCTITLE /\*\*/

?H:.

?LINT:set d\_setproctitle

: see if setproctitle exists

set setproctitle d\_setproctitle

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_setproctitle.U

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?RCS:

?MAKE:d\_remquo: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_remquo:

?S: This variable conditionally defines the HAS\_REMQUO symbol, which

?S: indicates to the C program that the remquo() routine is available.

?S:.

?C:HAS\_REMQUO:

?C: This symbol, if defined, indicates that the remquo routine is

?C: available to return the remainder and part of quotient.

?C:.

?H:#\$d\_remquo HAS\_REMQUO /\*\*/

?H:.

?LINT:set d\_remquo

: see if remquo exists

set remquo d\_remquo

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_remquo.U

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?RCS:

?MAKE:d\_aintl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_aintl:

?S: This variable conditionally defines the HAS\_AINTL symbol, which

?S: indicates to the C program that the aintl() routine is available.

?S: If copysignl is also present we can emulate modfl.

?S:.

?C:HAS\_AINTL:

?C: This symbol, if defined, indicates that the aintl routine is

?C: available. If copysignl is also present we can emulate modfl.



```
?C:.
?H:#$d_aintl HAS_AINTL /**/
?H:.
?LINT:set d_aintl
: see if aintl exists
set aintl d_aintl
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_aintl.U
```

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```
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?RCS:
?MAKE:d_ualarm: Inlibc
?MAKE: -pick add $@ %<
?S:d_ualarm:
?S: This variable conditionally defines the HAS_UALARM symbol, which
?S: indicates to the C program that the ualarm() routine is available.
?S:.
?C:HAS_UALARM:
?C: This symbol, if defined, indicates that the ualarm routine is
?C: available to do alarms with microsecond granularity.
?C:.
?H:#$d_ualarm HAS_UALARM /**/
?H:.
?LINT:set d_ualarm
: see if ualarm exists
set ualarm d_ualarm
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_ualarm.U
```

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```
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?RCS:
?MAKE:d_logb: Inlibc
?MAKE: -pick add $@ %<
?S:d_logb:
```

?S: This variable conditionally defines the HAS\_LOGB symbol, which

?S: indicates to the C program that the logb() routine is available

?S: to extract the exponent of x.

?S:.

?C:HAS\_LOGB:

?C: This symbol, if defined, indicates that the logb routine is

?C: available to do the logb function.

?C:.

?H:#\$d\_logb HAS\_LOGB /\*\*/

?H:.

?LINT:set d\_logb

: see if logb exists

set logb d\_logb

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_logb.U

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?RCS:

?MAKE:d\_strftime: Inlibc

?MAKE: -pick add @\$ %<

?S:d\_strftime:

?S: This variable conditionally defines the HAS\_STRFTIME symbol, which

?S: indicates to the C program that the strftime() routine is available.

?S:.

?C:HAS\_STRFTIME:

?C: This symbol, if defined, indicates that the strftime routine is

?C: available to do time formatting.

?C:.

?H:#\$d\_strftime HAS\_STRFTIME /\*\*/

?H:.

?LINT:set d\_strftime

: see if strftime exists

set strftime d\_strftime

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_strftime.U

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?RCS:

?MAKE:d\_nexttoward: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_nexttoward:

?S: This variable conditionally defines HAS\_NEXTTOWARD if nexttoward()

?S: is available to return the next machine representable long double from

?S: x in direction y.

?S:.

?C:HAS\_NEXTTOWARD:

?C: This symbol, if defined, indicates that the nexttoward routine is

?C: available to return the next machine representable long double from

?C: x in direction y.

?C:.

?H:#\$d\_nexttoward HAS\_NEXTTOWARD /\*\*/

?H:.

?LINT:set d\_nexttoward

: see if nexttoward exists

set nexttoward d\_nexttoward

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_nexttoward.U

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?RCS:

?MAKE:d\_llround: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_llround:

?S: This variable conditionally defines the HAS\_LLROUND symbol, which

?S: indicates to the C program that the llround() routine is available

?S: to return the long long value nearest to x.

?S:.

?C:HAS\_LLROUND:

?C: This symbol, if defined, indicates that the llround routine is

?C: available to return the nearest long long value.

?C:.

?H:#\$d\_llround HAS\_LLROUND /\*\*/

?H:.

?LINT:set d\_llround

: see if llround exists

set llround d\_llround

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_llround.U

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?RCS:

?MAKE:d\_clearenv: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_clearenv:

?S: This variable conditionally defines the HAS\_CLEARENV symbol, which

?S: indicates to the C program that the clearenv () routine is available.

?S:.

?C:HAS\_CLEARENV:

?C: This symbol, if defined, indicates that the clearenv () routine is

?C: available for use.

?C:.

?H:#\$d\_clearenv HAS\_CLEARENV /\*\*/

?H:.

?LINT:set d\_clearenv

: see if clearenv exists

set clearenv d\_clearenv

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_clearenv.U

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?RCS:

?MAKE:d\_getitimer: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_getitimer:

?S: This variable conditionally defines the HAS\_GETITIMER symbol, which

?S: indicates to the C program that the getitimer() routine is available.

?S:.

?C:HAS\_GETTIMER:

?C: This symbol, if defined, indicates that the gettimer routine is

?C: available to return interval timers.

?C:.

?H:#\$d\_gettimer HAS\_GETTIMER /\*\*/

?H:.

?LINT:set d\_gettimer

: see if gettimer exists

set gettimer d\_gettimer

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_gettimer.U

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?RCS:

?MAKE:d\_scalbn: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_scalbn:

?S: This variable conditionally defines the HAS\_SCALBN symbol, which

?S: indicates to the C program that the scalbn() routine is available.

?S:.

?C:HAS\_SCALBN:

?C: This symbol, if defined, indicates that the scalbn routine is

?C: available to multiply floating-point number by integral power

?C: of radix.

?C:.

?H:#\$d\_scalbn HAS\_SCALBN /\*\*/

?H:.

?LINT:set d\_scalbn

: see if scalbn exists

set scalbn d\_scalbn

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_scalbn.U

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?RCS: \$Id: i\_fp\_class.U,v \$

?RCS:

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?RCS:

?MAKE:i\_fp\_class: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_fp\_class:

?S: This variable conditionally defines the I\_FP\_CLASS symbol, and indicates

?S: whether a C program should include <fp\_class.h>.

?S:.

?C:I\_FP\_CLASS:

?C: This symbol, if defined, indicates that <fp\_class.h> exists and

?C: should be included.

?C:.

?H:#\$i\_fp\_class I\_FP\_CLASS /\*\*/

?H:.

?LINT:set i\_fp\_class

: see if this is a fp\_class.h system

set fp\_class.h i\_fp\_class

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_fp\_class.U

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?RCS:

?MAKE:d\_inetntop: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_inetntop:

?S: This variable conditionally defines the HAS\_INETNTOP symbol,

?S: which indicates to the C program that the inet\_ntop() function

?S: is available.

?S:.

?C:HAS\_INETNTOP:

?C: This symbol, if defined, indicates that the inet\_ntop() function

?C: is available to parse IPv4 and IPv6 strings.

?C:.

?H:#\$d\_inetntop HAS\_INETNTOP /\*\*/

?H:.

?LINT:set d\_inetntop

: see if inet\_ntop exists

set inet\_ntop d\_inetntop

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_inetntop.U

No license file was found, but licenses were detected in source scan.

/\*

\* \$Id: setsid.C,v 3.0.1.1 1994/01/24 13:58:47 ram Exp ram \$

\*

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\* of the source tree for dist 4.0.

\*

\* \$Log: setsid.C,v \$

\* Revision 3.0.1.1 1994/01/24 13:58:47 ram

\* patch16: created

\*

\*/

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/lib/C/fake/setsid.C

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?RCS: \$Id: i\_ustat.U,v \$

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?RCS:

?MAKE:i\_ustat: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_ustat:

?S: This variable conditionally defines the I\_USTAT symbol, and indicates

?S: whether a C program should include <ustat.h>.

?S:.

?C:I\_USTAT:

?C: This symbol, if defined, indicates that <ustat.h> exists and

?C: should be included.

?C:.

?H:#\$i\_ustat I\_USTAT /\*\*/

?H:.

?LINT:set i\_ustat

: see if this is a ustat.h system

set ustat.h i\_ustat

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_ustat.U

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?RCS:

?MAKE:d\_socketmark: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_socketmark:

?S: This variable conditionally defines the HAS\_SOCKETMARK symbol, which

?S: indicates to the C program that the socketmark() routine is available.

?S:.

?C:HAS\_SOCKETMARK:

?C: This symbol, if defined, indicates that the socketmark routine is

?C: available to test whether a socket is at the out-of-band mark.

?C:.

?H:#\$d\_socketmark HAS\_SOCKETMARK /\*\*/

?H:.

?LINT:set d\_socketmark

: see if socketmark exists

set socketmark d\_socketmark

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_socketmark.U

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?RCS:

?MAKE:d\_fsync: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fsync:



?S: This variable conditionally defines the HAS\_FSYNC symbol, which

?S: indicates to the C program that the fsync() routine is available.

?S:.

?C:HAS\_FSYNC:

?C: This symbol, if defined, indicates that the fsync routine is

?C: available to write a file's modified data and attributes to

?C: permanent storage.

?C:.

?H:#\$d\_fsync HAS\_FSYNC /\*\*/

?H:.

?LINT:set d\_fsync

: see if fsync exists

set fsync d\_fsync

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fsync.U

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?RCS:

?MAKE:d\_mkdtemp: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_mkdtemp:

?S: This variable conditionally defines the HAS\_MKDTEMP symbol, which

?S: indicates to the C program that the mkdtemp() routine is available

?S: to exclusively create a uniquely named temporary directory.

?S:.

?C:HAS\_MKDTEMP :

?C: This symbol, if defined, indicates that the mkdtemp routine is

?C: available to exclusively create a uniquely named temporary directory.

?C:.

?H:#\$d\_mkdtemp HAS\_MKDTEMP /\*\*/

?H:.

?LINT:set d\_mkdtemp

: see if mkdtemp exists

set mkdtemp d\_mkdtemp

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_mkdtemp.U

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```
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?RCS:
?MAKE:d_localeconv_1: Inlibc
?MAKE: -pick add $@ %<
?S:d_localeconv_1:
?S: This variable conditionally defines the HAS_LOCALECONV_L symbol, which
?S: indicates to the C program that the localeconv_1() routine is available.
?S:.
?C:HAS_LOCALECONV_L:
?C: This symbol, if defined, indicates that the localeconv_1 routine is
?C: available to query certain information about a locale.
?C:.
?H:#$d_localeconv_1 HAS_LOCALECONV_L /**/
?H:.
?LINT:set d_localeconv_1
: see if localeconv_1 exists
set localeconv_1 d_localeconv_1
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_localeconv_1.U
```

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```
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?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_atolf: Inlibc
?MAKE: -pick add $@ %<
?S:d_atolf:
?S: This variable conditionally defines the HAS_ATOLF symbol, which
?S: indicates to the C program that the atolf() routine is available.
?S:.
?C:HAS_ATOLF:
?C: This symbol, if defined, indicates that the atolf routine is
?C: available to convert strings into long doubles.
?C:.
```

?H:#\$d\_atolf HAS\_ATOLF /\*\*/

?H:.

?LINT:set d\_atolf

: see if atolf exists

set atolf d\_atolf

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/atolf.U

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_erf: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_erf:

?S: This variable conditionally defines the HAS\_ERF symbol, which

?S: indicates to the C program that the erf() routine is available.

?S:.

?C:HAS\_ERF:

?C: This symbol, if defined, indicates that the erf routine is

?C: available to do the error function.

?C:.

?H:#\$d\_erf HAS\_ERF /\*\*/

?H:.

?LINT:set d\_erf

: see if erf exists

set erf d\_erf

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_erf.U

No license file was found, but licenses were detected in source scan.

?RCS: Copyright (c) 2017-2018, H.Merijn Brand

?RCS:

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?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?MAKE:d\_dup3: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_dup3:

?S: This variable conditionally defines HAS\_DUP3 if dup3() is

?S: available to duplicate file descriptors.

?S:.

?C:HAS\_DUP3:

?C: This symbol, if defined, indicates that the dup3 routine is

?C: available to duplicate file descriptors.

?C:.

?H:#\$d\_dup3 HAS\_DUP3 /\*\*/

?H:.

?LINT:set d\_dup3

: see if dup3 exists

set dup3 d\_dup3

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_dup3.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_sqrtl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_sqrtl:

?S: This variable conditionally defines the HAS\_SQRTL symbol, which

?S: indicates to the C program that the sqrtl() routine is available.

?S:.

?C:HAS\_SQRTL:

?C: This symbol, if defined, indicates that the sqrtl routine is

?C: available to do long double square roots.

?C:.

?H:#\$d\_sqrtl HAS\_SQRTL /\*\*/

?H:.

?LINT:set d\_sqrtl

: see if sqrtl exists

set sqrtl d\_sqrtl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_sqrtl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_netdb.U,v \$  
?RCS:  
?RCS: Copyright (c) 1998 Andy Dougherty  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:i\_netdb: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_netdb:  
?S: This variable conditionally defines the I\_NETDB symbol, and indicates  
?S: whether a C program should include <netdb.h>.  
?S:.  
?C:I\_NETDB:  
?C: This symbol, if defined, indicates that <netdb.h> exists and  
?C: should be included.  
?C:.  
?H:#\$i\_netdb I\_NETDB /\*\*/  
?H:.  
?LINT:set i\_netdb  
: see if this is a netdb.h system  
set netdb.h i\_netdb  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i\_netdb.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 2003 Jarkko Hietaniemi  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_copysignl: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_copysignl:  
?S: This variable conditionally defines the HAS\_COPYSIGNL symbol, which  
?S: indicates to the C program that the copysignl() routine is available.  
?S: If aintl is also present we can emulate modfl.  
?S:.  
?C:HAS\_COPYSIGNL:  
?C: This symbol, if defined, indicates that the copysignl routine is  
?C: available. If aintl is also present we can emulate modfl.  
?C:.  
?H:#\$d\_copysignl HAS\_COPYSIGNL /\*\*/

```
?H:
?LINT:set d_copysignl
: see if copysignl exists
set copysignl d_copysignl
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_copysignl.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_socks.U,v $
?RCS:
?RCS: Copyright (c) 1999 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:i_socks: Inhdr Hasfield
?MAKE: -pick add $@ %<
?S:i_socks:
?S: This variable conditionally defines the I_SOCKS symbol, and indicates
?S: whether a C program should include <socks.h>.
?S:.
?C:I_SOCKS:
?C: This symbol, if defined, indicates that <socks.h> exists and
?C: should be included.
?C:.
?H:#$i_socks I_SOCKS /**/
?H:
?LINT:set i_socks
: see if this is a socks.h system
set socks.h i_socks
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_socks.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 2008 H.Merijn Brand
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_timegm: Inlibc
```

?MAKE: -pick add \$@ %<  
?S:d\_timegm:  
?S: This variable conditionally defines the HAS\_TIMEGM symbol, which  
?S: indicates to the C program that the timegm () routine is available.  
?S:.  
?C:HAS\_TIMEGM:  
?C: This symbol, if defined, indicates that the timegm routine is  
?C: available to do the opposite of gmtime ()  
?C:.  
?H:#\$d\_timegm HAS\_TIMEGM /\*\*/  
?H:.  
?LINT:set d\_timegm  
: see if timegm exists  
set timegm d\_timegm  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_timegm.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 2000 Jarkko Hietaniemi  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_strtold: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_strtold:  
?S: This variable conditionally defines the HAS\_STRTOLD symbol, which  
?S: indicates to the C program that the strtold() routine is available.  
?S:.  
?C:HAS\_STRTOLD:  
?C: This symbol, if defined, indicates that the strtold routine is  
?C: available to convert strings to long doubles.  
?C:.  
?H:#\$d\_strtold HAS\_STRTOLD /\*\*/  
?H:.  
?LINT:set d\_strtold  
: see if strtold exists  
set strtold d\_strtold  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_strtold.U

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 2000 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_finitel: Inlibc
?MAKE: -pick add $@ %<
?S:d_finitel:
?S: This variable conditionally defines the HAS_FINITEL symbol, which
?S: indicates to the C program that the finitel() routine is available.
?S:.
?C:HAS_FINITEL:
?C: This symbol, if defined, indicates that the finitel routine is
?C: available to check whether a long double is finite
?C: (non-infinity non-NaN).
?C:.
?H:#$d_finitel HAS_FINITEL /**/
?H:.
?LINT:set d_finitel
: see if finitel exists
set finitel d_finitel
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_finitel.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_lgamma: Inlibc
?MAKE: -pick add $@ %<
?S:d_lgamma:
?S: This variable conditionally defines the HAS_LGAMMA symbol, which
?S: indicates to the C program that the lgamma() routine is available
?S: for the log gamma function. See also d_tgamma and d_lgamma_r.
?S:.
?C:HAS_LGAMMA:
?C: This symbol, if defined, indicates that the lgamma routine is
?C: available to do the log gamma function. See also HAS_TGAMMA and
?C: HAS_LGAMMA_R.
?C:.
?H:#$d_lgamma HAS_LGAMMA /**/
```



```
?H:
?LINT:set d_lgamma
: see if lgamma exists
set lgamma d_lgamma
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_lgamma.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_sysstatvfs.U,v $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1999 Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:i_sysstatvfs: Inhdr Hasfield
```

```
?MAKE: -pick add $@ %<
```

```
?S:i_sysstatvfs:
```

```
?S: This variable conditionally defines the I_SYSSTATVFS symbol,
```

```
?S: and indicates whether a C program should include <sys/statvfs.h>.
```

```
?S:.
```

```
?C:I_SYS_STATVFS:
```

```
?C: This symbol, if defined, indicates that <sys/statvfs.h> exists and
```

```
?C: should be included.
```

```
?C:.
```

```
?H:#$i_sysstatvfs I_SYS_STATVFS /**/
```

```
?H:.
```

```
?LINT:set i_sysstatvfs
```

```
: see if this is a sys/statvfs.h system
```

```
set sys/statvfs.h i_sysstatvfs
```

```
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_sysstatvfs.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:d_tgamma: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_tgamma:
```

```
?S: This variable conditionally defines the HAS_TGAMMA symbol, which
```

```
?S: indicates to the C program that the tgamma() routine is available
```

?S: for the gamma function. See also d\_lgamma.

?S:.

?C:HAS\_TGAMMA:

?C: This symbol, if defined, indicates that the tgamma routine is

?C: available to do the gamma function. See also HAS\_LGAMMA.

?C:.

?H:#\$d\_tgamma HAS\_TGAMMA /\*\*/

?H:.

?LINT:set d\_tgamma

: see if tgamma exists

set tgamma d\_tgamma

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_tgamma.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_strtoq: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_strtoq:

?S: This variable conditionally defines the HAS\_STRTOQ symbol, which

?S: indicates to the C program that the strtoq() routine is available.

?S:.

?C:HAS\_STRTOQ:

?C: This symbol, if defined, indicates that the strtoq routine is

?C: available to convert strings to long longs (quads).

?C:.

?H:#\$d\_strtoq HAS\_STRTOQ /\*\*/

?H:.

?LINT:set d\_strtoq

: see if strtoq exists

set strtoq d\_strtoq

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_strtoq.U

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_fma: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fma:

?S: This variable conditionally defines the HAS\_FMA symbol, which

?S: indicates to the C program that the fma() routine is available.

?S:.

?C:HAS\_FMA:

?C: This symbol, if defined, indicates that the fma routine is

?C: available to do the multiply-add function.

?C:.

?H:#\$d\_fma HAS\_FMA /\*\*/

?H:.

?LINT:set d\_fma

: see if fma exists

set fma d\_fma

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fma.U

No license file was found, but licenses were detected in source scan.

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_nearbyint: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_nearbyint:

?S: This variable conditionally defines HAS\_NEARBYINT if nearbyint()

?S: is available to return the integral value closest to (according to

?S: the current rounding mode) to x.

?S:.

?C:HAS\_NEARBYINT:

?C: This symbol, if defined, indicates that the nearbyint routine is

?C: available to return the integral value closest to (according to

?C: the current rounding mode) to x.

?C:.

?H:#\$d\_nearbyint HAS\_NEARBYINT /\*\*/

?H:.

?LINT:set d\_nearbyint

: see if nearbyint exists

set nearbyint d\_nearbyint

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/perl/d\_nearbyint.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_isnanl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_isnanl:

?S: This variable conditionally defines the HAS\_ISNANL symbol, which

?S: indicates to the C program that the isnanl() routine is available.

?S:.

?C:HAS\_ISNANL:

?C: This symbol, if defined, indicates that the isnanl routine is

?C: available to check whether a long double is a NaN.

?C:.

?H:#\$d\_isnanl HAS\_ISNANL /\*\*/

?H:.

?LINT:set d\_isnanl

: see if isnanl exists

set isnanl d\_isnanl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/perl/d\_isnanl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Nothing.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Nothing.U,v \$

?RCS: Revision 3.0 1993/08/18 12:05:09 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: The purpose of this file is to supply an empty target for the private

?X: Makefile built by metaconfig to order the units.

?X:

?MAKE:Nothing: Head

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Nothing.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_hasmntopt: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_hasmntopt:

?S: This variable conditionally defines the HAS\_HASMNTOPT symbol, which

?S: indicates to the C program that the hasmntopt() routine is available

?S: to query the mount options of file systems.

?S:.

?C:HAS\_HASMNTOPT:

?C: This symbol, if defined, indicates that the hasmntopt routine is

?C: available to query the mount options of file systems.

?C:.

?H:#\$d\_hasmntopt HAS\_HASMNTOPT /\*\*/

?H:.

?LINT:set d\_hasmntopt

: see if hasmntopt exists

set hasmntopt d\_hasmntopt

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_hasmntopt.U

No license file was found, but licenses were detected in source scan.

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_fmax: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fmax:

?S: This variable conditionally defines the HAS\_FMAX symbol, which

?S: indicates to the C program that the fmax() routine is available.

?S:.

?C:HAS\_FMAX:

?C: This symbol, if defined, indicates that the fmax routine is

?C: available to do the maximum function.

?C:.

?H:#\$d\_fmax HAS\_FMAX /\*\*/

?H:.

?LINT:set d\_fmax

: see if fmax exists

set fmax d\_fmax

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fmax.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2019 Karl Williamson

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_towlower: Inlibc

?MAKE: -pick add @\$ %<

?S:d\_towlower:

?S: This variable conditionally defines the HAS\_TOWLOWER symbol, which

?S: indicates to the C program that the towlower() routine is available.

?S:.

?C:HAS\_TOWLOWER:

?C: This symbol, if defined, indicates that the towlower () routine is

?C: available to do case conversion.

?C:.

?H:#\$d\_towlower HAS\_TOWLOWER /\*\*/

?H:.

?LINT:set d\_towlower

: see if towlower exists

set towlower d\_towlower

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_towlower.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_sysstatfs.U,v \$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:i\_sysstatfs: Inhdr Hasfield  
?MAKE: -pick add \$@ %<  
?S:i\_sysstatfs:  
?S: This variable conditionally defines the I\_SYSSTATFS symbol,  
?S: and indicates whether a C program should include <sys/statfs.h>.  
?S:.  
?C:I\_SYS\_STATFS:  
?C: This symbol, if defined, indicates that <sys/statfs.h> exists.  
?C:.  
?H:#\$i\_sysstatfs I\_SYS\_STATFS /\*\*/  
?H:.  
?LINT:set i\_sysstatfs  
: see if this is a sys/statfs.h system  
set sys/statfs.h i\_sysstatfs  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_sysstatfs.U

No license file was found, but licenses were detected in source scan.

?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.

?RCS:  
?MAKE:i\_stdint: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_stdint:  
?S: This variable conditionally defines the I\_STDINT symbol, which  
?S: indicates to the C program that <stdint.h> exists and should  
?S: be included.  
?S:.  
?C:I\_STDINT:  
?C: This symbol, if defined, indicates that <stdint.h> exists and  
?C: should be included.  
?C:.  
?H:#\$i\_stdint I\_STDINT /\*\*/  
?H:.  
?LINT:set i\_stdint  
: see if stdint is available  
set stdint.h i\_stdint  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/perl/i\_stdint.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_crypt.U,v \$

?RCS:

?RCS: Copyright (c) 2002 Jarkko Hietaniemi

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:i\_crypt: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_crypt:

?S: This variable conditionally defines the I\_CRYPT symbol, and indicates

?S: whether a C program should include <crypt.h>.

?S:.

?C:I\_CRYPT:

?C: This symbol, if defined, indicates that <crypt.h> exists and

?C: should be included.

?C:.

?H:#\$i\_crypt I\_CRYPT /\*\*/

?H:.

?LINT:set i\_crypt

: see if this is a crypt.h system

set crypt.h i\_crypt

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/perl/i\_crypt.U

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?RCS:

?MAKE:d\_acosh: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_acosh:

?S: This variable conditionally defines the HAS\_ACOSH symbol, which

?S: indicates to the C program that the acosh() routine is available.

?S:.

?C:HAS\_ACOSH:

?C: This symbol, if defined, indicates that the acosh routine is

?C: available to do the inverse hyperbolic cosine function.

?C:.

?H:#\$d\_acosh HAS\_ACOSH /\*\*/

?H:.

?LINT:set d\_acosh



```
: see if acossh exists
set acossh d_acosh
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_acosh.U
```

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?RCS:

?MAKE:d\_erfc: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_erfc:

?S: This variable conditionally defines the HAS\_ERFC symbol, which

?S: indicates to the C program that the erfc() routine is available.

?S:.

?C:HAS\_ERFC:

?C: This symbol, if defined, indicates that the erfc routine is

?C: available to do the complementary error function.

?C:.

?H:#\$d\_erfc HAS\_ERFC /\*\*/

?H:.

?LINT:set d\_erfc

: see if erfc exists

set erfc d\_erfc

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_erfc.U
```

No license file was found, but licenses were detected in source scan.

/\*

\* \$Id: scandir.C,v 3.0.1.1 1994/01/24 13:58:45 ram Exp ram \$

\*

\* Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

\*

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\* as specified in the README file that comes with the distribution.

\* You may reuse parts of this distribution only within the terms of

\* that same Artistic Licence; a copy of which may be found at the root

\* of the source tree for dist 4.0.

\*

\* \$Log: scandir.C,v \$

\* Revision 3.0.1.1 1994/01/24 13:58:45 ram

\* patch16: created

\*  
\*/

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/lib/C/fake/scandir.C

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_trunc: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_trunc:

?S: This variable conditionally defines the HAS\_TRUNC symbol, which

?S: indicates to the C program that the trunc() routine is available

?S: to round doubles towards zero.

?S:.

?C:HAS\_TRUNC:

?C: This symbol, if defined, indicates that the trunc routine is

?C: available to round doubles towards zero.

?C:.

?H:#\$d\_trunc HAS\_TRUNC /\*\*/

?H:.

?LINT:set d\_trunc

: see if trunc exists

set trunc d\_trunc

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_trunc.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_unsetenv: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_unsetenv:

?S: This variable conditionally defines the HAS\_UNSETENV symbol, which

?S: indicates to the C program that the unsetenv () routine is available.

?S:.

?C:HAS\_UNSETENV:

?C: This symbol, if defined, indicates that the unsetenv () routine is

?C: available for use.

?C:.

?H:#\$d\_unsetenv HAS\_UNSETENV /\*\*/

?H:.

?LINT:set d\_unsetenv

: see if unsetenv exists

set unsetenv d\_unsetenv

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_unsetenv.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

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?RCS:

?MAKE:d\_unordered: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_unordered:

?S: This variable conditionally defines the HAS\_UNORDERED symbol, which

?S: indicates to the C program that the unordered() routine is available.

?S:.

?C:HAS\_UNORDERED:

?C: This symbol, if defined, indicates that the unordered routine is

?C: available to check whether two doubles are unordered

?C: (effectively: whether either of them is NaN)

?C:.

?H:#\$d\_unordered HAS\_UNORDERED /\*\*/

?H:.

?LINT:set d\_unordered

: see if unordered exists

set unordered d\_unordered

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_unordered.U

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?RCS:

?MAKE:d\_hypot: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_hypot:  
?S: This variable conditionally defines HAS\_HYPOT if hypot is available  
?S: for numerically stable hypotenuse function.  
?S:.  
?C:HAS\_HYPOT:  
?C: This symbol, if defined, indicates that the hypot routine is  
?C: available to do the hypotenuse function.  
?C:.  
?H:#\$d\_hypot HAS\_HYPOT /\*\*/  
?H:.  
?LINT:set d\_hypot  
: see if hypot exists  
set hypot d\_hypot  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_hypot.U

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?RCS:

?MAKE:d\_asinh: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_asinh:

?S: This variable conditionally defines the HAS\_ASINH symbol, which

?S: indicates to the C program that the asinh() routine is available.

?S:.

?C:HAS\_ASINH:

?C: This symbol, if defined, indicates that the asinh routine is

?C: available to do the inverse hyperbolic sine function.

?C:.

?H:#\$d\_asinh HAS\_ASINH /\*\*/  
?H:.

?LINT:set d\_asinh

: see if asinh exists

set asinh d\_asinh

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_asinh.U

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?RCS:

?MAKE:d\_rint: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_rint:

?S: This variable conditionally defines the HAS\_RINT symbol, which

?S: indicates to the C program that the rint() routine is available.

?S:.

?C:HAS\_RINT:

?C: This symbol, if defined, indicates that the rint routine is

?C: available to return the nearest integral value to x as double

?C: using the current rounding mode.

?C:.

?H:#\$d\_rint HAS\_RINT /\*\*/

?H:.

?LINT:set d\_rint

: see if rint exists

set rint d\_rint

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_rint.U

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?RCS:

?MAKE:d\_lroundl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_lroundl:

?S: This variable conditionally defines the HAS\_LROUNDL symbol, which

?S: indicates to the C program that the lroundl() routine is available

?S: to return the integral value nearest to x away from zero.

?S:.

?C:HAS\_LROUNDL:

?C: This symbol, if defined, indicates that the lroundl routine is

?C: available to return the nearest integral value away from zero of

?C: the long double argument value.

?C:.

?H:#\$d\_lroundl HAS\_LROUNDL /\*\*/

?H:.

?LINT:set d\_lroundl

: see if lroundl exists

set lroundl d\_lroundl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_lroundl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

?MAKE:d\_isinfl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_isinfl:

?S: This variable conditionally defines the HAS\_ISINFL symbol, which

?S: indicates to the C program that the isinfl() routine is available.

?S:.

?C:HAS\_ISINFL:

?C: This symbol, if defined, indicates that the isinfl routine is

?C: available to check whether a long double is an infinity.

?C:.

?H:#\$d\_isinfl HAS\_ISINFL /\*\*/

?H:.

?LINT:set d\_isinfl

: see if isinfl exists

set isinfl d\_isinfl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_isinfl.U

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?RCS:

?MAKE:d\_log2: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_log2:

?S: This variable conditionally defines the HAS\_LOG2 symbol, which

?S: indicates to the C program that the log2() routine is available

?S: to compute log base two.

?S:.

?C:HAS\_LOG2:

?C: This symbol, if defined, indicates that the log2 routine is

?C: available to do the log2 function.

?C:.

?H:#\$d\_log2 HAS\_LOG2 /\*\*/

```
?H:
?LINT:set d_log2
: see if log2 exists
set log2 d_log2
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_log2.U
```

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```
?RCS: $Id: i_libutil.U,v $
```

```
?RCS:
```

```
?RCS: Copyright (c) 2000 Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:i_libutil: Inhdr Hasfield
```

```
?MAKE: -pick add $@ %<
```

```
?S:i_libutil:
```

```
?S: This variable conditionally defines the I_LIBUTIL symbol, and indicates
```

```
?S: whether a C program should include <libutil.h>.
```

```
?S:.
```

```
?C:I_LIBUTIL:
```

```
?C: This symbol, if defined, indicates that <libutil.h> exists and
```

```
?C: should be included.
```

```
?C:.
```

```
?H:#$i_libutil I_LIBUTIL /**/
```

```
?H:
```

```
?LINT:set i_libutil
```

```
: see if this is a libutil.h system
```

```
set libutil.h i_libutil
```

```
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_libutil.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_sysutsname.U,v $
```

```
?RCS:
```

```
?RCS: Copyright (c) 2000 Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:i_sysutsname: Inhdr Hasfield
```

```
?MAKE: -pick add $@ %<
?S:i_sysutsname:
?S: This variable conditionally defines the I_SYSUTSNAME symbol,
?S: and indicates whether a C program should include <sys/utsname.h>.
?S:.
?C:I_SYSUTSNAME:
?C: This symbol, if defined, indicates that <sys/utsname.h> exists and
?C: should be included.
?C:.
?H:#$i_sysutsname I_SYSUTSNAME /**/
?H:.
?LINT:set i_sysutsname
: see if this is a sys/utsname.h system
set sys/utsname.h i_sysutsname
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_sysutsname.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_poll.U,v $
?RCS:
?RCS: Copyright (c) 1998 Jarkko Hietaniemi
?RCS:
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?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:i_poll: Inhdr Hasfield
?MAKE: -pick add $@ %<
?S:i_poll:
?S: This variable conditionally defines the I_POLL symbol, and indicates
?S: whether a C program should include <poll.h>.
?S:.
?C:I_POLL:
?C: This symbol, if defined, indicates that <poll.h> exists and
?C: should be included. (see also HAS_POLL)
?C:.
?H:#$i_poll I_POLL /**/
?H:.
?LINT:set i_poll
: see if this is a poll.h system
set poll.h i_poll
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_poll.U
```



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?RCS:

?MAKE:d\_truncl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_truncl:

?S: This variable conditionally defines the HAS\_TRUNCL symbol, which

?S: indicates to the C program that the truncl() routine is available

?S: to round long doubles towards zero. If copysignl is also present,

?S: we can emulate modfl.

?S:.

?C:HAS\_TRUNCL :

?C: This symbol, if defined, indicates that the truncl routine is

?C: available. If copysignl is also present we can emulate modfl.

?C:.

?H:#\$d\_truncl HAS\_TRUNCL /\*\*/

?H:.

?LINT:set d\_truncl

: see if truncl exists

set truncl d\_truncl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_truncl.U

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?RCS: \$Id: i\_mntent.U,v \$

?RCS:

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?RCS:

?MAKE:i\_mntent: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_mntent:

?S: This variable conditionally defines the I\_MNTENT symbol, and indicates

?S: whether a C program should include <mntent.h>.

?S:.

?C:I\_MNTENT:

?C: This symbol, if defined, indicates that <mntent.h> exists and

?C: should be included.

?C:.

?H:#\$i\_mntent I\_MNTENT /\*\*/

?H:.

```
?LINT:set i_mntent
: see if this is a mntent.h system
set mntent.h i_mntent
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_mntent.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_sysvfs.U,v $
?RCS:
?RCS: Copyright (c) 1999 Jarkko Hietaniemi
?RCS:
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?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:i_sysvfs: Inhdr Hasfield
?MAKE:-pick add $@ %<
?S:i_sysvfs:
?S: This variable conditionally defines the I_SYSVFS symbol,
?S: and indicates whether a C program should include <sys/vfs.h>.
?S:.
?C:I_SYS_VFS:
?C: This symbol, if defined, indicates that <sys/vfs.h> exists and
?C: should be included.
?C:.
?H:#$i_sysvfs I_SYS_VFS /**/
?H:.
?LINT:set i_sysvfs
: see if this is a sys/vfs.h system
set sys/vfs.h i_sysvfs
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_sysvfs.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1999 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_fstatfs : Inlibc
?MAKE:-pick add $@ %<
```

?S:d\_fstatfs:

?S: This variable conditionally defines the HAS\_FSTATFS symbol, which

?S: indicates to the C program that the fstatfs() routine is available.

?S:.

?C:HAS\_FSTATFS:

?C: This symbol, if defined, indicates that the fstatfs routine is

?C: available to stat filesystems by file descriptors.

?C:.

?H:#\$d\_fstatfs HAS\_FSTATFS /\*\*/

?H:.

?LINT:set d\_fstatfs

: see if fstatfs exists

set fstatfs d\_fstatfs

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fstatfs.U

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?RCS: \$Id: i\_fp.U,v \$

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?RCS:

?MAKE:i\_fp: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_fp:

?S: This variable conditionally defines the I\_FP symbol, and indicates

?S: whether a C program should include <fp.h>.

?S:.

?C:I\_FP:

?C: This symbol, if defined, indicates that <fp.h> exists and

?C: should be included.

?C:.

?H:#\$i\_fp I\_FP /\*\*/

?H:.

?LINT:set i\_fp

: see if this is a fp.h system

set fp.h i\_fp

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_fp.U

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```
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?RCS:
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?RCS:
?MAKE:d_getaddrinfo: Inlibc
?MAKE:-pick add $@ %<
?S:d_getaddrinfo:
?S: This variable conditionally defines the HAS_GETADDRINFO symbol,
?S: which indicates to the C program that the getaddrinfo() function
?S: is available.
?S:.
?C:HAS_GETADDRINFO:
?C: This symbol, if defined, indicates that the getaddrinfo() function
?C: is available for use.
?C:.
?H:#$d_getaddrinfo HAS_GETADDRINFO /**/
?H:.
?LINT:set d_getaddrinfo
: see if getaddrinfo exists
set getaddrinfo d_getaddrinfo
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_getaddrinfo.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: baserev.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: baserev.U,v $
?RCS: Revision 3.0 1993/08/18 12:05:24 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:baserev: Null
?MAKE:-pick wipe $@ %<
```

?S:baserev:

?S: The base revision level of this package, from the .package file.

?S:.

: set the base revision

baserev=<BASEREV>

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/baserev.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_ieeefp.U,v \$

?RCS:

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?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:i\_ieeefp: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_ieeefp:

?S: This variable conditionally defines the I\_IEEEFP symbol, and indicates

?S: whether a C program should include <ieeefp.h>.

?S:.

?C:I\_IEEEFP:

?C: This symbol, if defined, indicates that <ieeefp.h> exists and

?C: should be included.

?C:.

?H:#\$i\_ieeefp I\_IEEEFP /\*\*/

?H:.

?LINT:set i\_ieeefp

: see if this is a ieeefp.h system

case "\$i\_ieeefp" in

" ) set ieeefp.h i\_ieeefp

eval \$inhdr

::

esac

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_ieeefp.U

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?RCS:

?MAKE:d\_atanh: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_atanh:

?S: This variable conditionally defines the HAS\_ATANH symbol, which

?S: indicates to the C program that the atanh() routine is available.

?S:.

?C:HAS\_ATANH:

?C: This symbol, if defined, indicates that the atanh routine is

?C: available to do the inverse hyperbolic tangent function.

?C:.

?H:#\$d\_atanh HAS\_ATANH /\*\*/

?H:.

?LINT:set d\_atanh

: see if atanh exists

set atanh d\_atanh

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_atanh.U

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?RCS:

?MAKE:d\_llrint: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_llrint:

?S: This variable conditionally defines the HAS\_LLRLINT symbol, which

?S: indicates to the C program that the llrint() routine is available

?S: to return the long long value closest to a double (according

?S: to the current rounding mode).

?S:.

?C:HAS\_LLRLINT:

?C: This symbol, if defined, indicates that the llrint routine is

?C: available to return the long long value closest to a double

?C: (according to the current rounding mode).

?C:.

?H:#\$d\_llrint HAS\_LLRLINT /\*\*/

?H:.

?LINT:set d\_llrint

: see if llrint exists

set llrint d\_llrint

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_llrint.U

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?RCS:  
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?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_strtold\_1: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_strtold\_1:  
?S: This variable conditionally defines the HAS\_STRTOLD\_L symbol, which  
?S: indicates to the C program that the strtold\_1() routine is available.  
?S:.  
?C:HAS\_STRTOLD\_L:  
?C: This symbol, if defined, indicates that the strtold\_1 routine is  
?C: available to convert strings to long doubles.  
?C:.  
?H:#\$d\_strtold\_1 HAS\_STRTOLD\_L /\*\*/  
?H:.  
?LINT:set d\_strtold\_1  
: see if strtold\_1 exists  
set strtold\_1 d\_strtold\_1  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_strtold\_1.U

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?RCS:  
?MAKE:d\_exp2: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_exp2:  
?S: This variable conditionally defines the HAS\_EXP2 symbol, which  
?S: indicates to the C program that the exp2() routine is available.  
?S:.  
?C:HAS\_EXP2:  
?C: This symbol, if defined, indicates that the exp2 routine is  
?C: available to do the 2\*\*x function.  
?C:.  
?H:#\$d\_exp2 HAS\_EXP2 /\*\*/  
?H:.  
?LINT:set d\_exp2  
: see if exp2 exists  
set exp2 d\_exp2  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_exp2.U

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?RCS:

?MAKE:d\_getcwd: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_getcwd:

?S: This variable conditionally defines the HAS\_GETCWD symbol, which

?S: indicates to the C program that the getcwd() routine is available

?S: to get the current working directory.

?S:.

?C:HAS\_GETCWD :

?C: This symbol, if defined, indicates that the getcwd routine is

?C: available to get the current working directory.

?C:.

?H:#\$d\_getcwd HAS\_GETCWD /\*\*/

?H:.

?LINT:set d\_getcwd

: see if getcwd exists

set getcwd d\_getcwd

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_getcwd.U

No license file was found, but licenses were detected in source scan.

/\*

\* \$Id: dup2.C,v 3.0.1.1 1994/01/24 13:58:37 ram Exp ram \$

\*

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\*

\* Original Author: Larry Wall <lwall@netlabs.com>



```
*
* $Log: dup2.C,v $
* Revision 3.0.1.1 1994/01/24 13:58:37 ram
* patch16: created
*
*/
```

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/lib/C/fake/dup2.C
```

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?RCS:

?MAKE:d\_ftello: Inlibc longsize

?MAKE: -pick add \$@ %<

?S:d\_ftello:

?S: This variable conditionally defines the HAS\_FTELLO symbol, which

?S: indicates to the C program that the ftello() routine is available.

?S:.

?C:HAS\_FTELLO:

?C: This symbol, if defined, indicates that the ftello routine is

?C: available to ftell beyond 32 bits (useful for ILP32 hosts).

?C:.

?H:#\$d\_ftello HAS\_FTELLO /\*\*/

?H:.

?LINT:set d\_ftello

: see if ftello exists

set ftello d\_ftello

eval \$inlibc

case "\$longsize" in

8) echo "(Your long is 64 bits, so you could use ftell.)" ;;

esac

Found in path(s):

```
* /opt/cola/permits/1854928199_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_ftello.U
```

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?RCS:

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?RCS:

?MAKE:d\_frexp! Inlibc

?MAKE: -pick add \$@ %<

?S:d\_frexp!:

?S: This variable conditionally defines the HAS\_FREXP! symbol, which

?S: indicates to the C program that the frexp() routine is available.

?S:.

?C:HAS\_FREXP!:

?C: This symbol, if defined, indicates that the frexp routine is

?C: available to break a long double floating-point number into

?C: a normalized fraction and an integral power of 2.

?C:.

?H:#\$d\_frexp! HAS\_FREXP! /\*\*/

?H:.

?LINT:set d\_frexp!

: see if frexp! exists

set frexp! d\_frexp!

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_frexp!.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

?MAKE:d\_copysign: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_copysign:

?S: This variable conditionally defines the HAS\_COPYSIGN symbol, which

?S: indicates to the C program that the copysign() routine is available.

?S:.

?C:HAS\_COPYSIGN:

?C: This symbol, if defined, indicates that the copysign routine is

?C: available to do the copysign function.

?C:.

?H:#\$d\_copysign HAS\_COPYSIGN /\*\*/

?H:.

?LINT:set d\_copysign

: see if copysign exists

set copysign d\_copysign

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_copysign.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

?MAKE:d\_socks5\_init: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_socks5\_init:

?S: This variable conditionally defines the HAS\_SOCKS5\_INIT symbol, which

?S: indicates to the C program that the socks5\_init() routine is available.

?S:.

?C:HAS\_SOCKS5\_INIT:

?C: This symbol, if defined, indicates that the socks5\_init routine is

?C: available to initialize SOCKS 5.

?C:.

?H:#\$d\_socks5\_init HAS\_SOCKS5\_INIT /\*\*/

?H:.

?LINT:set d\_socks5\_init

: see if socks5\_init exists

set socks5\_init d\_socks5\_init

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_socks5\_init.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_shadow.U,v \$

?RCS:

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?RCS:

?MAKE:i\_shadow: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_shadow:

?S: This variable conditionally defines the I\_SHADOW symbol, and indicates

?S: whether a C program should include <shadow.h>.

?S:  
?C:I\_SHADOW:  
?C: This symbol, if defined, indicates that <shadow.h> exists and  
?C: should be included.

?C:.  
?H:#\$i\_shadow I\_SHADOW /\*\*/  
?H:.  
?LINT:set i\_shadow  
: see if this is a shadow.h system  
set shadow.h i\_shadow  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_shadow.U

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?RCS: \$Id\$  
?RCS:  
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?RCS:  
?MAKE:d\_eaccess: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_eaccess:  
?S: This variable conditionally defines the HAS\_EACCESS symbol, which  
?S: indicates to the C program that the eaccess() routine is available.

?S:.  
?C:HAS\_EACCESS :  
?C: This symbol, if defined, indicates that the eaccess routine is  
?C: available to do extended access checks.

?C:.  
?H:#\$d\_eaccess HAS\_EACCESS /\*\*/  
?H:.  
?LINT:set d\_eaccess  
: see if eaccess exists  
set eaccess d\_eaccess  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/acl/d\_eaccess.U

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?RCS:  
?MAKE:d\_lrint: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_lrint:  
?S: This variable conditionally defines the HAS\_LRINT symbol, which  
?S: indicates to the C program that the lrint() routine is available  
?S: to return the integral value closest to a double (according  
?S: to the current rounding mode).  
?S:.  
?C:HAS\_LRINT:  
?C: This symbol, if defined, indicates that the lrint routine is  
?C: available to return the integral value closest to a double  
?C: (according to the current rounding mode).  
?C:.  
?H:#\$d\_lrint HAS\_LRINT /\*\*/  
?H:.  
?LINT:set d\_lrint  
: see if lrint exists  
set lrint d\_lrint  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_lrint.U

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?RCS:  
?MAKE:d\_fpgetround: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_fpgetround:  
?S: This variable conditionally defines HAS\_FPGETROUND if fpgetround()  
?S: is available to get the floating point rounding mode.  
?S:.  
?C:HAS\_FPGETROUND:  
?C: This symbol, if defined, indicates that the fpgetround routine is  
?C: available to get the floating point rounding mode.  
?C:.  
?H:#\$d\_fpgetround HAS\_FPGETROUND /\*\*/  
?H:.  
?LINT:set d\_fpgetround  
: see if fpgetround exists  
set fpgetround d\_fpgetround  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/perl/d\_fpgetround.U

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?RCS:

?MAKE:d\_ilogb: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_ilogb:

?S: This variable conditionally defines the HAS\_ILOGB symbol, which

?S: indicates to the C program that the ilogb() routine is available

?S: for extracting the exponent of double x as a signed integer.

?S:.

?C:HAS\_ILOGB:

?C: This symbol, if defined, indicates that the ilogb routine is

?C: available to get integer exponent of a floating-point value.

?C:.

?H:#\$d\_ilogb HAS\_ILOGB /\*\*/

?H:.

?LINT:set d\_ilogb

: see if ilogb exists

set ilogb d\_ilogb

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/1854928199\_1701225705.9160655/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/perl/d\_ilogb.U

# 1.237 go-toml 1.9.5

## 1.237.1 Available under license :

The bulk of [github.com/pelletier/go-toml](https://github.com/pelletier/go-toml) is distributed under the MIT license (see below), with the exception of [localtime.go](https://github.com/pelletier/go-toml/blob/master/localtime.go) and [localtime.test.go](https://github.com/pelletier/go-toml/blob/master/localtime.test.go).

Those two files have been copied over from Google's civil library at revision [ed46f5086358513cf8c25f8e3f022cb838a49d66](https://github.com/google/civil/blob/ed46f5086358513cf8c25f8e3f022cb838a49d66/civil.go), and are distributed under the Apache 2.0 license (see below).

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localtime.go, localtime\_test.go:

Originals:

<https://raw.githubusercontent.com/googleapis/google-cloud-go/ed46f5086358513cf8c25f8e3f022cb838a49d66/civil/civil.go>

[https://raw.githubusercontent.com/googleapis/google-cloud-go/ed46f5086358513cf8c25f8e3f022cb838a49d66/civil/civil\\_test.go](https://raw.githubusercontent.com/googleapis/google-cloud-go/ed46f5086358513cf8c25f8e3f022cb838a49d66/civil/civil_test.go)

Changes:

- \* Renamed files from civil\* to localtime\*.
- \* Package changed from civil to toml.
- \* 'Local' prefix added to all structs.

License:

<https://raw.githubusercontent.com/googleapis/google-cloud-go/ed46f5086358513cf8c25f8e3f022cb838a49d66/LICENSE>

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## 1.242 prometheus-client-model 0.4.0

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## 1.243 gopkg.in-yaml 2.4.0

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# 1.245 base-files 11ubuntu5.8

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```
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```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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## 1.247 systemd 245.4-4ubuntu3.23

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# 1.251 spew 1.1.2-0.20180830191138-d8f796af33cc

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import: ../../../../fossene/db/schema/thing.yml

fields:

site: string

author: root

## 1.253 testify 1.8.4

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## 1.255 andybalholm-brotli 1.1.0

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```
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```

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```
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```

# 1.257 x-sys 0.17.0

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## 1.258 x-net 0.21.0

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## 1.259 cmd/distpack (devel)

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## 1.262 google-uuid 1.6.0

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## 1.264 openssl 1.1.1f-1ubuntu2.22

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## 1.280 semver v3.2.0

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Alvin Chung  
Gabriel Lima  
Matthew Holt

# 1.281 util-linux 2.34-0.1ubuntu9.6

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## Constant-time SSSE3 AES core implementation.

## version 0.1

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```

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```
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# 1.286 [github.com/savsgio/gotils](https://github.com/savsgio/gotils) v0.0.0-

# 20240303185622-093b76447511

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Support for streaming Protocol Buffer messages for the Go language (golang).

[https://github.com/matttproud/golang\\_protobuf\\_extensions](https://github.com/matttproud/golang_protobuf_extensions)

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DNS library in Go

<https://miekg.nl/2014/august/16/go-dns-package/>

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LevelDB key/value database in Go

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gosnappy - a fork of [code.google.com/p/snappy-go](http://code.google.com/p/snappy-go)

<https://github.com/syndtr/gosnappy>

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go-zookeeper - Native ZooKeeper client for Go

<https://github.com/samuel/go-zookeeper>

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```

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```
// License information for the exposed API.
//
// For more information: http://goo.gl/8us55a#licenseObject
type License struct {
 Name string `json:"name,omitempty"`
 URL string `json:"url,omitempty"`
}
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```

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Original Authors

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Please do not mail the original authors asking questions about this version of GLib.

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Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from

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- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If

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Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

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Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

### 4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the

source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the

copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany

the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate

properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

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## 1.301 glibc 2.31-0ubuntu9.16

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Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the @dfn{Lesser} General Public License because it does @emph{Less} to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many

libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

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The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a ``work based on the library" and a ``work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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A ``library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The ``Library", below, refers to any such software library or work which has been distributed under these terms. A ``work based on the Library" means either the Library or any derivative work under

copyright law: that is to say, a work containing the Library or a portion of it,  
either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term ``modification".)

``Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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The modified work must itself be a software library.

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You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

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If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

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You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do

this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

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However, linking a ``work that uses the Library'' with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a ``work that uses the library''. The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a ``work that uses the Library'' uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The



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if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable ``work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

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Use a suitable shared library mechanism for linking with the Library. A

suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

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Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

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If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

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## 1.305 libzstd1 1.4.4+dfsg-3ubuntu0.1

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## 1.306 fdisk 2.34-0.1ubuntu9.6

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./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^\_`abcdefghijklmnopqrstuvwxyz{|}~

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./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^\_`abcdefghijklmnopqrstuvwxyz{|}~

!#\$%&'()\*+,-

./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^\_`abcdefghijklmnopqrstuvwxyz{|}~

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# 1.307 libapt-pkg 2.0.10

## 1.307.1 Available under license :

No license file was found, but licenses were detected in source scan.

Desired=Unknown/Install/Remove/Purge/Hold

| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend

|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)

| / Name | Version | Architecture | Description |
|--------|---------|--------------|-------------|
|--------|---------|--------------|-------------|

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|------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------|------------------------------------------------|
| ii ally-profile-manager-indicator<br>Profile Manager - Unity desktop indicator           | 0.1.10-0ubuntu3               | amd64                                                                    | Accessibility                                  |
| ii account-plugin-facebook<br>Control Center account plugin for single signon - facebook | 0.12+16.04.20160126-0ubuntu1  | all                                                                      | GNOME                                          |
| ii account-plugin-flickr<br>signon - flickr                                              | 0.12+16.04.20160126-0ubuntu1  | all                                                                      | GNOME Control Center account plugin for single |
| ii account-plugin-google<br>Control Center account plugin for single signon              | 0.12+16.04.20160126-0ubuntu1  | all                                                                      | GNOME                                          |
| ii accountsservice<br>manipulate user account information                                | 0.6.40-2ubuntu11.3            | amd64                                                                    | query and                                      |
| ii acl                                                                                   | 2.2.52-3                      | amd64                                                                    | Access control list utilities                  |
| ii acpi-support<br>ACPI events                                                           | 0.142                         | amd64                                                                    | scripts for handling many                      |
| ii acpid<br>and Power Interface event daemon                                             | 1:2.0.26-1ubuntu2             | amd64                                                                    | Advanced Configuration                         |
| ii activity-log-manager<br>Zeitgeist                                                     | 0.9.7-0ubuntu23               | amd64                                                                    | blacklist configuration user interface for     |
| ii adduser<br>and groups                                                                 | 3.113+nmu3ubuntu4             | all                                                                      | add and remove users                           |
| ii adium-theme-ubuntu<br>for Ubuntu                                                      | 0.3.4-0ubuntu1.1              | all                                                                      | Adium message style                            |
| ii adwaita-icon-theme<br>GNOME (small subset)                                            | 3.18.0-2ubuntu3.1             | all                                                                      | default icon theme of                          |
| ii aisleriot<br>game collection                                                          | 1:3.18.2-1ubuntu1             | amd64                                                                    | GNOME solitaire card                           |
| ii alsa-base<br>configuration files                                                      | 1.0.25+dfsg-0ubuntu5          | all                                                                      | ALSA driver                                    |
| ii alsa-utils<br>1.1.0-0ubuntu5                                                          | amd64                         | Utilities for configuring and using ALSA                                 |                                                |
| ii anacron<br>doesn't go by time                                                         | 2.3-23                        | amd64                                                                    | cron-like program that                         |
| ii ant                                                                                   | 1.9.6-1ubuntu1                | all                                                                      | Java based build tool like make                |
| ii ant-optional<br>make - optional libraries                                             | 1.9.6-1ubuntu1                | all                                                                      | Java based build tool like                     |
| ii apg<br>Generator - Standalone version                                                 | 2.2.3.dfsg.1-2ubuntu1         | amd64                                                                    | Automated Password                             |
| ii app-install-data<br>files)                                                            | 15.10                         | all                                                                      | Ubuntu applications (data                      |
| ii app-install-data-partner<br>16.04                                                     | all                           | Application Installer (data files for partner applications/repositories) |                                                |
| ii apparmor<br>utility for AppArmor                                                      | 2.10.95-0ubuntu2.5            | amd64                                                                    | user-space parser                              |
| ii appmenu-qt:amd64<br>menu for Qt                                                       | 0.2.7+14.04.20140305-0ubuntu2 | amd64                                                                    | application                                    |
| ii appmenu-qt5<br>menu for Qt5                                                           | 0.3.0+16.04.20151130-0ubuntu1 | amd64                                                                    | application                                    |

|                                                                |                                    |       |                                |
|----------------------------------------------------------------|------------------------------------|-------|--------------------------------|
| ii apport<br>reports for debugging                             | 2.20.1-0ubuntu2.5                  | all   | automatically generate crash   |
| ii apport-gtk<br>apport crash report system                    | 2.20.1-0ubuntu2.5                  | all   | GTK+ frontend for the          |
| ii apport-symptoms                                             | 0.20                               |       |                                |
| all symptom scripts for apport                                 |                                    |       |                                |
| ii appstream<br>index                                          | 0.9.4-1ubuntu2                     | amd64 | Software component             |
| ii apt                                                         | 1.2.18                             | amd64 | commandline package manager    |
| ii apt-transport-https<br>for APT                              | 1.2.18                             | amd64 | https download transport       |
| ii apt-utils<br>utility programs                               | 1.2.18                             | amd64 | package management related     |
| ii aptdaemon<br>package management service                     | 1.1.1+bzr982-0ubuntu14             | all   | transaction based              |
| ii aptdaemon-data<br>files for clients                         | 1.1.1+bzr982-0ubuntu14             | all   | data                           |
| ii apturl<br>apt protocol - GTK+ frontend                      | 0.5.2ubuntu11.1                    | amd64 | install packages using the     |
| ii apturl-common<br>the apt protocol - common data             | 0.5.2ubuntu11.1                    | amd64 | install packages using         |
| ii aspell<br>checker                                           | 0.60.7~20110707-3build1            | amd64 | GNU Aspell spell-              |
| ii aspell-en<br>Aspell                                         | 7.1-0-1.1                          | all   | English dictionary for GNU     |
| ii asymptote<br>language inspired by MetaPost                  | 2.37-1                             | amd64 | script-based vector graphics   |
| ii asymptote-doc<br>and examples for asymptote                 | 2.37-1                             | all   | documentation                  |
| ii at-spi2-core<br>Service Provider Interface (dbus core)      | 2.18.3-4ubuntu1                    | amd64 | Assistive Technology           |
| ii atom<br>21st Century.                                       | 1.8.0                              | amd64 | A hackable text editor for the |
| ii autotools-dev<br>config.{guess,sub} files                   | 20150820.1                         | all   | Update infrastructure for      |
| ii avahi-autoipd<br>network address configuration daemon       | 0.6.32~rc+dfsg-1ubuntu2            | amd64 | Avahi IPv4LL                   |
| ii avahi-daemon<br>mDNS/DNS-SD daemon                          | 0.6.32~rc+dfsg-1ubuntu2            | amd64 | Avahi                          |
| ii avahi-utils<br>browsing, publishing and discovery utilities | 0.6.32~rc+dfsg-1ubuntu2            | amd64 | Avahi                          |
| ii bamfdaemon<br>matching library - daemon                     | 0.5.3~bZR0+16.04.20160824-0ubuntu1 | amd64 | Window                         |
| ii baobab<br>analyzer                                          | 3.18.1-1ubuntu1                    | amd64 | GNOME disk usage               |
| ii base-files<br>miscellaneous files                           | 9.4ubuntu4.3                       | amd64 | Debian base system             |
| ii base-passwd                                                 | 3.5.39                             | amd64 | Debian base system master      |

|                                      |                                                        |       |                                |
|--------------------------------------|--------------------------------------------------------|-------|--------------------------------|
| password and group files             |                                                        |       |                                |
| ii bash                              | 4.3-14ubuntu1.1                                        | amd64 | GNU Bourne Again SHell         |
| ii bash-completion                   | 1:2.1-4.2ubuntu1.1                                     | all   | programmable                   |
| completion for the bash shell        |                                                        |       |                                |
| ii                                   |                                                        |       |                                |
| bc                                   | 1.06.95-9build1                                        | amd64 | GNU bc arbitrary precision     |
| calculator language                  |                                                        |       |                                |
| ii bind9-host                        | 1:9.10.3.dfsg.P4-8ubuntu1.4                            | amd64 | Version of 'host'              |
| bundled with BIND 9.X                |                                                        |       |                                |
| ii binfmt-support                    | 2.1.6-1                                                | amd64 | Support for extra binary       |
| formats                              |                                                        |       |                                |
| ii binutils                          | 2.26.1-1ubuntu1~16.04.3                                | amd64 | GNU assembler,                 |
| linker and binary utilities          |                                                        |       |                                |
| ii bison                             | 2:3.0.4.dfsg-1                                         | amd64 | YACC-compatible parser         |
| generator                            |                                                        |       |                                |
| ii blt                               | 2.5.3+dfsg-3                                           | amd64 | graphics extension library for |
| Tcl/Tk - run-time                    |                                                        |       |                                |
| ii bluez                             |                                                        |       |                                |
|                                      | 5.37-0ubuntu5                                          | amd64 | Bluetooth tools and daemons    |
| ii bluez-cups                        | 5.37-0ubuntu5                                          | amd64 | Bluetooth printer driver       |
| for CUPS                             |                                                        |       |                                |
| ii bluez-obexd                       | 5.37-0ubuntu5                                          | amd64 | bluez obex daemon              |
| ii brackets                          | 1.8.0libgcript11-17108+1~webupd8~0                     | amd64 | Brackets                       |
| ii branding-ubuntu                   | 0.8                                                    | all   | Replacement artwork with       |
| Ubuntu branding                      |                                                        |       |                                |
| ii brlTTY                            | 5.3.1-2ubuntu2.1                                       | amd64 | Access software for a blind    |
| person using a braille display       |                                                        |       |                                |
| ii bsdmainutils                      | 9.0.6ubuntu3                                           |       |                                |
| amd64                                | collection of more utilities from FreeBSD              |       |                                |
| ii bsdtails                          | 1:2.27.1-6ubuntu3.2                                    | amd64 | basic utilities from           |
| 4.4BSD-Lite                          |                                                        |       |                                |
| ii build-essential                   | 12.1ubuntu2                                            | amd64 | Informational list of          |
| build-essential packages             |                                                        |       |                                |
| ii busybox-initramfs                 | 1:1.22.0-15ubuntu1                                     | amd64 | Standalone shell               |
| setup for initramfs                  |                                                        |       |                                |
| ii busybox-static                    | 1:1.22.0-15ubuntu1                                     | amd64 | Standalone rescue              |
| shell with tons of builtin utilities |                                                        |       |                                |
| ii byacc                             | 20140715-1                                             | amd64 | public domain Berkeley         |
| LALR Yacc parser generator           |                                                        |       |                                |
| ii bzip2                             | 1.0.6-8                                                |       |                                |
| amd64                                | high-quality block-sorting file compressor - utilities |       |                                |
| ii ca-certificates                   | 20160104ubuntu1                                        | all   | Common CA certificates         |
| ii ca-certificates-mono              | 4.2.1.102+dfsg2-7ubuntu4                               | all   | Common CA                      |
| certificates (Mono keystore)         |                                                        |       |                                |
| ii ccache                            | 3.2.4-1                                                | amd64 | Compiler cache for fast        |
| recompilation of C/C++ code          |                                                        |       |                                |
| ii checkbox-converged                | 1.2.4-0ubuntu1                                         | all   | testing tool for all           |
| Ubuntu devices                       |                                                        |       |                                |

|                                                                            |                                    |       |                                                               |
|----------------------------------------------------------------------------|------------------------------------|-------|---------------------------------------------------------------|
| ii checkbox-gui<br>checkbox (transitional package)                         | 1.2.4-0ubuntu1                     | all   | QML based interface for                                       |
| ii checkinstall<br>amd64 installation tracker                              | 1.6.2-4ubuntu1                     |       |                                                               |
| ii cheese<br>tool to take pictures and<br>videos from your webcam          | 3.18.1-2ubuntu3                    | amd64 | tool to take pictures and                                     |
| ii cheese-common<br>Cheese tool to take pictures and videos                | 3.18.1-2ubuntu3                    | all   | Common files for the                                          |
| ii chromium-codecs-ffmpeg-extra<br>ffmpeg codecs for the Chromium Browser  | 55.0.2883.87-0ubuntu0.16.04.1263   | amd64 | Extra                                                         |
| ii clang<br>compiler (LLVM based)                                          | 1:3.8-33ubuntu3.1                  | amd64 | C, C++ and Objective-C                                        |
| ii clang-3.8<br>compiler (LLVM based)                                      | 1:3.8-2ubuntu4                     | amd64 | C, C++ and Objective-C                                        |
| ii cli-common<br>all common files between all CLI packages                 | 0.9+nmu1                           |       |                                                               |
| ii cli-common-dev<br>CLI packages                                          | 0.9+nmu1                           | all   | common files for building                                     |
| ii cmake<br>source make system                                             | 3.5.1-1ubuntu3                     | amd64 | cross-platform, open-                                         |
| ii cmake-curses-gui<br>interface for CMake (ccmake)                        | 3.5.1-1ubuntu3                     | amd64 | curses based user                                             |
| ii cmake-data<br>(modules, templates and documentation)                    | 3.5.1-1ubuntu3                     | all   | CMake data files                                              |
| ii colord<br>device colour profiles -- system daemon                       | 1.2.12-1ubuntu1                    | amd64 | system service to manage                                      |
| ii colord-data<br>1.2.12-1ubuntu1 all                                      |                                    |       | system service to manage device colour profiles -- data files |
| ii command-not-found<br>of packages in interactive bash sessions           | 0.3ubuntu16.04.2                   | all   | Suggest installation                                          |
| ii command-not-found-data<br>for command-not-found.                        | 0.3ubuntu16.04.2                   | amd64 | Set of data files                                             |
| ii compiz<br>and compositing manager                                       | 1:0.9.12.2+16.04.20160823-0ubuntu1 | all   | OpenGL window                                                 |
| ii compiz-core<br>window and compositing manager                           | 1:0.9.12.2+16.04.20160823-0ubuntu1 | amd64 | OpenGL                                                        |
| ii compiz-gnome<br>window and compositing manager - GNOME window decorator | 1:0.9.12.2+16.04.20160823-0ubuntu1 | amd64 | OpenGL                                                        |
| ii compiz-plugins-default:amd64<br>manager - default plugins               | 1:0.9.12.2+16.04.20160823-0ubuntu1 | amd64 | OpenGL window and compositing                                 |
| ii compizconfig-settings-manager<br>configuration settings manager         | 1:0.9.12.2+16.04.20160823-0ubuntu1 | all   | Compiz                                                        |
| ii console-setup<br>setup program                                          | 1.108ubuntu15.2                    | all   | console font and keymap                                       |
| ii console-setup-linux<br>console-setup                                    | 1.108ubuntu15.2                    | all   | Linux specific part of                                        |
| ii coreutils                                                               | 8.25-2ubuntu2                      | amd64 | GNU core utilities                                            |

|    |                           |                        |       |                                                                     |
|----|---------------------------|------------------------|-------|---------------------------------------------------------------------|
| ii | cpio                      | 2.11+dfsg-5ubuntu1     | amd64 | GNU cpio -- a program to manage archives of files                   |
| ii | cpp                       | 4:5.3.1-1ubuntu1       | amd64 | GNU C preprocessor (cpp)                                            |
| ii | cpp-4.9                   | 4.9.3-13ubuntu2        | amd64 | GNU C preprocessor                                                  |
| ii | cpp-5                     | 5.4.0-6ubuntu1~16.04.4 | amd64 | GNU C preprocessor                                                  |
| ii | cracklib-runtime          | 2.9.2-1build2          | amd64 | runtime support for password checker library cracklib2              |
| ii | crda                      | 3.13-1                 | amd64 | wireless Central Regulatory Domain Agent                            |
| ii | cron                      | 3.0p11-128ubuntu2      | amd64 | process scheduling daemon                                           |
| ii | cryptsetup                | 2:1.6.6-5ubuntu2       | amd64 | disk encryption support - startup scripts                           |
| ii | cryptsetup-bin            | 2:1.6.6-5ubuntu2       | amd64 | disk encryption support - command line tools                        |
| ii | cups                      | 2.1.3-4                | amd64 | Common UNIX Printing System(tm) - PPD/driver support, web interface |
| ii | cups-backend-bjnp         | 2.0-0ubuntu2           | amd64 | printer backend for Canon BJNP protocol                             |
| ii | cups-browsed              | 1.8.3-2ubuntu3.1       | amd64 | OpenPrinting CUPS Filters - cups-browsed                            |
| ii | cups-bsd                  | 2.1.3-4                | amd64 | Common UNIX Printing System(tm) - BSD commands                      |
| ii | cups-client               | 2.1.3-4                | amd64 | Common UNIX Printing System(tm) - client programs (SysV)            |
| ii | cups-common               | 2.1.3-4                | all   | Common UNIX Printing System(tm) - common files                      |
| ii | cups-core-drivers         | 2.1.3-4                | amd64 | Common UNIX Printing System(tm) - PPD-less printing                 |
| ii | cups-daemon               | 2.1.3-4                | amd64 | Common UNIX Printing System(tm) - daemon                            |
| ii | cups-filters              | 1.8.3-2ubuntu3.1       | amd64 | OpenPrinting CUPS Filters - Main Package                            |
| ii | cups-filters-core-drivers | 1.8.3-2ubuntu3.1       | amd64 | OpenPrinting CUPS Filters - PPD-less printing                       |
| ii | cups-pk-helper            | 0.2.5-2ubuntu2         | amd64 | PolicyKit helper to configure cups with fine-grained privileges     |
| ii | cups-ppdc                 | 2.1.3-4                | amd64 | Common UNIX Printing System(tm) - PPD manipulation utilities        |
| ii | cups-server-common        | 2.1.3-4                | all   | Common UNIX Printing System(tm) - server common files               |
| ii | curl                      | 7.47.0-1ubuntu2.2      | amd64 | command line tool for transferring data with URL syntax             |
| ii | dash                      | 0.5.8-2.1ubuntu2       | amd64 | POSIX-compliant shell                                               |
| ii | dbus                      | 1.10.6-1ubuntu3.3      | amd64 | simple interprocess messaging system (daemon and utilities)         |
| ii | dbus-x11                  |                        |       |                                                                     |

|                                                                                       |                      |       |                                      |
|---------------------------------------------------------------------------------------|----------------------|-------|--------------------------------------|
|                                                                                       | 1.10.6-1ubuntu3.3    | amd64 | simple interprocess messaging system |
| (X11 deps)                                                                            |                      |       |                                      |
| ii dc<br>reverse-polish calculator                                                    | 1.06.95-9build1      | amd64 | GNU dc arbitrary precision           |
| ii dconf-cli<br>system - utilities                                                    | 0.24.0-2             | amd64 | simple configuration storage         |
| ii dconf-gsettings-backend:amd64<br>configuration storage system - GSettings back-end | 0.24.0-2             | amd64 | simple                               |
| ii dconf-gsettings-backend:i386<br>storage system - GSettings back-end                | 0.24.0-2             | i386  | simple configuration                 |
| ii dconf-service<br>storage system - D-Bus service                                    | 0.24.0-2             | amd64 | simple configuration                 |
| ii debconf<br>management system                                                       | 1.5.58ubuntu1        | all   | Debian configuration                 |
| ii debconf-i18n<br>support for debconf                                                | 1.5.58ubuntu1        | all   | full internationalization            |
| ii debhelper<br>debian/rules                                                          | 9.20160115ubuntu3    | all   | helper programs for                  |
| ii debianutils<br>specific to Debian                                                  | 4.7                  | amd64 | Miscellaneous utilities              |
| ii deja-dup                                                                           | 34.2-0ubuntu1.1      | amd64 | Back up your files                   |
| ii deja-dup-backend-gvfs<br>support for Déjà Dup                                      | 34.2-0ubuntu1.1      | all   | Remote server                        |
| ii desktop-file-utils                                                                 | 0.22-1ubuntu5        | amd64 | Utilities for .desktop files         |
| ii dh-python<br>packaging Python libraries and applications                           | 2.20151103ubuntu1.1  | all   | Debian helper tools for              |
| ii dh-strip-nondeterminism<br>non-determinism from files                              | 0.015-1              | all   | debhelper add-on to strip            |
| ii dictionaries-common<br>common utilities                                            | 1.26.3               | all   | spelling dictionaries -              |
| ii diffstat<br>introduced by a diff file                                              | 1.61-1               | amd64 | produces graph of changes            |
| ii diffutils                                                                          | 1:3.3-3              | amd64 | File comparison utilities            |
| ii dirmngr<br>revocation lists                                                        | 2.1.11-6ubuntu2      | amd64 | server for managing certificate      |
| ii distro-info-data<br>distributions' releases (data files)                           | 0.28ubuntu0.2        | all   | information about the                |
| ii dmidecode<br>decoder                                                               | 3.0-2ubuntu0.1       | amd64 | SMBIOS/DMI table                     |
| ii dmsetup<br>Mapper userspace library                                                | 2:1.02.110-1ubuntu10 | amd64 | Linux Kernel Device                  |
| ii dmz-cursor-theme<br>cursor theme                                                   | 0.4.4ubuntu1         | all   | Style neutral, scalable              |
| ii dns-root-data<br>root zone and DNSSEC key                                          | 2015052300+h+1       | all   | DNS root data including              |
| ii dnsmasq-base                                                                       |                      |       |                                      |

|                      |                             |       |                                                              |
|----------------------|-----------------------------|-------|--------------------------------------------------------------|
|                      | 2.75-1ubuntu0.16.04.1       | amd64 | Small caching DNS proxy and DHCP/TFTP server                 |
| ii dnsmutils         | 1:9.10.3.dfsg.P4-8ubuntu1.4 | amd64 | Clients provided with BIND                                   |
| ii doc-base          | 0.10.7                      | all   | utilities to manage online documentation                     |
| ii docutils-common   | 0.12+dfsg-1                 | all   | text processing system for reStructuredText - common data    |
| ii docutils-doc      | 0.12+dfsg-1                 | all   | text processing system for reStructuredText - documentation  |
| ii dosfstools        | 3.0.28-2ubuntu0.1           | amd64 | utilities for making and checking MS-DOS FAT filesystems     |
| ii dpkg              | 1.18.4ubuntu1.1             | amd64 | Debian package management system                             |
| ii dpkg-dev          | 1.18.4ubuntu1.1             | all   | Debian package development tools                             |
| ii dropbox           | 2015.10.28                  | amd64 | cloud synchronization engine - CLI and Nautilus extension    |
| ii duplicity         | 0.7.06-2ubuntu2             | amd64 | encrypted bandwidth-efficient backup                         |
| ii e2fslibs:amd64    | 1.42.13-1ubuntu1            | amd64 | ext2/ext3/ext4 file system libraries                         |
| ii e2fsprogs         | 1.42.13-1ubuntu1            | amd64 | ext2/ext3/ext4 file system utilities                         |
| ii ecryptfs-utils    | 1:1.0ubuntu1.1              | amd64 | ecryptfs cryptographic filesystem (utilities)                |
| ii ed                | 1.10-2                      | amd64 | classic UNIX line editor                                     |
| ii efibootmgr        | 0.12-4                      | amd64 | Interact with the EFI Boot Manager                           |
| ii eject             | 2.1.5+deb1+cvs20081104-13.1 | amd64 | ejects CDs and operates CD-Change under Linux                |
| ii emacs-common      | 2.0.8                       | all   | Common facilities for all emacs                              |
| ii enchant:i386      | 1.6.0-10.1build2            | i386  | Wrapper for various spell checker engines (binary programs)  |
| ii eog               | 3.18.2-1ubuntu2.1           | amd64 | Eye of GNOME graphics viewer program                         |
| ii espeak-data:amd64 | 1.48.04+dfsg-2              | amd64 | Multi-lingual software speech synthesizer: speech data files |
| ii ethtool           | 1:4.5-1                     | amd64 | display or change Ethernet device settings                   |
| ii evince            | 3.18.2-1ubuntu4             | amd64 | Document (PostScript, PDF) viewer                            |
| ii evince-common     | 3.18.2-1ubuntu4             | all   | Document (PostScript, PDF) viewer - common files             |

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|-------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------|---------------------------------------------------|
| ii evolution-data-server<br>backend server                                                      | 3.18.5-1ubuntu1                | amd64                                     | evolution database                                |
| ii evolution-data-server-common<br>Server                                                       | 3.18.5-1ubuntu1                | all                                       | architecture independent files for Evolution Data |
| ii evolution-data-server-online-accounts<br>data server integration with Ubuntu Online Accounts | 3.18.5-1ubuntu1                | amd64                                     | evolution                                         |
| ii example-content                                                                              | 49                             | all                                       | Ubuntu example content                            |
| ii exuberant-ctags<br>indexes of source code definitions                                        | 1:5.9~svn20110310-11           | amd64                                     | build tag file                                    |
| ii fakeroot<br>superuser privileges                                                             | 1.20.2-1ubuntu1                | amd64                                     | tool for simulating                               |
| ii file<br>"magic" numbers                                                                      | 1:5.25-2ubuntu1                | amd64                                     | Determines file type using                        |
| ii file-roller                                                                                  | 3.16.5-0ubuntu1.2              | amd64                                     | archive manager for GNOME                         |
| ii findutils<br>files--find, xargs                                                              | 4.6.0+git+20160126-2           | amd64                                     | utilities for finding                             |
| ii firefox<br>browser from Mozilla                                                              | 51.0.1+build2-0ubuntu0.16.04.2 | amd64                                     | Safe and easy web                                 |
| ii firefox-locale-en<br>language pack for Firefox                                               | 51.0.1+build2-0ubuntu0.16.04.2 | amd64                                     | English                                           |
| ii firefox-locale-it<br>pack for Firefox                                                        | 51.0.1+build2-0ubuntu0.16.04.2 | amd64                                     | Italian language                                  |
| ii flashplugin-installer<br>Player plugin installer                                             | 24.0.0.194ubuntu0.16.04.1      | amd64                                     | Adobe Flash                                       |
| ii flex<br>2.6.0-11                                                                             | amd64                          | fast lexical analyzer generator           |                                                   |
| ii fontconfig<br>configuration library - support binaries                                       | 2.11.94-0ubuntu1.1             | amd64                                     | generic font                                      |
| ii fontconfig-config<br>configuration library - configuration                                   | 2.11.94-0ubuntu1.1             | all                                       | generic font                                      |
| ii fonts-dejavu-core<br>with additional characters                                              | 2.35-1                         | all                                       | Vera font family derivate                         |
| ii fonts-font-awesome<br>use with Twitter Bootstrap                                             | 4.5.0~dfsg-1                   | all                                       | iconic font designed for                          |
| ii fonts-freefont-ttf<br>Mono Truetype fonts                                                    | 20120503-4                     | all                                       | Freefont Serif, Sans and                          |
| ii fonts-guru<br>2:1.2                                                                          | all                            | Meta package to install all Punjabi fonts |                                                   |
| ii fonts-guru-extra<br>language                                                                 | 2.0-3                          | all                                       | Free fonts for Punjabi                            |
| ii fonts-kacst<br>Arabic fonts                                                                  | 2.01+mry-12                    | all                                       | KACST free TrueType                               |
| ii fonts-kacst-one<br>for Arabic language                                                       | 5.0+svn11846-7                 | all                                       | TrueType font designed                            |
| ii fonts-khmeros-core<br>for the Khmer language of Cambodia                                     | 5.0-7ubuntu1                   | all                                       | KhmerOS Unicode fonts                             |



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|-----------------------------------------------------------------------------|-----|-----------------------------------------------------------|-----|-------------------------------|
| ii fonts-lao<br>language                                                    |     | 0.0.20060226-9                                            | all | TrueType font for Lao         |
| ii fonts-lato<br>2.0-1                                                      | all | sans-serif typeface family font                           |     |                               |
| ii fonts-liberation<br>as Times, Arial and Courier                          |     | 1.07.4-1                                                  | all | Fonts with the same metrics   |
| ii fonts-lklug-sinhala<br>Lanka Linux User Group                            |     | 0.6-3                                                     | all | Unicode Sinhala font by       |
| ii fonts-lmodern<br>Computer Modern                                         |     | 2.004.5-1                                                 | all | OpenType fonts based on       |
| ii fonts-lohit-guru<br>Punjabi Language                                     |     | 2.5.3-2                                                   | all | Lohit TrueType font for       |
| ii fonts-lyx<br>fonts used by LyX                                           |     | 2.1.4-2                                                   | all | TrueType versions of some TeX |
| ii fonts-nanum<br>20140930-1                                                | all | Nanum Korean fonts                                        |     |                               |
| ii fonts-noto-cjk<br>families with large Unicode coverage (CJK)             |     | 1:1.004+repack2-1~ubuntu1                                 | all | "No Tofu" font                |
| ii fonts-opensymbol<br>TrueType font                                        |     | 2:102.7+LibO5.1.4-0ubuntu1                                | all | OpenSymbol                    |
| ii fonts-sil-abyssinica<br>Ethiopian and Erythrean scripts (Amharic et al.) |     | 1.500-1                                                   | all | smart Unicode font for        |
| ii fonts-sil-padauk<br>languages in Myanmar                                 |     | 2.80-2                                                    | all | smart Unicode font for        |
| ii fonts-stix<br>Information eXchange fonts                                 |     | 1.1.1-4                                                   | all | Scientific and Technical      |
| ii fonts-symbola<br>2.59-1                                                  | all | symbolic font providing emoji characters from Unicode 7.0 |     |                               |
| ii fonts-takao-pgothic<br>font set, Takao P Gothic Fonts                    |     | 003.02.01-9ubuntu3                                        | all | Japanese TrueType             |
| ii fonts-texgyre<br>URW Fonts                                               |     | 20150923-1                                                | all | OpenType fonts based on       |
| ii fonts-thai-tlwg<br>TLWG (metapackage)                                    |     | 1:0.6.2-2.1                                               | all | Thai fonts maintained by      |
| ii fonts-tibetan-machine<br>Dzongkha and Ladakhi (OpenType Unicode)         |     | 1.901b-5                                                  | all | font for Tibetan,             |
| ii fonts-tlwg-garuda<br>(dependency package)                                |     | 1:0.6.2-2.1                                               | all | Thai Garuda font              |
| ii fonts-tlwg-garuda-ttf<br>1:0.6.2-2.1                                     | all | Thai Garuda TrueType font                                 |     |                               |
| ii fonts-tlwg-kinnari<br>(dependency package)                               |     | 1:0.6.2-2.1                                               | all | Thai Kinnari font             |
| ii fonts-tlwg-kinnari-ttf<br>font                                           |     | 1:0.6.2-2.1                                               | all | Thai Kinnari TrueType         |
| ii fonts-tlwg-laksaman<br>(dependency package)                              |     | 1:0.6.2-2.1                                               | all | Thai Laksaman font            |
| ii fonts-tlwg-laksaman-ttf<br>font                                          |     | 1:0.6.2-2.1                                               | all | Thai Laksaman TrueType        |

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| ii fonts-tlwg-loma<br>(dependency package)                                                    | 1:0.6.2-2.1       | all   | Thai Loma font                                 |
| ii fonts-tlwg-loma-ttf<br>all Thai Loma TrueType font                                         | 1:0.6.2-2.1       |       |                                                |
| ii fonts-tlwg-mono<br>(dependency package)                                                    | 1:0.6.2-2.1       | all   | Thai TlwgMono font                             |
| ii fonts-tlwg-mono-ttf<br>font                                                                | 1:0.6.2-2.1       | all   | Thai TlwgMono TrueType font                    |
| ii fonts-tlwg-norasi<br>(dependency package)                                                  | 1:0.6.2-2.1       | all   | Thai Norasi font                               |
| ii fonts-tlwg-norasi-ttf                                                                      | 1:0.6.2-2.1       | all   | Thai Norasi TrueType font                      |
| ii fonts-tlwg-purisa<br>(dependency package)                                                  | 1:0.6.2-2.1       | all   | Thai Purisa font                               |
| ii fonts-tlwg-purisa-ttf                                                                      | 1:0.6.2-2.1       | all   | Thai Purisa TrueType font                      |
| ii fonts-tlwg-sawasdee<br>1:0.6.2-2.1                                                         | all               |       | Thai Sawasdee font (dependency package)        |
| ii fonts-tlwg-sawasdee-ttf<br>font                                                            | 1:0.6.2-2.1       | all   | Thai Sawasdee TrueType font                    |
| ii fonts-tlwg-typewriter<br>(dependency package)                                              | 1:0.6.2-2.1       | all   | Thai TlwgTypewriter font                       |
| ii fonts-tlwg-typewriter-ttf<br>TrueType font                                                 | 1:0.6.2-2.1       | all   | Thai TlwgTypewriter TrueType font              |
| ii fonts-tlwg-typist<br>(dependency package)                                                  | 1:0.6.2-2.1       | all   | Thai TlwgTypist font                           |
| ii fonts-tlwg-typist-ttf<br>font                                                              | 1:0.6.2-2.1       | all   | Thai TlwgTypist TrueType font                  |
| ii fonts-tlwg-typo<br>1:0.6.2-2.1                                                             | all               |       | Thai TlwgTypo font (dependency package)        |
| ii fonts-tlwg-typo-ttf<br>font                                                                | 1:0.6.2-2.1       | all   | Thai TlwgTypo TrueType font                    |
| ii fonts-tlwg-umpush<br>(dependency package)                                                  | 1:0.6.2-2.1       | all   | Thai Umpush font                               |
| ii fonts-tlwg-umpush-ttf<br>font                                                              | 1:0.6.2-2.1       | all   | Thai Umpush TrueType font                      |
| ii fonts-tlwg-waree<br>(dependency package)                                                   | 1:0.6.2-2.1       | all   | Thai Waree font                                |
| ii fonts-tlwg-waree-ttf                                                                       | 1:0.6.2-2.1       | all   | Thai Waree TrueType font                       |
| ii foomatic-db-compressed-ppds<br>printer support - Compressed PPDs derived from the database | 20160212-0ubuntu1 |       | all OpenPrinting                               |
| ii fortune-mod<br>on demand                                                                   | 1:1.99.1-7        | amd64 | provides fortune cookies                       |
| ii fortunes-min<br>fortune cookies                                                            | 1:1.99.1-7        | all   | Data files containing selected fortune cookies |
| ii freeglut3:amd64                                                                            | 2.8.1-2           | amd64 | OpenGL Utility Toolkit                         |
| ii freepats<br>synthesis                                                                      | 20060219-1        | all   | Free patch set for MIDI audio synthesis        |
| ii friendly-recovery<br>friendly                                                              | 0.2.31            | all   | Make recovery more user-friendly               |

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|---------------------------------------------------------------------------|------------------------|-------|----------------------------------|
| ii ftp client                                                             | 0.17-33                | amd64 | classical file transfer          |
| ii fuse                                                                   | 2.9.4-1ubuntu3.1       | amd64 | Filesystem in Userspace          |
| ii fwupd                                                                  | 0.7.0-0ubuntu4.3       | amd64 | Firmware update daemon           |
| ii fwupdate<br>firmware updates                                           | 0.5-2ubuntu4           | amd64 | Tools to manage UEFI             |
| ii fwupdate-signed<br>Updater EFI signed binary                           | 1.11+0.5-2ubuntu4      | amd64 | Linux Firmware                   |
| ii g++                                                                    | 4:5.3.1-1ubuntu1       | amd64 | GNU C++ compiler                 |
| ii g++-4.9                                                                | 4.9.3-13ubuntu2        | amd64 | GNU C++ compiler                 |
| ii g++-5<br>amd64 GNU C++ compiler                                        | 5.4.0-6ubuntu1~16.04.4 |       |                                  |
| ii gcc                                                                    | 4:5.3.1-1ubuntu1       | amd64 | GNU C compiler                   |
| ii gcc-4.9                                                                | 4.9.3-13ubuntu2        | amd64 | GNU C compiler                   |
| ii gcc-4.9-base:amd64<br>Compiler Collection (base package)               | 4.9.3-13ubuntu2        | amd64 | GCC, the GNU                     |
| ii gcc-5                                                                  | 5.4.0-6ubuntu1~16.04.4 | amd64 | GNU C compiler                   |
| ii gcc-5-base:amd64<br>Compiler Collection (base package)                 | 5.4.0-6ubuntu1~16.04.4 | amd64 | GCC, the GNU                     |
| ii gcc-5-base:i386<br>Compiler Collection (base package)                  | 5.4.0-6ubuntu1~16.04.4 | i386  | GCC, the GNU                     |
| ii gcc-6-base:amd64<br>(base package)                                     | 6.0.1-0ubuntu1         | amd64 | GCC, the GNU Compiler Collection |
| ii gcc-6-base:i386<br>Compiler Collection (base package)                  | 6.0.1-0ubuntu1         | i386  | GCC, the GNU                     |
| ii gconf-service<br>database system (D-Bus service)                       | 3.2.6-3ubuntu6         | amd64 | GNOME configuration              |
| ii gconf-service-backend<br>configuration database system (D-Bus service) | 3.2.6-3ubuntu6         | amd64 | GNOME                            |
| ii gconf2<br>database system (support tools)                              | 3.2.6-3ubuntu6         | amd64 | GNOME configuration              |
| ii gconf2-common<br>database system<br>(common files)                     | 3.2.6-3ubuntu6         | all   | GNOME configuration              |
| ii gcr<br>(daemon and tools)                                              | 3.18.0-1ubuntu1        | amd64 | GNOME crypto services            |
| ii gdb                                                                    | 7.11.1-0ubuntu1~16.04  | amd64 | GNU Debugger                     |
| ii gdbserver<br>(remote server)                                           | 7.11.1-0ubuntu1~16.04  | amd64 | GNU Debugger                     |
| ii gdisk<br>partitioning tool                                             | 1.0.1-1build1          | amd64 | GPT fdisk text-mode              |
| ii gedit<br>GNOME desktop environment                                     | 3.18.3-0ubuntu4        | amd64 | official text editor of the      |
| ii gedit-common<br>GNOME desktop environment (support files)              | 3.18.3-0ubuntu4        | all   | official text editor of the      |
| ii                                                                        |                        |       |                                  |

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|-----------------------------------|---------------------------------|-------|----------------------------------------------------------------------------|
| genisoimage                       | 9:1.1.11-3ubuntu1               | amd64 | Creates ISO-9660 CD-ROM filesystem images                                  |
| ii geoclue                        | 0.12.99-4ubuntu1                | amd64 | Geographic information framework                                           |
| ii geoclue-ubuntu-geoip           | 1.0.2+14.04.20131125-0ubuntu2   | amd64 | Provide positioning for GeoClue via Ubuntu GeoIP services                  |
| ii geogebra                       | 4.0.34.0+dfsg1-3                | all   | Dynamic mathematics software for education                                 |
| ii geoip-database                 | 20160408-1                      | all   | IP lookup command line tools that use the GeoIP library (country database) |
| ii gettext                        | 0.19.7-2ubuntu3                 | amd64 | GNU Internationalization utilities                                         |
| ii gettext-base                   | 0.19.7-2ubuntu3                 | amd64 | GNU Internationalization utilities for the base system                     |
| ii gfortran                       | 4:5.3.1-1ubuntu1                | amd64 | GNU Fortran 95 compiler                                                    |
| ii gfortran-5                     | 5.4.0-6ubuntu1~16.04.4          | amd64 | GNU Fortran compiler                                                       |
| ii ghostscript                    | 9.18~dfsg~0-0ubuntu2.3          | amd64 | interpreter for the PostScript language and for PDF                        |
| ii ghostscript-x                  | 9.18~dfsg~0-0ubuntu2.3          | amd64 | interpreter for the PostScript language and for PDF - X11 support          |
| ii gir1.2-accounts-1.0:amd64      | 1.21+16.04.20160222-0ubuntu1    | amd64 | typelib file for libaccounts-glib0                                         |
| ii gir1.2-appindicator3-0.1       | 12.10.1+15.04.20141110-0ubuntu1 | amd64 | Typelib files for libappindicator3-1.                                      |
| ii gir1.2-atk-1.0                 | 2.18.0-1                        | amd64 | ATK accessibility toolkit (GObject introspection)                          |
| ii gir1.2-atspi-2.0               | 2.18.3-4ubuntu1                 | amd64 | Assistive Technology Service Provider (GObject introspection)              |
| ii gir1.2-dbusmenu-glib-0.4:amd64 | 16.04.1+16.04.20160927-0ubuntu1 | amd64 | typelib file for libdbusmenu-glib4                                         |
| ii gir1.2-dee-1.0                 | 1.2.7+15.04.20150304-0ubuntu2   | amd64 | GObject introspection data for the Dee library                             |
| ii gir1.2-freedesktop:amd64       | 1.46.0-3ubuntu1                 | amd64 | Introspection data for some FreeDesktop components                         |
| ii gir1.2-gdata-0.0:amd64         | 0.17.4-1                        | amd64 | GObject introspection data for the GData webservice library                |
| ii gir1.2-gdkpixbuf-2.0:amd64     | 2.32.2-1ubuntu1.2               | amd64 | GDK Pixbuf library - GObject-Introspection                                 |
| ii gir1.2-glib-2.0:amd64          | 1.46.0-3ubuntu1                 | amd64 | Introspection data for GLib, GObject, Gio and GModule                      |
| ii gir1.2-gnomekeyring-1.0        | 3.12.0-1build1                  | amd64 | GNOME keyring services library - introspection data                        |
| ii gir1.2-goa-1.0:amd64           | 3.18.3-1ubuntu2                 | amd64 | Introspection data for GNOME Online Accounts                               |
| ii gir1.2-gst-plugins-base-1.0    | 1.8.2-1ubuntu0.2                |       |                                                                            |

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|    | amd64                              | GObject introspection data for the GStreamer Plugins Base library |       |                                                                            |
| ii | gir1.2-gstreamer-1.0               | 1.8.2-1~ubuntu1                                                   | amd64 | GObject introspection data for the GStreamer library                       |
| ii | gir1.2-gtk-2.0                     | 2.24.30-1ubuntu1                                                  | amd64 | GTK+ graphical user interface library -- gir bindings                      |
| ii | gir1.2-gtk-3.0:amd64               | 3.18.9-1ubuntu3.1                                                 | amd64 | GTK+ graphical user interface library -- gir bindings                      |
| ii | gir1.2-gtksource-3.0:amd64         | 3.18.2-1                                                          | amd64 | gir files for the GTK+ syntax highlighting widget                          |
| ii | gir1.2-gudev-1.0:amd64             | 1:230-2                                                           | amd64 | introspection data for libgudev-1.0                                        |
| ii | gir1.2-ibus-1.0:amd64              | 1.5.11-1ubuntu2                                                   | amd64 | Intelligent Input Bus - introspection data                                 |
| ii | gir1.2-javascriptcoregtk-4.0:amd64 | 2.14.3-0ubuntu0.16.04.1                                           | amd64 | JavaScript engine library from WebKitGTK+ - GObject introspection data     |
| ii | gir1.2-json-1.0:amd64              | 1.1.2-0ubuntu1                                                    | amd64 | GLib JSON manipulation library (introspection data)                        |
| ii | gir1.2-notify-0.7                  | 0.7.6-2svn1                                                       | amd64 | sends desktop notifications to a notification daemon (Introspection files) |
| ii | gir1.2-packagekitglib-1.0          | 0.8.17-4ubuntu6~gcc5.4ubuntu1.1                                   | amd64 | GObject introspection data for the PackageKit GLib library                 |
| ii | gir1.2-pango-1.0:amd64             | 1.38.1-1                                                          | amd64 | Layout and rendering of internationalized text - gir bindings              |
| ii | gir1.2-peas-1.0:amd64              | 1.16.0-1ubuntu2                                                   | amd64 | Application plugin library (introspection files)                           |
| ii | gir1.2-rb-3.0:amd64                | 3.3-1ubuntu7                                                      | amd64 | GObject introspection data for the rhythmbox music player                  |
| ii | gir1.2-secret-1:amd64              | 0.18.4-1ubuntu2                                                   | amd64 | Secret store (GObject-Introspection)                                       |
| ii | gir1.2-signon-1.0                  | 1.13+16.04.20151209.1-0ubuntu1                                    | amd64 | GObject introspection data for the Signon library                          |
| ii | gir1.2-soup-2.4                    | 2.52.2-1ubuntu0.1                                                 | amd64 | GObject introspection data for the libsoup HTTP library                    |
| ii | gir1.2-totem-1.0:amd64             | 3.18.1-1ubuntu4                                                   | amd64 | GObject introspection data for Totem media player                          |
| ii | gir1.2-totem-plparser-1.0:amd64    | 3.10.6-1ubuntu1                                                   | amd64 | GObject introspection data for the Totem Playlist Parser library           |
| ii | gir1.2-udisks-2.0:amd64            | 2.1.7-1ubuntu1                                                    | amd64 | GObject based library to access udisks2 - introspection data               |
| ii | gir1.2-unity-5.0:amd64             | 7.1.4+16.04.20160701-0ubuntu1                                     | amd64 | GObject introspection data for the Unity library                           |
| ii | gir1.2-vte-2.91:amd64              | 0.42.5-1ubuntu1                                                   | amd64 | GObject introspection data for the VTE library                             |
| ii | gir1.2-webkit2-4.0:amd64           | 2.14.3-0ubuntu0.16.04.1                                           | amd64 | Web content engine library for GTK+ - GObject introspection data           |
| ii | gir1.2-wnck-3.0:amd64              | 3.14.1-2                                                          | amd64 | GObject introspection data for the WNCK library                            |

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|------------------------------------------------------------------------|---------------------------|-------|-------------------------------------------|
| ii git<br>revision control system                                      | 1:2.7.4-0ubuntu1          | amd64 | fast, scalable, distributed               |
| ii git-man<br>revision control system (manual pages)                   | 1:2.7.4-0ubuntu1          | all   | fast, scalable, distributed               |
| ii gkbd-capplet<br>tools for libgnomekbd                               | 3.6.0-1ubuntu2            | amd64 | GNOME control center                      |
| ii glib-networking:amd64<br>related giomodules for GLib                | 2.48.2-1~ubuntu16.04.1    | amd64 | network-                                  |
| ii glib-networking:i386<br>giomodules<br>for GLib                      | 2.48.2-1~ubuntu16.04.1    | i386  | network-related                           |
| ii glib-networking-common<br>giomodules for GLib - data files          | 2.48.2-1~ubuntu16.04.1    | all   | network-related                           |
| ii glib-networking-services<br>giomodules for GLib - D-Bus services    | 2.48.2-1~ubuntu16.04.1    | amd64 | network-related                           |
| ii gnome-accessibility-themes<br>themes for the GNOME desktop          | 3.18.0-2ubuntu1           | all   | Accessibility                             |
| ii gnome-bluetooth<br>tools                                            | 3.18.2-1ubuntu2           | amd64 | GNOME Bluetooth                           |
| ii gnome-calculator<br>calculator                                      | 1:3.18.3-0ubuntu1.16.04.1 | amd64 | GNOME desktop                             |
| ii gnome-calendar<br>for GNOME                                         | 3.20.4-0ubuntu0.1         | amd64 | Calendar application                      |
| ii gnome-desktop3-data<br>Common files for GNOME desktop apps          | 3.18.2-1ubuntu1           | all   | manage and                                |
| ii gnome-disk-utility<br>configure disk drives and media               | 3.18.3.1-1ubuntu1         | amd64 | font viewer for                           |
| ii gnome-font-viewer<br>GNOME                                          | 3.16.2-1ubuntu1           | amd64 | GNOME keyring                             |
| ii gnome-keyring<br>services (daemon and tools)                        | 3.18.3-0ubuntu2           | amd64 | classic Eastern tile                      |
| ii gnome-mahjongg<br>game for GNOME                                    | 1:3.18.0-1                | amd64 | GNOME                                     |
| ii gnome-menus<br>implementation of the freedesktop menu specification | 3.13.3-6ubuntu3.1         | amd64 | popular minesweeper puzzle game for GNOME |
| ii gnome-mines<br>popular minesweeper puzzle game for GNOME            | 1:3.18.2-2                | amd64 | Scriptable screen reader                  |
| ii gnome-orca<br>Scriptable screen reader                              | 3.18.2-1ubuntu3           | all   | power                                     |
| ii gnome-power-manager<br>management tool for the GNOME desktop        | 3.18.0-1ubuntu1           | amd64 | GNOME screen                              |
| ii gnome-screensaver<br>saver and locker                               | 3.6.1-7ubuntu4            | amd64 | screenshot                                |
| ii gnome-screenshot<br>application for GNOME                           | 3.18.0-1ubuntu2           | amd64 | GNOME                                     |
| ii gnome-session-bin<br>Session Manager - Minimal runtime              | 3.18.1.2-1ubuntu1.16.04.2 | amd64 |                                           |
| ii gnome-session-canberra                                              | 0.30-2.1ubuntu1           |       |                                           |

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|----|-------------------------------|-----------------------------------------------|-------|-------------------------------------------------------------|
|    | amd64                         | GNOME session log in and log out sound events |       |                                                             |
| ii | gnome-session-common          | 3.18.1.2-1ubuntu1.16.04.2                     | all   | GNOME Session Manager - common files                        |
| ii | gnome-settings-daemon-schemas | 3.18.2-0ubuntu3.1                             | all   | gnome-settings-daemon schemas                               |
| ii | gnome-software                | 3.20.1+git20161013.0.d77d6cf-0ubuntu2~xenial1 | amd64 | Software Center for GNOME                                   |
| ii | gnome-software-common         | 3.20.1+git20161013.0.d77d6cf-0ubuntu2~xenial1 | all   | Software Center for GNOME (common files)                    |
| ii | gnome-sudoku                  | 1:3.18.4-0ubuntu2                             | amd64 | Sudoku puzzle game for GNOME                                |
| ii | gnome-system-log              | 3.9.90-4                                      | amd64 | system log viewer for GNOME                                 |
| ii | gnome-system-monitor          | 3.18.2-1ubuntu1                               | amd64 | Process viewer and system resource monitor for GNOME        |
| ii | gnome-terminal                | 3.18.3-1ubuntu1                               | amd64 | GNOME terminal emulator application                         |
| ii | gnome-terminal-data           | 3.18.3-1ubuntu1                               | all   | Data files for the GNOME terminal emulator                  |
| ii | gnome-user-guide              | 3.18.1-1                                      | all   | GNOME user's guide                                          |
| ii | gnome-user-share              | 3.14.2-2ubuntu4                               | amd64 | User level public file sharing via WebDAV or ObexFTP        |
| ii | gnome-video-effects           | 0.4.1-3ubuntu1                                | all   | Collection of GStreamer effects                             |
| ii | gnupg                         | 1.4.20-1ubuntu3.1                             | amd64 | GNU privacy guard - a free PGP replacement                  |
| ii | gnupg-agent                   | 2.1.11-6ubuntu2                               | amd64 | GNU privacy guard - cryptographic agent                     |
| ii | gnupg2                        | 2.1.11-6ubuntu2                               | amd64 | GNU privacy guard - a free PGP replacement (new v2.x)       |
| ii | google-chrome-stable          | 56.0.2924.76-1                                | amd64 | The web browser from Google                                 |
| ii | google-talkplugin             | 5.41.3.0-1                                    | amd64 | Google Talk Plugin                                          |
| ii | gpgv                          | 1.4.20-1ubuntu3.1                             | amd64 | GNU privacy guard - signature verification tool             |
| ii | graphviz                      | 2.38.0-12ubuntu2.1                            | amd64 | rich set of graph drawing tools                             |
| ii | grep                          | 2.25-1~16.04.1                                | amd64 | GNU grep, egrep and fgrep                                   |
| ii | grilo-plugins-0.2-base:amd64  | 0.2.17-0ubuntu2                               | amd64 | Framework for discovering and browsing media - Base Plugins |
| ii | groff-base                    | 1.22.3-7                                      | amd64 | GNU troff text-formatting system (base system components)   |
| ii | grub-common                   | 2.02~beta2-36ubuntu3.7                        | amd64 | GRand Unified Bootloader (common files)                     |
| ii | grub-efi-amd64                | 2.02~beta2-36ubuntu3.7                        | amd64 | GRand Unified Bootloader, version 2 (EFI-AMD64 version)     |

|                                                |                                     |       |                                                                 |
|------------------------------------------------|-------------------------------------|-------|-----------------------------------------------------------------|
| ii grub-efi-amd64-bin                          | 2.02~beta2-36ubuntu3.7              | amd64 | GRand Unified Bootloader, version 2 (EFI-AMD64 binaries)        |
| ii grub-efi-amd64-signed                       | 1.66.7+2.02~beta2-36ubuntu3.7       | amd64 | GRand Unified Bootloader, version 2 (EFI-AMD64 version, signed) |
| ii grub2-common                                | 2.02~beta2-36ubuntu3.7              | amd64 | GRand Unified Bootloader (common files for version 2)           |
| ii gsettings-desktop-schemas                   | 3.18.1-1ubuntu1                     | all   | GSettings desktop-wide schemas                                  |
| ii gsettings-ubuntu-schemas                    | 0.0.5+16.04.20160307-0ubuntu1       | all   | GSettings desktop-wide schemas for Ubuntu                       |
| ii gsfonts                                     | 1:8.11+urwcyr1.0.7~pre44-4.2ubuntu1 | all   | Fonts for the Ghostscript interpreter(s)                        |
| ii gsfonts-x11                                 | 0.24                                | all   | Make Ghostscript fonts available to X11                         |
| ii gstreamer1.0-alsa:amd64                     | 1.8.2-1ubuntu0.2                    | amd64 | GStreamer plugin for ALSA                                       |
| ii gstreamer1.0-clutter-3.0                    | 3.0.18-1                            | amd64 | Clutter PPlugin for GStreamer 1.0                               |
| ii gstreamer1.0-fluendo-mp3:amd64              | 0.10.32.debian-1                    | amd64 | Fluendo mp3 decoder GStreamer 1.0 plugin                        |
| ii gstreamer1.0-libav:amd64                    | 1.8.2-1~ubuntu1                     | amd64 | libav plugin for GStreamer                                      |
| ii gstreamer1.0-plugins-bad:amd64              | 1.8.2-1ubuntu0.2                    | amd64 | GStreamer plugins from the "bad" set                            |
| ii gstreamer1.0-plugins-bad-faad:amd64         | 1.8.2-1ubuntu0.2                    | amd64 | GStreamer faad plugin from the "bad" set                        |
| ii gstreamer1.0-plugins-bad-videmparsers:amd64 | 1.8.2-1ubuntu0.2                    | amd64 | GStreamer videmparsers plugin from the "bad" set                |
| ii gstreamer1.0-plugins-base:amd64             | 1.8.2-1ubuntu0.2                    | amd64 | GStreamer plugins from the "base" set                           |
| ii gstreamer1.0-plugins-base:i386              | 1.8.2-1ubuntu0.2                    | i386  | GStreamer plugins from the "base" set                           |
| ii gstreamer1.0-plugins-base-apps              | 1.8.2-1ubuntu0.2                    | amd64 | GStreamer helper programs from the "base" set                   |
| ii gstreamer1.0-plugins-good:amd64             | 1.8.2-1ubuntu0.3                    | amd64 | GStreamer plugins from the "good" set                           |
| ii gstreamer1.0-plugins-good:i386              | 1.8.2-1ubuntu0.3                    | i386  | GStreamer plugins from the "good" set                           |
| ii gstreamer1.0-plugins-ugly:amd64             | 1.8.2-1ubuntu0.1                    | amd64 | GStreamer plugins from the "ugly" set                           |
| ii gstreamer1.0-plugins-ugly-amr:amd64         | 1.8.2-1ubuntu0.1                    | amd64 | GStreamer plugins from the "ugly" set                           |
| ii gstreamer1.0-pulseaudio:amd64               | 1.8.2-1ubuntu0.3                    | amd64 | GStreamer plugin for PulseAudio                                 |
| ii gstreamer1.0-tools                          | 1.8.2-1~ubuntu1                     | amd64 | Tools for use with GStreamer                                    |
| ii gstreamer1.0-x:amd64                        | 1.8.2-1ubuntu0.2                    | amd64 | GStreamer plugins                                               |



|                                 |                                  |     |       |                                                   |
|---------------------------------|----------------------------------|-----|-------|---------------------------------------------------|
| for X11 and Pango               |                                  |     |       |                                                   |
| ii gstreamer1.0-x:i386          | 1.8.2-1ubuntu0.2                 |     | i386  | GStreamer plugins                                 |
| for X11 and Pango               |                                  |     |       |                                                   |
| ii gtk2-engines-murrine:amd64   | 0.98.2-0ubuntu2.2                |     | amd64 | cairo-based                                       |
| gtk+-2.0 theme engine           |                                  |     |       |                                                   |
| ii gucharmap                    | 1:3.18.2-1ubuntu1                |     | amd64 | Unicode character                                 |
| picker and font browser         |                                  |     |       |                                                   |
| ii guile-2.0-libs:amd64         | 2.0.11+1-10                      |     | amd64 | Core Guile libraries                              |
| ii gvfs:amd64                   | 1.28.2-1ubuntu1~16.04.1          |     | amd64 | userspace virtual                                 |
| filesystem - GIO module         |                                  |     |       |                                                   |
| ii gvfs-backends                | 1.28.2-1ubuntu1~16.04.1          |     | amd64 | userspace virtual                                 |
| filesystem - backends           |                                  |     |       |                                                   |
| ii gvfs-bin                     | 1.28.2-1ubuntu1~16.04.1          |     | amd64 | userspace virtual                                 |
| filesystem - binaries           |                                  |     |       |                                                   |
| ii gvfs-common                  | 1.28.2-1ubuntu1~16.04.1          | all |       | userspace virtual filesystem - common             |
| data files                      |                                  |     |       |                                                   |
| ii gvfs-daemons                 | 1.28.2-1ubuntu1~16.04.1          |     | amd64 | userspace virtual                                 |
| filesystem - servers            |                                  |     |       |                                                   |
| ii gvfs-fuse                    | 1.28.2-1ubuntu1~16.04.1          |     | amd64 | userspace virtual                                 |
| filesystem - fuse server        |                                  |     |       |                                                   |
| ii gvfs-libs:amd64              | 1.28.2-1ubuntu1~16.04.1          |     | amd64 | userspace virtual                                 |
| filesystem - private libraries  |                                  |     |       |                                                   |
| ii gyp                          | 0.1+20150913git1f374df9-1ubuntu1 |     | all   | Cross-platform                                    |
| build script generator          |                                  |     |       |                                                   |
| ii gzip                         | 1.6-4ubuntu1                     |     | amd64 | GNU compression utilities                         |
| ii hardening-includes           | 2.7ubuntu2                       | all |       | Makefile for enabling compiler flags for security |
| hardening                       |                                  |     |       |                                                   |
| ii hdparm                       | 9.48+ds-1                        |     | amd64 | tune hard disk parameters                         |
| for high performance            |                                  |     |       |                                                   |
| ii heroku                       | 3.43.16                          |     | all   | Client library and CLI to deploy                  |
| apps on Heroku.                 |                                  |     |       |                                                   |
| ii heroku-toolbelt              | 3.43.16                          |     | all   | A metapackage for working                         |
| with the Heroku platform.       |                                  |     |       |                                                   |
| ii hicolor-icon-theme           | 0.15-0ubuntu1                    |     | all   | default fallback theme                            |
| for FreeDesktop.org icon themes |                                  |     |       |                                                   |
| ii hostname                     | 3.16ubuntu2                      |     | amd64 | utility to set/show the                           |
| host name or domain             |                                  |     |       |                                                   |
| name                            |                                  |     |       |                                                   |
| ii hplip                        | 3.16.3+repack0-1                 |     | amd64 | HP Linux Printing and                             |
| Imaging System (HPLIP)          |                                  |     |       |                                                   |
| ii hplip-data                   | 3.16.3+repack0-1                 |     | all   | HP Linux Printing and                             |
| Imaging - data files            |                                  |     |       |                                                   |
| ii hud                          | 14.10+16.04.20160415-0ubuntu1    |     | amd64 | Backend for the                                   |
| Unity HUD                       |                                  |     |       |                                                   |
| ii humanity-icon-theme          | 0.6.10                           |     | all   | Humanity Icon theme                               |
| ii hunspell-en-au               | 1:5.1.0-1ubuntu2.2               |     | all   | English (Australia)                               |

|                                                              |                                 |                       |       |                                                                |
|--------------------------------------------------------------|---------------------------------|-----------------------|-------|----------------------------------------------------------------|
| dictionary for hunspell                                      |                                 |                       |       |                                                                |
| ii hunspell-en-ca                                            | 1:5.1.0-1ubuntu2.2              |                       | all   | English (Canada)                                               |
| dictionary for hunspell                                      |                                 |                       |       |                                                                |
| ii hunspell-en-gb                                            | 1:5.1.0-1ubuntu2.2              |                       | all   | English (GB) dictionary for hunspell                           |
| ii hunspell-en-us                                            | 20070829-6ubuntu3               |                       | all   | English_american                                               |
| dictionary for hunspell                                      |                                 |                       |       |                                                                |
| ii hunspell-en-za                                            | 1:5.1.0-1ubuntu2.2              |                       | all   | English (South Africa)                                         |
| dictionary for hunspell                                      |                                 |                       |       |                                                                |
| ii hunspell-it                                               | 1:5.1.0-1ubuntu2.2              |                       | all   | Italian dictionary for                                         |
| hunspell                                                     |                                 |                       |       |                                                                |
| ii hwdata                                                    | 0.267-1                         |                       | all   | hardware identification /                                      |
| configuration data                                           |                                 |                       |       |                                                                |
| ii hyphen-en-gb                                              | 1:5.1.0-1ubuntu2.2              |                       | all   | English (GB)                                                   |
| hyphenation patterns                                         |                                 |                       |       |                                                                |
| ii hyphen-en-us                                              | 2.8.8-2ubuntu1                  | all                   |       | US English hyphenation patterns for LibreOffice/OpenOffice.org |
| ii hyphen-it                                                 | 1:5.1.0-1ubuntu2.2              |                       | all   | Italian hyphenation                                            |
| patterns                                                     |                                 |                       |       |                                                                |
| ii i965-va-driver:amd64                                      | 1.7.0-1                         |                       | amd64 | VAAPI driver for Intel                                         |
| G45 & HD Graphics family                                     |                                 |                       |       |                                                                |
| ii ibus                                                      | 1.5.11-1ubuntu2                 |                       | amd64 | Intelligent Input Bus - core                                   |
| ii ibus-gtk:amd64                                            | 1.5.11-1ubuntu2                 |                       | amd64 | Intelligent Input Bus -                                        |
| GTK+2 support                                                |                                 |                       |       |                                                                |
| ii ibus-gtk3:amd64                                           | 1.5.11-1ubuntu2                 |                       | amd64 | Intelligent Input Bus                                          |
| - GTK+3 support                                              |                                 |                       |       |                                                                |
| ii ibus-table                                                | 1.9.1-3ubuntu2                  |                       |       |                                                                |
|                                                              | all                             | table engine for IBus |       |                                                                |
| ii icedtea-netx-common                                       | 1.6.2-3ubuntu1                  |                       | all   | NetX -                                                         |
| implementation of the Java Network Launching Protocol (JNLP) |                                 |                       |       |                                                                |
| ii icu-devtools                                              | 55.1-7                          |                       | amd64 | Development utilities for                                      |
| International Components for Unicode                         |                                 |                       |       |                                                                |
| ii ifupdown                                                  | 0.8.10ubuntu1.2                 |                       | amd64 | high level tools to                                            |
| configure network interfaces                                 |                                 |                       |       |                                                                |
| ii im-config                                                 | 0.29-1ubuntu12.3                |                       | all   | Input method                                                   |
| configuration framework                                      |                                 |                       |       |                                                                |
| ii imagemagick                                               | 8:6.8.9.9-7ubuntu5.3            |                       | amd64 | image manipulation                                             |
| programs -- binaries                                         |                                 |                       |       |                                                                |
| ii imagemagick-6.q16                                         | 8:6.8.9.9-7ubuntu5.3            | amd64                 |       | image manipulation programs -- quantum depth Q16               |
| ii imagemagick-common                                        | 8:6.8.9.9-7ubuntu5.3            |                       | all   | image                                                          |
| manipulation programs -- infrastructure                      |                                 |                       |       |                                                                |
| ii indicator-application                                     | 12.10.1+15.04.20150128-0ubuntu1 |                       | amd64 | Application                                                    |
| Indicators                                                   |                                 |                       |       |                                                                |
| ii indicator-appmenu                                         | 15.02.0+16.04.20151104-0ubuntu1 |                       | amd64 | Indicator                                                      |
| for application menus.                                       |                                 |                       |       |                                                                |
| ii indicator-bluetooth                                       | 0.0.6+16.04.20160526-0ubuntu1   |                       | amd64 | System                                                         |
| bluetooth indicator.                                         |                                 |                       |       |                                                                |

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|-------------------------------------------------------------------------------|---------------------------------|-------|--------------------------------|
| ii indicator-datetime                                                         | 15.10+16.04.20160406-0ubuntu1   | amd64 | Simple clock                   |
| ii indicator-keyboard<br>indicator                                            | 0.0.0+16.04.20151125-0ubuntu1   | amd64 | Keyboard                       |
| ii indicator-messages<br>that collects messages that need a response          | 13.10.1+15.10.20150505-0ubuntu1 | amd64 | indicator                      |
| ii indicator-power<br>showing power state.                                    | 12.10.6+16.04.20160105-0ubuntu1 | amd64 | Indicator                      |
| ii indicator-printers<br>showing active print jobs                            | 0.1.7+15.04.20150220-0ubuntu2   | amd64 | indicator                      |
| ii indicator-session<br>showing session management, status and user switching | 12.10.5+16.04.20160412-0ubuntu1 | amd64 | indicator                      |
| ii indicator-sound<br>sound indicator.                                        | 12.10.2+16.04.20160406-0ubuntu1 | amd64 | System                         |
| ii info<br>documentation browser                                              | 6.1.0.dfsg.1-5                  | amd64 | Standalone GNU Info            |
| ii<br>init<br>metapackage                                                     | 1.29ubuntu3                     | amd64 | System-V-like init utilities - |
| ii init-system-helpers<br>systems                                             | 1.29ubuntu3                     | all   | helper tools for all init      |
| ii initramfs-tools<br>generator (automation)                                  | 0.122ubuntu8.8                  | all   | generic modular initramfs      |
| ii initramfs-tools-bin<br>initramfs-tools                                     | 0.122ubuntu8.8                  | amd64 | binaries used by               |
| ii initramfs-tools-core<br>initramfs generator (core tools)                   | 0.122ubuntu8.8                  | all   | generic modular                |
| ii initscripts<br>and shutting down the system                                | 2.88dsf-59.3ubuntu2             | amd64 | scripts for initializing       |
| ii<br>inputattach<br>attached peripherals to the input subsystem              | 1:1.4.9-1                       | amd64 | utility to connect serial-     |
| ii insserv<br>using LSB init.d script dependency information                  | 1.14.0-5ubuntu3                 | amd64 | boot sequence organizer        |
| ii install-info<br>documentation in info format                               | 6.1.0.dfsg.1-5                  | amd64 | Manage installed               |
| ii intel-gpu-tools<br>Intel graphics driver                                   | 1.14-1                          | amd64 | tools for debugging the        |
| ii intel-microcode<br>firmware for Intel CPUs                                 | 3.20151106.1                    | amd64 | Processor microcode            |
| ii intltool-debian<br>all Help i18n of RFC822 compliant config files          | 0.35.0+20060710.4               |       |                                |
| ii ippusbxd<br>support                                                        | 1.23-1                          | amd64 | Daemon for IPP USB printer     |
| ii iproute2<br>control tools                                                  | 4.3.0-1ubuntu3                  | amd64 | networking and traffic         |
| ii iptables<br>packet filtering and NAT                                       | 1.6.0-2ubuntu3                  | amd64 | administration tools for       |
| ii iputils-arping                                                             | 3:20121221-5ubuntu2             | amd64 | Tool to send ICMP              |

|                                               |                           |       |       |                                                  |
|-----------------------------------------------|---------------------------|-------|-------|--------------------------------------------------|
| echo requests to an ARP address               |                           |       |       |                                                  |
| ii iputils-ping                               | 3:20121221-5ubuntu2       |       | amd64 | Tools to test the                                |
| reachability of network hosts                 |                           |       |       |                                                  |
| ii iputils-tracepath                          | 3:20121221-5ubuntu2       |       |       |                                                  |
| amd64                                         |                           |       |       | Tools to trace the network path to a remote host |
| ii irqbalance                                 | 1.1.0-2ubuntu1            |       | amd64 | Daemon to balance                                |
| interrupts for SMP systems                    |                           |       |       |                                                  |
| ii isc-dhcp-client                            | 4.3.3-5ubuntu12.6         |       | amd64 | DHCP client for                                  |
| automatically obtaining an IP address         |                           |       |       |                                                  |
| ii isc-dhcp-common                            | 4.3.3-5ubuntu12.6         |       | amd64 | common files used                                |
| by all of the isc-dhcp packages               |                           |       |       |                                                  |
| ii iso-codes                                  | 3.65-1                    |       | all   | ISO language, territory,                         |
| currency, script codes and their translations |                           |       |       |                                                  |
| ii iucode-tool                                | 1.5.1-1ubuntu0.1          |       | amd64 | Intel processor                                  |
| microcode tool                                |                           |       |       |                                                  |
| ii iw                                         | 3.17-1                    |       |       |                                                  |
|                                               |                           | amd64 |       | tool for configuring Linux wireless devices      |
| ii java-common                                | 0.56ubuntu2               |       | all   | Base package for Java                            |
| runtimes                                      |                           |       |       |                                                  |
| ii javahelp2                                  | 2.0.05.ds1-8              |       | all   | Java based help system                           |
| ii javascript-common                          | 11                        |       | all   | Base support for JavaScript                      |
| library packages                              |                           |       |       |                                                  |
| ii jayatana                                   | 2.7-0ubuntu5              |       | amd64 | Java Native Library for                          |
| ayatana project                               |                           |       |       |                                                  |
| ii jblas                                      | 1.2.3-6                   |       | amd64 | fast linear algebra library for                  |
| Java                                          |                           |       |       |                                                  |
| ii junit                                      | 3.8.2-8build1             |       |       |                                                  |
| all                                           |                           |       |       | Automated testing framework for Java             |
| ii junit4                                     | 4.12-4ubuntu1             |       | all   | JUnit regression test                            |
| framework for Java                            |                           |       |       |                                                  |
| ii kbd                                        | 1.15.5-1ubuntu5           |       | amd64 | Linux console font and                           |
| keytable utilities                            |                           |       |       |                                                  |
| ii kerneloops-daemon                          | 0.12+git20140509-2ubuntu1 |       | amd64 | kernel oops                                      |
| tracker                                       |                           |       |       |                                                  |
| ii keyboard-configuration                     | 1.108ubuntu15.2           |       | all   | system-wide                                      |
| keyboard preferences                          |                           |       |       |                                                  |
| ii keyutils                                   | 1.5.9-8ubuntu1            |       | amd64 | Linux Key Management                             |
| Utilities                                     |                           |       |       |                                                  |
| ii klibc-utils                                | 2.0.4-8ubuntu1.16.04.2    |       | amd64 | small utilities built                            |
| with klibc for early                          |                           |       |       |                                                  |
| boot                                          |                           |       |       |                                                  |
| ii kmod                                       | 22-1ubuntu4               |       | amd64 | tools for managing Linux                         |
| kernel modules                                |                           |       |       |                                                  |
| ii krb5-locales                               | 1.13.2+dfsg-5ubuntu1      |       | all   | Internationalization                             |
| support for MIT Kerberos                      |                           |       |       |                                                  |
| ii language-pack-en                           | 1:16.04+20161009          |       | all   | translation updates for                          |
| language English                              |                           |       |       |                                                  |
| ii language-pack-en-base                      | 1:16.04+20160627          |       | all   | translations for                                 |

|                                                                       |                                |       |     |                                                                     |
|-----------------------------------------------------------------------|--------------------------------|-------|-----|---------------------------------------------------------------------|
| language English                                                      |                                |       |     |                                                                     |
| ii language-pack-gnome-en                                             | 1:16.04+20161009               |       | all | GNOME                                                               |
| translation updates for language English                              |                                |       |     |                                                                     |
| ii language-pack-gnome-en-base                                        | 1:16.04+20160627               |       | all | GNOME                                                               |
| translations for language English                                     |                                |       |     |                                                                     |
| ii language-pack-gnome-it                                             | 1:16.04+20161009               | all   |     | GNOME translation updates for language                              |
| Italian                                                               |                                |       |     |                                                                     |
| ii language-pack-gnome-it-base                                        | 1:16.04+20160627               |       | all | GNOME                                                               |
| translations for language Italian                                     |                                |       |     |                                                                     |
| ii language-pack-it                                                   | 1:16.04+20161009               |       | all | translation updates for                                             |
| language Italian                                                      |                                |       |     |                                                                     |
| ii language-pack-it-base                                              | 1:16.04+20160627               |       | all | translations for                                                    |
| language Italian                                                      |                                |       |     |                                                                     |
| ii language-selector-common                                           | 0.165.4                        |       | all | Language selector for                                               |
| Ubuntu                                                                |                                |       |     |                                                                     |
| ii language-selector-gnome                                            | 0.165.4                        |       | all | Language selector for                                               |
| Ubuntu                                                                |                                |       |     |                                                                     |
| ii laptop-detect                                                      | 0.13.7ubuntu2                  | amd64 |     | attempt to detect a laptop                                          |
| ii less                                                               | 481-2.1ubuntu0.1               | amd64 |     | pager program similar to                                            |
| more                                                                  |                                |       |     |                                                                     |
| ii lib32z1                                                            | 1:1.2.8.dfsg-2ubuntu4          | amd64 |     | compression library -                                               |
| 32 bit runtime                                                        |                                |       |     |                                                                     |
| ii libally-profile-manager-0.1-0:amd64                                | 0.1.10-0ubuntu3                | amd64 |     |                                                                     |
| Accessibility profile manager - Shared library                        |                                |       |     |                                                                     |
| ii libally-profile-manager-data                                       | 0.1.10-0ubuntu3                |       | all | Accessibility                                                       |
| Profile Manager - GSettings data                                      |                                |       |     |                                                                     |
| ii liba52-0.7.4:amd64                                                 | 0.7.4-18                       | amd64 |     | library for decoding                                                |
| ATSC A/52 streams                                                     |                                |       |     |                                                                     |
| ii libaa1:amd64                                                       | 1.4p5-44build1                 | amd64 |     | ASCII art library                                                   |
| ii libaa1:i386                                                        | 1.4p5-44build1                 | i386  |     | ASCII art library                                                   |
| ii libaacs0:amd64                                                     | 0.8.1-1                        | amd64 |     | free-and-libre                                                      |
| implementation of AAC3                                                |                                |       |     |                                                                     |
| ii libabw-0.1-1v5:amd64                                               | 0.1.1-2ubuntu2                 | amd64 |     | library for reading                                                 |
| and writing AbiWord(tm) documents                                     |                                |       |     |                                                                     |
| ii libaccount-plugin-1.0-0:amd64                                      | 0.1.8+16.04.20160201-0ubuntu1  | amd64 |     |                                                                     |
| libaccount-plugin for Unity Control Center                            |                                |       |     |                                                                     |
| ii libaccount-plugin-generic-oauth                                    | 0.12+16.04.20160126-0ubuntu1   | amd64 |     |                                                                     |
| GNOME Control Center account plugin for single signon - generic OAuth |                                |       |     |                                                                     |
| ii libaccount-plugin-google                                           | 0.12+16.04.20160126-0ubuntu1   | amd64 |     | GNOME Control Center account plugin for single signon - Google Auth |
| ii libaccounts-glib0:amd64                                            | 1.21+16.04.20160222-0ubuntu1   | amd64 |     | library for                                                         |
| single signon                                                         |                                |       |     |                                                                     |
| ii libaccounts-qt5-1:amd64                                            | 1.14+16.04.20151106.1-0ubuntu1 | amd64 |     | QT                                                                  |
| library for single sign on                                            |                                |       |     |                                                                     |
| ii libaccountsservice0:amd64                                          | 0.6.40-2ubuntu11.3             | amd64 |     | query and                                                           |

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| manipulate user account information - shared libraries |                                    |       |                                                                   |  |
| ii libacl1:amd64                                       | 2.2.52-3                           | amd64 | Access control list shared library                                |  |
| ii libalgorithm-diff-perl                              | 1.19.03-1                          | all   | module to find differences between files                          |  |
| ii libalgorithm-diff-xs-perl                           | 0.04-4build1                       | amd64 | module to find differences between files (XS accelerated)         |  |
| ii libalgorithm-merge-perl                             | 0.08-3                             | all   | Perl module for three-way merge of textual data                   |  |
| ii libandroid-properties1                              | 0.1.0+git20151016+6d424c9-0ubuntu7 | amd64 | Library to provide access to get, set and list Android properties |  |
| ii libao-common                                        | 1.1.0-3ubuntu1                     | all   | Cross Platform Audio Output Library (Common files)                |  |
| ii libao4:amd64                                        | 1.1.0-3ubuntu1                     | amd64 | Cross Platform Audio Output Library                               |  |
| ii libaopalliance-java                                 | 20070526-5                         | all   | library for interoperability for Java AOP implementations         |  |
| ii libapache-pom-java                                  | 10-2build1                         | all   | Maven metadata for all Apache Software projects                   |  |
| ii libapparmor-perl                                    | 2.10.95-0ubuntu2.5                 | amd64 | AppArmor library Perl bindings                                    |  |
| ii libapparmor1:amd64                                  | 2.10.95-0ubuntu2.5                 | amd64 | AppArmor library changehat                                        |  |
| ii libappindicator1                                    | 12.10.1+15.04.20141110-0ubuntu1    | amd64 | Application Indicators                                            |  |
| ii libappindicator3-1                                  | 12.10.1+15.04.20141110-0ubuntu1    | amd64 | Application Indicators                                            |  |
| ii libappstream-glib8:amd64                            | 0.5.13-1ubuntu4                    | amd64 | GNOME library to access AppStream services                        |  |
| ii libappstream3:amd64                                 | 0.9.4-1ubuntu2                     | amd64 | Library to access AppStream services                              |  |
| ii libapt-inst2.0:amd64                                | 1.2.18                             | amd64 | deb package format runtime library                                |  |
| ii libapt-pkg-perl                                     | 0.1.29build7                       | amd64 | Perl interface to libapt-pkg                                      |  |
| ii libapt-pkg5.0:amd64                                 | 1.2.18                             | amd64 | package management runtime library                                |  |
| ii libarchive-zip-perl                                 | 1.56-2                             | all   | Perl module for manipulation of ZIP archives                      |  |
| ii libarchive13:amd64                                  | 3.1.2-11ubuntu0.16.04.2            | amd64 | Multi-format archive and compression library (shared library)     |  |
| ii libart-2.0-2:amd64                                  | 2.3.21-2                           | amd64 | Library of functions for 2D graphics - runtime files              |  |
| ii libasan1:amd64                                      | 4.9.3-13ubuntu2                    | amd64 | AddressSanitizer -- a fast memory error detector                  |  |
| ii libasan2:amd64                                      | 5.4.0-6ubuntu1~16.04.4             | amd64 | AddressSanitizer - a fast memory error detector                   |  |
| ii libasm4-java                                        | 5.0.4-1                            | all   | Java bytecode manipulation                                        |  |

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| framework                                                                     |                               |       |                                                     |  |
| ii libasn1-8-heimdal:amd64<br>Kerberos - ASN.1 library                        | 1.7~git20150920+dfsg-4ubuntu1 | amd64 | Heimdal                                             |  |
| ii libasound2:amd64<br>ALSA applications                                      | 1.1.0-0ubuntu1                | amd64 | shared library for                                  |  |
| ii libasound2:i386<br>ALSA applications                                       | 1.1.0-0ubuntu1                | i386  | shared library for                                  |  |
| ii libasound2-data<br>profiles for ALSA drivers                               | 1.1.0-0ubuntu1                | all   | Configuration files and                             |  |
| ii libasound2-plugins:amd64<br>additional plugins                             | 1.1.0-0ubuntu1                | amd64 | ALSA library                                        |  |
| ii libasound2-plugins:i386<br>additional plugins                              | 1.1.0-0ubuntu1                | i386  | ALSA library                                        |  |
| ii libaspell15:amd64<br>spell-checker runtime library                         | 0.60.7~20110707-3build1       | amd64 | GNU Aspell                                          |  |
| ii libaspell15:i386<br>checker runtime library                                | 0.60.7~20110707-3build1       | i386  | GNU Aspell spell-                                   |  |
| ii libasprintf-dev:amd64<br>Internationalization library development<br>files | 0.19.7-2ubuntu3               | amd64 | GNU                                                 |  |
| ii libasprintf0v5:amd64<br>fprintf and friends in C++                         | 0.19.7-2ubuntu3               | amd64 | GNU library to use                                  |  |
| ii libass5:amd64<br>subtitles rendering                                       | 0.13.1-1                      | amd64 | library for SSA/ASS                                 |  |
| ii libassuan0:amd64<br>GnuPG components                                       | 2.4.2-2                       | amd64 | IPC library for the                                 |  |
| ii libasyncns0:amd64<br>service query library                                 | 0.8-5build1                   | amd64 | Asynchronous name                                   |  |
| ii libasyncns0:i386<br>service query library                                  | 0.8-5build1                   | i386  | Asynchronous name                                   |  |
| ii libatasmart4:amd64<br>reading and parsing library                          | 0.19-3                        | amd64 | ATA S.M.A.R.T.                                      |  |
| ii libatinject-jsr330-api-java<br>1.0+ds1-2                                   | all                           |       | Java API for JSR-330 Dependency Injection           |  |
| ii libatk-adaptor:amd64<br>bridge                                             | 2.18.1-2ubuntu1               | amd64 | AT-SPI 2 toolkit                                    |  |
| ii libatk-bridge2.0-0:amd64<br>bridge - shared library                        | 2.18.1-2ubuntu1               | amd64 | AT-SPI 2 toolkit                                    |  |
| ii libatk1.0-0:amd64<br>toolkit                                               | 2.18.0-1                      | amd64 | ATK accessibility                                   |  |
| ii libatk1.0-0:i386                                                           | 2.18.0-1                      | i386  | ATK accessibility toolkit                           |  |
| ii libatk1.0-data<br>accessibility toolkit                                    | 2.18.0-1                      | all   | Common files for the ATK                            |  |
| ii libatk1.0-dev<br>amd64                                                     | 2.18.0-1                      |       | Development files for the ATK accessibility toolkit |  |
| ii libatkmm-1.6-1v5:amd64<br>ATK accessibility toolkit (shared libraries)     | 2.24.2-1                      | amd64 | C++ wrappers for                                    |  |
| ii libatlas-base-dev                                                          | 3.10.2-9                      | amd64 | Automatically Tuned                                 |  |

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| Linear Algebra Software, generic static                             |                           |       |                            |  |
| ii libatlas-dev                                                     | 3.10.2-9                  | amd64 | Automatically Tuned Linear |  |
| Algebra Software, C header files                                    |                           |       |                            |  |
| ii libatlas3-base                                                   | 3.10.2-9                  | amd64 | Automatically Tuned        |  |
| Linear Algebra Software, generic shared                             |                           |       |                            |  |
| ii libatml:amd64                                                    | 1:2.5.1-1.5               | amd64 | shared library for ATM     |  |
| (Asynchronous<br>Transfer Mode)                                     |                           |       |                            |  |
| ii libatomic1:amd64                                                 | 5.4.0-6ubuntu1~16.04.4    | amd64 | support library            |  |
| providing __atomic built-in functions                               |                           |       |                            |  |
| ii libatspi2.0-0:amd64                                              | 2.18.3-4ubuntu1           | amd64 | Assistive                  |  |
| Technology Service Provider Interface - shared library              |                           |       |                            |  |
| ii libattr1:amd64                                                   | 1:2.4.47-2                | amd64 | Extended attribute shared  |  |
| library                                                             |                           |       |                            |  |
| ii libaudio2:amd64                                                  | 1.9.4-4                   | amd64 | Network Audio System -     |  |
| shared libraries                                                    |                           |       |                            |  |
| ii libaudio2:i386                                                   | 1.9.4-4                   | i386  | Network Audio System -     |  |
| shared libraries                                                    |                           |       |                            |  |
| ii libaudit-common                                                  | 1:2.4.5-1ubuntu2          | all   | Dynamic library            |  |
| for security auditing - common files                                |                           |       |                            |  |
| ii libaudit1:amd64                                                  | 1:2.4.5-1ubuntu2          | amd64 | Dynamic library for        |  |
| security auditing                                                   |                           |       |                            |  |
| ii libauthen-sasl-perl                                              | 2.1600-1                  | all   | Authen::SASL - SASL        |  |
| Authentication framework                                            |                           |       |                            |  |
| ii libavahi-client3:amd64                                           | 0.6.32~rc+dfsg-1ubuntu2   | amd64 | Avahi client               |  |
| library                                                             |                           |       |                            |  |
| ii libavahi-client3:i386                                            | 0.6.32~rc+dfsg-1ubuntu2   | i386  | Avahi client               |  |
| library                                                             |                           |       |                            |  |
| ii libavahi-common-data:amd64                                       | 0.6.32~rc+dfsg-1ubuntu2   | amd64 | Avahi                      |  |
| common data files                                                   |                           |       |                            |  |
| ii libavahi-common-data:i386                                        | 0.6.32~rc+dfsg-1ubuntu2   | i386  | Avahi                      |  |
| common data files                                                   |                           |       |                            |  |
| ii libavahi-common3:amd64                                           | 0.6.32~rc+dfsg-1ubuntu2   | amd64 | Avahi common library       |  |
| library                                                             |                           |       |                            |  |
| ii libavahi-common3:i386                                            | 0.6.32~rc+dfsg-1ubuntu2   | i386  | Avahi common               |  |
| library                                                             |                           |       |                            |  |
| ii libavahi-core7:amd64                                             | 0.6.32~rc+dfsg-1ubuntu2   | amd64 | Avahi's                    |  |
| embeddable mDNS/DNS-SD library                                      |                           |       |                            |  |
| ii libavahi-glib1:amd64                                             | 0.6.32~rc+dfsg-1ubuntu2   | amd64 | Avahi GLib                 |  |
| integration library                                                 |                           |       |                            |  |
| ii libavahi-ui-gtk3-0:amd64                                         | 0.6.32~rc+dfsg-1ubuntu2   | amd64 | Avahi GTK+                 |  |
| User interface library for GTK3                                     |                           |       |                            |  |
| ii libavc1394-0:amd64                                               | 0.5.4-4                   | amd64 | control IEEE 1394          |  |
| audio/video devices                                                 |                           |       |                            |  |
| ii libavc1394-0:i386                                                | 0.5.4-4                   | i386  |                            |  |
| control IEEE 1394 audio/video devices                               |                           |       |                            |  |
| ii libavcodec-dev:amd64                                             | 7:2.8.10-0ubuntu0.16.04.1 | amd64 | FFmpeg                     |  |
| library with de/encoders for audio/video codecs - development files |                           |       |                            |  |



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| ii libavcodec-ffmpeg56:amd64                                          | 7:2.8.10-0ubuntu0.16.04.1                                      | amd64 | FFmpeg                  |
| library with de/encoders for audio/video codecs - runtime files       |                                                                |       |                         |
| ii libavfilter-ffmpeg5:amd64                                          | 7:2.8.10-0ubuntu0.16.04.1                                      | amd64 | FFmpeg                  |
| library containing media filters - runtime files                      |                                                                |       |                         |
| ii libavformat-dev:amd64                                              | 7:2.8.10-0ubuntu0.16.04.1                                      | amd64 | FFmpeg                  |
| library with (de)muxers for multimedia containers - development files |                                                                |       |                         |
| ii libavformat-ffmpeg56:amd64                                         | 7:2.8.10-0ubuntu0.16.04.1                                      | amd64 | FFmpeg                  |
| library with (de)muxers for multimedia containers - runtime files     |                                                                |       |                         |
| ii libavresample-ffmpeg2:amd64                                        | 7:2.8.10-0ubuntu0.16.04.1                                      | amd64 | FFmpeg                  |
| compatibility library for resampling - runtime files                  |                                                                |       |                         |
| ii libavutil-dev:amd64                                                | 7:2.8.10-0ubuntu0.16.04.1                                      | amd64 | FFmpeg library          |
| with functions for simplifying programming - development files        |                                                                |       |                         |
| ii libavutil-ffmpeg54:amd64                                           | 7:2.8.10-0ubuntu0.16.04.1                                      | amd64 | FFmpeg                  |
| library with functions for simplifying programming - runtime files    |                                                                |       |                         |
| ii libbabeltrace-ctf1:amd64                                           | 1.3.2-1                                                        | amd64 | Common Trace            |
| Format (CTF) library                                                  |                                                                |       |                         |
| ii libbabeltrace1:amd64                                               | 1.3.2-1                                                        | amd64 | Babeltrace conversion   |
| libraries                                                             |                                                                |       |                         |
| ii libbambf3-2:amd64                                                  | 0.5.3~bzz0+16.04.20160824-0ubuntu1                             |       |                         |
| amd64                                                                 | Window matching library - shared library                       |       |                         |
| ii libbdplus0:amd64                                                   | 0.1.2-1                                                        | amd64 | implementation of BD+   |
| for reading Blu-ray Discs                                             |                                                                |       |                         |
| ii libbind9-140:amd64                                                 | 1:9.10.3.dfsg.P4-8ubuntu1.4                                    | amd64 | BIND9 Shared            |
| Library used by BIND                                                  |                                                                |       |                         |
| ii libbison-dev:amd64                                                 | 2:3.0.4.dfsg-1                                                 | amd64 | YACC-compatible         |
| parser generator - development library                                |                                                                |       |                         |
| ii libblas-common                                                     | 3.6.0-2ubuntu2                                                 | amd64 | Dependency package      |
| for all BLAS implementations                                          |                                                                |       |                         |
| ii libblas-dev                                                        | 3.6.0-2ubuntu2                                                 | amd64 | Basic Linear Algebra    |
| Subroutines 3, static library                                         |                                                                |       |                         |
| ii libblas3                                                           | 3.6.0-2ubuntu2                                                 |       |                         |
| amd64                                                                 | Basic Linear Algebra Reference implementations, shared library |       |                         |
| ii libblkid1:amd64                                                    | 2.27.1-6ubuntu3.2                                              | amd64 | block device ID         |
| library                                                               |                                                                |       |                         |
| ii libbluetooth3:amd64                                                | 5.37-0ubuntu5                                                  | amd64 | Library to use the      |
| BlueZ Linux Bluetooth stack                                           |                                                                |       |                         |
| ii libbluray1:amd64                                                   | 1:0.9.2-2                                                      | amd64 | Blu-ray disc playback   |
| support library (shared library)                                      |                                                                |       |                         |
| ii libboost-date-time1.58.0:amd64                                     | 1.58.0+dfsg-5ubuntu3.1                                         | amd64 | set of date-            |
| time libraries based on generic programming concepts                  |                                                                |       |                         |
| ii libboost-filesystem1.58.0:amd64                                    | 1.58.0+dfsg-5ubuntu3.1                                         | amd64 | filesystem              |
| operations (portable paths, iteration over directories, etc) in C++   |                                                                |       |                         |
| ii libboost-iostreams1.58.0:amd64                                     |                                                                |       |                         |
|                                                                       | 1.58.0+dfsg-5ubuntu3.1                                         | amd64 | Boost.Iostreams Library |
| ii libboost-system1.58.0:amd64                                        | 1.58.0+dfsg-5ubuntu3.1                                         | amd64 | Operating               |
| system (e.g. diagnostics support) library                             |                                                                |       |                         |
| ii libbrlapi0.6:amd64                                                 | 5.3.1-2ubuntu2.1                                               | amd64 | braille display access  |

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| via BRLTTY - shared library               |                            |       |                                           |  |
| ii libbs2b0:amd64                         | 3.1.0+dfsg-2.2             | amd64 | Bauer stereophonic-to-                    |  |
| binaural DSP library                      |                            |       |                                           |  |
| ii libbsd0:amd64                          | 0.8.2-1                    | amd64 | utility functions from                    |  |
| BSD systems - shared library              |                            |       |                                           |  |
| ii libbsd0:i386                           | 0.8.2-1                    | i386  | utility functions from BSD                |  |
| systems - shared library                  |                            |       |                                           |  |
| ii                                        |                            |       |                                           |  |
| libbsh-java                               | 2.0b4-17ubuntu1            | all   | Java scripting environment                |  |
| (BeanShell) Version 2 (library)           |                            |       |                                           |  |
| ii libbz2-1.0:amd64                       | 1.0.6-8                    | amd64 | high-quality block-                       |  |
| sorting file compressor library - runtime |                            |       |                                           |  |
| ii libbz2-1.0:i386                        | 1.0.6-8                    | i386  | high-quality block-sorting                |  |
| file compressor library - runtime         |                            |       |                                           |  |
| ii libc-bin                               | 2.23-0ubuntu5              | amd64 | GNU C Library: Binaries                   |  |
| ii libc-dev-bin                           | 2.23-0ubuntu5              | amd64 | GNU C Library:                            |  |
| Development binaries                      |                            |       |                                           |  |
| ii libc6:amd64                            | 2.23-0ubuntu5              | amd64 | GNU C Library: Shared                     |  |
| libraries                                 |                            |       |                                           |  |
| ii libc6:i386                             | 2.23-0ubuntu5              | i386  | GNU C Library: Shared                     |  |
| libraries                                 |                            |       |                                           |  |
| ii libc6-dbg:amd64                        | 2.23-0ubuntu5              | amd64 | GNU C Library:                            |  |
| detached debugging symbols                |                            |       |                                           |  |
| ii libc6-dev:amd64                        | 2.23-0ubuntu5              | amd64 | GNU C Library:                            |  |
| Development Libraries and Header Files    |                            |       |                                           |  |
| ii libc6-i386                             | 2.23-0ubuntu5              | amd64 | GNU C Library: 32-bit                     |  |
| shared libraries for AMD64                |                            |       |                                           |  |
| ii libcac0:amd64                          | 0.99.beta19-2build2~gcc5.2 | amd64 | colour ASCII art                          |  |
| library                                   |                            |       |                                           |  |
| ii libcac0:i386                           | 0.99.beta19-2build2~gcc5.2 | i386  | colour ASCII art                          |  |
| library                                   |                            |       |                                           |  |
| ii libcairo-gobject2:amd64                | 1.14.6-1                   | amd64 | Cairo 2D vector graphics library (GObject |  |
| library)                                  |                            |       |                                           |  |
| ii libcairo-gobject2:i386                 | 1.14.6-1                   | i386  | Cairo 2D vector graphics                  |  |
| library (GObject library)                 |                            |       |                                           |  |
| ii libcairo-script-interpreter2:amd64     | 1.14.6-1                   | amd64 | Cairo 2D vector                           |  |
| graphics library (script interpreter)     |                            |       |                                           |  |
| ii libcairo2:amd64                        | 1.14.6-1                   | amd64 | Cairo 2D vector graphics                  |  |
| library                                   |                            |       |                                           |  |
| ii libcairo2:i386                         | 1.14.6-1                   | i386  | Cairo 2D vector graphics                  |  |
| library                                   |                            |       |                                           |  |
| ii libcairo2-dev                          | 1.14.6-1                   | amd64 | Development files for the                 |  |
| Cairo 2D graphics library                 |                            |       |                                           |  |
| ii libcaiomm-1.0-1v5:amd64                | 1.12.0-1                   | amd64 | C++ wrappers for Cairo (shared libraries) |  |
|                                           |                            |       |                                           |  |
| ii libcamel-1.2-54:amd64                  | 3.18.5-1ubuntu1            | amd64 | Evolution MIME                            |  |
| message handling library                  |                            |       |                                           |  |

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| ii libcanberra-gtk-module:amd64<br>GTK+ widgets signals to event sounds         | 0.30-2.1ubuntu1        | amd64 | translates                  |
| ii libcanberra-gtk0:amd64<br>playing widget event sounds with libcanberra       | 0.30-2.1ubuntu1        | amd64 | GTK+ helper for             |
| ii libcanberra-gtk3-0:amd64<br>for playing widget event sounds with libcanberra | 0.30-2.1ubuntu1        | amd64 | GTK+ 3.0 helper             |
| ii libcanberra-gtk3-module:amd64<br>GTK3<br>widgets signals to event sounds     | 0.30-2.1ubuntu1        | amd64 | translates                  |
| ii libcanberra-pulse:amd64<br>backend for libcanberra                           | 0.30-2.1ubuntu1        | amd64 | PulseAudio                  |
| ii libcanberra0:amd64<br>interface for playing event sounds                     | 0.30-2.1ubuntu1        | amd64 | simple abstract             |
| ii libcap-ng0:amd64<br>capabilities library                                     | 0.7.7-1                | amd64 | An alternate POSIX          |
| ii libcap2:amd64<br>capabilities (library)                                      | 1:2.24-12              | amd64 | POSIX 1003.1e               |
| ii libcap2:i386<br>(library)                                                    | 1:2.24-12              | i386  | POSIX 1003.1e capabilities  |
| ii libcap2-bin<br>capabilities (utilities)                                      | 1:2.24-12              | amd64 | POSIX 1003.1e               |
| ii<br>libcc1-0:amd64<br>GDB                                                     | 5.4.0-6ubuntu1~16.04.4 | amd64 | GCC cc1 plugin for          |
| ii libcdi-api-java<br>Injection for Java EE                                     | 1.0-2                  | all   | Contexts and Dependency     |
| ii libcdio-cdda1:amd64<br>control digital audio CDs                             | 0.83-4.2ubuntu1        | amd64 | library to read and         |
| ii libcdio-paranoia1:amd64<br>digital audio CDs with error correction           | 0.83-4.2ubuntu1        | amd64 | library to read             |
| ii libcdio13:amd64<br>control CD-ROM                                            | 0.83-4.2ubuntu1        | amd64 | library to read and         |
| ii libcdparanoia0:amd64<br>tool for sampling CDs (library)                      | 3.10.2+debian-11       | amd64 | audio extraction            |
| ii<br>libcdparanoia0:i386<br>for sampling CDs (library)                         | 3.10.2+debian-11       | i386  | audio extraction tool       |
| ii libcdr-0.1-1:amd64<br>and converting Corel DRAW files                        | 0.1.2-2ubuntu2         | amd64 | library for reading         |
| ii libcdt5<br>tools - cdt library                                               | 2.38.0-12ubuntu2.1     | amd64 | rich set of graph drawing   |
| ii libcgi-fast-perl<br>FCGI                                                     | 1:2.10-1               | all   | CGI subclass for work with  |
| ii libcgi-pm-perl<br>Interface applications                                     | 4.26-1                 | all   | module for Common Gateway   |
| ii libcglib3-java<br>Java                                                       | 3.1+dfsg-1             | all   | code generation library for |
| ii                                                                              |                        |       |                             |

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|-------------------------------------------------------------------------------------|------------------------|-------|------------------------------|
| libcgmanager0:amd64<br>manager daemon (client library)                              | 0.39-2ubuntu5          | amd64 | Central cgroup               |
| ii libcggraph6<br>drawing tools - cgraph library                                    | 2.38.0-12ubuntu2.1     | amd64 | rich set of graph            |
| ii libcheese-gtk25:amd64<br>pictures and videos from your webcam - widgets          | 3.18.1-2ubuntu3        | amd64 | tool to take                 |
| ii libcheese8:amd64<br>and videos from your webcam - base library                   | 3.18.1-2ubuntu3        | amd64 | tool to take pictures        |
| ii libchromaprint0:amd64<br>library                                                 | 1.3-1                  | amd64 | audio fingerprint            |
| ii libcilkrt5:amd64<br>language extensions (runtime)                                | 5.4.0-6ubuntu1~16.04.4 | amd64 | Intel Cilk Plus              |
| ii libclang-common-3.8-dev<br>Common development package                            | 1:3.8-2ubuntu4         | amd64 | clang library -              |
| ii libclang1-3.8:amd64<br>clang library                                             | 1:3.8-2ubuntu4         | amd64 | C interface to the           |
| ii libclass-accessor-perl<br>automatically generates accessors                      | 0.34-1                 | all   | Perl module that             |
| ii libclassworlds-java<br>developers requiring manipulation of ClassLoaders         | 1.1-final-5            | all   | framework for container      |
| ii libclone-perl<br>copying Perl datatypes                                          | 0.38-1build1           | amd64 | module for recursively       |
| ii libclucene-contribs1v5:amd64<br>amd64 language specific text analyzers (runtime) | 2.3.3.4-4.1            |       |                              |
| ii libclucene-core1v5:amd64<br>featured text search engine (runtime)                | 2.3.3.4-4.1            | amd64 | core library for full-       |
| ii libclutter-1.0-0:amd64<br>interactive canvas library                             | 1.24.2-1               | amd64 | Open GL based                |
| ii libclutter-1.0-common<br>interactive canvas library (common files)               | 1.24.2-1               | all   | Open GL based                |
| ii libclutter-gst-3.0-0:amd64<br>interactive canvas library GStreamer elements      | 3.0.18-1               | amd64 | Open GL based                |
| ii libclutter-gtk-1.0-0:amd64<br>interactive canvas library GTK+ widget             | 1.6.6-1                | amd64 | Open GL based                |
| ii libcmis-0.5-5v5:amd64<br>0.5.1-2ubuntu2                                          | amd64                  |       | CMIS protocol client library |
| ii libcogl-common<br>Abstraction/Utility Layer (common files)                       | 1.22.0-2               | all   | Object oriented GL/GLES      |
| ii libcogl-pango20:amd64<br>GL/GLES Abstraction/Utility Layer                       | 1.22.0-2               | amd64 | Object oriented              |
| ii libcogl-path20:amd64<br>GL/GLES Abstraction/Utility Layer                        | 1.22.0-2               | amd64 | Object oriented              |
| ii libcogl20:amd64<br>GL/GLES Abstraction/Utility Layer                             | 1.22.0-2               | amd64 | Object oriented              |
| ii libcolamd2.9.1:amd64<br>minimum degree ordering library for sparse matrices      | 1:4.4.6-1              | amd64 | column approximate           |
| ii                                                                                  |                        |       |                              |

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|-------------------------------------------------------------------------------------|------------------------------------|-------|-------------------------------------------|
| libcolor2:amd64<br>manage device colour profiles -- runtime                         | 1.2.12-1ubuntu1                    | amd64 | system service to                         |
| ii libcolorhug2:amd64<br>ColorHug colourimeter -- runtime                           | 1.2.12-1ubuntu1                    | amd64 | library to access the                     |
| ii libcolumbus1-common<br>matching engine - common files                            | 1.1.0+15.10.20150806-0ubuntu4      | all   | error tolerant                            |
| ii libcolumbus1v5:amd64<br>tolerant matching engine - shared library                | 1.1.0+15.10.20150806-0ubuntu4      | amd64 | error                                     |
| ii libcomerr2:amd64<br>description library                                          | 1.42.13-1ubuntu1                   | amd64 | common error                              |
| ii libcomerr2:i386<br>description<br>library                                        | 1.42.13-1ubuntu1                   | i386  | common error                              |
| ii libcommons-cli-java<br>arguments and options parsing library                     | 1.3.1-3ubuntu1                     | all   | Command line                              |
| ii libcommons-codec-java<br>such as Base64 and hexadecimal codec                    | 1.10-1                             | all   | encoder and decoders                      |
| ii libcommons-collections3-java<br>Collections - Extended Collections API for Java  | 3.2.2-1                            | all   | Apache Commons                            |
| ii libcommons-httpclient-java<br>Java library for creating HTTP clients             | 3.1-12                             | all   | Commons HTTPClient -                      |
| ii libcommons-io-java<br>classes                                                    | 2.4-2                              | all   | Common useful IO related                  |
| ii libcommons-lang-java<br>all Commons Lang - an extension of the java.lang package | 2.6-6ubuntu2                       |       |                                           |
| ii libcommons-lang3-java<br>package (for Java 5+)                                   | 3.4-1                              | all   | Extension of the java.lang                |
| ii libcommons-logging-java<br>interface for several logging APIs                    | 1.2-1+build1                       | all   | common wrapper                            |
| ii libcommons-math-java<br>mathematics and statistics components                    | 2.2-5                              | all   | Java lightweight                          |
| ii libcommons-net-java<br>- Java client API for basic Internet protocols            | 3.4-2ubuntu2                       | all   | Apache Commons Net                        |
| ii libcommons-net2-java<br>library                                                  | 2.2-2                              | all   | internet protocol suite Java              |
| ii libcommons-parent-java<br>39-3                                                   |                                    | all   | Maven metadata for Apache Commons project |
| ii libcompizconfig0:amd64<br>library for plugins - OpenCompositing Project          | 1:0.9.12.2+16.04.20160823-0ubuntu1 | amd64 | Settings                                  |
| ii libcrack2:amd64<br>checker library                                               | 2.9.2-1build2                      | amd64 | pro-active password                       |
| ii libcroco3:amd64<br>(CSS) parsing and manipulation toolkit                        | 0.6.11-1                           | amd64 | Cascading Style Sheet                     |
| ii libcryptsetup4:amd64<br>support - shared library                                 | 2:1.6.6-5ubuntu2                   | amd64 | disk encryption                           |
| ii libcrystalhd3:amd64<br>Video Decoder (shared library)                            | 1:0.0~git20110715.fdd2f19-11build1 | amd64 | Crystal HD                                |
| ii libcups2:amd64                                                                   |                                    |       |                                           |

|    |                          |                                 |                                                |       |                                                                  |
|----|--------------------------|---------------------------------|------------------------------------------------|-------|------------------------------------------------------------------|
|    | 2.1.3-4                  | amd64                           | Common UNIX Printing System(tm) - Core library |       |                                                                  |
| ii | libcups2:i386            | 2.1.3-4                         |                                                | i386  | Common UNIX Printing System(tm) - Core library                   |
| ii | libcups2-dev:amd64       | 2.1.3-4                         |                                                | amd64 | Common UNIX Printing System(tm) - Development files CUPS library |
| ii | libcups2:i386            | 2.1.3-4                         |                                                | i386  | Common UNIX Printing System(tm) - CGI library                    |
| ii | libcups2-dev:amd64       | 2.1.3-4                         |                                                | amd64 | Common UNIX Printing System(tm) - CGI library                    |
| ii | libcupsfilters1:amd64    | 1.8.3-2ubuntu3.1                |                                                | amd64 | OpenPrinting CUPS Filters - Shared library                       |
| ii | libcupsimage2:amd64      | 2.1.3-4                         |                                                | amd64 | Common UNIX Printing System(tm) - Raster image library           |
| ii | libcupsmime1:amd64       | 2.1.3-4                         | amd64                                          |       | Common UNIX Printing System(tm) - MIME library                   |
| ii | libcupsppdc1:amd64       | 2.1.3-4                         |                                                | amd64 | Common UNIX Printing System(tm) - PPD manipulation library       |
| ii | libcurl3:amd64           | 7.47.0-1ubuntu2.2               |                                                | amd64 | easy-to-use client-side URL transfer library (OpenSSL flavour)   |
| ii | libcurl3-gnutls:amd64    | 7.47.0-1ubuntu2.2               |                                                | amd64 | easy-to-use client-side URL transfer library (GnuTLS flavour)    |
| ii | libcv-dev:amd64          | 2.4.9.1+dfsg-1.5ubuntu1         |                                                | amd64 | Translation package for libcv-dev                                |
| ii | libcvaux-dev:amd64       | 2.4.9.1+dfsg-1.5ubuntu1         |                                                | amd64 | Translation package for libcvaux-dev                             |
| ii | libdaemon0:amd64         | 0.14-6                          |                                                | amd64 | lightweight C library for daemons - runtime library              |
| ii | libdata-alias-perl       | 1.20-1build1                    |                                                | amd64 | module to create aliases instead of copies                       |
| ii | libdatrie1:amd64         | 0.2.10-2                        |                                                | amd64 | Double-array trie library                                        |
| ii | libdatrie1:i386          | 0.2.10-2                        |                                                | i386  | Double-array trie library                                        |
| ii | libdb5.3:amd64           | 5.3.28-11                       |                                                | amd64 | Berkeley v5.3 Database Libraries [runtime]                       |
| ii | libdbus-1-3:amd64        | 1.10.6-1ubuntu3.3               |                                                | amd64 | simple interprocess messaging system (library)                   |
| ii | libdbus-1-3:i386         | 1.10.6-1ubuntu3.3               |                                                | i386  | simple interprocess messaging system (library)                   |
| ii | libdbus-glib-1-2:amd64   | 0.106-1                         |                                                | amd64 | simple interprocess messaging system (GLib-based shared library) |
| ii | libdbus-glib-1-2:i386    | 0.106-1                         |                                                | i386  | simple interprocess messaging system (GLib-based shared library) |
| ii | libdbusmenu-glib4:amd64  | 16.04.1+16.04.20160927-0ubuntu1 |                                                | amd64 | library for passing menus over Dbus                              |
| ii | libdbusmenu-gtk3-4:amd64 | 16.04.1+16.04.20160927-0ubuntu1 |                                                | amd64 | library for passing menus over Dbus - GTK+ version               |
| ii | libdbusmenu-gtk4:amd64   | 16.04.1+16.04.20160927-0ubuntu1 |                                                | amd64 | library for passing menus over Dbus - GTK+ version               |
| ii | libdbusmenu-qt2:amd64    | 0.9.3+16.04.20160218-0ubuntu1   |                                                | amd64 | Qt                                                               |

|                                                                   |                                    |       |       |                                                     |
|-------------------------------------------------------------------|------------------------------------|-------|-------|-----------------------------------------------------|
| implementation of the DBusMenu protocol                           |                                    |       |       |                                                     |
| ii libdbusmenu-qt2:i386                                           | 0.9.3+16.04.20160218-0ubuntu1      |       | i386  | Qt                                                  |
| implementation of the DBusMenu protocol                           |                                    |       |       |                                                     |
| ii libdbusmenu-qt5:amd64                                          | 0.9.3+16.04.20160218-0ubuntu1      |       | amd64 | Qt5                                                 |
| implementation of the DBusMenu protocol                           |                                    |       |       |                                                     |
| ii libdc1394-22:amd64                                             | 2.2.4-1                            |       | amd64 | high level                                          |
| programming interface for IEEE 1394 digital cameras               |                                    |       |       |                                                     |
| ii libdc1394-22-dev:amd64                                         | 2.2.4-1                            |       | amd64 | high level                                          |
| programming interface for IEEE 1394 digital cameras - development |                                    |       |       |                                                     |
| ii libdca0:amd64                                                  |                                    |       |       |                                                     |
| 0.0.5-7build1                                                     |                                    | amd64 |       | decoding library for DTS Coherent Acoustics streams |
| ii libdconf1:amd64                                                | 0.24.0-2                           |       | amd64 | simple configuration                                |
| storage system - runtime library                                  |                                    |       |       |                                                     |
| ii libdconf1:i386                                                 | 0.24.0-2                           |       | i386  | simple configuration storage                        |
| system - runtime library                                          |                                    |       |       |                                                     |
| ii libde265-0:amd64                                               | 1.0.2-2                            |       | amd64 | Open H.265 video codec                              |
| implementation                                                    |                                    |       |       |                                                     |
| ii libdebconfclient0:amd64                                        | 0.198ubuntu1                       |       | amd64 | Debian                                              |
| Configuration Management System (C-implementation library)        |                                    |       |       |                                                     |
| ii libdecoration0:amd64                                           | 1:0.9.12.2+16.04.20160823-0ubuntu1 |       | amd64 | Compiz                                              |
| window decoration library                                         |                                    |       |       |                                                     |
| ii libdee-1.0-4:amd64                                             |                                    |       |       |                                                     |
| 1.2.7+15.04.20150304-0ubuntu2                                     |                                    | amd64 |       | model to synchronize multiple                       |
| instances over DBus - shared lib                                  |                                    |       |       |                                                     |
| ii libdevmapper1.02.1:amd64                                       | 2:1.02.110-1ubuntu10               |       | amd64 | Linux Kernel                                        |
| Device Mapper userspace library                                   |                                    |       |       |                                                     |
| ii libdfu1:amd64                                                  | 0.7.0-0ubuntu4.3                   |       | amd64 | Firmware update                                     |
| daemon library for DFU support                                    |                                    |       |       |                                                     |
| ii libdigest-hmac-perl                                            | 1.03+dfsg-1                        |       | all   | module for creating                                 |
| standard message integrity checks                                 |                                    |       |       |                                                     |
| ii libdjvulibre-text                                              | 3.5.27.1-5                         |       | all   | Linguistic support files for                        |
| libdjvulibre                                                      |                                    |       |       |                                                     |
| ii libdjvulibre21:amd64                                           | 3.5.27.1-5                         |       | amd64 | Runtime support for                                 |
| the DjVu                                                          |                                    |       |       |                                                     |
| image format                                                      |                                    |       |       |                                                     |
| ii libdmapsharing-3.0-2:amd64                                     | 2.9.34-1                           |       | amd64 | DMAP client and                                     |
| server library - runtime                                          |                                    |       |       |                                                     |
| ii libdns-export162                                               | 1:9.10.3.dfsg.P4-8ubuntu1.4        |       | amd64 | Exported DNS                                        |
| Shared Library                                                    |                                    |       |       |                                                     |
| ii libdns162:amd64                                                | 1:9.10.3.dfsg.P4-8ubuntu1.4        |       | amd64 | DNS Shared                                          |
| Library used by BIND                                              |                                    |       |       |                                                     |
| ii libdom4j-java                                                  | 1.6.1+dfsg.3-2ubuntu1              |       | all   | flexible XML                                        |
| framework for Java                                                |                                    |       |       |                                                     |
| ii libdotconf0:amd64                                              | 1.3-0.2                            |       | amd64 | Configuration file parser                           |
| library - runtime files                                           |                                    |       |       |                                                     |
| ii libdouble-conversion1v5:amd64                                  | 2.0.1-3ubuntu2                     |       | amd64 | routines to                                         |
| convert IEEE floats to and from strings                           |                                    |       |       |                                                     |
| ii libdoxia-core-java                                             |                                    |       |       |                                                     |

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|----------------------------------|-------------------------|-------|------------------------------------------------------------------------|--|
|                                  | 1.1.4-3ubuntu1          | all   | Doxia content generation framework (core)                              |  |
| ii libdpkg-perl                  | 1.18.4ubuntu1.1         | all   | Dpkg perl modules                                                      |  |
| ii libdrm-amdgpu1:amd64          | 2.4.67-1ubuntu0.16.04.2 | amd64 | Userspace interface to amdgpu-specific kernel DRM services -- runtime  |  |
| ii libdrm-amdgpu1:i386           | 2.4.67-1ubuntu0.16.04.2 | i386  | Userspace interface to amdgpu-specific kernel DRM services -- runtime  |  |
| ii libdrm-dev:amd64              | 2.4.67-1ubuntu0.16.04.2 | amd64 | Userspace interface to kernel DRM services -- development files        |  |
| ii libdrm-intel1:amd64           | 2.4.67-1ubuntu0.16.04.2 | amd64 | Userspace interface to intel-specific kernel DRM services -- runtime   |  |
| ii libdrm-intel1:i386            | 2.4.67-1ubuntu0.16.04.2 | i386  | Userspace interface to intel-specific kernel DRM services -- runtime   |  |
| ii libdrm-nouveau2:amd64         | 2.4.67-1ubuntu0.16.04.2 | amd64 | Userspace interface to nouveau-specific kernel DRM services -- runtime |  |
| ii libdrm-nouveau2:i386          | 2.4.67-1ubuntu0.16.04.2 | i386  | Userspace interface to nouveau-specific kernel DRM services -- runtime |  |
| ii libdrm-radeon1:amd64          | 2.4.67-1ubuntu0.16.04.2 | amd64 | Userspace interface to radeon-specific kernel DRM services -- runtime  |  |
| ii libdrm-radeon1:i386           | 2.4.67-1ubuntu0.16.04.2 | i386  | Userspace interface to radeon-specific kernel DRM services -- runtime  |  |
| ii libdrm2:amd64                 | 2.4.67-1ubuntu0.16.04.2 | amd64 | Userspace interface to kernel DRM services -- runtime                  |  |
| ii libdrm2:i386                  | 2.4.67-1ubuntu0.16.04.2 | i386  | Userspace interface to kernel DRM services -- runtime                  |  |
| ii libdv4:amd64                  | 1.0.0-7                 | amd64 | software library for DV format digital video (runtime lib)             |  |
| ii libdv4:i386                   | 1.0.0-7                 | i386  | software library for DV format digital video (runtime lib)             |  |
| ii libdvnav4:amd64               | 5.0.3-1                 | amd64 | DVD navigation library                                                 |  |
| ii libdvread4:amd64              | 5.0.3-1                 | amd64 | library for reading DVDs                                               |  |
| ii libdw1:amd64                  | 0.165-3ubuntu1          | amd64 | library that provides access to the DWARF debug information            |  |
| ii libe-book-0.1-1:amd64         | 0.1.2-2ubuntu1          | amd64 | library for reading and converting various e-book formats              |  |
| ii libeasymock-java              | 3.3.1+ds-3              | all   | Java library to generate Mock Objects for given interfaces             |  |
| ii libebook-1.2-10:amd64         | 3.18.5-1ubuntu1         | amd64 | Utility library for evolution data servers                             |  |
| ii libebook-1.2-16:amd64         | 3.18.5-1ubuntu1         | amd64 | Client library for evolution address books                             |  |
| ii libebook-contacts-1.2-2:amd64 | 3.18.5-1ubuntu1         | amd64 | Client library for evolution contacts books                            |  |
| ii libecal-1.2-19:amd64          | 3.18.5-1ubuntu1         | amd64 | Client library for evolution calendars                                 |  |
| ii libeclipse-aether-java        | 1.0.2-1                 | all   | Library to handle Java                                                 |  |



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|------------------------------------------------------------------------------------|-----------------------|-------|------------------------------------------|--|
| artifact repositories                                                              |                       |       |                                          |  |
| ii libcryptfs1<br>filesystem (library)                                             | 111-0ubuntu1.1        | amd64 | ecryptfs cryptographic                   |  |
| ii libedata-book-1.2-25:amd64<br>for evolution address books                       | 3.18.5-1ubuntu1       | amd64 | Backend library                          |  |
| ii libedata-cal-1.2-28:amd64<br>for evolution calendars                            | 3.18.5-1ubuntu1       | amd64 | Backend library                          |  |
| ii libedataserver-1.2-21:amd64<br>amd64 Utility library for evolution data servers | 3.18.5-1ubuntu1       |       |                                          |  |
| ii libedataserverui-1.2-1:amd64<br>for evolution data servers                      | 3.18.5-1ubuntu1       | amd64 | Utility library                          |  |
| ii libedit2:amd64<br>history libraries                                             | 3.1-20150325-1ubuntu2 | amd64 | BSD editline and                         |  |
| ii libedit2:i386<br>history libraries                                              | 3.1-20150325-1ubuntu2 | i386  | BSD editline and                         |  |
| ii libefivar0:amd64<br>variables                                                   | 0.23-2                | amd64 | Library to manage UEFI                   |  |
| ii libegl1-mesa:amd64<br>implementation of the EGL API -- runtime                  | 11.2.0-1ubuntu2.2     | amd64 | free                                     |  |
| ii libegl1-mesa:i386<br>free implementation of the EGL API -- runtime              | 11.2.0-1ubuntu2.2     | i386  |                                          |  |
| ii libelf1:amd64<br>write ELF files                                                | 0.165-3ubuntu1        | amd64 | library to read and                      |  |
| ii libelf1:i386<br>ELF files                                                       | 0.165-3ubuntu1        | i386  | library to read and write                |  |
| ii libemail-valid-perl<br>validity of Internet email addresses                     | 1.198-1               | all   | Perl module for checking the             |  |
| ii libenchant1c2a:amd64<br>for various spell checker engines (runtime libs)        | 1.6.0-10.1build2      | amd64 | Wrapper library                          |  |
| ii libenchant1c2a:i386<br>various spell checker engines (runtime libs)             | 1.6.0-10.1build2      | i386  | Wrapper library for                      |  |
| ii libencode-locale-perl<br>all utility to determine the locale encoding           | 1.05-1                |       |                                          |  |
| ii libeot0:amd64<br>parsing/convertng Embedded OpenType files                      | 0.01-3ubuntu1         | amd64 | Library for                              |  |
| ii libepoxy0:amd64<br>management library                                           | 1.3.1-1               | amd64 | OpenGL function pointer                  |  |
| ii liberror-perl<br>handling in an OO-ish way                                      | 0.17-1.2              | all   | Perl module for error/exception          |  |
| ii libespeak1:amd64<br>software speech synthesizer: shared library                 | 1.48.04+dfsg-2        | amd64 | Multi-lingual                            |  |
| ii libestr0<br>strings (lib)                                                       | 0.1.10-1              | amd64 | Helper functions for handling            |  |
| ii libetonyek-0.1-1:amd64<br>Keynote presentations                                 | 0.1.6-1ubuntu1        | amd64 | library for reading and converting Apple |  |
| ii libevdev2:amd64<br>evdev devices                                                | 1.4.6+dfsg-1          | amd64 | wrapper library for                      |  |

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|----------------------------------------------------------------------------------------------------|----------------------------|-------|--------------------------------------------|
| ii libevdocument3-4:amd64<br>(PostScript, PDF) rendering library                                   | 3.18.2-1ubuntu4            | amd64 | Document                                   |
| ii libevent-2.0-5:amd64<br>notification library                                                    | 2.0.21-stable-2            | amd64 | Asynchronous event                         |
| ii libevview3-3:amd64<br>(PostScript, PDF) rendering library - Gtk+ widgets                        | 3.18.2-1ubuntu4            | amd64 | Document                                   |
| ii libexempi3:amd64<br>metadata (Library)                                                          | 2.2.2-2                    | amd64 | library to parse XMP                       |
| ii libexif12:amd64<br>0.6.21-2                                                                     |                            | amd64 | library to parse EXIF files                |
| ii libexiv2-14:amd64<br>manipulation library                                                       | 0.25-2.1                   | amd64 | EXIF/IPTC metadata                         |
| ii libexpat1:amd64<br>library - runtime library                                                    | 2.1.0-7ubuntu0.16.04.2     | amd64 | XML parsing C                              |
| ii libexpat1:i386<br>library - runtime library                                                     | 2.1.0-7ubuntu0.16.04.2     | i386  | XML parsing C                              |
| ii libexpat1-dev:amd64<br>library - development kit                                                | 2.1.0-7ubuntu0.16.04.2     | amd64 | XML parsing C                              |
| ii libexporter-lite-perl<br>Exporter                                                               | 0.08-1                     | all   | lightweight subset of                      |
| ii libexporter-tiny-perl<br>0.042-1                                                                | all                        |       | tiny exporter similar to Sub::Exporter     |
| ii libexttextcat-2.0-0:amd64<br>detection library                                                  | 3.4.4-1ubuntu3             | amd64 | Language                                   |
| ii libexttextcat-data<br>library - data files                                                      | 3.4.4-1ubuntu3             | all   | Language detection                         |
| ii libfaad2:amd64<br>Advanced Audio Decoder - runtime files                                        | 2.8.0~cvs20150510-1        | amd64 | freeware                                   |
| ii libfakeroot:amd64<br>superuser privileges - shared libraries                                    | 1.20.2-1ubuntu1            | amd64 | tool for simulating                        |
| ii libfcgi-perl<br>0.77-1build1                                                                    |                            | amd64 | helper module for FastCGI                  |
| ii libfcitx-config4:amd64<br>amd64 Flexible Input Method Framework - configuration support library | 1:4.2.9.1-1ubuntu1.16.04.2 |       |                                            |
| ii libfcitx-gclient0:amd64<br>Method Framework - D-Bus client library for Glib                     | 1:4.2.9.1-1ubuntu1.16.04.2 | amd64 | Flexible Input                             |
| ii libfcitx-utils0:amd64<br>Method Framework - utility support library                             | 1:4.2.9.1-1ubuntu1.16.04.2 | amd64 | Flexible Input                             |
| ii libfdisk1:amd64<br>library                                                                      | 2.27.1-6ubuntu3.2          | amd64 | fdisk partitioning                         |
| ii libffi-dev:amd64<br>Interface library (development files)                                       | 3.2.1-4                    | amd64 | Foreign Function                           |
| ii libffi6:amd64<br>library runtime                                                                | 3.2.1-4                    | amd64 | Foreign Function Interface                 |
| ii libffi6:i386<br>3.2.1-4                                                                         |                            | i386  | Foreign Function Interface library runtime |
| ii libfftw3-double3:amd64<br>computing Fast Fourier Transforms - Double precision                  | 3.3.4-2ubuntu1             | amd64 | Library for                                |
| ii libfftw3-single3:amd64<br>3.3.4-2ubuntu1                                                        |                            | amd64 | Library for                                |

|                                                      |                                            |       |                                                              |
|------------------------------------------------------|--------------------------------------------|-------|--------------------------------------------------------------|
| computing Fast Fourier Transforms - Single precision |                                            |       |                                                              |
| ii libfile-basedir-perl                              | 0.07-1                                     | all   | Perl module to use the freedesktop basedir specification     |
| ii libfile-copy-recursive-perl                       | 0.38-1                                     | all   | Perl extension for recursively copying files and directories |
| ii libfile-desktopentry-perl                         | 0.22-1                                     | all   | Perl module to handle freedesktop .desktop files             |
| ii libfile-fcntllock-perl                            | 0.22-3                                     | amd64 | Perl module for file locking with fcntl(2)                   |
| ii libfile-homedir-perl                              | 1.00-1                                     | all   | Perl module for finding user directories across platforms    |
| ii libfile-listing-perl                              | 6.04-1                                     | all   | module to parse directory listings                           |
| ii libfile-mimeinfo-perl                             | 0.27-1                                     | all   | Perl module to determine file types                          |
| ii libfile-stripnondeterminism-perl                  | 0.015-1                                    | all   | Perl module for stripping non-determinism from files         |
| ii libfile-which-perl                                | 1.19-1                                     | all   | Perl module for searching paths for executable programs      |
| ii libfl-dev:amd64                                   | 2.6.0-11                                   | amd64 | static library for flex (a fast lexical analyzer generator)  |
| ii libflac8:amd64                                    | 1.3.1-4                                    | amd64 | Free Lossless Audio Codec - runtime C library                |
| ii libflac8:i386                                     | 1.3.1-4                                    | i386  | Free Lossless Audio Codec - runtime C library                |
| ii libflite1:amd64                                   | 2.0.0-release-1                            | amd64 | Small run-time speech synthesis engine - shared libraries    |
| ii libfluidsynth1:amd64                              | 1.1.6-3                                    | amd64 | Real-time MIDI software synthesizer (runtime library)        |
| ii libfont-afm-perl                                  | 1.20-1                                     | all   | Font::AFM - Interface to Adobe Font Metrics files            |
| ii libfontconfig1:amd64                              | 2.11.94-0ubuntu1.1                         | amd64 | generic font configuration library - runtime                 |
| ii libfontconfig1:i386                               | 2.11.94-0ubuntu1.1                         | i386  | generic font configuration library - runtime                 |
| ii libfontconfig1-dev:amd64                          | 2.11.94-0ubuntu1.1                         | amd64 | generic font configuration library - development             |
| ii libfontembed1:amd64                               | 1.8.3-2ubuntu3.1                           | amd64 | OpenPrinting CUPS Filters - Font Embed Shared library        |
| ii libfontenc1:amd64                                 | 1:1.1.3-1                                  | amd64 | X11 font encoding library                                    |
| ii libframe6:amd64                                   | 2.5.0daily13.06.05+16.04.20160809-0ubuntu1 | amd64 | Touch Frame Library                                          |
| ii libfreehand-0.1-1:amd64                           | 0.1.1-1ubuntu1                             | amd64 | Library for parsing the FreeHand file format structure       |
| ii libfreehep-export-java                            | 2.1.1-2                                    | all   | FreeHEP Export and Save As Library                           |
| ii libfreehep-graphics2d-java                        | 2.1.1-4                                    | all   | FreeHEP 2D Graphics                                          |

|                                                                                                   |                                                  |  |       |                                                         |
|---------------------------------------------------------------------------------------------------|--------------------------------------------------|--|-------|---------------------------------------------------------|
| Library                                                                                           |                                                  |  |       |                                                         |
| ii libfreehep-graphicsio-emf-java<br>Enhanced Metafile Format Driver                              | 2.1.1-emfplus+dfsg1-2                            |  | all   | FreeHEP                                                 |
| ii libfreehep-graphicsio-java<br>Base Library                                                     | 2.1.1-3                                          |  | all   | FreeHEP GraphicsIO                                      |
| ii libfreehep-graphicsio-pdf-java<br>all FreeHEP Portable Document Format Driver                  | 2.1.1+dfsg-1                                     |  |       |                                                         |
| ii libfreehep-graphicsio-svg-java<br>Vector Graphics Driver                                       | 2.1.1-3                                          |  | all   | FreeHEP Scalable                                        |
| ii libfreehep-graphicsio-tests-java<br>Test Library                                               | 2.1.1+dfsg1-3                                    |  | all   | FreeHEP GraphicsIO                                      |
| ii libfreehep-io-java                                                                             | 2.0.2-4                                          |  | all   | FreeHEP I/O library                                     |
| ii libfreehep-swing-java                                                                          | 2.0.3-3                                          |  | all   | FreeHEP swing extensions                                |
| ii libfreehep-util-java                                                                           | 2.0.2-5                                          |  | all   | FreeHEP utility library                                 |
| ii libfreehep-xml-java                                                                            | 2.1.2+dfsg1-3                                    |  | all   | FreeHEP XML Library                                     |
| ii libfreerdp-cache1.1:amd64<br>1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64                  |                                                  |  |       | Free Remote Desktop Protocol<br>library (cache library) |
| ii libfreerdp-client1.1:amd64<br>Remote Desktop Protocol library (client library)                 | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64 |  |       | Free                                                    |
| ii libfreerdp-codec1.1:amd64<br>Free Remote Desktop Protocol library (codec library)              | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64 |  |       |                                                         |
| ii libfreerdp-common1.1.0:amd64<br>Free Remote Desktop Protocol library (common library)          | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64 |  |       |                                                         |
| ii libfreerdp-core1.1:amd64<br>Remote Desktop Protocol library (core library)                     | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64 |  |       | Free                                                    |
| ii libfreerdp-crypto1.1:amd64<br>Free Remote Desktop Protocol<br>library (freerdp-crypto library) | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64 |  |       |                                                         |
| ii libfreerdp-gdi1.1:amd64<br>Remote Desktop Protocol library (GDI library)                       | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64 |  |       | Free                                                    |
| ii libfreerdp-locale1.1:amd64<br>Free Remote Desktop Protocol library (locale library)            | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64 |  |       |                                                         |
| ii libfreerdp-plugins-standard:amd64<br>RDP client for Windows Terminal Services (plugins)        | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64 |  |       |                                                         |
| ii libfreerdp-primitives1.1:amd64<br>Free Remote Desktop Protocol library (primitives library)    | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64 |  |       |                                                         |
| ii libfreerdp-utils1.1:amd64<br>Remote Desktop Protocol library (freerdp-utils library)           | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64 |  |       | Free                                                    |
| ii libfreetype6:amd64<br>amd64 FreeType 2 font engine, shared library files                       | 2.6.1-0.1ubuntu2                                 |  |       |                                                         |
| ii libfreetype6:i386<br>shared library files                                                      | 2.6.1-0.1ubuntu2                                 |  | i386  | FreeType 2 font engine,                                 |
| ii libfreetype6-dev:amd64<br>engine, development files                                            | 2.6.1-0.1ubuntu2                                 |  | amd64 | FreeType 2 font                                         |
| ii libfribidi0:amd64<br>the Unicode BiDi algorithm                                                | 0.19.7-1                                         |  | amd64 | Free Implementation of                                  |
| ii libfuse2:amd64                                                                                 | 2.9.4-1ubuntu3.1                                 |  | amd64 | Filesystem in                                           |

|                                                          |                                            |       |                                              |
|----------------------------------------------------------|--------------------------------------------|-------|----------------------------------------------|
| Userspace (library)                                      |                                            |       |                                              |
| ii libfwup0:amd64                                        | 0.5-2ubuntu4                               | amd64 | Library to manage                            |
| UEFI firmware updates                                    |                                            |       |                                              |
| ii libfwupd1:amd64                                       | 0.7.0-0ubuntu4.3                           |       |                                              |
| amd64                                                    | Firmware update daemon library             |       |                                              |
| ii libgail-3-0:amd64                                     | 3.18.9-1ubuntu3.1                          | amd64 | GNOME                                        |
| Accessibility Implementation Library -- shared libraries |                                            |       |                                              |
| ii libgail-common:amd64                                  | 2.24.30-1ubuntu1                           | amd64 | GNOME                                        |
| Accessibility Implementation Library -- common modules   |                                            |       |                                              |
| ii libgail18:amd64                                       | 2.24.30-1ubuntu1                           | amd64 | GNOME                                        |
| Accessibility Implementation Library -- shared libraries |                                            |       |                                              |
| ii libgbm1:amd64                                         | 11.2.0-1ubuntu2.2                          | amd64 | generic buffer                               |
| management API -- runtime                                |                                            |       |                                              |
| ii libgbm1:i386                                          | 11.2.0-1ubuntu2.2                          | i386  | generic buffer                               |
| management API -- runtime                                |                                            |       |                                              |
| ii libgc1c2:amd64                                        | 1:7.4.2-7.3                                | amd64 | conservative garbage collector for C and C++ |
| ii libgcab-1.0-0:amd64                                   | 0.7-1                                      | amd64 | Microsoft Cabinet file                       |
| manipulation library                                     |                                            |       |                                              |
| ii libgcc-4.9-dev:amd64                                  | 4.9.3-13ubuntu2                            | amd64 | GCC support                                  |
| library (development files)                              |                                            |       |                                              |
| ii libgcc-5-dev:amd64                                    | 5.4.0-6ubuntu1~16.04.4                     | amd64 | GCC support                                  |
| library (development files)                              |                                            |       |                                              |
| ii libgcc1:amd64                                         | 1:6.0.1-0ubuntu1                           | amd64 | GCC support library                          |
| ii libgcc1:i386                                          | 1:6.0.1-0ubuntu1                           | i386  | GCC support library                          |
| ii libgck-1-0:amd64                                      | 3.18.0-1ubuntu1                            |       |                                              |
| amd64                                                    | Glib wrapper library for PKCS#11 - runtime |       |                                              |
| ii libgconf-2-4:amd64                                    | 3.2.6-3ubuntu6                             | amd64 | GNOME                                        |
| configuration database system (shared libraries)         |                                            |       |                                              |
| ii libgcr-3-common                                       | 3.18.0-1ubuntu1                            | all   | Library for Crypto UI                        |
| related tasks - common files                             |                                            |       |                                              |
| ii libgcr-base-3-1:amd64                                 | 3.18.0-1ubuntu1                            | amd64 | Library for Crypto                           |
| related tasks                                            |                                            |       |                                              |
| ii libgcr-ui-3-1:amd64                                   | 3.18.0-1ubuntu1                            | amd64 | Library for Crypto                           |
| UI related tasks                                         |                                            |       |                                              |
| ii libgcrui11-dev                                        | 1.5.4-3+really1.6.5-2ubuntu0.2             | all   | transitional                                 |
| libgcrui11-dev package                                   |                                            |       |                                              |
| ii libgcrui20:amd64                                      | 1.6.5-2ubuntu0.2                           |       |                                              |
| amd64                                                    | LGPL Crypto library - runtime library      |       |                                              |
| ii libgcrui20:i386                                       | 1.6.5-2ubuntu0.2                           | i386  | LGPL Crypto library -                        |
| runtime library                                          |                                            |       |                                              |
| ii libgcrui20-dev                                        | 1.6.5-2ubuntu0.2                           | amd64 | LGPL Crypto library                          |
| - development files                                      |                                            |       |                                              |
| ii libgd3:amd64                                          | 2.1.1-4ubuntu0.16.04.5                     | amd64 | GD Graphics                                  |
| Library                                                  |                                            |       |                                              |
| ii libgd3-common                                         | 0.17.4-1                                   | all   | Library for accessing                        |
| GDData webservice - common data files                    |                                            |       |                                              |
| ii libgd3:i386                                           | 0.17.4-1                                   | amd64 | Library for accessing                        |

GData webservices - shared libraries

|                                                           |                                |       |                                                         |
|-----------------------------------------------------------|--------------------------------|-------|---------------------------------------------------------|
| ii libgdbm3:amd64                                         | 1.8.3-13.1                     | amd64 |                                                         |
| GNU dbm database routines (runtime version)               |                                |       |                                                         |
| ii libgdiplus                                             | 4.2-1ubuntu1                   | amd64 | interface library for                                   |
| System.Drawing of Mono                                    |                                |       |                                                         |
| ii libgdk-pixbuf2.0-0:amd64                               | 2.32.2-1ubuntu1.2              | amd64 | GDK Pixbuf                                              |
| library                                                   |                                |       |                                                         |
| ii libgdk-pixbuf2.0-0:i386                                | 2.32.2-1ubuntu1.2              | i386  | GDK Pixbuf library                                      |
| ii libgdk-pixbuf2.0-common                                | 2.32.2-1ubuntu1.2              | all   | GDK Pixbuf                                              |
| library - data files                                      |                                |       |                                                         |
| ii libgdk-pixbuf2.0-dev                                   | 2.32.2-1ubuntu1.2              | amd64 | GDK Pixbuf                                              |
| library (development files)                               |                                |       |                                                         |
| ii libgee-0.8-2:amd64                                     | 0.18.0-1                       | amd64 | GObject based                                           |
| collection and utility library                            |                                |       |                                                         |
| ii libgeis1:amd64                                         | 2.2.17+16.04.20160126-0ubuntu1 | amd64 | Gesture engine interface                                |
| support                                                   |                                |       |                                                         |
| ii libgeoclue0:amd64                                      | 0.12.99-4ubuntu1               | amd64 | C API for GeoClue                                       |
| ii libgeoclue0:i386                                       | 0.12.99-4ubuntu1               | i386  | C API for GeoClue                                       |
| ii libgeocode-glib0:amd64                                 | 3.18.2-1                       | amd64 | geocoding and                                           |
| reverse geocoding GLib library using Nominatim            |                                |       |                                                         |
| ii libgeoip1:amd64                                        | 1.6.9-1                        | amd64 | non-DNS IP-to-country                                   |
| resolver library                                          |                                |       |                                                         |
| ii libgeonames0:amd64                                     | 0.2+16.04.20160321-0ubuntu1    | amd64 | Parse and                                               |
| query the geonames database dump                          |                                |       |                                                         |
| ii libgeronimo-interceptor-3.0-spec-java                  | 1.0.1-3fakesync1               | all   | Geronimo API implementation of the Interceptor 3.0 spec |
| ii libgetopt-tabular-perl                                 | 0.3-2                          | all   | table-driven argument                                   |
| parsing for Perl 5                                        |                                |       |                                                         |
| ii libgettextpo-dev:amd64                                 | 0.19.7-2ubuntu3                | amd64 | GNU                                                     |
| Internationalization library development files            |                                |       |                                                         |
| ii libgettextpo0:amd64                                    | 0.19.7-2ubuntu3                | amd64 | GNU                                                     |
| Internationalization library                              |                                |       |                                                         |
| ii libgexiv2-2:amd64                                      | 0.10.3-2                       | amd64 | GObject-based wrapper                                   |
| around the Exiv2 library                                  |                                |       |                                                         |
| ii libgfortran-5-dev:amd64                                | 5.4.0-6ubuntu1~16.04.4         | amd64 | Runtime                                                 |
| library for GNU Fortran applications (development files)  |                                |       |                                                         |
| ii libgfortran3:amd64                                     | 5.4.0-6ubuntu1~16.04.4         | amd64 | Runtime library for GNU Fortran                         |
| applications                                              |                                |       |                                                         |
| ii libgif7:amd64                                          | 5.1.4-0.3~16.04                | amd64 | library for GIF images                                  |
| (library)                                                 |                                |       |                                                         |
| ii libgirepository-1.0-1:amd64                            | 1.46.0-3ubuntu1                | amd64 | Library for                                             |
| handling GObject introspection data (runtime library)     |                                |       |                                                         |
| ii libgl1-mesa-dev:amd64                                  | 11.2.0-1ubuntu2.2              | amd64 | free                                                    |
| implementation of the OpenGL API -- GLX development files |                                |       |                                                         |
| ii libgl1-mesa-dri:amd64                                  | 11.2.0-1ubuntu2.2              | amd64 | free                                                    |
| implementation of the OpenGL API -- DRI modules           |                                |       |                                                         |

|                                                                                         |                        |       |                       |
|-----------------------------------------------------------------------------------------|------------------------|-------|-----------------------|
| ii libgl1-mesa-dri:i386<br>of the OpenGL<br>API -- DRI modules                          | 11.2.0-1ubuntu2.2      | i386  | free implementation   |
| ii libgl1-mesa-glx:amd64<br>implementation of the OpenGL API -- GLX runtime             | 11.2.0-1ubuntu2.2      | amd64 | free                  |
| ii libgl1-mesa-glx:i386<br>of the OpenGL API -- GLX runtime                             | 11.2.0-1ubuntu2.2      | i386  | free implementation   |
| ii libglapi-mesa:amd64<br>implementation of the GL API -- shared library                | 11.2.0-1ubuntu2.2      | amd64 | free                  |
| ii libglapi-mesa:i386<br>of the GL API -- shared library                                | 11.2.0-1ubuntu2.2      | i386  | free implementation   |
| ii libglew1.13:amd64<br>Wrangler - runtime environment                                  | 1.13.0-2               | amd64 | OpenGL Extension      |
| ii libglewmx1.13:amd64<br>amd64 OpenGL Extension Wrangler (Multiple Rendering Contexts) | 1.13.0-2               |       |                       |
| ii libglib2.0-0:amd64<br>routines                                                       | 2.48.2-0ubuntu1        | amd64 | GLib library of C     |
| ii libglib2.0-0:i386<br>routines                                                        | 2.48.2-0ubuntu1        | i386  | GLib library of C     |
| ii libglib2.0-bin<br>library                                                            | 2.48.2-0ubuntu1        | amd64 | Programs for the GLib |
| ii libglib2.0-data<br>library                                                           | 2.48.2-0ubuntu1        | all   | Common files for GLib |
| ii libglib2.0-dev<br>the GLib library                                                   | 2.48.2-0ubuntu1        | amd64 | Development files for |
| ii libglibmm-2.4-1v5:amd64<br>GLib toolkit<br>(shared libraries)                        | 2.46.3-1               | amd64 | C++ wrapper for the   |
| ii libglu1-mesa:amd64<br>library (GLU)                                                  | 9.0.0-2.1              | amd64 | Mesa OpenGL utility   |
| ii libgme0:amd64<br>for video game music files - shared library                         | 0.6.0-3ubuntu0.16.04.1 | amd64 | Playback library      |
| ii libgmime-2.6-0:amd64<br>parser and creator library - runtime                         | 2.6.20-1               | amd64 | MIME message          |
| ii libgmp-dev:amd64<br>arithmetic library developers tools                              | 2:6.1.0+dfsg-2         | amd64 | Multiprecision        |
| ii libgmp10:amd64<br>arithmetic library                                                 | 2:6.1.0+dfsg-2         | amd64 | Multiprecision        |
| ii libgmp10:i386<br>arithmetic library                                                  | 2:6.1.0+dfsg-2         | i386  | Multiprecision        |
| ii libgmpxx4ldbl:amd64<br>arithmetic library (C++ bindings)                             | 2:6.1.0+dfsg-2         | amd64 | Multiprecision        |
| ii libgnome-bluetooth13:amd64<br>Bluetooth tools - support library                      | 3.18.2-1ubuntu2        | amd64 | GNOME                 |
| ii libgnome-desktop-3-12:amd64<br>for loading .desktop files - runtime files            | 3.18.2-1ubuntu1        | amd64 | Utility library       |
| ii libgnome-keyring-common<br>services library - data files                             | 3.12.0-1build1         | all   | GNOME keyring         |

|                                                                                                  |                               |       |                         |
|--------------------------------------------------------------------------------------------------|-------------------------------|-------|-------------------------|
| ii libgnome-keyring0:amd64<br>services library                                                   | 3.12.0-1build1                | amd64 | GNOME keyring           |
| ii libgnome-menu-3-0:amd64<br>implementation<br>of the freedesktop menu specification            | 3.13.3-6ubuntu3.1             | amd64 | GNOME                   |
| ii libgnomekbd-common<br>manage keyboard configuration - common files                            | 3.6.0-1ubuntu2                | all   | GNOME library to        |
| ii libgnomekbd8:amd64<br>manage keyboard configuration - shared library                          | 3.6.0-1ubuntu2                | amd64 | GNOME library to        |
| ii libgnutls-openssl27:amd64<br>library - OpenSSL wrapper                                        | 3.4.10-4ubuntu1.2             | amd64 | GNU TLS                 |
| ii libgnutls30:amd64<br>main runtime library                                                     | 3.4.10-4ubuntu1.2             | amd64 | GNU TLS library -       |
| ii libgnutls30:i386<br>main runtime library                                                      | 3.4.10-4ubuntu1.2             | i386  | GNU TLS library -       |
| ii libgoa-1.0-0b:amd64<br>amd64 library for GNOME Online Accounts                                | 3.18.3-1ubuntu2               |       |                         |
| ii libgoa-1.0-common<br>Online Accounts - common files                                           | 3.18.3-1ubuntu2               | all   | library for GNOME       |
| ii libgom-1.0-0:amd64<br>GObjects to SQLite                                                      | 0.3.1-1                       | amd64 | Object mapper from      |
| ii libgom-1.0-common<br>independent files                                                        | 0.3.1-1                       | all   | libgom architecture-    |
| ii libgomp1:amd64<br>(GOMP) support library                                                      | 5.4.0-6ubuntu1~16.04.4        | amd64 | GCC OpenMP              |
| ii libgpg-error-dev<br>error values and messages in GnuPG components (development)               | 1.21-2ubuntu1                 | amd64 | library for common      |
| ii libgpg-error0:amd64<br>amd64 library for common error values and messages in GnuPG components | 1.21-2ubuntu1                 |       |                         |
| ii libgpg-error0:i386<br>error values and messages in GnuPG components                           | 1.21-2ubuntu1                 | i386  | library for common      |
| ii libgpgme11:amd64<br>Made Easy (library)                                                       | 1.6.0-1                       | amd64 | GPGME - GnuPG           |
| ii libgphoto2-6:amd64<br>library                                                                 | 2.5.9-3                       | amd64 | gphoto2 digital camera  |
| ii libgphoto2-110n<br>library - localized messages                                               | 2.5.9-3                       | all   | gphoto2 digital camera  |
| ii libgphoto2-port12:amd64<br>camera port library                                                | 2.5.9-3                       | amd64 | gphoto2 digital         |
| ii libgpm2:amd64<br>amd64 General Purpose Mouse - shared library                                 | 1.20.4-6.1                    |       |                         |
| ii libgpm2:i386<br>shared library                                                                | 1.20.4-6.1                    | i386  | General Purpose Mouse - |
| ii libgpod-common<br>libgpod                                                                     | 0.8.3-6ubuntu2                | amd64 | common files for        |
| ii libgpod4:amd64<br>write songs and artwork to an iPod                                          | 0.8.3-6ubuntu2                | amd64 | library to read and     |
| ii libgrail6                                                                                     | 3.1.0+16.04.20160125-0ubuntu1 | amd64 | Gesture                 |



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|---------------------------------------|--------------------------------------|-------------------------------|-------|--------------------------------------------------------------------|
| Recognition And Instantiation Library |                                      |                               |       |                                                                    |
| ii                                    | libgraphite2-3:amd64                 | 1.3.6-1ubuntu1                | amd64 | Font rendering engine for Complex Scripts -- library               |
| ii                                    | libgraphite2-3:i386                  | 1.3.6-1ubuntu1                |       | Font rendering engine for Complex Scripts -- library               |
| ii                                    | libgrilo-0.2-1:amd64                 | 0.2.15-1                      | amd64 | Framework for discovering and browsing media - Shared libraries    |
| ii                                    | libgs9:amd64                         | 9.18~dfsg~0-0ubuntu2.3        | amd64 | interpreter for the PostScript language and for PDF - Library      |
| ii                                    | libgs9-common                        | 9.18~dfsg~0-0ubuntu2.3        | all   | interpreter for the PostScript language and for PDF - common files |
| ii                                    | libgsettings-qt1:amd64               | 0.1+16.04.20160329-0ubuntu1   | amd64 | Library to access GSettings from Qt                                |
| ii                                    | libgsl2:amd64                        | 2.1+dfsg-2                    | amd64 | GNU Scientific Library (GSL) -- library package                    |
| ii                                    | libgsm1:amd64                        | 1.0.13-4                      | amd64 | Shared libraries for GSM speech compressor                         |
| ii                                    | libgssapi-krb5-2:amd64               | 1.13.2+dfsg-5ubuntu1          | amd64 | MIT Kerberos runtime libraries - krb5 GSS-API Mechanism            |
| ii                                    | libgssapi-krb5-2:i386                | 1.13.2+dfsg-5ubuntu1          | i386  | MIT Kerberos runtime libraries - krb5 GSS-API Mechanism            |
| ii                                    | libgssapi3-heimdal:amd64             | 1.7~git20150920+dfsg-4ubuntu1 | amd64 | Heimdal Kerberos - GSSAPI support library                          |
| ii                                    | libgstreamer-plugins-bad1.0-0:amd64  | 1.8.2-1ubuntu0.2              | amd64 | GStreamer development files for libraries from the "bad" set       |
| ii                                    | libgstreamer-plugins-base1.0-0:amd64 | 1.8.2-1ubuntu0.2              | amd64 | GStreamer libraries from the "base" set                            |
| ii                                    | libgstreamer-plugins-base1.0-0:i386  | 1.8.2-1ubuntu0.2              | i386  | GStreamer libraries from the "base" set                            |
| ii                                    | libgstreamer-plugins-good1.0-0:amd64 | 1.8.2-1ubuntu0.3              | amd64 | GStreamer development files for libraries from the "good" set      |
| ii                                    | libgstreamer-plugins-good1.0-0:i386  | 1.8.2-1ubuntu0.3              | i386  | GStreamer development files for libraries from the "good" set      |
| ii                                    | libgstreamer1.0-0:amd64              | 1.8.2-1~ubuntu1               | amd64 | Core GStreamer libraries and elements                              |
| ii                                    | libgstreamer1.0-0:i386               | 1.8.2-1~ubuntu1               | i386  | Core GStreamer libraries and elements                              |
| ii                                    | libgtk-3-0:amd64                     | 3.18.9-1ubuntu3.1             | amd64 | GTK+ graphical user interface library                              |
| ii                                    | libgtk-3-bin                         | 3.18.9-1ubuntu3.1             | amd64 | programs for the GTK+ graphical user interface library             |
| ii                                    | libgtk-3-common                      | 3.18.9-1ubuntu3.1             | all   | common files for the GTK+ graphical user interface library         |
| ii                                    | libgtk2.0-0:amd64                    | 2.24.30-1ubuntu1              | amd64 | GTK+ graphical user interface library                              |
| ii                                    | libgtk2.0-0:i386                     | 2.24.30-1ubuntu1              | i386  | GTK+ graphical user interface library                              |

|                                                                |                                    |       |  |                            |
|----------------------------------------------------------------|------------------------------------|-------|--|----------------------------|
| interface library                                              |                                    |       |  |                            |
| ii libgtk2.0-bin                                               | 2.24.30-1ubuntu1                   | amd64 |  | programs for the           |
| GTK+ graphical user interface library                          |                                    |       |  |                            |
| ii libgtk2.0-common                                            | 2.24.30-1ubuntu1                   |       |  |                            |
| all common files for the GTK+ graphical user interface library |                                    |       |  |                            |
| ii libgtk2.0-dev                                               | 2.24.30-1ubuntu1                   | amd64 |  | development files for      |
| the GTK+ library                                               |                                    |       |  |                            |
| ii libgtkglect1:amd64                                          | 1.2.0-3.2fakesync1ubuntu1          | amd64 |  | OpenGL                     |
| Extension to GTK+ (shared libraries)                           |                                    |       |  |                            |
| ii libgtkmm-3.0-1v5:amd64                                      | 3.18.0-1                           | amd64 |  | C++ wrappers for           |
| GTK+ (shared libraries)                                        |                                    |       |  |                            |
| ii libgtksourceview-3.0-1:amd64                                | 3.18.2-1                           | amd64 |  | shared libraries for       |
| the GTK+ syntax highlighting widget                            |                                    |       |  |                            |
| ii libgtksourceview-3.0-common                                 | 3.18.2-1                           | all   |  | common files for the       |
| GTK+ syntax highlighting widget                                |                                    |       |  |                            |
| ii libgtkspell3-3-0:amd64                                      | 3.0.7-2                            |       |  |                            |
| amd64 spell-checking addon for GTK+'s TextView widget          |                                    |       |  |                            |
| ii libgtop-2.0-10:amd64                                        | 2.32.0-1                           | amd64 |  | gtop system                |
| monitoring library (shared)                                    |                                    |       |  |                            |
| ii libgtop2-common                                             | 2.32.0-1                           | all   |  | gtop system monitoring     |
| library (common)                                               |                                    |       |  |                            |
| ii libguava-java                                               | 19.0-1                             | all   |  | Suite of Google common     |
| libraries for Java                                             |                                    |       |  |                            |
| ii libgucharmap-2-90-7:amd64                                   | 1:3.18.2-1ubuntu1                  | amd64 |  | Unicode                    |
| browser widget library (shared library)                        |                                    |       |  |                            |
| ii libgudev-1.0-0:amd64                                        | 1:230-2                            | amd64 |  | GObject-based              |
| wrapper library for libudev                                    |                                    |       |  |                            |
| ii libgudev-1.0-0:i386                                         | 1:230-2                            |       |  |                            |
| i386 GObject-based wrapper library for libudev                 |                                    |       |  |                            |
| ii libguice-java                                               | 4.0-2                              | all   |  | lightweight dependency     |
| injection framework for Java 5 and above                       |                                    |       |  |                            |
| ii libgusb2:amd64                                              | 0.2.9-0ubuntu1                     | amd64 |  | GLib wrapper around        |
| libusb1                                                        |                                    |       |  |                            |
| ii libgutenprint2                                              | 5.2.11-1                           | amd64 |  | runtime for the Gutenprint |
| printer driver library                                         |                                    |       |  |                            |
| ii libgvc6                                                     | 2.38.0-12ubuntu2.1                 | amd64 |  | rich set of graph          |
| drawing tools - gvc library                                    |                                    |       |  |                            |
| ii libgvpr2                                                    | 2.38.0-12ubuntu2.1                 | amd64 |  | rich set of graph          |
| drawing tools - gvpr library                                   |                                    |       |  |                            |
| ii libgweather-3-6:amd64                                       |                                    |       |  |                            |
| 3.18.2-0ubuntu0.1                                              | amd64                              |       |  | GWeather shared library    |
| ii libgweather-common                                          | 3.18.2-0ubuntu0.1                  | all   |  | GWeather common            |
| files                                                          |                                    |       |  |                            |
| ii libxps2:amd64                                               | 0.2.3.2-1                          | amd64 |  | handling and rendering     |
| XPS documents (library)                                        |                                    |       |  |                            |
| ii libhamcrest-java                                            | 1.3-5ubuntu1                       | all   |  | library of matchers for    |
| building test expressions                                      |                                    |       |  |                            |
| ii libhardware2                                                | 0.1.0+git20151016+6d424c9-0ubuntu7 | amd64 |  | Library to                 |

|                                               |                            |                               |       |                                                               |
|-----------------------------------------------|----------------------------|-------------------------------|-------|---------------------------------------------------------------|
| provide access to the Android libhardware HAL |                            |                               |       |                                                               |
| ii                                            | libharfbuzz-dev            | 1.0.1-1ubuntu0.1              | amd64 | Development files for<br>OpenType text shaping engine         |
| ii                                            | libharfbuzz-gobject0:amd64 | 1.0.1-1ubuntu0.1              | amd64 | OpenType text shaping engine ICU backend (GObject library)    |
| ii                                            | libharfbuzz-icu0:amd64     | 1.0.1-1ubuntu0.1              | amd64 | OpenType text<br>shaping engine ICU backend                   |
| ii                                            | libharfbuzz-icu0:i386      | 1.0.1-1ubuntu0.1              | i386  | OpenType text<br>shaping engine ICU backend                   |
| ii                                            | libharfbuzz0b:amd64        | 1.0.1-1ubuntu0.1              | amd64 | OpenType text<br>shaping engine (shared library)              |
| ii                                            | libharfbuzz0b:i386         | 1.0.1-1ubuntu0.1              | i386  | OpenType text<br>shaping engine (shared library)              |
| ii                                            | libcrypto4-heimdal:amd64   | 1.7~git20150920+dfsg-4ubuntu1 | amd64 | Heimdal<br>Kerberos - crypto library                          |
| ii                                            | libheimbase1-heimdal:amd64 | 1.7~git20150920+dfsg-4ubuntu1 | amd64 | Heimdal Kerberos - Base library                               |
| ii                                            | libheimntlm0-heimdal:amd64 | 1.7~git20150920+dfsg-4ubuntu1 | amd64 | Heimdal Kerberos - NTLM support library                       |
| ii                                            | libhighgui-dev:amd64       | 2.4.9.1+dfsg-1.5ubuntu1       | amd64 | Translation<br>package for libhighgui-dev                     |
| ii                                            | libhogweed4:amd64          | 3.2-1ubuntu0.16.04.1          | amd64 | low level<br>cryptographic library (public-key cryptos)       |
| ii                                            | libhogweed4:i386           | 3.2-1ubuntu0.16.04.1          | i386  | low level<br>cryptographic library (public-key cryptos)       |
| ii                                            | libhpmud0:amd64            | 3.16.3+repack0-1              | amd64 | HP Multi-Point<br>Transport Driver (hpmud) run-time libraries |
| ii                                            | libhtml-form-perl          | 6.03-1                        | all   | module that represents an HTML form element                   |
| ii                                            | libhtml-format-perl        | 2.11-2                        | all   | module for transforming<br>HTML into various formats          |
| ii                                            | libhtml-parser-perl        | 3.72-1                        | amd64 | collection of modules that<br>parse HTML text documents       |
| ii                                            | libhtml-tagset-perl        | 3.20-2                        | all   | Data tables pertaining to<br>HTML                             |
| ii                                            | libhtml-tree-perl          | 5.03-2                        | all   | Perl module to represent and<br>create HTML syntax trees      |
| ii                                            | libhttp-cookies-perl       | 6.01-1                        | all   | HTTP cookie jars                                              |
| ii                                            | libhttp-daemon-perl        | 6.01-1                        | all   | simple http server class                                      |
| ii                                            | libhttp-date-perl          | 6.02-1                        | all   | module of date conversion<br>routines                         |
| ii                                            | libhttp-message-perl       | 6.11-1                        | all   | perl interface to HTTP style<br>messages                      |
| ii                                            | libhttp-negotiate-perl     | 6.00-2                        | all   | implementation of content<br>negotiation                      |
| ii                                            | libhttpclient-java         | 4.5.1-1                       | all   | HTTP/1.1 compliant HTTP<br>agent implementation               |

|                                                                  |                                    |       |                                       |
|------------------------------------------------------------------|------------------------------------|-------|---------------------------------------|
| ii libhttpcore-java                                              | 4.4.4-1                            | all   | set of low level HTTP                 |
| transport components for Java                                    |                                    |       |                                       |
| ii libhud2:amd64                                                 | 14.10+16.04.20160415-0ubuntu1      |       |                                       |
| amd64 library for exporting items to the Unity HUD               |                                    |       |                                       |
| ii libhunspell-1.3-0:amd64                                       | 1.3.3-4ubuntu1                     | amd64 | spell checker and                     |
| morphological analyzer (shared library)                          |                                    |       |                                       |
| ii libhunspell-1.3-0:i386                                        | 1.3.3-4ubuntu1                     | i386  | spell checker and                     |
| morphological analyzer (shared library)                          |                                    |       |                                       |
| ii libhx509-5-heimdal:amd64                                      | 1.7~git20150920+dfsg-4ubuntu1      | amd64 | Heimdal                               |
| Kerberos - X509 support library                                  |                                    |       |                                       |
| ii libhybris                                                     | 0.1.0+git20151016+6d424c9-0ubuntu7 | amd64 | Allows to run                         |
| bionic-based HW adaptations in glibc systems - libs              |                                    |       |                                       |
| ii libhybris-common1                                             | 0.1.0+git20151016+6d424c9-0ubuntu7 | amd64 |                                       |
| Common library that contains the Android linker and custom hooks |                                    |       |                                       |
| ii libhyphen0:amd64                                              | 2.8.8-2ubuntu1                     | amd64 | ALTLinux hyphenation library - shared |
| library                                                          |                                    |       |                                       |
| ii libibus-1.0-5:amd64                                           | 1.5.11-1ubuntu2                    | amd64 | Intelligent Input                     |
| Bus - shared library                                             |                                    |       |                                       |
| ii libical1a:amd64                                               | 1.0.1-0ubuntu2                     | amd64 | iCalendar library                     |
| implementation in C (runtime)                                    |                                    |       |                                       |
| ii libice-dev:amd64                                              | 2:1.0.9-1                          | amd64 | X11 Inter-Client                      |
| Exchange library (development headers)                           |                                    |       |                                       |
| ii libice6:amd64                                                 | 2:1.0.9-1                          | amd64 | X11 Inter-Client                      |
| Exchange library                                                 |                                    |       |                                       |
| ii libice6:i386                                                  | 2:1.0.9-1                          | i386  | X11 Inter-Client Exchange             |
| library                                                          |                                    |       |                                       |
| ii libicu-dev:amd64                                              | 55.1-7                             | amd64 | Development files for International   |
| Components for Unicode                                           |                                    |       |                                       |
| ii libicu55:amd64                                                | 55.1-7                             | amd64 | International Components              |
| for Unicode                                                      |                                    |       |                                       |
| ii libicu55:i386                                                 | 55.1-7                             | i386  | International Components for          |
| Unicode                                                          |                                    |       |                                       |
| ii libidn11:amd64                                                | 1.32-3ubuntu1.1                    | amd64 | GNU Libidn library,                   |
| implementation of IETF IDN specifications                        |                                    |       |                                       |
| ii libidn11:i386                                                 | 1.32-3ubuntu1.1                    | i386  | GNU Libidn library,                   |
| implementation of IETF IDN specifications                        |                                    |       |                                       |
| ii libido3-0.1-0:amd64                                           | 13.10.0+16.04.20161028-0ubuntu1    | amd64 | Shared                                |
| library providing extra                                          |                                    |       |                                       |
| gtk menu items for display in                                    |                                    |       |                                       |
| ii libiec61883-0:amd64                                           | 1.2.0-0.2                          | amd64 | an partial                            |
| implementation of IEC 61883                                      |                                    |       |                                       |
| ii libiec61883-0:i386                                            | 1.2.0-0.2                          | i386  | an partial implementation             |
| of IEC 61883                                                     |                                    |       |                                       |
| ii libieee1284-3:amd64                                           | 0.2.11-12                          | amd64 | cross-platform library                |
| for parallel port access                                         |                                    |       |                                       |
| ii libijs-0.35:amd64                                             | 0.35-12                            | amd64 | IJS raster image transport            |

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|-----------------------------------------------------------|------------------------------------------|-------|--------------------------------|--|
| protocol: shared library                                  |                                          |       |                                |  |
| ii libilmbase-dev                                         | 2.2.0-11ubuntu2                          | amd64 | development files for          |  |
| ILMBase                                                   |                                          |       |                                |  |
| ii libilmbase12:amd64                                     | 2.2.0-11ubuntu2                          | amd64 | several utility                |  |
| libraries                                                 |                                          |       |                                |  |
| from ILM used by OpenEXR                                  |                                          |       |                                |  |
| ii libimobiledevice6:amd64                                | 1.2.0+dfsg-3~ubuntu0.2                   | amd64 | Library for                    |  |
| communicating with the iPhone and iPod Touch              |                                          |       |                                |  |
| ii libindicator3-7                                        | 12.10.2+16.04.20151208-0ubuntu1          | amd64 | panel                          |  |
| indicator applet - shared library                         |                                          |       |                                |  |
| ii libindicator7                                          | 12.10.2+16.04.20151208-0ubuntu1          | amd64 | panel indicator                |  |
| applet - shared library                                   |                                          |       |                                |  |
| ii libinput10:amd64                                       | 1.2.3-1ubuntu1                           | amd64 | input device                   |  |
| management and event handling library - shared library    |                                          |       |                                |  |
| ii libio-html-perl                                        | 1.001-1                                  | all   | open an HTML file with         |  |
| automatic charset detection                               |                                          |       |                                |  |
| ii libio-pty-perl                                         | 1:1.08-1.1build1                         |       |                                |  |
| amd64 Perl module for pseudo tty IO                       |                                          |       |                                |  |
| ii libio-socket-inet6-perl                                | 2.72-2                                   | all   | object interface for           |  |
| AF_INET6 domain sockets                                   |                                          |       |                                |  |
| ii libio-socket-ssl-perl                                  | 2.024-1                                  | all   | Perl module implementing       |  |
| object oriented interface to SSL sockets                  |                                          |       |                                |  |
| ii libio-string-perl                                      | 1.08-3                                   | all   | Emulate IO::File interface for |  |
| in-core strings                                           |                                          |       |                                |  |
| ii libipc-run-perl                                        | 0.94-1                                   | all   | Perl module for running        |  |
| processes                                                 |                                          |       |                                |  |
| ii libipc-system-simple-perl                              | 1.25-3                                   | all   | Perl module to run             |  |
| commands simply, with detailed diagnostics                |                                          |       |                                |  |
| ii libisc-export160                                       | 1:9.10.3.dfsg.P4-8ubuntu1.4              |       |                                |  |
| amd64 Exported ISC Shared Library                         |                                          |       |                                |  |
| ii libisc160:amd64                                        | 1:9.10.3.dfsg.P4-8ubuntu1.4              | amd64 | ISC Shared                     |  |
| Library used by BIND                                      |                                          |       |                                |  |
| ii libisccc140:amd64                                      | 1:9.10.3.dfsg.P4-8ubuntu1.4              | amd64 | Command                        |  |
| Channel Library used by BIND                              |                                          |       |                                |  |
| ii libisccfg140:amd64                                     | 1:9.10.3.dfsg.P4-8ubuntu1.4              | amd64 | Config File                    |  |
| Handling Library used by BIND                             |                                          |       |                                |  |
| ii libisl15:amd64                                         | 0.16.1-1                                 | amd64 | manipulating sets and          |  |
| relations of integer points bounded by linear constraints |                                          |       |                                |  |
| ii libitm1:amd64                                          | 5.4.0-6ubuntu1~16.04.4                   | amd64 | GNU                            |  |
| Transactional Memory Library                              |                                          |       |                                |  |
| ii libiw30:amd64                                          | 30~pre9-8ubuntu1                         |       |                                |  |
| amd64 Wireless tools - library                            |                                          |       |                                |  |
| ii libjack-jackd2-0:amd64                                 | 1.9.10+20150825git1ed50c92~dfsg-1ubuntu1 | amd64 |                                |  |
| JACK Audio Connection Kit (libraries)                     |                                          |       |                                |  |
| ii libjack-jackd2-0:i386                                  | 1.9.10+20150825git1ed50c92~dfsg-1ubuntu1 | i386  | JACK                           |  |
| Audio Connection Kit (libraries)                          |                                          |       |                                |  |
| ii libjas-java                                            | 2.5.4408-1                               | all   | Java object-oriented type-safe |  |
| Algebra System                                            |                                          |       |                                |  |

|                                                                           |                            |       |                                            |
|---------------------------------------------------------------------------|----------------------------|-------|--------------------------------------------|
| ii libjas-plotter-java<br>library                                         | 2.2.6+dfsg1-2              | all   | JAS(2) Plotter graphic                     |
| ii libjasper-dev<br>for the JasPer JPEG-2000 library                      | 1.900.1-debian1-2.4ubuntu1 | amd64 | Development files                          |
| ii libjasper1:amd64<br>JasPer JPEG-2000 runtime library                   | 1.900.1-debian1-2.4ubuntu1 | amd64 |                                            |
| ii libjavascriptcoregtk-1.0-0:i386<br>library from WebKitGTK+             | 2.4.11-0ubuntu0.1          | i386  | JavaScript engine                          |
| ii libjavascriptcoregtk-4.0-18:amd64<br>engine library from WebKitGTK+    | 2.14.3-0ubuntu0.16.04.1    | amd64 | JavaScript                                 |
| ii libjavascriptcoregtk-4.0-18:i386<br>engine library from WebKitGTK+     | 2.14.3-0ubuntu0.16.04.1    | i386  | JavaScript                                 |
| ii libjaxen-java                                                          | 1.1.6-1ubuntu1             | all   | Java XPath engine                          |
| ii libjaxp1.3-java<br>transformer APIs (DOM, SAX, JAXP, TrAX)             | 1.3.05-2ubuntu3            | all   | Java XML parser and                        |
| ii libjbig-dev:amd64<br>files                                             | 2.1-3.1                    | amd64 | JBIGkit development                        |
| ii<br>libjbig0:amd64                                                      | 2.1-3.1                    | amd64 | JBIGkit libraries                          |
| ii libjbig0:i386                                                          | 2.1-3.1                    | i386  | JBIGkit libraries                          |
| ii libjbig2dec0<br>- shared libraries                                     | 0.12+20150918-1            | amd64 | JBIG2 decoder library                      |
| ii libjcommon-java<br>Java                                                | 1.0.16-5                   | all   | General Purpose library for                |
| ii libjdom1-java<br>using XML                                             | 1.1.3-1                    | all   | lightweight and fast library               |
| ii libjetty-java<br>webserver -- core libraries                           | 6.1.26-5                   | all   | Java servlet engine and                    |
| ii libjfreechart-java<br>1.0.13-8                                         | all                        | all   | Chart library for Java                     |
| ii libjfugue-java<br>programming                                          | 4.0.3-3                    | all   | Java API for music                         |
| ii libjlatexmath-java<br>math mode wrote in Java                          | 1.0.3-1                    | all   | Implementation of LaTeX                    |
| ii libjpeg-dev:amd64<br>Group's JPEG runtime library (dependency package) | 8c-2ubuntu8                | amd64 | Independent JPEG                           |
| ii libjpeg-turbo8:amd64<br>compliant runtime library.                     | 1.4.2-0ubuntu3             | amd64 | IJG JPEG                                   |
| ii libjpeg-turbo8:i386<br>runtime library.                                | 1.4.2-0ubuntu3             | i386  | IJG JPEG compliant                         |
| ii libjpeg-turbo8-dev:amd64<br>amd64                                      | 1.4.2-0ubuntu3             |       | Development files for the IJG JPEG library |
| ii libjpeg62:i386<br>JPEG runtime library (version 6.2)                   | 1:6b2-2                    | i386  | Independent JPEG Group's                   |
| ii libjpeg8:amd64<br>Group's JPEG runtime library (dependency package)    | 8c-2ubuntu8                | amd64 | Independent JPEG                           |
| ii libjpeg8:i386<br>Group's JPEG runtime library (dependency package)     | 8c-2ubuntu8                | i386  | Independent JPEG                           |

|                             |                               |       |                                                                            |
|-----------------------------|-------------------------------|-------|----------------------------------------------------------------------------|
| ii libjpeg8-dev:amd64       | 8c-2ubuntu8                   | amd64 | Independent JPEG Group's JPEG runtime library (dependency package)         |
| ii libjs-inherits           | 2.0.1-3                       | all   | Exposes inherits function from Node.js environment                         |
| ii libjs-jquery             | 1.11.3+dfsg-4                 | all   | JavaScript library for dynamic web applications                            |
| ii libjs-modernizr          | 2.6.2+ds1-1ubuntu1            | all   | JavaScript library to detect HTML5 and CSS3 features in the user's browser |
| ii libjs-node-uuid          | 1.4.0-1                       | all   | simple, fast generation of RFC4122 UUIDs - JavaScript library              |
| ii libjs-sphinxdoc          | 1.3.6-2ubuntu1                | all   | JavaScript support for Sphinx documentation                                |
| ii libjs-underscore         | 1.7.0~dfsg-1ubuntu1           | all   | JavaScript's functional programming helper library                         |
| ii libjsch-java             | 0.1.53-1ubuntu1               | all   | Java implementation of the SSH2 protocol                                   |
| ii libjson-c2:amd64         | 0.11-4ubuntu2                 | amd64 | JSON manipulation library - shared library                                 |
| ii libjson-c2:i386          | 0.11-4ubuntu2                 | i386  | JSON manipulation library - shared library                                 |
| ii libjson-glib-1.0-0:amd64 | 1.1.2-0ubuntu1                | amd64 | GLib JSON manipulation library                                             |
| ii libjson-glib-1.0-common  | 1.1.2-0ubuntu1                | all   | GLib JSON manipulation library (common files)                              |
| ii libjsoncpp1:amd64        | 1.7.2-1                       | amd64 | library for reading and writing JSON for C++                               |
| ii libjsoup-java            | 1.8.3-1                       | all   | Java HTML parser that makes sense of real-world HTML soup                  |
| ii libjsr305-java           | 0.1~+svn49-9                  | all   | Java library that provides annotations for software defect detection       |
| ii libk5crypto3:amd64       | 1.13.2+dfsg-5ubuntu1          | amd64 | MIT Kerberos runtime libraries - Crypto Library                            |
| ii libk5crypto3:i386        | 1.13.2+dfsg-5ubuntu1          | i386  | MIT Kerberos runtime libraries - Crypto Library                            |
| ii libkate1:amd64           | 0.4.1-7                       | amd64 | Codec for karaoke and text encapsulation                                   |
| ii libkeyutils1:amd64       | 1.5.9-8ubuntu1                | amd64 | Linux Key Management Utilities (library)                                   |
| ii libkeyutils1:i386        | 1.5.9-8ubuntu1                | i386  | Linux Key Management Utilities (library)                                   |
| ii libklibc                 | 2.0.4-8ubuntu1.16.04.2        | amd64 | minimal libc subset for use with initramfs                                 |
| ii libkmod2:amd64           | 22-1ubuntu4                   | amd64 | libkmod shared library                                                     |
| ii libkpathsea6:amd64       | 2015.20160222.37495-1         | amd64 | TeX Live: path search library for TeX (runtime part)                       |
| ii libkrb5-26-heimdal:amd64 | 1.7~git20150920+dfsg-4ubuntu1 | amd64 | Heimdal                                                                    |

|                                                   |                                                              |       |                                    |
|---------------------------------------------------|--------------------------------------------------------------|-------|------------------------------------|
| Kerberos - libraries                              |                                                              |       |                                    |
| ii libkrb5-3:amd64                                | 1.13.2+dfsg-5ubuntu1                                         | amd64 | MIT Kerberos                       |
| runtime libraries                                 |                                                              |       |                                    |
| ii libkrb5-3:i386                                 | 1.13.2+dfsg-5ubuntu1                                         |       |                                    |
| i386                                              | MIT Kerberos runtime libraries                               |       |                                    |
| ii libkrb5support0:amd64                          | 1.13.2+dfsg-5ubuntu1                                         | amd64 | MIT Kerberos                       |
| runtime libraries - Support library               |                                                              |       |                                    |
| ii libkrb5support0:i386                           | 1.13.2+dfsg-5ubuntu1                                         | i386  | MIT Kerberos                       |
| runtime libraries - Support library               |                                                              |       |                                    |
| ii libksba8:amd64                                 | 1.3.3-1ubuntu0.16.04.1                                       | amd64 | X.509 and CMS                      |
| support library                                   |                                                              |       |                                    |
| ii liblangtag-common                              | 0.5.7-2ubuntu1                                               | all   | library to access tags             |
| for identifying languages -- data                 |                                                              |       |                                    |
| ii liblangtag1:amd64                              | 0.5.7-2ubuntu1                                               | amd64 | library to access tags             |
| for identifying languages                         |                                                              |       |                                    |
| ii liblapack-dev                                  | 3.6.0-2ubuntu2                                               |       |                                    |
| amd64                                             | Library of linear algebra routines 3 - static version        |       |                                    |
| ii liblapack3                                     | 3.6.0-2ubuntu2                                               | amd64 | Library of linear algebra          |
| routines 3 - shared version                       |                                                              |       |                                    |
| ii liblcms2-2:amd64                               | 2.6-3ubuntu2                                                 | amd64 | Little CMS 2 color                 |
| management library                                |                                                              |       |                                    |
| ii liblcms2-2:i386                                | 2.6-3ubuntu2                                                 | i386  | Little CMS 2 color                 |
| management library                                |                                                              |       |                                    |
| ii liblcms2-utils                                 | 2.6-3ubuntu2                                                 | amd64 | Little CMS 2 color                 |
| management library (utilities)                    |                                                              |       |                                    |
| ii libldap-2.4-2:amd64                            | 2.4.42+dfsg-2ubuntu3.1                                       | amd64 | OpenLDAP                           |
| libraries                                         |                                                              |       |                                    |
| ii libldb1:amd64                                  | 2:1.1.24-1ubuntu3                                            |       |                                    |
| amd64                                             | LDAP-like embedded database - shared library                 |       |                                    |
| ii liblightdm-gobject-1-0:amd64                   | 1.18.3-0ubuntu1                                              | amd64 | LightDM                            |
| GObject client library                            |                                                              |       |                                    |
| ii liblircclient0:amd64                           | 0.9.0-0ubuntu6                                               | amd64 | infra-red remote                   |
| control support - client library                  |                                                              |       |                                    |
| ii liblist-moreutils-perl                         | 0.413-1build1                                                | amd64 | Perl module with                   |
| additional list functions not found in List::Util |                                                              |       |                                    |
| ii liblldb-3.8                                    | 1:3.8-2ubuntu4                                               | amd64 | Next generation, high-             |
| performance debugger, library                     |                                                              |       |                                    |
| ii libllvm3.8:amd64                               | 1:3.8-2ubuntu4                                               | amd64 | Modular compiler                   |
| and toolchain technologies, runtime library       |                                                              |       |                                    |
| ii libllvm3.8:i386                                | 1:3.8-2ubuntu4                                               |       |                                    |
| i386                                              | Modular compiler and toolchain technologies, runtime library |       |                                    |
| ii liblocale-gettext-perl                         | 1.07-1build1                                                 | amd64 | module using libc                  |
| functions for internationalization in Perl        |                                                              |       |                                    |
| ii liblog4j1.2-java                               | 1.2.17-7ubuntu1                                              | all   | Logging library for java           |
| ii liblouis-data                                  | 2.6.4-2                                                      | all   | Braille translation library - data |
| ii liblouis9:amd64                                | 2.6.4-2                                                      | amd64 | Braille translation library        |
| - shared libs                                     |                                                              |       |                                    |
| ii liblouisutdml-bin                              | 2.5.0-3                                                      | amd64 | Braille UTDML                      |



|                                                 |                              |                                          |       |                                                       |
|-------------------------------------------------|------------------------------|------------------------------------------|-------|-------------------------------------------------------|
| translation utilities                           |                              |                                          |       |                                                       |
| ii liblouisutdml-data                           | 2.5.0-3                      |                                          |       |                                                       |
|                                                 | all                          | Braille UTDML translation library - data |       |                                                       |
| ii liblouisutdml6:amd64                         | 2.5.0-3                      |                                          | amd64 | Braille UTDML                                         |
| translation library - shared libs               |                              |                                          |       |                                                       |
| ii liblqr-1-0:amd64                             | 0.4.2-2                      |                                          | amd64 | converts plain array                                  |
| images into multi-size representation           |                              |                                          |       |                                                       |
| ii liblsan0:amd64                               | 5.4.0-6ubuntu1~16.04.4       |                                          | amd64 | LeakSanitizer -- a                                    |
| memory leak detector (runtime)                  |                              |                                          |       |                                                       |
| ii libltdl7:amd64                               | 2.4.6-0.1                    |                                          | amd64 | System independent                                    |
| dlopen wrapper for GNU libtool                  |                              |                                          |       |                                                       |
| ii liblua5.1-0:amd64                            | 5.1.5-8ubuntu1               |                                          | amd64 | Shared library for the                                |
| Lua interpreter version 5.1                     |                              |                                          |       |                                                       |
| ii liblua5.2-0:amd64                            | 5.2.4-1ubuntu1               | amd64                                    |       | Shared library for the Lua interpreter version        |
| 5.2                                             |                              |                                          |       |                                                       |
| ii libluajit-5.1-2:amd64                        | 2.0.4+dfsg-1                 |                                          | amd64 | Just in time compiler                                 |
| for Lua - library version                       |                              |                                          |       |                                                       |
| ii libluajit-5.1-common                         | 2.0.4+dfsg-1                 |                                          | all   | Just in time compiler for                             |
| Lua - common files                              |                              |                                          |       |                                                       |
| ii liblwp-mediatypes-perl                       | 6.02-1                       |                                          | all   | module to guess media                                 |
| type for a file or a URL                        |                              |                                          |       |                                                       |
| ii liblwp-protocol-https-perl                   | 6.06-2                       |                                          | all   | HTTPS driver for                                      |
| LWP::UserAgent                                  |                              |                                          |       |                                                       |
| ii liblwres141:amd64                            | 1:9.10.3.dfsg.P4-8ubuntu1.4  |                                          | amd64 | Lightweight                                           |
| Resolver Library used by BIND                   |                              |                                          |       |                                                       |
| ii liblz4-1:amd64                               | 0.0~r131-2ubuntu2            | amd64                                    |       | Fast LZ compression algorithm library -               |
| runtime                                         |                              |                                          |       |                                                       |
| ii liblzma-dev:amd64                            | 5.1.1alpha+20120614-2ubuntu2 |                                          | amd64 | XZ-format                                             |
| compression library - development files         |                              |                                          |       |                                                       |
| ii liblzma5:amd64                               | 5.1.1alpha+20120614-2ubuntu2 |                                          | amd64 | XZ-format                                             |
| compression library                             |                              |                                          |       |                                                       |
| ii liblzma5:i386                                | 5.1.1alpha+20120614-2ubuntu2 |                                          | i386  | XZ-format                                             |
| compression library                             |                              |                                          |       |                                                       |
| ii liblzo2-2:amd64                              | 2.08-1.2                     |                                          | amd64 | data compression library                              |
| ii libmad0:amd64                                | 0.15.1b-8ubuntu1             |                                          | amd64 | MPEG audio                                            |
| decoder library                                 |                              |                                          |       |                                                       |
| ii libmagic1:amd64                              | 1:5.25-2ubuntu1              | amd64                                    |       | File type determination library using "magic" numbers |
| ii libmagiccore-6.q16-2:amd64                   | 8:6.8.9.9-7ubuntu5.3         |                                          | amd64 | low-level                                             |
| image manipulation library -- quantum depth Q16 |                              |                                          |       |                                                       |
| ii libmagiccore-6.q16-2-extra:amd64             | 8:6.8.9.9-7ubuntu5.3         |                                          | amd64 | low-level                                             |
| image manipulation library - extra codecs (Q16) |                              |                                          |       |                                                       |
| ii libmagicwand-6.q16-2:amd64                   | 8:6.8.9.9-7ubuntu5.3         |                                          | amd64 | image                                                 |
| manipulation library                            |                              |                                          |       |                                                       |
| ii libmail-sendmail-perl                        | 0.79.16-1                    |                                          | all   | Send email from a perl                                |
| script                                          |                              |                                          |       |                                                       |

|                                                                                      |                                                           |       |                            |
|--------------------------------------------------------------------------------------|-----------------------------------------------------------|-------|----------------------------|
| ii libmailtools-perl<br>programs                                                     | 2.13-1                                                    | all   | Manipulate email in perl   |
| ii libmaven-parent-java<br>all                                                       | 21-2<br>Maven metadata for Apache Maven itself            |       |                            |
| ii libmaven2-core-java                                                               | 2.2.1-24                                                  | all   | Core libraries for Maven2  |
| ii libmaven3-core-java                                                               | 3.3.9-3                                                   | all   | Core libraries for Maven 3 |
| ii libmbim-glib4:amd64<br>use the MBIM protocol                                      | 1.12.2-2ubuntu1                                           | amd64 | Support library to         |
| ii libmbim-proxy<br>communicate with MBIM ports                                      | 1.12.2-2ubuntu1                                           | amd64 | Proxy to                   |
| ii libmedia1<br>provide access to the Android Media HAL                              | 0.1.0+git20151016+6d424c9-0ubuntu7                        | amd64 | Library to                 |
| ii libmediaart-2.0-0:amd64<br>media art extraction and cache management library      | 1.9.0-2                                                   | amd64 |                            |
| ii libmessaging-menu0:amd64<br>Messaging Menu - shared library                       | 13.10.1+15.10.20150505-0ubuntu1                           | amd64 |                            |
| ii libmetacity-private3a:amd64<br>Metacity window manager                            | 1:3.18.7-0ubuntu0.2                                       | amd64 | library for the            |
| ii libmhash2:amd64<br>cryptographic hashing and message authentication               | 0.9.9.9-7                                                 | amd64 | Library for                |
| ii libmimic0:amd64<br>Mimic V2.x content                                             | 1.0.4-2.3                                                 | amd64 | A video codec for          |
| ii libminiupnpc10:amd64<br>client lightweight library                                | 1.9.20140610-2ubuntu2                                     | amd64 | UPnP IGD                   |
| ii libmirclient9:amd64<br>server for Ubuntu - client library                         | 0.21.0+16.04.20160330-0ubuntu1                            | amd64 | Display                    |
| ii libmircommon5:amd64<br>server for Ubuntu - shared library                         | 0.21.0+16.04.20160330-0ubuntu1                            | amd64 | Display                    |
| ii libmirprotobuf3:amd64<br>server for Ubuntu - RPC definitions                      | 0.21.0+16.04.20160330-0ubuntu1                            | amd64 | Display                    |
| ii libmjpegutils-2.1-0<br>capture/editing/replay and MPEG encoding toolset (library) | 1:2.1.0+debian-4                                          | amd64 | MJPEG                      |
| ii libmm-glib0:amd64<br>managing modems - shared libraries                           | 1.4.12-1ubuntu1                                           | amd64 | D-Bus service for          |
| ii libmms0:amd64<br>library - shared library                                         | 0.6.4-1                                                   | amd64 | MMS stream protocol        |
| ii libmng2:amd64<br>amd64                                                            | 2.0.2-0ubuntu3<br>Multiple-image Network Graphics library |       |                            |
| ii libmng2:i386<br>Graphics library                                                  | 2.0.2-0ubuntu3                                            | i386  | Multiple-image Network     |
| ii libmnl0:amd64<br>communication library                                            | 1.0.3-5                                                   | amd64 | minimalistic Netlink       |
| ii libmodplug1:amd64<br>mod music based on ModPlug                                   | 1:0.8.8.5-2                                               | amd64 | shared libraries for       |
| ii libmono-2.0-dev<br>- Development files (Default version)                          | 4.2.1.102+dfsg2-7ubuntu4                                  | amd64 | Mono JIT library           |
| ii libmono-accessibility4.0-cil<br>Accessibility library (for CLI 4.0)               | 4.2.1.102+dfsg2-7ubuntu4                                  | all   | Mono                       |

|                                                                                                             |                          |     |                                 |
|-------------------------------------------------------------------------------------------------------------|--------------------------|-----|---------------------------------|
| ii libmono-c5-1.1-cil<br>all Mono C5 library                                                                | 4.2.1.102+dfsg2-7ubuntu4 |     |                                 |
| ii libmono-cairo4.0-cil<br>(for CLI 4.0)                                                                    | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono Cairo library              |
| ii libmono-cecil-private-cil<br>library                                                                     | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono.Cecil                      |
| ii libmono-cil-dev<br>Libraries (BCL) - Development files                                                   | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono Base Class                 |
| ii libmono-codecontracts4.0-cil<br>Mono.CodeContracts library (for CLI 4.0)                                 | 4.2.1.102+dfsg2-7ubuntu4 | all |                                 |
| ii libmono-compilerservices-symbolwriter4.0-cil<br>Mono.CompilerServices.SymbolWriter library (for CLI 4.0) | 4.2.1.102+dfsg2-7ubuntu4 |     | all                             |
| ii libmono-corlib4.5-cil<br>(for CLI 4.5)                                                                   | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono core library               |
| ii libmono-cscompmgd0.0-cil<br>cscompmgd library (for CLI 4.0)                                              | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                            |
| ii libmono-csharp4.0c-cil<br>library (for CLI 4.0)                                                          | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono.CSharp                     |
| ii libmono-custommarshallers4.0-cil<br>CustomMarshalers library (for CLI 4.0)                               | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                            |
| ii libmono-data-tds4.0-cil<br>Library (for CLI 4.0)                                                         | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono Data                       |
| ii libmono-db2-1.0-cil                                                                                      | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono DB2 library                |
| ii libmono-debugger-soft4.0a-cil<br>Debugger library (for CLI 4.0)                                          | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono Soft                       |
| ii libmono-http4.0-cil<br>4.2.1.102+dfsg2-7ubuntu4                                                          | all                      |     | Mono.Http library (for CLI 4.0) |
| ii libmono-i18n-cjk4.0-cil<br>library (for CLI 4.0)                                                         | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono I18N.CJK                   |
| ii libmono-i18n-mideast4.0-cil<br>I18N.MidEast library (for CLI 4.0)                                        | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                            |
| ii libmono-i18n-other4.0-cil<br>I18N.Other library (for CLI 4.0)                                            | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                            |
| ii libmono-i18n-rare4.0-cil<br>library (for CLI 4.0)                                                        | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono I18N.Rare                  |
| ii libmono-i18n-west4.0-cil<br>I18N.West library (for CLI 4.0)                                              | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                            |
| ii libmono-i18n4.0-all<br>all Mono I18N libraries metapackage (for CLI 4.0)                                 | 4.2.1.102+dfsg2-7ubuntu4 |     |                                 |
| ii libmono-i18n4.0-cil<br>library (for CLI 4.0)                                                             | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono I18N base                  |
| ii libmono-ldap4.0-cil<br>library (for CLI 4.0)                                                             | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono LDAP                       |
| ii libmono-management4.0-cil<br>Management library (for CLI 4.0)                                            | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                            |
| ii libmono-messaging-rabbitmq4.0-cil<br>Messaging RabbitMQ library (for CLI 4.0)                            | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                            |
| ii libmono-messaging4.0-cil                                                                                 | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                            |

|                                 |                                                                  |                          |     |                         |
|---------------------------------|------------------------------------------------------------------|--------------------------|-----|-------------------------|
| Messaging library (for CLI 4.0) |                                                                  |                          |     |                         |
| ii                              | libmono-microsoft-build-engine4.0-cil                            | 4.2.1.102+dfsg2-7ubuntu4 |     |                         |
|                                 | all Mono Microsoft.Build.Engine library (for CLI 4.0)            |                          |     |                         |
| ii                              | libmono-microsoft-build-framework4.0-cil                         | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                    |
|                                 | Microsoft.Build.Framework library (for CLI 4.0)                  |                          |     |                         |
| ii                              | libmono-microsoft-build-tasks-v4.0-4.0-cil                       | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                    |
|                                 | Microsoft.Build.Tasks.v4.0 library (for CLI 4.0)                 |                          |     |                         |
| ii                              | libmono-microsoft-build-utilities-v4.0-4.0-cil                   | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                    |
|                                 | Microsoft.Build.Utilities.v4.0 library (for CLI 4.0)             |                          |     |                         |
| ii                              | libmono-microsoft-build4.0-cil                                   | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                    |
|                                 | Microsoft.Build library (for CLI 4.0)                            |                          |     |                         |
| ii                              | libmono-microsoft-csharp4.0-cil                                  | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                    |
|                                 | Microsoft.CSharp library (for CLI 4.0)                           |                          |     |                         |
| ii                              | libmono-microsoft-visualc10.0-cil                                | 4.2.1.102+dfsg2-7ubuntu4 |     |                         |
|                                 | all Mono Microsoft.VisualBasic library (for CLI 4.0)             |                          |     |                         |
| ii                              | libmono-microsoft-web-infrastructure1.0-cil                      | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                    |
|                                 | Microsoft.Web.Infrastructure library (for CLI 4.0)               |                          |     |                         |
| ii                              | libmono-oracle4.0-cil                                            | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono Oracle             |
|                                 | library (for CLI 4.0)                                            |                          |     |                         |
| ii                              | libmono-parallel4.0-cil                                          | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono.Parallel           |
|                                 | library (for CLI 4.0)                                            |                          |     |                         |
| ii                              | libmono-peapi4.0a-cil                                            | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono PEAPI              |
|                                 | library (for CLI 4.0)                                            |                          |     |                         |
| ii                              | libmono-posix4.0-cil                                             | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono.Posix              |
|                                 | library (for CLI 4.0)                                            |                          |     |                         |
| ii                              | libmono-rabbitmq4.0-cil                                          | 4.2.1.102+dfsg2-7ubuntu4 |     |                         |
|                                 | all Mono RabbitMQ.Client library (for CLI 4.0)                   |                          |     |                         |
| ii                              | libmono-relaxng4.0-cil                                           | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono Relaxng            |
|                                 | library (for CLI 4.0)                                            |                          |     |                         |
| ii                              | libmono-security4.0-cil                                          | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono Security           |
|                                 | library (for CLI 4.0)                                            |                          |     |                         |
| ii                              | libmono-sharpzip4.84-cil                                         | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                    |
|                                 | SharpZipLib library (for CLI 4.0)                                |                          |     |                         |
| ii                              | libmono-simd4.0-cil                                              | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono SIMD (for CLI 4.0) |
|                                 |                                                                  |                          |     |                         |
| ii                              | libmono-smiagnostics0.0-cil                                      | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                    |
|                                 | SMDiagnostics Library (for CLI 4.0)                              |                          |     |                         |
| ii                              | libmono-sqlite4.0-cil                                            | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono Sqlite             |
|                                 | library (for CLI 4.0)                                            |                          |     |                         |
| ii                              | libmono-system-componentmodel-composition4.0-cil                 | 4.2.1.102+dfsg2-7ubuntu4 |     | all                     |
|                                 | Mono System.ComponentModel.Composition library (for CLI 4.0)     |                          |     |                         |
| ii                              | libmono-system-componentmodel-dataannotations4.0-cil             | 4.2.1.102+dfsg2-7ubuntu4 |     | all                     |
|                                 | Mono System.ComponentModel.DataAnnotations library (for CLI 4.0) |                          |     |                         |
| ii                              | libmono-system-configuration-install4.0-cil                      | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                    |
|                                 | System.Configuration.Install library (for CLI 4.0)               |                          |     |                         |
| ii                              | libmono-system-configuration4.0-cil                              | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                    |
|                                 | System.Configuration library (for CLI 4.0)                       |                          |     |                         |
| ii                              | libmono-system-core4.0-cil                                       | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono                    |

|                                                          |                                                 |                          |                                                          |      |
|----------------------------------------------------------|-------------------------------------------------|--------------------------|----------------------------------------------------------|------|
| System.Core library (for CLI 4.0)                        |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-data-datasetextensions4.0-cil    | 4.2.1.102+dfsg2-7ubuntu4 |                                                          |      |
|                                                          | all                                             |                          | Mono System.Data.DataSetExtensions library (for CLI 4.0) |      |
| ii                                                       | libmono-system-data-entity4.0-cil               | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Data.Entity library (for CLI 4.0)                 |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-data-linq4.0-cil                 | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Data.Linq Library (for CLI 4.0)                   |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-data-services-client4.0-cil      | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Data.Services.Client library (for CLI 4.0)        |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-data-services4.0-cil             | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Data.Services library (for CLI 4.0)               |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-data4.0-cil                      | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Data library (for CLI 4.0)                        |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-design4.0-cil                    | 4.2.1.102+dfsg2-7ubuntu4 |                                                          |      |
|                                                          | all                                             |                          | Mono System.Design Library (for CLI 4.0)                 |      |
| ii                                                       | libmono-system-drawing-design4.0-cil            | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Drawing.Design (for CLI 4.0)                      |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-drawing4.0-cil                   | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Drawing library (for CLI 4.0)                     |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-dynamic4.0-cil                   | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Dynamic library (for CLI 4.0)                     |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-enterpriseservices4.0-cil        | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.EnterpriseServices library (for CLI 4.0)          |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-identitymodel-selectors4.0-cil   | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.IdentityModel.Selectors Library (for CLI 4.0)     |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-identitymodel4.0-cil             |                          |                                                          |      |
|                                                          | 4.2.1.102+dfsg2-7ubuntu4                        | all                      | Mono System.IdentityModel Library (for CLI 4.0)          |      |
| ii                                                       | libmono-system-io-compression-filesystem4.0-cil | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.IO.Compression.FileSystem library (for CLI 4.0)   |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-io-compression4.0-cil            | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.IO.Compression library (for CLI 4.0)              |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-json-microsoft4.0-cil            | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Json.Microsoft library (for CLI 4.0)              |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-json4.0-cil                      | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Json library (for CLI 4.0)                        |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-ldap-protocols4.0-cil            | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.DirectoryServices.Protocols library (for CLI 4.0) |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-ldap4.0-cil                      |                          |                                                          |      |
|                                                          | 4.2.1.102+dfsg2-7ubuntu4                        | all                      | Mono System.DirectoryServices library (for CLI 4.0)      |      |
| System.DirectoryServices.Protocols library (for CLI 4.0) |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-management4.0-cil                | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Management library (for CLI 4.0)                  |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-messaging4.0-cil                 | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Messaging library (for CLI 4.0)                   |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-net-http-formatting4.0-cil       | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Net.Http.Formatting library (for CLI 4.0)         |                                                 |                          |                                                          |      |
| ii                                                       | libmono-system-net-http-webrequest4.0-cil       | 4.2.1.102+dfsg2-7ubuntu4 | all                                                      | Mono |
| System.Net.Http.WebRequest library (for CLI 4.0)         |                                                 |                          |                                                          |      |

|                                                                                                                                           |                          |      |                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------|-----------------------------------------------------|
| ii libmono-system-net-http4.0-cil<br>System.Net.Http<br>library (for CLI 4.0)                                                             | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-net4.0-cil<br>System.Net library (for CLI 4.0)                                                                          | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-numeric4.0-cil<br>System.Numerics library (for CLI 4.0)                                                                 | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-reactive-core2.2-cil<br>System.Reactive.Core Library (for CLI 4.5)                                                      | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-reactive-debugger2.2-cil<br>System.Reactive.Debugger Library (for CLI 4.5)                                              | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-reactive-experimental2.2-cil<br>System.Reactive.Experimental Library (for CLI 4.5)                                      | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-reactive-interfaces2.2-cil<br>System.Reactive.Interfaces Library (for CLI 4.5)                                          | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-reactive-linq2.2-cil<br>System.Reactive.Linq Library (for CLI 4.5)                                                      | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-reactive-observable-aliases0.0-cil<br>System.Reactive.Linq Library (for CLI 4.5)                                        | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-reactive-platformservices2.2-cil<br>System.Reactive.PlatformServices Library (for CLI 4.5)                              | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-reactive-providers2.2-cil<br>System.Reactive.Providers Library (for CLI 4.5)                                            | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-reactive-runtime-remoting2.2-cil<br>System.Reactive.Runtime.Remoting Library (for CLI 4.5)                              | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-reactive-windows-forms2.2-cil<br>4.2.1.102+dfsg2-7ubuntu4                                                               | all                      | Mono | System.Reactive.Windows.Forms Library (for CLI 4.5) |
| ii libmono-system-reactive-windows-threading2.2-cil<br>System.Reactive.Windows.Threading Library (for CLI 4.5)                            | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-runtime-caching4.0-cil<br>System.Runtime.Caching Library (for CLI 4.0)                                                  | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-runtime-durableinstancing4.0-cil<br>System.Runtime.DurableInstancing Library (for CLI 4.0)                              | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-runtime-serialization-formatters-soap4.0-cil<br>Mono System.Runtime.Serialization.Formatters.Soap Library (for CLI 4.0) | 4.2.1.102+dfsg2-7ubuntu4 | all  |                                                     |
| ii libmono-system-runtime-serialization4.0-cil<br>System.Runtime.Serialization<br>Library (for CLI 4.0)                                   | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-runtime4.0-cil<br>System.Runtime library (for CLI 4.0)                                                                  | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-security4.0-cil<br>System.Security library (for CLI 4.0)                                                                | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-servicemodel-activation4.0-cil<br>System.ServiceModel.Activation Library (for CLI 4.0)                                  | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-servicemodel-discovery4.0-cil<br>System.ServiceModel.Discovery Library (for CLI 4.0)                                    | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |
| ii libmono-system-servicemodel-internals0.0-cil<br>System.ServiceModel.Internals Library (for CLI 4.0)                                    | 4.2.1.102+dfsg2-7ubuntu4 | all  | Mono                                                |

|                                                                   |                          |     |      |
|-------------------------------------------------------------------|--------------------------|-----|------|
| ii libmono-system-servicemodel-routing4.0-cil                     | 4.2.1.102+dfsg2-7ubuntu4 |     |      |
| all Mono System.ServiceModel.Routing Library (for CLI 4.0)        |                          |     |      |
| ii libmono-system-servicemodel-web4.0-cil                         | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.ServiceModel.Web Library (for CLI 4.0)                     |                          |     |      |
| ii libmono-system-servicemodel4.0a-cil                            | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.ServiceModel Library (for CLI 4.0)                         |                          |     |      |
| ii libmono-system-serviceprocess4.0-cil                           | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.ServiceProcess library (for CLI 4.0)                       |                          |     |      |
| ii libmono-system-threading-tasks-dataflow4.0-cil                 | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Threading.Tasks.Dataflow library (for CLI 4.0)             |                          |     |      |
| ii libmono-system-transactions4.0-cil                             | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Transactions library (for CLI 4.0)                         |                          |     |      |
| ii libmono-system-web-abstractions4.0-cil                         | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| all Mono System.Web.Abstractions library (for CLI 4.0)            |                          |     |      |
| ii libmono-system-web-applicationservices4.0-cil                  | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Web.ApplicationServices library (for CLI 4.0)              |                          |     |      |
| ii libmono-system-web-dynamicdata4.0-cil                          | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Web.DynamicData library (for CLI 4.0)                      |                          |     |      |
| ii libmono-system-web-extensions-design4.0-cil                    | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Web.Extensions.Design library (for CLI 4.0)                |                          |     |      |
| ii libmono-system-web-extensions4.0-cil                           | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Web.Extensions library (for CLI 4.0)                       |                          |     |      |
| ii libmono-system-web-http-selfhost4.0-cil                        | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Web.Http.SelfHost library (for CLI 4.0)                    |                          |     |      |
| ii libmono-system-web-http-webhost4.0-cil                         | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Web.Http.WebHost library (for CLI 4.0)                     |                          |     |      |
| ii libmono-system-web-http4.0-cil                                 | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Web.Http library (for CLI 4.0)                             |                          |     |      |
| ii libmono-system-web-mvc3.0-cil                                  | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| ASP.NET MVC 3.0 Library (for CLI 4.0)                             |                          |     |      |
| ii libmono-system-web-razor2.0-cil                                | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Web.Razor (for CLI 4.0)                                    |                          |     |      |
| ii libmono-system-web-routing4.0-cil                              | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Web.Routing (for CLI 4.0)                                  |                          |     |      |
| ii libmono-system-web-services4.0-cil                             | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Web.Services (for CLI 4.0)                                 |                          |     |      |
| ii libmono-system-web-webpages-deployment2.0-cil                  | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| all Mono System.Web.WebPages.Deployment (for CLI 4.0)             |                          |     |      |
| ii libmono-system-web-webpages-razor2.0-cil                       | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Web.WebPages.Razor (for CLI 4.0)                           |                          |     |      |
| ii libmono-system-web-webpages2.0-cil                             | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Web.WebPages (for CLI 4.0)                                 |                          |     |      |
| ii libmono-system-web4.0-cil                                      | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |
| System.Web library (for CLI 4.0)                                  |                          |     |      |
| ii libmono-system-windows-forms-datavisualization4.0a-cil         | 4.2.1.102+dfsg2-7ubuntu4 | all |      |
| Mono System.Windows.Forms.DataVisualization Library (for CLI 4.0) |                          |     |      |
| ii libmono-system-windows-forms4.0-cil                            | 4.2.1.102+dfsg2-7ubuntu4 | all | Mono |

|                                                                        |                                            |                          |       |                                                |
|------------------------------------------------------------------------|--------------------------------------------|--------------------------|-------|------------------------------------------------|
| System.Windows.Forms Library<br>(for CLI 4.0)                          | ii libmono-system-windows4.0-cil           | 4.2.1.102+dfsg2-7ubuntu4 | all   | Mono                                           |
| System.Windows library (for CLI 4.0)                                   | ii libmono-system-xaml4.0-cil              | 4.2.1.102+dfsg2-7ubuntu4 | all   | Mono                                           |
| System.Xaml Library (for CLI 4.0)                                      | ii libmono-system-xml-linq4.0-cil          | 4.2.1.102+dfsg2-7ubuntu4 | all   | Mono                                           |
| System.Xml.Linq library (for CLI 4.0)                                  | ii libmono-system-xml-serialization4.0-cil | 4.2.1.102+dfsg2-7ubuntu4 | all   | Mono                                           |
| System.Xml.Serialization library (for CLI 4.0)                         | ii libmono-system-xml4.0-cil               | 4.2.1.102+dfsg2-7ubuntu4 | all   | Mono                                           |
| System.Xml library (for CLI 4.0)                                       | ii libmono-system4.0-cil                   | 4.2.1.102+dfsg2-7ubuntu4 | all   | Mono System                                    |
| libraries (for CLI 4.0)                                                | ii                                         |                          |       |                                                |
| libmono-tasklets4.0-cil<br>library (for CLI 4.0)                       | ii libmono-tasklets4.0-cil                 | 4.2.1.102+dfsg2-7ubuntu4 | all   | Mono Tasklets                                  |
| libmono-webbrowser4.0-cil<br>Browser library (for CLI 4.0)             | ii libmono-webbrowser4.0-cil               | 4.2.1.102+dfsg2-7ubuntu4 | all   | Mono Web                                       |
| libmono-webmatrix-data4.0-cil<br>WebMatrix.Data Library (for CLI 4.0)  | ii libmono-webmatrix-data4.0-cil           | 4.2.1.102+dfsg2-7ubuntu4 | all   | Mono                                           |
| libmono-windowsbase4.0-cil<br>WindowsBase library (for CLI 4.0)        | ii libmono-windowsbase4.0-cil              | 4.2.1.102+dfsg2-7ubuntu4 | all   | Mono                                           |
| libmono-xbuild-tasks4.0-cil<br>Mono.XBuild.Tasks library (for CLI 4.0) | ii libmono-xbuild-tasks4.0-cil             | 4.2.1.102+dfsg2-7ubuntu4 | all   | Mono                                           |
| libmonoboehm-2.0-1<br>library (Boehm GC)                               | ii libmonoboehm-2.0-1                      | 4.2.1.102+dfsg2-7ubuntu4 | amd64 | Mono JIT                                       |
| libmonoboehm-2.0-dev<br>(Boehm GC)                                     | ii libmonoboehm-2.0-dev                    | 4.2.1.102+dfsg2-7ubuntu4 | amd64 | Mono JIT library - Development files           |
| libmount1:amd64<br>library                                             | ii libmount1:amd64                         | 2.27.1-6ubuntu3.2        | amd64 | device mounting                                |
| libmp3lame0:amd64<br>library                                           | ii libmp3lame0:amd64                       | 3.99.5+repack1-9build1   | amd64 | MP3 encoding                                   |
| libmpc3:amd64<br>complex floating-point library                        | ii libmpc3:amd64                           | 1.0.3-1                  | amd64 | multiple precision                             |
| libmpdec2:amd64<br>floating point arithmetic (runtime library)         | ii libmpdec2:amd64                         | 2.4.2-1                  | amd64 | library for decimal                            |
| libmpeg2-4:amd64<br>video decoder library                              | ii libmpeg2-4:amd64                        | 0.5.1-7                  | amd64 | MPEG1 and MPEG2                                |
| libmpeg2encpp-2.1-0<br>toolset (library)                               | ii libmpeg2encpp-2.1-0                     | 1:2.1.0+debian-4         | amd64 | MJPEG capture/editing/replay and MPEG encoding |
| libmpfr4:amd64<br>floating-point computation                           | ii libmpfr4:amd64                          | 3.1.4-1                  | amd64 | multiple precision                             |
| libmpg123-0:amd64<br>audio decoder (shared library)                    | ii libmpg123-0:amd64                       | 1.22.4-1                 | amd64 | MPEG layer 1/2/3                               |
| libmplex2-2.1-0                                                        | ii libmplex2-2.1-0                         | 1:2.1.0+debian-4         | amd64 | MJPEG                                          |



|                                                            |                             |       |                          |
|------------------------------------------------------------|-----------------------------|-------|--------------------------|
| capture/editing/replay and MPEG encoding toolset (library) |                             |       |                          |
| ii libmpx0:amd64                                           | 5.4.0-6ubuntu1~16.04.4      | amd64 | Intel memory             |
| protection extensions (runtime)                            |                             |       |                          |
| ii libmispub-0.1-1:amd64                                   | 0.1.2-2ubuntu1              | amd64 | library for parsing      |
| the mspub file structure                                   |                             |       |                          |
| ii                                                         |                             |       |                          |
| libmtdev1:amd64                                            | 1.1.5-1ubuntu2              | amd64 | Multitouch Protocol      |
| Translation Library - shared library                       |                             |       |                          |
| ii libmtp-common                                           | 1.1.10-2ubuntu1             | all   | Media Transfer           |
| Protocol (MTP) common files                                |                             |       |                          |
| ii libmtp-runtime                                          | 1.1.10-2ubuntu1             | amd64 | Media Transfer           |
| Protocol (MTP) runtime tools                               |                             |       |                          |
| ii libmtp9:amd64                                           | 1.1.10-2ubuntu1             | amd64 | Media Transfer           |
| Protocol (MTP) library                                     |                             |       |                          |
| ii libmwaw-0.3-3:amd64                                     | 0.3.7-1ubuntu2              | amd64 | import library for       |
| some old Mac text documents                                |                             |       |                          |
| ii libmysqlclient20:i386                                   | 5.7.17-0ubuntu0.16.04.1     | i386  | MySQL database           |
| client library                                             |                             |       |                          |
| ii                                                         |                             |       |                          |
| libmythes-1.2-0:amd64                                      | 2:1.2.4-1ubuntu3            | amd64 | simple thesaurus         |
| library                                                    |                             |       |                          |
| ii libnatpmp1:amd64                                        | 20110808-4                  | amd64 | portable and fully       |
| compliant implementation of NAT-PMP                        |                             |       |                          |
| ii libnautilus-extension1a:amd64                           | 1:3.18.4.is.3.14.3-0ubuntu5 | amd64 | libraries for            |
| nautilus components - runtime version                      |                             |       |                          |
| ii libnb-org-openide-util-java                             | 8.1+dfsg1-2                 | all   | Utility classes from the |
| NetBeans Platform                                          |                             |       |                          |
| ii libnb-org-openide-util-lookup-java                      | 8.1+dfsg1-2                 | all   | Utility lookup           |
| classes from the NetBeans Platform                         |                             |       |                          |
| ii libncurses5:amd64                                       | 6.0+20160213-1ubuntu1       | amd64 | shared libraries         |
| for terminal handling                                      |                             |       |                          |
| ii                                                         |                             |       |                          |
| libncurses5:i386                                           | 6.0+20160213-1ubuntu1       | i386  | shared libraries for     |
| terminal handling                                          |                             |       |                          |
| ii libncurses5-dev:amd64                                   | 6.0+20160213-1ubuntu1       | amd64 | developer's              |
| libraries for ncurses                                      |                             |       |                          |
| ii libncursesw5:amd64                                      | 6.0+20160213-1ubuntu1       | amd64 | shared                   |
| libraries for terminal handling (wide character support)   |                             |       |                          |
| ii libncursesw5:i386                                       | 6.0+20160213-1ubuntu1       | i386  | shared libraries         |
| for terminal handling (wide character support)             |                             |       |                          |
| ii libndp0:amd64                                           | 1.4-2ubuntu0.16.04.1        | amd64 | Library for              |
| Neighbor Discovery Protocol                                |                             |       |                          |
| ii libneon27-gnutls:amd64                                  | 0.30.1-3build1              | amd64 | HTTP and                 |
| WebDAV client                                              |                             |       |                          |
| library (GnuTLS enabled)                                   |                             |       |                          |
| ii libnet-dbus-perl                                        | 1.1.0-3build1               | amd64 | Perl extension for the   |
| DBus bindings                                              |                             |       |                          |
| ii libnet-dns-perl                                         | 0.81-2build1                | amd64 | Perform DNS queries      |

|                                                                                   |                        |  |       |                                 |
|-----------------------------------------------------------------------------------|------------------------|--|-------|---------------------------------|
| from a Perl script                                                                |                        |  |       |                                 |
| ii libnet-domain-tld-perl<br>Top-level Domains (TLDs)                             | 1.73-1                 |  | all   | list of currently available     |
| ii libnet-http-perl<br>HTTP connection client                                     | 6.09-1                 |  | all   | module providing low-level      |
| ii libnet-ip-perl<br>IPv4/IPv6 addresses                                          | 1.26-1                 |  | all   | Perl extension for manipulating |
| ii libnet-libidn-perl<br>bindings for GNU Libidn                                  | 0.12.ds-2build2        |  | amd64 | Perl                            |
| ii libnet-smtp-ssl-perl<br>support to Net::SMTP                                   | 1.03-1                 |  | all   | Perl module providing SSL       |
| ii libnet-ssleay-perl<br>Sockets Layer (SSL)                                      | 1.72-1build1           |  | amd64 | Perl module for Secure          |
| ii libnetfilter-conntrack3:amd64<br>conntrack library                             | 1.0.5-1                |  | amd64 | Netfilter netlink-              |
| ii libnetpbm10<br>tools shared libraries                                          | 2:10.0-15.3            |  | amd64 | Graphics conversion             |
| ii libnettle6:amd64<br>cryptographic library (symmetric and one-way cryptos)      | 3.2-1ubuntu0.16.04.1   |  | amd64 | low level                       |
| ii libnettle6:i386<br>level cryptographic library (symmetric and one-way cryptos) | 3.2-1ubuntu0.16.04.1   |  | i386  | low                             |
| ii libnewt0.52:amd64<br>Windowing Toolkit - text mode windowing with slang        | 0.52.18-1ubuntu2       |  | amd64 | Not Erik's                      |
| ii libnfnetwork0:amd64<br>Bindings Library                                        | 1.0.1-3                |  | amd64 | Netfilter netlink library       |
| ii libnih-dbus1:amd64<br>Bindings Library                                         | 1.0.3-4.3ubuntu1       |  | amd64 | NIH D-Bus                       |
| ii libnih1:amd64<br>Bindings Library                                              | 1.0.3-4.3ubuntu1       |  | amd64 | NIH Utility Library             |
| ii libnl-3-200:amd64<br>netlink sockets                                           | 3.2.27-1               |  | amd64 | library for dealing with        |
| ii libnl-genl-3-200:amd64<br>with<br>netlink sockets - generic netlink            | 3.2.27-1               |  | amd64 | library for dealing             |
| ii libnm-glib-vpn1:amd64<br>management framework (GLib VPN shared library)        | 1.2.2-0ubuntu0.16.04.3 |  | amd64 | network                         |
| ii libnm-glib4:amd64<br>management framework (GLib shared library)                | 1.2.2-0ubuntu0.16.04.3 |  | amd64 | network                         |
| ii libnm-gtk-common<br>and mobile dialogs - common files                          | 1.2.0-0ubuntu0.16.04.4 |  | all   | library for wireless            |
| ii libnm-gtk0:amd64<br>wireless and mobile dialogs (libnm-glib version)           | 1.2.0-0ubuntu0.16.04.4 |  | amd64 | library for                     |
| ii libnm-util2:amd64<br>management framework (shared library)                     | 1.2.2-0ubuntu0.16.04.3 |  | amd64 | network                         |
| ii libnm0:amd64<br>amd64 GObject-based client library for NetworkManager          | 1.2.2-0ubuntu0.16.04.3 |  | amd64 |                                 |
| ii libnma-common<br>and mobile dialogs - common files                             | 1.2.0-0ubuntu0.16.04.4 |  | all   | library for wireless            |
| ii libnma0:amd64<br>and mobile dialogs (libnm version)                            | 1.2.0-0ubuntu0.16.04.4 |  | amd64 | library for wireless            |

|                                      |                               |       |                                                                      |
|--------------------------------------|-------------------------------|-------|----------------------------------------------------------------------|
| ii libnotify-bin                     | 0.7.6-2svn1                   | amd64 | sends desktop notifications to a notification daemon (Utilities)     |
| ii libnotify4:amd64                  | 0.7.6-2svn1                   | amd64 | sends desktop notifications to a notification daemon                 |
| ii libnpth0:amd64                    | 1.2-3                         | amd64 | replacement for GNU Pth using system threads                         |
| ii libnspr4:amd64                    | 2:4.12-0ubuntu0.16.04.1       | amd64 | NetScape Portable Runtime Library                                    |
| ii libnss-mdns:amd64                 | 0.10-7                        | amd64 | NSS module for Multicast DNS name resolution                         |
| ii libnss3:amd64                     | 2:3.26.2-0ubuntu0.16.04.2     | amd64 | Network Security Service libraries                                   |
| ii libnss3-1d:amd64                  | 2:3.26.2-0ubuntu0.16.04.2     | amd64 | Network Security Service libraries - transitional package            |
| ii libnss3-nssdb                     | 2:3.26.2-0ubuntu0.16.04.2     | all   | Network Security Service libraries - shared databases                |
| ii libnuma1:amd64                    | 2.0.11-1ubuntu1               | amd64 | Libraries for controlling NUMA policy                                |
| ii libnunit-cil-dev                  | 2.6.4+dfsg-1                  | all   | Unit test framework for CLI - Development files                      |
| ii libnunit-console-runner2.6.3-cil  | 2.6.4+dfsg-1                  | all   | Unit test framework for CLI - Assemblies                             |
| ii libnunit-core-interfaces2.6.3-cil | 2.6.4+dfsg-1                  | all   | Unit test framework for CLI - Assemblies                             |
| ii libnunit-core2.6.3-cil            | 2.6.4+dfsg-1                  | all   | Unit test framework for CLI - Assemblies                             |
| ii libnunit-framework2.6.3-cil       | 2.6.4+dfsg-1                  | all   | Unit test framework for CLI - Assemblies                             |
| ii libnunit-mocks2.6.3-cil           | 2.6.4+dfsg-1                  | all   | Unit test framework for CLI - Assemblies                             |
| ii libnunit-util2.6.3-cil            | 2.6.4+dfsg-1                  | all   | Unit test framework for CLI - Assemblies                             |
| ii libnux-4.0-0                      | 4.0.8+16.04.20160705-0ubuntu1 | amd64 | Visual rendering toolkit for real-time applications - shared lib     |
| ii libnux-4.0-common                 | 4.0.8+16.04.20160705-0ubuntu1 | all   | Visual rendering toolkit for real-time applications - common files   |
| ii liboauth0:amd64                   | 1.0.3-0ubuntu2                | amd64 | C library for implementing OAuth 1.0                                 |
| ii libobjc-5-dev:amd64               | 5.4.0-6ubuntu1~16.04.4        | amd64 | Runtime library for GNU Objective-C applications (development files) |
| ii libobjc4:amd64                    | 5.4.0-6ubuntu1~16.04.4        | amd64 | Runtime library for GNU Objective-C applications                     |
| ii libobjenesis-java                 | 2.2-1                         | all   | Java library to instantiate a new object of a particular class       |
| ii libodfgen-0.1-1                   | 0.1.6-1ubuntu2                | amd64 | library to generate ODF documents                                    |
| ii libofa0:amd64                     | 0.9.3-10ubuntu1               | amd64 | library for acoustic                                                 |

|                                                                  |                         |       |                            |                   |
|------------------------------------------------------------------|-------------------------|-------|----------------------------|-------------------|
| fingerprinting                                                   |                         |       |                            |                   |
| ii libogg0:amd64                                                 | 1.3.2-1                 | amd64 | Ogg bitstream library      |                   |
| ii libogg0:i386                                                  | 1.3.2-1                 | i386  | Ogg bitstream library      |                   |
| ii libopenal-data                                                | 1:1.16.0-3              | all   | Software implementation of |                   |
| the OpenAL audio API<br>(data files)                             |                         |       |                            |                   |
| ii libopenal1:amd64                                              | 1:1.16.0-3              | amd64 | Software                   |                   |
| implementation of the OpenAL audio API (shared library)          |                         |       |                            |                   |
| ii libopencore-amrnb0:amd64                                      | 0.1.3-2.1               | amd64 | Adaptive Multi             |                   |
| Rate speech codec - shared library                               |                         |       |                            |                   |
| ii libopencore-amrwb0:amd64                                      | 0.1.3-2.1               | amd64 | Adaptive Multi-            |                   |
| Rate - Wideband speech codec - shared library                    |                         |       |                            |                   |
| ii libopencv-calib3d-dev:amd64                                   | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      |                   |
| development files for libopencv-calib3d                          |                         |       |                            |                   |
| ii libopencv-calib3d2.4v5:amd64                                  | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      | computer          |
| vision Camera Calibration library                                |                         |       |                            |                   |
| ii libopencv-contrib-dev:amd64                                   | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      |                   |
| development files for libopencv-contrib                          |                         |       |                            |                   |
| ii libopencv-contrib2.4v5:amd64                                  | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      | computer          |
| vision contrib library                                           |                         |       |                            |                   |
| ii libopencv-core-dev:amd64                                      | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      | development       |
| files for libopencv-core                                         |                         |       |                            |                   |
| ii libopencv-core2.4v5:amd64                                     | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      | computer          |
| vision core library                                              |                         |       |                            |                   |
| ii libopencv-dev                                                 | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      | development files |
| for opencv                                                       |                         |       |                            |                   |
| ii libopencv-features2d-dev:amd64                                | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      |                   |
| development files for libopencv-features2d                       |                         |       |                            |                   |
| ii libopencv-features2d2.4v5:amd64                               | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      | computer          |
| vision Feature Detection and Descriptor                          |                         |       |                            |                   |
| Extraction library                                               |                         |       |                            |                   |
| ii libopencv-flann-dev:amd64                                     | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      | development       |
| files for libopencv-flann                                        |                         |       |                            |                   |
| ii libopencv-flann2.4v5:amd64                                    | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      | computer          |
| vision Clustering and Search in Multi-Dimensional spaces library |                         |       |                            |                   |
| ii libopencv-gpu-dev:amd64                                       | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      | development       |
| files for libopencv-gpu2.4v5                                     |                         |       |                            |                   |
| ii libopencv-gpu2.4v5:amd64                                      | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      | computer          |
| vision GPU library                                               |                         |       |                            |                   |
| ii libopencv-highgui-dev:amd64                                   | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      |                   |
| development files for libopencv-highgui                          |                         |       |                            |                   |
| ii libopencv-highgui2.4v5:amd64                                  | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      | computer          |
| vision                                                           |                         |       |                            |                   |
| High-level GUI and Media I/O library                             |                         |       |                            |                   |
| ii libopencv-imgproc-dev:amd64                                   | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      |                   |
| development files for libopencv-imgproc                          |                         |       |                            |                   |
| ii libopencv-imgproc2.4v5:amd64                                  | 2.4.9.1+dfsg-1.5ubuntu1 |       | amd64                      | computer          |
| vision Image Processing library                                  |                         |       |                            |                   |

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|------------------------------------------------------------------------------------|-------------------------|-------------|---------------------------|
| ii libopencv-legacy-dev:amd64<br>files for libopencv-legacy                        | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | development               |
| ii libopencv-legacy2.4v5:amd64<br>vision legacy library                            | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | computer                  |
| ii libopencv-ml-dev:amd64<br>files for libopencv-ml                                | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | development               |
| ii libopencv-ml2.4v5:amd64<br>vision Machine Learning library                      | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | computer                  |
| ii libopencv-objdetect-dev:amd64<br>files for libopencv-objdetect                  | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | development               |
| ii libopencv-objdetect2.4v5:amd64<br>vision Object Detection library               | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | computer                  |
| ii libopencv-ocl-dev:amd64<br>files for libopencv-ocl2.4v5                         | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | development               |
| ii libopencv-ocl2.4v5:amd64<br>vision OpenCL support library                       | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | computer                  |
| ii libopencv-photo-dev:amd64<br>files for libopencv-photo2.4v5                     | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | development               |
| ii libopencv-photo2.4v5:amd64<br>vision computational photography library          | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | computer                  |
| ii libopencv-stitching-dev:amd64<br>files for libopencv-stitching2.4v5             | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | development               |
| ii libopencv-stitching2.4v5:amd64<br>vision image stitching library                | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | computer                  |
| ii libopencv-superres-dev:amd64<br>development files for libopencv-superres2.4v5   | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       |                           |
| ii libopencv-superres2.4v5:amd64<br>vision Super Resolution library                | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | computer                  |
| ii libopencv-ts-dev:amd64<br>files for libopencv-ts2.4v5                           | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | development               |
| ii libopencv-ts2.4v5:amd64<br>vision ts library                                    | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | computer                  |
| ii libopencv-video-dev:amd64<br>2.4.9.1+dfsg-1.5ubuntu1                            | amd64                   | development | files for libopencv-video |
| ii libopencv-video2.4v5:amd64<br>vision Video analysis library                     | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | computer                  |
| ii libopencv-videostab-dev:amd64<br>development files for libopencv-videostab2.4v5 | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       |                           |
| ii libopencv-videostab2.4v5:amd64<br>vision video stabilization library            | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | computer                  |
| ii libopencv2.4-java<br>computer vision library                                    | 2.4.9.1+dfsg-1.5ubuntu1 | all         | Java bindings for the     |
| ii libopencv2.4-jni<br>the computer vision library                                 | 2.4.9.1+dfsg-1.5ubuntu1 | amd64       | Java jni library for      |
| ii libopenexr-dev                                                                  |                         |             |                           |

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|--------------------------------------------------------------|---------------------------------|-------|---------------------------------------------------|
|                                                              | 2.2.0-10ubuntu2                 | amd64 | development files for the OpenEXR                 |
| image library                                                |                                 |       |                                                   |
| ii libopenexr22:amd64                                        | 2.2.0-10ubuntu2                 | amd64 | runtime files for                                 |
| the OpenEXR image library                                    |                                 |       |                                                   |
| ii libopenjpeg5:amd64                                        | 1:1.5.2-3.1                     | amd64 | JPEG 2000 image                                   |
| compression/decompression library - runtime                  |                                 |       |                                                   |
| ii libopus0:amd64                                            | 1.1.2-1ubuntu1                  | amd64 | Opus codec runtime                                |
| library                                                      |                                 |       |                                                   |
| ii libopus0:i386                                             | 1.1.2-1ubuntu1                  | i386  | Opus codec runtime                                |
| library                                                      |                                 |       |                                                   |
| ii liborc-0.4-0:amd64                                        | 1:0.4.25-1                      | amd64 | Library of Optimized                              |
| Inner Loops Runtime Compiler                                 |                                 |       |                                                   |
| ii liborc-0.4-0:i386                                         | 1:0.4.25-1                      | i386  | Library of Optimized Inner Loops Runtime          |
| Compiler                                                     |                                 |       |                                                   |
| ii liborcus-0.10-0v5:amd64                                   | 0.9.2-4ubuntu2                  | amd64 | library for                                       |
| processing spreadsheet documents                             |                                 |       |                                                   |
| ii libosmesa6:amd64                                          | 11.2.0-1ubuntu2.2               | amd64 | Mesa Off-screen                                   |
| rendering extension                                          |                                 |       |                                                   |
| ii liboxideqt-qmlplugin:amd64                                | 1.20.4-0ubuntu0.16.04.1         | amd64 | Web browser                                       |
| engine for Qt (QML plugin)                                   |                                 |       |                                                   |
| ii liboxideqtcore0:amd64                                     | 1.20.4-0ubuntu0.16.04.1         | amd64 | Web browser                                       |
| engine for Qt (core library and components)                  |                                 |       |                                                   |
| ii liboxideqtquick0:amd64                                    | 1.20.4-0ubuntu0.16.04.1         | amd64 | Web browser                                       |
| engine for Qt (QtQuick library)                              |                                 |       |                                                   |
| ii libp11-kit-gnome-keyring:amd64                            | 3.18.3-0ubuntu2                 | amd64 | GNOME keyring module for the PKCS#11              |
| module loading library                                       |                                 |       |                                                   |
| ii libp11-kit0:amd64                                         | 0.23.2-5~ubuntu16.04.1          | amd64 | library for                                       |
| loading and coordinating access to PKCS#11 modules - runtime |                                 |       |                                                   |
| ii libp11-kit0:i386                                          | 0.23.2-5~ubuntu16.04.1          | i386  | library for loading                               |
| and coordinating access to PKCS#11 modules - runtime         |                                 |       |                                                   |
| ii libpackagekit-glib2-16:amd64                              | 0.8.17-4ubuntu6~gcc5.4ubuntu1.1 | amd64 | Library                                           |
| for accessing PackageKit using GLib                          |                                 |       |                                                   |
| ii libpagemaker-0.0-0:amd64                                  | 0.0.3-1ubuntu1                  | amd64 | Library for                                       |
| importing and converting PageMaker Documents                 |                                 |       |                                                   |
| ii libpam-gnome-keyring:amd64                                | 3.18.3-0ubuntu2                 | amd64 | PAM module to unlock the GNOME keyring upon login |
| amd64                                                        |                                 |       |                                                   |
| ii libpam-modules:amd64                                      | 1.1.8-3.2ubuntu2                | amd64 | Pluggable                                         |
| Authentication Modules for PAM                               |                                 |       |                                                   |
| ii libpam-modules-bin                                        | 1.1.8-3.2ubuntu2                | amd64 | Pluggable                                         |
| Authentication Modules for PAM - helper binaries             |                                 |       |                                                   |
| ii libpam-runtime                                            | 1.1.8-3.2ubuntu2                | all   | Runtime support for the                           |
| PAM library                                                  |                                 |       |                                                   |
| ii libpam-systemd:amd64                                      | 229-4ubuntu16                   | amd64 | system and                                        |
| service manager - PAM module                                 |                                 |       |                                                   |
| ii libpam0g:amd64                                            | 1.1.8-3.2ubuntu2                | amd64 | Pluggable                                         |
| Authentication Modules library                               |                                 |       |                                                   |

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|----------------------------------|------------------------------------------------|-------|-----------------------------------------------------------------------|
| ii libpango-1.0-0:amd64          | 1.38.1-1                                       |       |                                                                       |
| amd64                            | Layout and rendering of internationalized text |       |                                                                       |
| ii libpango-1.0-0:i386           | 1.38.1-1                                       | i386  | Layout and rendering of internationalized text                        |
| ii libpango1.0-0:amd64           | 1.38.1-1                                       | amd64 | Layout and rendering of internationalized text (transitional package) |
| ii libpango1.0-dev               | 1.38.1-1                                       | amd64 | Development files for the Pango                                       |
| ii libpangocairo-1.0-0:amd64     | 1.38.1-1                                       | amd64 | Layout and rendering of internationalized text                        |
| ii libpangocairo-1.0-0:i386      | 1.38.1-1                                       | i386  | Layout and rendering of internationalized text                        |
| ii libpangoft2-1.0-0:amd64       | 1.38.1-1                                       | amd64 | Layout and rendering of internationalized text                        |
| 1.38.1-1                         |                                                |       |                                                                       |
| ii libpangoft2-1.0-0:i386        | 1.38.1-1                                       | i386  | Layout and rendering of internationalized text                        |
| ii libpangomm-1.4-1v5:amd64      | 2.38.1-1                                       | amd64 | C++ Wrapper for pango (shared libraries)                              |
| ii libpangox-1.0-0:amd64         | 0.0.2-5                                        | amd64 | pango library X backend                                               |
| ii libpangoxft-1.0-0:amd64       | 1.38.1-1                                       | amd64 | Layout and rendering of internationalized text                        |
| ii libpaper-utils                | 1.1.24+nmu4ubuntu1                             | amd64 | library for handling paper characteristics (utilities)                |
| ii libpaper1:amd64               | 1.1.24+nmu4ubuntu1                             | amd64 | library for handling paper characteristics                            |
| ii libparse-debianchangelog-perl | 1.2.0-8                                        | all   | parse Debian changelogs and output them in other formats              |
| ii libparted2:amd64              | 3.2-15                                         | amd64 | disk partition manipulator - shared library                           |
| ii libpathplan4                  | 2.38.0-12ubuntu2.1                             | amd64 | rich set of graph drawing tools - pathplan library                    |
| ii libpcap0.8:amd64              | 1.7.4-2                                        | amd64 | system interface for user-level packet capture                        |
| ii libpci3:amd64                 | 1:3.3.1-1.1ubuntu1                             | amd64 | Linux PCI Utilities (shared library)                                  |
| ii libpciaccess0:amd64           | 0.13.4-1                                       | amd64 | Generic PCI access library for X                                      |
| ii libpciaccess0:i386            | 0.13.4-1                                       | i386  | Generic PCI access library for X                                      |
| ii libpcre16-3:amd64             | 2:8.38-3.1                                     | amd64 | Perl 5 Compatible Regular Expression Library - 16 bit runtime files   |
| ii libpcre3:amd64                | 2:8.38-3.1                                     | amd64 | Perl 5 Compatible Regular Expression Library - runtime files          |
| ii libpcre3:i386                 | 2:8.38-3.1                                     | i386  | Perl 5 Compatible Regular Expression Library - runtime files          |
| ii libpcre3-dev:amd64            | 2:8.38-3.1                                     | amd64 | Perl 5 Compatible Regular Expression Library - development            |

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|---------------------------------------------------|-------------------------|-------|-------------------------------------------|--|
| files                                             |                         |       |                                           |  |
| ii libpcre32-3:amd64                              | 2:8.38-3.1              | amd64 | Perl 5 Compatible                         |  |
| Regular Expression Library - 32 bit runtime files |                         |       |                                           |  |
| ii libpcrecpp0v5:amd64                            | 2:8.38-3.1              | amd64 | Perl 5 Compatible                         |  |
| Regular Expression Library - C++ runtime files    |                         |       |                                           |  |
| ii libpcsclite1:amd64                             | 1.8.14-1ubuntu1.16.04.1 | amd64 | Middleware to                             |  |
| access a smart card using PC/SC (library)         |                         |       |                                           |  |
| ii libpeas-1.0-0:amd64                            | 1.16.0-1ubuntu2         | amd64 | Application plugin                        |  |
| library                                           |                         |       |                                           |  |
| ii libpeas-1.0-0-python3loader                    | 1.16.0-1ubuntu2         | amd64 | Application                               |  |
| plugin library                                    |                         |       |                                           |  |
| ii libpeas-common                                 | 1.16.0-1ubuntu2         | all   | Application                               |  |
| plugin library (common files)                     |                         |       |                                           |  |
| ii libperl5.22:amd64                              | 5.22.1-9                | amd64 | shared Perl library                       |  |
| ii libperlio-gzip-perl                            | 0.19-1build1            | amd64 | module providing a                        |  |
| PerlIO layer to gzip/gunzip                       |                         |       |                                           |  |
| ii libpipeline1:amd64                             | 1.4.1-2                 | amd64 | pipeline manipulation                     |  |
| library                                           |                         |       |                                           |  |
| ii libpixman-1-0:amd64                            | 0.33.6-1                | amd64 | pixel-manipulation                        |  |
| library for X and cairo                           |                         |       |                                           |  |
| ii libpixman-1-0:i386                             | 0.33.6-1                | i386  | pixel-manipulation library                |  |
| for X and cairo                                   |                         |       |                                           |  |
| ii libpixman-1-dev                                | 0.33.6-1                | amd64 | pixel-manipulation                        |  |
| library for X and cairo (development              |                         |       |                                           |  |
| files)                                            |                         |       |                                           |  |
| ii libplexus-ant-factory-java                     | 1.0~alpha2.1-3          | all   | Plexus Ant Factory                        |  |
| ii libplexus-archiver-java                        | 2.2-1                   | all   | Archiver plugin for the                   |  |
| Plexus compiler system                            |                         |       |                                           |  |
| ii libplexus-bsh-factory-java                     | 1.0~alpha7-3.1          | all   | Plexus Beanshell                          |  |
| Factory                                           |                         |       |                                           |  |
| ii libplexus-cipher-java                          | 1.7-1                   | all   | Plexus Cipher Component                   |  |
| used by Maven                                     |                         |       |                                           |  |
| ii libplexus-classworlds-java                     | 1.5.0-5                 | all   | Class loading utilities for               |  |
| the Plexus framework                              |                         |       |                                           |  |
| ii libplexus-classworlds2-java                    | 2.5.2-1                 | all   | Class loading utilities for               |  |
| the Plexus framework                              |                         |       |                                           |  |
| ii libplexus-cli-java                             | 1.2-5                   | all   | Easily create CLIs with Plexus components |  |
|                                                   |                         |       |                                           |  |
| ii libplexus-component-annotations-java           | 1.6-2                   | all   | Plexus Component                          |  |
| Annotations                                       |                         |       |                                           |  |
| ii libplexus-component-metadata-java              | 1.6-2                   | all   | Component Metadata                        |  |
| Maven plugin for Plexus                           |                         |       |                                           |  |
| ii libplexus-container-default-java               | 1.0-alpha-9-stable-1-7  | all   | utilities for the                         |  |
| Plexus framework                                  |                         |       |                                           |  |
| ii libplexus-container-default1.5-java            | 1.6-2                   | all   | Plexus Inversion-of-                      |  |
| control Container                                 |                         |       |                                           |  |
| ii libplexus-containers-java                      | 1.0~beta3.0.7-8         | all   | utilities for the Plexus                  |  |
| framework                                         |                         |       |                                           |  |



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|------------------------------------------------------------------------------|---------------------------|------------------------------------------------|-----------------------------|
| ii libplexus-containers1.5-java<br>1.6-2                                     | all                       | Plexus IoC Container core with companion tools |                             |
| ii libplexus-interactivity-api-java<br>the Plexus framework                  | 1.0-alpha-6-7             | all                                            | interactivity API for       |
| ii libplexus-interpolation-java                                              | 1.21-1                    | all                                            | Plexus Interpolation API    |
| ii libplexus-io-java                                                         | 1.0~alpha5-2              | all                                            | Plexus IO Components        |
| ii libplexus-sec-dispatcher-java<br>Dispatcher Component used by Maven       | 1.3.1-6                   | all                                            | Plexus Security             |
| ii libplexus-utils-java<br>framework                                         | 1:1.5.15-4                | all                                            | utilities for the Plexus    |
| ii libplexus-utils2-java<br>all utilities for the Plexus framework           | 3.0.22-1                  |                                                |                             |
| ii libplist3:amd64<br>Apple binary and XML property lists                    | 1.12-3.1                  | amd64                                          | Library for handling        |
| ii libplymouth4:amd64<br>animation and logger - shared libraries             | 0.9.2-3ubuntu13.1         | amd64                                          | graphical boot              |
| ii libpng12-0:amd64<br>runtime                                               | 1.2.54-1ubuntu1           | amd64                                          | PNG library -               |
| ii libpng12-0:i386                                                           | 1.2.54-1ubuntu1           | i386                                           | PNG library - runtime       |
| ii libpng12-dev:amd64<br>development                                         | 1.2.54-1ubuntu1           | amd64                                          | PNG library -               |
| ii libpolkit-agent-1-0:amd64<br>Authentication<br>Agent API                  | 0.105-14.1                | amd64                                          | PolicyKit                   |
| ii libpolkit-backend-1-0:amd64<br>API                                        | 0.105-14.1                | amd64                                          | PolicyKit backend           |
| ii libpolkit-gobject-1-0:amd64<br>Authorization API                          | 0.105-14.1                | amd64                                          | PolicyKit                   |
| ii libpoppler-glib8:amd64<br>library (GLib-based shared library)             | 0.41.0-0ubuntu1.1         | amd64                                          | PDF rendering               |
| ii libpoppler-qt5-1:amd64<br>library (Qt 5 based shared library)             | 0.41.0-0ubuntu1.1         | amd64                                          | PDF rendering               |
| ii libpoppler58:amd64<br>library                                             | 0.41.0-0ubuntu1.1         | amd64                                          | PDF rendering               |
| ii libpopt0:amd64<br>parameters                                              | 1.16-10                   | amd64                                          | lib for parsing cmdline     |
| ii libportaudio2:amd64<br>19+svn20140130-1build1                             | amd64                     | Portable audio I/O - shared library            |                             |
| ii libpostproc-ffmpeg53:amd64<br>library for post processing - runtime files | 7:2.8.10-0ubuntu0.16.04.1 | amd64                                          | FFmpeg                      |
| ii libpotrace0                                                               | 1.13-2                    | amd64                                          | library for tracing bitmaps |
| ii libpq5:amd64<br>library                                                   | 9.6.1-2.pgdg16.04+1       | amd64                                          | PostgreSQL C client         |
| ii libprocps4:amd64<br>accessing process information from /proc              | 2:3.3.10-4ubuntu2.3       | amd64                                          | library for                 |
| ii libprotobuf-lite9v5:amd64<br>library (lite version)                       | 2.6.1-1.3                 | amd64                                          | protocol buffers C++        |
| ii libprotobuf9v5:amd64                                                      |                           |                                                |                             |

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|------------------------------------------|-------------------------|------------------------------|-------|---------------------------------------------------------------------------------|
| 2.6.1-1.3                                | amd64                   | protocol buffers C++ library |       |                                                                                 |
| ii libproxy1-plugin-gsettings:amd64      | 0.4.11-5ubuntu1         |                              | amd64 | automatic proxy configuration management library (GSettings plugin)             |
| ii libproxy1-plugin-gsettings:i386       | 0.4.11-5ubuntu1         |                              | i386  | automatic proxy configuration management library (GSettings plugin)             |
| ii libproxy1-plugin-networkmanager:amd64 | 0.4.11-5ubuntu1         |                              | amd64 | automatic proxy configuration management library (Network Manager plugin)       |
| ii libproxy1-plugin-webkit:i386          | 0.4.11-5ubuntu1         |                              | i386  | automatic proxy configuration management library (Webkit plugin)                |
| ii libproxy1v5:amd64                     | 0.4.11-5ubuntu1         |                              | amd64 | automatic proxy configuration management library (shared)                       |
| ii libproxy1v5:i386                      | 0.4.11-5ubuntu1         |                              | i386  | automatic proxy configuration management library (shared)                       |
| ii libptexenc1:amd64                     | 2015.20160222.37495-1   |                              | amd64 | TeX Live: pTeX encoding library                                                 |
| ii libpthread-stubs0-dev:amd64           | 0.3-4                   |                              | amd64 | pthread stubs not provided by native libc, development files                    |
| ii libpulse-mainloop-glib0:amd64         | 1:8.0-0ubuntu3.2        |                              | amd64 | PulseAudio client libraries (glib support)                                      |
| ii libpulse0:amd64                       | 1:8.0-0ubuntu3.2        |                              | amd64 | PulseAudio client libraries                                                     |
| ii libpulse0:i386                        | 1:8.0-0ubuntu3.2        |                              | i386  | PulseAudio client libraries                                                     |
| ii libpulsedsp:amd64                     | 1:8.0-0ubuntu3.2        |                              | amd64 | PulseAudio OSS pre-load library                                                 |
| ii libpwquality-common                   | 1.3.0-0ubuntu1          |                              | all   | library for password quality checking and generation (data files)               |
| ii libpwquality1:amd64                   | 1.3.0-0ubuntu1          |                              | amd64 | library for password quality checking and generation                            |
| ii libpython-all-dev:amd64               | 2.7.11-1                |                              | amd64 | package depending on all supported Python development packages                  |
| ii libpython-dev:amd64                   | 2.7.11-1                |                              | amd64 | header files and a static library for Python (default)                          |
| ii libpython-stdlib:amd64                | 2.7.11-1                |                              | amd64 | interactive high-level object-oriented language (default python version)        |
| ii libpython2.7:amd64                    | 2.7.12-1ubuntu0~16.04.1 |                              | amd64 | Shared Python runtime library (version 2.7)                                     |
| ii libpython2.7-dev:amd64                | 2.7.12-1ubuntu0~16.04.1 |                              | amd64 | Header files and a static library for Python (v2.7)                             |
| ii libpython2.7-minimal:amd64            | 2.7.12-1ubuntu0~16.04.1 |                              | amd64 | Minimal subset of the Python language (version 2.7)                             |
| ii libpython2.7-stdlib:amd64             | 2.7.12-1ubuntu0~16.04.1 |                              | amd64 | Interactive high-level object-oriented language (standard library, version 2.7) |
| ii libpython3-stdlib:amd64               | 3.5.1-3                 |                              | amd64 | interactive high-level object-oriented language (default python3 version)       |
| ii libpython3.5:amd64                    | 3.5.2-2ubuntu0~16.04.1  |                              | amd64 | Shared Python                                                                   |

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| runtime library (version 3.5) |                        |       |                                                                                 |  |
| ii libpython3.5-minimal:amd64 | 3.5.2-2ubuntu0~16.04.1 | amd64 | Minimal subset of the Python language (version 3.5)                             |  |
| ii libpython3.5-stdlib:amd64  | 3.5.2-2ubuntu0~16.04.1 | amd64 | Interactive high-level object-oriented language (standard library, version 3.5) |  |
| ii libqdox2-java              | 2.0~M3-2               | all   | quickly parses declarations and Javadoc from Java source                        |  |
| ii libqmi-glib1:amd64         | 1.12.6-1               | amd64 | Support library to use the Qualcomm MSM Interface (QMI) protocol                |  |
| ii libqmi-proxy               | 1.12.6-1               | amd64 | Proxy to communicate with QMI ports                                             |  |
| ii libqpdf17:amd64            | 6.0.0-2                | amd64 | runtime library for PDF transformation/inspection software                      |  |
| ii libqqwing2v5:amd64         | 1.3.4-1                | amd64 | tool for generating and solving Sudoku puzzles (library)                        |  |
| ii libqt4-dbus:amd64          | 4:4.8.7+dfsg-5ubuntu2  | amd64 | Qt 4 D-Bus module                                                               |  |
| ii libqt4-dbus:i386           | 4:4.8.7+dfsg-5ubuntu2  | i386  | Qt 4 D-Bus module                                                               |  |
| ii libqt4-declarative:amd64   | 4:4.8.7+dfsg-5ubuntu2  | amd64 | Qt 4 Declarative module                                                         |  |
| ii libqt4-declarative:i386    | 4:4.8.7+dfsg-5ubuntu2  | i386  | Qt 4 Declarative module                                                         |  |
| ii libqt4-network:amd64       | 4:4.8.7+dfsg-5ubuntu2  | amd64 | Qt 4 network module                                                             |  |
| ii libqt4-network:i386        | 4:4.8.7+dfsg-5ubuntu2  | i386  | Qt 4 network module                                                             |  |
| ii libqt4-opengl:i386         | 4:4.8.7+dfsg-5ubuntu2  | i386  | Qt 4 OpenGL module                                                              |  |
| ii libqt4-script:amd64        | 4:4.8.7+dfsg-5ubuntu2  | amd64 | Qt 4 script module                                                              |  |
| ii libqt4-script:i386         | 4:4.8.7+dfsg-5ubuntu2  | i386  | Qt 4 script module                                                              |  |
| ii libqt4-sql:amd64           | 4:4.8.7+dfsg-5ubuntu2  | amd64 | Qt 4 SQL module                                                                 |  |
| ii libqt4-sql:i386            | 4:4.8.7+dfsg-5ubuntu2  | i386  | Qt 4 SQL module                                                                 |  |
| ii libqt4-sql-mysql:i386      | 4:4.8.7+dfsg-5ubuntu2  | i386  | Qt 4 MySQL database driver                                                      |  |
| ii libqt4-sql-sqlite:amd64    | 4:4.8.7+dfsg-5ubuntu2  | amd64 | Qt 4 SQLite 3 database driver                                                   |  |
| ii libqt4-xml:amd64           | 4:4.8.7+dfsg-5ubuntu2  | amd64 | Qt 4 XML module                                                                 |  |
| ii libqt4-xml:i386            | 4:4.8.7+dfsg-5ubuntu2  | i386  | Qt 4 XML module                                                                 |  |
| ii libqt4-xmlpatterns:amd64   | 4:4.8.7+dfsg-5ubuntu2  | amd64 | Qt 4 XML patterns module                                                        |  |
| ii libqt4-xmlpatterns:i386    | 4:4.8.7+dfsg-5ubuntu2  | i386  | Qt 4 XML patterns module                                                        |  |
| ii libqt5core5a:amd64         | 5.5.1+dfsg-16ubuntu7.2 | amd64 | Qt 5 core module                                                                |  |
| ii libqt5dbus5:amd64          | 5.5.1+dfsg-16ubuntu7.2 | amd64 | Qt 5 D-Bus                                                                      |  |

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| module                       |                                    |       |                           |  |
| ii libqt5feedback5:amd64     | 5.0~git20130529-0ubuntu13          | amd64 | Qt Feedback               |  |
| module                       |                                    |       |                           |  |
| ii libqt5gui5:amd64          | 5.5.1+dfsg-16ubuntu7.2             | amd64 | Qt 5 GUI module           |  |
| ii libqt5multimedia5:amd64   | 5.5.1-4ubuntu2                     | amd64 | Qt 5 Multimedia           |  |
| module                       |                                    |       |                           |  |
| ii libqt5network5:amd64      | 5.5.1+dfsg-16ubuntu7.2             | amd64 | Qt 5 network              |  |
| module                       |                                    |       |                           |  |
| ii libqt5opengl5:amd64       | 5.5.1+dfsg-16ubuntu7.2             | amd64 | Qt 5 OpenGL               |  |
| module                       |                                    |       |                           |  |
| ii libqt5organizer5:amd64    | 5.0~git20140515~29475884-0ubuntu20 |       |                           |  |
| amd64                        | Qt PIM module, Organizer library   |       |                           |  |
| ii libqt5positioning5:amd64  | 5.5.1-3ubuntu1                     | amd64 | Qt Positioning            |  |
| module                       |                                    |       |                           |  |
| ii libqt5printsupport5:amd64 | 5.5.1+dfsg-16ubuntu7.2             | amd64 | Qt 5 print                |  |
| support module               |                                    |       |                           |  |
| ii libqt5qml5:amd64          | 5.5.1-2ubuntu6                     | amd64 | Qt 5 QML module           |  |
| ii libqt5quick5:amd64        | 5.5.1-2ubuntu6                     | amd64 | Qt 5 Quick library        |  |
| ii libqt5quicktest5:amd64    | 5.5.1-2ubuntu6                     | amd64 | Qt 5 Quick Test           |  |
| library                      |                                    |       |                           |  |
| ii libqt5script5:amd64       | 5.5.1+dfsg-2build1                 | amd64 | Qt 5 script module        |  |
| ii libqt5sql5:amd64          | 5.5.1+dfsg-16ubuntu7.2             |       |                           |  |
| amd64                        | Qt 5 SQL module                    |       |                           |  |
| ii libqt5sql5-sqlite:amd64   | 5.5.1+dfsg-16ubuntu7.2             | amd64 | Qt 5 SQLite 3             |  |
| database driver              |                                    |       |                           |  |
| ii libqt5svg5:amd64          | 5.5.1-2build1                      | amd64 | Qt 5 SVG module           |  |
| ii libqt5test5:amd64         | 5.5.1+dfsg-16ubuntu7.2             | amd64 | Qt 5 test module          |  |
| ii libqt5webkit5:amd64       | 5.5.1+dfsg-2ubuntu1                | amd64 | Web content               |  |
| engine library for Qt        |                                    |       |                           |  |
| ii libqt5widgets5:amd64      | 5.5.1+dfsg-16ubuntu7.2             | amd64 | Qt 5 widgets              |  |
| module                       |                                    |       |                           |  |
| ii libqt5x11extras5:amd64    | 5.5.1-3build1                      | amd64 | Qt 5 X11 extras           |  |
| ii libqt5xml5:amd64          | 5.5.1+dfsg-16ubuntu7.2             |       |                           |  |
| amd64                        | Qt 5 XML module                    |       |                           |  |
| ii libqtcore4:amd64          | 4:4.8.7+dfsg-5ubuntu2              | amd64 | Qt 4 core module          |  |
| ii libqtcore4:i386           | 4:4.8.7+dfsg-5ubuntu2              | i386  | Qt 4 core module          |  |
| ii libqtdbus4:amd64          | 4:4.8.7+dfsg-5ubuntu2              | amd64 | Qt 4 D-Bus                |  |
| module library               |                                    |       |                           |  |
| ii libqtdbus4:i386           | 4:4.8.7+dfsg-5ubuntu2              | i386  | Qt 4 D-Bus module         |  |
| library                      |                                    |       |                           |  |
| ii libqtgui4:amd64           | 4:4.8.7+dfsg-5ubuntu2              | amd64 | Qt 4 GUI module           |  |
| ii libqtgui4:i386            | 4:4.8.7+dfsg-5ubuntu2              | i386  | Qt 4 GUI module           |  |
| ii libqtwebkit4:i386         | 2.3.2-0ubuntu11                    |       |                           |  |
| i386                         | Web content engine library for Qt  |       |                           |  |
| ii libquadmath0:amd64        | 5.4.0-6ubuntu1~16.04.4             | amd64 | GCC Quad-                 |  |
| Precision Math Library       |                                    |       |                           |  |
| ii libquvi-scripts           | 0.4.21-2                           | all   | library for parsing video |  |
| download links (Lua scripts) |                                    |       |                           |  |

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|-------------------------------------------------------------------------------------------|------------------|-------|--------------------------------------------------------|
| ii libquvi7:amd64<br>download links (runtime libraries)                                   | 0.4.1-3          | amd64 | library for parsing video                              |
| ii libraptor2-0:amd64<br>library                                                          | 2.0.14-1         | amd64 | Raptor 2 RDF syntax                                    |
| ii librasqal3:amd64<br>library                                                            | 0.9.32-1         | amd64 | Rasqal RDF query                                       |
| ii libraw1394-11:amd64<br>amd64 library for direct access to IEEE 1394 bus (aka FireWire) | 2.1.1-2          |       |                                                        |
| ii libraw1394-11:i386<br>IEEE 1394 bus (aka FireWire)                                     | 2.1.1-2          | i386  | library for direct access to                           |
| ii libraw1394-dev:amd64<br>access to IEEE 1394 bus - development files                    | 2.1.1-2          | amd64 | library for direct                                     |
| ii libraw1394-tools<br>IEEE 1394 bus (aka FireWire)                                       | 2.1.1-2          | amd64 | library for direct access to                           |
| ii libraw15:amd64<br>library                                                              | 0.17.1-1         | amd64 | raw image decoder                                      |
| ii librdf0:amd64<br>Description Framework (RDF) library                                   | 1.0.17-1build1   | amd64 | Redland Resource                                       |
| ii libreadline6:amd64<br>6.3-8ubuntu2                                                     | amd64            |       | GNU readline and history libraries, run-time libraries |
| ii librecode0:amd64<br>recode is based                                                    | 3.6-22           | amd64 | Shared library on which                                |
| ii libregexp-common-perl<br>common regular expressions                                    | 2016020301-1     | all   | module with                                            |
| ii libreoffice-avmedia-backend-gstreamer<br>backend for LibreOffice                       | 1:5.1.4-0ubuntu1 | amd64 | GStreamer                                              |
| ii libreoffice-base-core<br>suite -- shared library                                       | 1:5.1.4-0ubuntu1 | amd64 | office productivity                                    |
| ii libreoffice-calc<br>suite -- spreadsheet                                               | 1:5.1.4-0ubuntu1 | amd64 | office productivity                                    |
| ii libreoffice-common<br>1:5.1.4-0ubuntu1                                                 | all              |       | office productivity suite -- arch-independent files    |
| ii libreoffice-core<br>suite -- arch-dependent files                                      | 1:5.1.4-0ubuntu1 | amd64 | office productivity                                    |
| ii libreoffice-draw<br>suite -- drawing                                                   | 1:5.1.4-0ubuntu1 | amd64 | office productivity                                    |
| ii libreoffice-gnome<br>suite -- GNOME integration                                        | 1:5.1.4-0ubuntu1 | amd64 | office productivity                                    |
| ii libreoffice-gtk<br>suite -- GTK+ integration                                           | 1:5.1.4-0ubuntu1 | amd64 | office productivity                                    |
| ii libreoffice-help-en-gb<br>suite -- English_british help                                | 1:5.1.4-0ubuntu1 | all   | office productivity                                    |
| ii libreoffice-help-en-us<br>1:5.1.4-0ubuntu1                                             | all              |       | office productivity suite -- English_american help     |
| ii libreoffice-help-it<br>- Italian help                                                  | 1:5.1.4-0ubuntu1 | all   | office productivity suite -                            |
| ii libreoffice-impress<br>suite -- presentation                                           | 1:5.1.4-0ubuntu1 | amd64 | office productivity                                    |

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|-----------------------------------------------------------------------------|---------------------------------|-------|---------------------------------|
| ii libreoffice-l10n-en-gb<br>suite -- English_british language package      | 1:5.1.4-0ubuntu1                | all   | office productivity             |
| ii libreoffice-l10n-en-za<br>suite -- English_southafrican language package | 1:5.1.4-0ubuntu1                | all   | office productivity             |
| ii libreoffice-l10n-it<br>- Italian language<br>package                     | 1:5.1.4-0ubuntu1                | all   | office productivity suite -     |
| ii libreoffice-math<br>suite -- equation editor                             | 1:5.1.4-0ubuntu1                | amd64 | office productivity             |
| ii libreoffice-ogltrans<br>extension for slide transitions using OpenGL     | 1:5.1.4-0ubuntu1                | amd64 | LibreOffice Impress             |
| ii libreoffice-pdfimport<br>component for LibreOffice                       | 1:5.1.4-0ubuntu1                | amd64 | PDF Import                      |
| ii libreoffice-style-breeze<br>suite -- Breeze symbol style                 | 1:5.1.4-0ubuntu1                | all   | office productivity             |
| ii libreoffice-style-galaxy<br>suite -- Galaxy (Default) symbol style       | 1:5.1.4-0ubuntu1                | all   | office productivity             |
| ii libreoffice-writer<br>office productivity suite -- word processor        | 1:5.1.4-0ubuntu1                | amd64 |                                 |
| ii librest-0.7-0:amd64<br>library                                           | 0.7.93-1                        | amd64 | REST service access             |
| ii librevenge-0.0-0:amd64<br>writing document interface filters             | 0.0.4-4ubuntu1                  | amd64 | Base Library for                |
| ii librhino-java<br>Engine                                                  | 1.7R4-3                         | all   | Libraries for rhino Java Script |
| ii librhythmbox-core9:amd64<br>for the rhythmbox music player               | 3.3-1ubuntu7                    | amd64 | support library                 |
| ii libroken18-heimdal:amd64<br>Kerberos - roken support library             | 1.7~git20150920+dfsg-4ubuntu1   | amd64 | Heimdal                         |
| ii libsvg2-2:amd64<br>renderer library for SVG files (runtime)              | 2.40.13-3                       | amd64 | SAX-based                       |
| ii libsvg2-common:amd64<br>renderer library for SVG files (extra runtime)   | 2.40.13-3                       | amd64 | SAX-based                       |
| ii librsync1:amd64<br>algorithm library                                     | 0.9.7-10                        | amd64 | rsync remote-delta              |
| ii librtmp1:amd64<br>RTMP streams (shared library)                          | 2.4+20151223.gitfa8646d-1build1 | amd64 | toolkit for                     |
| ii libruby2.3:amd64<br>run Ruby 2.3                                         | 2.3.1-2~16.04                   | amd64 | Libraries necessary to          |
| ii libsamplerate0:amd64<br>conversion library                               | 0.1.8-8                         | amd64 | Audio sample rate               |
| ii libsamplerate0:i386<br>rate conversion library                           | 0.1.8-8                         | i386  | Audio sample                    |
| ii libsane:amd64<br>scanners                                                | 1.0.26-git20160712-xenial0      | amd64 | API library for                 |
| ii libsane-common<br>scanners -- documentation and support files            | 1.0.26-git20160712-xenial0      | amd64 | API library for                 |
| ii libsane-hpaio:amd64                                                      | 3.16.3+repack0-1                | amd64 | HP SANE backend                 |

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| for multi-function peripherals                                            |                              |       |  |                                                           |
| ii libsasl2-2:amd64 authentication abstraction library                    | 2.1.26.dfsg1-14build1        | amd64 |  | Cyrus SASL -                                              |
| ii libsasl2-modules:amd64 pluggable authentication modules                | 2.1.26.dfsg1-14build1        | amd64 |  | Cyrus SASL -                                              |
| ii libsasl2-modules-db:amd64 SASL - pluggable authentication modules (DB) | 2.1.26.dfsg1-14build1        | amd64 |  | Cyrus                                                     |
| ii libsbcl:amd64 - runtime                                                | 1.3-1                        | amd64 |  | Sub Band CODEC library                                    |
| ii libschroedinger-1.0-0:amd64 encoding/decoding of Dirac video streams   | 1.0.11-2.1build1             | amd64 |  | library for                                               |
| ii libsd11.2debian:amd64 DirectMedia Layer                                | 1.2.15+dfsg1-3               | amd64 |  | Simple                                                    |
| ii libseccomp2:amd64 to Linux seccomp filter                              | 2.2.3-3ubuntu3               | amd64 |  | high level interface                                      |
| ii libsecret-1-0:amd64                                                    | 0.18.4-1ubuntu2              | amd64 |  | Secret store                                              |
| ii libsecret-1-0:i386                                                     | 0.18.4-1ubuntu2              | i386  |  | Secret store                                              |
| ii libsecret-common                                                       | 0.18.4-1ubuntu2              | all   |  | Secret store (common files)                               |
| ii libselinux1:amd64 shared libraries                                     | 2.4-3build2                  | amd64 |  | SELinux runtime                                           |
| ii libselinux1:i386 libraries                                             | 2.4-3build2                  | i386  |  | SELinux runtime shared                                    |
| ii libsemanage-common SELinux policy management libraries                 | 2.3-1build3                  | all   |  | Common files for                                          |
| ii libsemanage1:amd64 management library                                  | 2.3-1build3                  | amd64 |  | SELinux policy                                            |
| ii libsensors4:amd64 temperature/voltage/fan sensors                      | 1:3.4.0-2                    | amd64 |  | library to read                                           |
| ii libsepol1:amd64                                                        | 2.4-2                        | amd64 |  | SELinux library for manipulating binary security policies |
| ii libservlet2.5-java Java API classes                                    | 6.0.45+dfsg-1                | all   |  | Servlet 2.5 and JSP 2.1                                   |
| ii libservlet3.1-java 3.0 and WebSocket 1.0 Java API classes              | 8.0.32-1ubuntu1.3            | all   |  | Servlet 3.1, JSP 2.3, EL                                  |
| ii libsgutils2-2 the SCSI command set (shared libraries)                  | 1.40-0ubuntu1                | amd64 |  | utilities for devices using                               |
| ii libshine3:amd64 encoding library - runtime files                       | 3.1.0-4                      | amd64 |  | Fixed-point MP3                                           |
| ii libshout3:amd64 broadcast streaming library                            | 2.3.1-3                      | amd64 |  | MP3/Ogg Vorbis                                            |
| ii libshout3:i386                                                         | 2.3.1-3                      | i386  |  | MP3/Ogg Vorbis broadcast streaming library                |
| ii libsidplay1v5 emulation library                                        | 1.36.59-8                    | amd64 |  | SID (MOS 6581)                                            |
| ii libsigc++-2.0-0v5:amd64 Framework for C++ - runtime                    | 2.6.2-1                      | amd64 |  | type-safe Signal                                          |
| ii libsignon-extension1:amd64                                             | 8.58+16.04.20151106-0ubuntu1 | amd64 |  | Single                                                    |

|                                                     |                                |       |                             |  |
|-----------------------------------------------------|--------------------------------|-------|-----------------------------|--|
| Sign On framework                                   |                                |       |                             |  |
| ii libsignon-glib1:amd64                            | 1.13+16.04.20151209.1-0ubuntu1 | amd64 | library for                 |  |
| signond                                             |                                |       |                             |  |
| ii libsignon-plugins-common1:amd64                  | 8.58+16.04.20151106-0ubuntu1   | amd64 |                             |  |
| Single Sign On framework                            |                                |       |                             |  |
| ii libsignon-qt5-1:amd64                            | 8.58+16.04.20151106-0ubuntu1   |       |                             |  |
| amd64                                               | Single Sign On framework       |       |                             |  |
| ii libsigsegv2:amd64                                | 2.10-4                         | amd64 | Library for handling        |  |
| page faults in a portable way                       |                                |       |                             |  |
| ii libsisu-inject-java                              | 0.3.2-1                        | all   | Dependency Injection        |  |
| container for Java                                  |                                |       |                             |  |
| ii libsisu-plexus-java                              | 0.3.2-1                        | all   | Plexus adapter for the Sis  |  |
| dependency injection container                      |                                |       |                             |  |
| ii libslang2:amd64                                  | 2.3.0-2ubuntu1                 | amd64 | S-Lang programming          |  |
| library - runtime version                           |                                |       |                             |  |
| ii libslang2:i386                                   | 2.3.0-2ubuntu1                 | i386  | S-Lang programming          |  |
| library - runtime version                           |                                |       |                             |  |
| ii libslf4j-java                                    | 1.7.14-3                       |       |                             |  |
| all                                                 | Simple Logging Facade for Java |       |                             |  |
| ii libsm-dev:amd64                                  | 2:1.2.2-1                      | amd64 | X11 Session                 |  |
| Management library (development headers)            |                                |       |                             |  |
| ii libsm6:amd64                                     | 2:1.2.2-1                      | amd64 | X11 Session                 |  |
| Management library                                  |                                |       |                             |  |
| ii libsm6:i386                                      | 2:1.2.2-1                      | i386  | X11 Session Management      |  |
| library                                             |                                |       |                             |  |
| ii libsmartcols1:amd64                              | 2.27.1-6ubuntu3.2              | amd64 | smart column                |  |
| output alignment library                            |                                |       |                             |  |
| ii libsmclient:amd64                                | 2:4.3.11+dfsg-0ubuntu0.16.04.3 | amd64 | shared library              |  |
| for communication with SMB/CIFS servers             |                                |       |                             |  |
| ii libsnapd-glib1:amd64                             | 1.2-0ubuntu1.1~xenial          |       |                             |  |
| amd64                                               | GLib snapd library             |       |                             |  |
| ii libsnappy1v5:amd64                               | 1.1.3-2                        | amd64 | fast                        |  |
| compression/decompression library                   |                                |       |                             |  |
| ii libsndfile1:amd64                                | 1.0.25-10                      | amd64 | Library for                 |  |
| reading/writing audio files                         |                                |       |                             |  |
| ii libsndfile1:i386                                 | 1.0.25-10                      | i386  | Library for reading/writing |  |
| audio files                                         |                                |       |                             |  |
| ii libsnmp-base                                     | 5.7.3+dfsg-1ubuntu4            | all   | SNMP configuration          |  |
| script, MIBs and documentation                      |                                |       |                             |  |
| ii libsnmp30:amd64                                  | 5.7.3+dfsg-1ubuntu4            | amd64 | SNMP (Simple                |  |
| Network Management Protocol) library                |                                |       |                             |  |
| ii libsocket6-perl                                  | 0.25-1build2                   | amd64 |                             |  |
| Perl extensions for IPv6                            |                                |       |                             |  |
| ii libsodium18:amd64                                | 1.0.8-5                        | amd64 | Network                     |  |
| communication, cryptography and signaturing library |                                |       |                             |  |
| ii libsonic0:amd64                                  | 0.2.0-3                        | amd64 | Simple library to speed     |  |
| up or slow down speech                              |                                |       |                             |  |
| ii libsoundtouch1:amd64                             | 1.9.2-2                        | amd64 | Sound stretching            |  |



|                                                                             |                                |       |                                                      |                         |
|-----------------------------------------------------------------------------|--------------------------------|-------|------------------------------------------------------|-------------------------|
| library                                                                     |                                |       |                                                      |                         |
| ii libsoup-gnome2.4-1:amd64<br>implementation in C -- GNOME support library | 2.52.2-1ubuntu0.1              | amd64 |                                                      | HTTP library            |
| ii libsoup2.4-1:amd64<br>implementation in C -- Shared library              | 2.52.2-1ubuntu0.1              | amd64 |                                                      | HTTP library            |
| ii libsoup2.4-1:i386<br>HTTP library implementation in C -- Shared library  | 2.52.2-1ubuntu0.1              | i386  |                                                      |                         |
| ii libsoxr0:amd64<br>rate conversion library                                | 0.1.2-1                        | amd64 |                                                      | High quality 1D sample- |
| ii libspandsp2:amd64<br>processing library                                  | 0.0.6-2.1                      | amd64 |                                                      | Telephony signal        |
| ii libspectre1:amd64<br>PostScript documents                                | 0.2.7-3ubuntu2                 | amd64 |                                                      | Library for rendering   |
| ii libspeechd2:amd64<br>Shared libraries                                    | 0.8.3-1ubuntu3                 | amd64 |                                                      | Speech Dispatcher:      |
| ii libspeex1:amd64<br>runtime library                                       | 1.2~rc1.2-1ubuntu1             | amd64 |                                                      | The Speex codec         |
| ii libspeex1:i386<br>runtime library                                        | 1.2~rc1.2-1ubuntu1             | i386  |                                                      | The Speex codec         |
| ii libspeexdsp1:amd64<br>extended runtime library                           | 1.2~rc1.2-1ubuntu1             | amd64 |                                                      | The Speex               |
| ii libspeexdsp1:i386<br>runtime library                                     | 1.2~rc1.2-1ubuntu1             | i386  |                                                      | The Speex extended      |
| ii libsqlite3-0:amd64<br>library                                            | 3.11.0-1ubuntu1                | amd64 |                                                      | SQLite 3 shared         |
| ii libsqlite3-0:i386                                                        | 3.11.0-1ubuntu1                | i386  |                                                      | SQLite 3 shared library |
| ii libsrtp0<br>(SRTP) and UST Reference Implementations - shared library    | 1.4.5~20130609~dfsg-1.1ubuntu1 | amd64 |                                                      | Secure RTP              |
| ii libss2:amd64<br>interface parsing library                                | 1.42.13-1ubuntu1               | amd64 |                                                      | command-line            |
| ii libssh-4:amd64                                                           | 0.6.3-4.3                      | amd64 | tiny C SSH library (OpenSSL flavor)                  |                         |
| ii libssh-gcrypt-4:amd64<br>(gcrypt flavor)                                 | 0.6.3-4.3                      | amd64 | tiny C SSH library                                   |                         |
| ii libssl-dev:amd64<br>Layer toolkit - development files                    | 1.0.2g-1ubuntu4.6              | amd64 |                                                      | Secure Sockets          |
| ii libssl-doc<br>toolkit - development documentation                        | 1.0.2g-1ubuntu4.6              | all   |                                                      | Secure Sockets Layer    |
| ii libssl1.0.0:amd64<br>Layer toolkit - shared libraries                    | 1.0.2g-1ubuntu4.6              | amd64 |                                                      | Secure Sockets          |
| ii libssl1.0.0:i386<br>toolkit - shared libraries                           | 1.0.2g-1ubuntu4.6              | i386  |                                                      | Secure Sockets Layer    |
| ii libstartup-notification0:amd64                                           | 0.12-4build1                   | amd64 | library for program launch feedback (shared library) |                         |
| ii libstdc++-4.9-dev:amd64<br>C++ Library v3 (development files)            | 4.9.3-13ubuntu2                | amd64 |                                                      | GNU Standard            |
| ii libstdc++-5-dev:amd64<br>C++ Library v3 (development files)              | 5.4.0-6ubuntu1~16.04.4         | amd64 |                                                      | GNU Standard            |

|                                                                                                  |                           |       |                                                    |
|--------------------------------------------------------------------------------------------------|---------------------------|-------|----------------------------------------------------|
| ii libstdc++6:amd64<br>C++ Library v3                                                            | 5.4.0-6ubuntu1~16.04.4    | amd64 | GNU Standard                                       |
| ii libstdc++6:i386<br>Library v3                                                                 | 5.4.0-6ubuntu1~16.04.4    | i386  | GNU Standard C++                                   |
| ii libsub-name-perl<br>new name to referenced sub                                                | 0.14-1build1              | amd64 | module for assigning a                             |
| ii libsuitesparseconfig4.4.6:amd64<br>1:4.4.6-1                                                  | amd64                     |       | configuration routines for all SuiteSparse modules |
| ii libswresample-dev:amd64<br>library for audio resampling, rematrixing etc. - development files | 7:2.8.10-0ubuntu0.16.04.1 | amd64 | FFmpeg                                             |
| ii libswresample-ffmpeg1:amd64<br>library for audio resampling, rematrixing etc. - runtime files | 7:2.8.10-0ubuntu0.16.04.1 | amd64 | FFmpeg                                             |
| ii libswscale-dev:amd64<br>library for image scaling and various conversions - development files | 7:2.8.10-0ubuntu0.16.04.1 | amd64 | FFmpeg                                             |
| ii libswscale-ffmpeg3:amd64<br>library for image scaling and various conversions - runtime files | 7:2.8.10-0ubuntu0.16.04.1 | amd64 | FFmpeg                                             |
| ii libsyntax1:amd64<br>2015.20160222.37495-1                                                     | amd64                     |       | TeX Live: SyncTeX parser library                   |
| ii libsys-hostname-long-perl<br>qualified) hostname                                              | 1.5-1                     | all   | Figure out the long (fully-                        |
| ii libsystemd0:amd64<br>library                                                                  | 229-4ubuntu16             | amd64 | systemd utility                                    |
| ii libsystemd0:i386                                                                              | 229-4ubuntu16             | i386  | systemd utility library                            |
| ii libtablelayout-java<br>creating user interfaces fast and easy                                 | 20090826-2                | all   | Java layout manager for                            |
| ii libtag1v5:amd64<br>library                                                                    | 1.9.1-2.4ubuntu1          | amd64 | audio meta-data                                    |
| ii libtag1v5:i386<br>i386 audio meta-data library                                                | 1.9.1-2.4ubuntu1          |       |                                                    |
| ii libtag1v5-vanilla:amd64<br>library - vanilla flavour                                          | 1.9.1-2.4ubuntu1          | amd64 | audio meta-data                                    |
| ii libtag1v5-vanilla:i386<br>library - vanilla flavour                                           | 1.9.1-2.4ubuntu1          | i386  | audio meta-data                                    |
| ii libtalloc2:amd64<br>memory allocator                                                          | 2.1.5-2                   | amd64 | hierarchical pool based                            |
| ii libtasn1-6:amd64<br>structures (runtime)                                                      | 4.7-3ubuntu0.16.04.1      | amd64 | Manage ASN.1                                       |
| ii libtasn1-6:i386<br>structures (runtime)                                                       | 4.7-3ubuntu0.16.04.1      | i386  | Manage ASN.1                                       |
| ii libtbb2:amd64<br>library for<br>C++ - runtime files                                           | 4.4~20151115-0ubuntu3     | amd64 | parallelism                                        |
| ii libtcl8.6:amd64<br>Language) v8.6 - run-time library files                                    | 8.6.5+dfsg-2              | amd64 | Tcl (the Tool Command                              |
| ii libtdb1:amd64<br>library                                                                      | 1.3.8-2                   | amd64 | Trivial Database - shared                          |
| ii libtelepathy-glib0:amd64<br>- GLib library                                                    | 0.24.1-1.1                | amd64 | Telepathy framework                                |

|                                                                      |                         |       |                                       |
|----------------------------------------------------------------------|-------------------------|-------|---------------------------------------|
| ii libevent0:amd64<br>loop library - shared library                  | 0.9.28-0ubuntu0.16.04.1 | amd64 | talloc-based event                    |
| ii libtexlua52:amd64<br>5.2, modified for use with LuaTeX            | 2015.20160222.37495-1   | amd64 | TeX Live: Lua                         |
| ii libtexluajit2:amd64<br>LuaJIT,<br>modified for use with LuaJITTeX | 2015.20160222.37495-1   | amd64 | TeX Live:                             |
| ii libtext-charwidth-perl<br>characters on the terminal              | 0.04-7build5            | amd64 | get display widths of                 |
| ii libtext-iconv-perl<br>character sets in Perl                      | 1.7-5build4             | amd64 | converts between                      |
| ii libtext-levenshtein-perl<br>Levenshtein edit distance             | 0.13-1                  | all   | implementation of the                 |
| ii libtext-wrapi18n-perl<br>of Text::Wrap                            | 0.06-7.1                | all   | internationalized substitute          |
| ii libthai-data<br>support library                                   | 0.1.24-2                | all   | Data files for Thai language          |
| ii libthai0:amd64<br>Thai language support library                   | 0.1.24-2                | amd64 |                                       |
| ii libthai0:i386                                                     | 0.1.24-2                | i386  | Thai language support library         |
| ii libtheora0:amd64<br>Compression Codec                             | 1.1.1+dfsg.1-8          | amd64 | Theora Video                          |
| ii libtheora0:i386<br>Compression Codec                              | 1.1.1+dfsg.1-8          | i386  | Theora Video                          |
| ii libtie-ixhash-perl<br>associative arrays                          | 1.23-2                  | all   | Perl module to order                  |
| ii libtiff5:amd64<br>(TIFF) library                                  | 4.0.6-1                 | amd64 | Tag Image File Format                 |
| ii libtiff5:i386<br>library                                          | 4.0.6-1                 | i386  | Tag Image File Format (TIFF)          |
| ii libtiff5-dev:amd64<br>development files                           | 4.0.6-1                 | amd64 | Tag Image File Format library (TIFF), |
| ii libtiffxx5:amd64<br>(TIFF) library -- C++ interface               | 4.0.6-1                 | amd64 | Tag Image File Format                 |
| ii libtimedate-perl<br>manipulate date/time information              | 2.3000-2                | all   | collection of modules to              |
| ii libtimezonemap-data<br>widget - data files                        | 0.4.5                   | all   | GTK+3 timezone map                    |
| ii libtimezonemap1:amd64<br>widget                                   | 0.4.5                   | amd64 | GTK+3 timezone map                    |
| ii libtinfo-dev:amd64<br>library for the low-level terminfo library  | 6.0+20160213-1ubuntu1   | amd64 | developer's                           |
| ii libtinfo5:amd64<br>terminfo library for terminal handling         | 6.0+20160213-1ubuntu1   | amd64 | shared low-level                      |
| ii libtinfo5:i386<br>terminfo library for terminal handling          | 6.0+20160213-1ubuntu1   | i386  | shared low-level                      |

|                                                                                 |                                      |       |                                                   |
|---------------------------------------------------------------------------------|--------------------------------------|-------|---------------------------------------------------|
| ii libtk8.6:amd64<br>v8.6 - run-time files                                      | 8.6.5-1                              | amd64 | Tk toolkit for Tcl and X11                        |
| ii libtotem-plparser-common<br>Parser library - common files                    | 3.10.6-1ubuntu1                      | all   | Totem Playlist                                    |
| ii libtotem-plparser18:amd64<br>Parser library - runtime files                  | 3.10.6-1ubuntu1                      | amd64 | Totem Playlist                                    |
| ii libtotem0:amd64<br>for the Totem media player                                | 3.18.1-1ubuntu4                      | amd64 | Main library                                      |
| ii libtracker-sparql-1.0-0:amd64<br>database, indexer and search tool - library | 1.6.2-0ubuntu1.1                     | amd64 | metadata                                          |
| ii libtsan0:amd64<br>a Valgrind-based detector of data races (runtime)          | 5.4.0-6ubuntu1~16.04.4               | amd64 | ThreadSanitizer --                                |
| ii libtwolame0:amd64<br>encoding library                                        | 0.3.13-1.2                           | amd64 | MPEG Audio Layer 2                                |
| ii libtxc-dxtn-s2tc0:amd64<br>compression library for Mesa                      | 0~git20131104-1.1                    | amd64 | Texture                                           |
| ii libtxc-dxtn-s2tc0:i386<br>compression library for Mesa                       | 0~git20131104-1.1                    | i386  | Texture                                           |
| ii libubsan0:amd64<br>UBSan -- undefined behaviour sanitizer (runtime)          | 5.4.0-6ubuntu1~16.04.4               | amd64 |                                                   |
| ii libubuntugestures5:amd64<br>gestures library for Ubuntu UI Toolkit           | 1.3.1918+16.04.20160404-0ubuntu1     | amd64 | Ubuntu                                            |
| ii libubuntutoolkit5:amd64<br>toolkit common library for Ubuntu UI Toolkit      | 1.3.1918+16.04.20160404-0ubuntu1     | amd64 | Ubuntu                                            |
| ii libudev1:amd64<br>library                                                    | 229-4ubuntu16                        | amd64 | libudev shared                                    |
| ii libudev1:i386<br>library                                                     | 229-4ubuntu16                        | i386  | libudev shared library                            |
| ii libudisks2-0:amd64<br>library to access udisks2                              | 2.1.7-1ubuntu1                       | amd64 | GObject based                                     |
| ii libunistring0:amd64<br>library for<br>C                                      | 0.9.3-5.2ubuntu1                     | amd64 | Unicode string                                    |
| ii libunity-action-qt1:amd64<br>Action Qt API                                   | 1.1.0+14.04.20140304-0ubuntu2~gcc5.1 | amd64 | Unity                                             |
| ii libunity-control-center1<br>configure the GNOME desktop                      | 15.04.0+16.04.20160705-0ubuntu1      | amd64 | utilities to                                      |
| ii libunity-core-6.0-9:amd64<br>library for the Unity interface                 | 7.4.0+16.04.20160906-0ubuntu1        | amd64 | core                                              |
| ii libunity-gtk2-parser0:amd64<br>GtkMenuShell to GMenuModel parser             | 0.0.0+15.04.20150118-0ubuntu2        | amd64 |                                                   |
| ii libunity-gtk3-parser0:amd64<br>GtkMenuShell to GMenuModel parser             | 0.0.0+15.04.20150118-0ubuntu2        | amd64 |                                                   |
| ii libunity-misc4<br>functions for Unity - shared library                       | 4.0.5+14.04.20140115-0ubuntu1        | amd64 | Miscellaneous                                     |
| ii libunity-protocol-private0:amd64<br>library                                  | 7.1.4+16.04.20160701-0ubuntu1        | amd64 | binding to get places into the launcher - private |
| ii libunity-scopes-json-def-desktop<br>library                                  | 7.1.4+16.04.20160701-0ubuntu1        | all   | binding to                                        |

|                                                 |                                 |     |       |                                 |
|-------------------------------------------------|---------------------------------|-----|-------|---------------------------------|
| get places into the launcher - desktop def file |                                 |     |       |                                 |
| ii libunity-settings-daemon1:amd64              | 15.04.1+16.04.20160701-0ubuntu1 |     | amd64 |                                 |
| Helper library for accessing settings           |                                 |     |       |                                 |
| ii libunity-webapps0:amd64                      | 2.5.0~+16.04.20160201-0ubuntu1  |     | amd64 | Web                             |
| Apps integration with the Unity desktop         |                                 |     |       |                                 |
| ii libunity9:amd64                              | 7.1.4+16.04.20160701-0ubuntu1   |     | amd64 | binding to get                  |
| places into the launcher - shared library       |                                 |     |       |                                 |
| ii libunwind8                                   | 1.1-4.1                         |     | amd64 | library to determine the        |
| call-chain of a program                         |                                 |     |       |                                 |
| - runtime                                       |                                 |     |       |                                 |
| ii libupower-glib3:amd64                        | 0.99.4-2ubuntu0.3               |     | amd64 | abstraction for                 |
| power management - shared library               |                                 |     |       |                                 |
| ii liburi-perl                                  | 1.71-1                          | all |       | module to manipulate and access |
| URI strings                                     |                                 |     |       |                                 |
| ii liburl-dispatcher1:amd64                     | 0.1+16.04.20151110-0ubuntu2     |     | amd64 | library for                     |
| sending requests to the url dispatcher          |                                 |     |       |                                 |
| ii libusb-0.1-4:amd64                           | 2:0.1.12-28                     |     | amd64 | userspace USB                   |
| programming library                             |                                 |     |       |                                 |
| ii libusb-1.0-0:amd64                           | 2:1.0.20-1                      |     | amd64 | userspace USB                   |
| programming library                             |                                 |     |       |                                 |
| ii libusbmuxd4:amd64                            | 1.0.10-2ubuntu0.1               |     | amd64 | USB multiplexor                 |
| daemon for iPhone and iPod                      |                                 |     |       |                                 |
| Touch devices - library                         |                                 |     |       |                                 |
| ii libustr-1.0-1:amd64                          | 1.0.4-5                         |     | amd64 | Micro string library:           |
| shared library                                  |                                 |     |       |                                 |
| ii libutempter0:amd64                           | 1.1.6-3                         |     | amd64 | privileged helper for           |
| utmp/wtmp updates (runtime)                     |                                 |     |       |                                 |
| ii libuuid-perl                                 | 0.24-1build1                    |     | amd64 | Perl extension for using        |
| UUID interfaces as defined in e2fsprogs         |                                 |     |       |                                 |
| ii libuuid1:amd64                               | 2.27.1-6ubuntu3.2               |     | amd64 | Universally Unique              |
| ID library                                      |                                 |     |       |                                 |
| ii libuuid1:i386                                | 2.27.1-6ubuntu3.2               |     | i386  | Universally Unique ID           |
| library                                         |                                 |     |       |                                 |
| ii libuv1:amd64                                 | 1.8.0-1                         |     | amd64 | asynchronous event              |
| notification                                    |                                 |     |       |                                 |
| library - runtime library                       |                                 |     |       |                                 |
| ii libuv1-dev:amd64                             | 1.8.0-1                         |     | amd64 | asynchronous event              |
| notification library - development files        |                                 |     |       |                                 |
| ii libv4l-0:amd64                               | 1.10.0-1                        |     | amd64 | Collection of video4linux       |
| support libraries                               |                                 |     |       |                                 |
| ii libv4l-0:i386                                | 1.10.0-1                        |     | i386  | Collection of video4linux       |
| support libraries                               |                                 |     |       |                                 |
| ii libv4lconvert0:amd64                         | 1.10.0-1                        |     | amd64 | Video4linux frame               |
| format conversion library                       |                                 |     |       |                                 |
| ii libv4lconvert0:i386                          | 1.10.0-1                        |     | i386  | Video4linux frame format        |
| conversion library                              |                                 |     |       |                                 |
| ii libva1:amd64                                 | 1.7.0-1                         |     | amd64 |                                 |

Video Acceleration (VA) API for Linux -- runtime

|                             |                              |       |                                                            |
|-----------------------------|------------------------------|-------|------------------------------------------------------------|
| ii libvdpau1:amd64          | 1.1.1-3ubuntu1               | amd64 | Video Decode and Presentation API for Unix (libraries)     |
| ii libvisio-0.1-1:amd64     | 0.1.5-1ubuntu1               | amd64 | library for parsing the visio file structure               |
| ii libvisual-0.4-0:amd64    | 0.4.0-8                      | amd64 | audio visualization framework                              |
| ii libvisual-0.4-0:i386     | 0.4.0-8                      | i386  | audio visualization framework                              |
| ii libvncclient1:amd64      | 0.9.10+dfsg-3ubuntu0.16.04.1 | amd64 | API to write one's own VNC server - client library         |
| ii libvo-aacenc0:amd64      | 0.1.3-1                      | amd64 | VisualOn AAC encoder library                               |
| ii libvo-amrwbenc0:amd64    | 0.1.3-1                      | amd64 | VisualOn AMR-WB encoder library                            |
| ii libvorbis0a:amd64        | 1.3.5-3                      | amd64 | decoder library for Vorbis General Audio Compression Codec |
| ii libvorbis0a:i386         | 1.3.5-3                      | i386  | decoder library for Vorbis General Audio Compression Codec |
| ii libvorbisenc2:amd64      | 1.3.5-3                      | amd64 | encoder library for Vorbis General Audio Compression Codec |
| ii libvorbisenc2:i386       | 1.3.5-3                      | i386  | encoder library for Vorbis General Audio Compression Codec |
| ii libvorbisfile3:amd64     | 1.3.5-3                      | amd64 | high-level API for Vorbis General Audio Compression Codec  |
| ii libvpx3:amd64            | 1.5.0-2ubuntu1               | amd64 | VP8 and VP9 video codec (shared library)                   |
| ii libvpx3:i386             | 1.5.0-2ubuntu1               | i386  | VP8 and VP9 video codec (shared library)                   |
| ii libvte-2.91-0:amd64      | 0.42.5-1ubuntu1              | amd64 | Terminal emulator widget for GTK+ 3.0 - runtime files      |
| ii libvte-2.91-common       | 0.42.5-1ubuntu1              | all   | Terminal emulator widget for GTK+ 3.0 - common files       |
| ii libwacom-bin             | 0.18-1                       | amd64 | Wacom model feature query library -- binaries              |
| ii libwacom-common          | 0.18-1                       | all   | Wacom model feature query library (common files)           |
| ii libwacom2:amd64          | 0.18-1                       | amd64 | Wacom model feature query library                          |
| ii libwagon-java            | 1.0.0-7                      | all   | tools to manage Maven artifacts and deployment             |
| ii libwagon2-java           | 2.10-3                       | all   | resources' transport abstraction that is used in Maven     |
| ii libwaypack1:amd64        | 4.75.2-2                     | amd64 | audio codec (lossy and lossless) - library                 |
| ii libwaypack1:i386         | 4.75.2-2                     | i386  | audio codec (lossy and lossless) - library                 |
| ii libwayland-client0:amd64 |                              |       |                                                            |

|                                                                                              |                                            |                                                    |       |                              |
|----------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------|-------|------------------------------|
| 1.9.0-1                                                                                      | amd64                                      | wayland compositor infrastructure - client library |       |                              |
| ii libwayland-client0:i386<br>infrastructure - client library                                | 1.9.0-1                                    |                                                    | i386  | wayland compositor           |
| ii libwayland-cursor0:amd64<br>infrastructure - cursor library                               | 1.9.0-1                                    |                                                    | amd64 | wayland compositor           |
| ii libwayland-egl1-mesa:amd64<br>implementation of the Wayland EGL platform -- runtime       | 11.2.0-1ubuntu2.2                          |                                                    | amd64 |                              |
| ii libwayland-server0:amd64<br>infrastructure - server library                               | 1.9.0-1                                    |                                                    | amd64 | wayland compositor           |
| ii libwayland-server0:i386<br>infrastructure - server library                                | 1.9.0-1                                    |                                                    | i386  | wayland compositor           |
| ii<br>libwbclient0:amd64<br>winbind client library                                           | 2:4.3.11+dfsg-0ubuntu0.16.04.3             |                                                    | amd64 | Samba                        |
| ii libwebkit2gtk-4.0-37:amd64<br>engine library for GTK+                                     | 2.14.3-0ubuntu0.16.04.1                    |                                                    | amd64 | Web content                  |
| ii libwebkit2gtk-4.0-37-gtk2:amd64<br>content engine library for GTK+ - GTK+2 plugin process | 2.14.3-0ubuntu0.16.04.1                    |                                                    | amd64 | Web                          |
| ii libwebkitgtk-1.0-0:i386<br>library for GTK+                                               | 2.4.11-0ubuntu0.1                          |                                                    | i386  | Web content engine           |
| ii libwebkitgtk-1.0-common<br>engine library for GTK+ - data files                           | 2.4.11-0ubuntu0.1                          |                                                    | all   | Web content                  |
| ii libwebp5:amd64<br>digital photographic images.                                            | 0.4.4-1                                    |                                                    | amd64 | Lossy compression of         |
| ii<br>libwebp5:i386<br>photographic images.                                                  | 0.4.4-1                                    |                                                    | i386  | Lossy compression of digital |
| ii libwebpmux1:amd64<br>digital photographic images.                                         | 0.4.4-1                                    |                                                    | amd64 | Lossy compression of         |
| ii libwebrtc-audio-processing-0:amd64<br>AudioProcessing module from the WebRTC project.     | 0.1-3ubuntu1~gcc5.1                        |                                                    | amd64 |                              |
| ii libwhoopsie-preferences0<br>submission settings - shared library                          | 0.18                                       |                                                    | amd64 | Ubuntu error tracker         |
| ii libwhoopsie0:amd64<br>submission - shared library                                         | 0.2.52.2                                   |                                                    | amd64 | Ubuntu error tracker         |
| ii libwildmidi-config<br>MIDI player configuration                                           | 0.3.8-2                                    |                                                    | all   | software                     |
| ii libwildmidi1:amd64<br>library                                                             | 0.3.8-2                                    |                                                    | amd64 | software MIDI player         |
| ii libwind0-heimdal:amd64<br>Kerberos - stringprep implementation                            | 1.7~git20150920+dfsg-4ubuntu1              |                                                    | amd64 | Heimdal                      |
| ii libwinpr-crt0.1:amd64<br>Windows Portable Runtime library (crt library)                   | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 |                                                    | amd64 |                              |
| ii libwinpr-dsparse0.1:amd64<br>Windows Portable Runtime library (dsparse library)           | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 |                                                    | amd64 |                              |
| ii libwinpr-environment0.1:amd64<br>Windows Portable Runtime library (environment library)   | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 |                                                    | amd64 |                              |
| ii libwinpr-file0.1:amd64                                                                    | 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 |                                                    | amd64 |                              |

## Windows

Portable Runtime library (file library)

ii libwinpr-handle0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64

Windows Portable Runtime library (handle library)

ii libwinpr-heap0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64

Windows Portable Runtime library (heap library)

ii libwinpr-input0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64

Windows Portable Runtime library (input library)

ii libwinpr-interlocked0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64

Windows Portable Runtime library (interlocked library)

ii libwinpr-library0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64

Windows Portable Runtime library (library)

ii libwinpr-path0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1

amd64 Windows Portable Runtime library (path library)

ii libwinpr-pool0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64

Windows Portable Runtime library (pool library)

ii libwinpr-registry0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64

Windows Portable Runtime library (registry library)

ii libwinpr-rpc0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64

Windows Portable Runtime library (RPC library)

ii libwinpr-sspi0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64

Windows Portable Runtime library (sspi library)

ii libwinpr-synch0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64

Windows Portable Runtime library (synch library)

ii libwinpr-sysinfo0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1

amd64 Windows Portable Runtime library (sysinfo library)

ii libwinpr-thread0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64

Windows Portable Runtime library (thread library)

ii libwinpr-utils0.1:amd64 1.1.0~git20140921.1.440916e+dfsg1-5ubuntu1 amd64

Windows Portable Runtime library (utils library)

ii libwmf0.2-7:amd64 0.2.8.4-10.5ubuntu1 amd64 Windows metafile conversion library

ii libwmf0.2-7-gtk 0.2.8.4-10.5ubuntu1 amd64 Windows metafile conversion library

ii libwnck-3-0:amd64 3.14.1-2 amd64 Window Navigator

Construction Kit - runtime files

ii libwnck-3-common 3.14.1-2 all Window Navigator Construction Kit - common files

ii libwpd-0.10-10:amd64 0.10.1-1ubuntu1 amd64 Library for handling WordPerfect documents (shared library)

ii libwpg-0.3-3:amd64 0.3.1-1ubuntu1 amd64 WordPerfect graphics import/convert library (shared library)

ii libwps-0.4-4:amd64 0.4.3-1ubuntu1 amd64 Works text file format import filter library (shared library)

ii libwrap0:amd64 7.6.q-25 amd64 Wietse Venema's TCP wrappers library

ii libwrap0:i386 7.6.q-25 i386 Wietse Venema's TCP wrappers library



|                            |                           |       |                                                          |
|----------------------------|---------------------------|-------|----------------------------------------------------------|
| ii libwww-perl             | 6.15-1                    | all   | simple and consistent interface to the world-wide web    |
| ii libwww-robotrules-perl  | 6.01-1                    | all   | database of robots.txt-derived permissions               |
| ii libx11-6:amd64          | 2:1.6.3-1ubuntu2          | amd64 | X11 client-side library                                  |
| ii libx11-6:i386           | 2:1.6.3-1ubuntu2          | i386  | X11 client-side library                                  |
| ii libx11-data             | 2:1.6.3-1ubuntu2          | all   | X11 client-side library                                  |
| ii libx11-dev:amd64        | 2:1.6.3-1ubuntu2          | amd64 | X11 client-side library (development headers)            |
| ii libx11-doc              | 2:1.6.3-1ubuntu2          | all   | X11 client-side library (development documentation)      |
| ii libx11-protocol-perl    | 0.56-7                    | all   | Perl module for the X Window System Protocol, version 11 |
| ii libx11-xcb-dev:amd64    | 2:1.6.3-1ubuntu2          | amd64 | Xlib/XCB interface library (development headers)         |
| ii libx11-xcb1:amd64       | 2:1.6.3-1ubuntu2          | amd64 | Xlib/XCB interface library                               |
| ii libx11-xcb1:i386        | 2:1.6.3-1ubuntu2          | i386  | Xlib/XCB interface library                               |
| ii libx264-148:amd64       | 2:0.148.2643+git5c65704-1 | amd64 | x264 video coding library                                |
| ii libx265-79:amd64        | 1.9-3                     | amd64 | H.265/HEVC video stream encoder (shared library)         |
| ii libx86-1:amd64          | 1.1+ds1-10                | amd64 | x86 real-mode library                                    |
| ii libxalan2-java          | 2.7.1-9                   | all   | XSL Transformations (XSLT) processor in Java             |
| ii libxapian22v5:amd64     | 1.2.22-2                  | amd64 | Search engine library                                    |
| ii libxatracker2:amd64     | 11.2.0-1ubuntu2.2         | amd64 | X acceleration library -- runtime                        |
| ii libxau-dev:amd64        | 1:1.0.8-1                 | amd64 | X11 authorisation library (development headers)          |
| ii libxau6:amd64           | 1:1.0.8-1                 | amd64 | X11 authorisation library                                |
| ii libxau6:i386            | 1:1.0.8-1                 | i386  | X11 authorisation library                                |
| ii libxaw7:amd64           | 2:1.0.13-1                | amd64 | X11 Athena Widget library                                |
| ii libxbean-java           | 4.5-1                     | all   | plugin based Java application server                     |
| ii libxcb-dri2-0:amd64     | 1.11.1-1ubuntu1           | amd64 | X C Binding, dri2 extension                              |
| ii libxcb-dri2-0:i386      | 1.11.1-1ubuntu1           | i386  | X C Binding, dri2 extension                              |
| ii libxcb-dri2-0-dev:amd64 | 1.11.1-1ubuntu1           | amd64 | X C Binding, dri2 extension, development files           |
| ii libxcb-dri3-0:amd64     |                           |       |                                                          |

|                                                                            |                 |                             |       |                         |
|----------------------------------------------------------------------------|-----------------|-----------------------------|-------|-------------------------|
| 1.11.1-1ubuntu1                                                            | amd64           | X C Binding, dri3 extension |       |                         |
| ii libxcb-dri3-0:i386<br>extension                                         | 1.11.1-1ubuntu1 |                             | i386  | X C Binding, dri3       |
| ii libxcb-dri3-dev:amd64<br>extension, development files                   | 1.11.1-1ubuntu1 |                             | amd64 | X C Binding, dri3       |
| ii libxcb-glx0:amd64<br>extension                                          | 1.11.1-1ubuntu1 |                             | amd64 | X C Binding, glx        |
| ii libxcb-glx0:i386<br>extension                                           | 1.11.1-1ubuntu1 |                             | i386  | X C Binding, glx        |
| ii libxcb-glx0-dev:amd64<br>extension, development files                   | 1.11.1-1ubuntu1 |                             | amd64 | X C Binding, glx        |
| ii libxcb-icccm4:amd64<br>amd64 utility libraries for X C Binding -- icccm | 0.4.1-1ubuntu1  |                             |       |                         |
| ii libxcb-image0:amd64<br>C Binding -- image                               | 0.4.0-1build1   |                             | amd64 | utility libraries for X |
| ii libxcb-keysyms1:amd64<br>C Binding -- keysyms                           | 0.4.0-1         |                             | amd64 | utility libraries for X |
| ii libxcb-present-dev:amd64<br>present extension, development files        | 1.11.1-1ubuntu1 |                             | amd64 | X C Binding,            |
| ii libxcb-present0:amd64<br>present extension                              | 1.11.1-1ubuntu1 |                             | amd64 | X C Binding,            |
| ii libxcb-present0:i386<br>extension                                       | 1.11.1-1ubuntu1 |                             | i386  | X C Binding, present    |
| ii libxcb-randr0:amd64<br>X C Binding, randr extension                     | 1.11.1-1ubuntu1 |                             | amd64 |                         |
| ii libxcb-randr0-dev:amd64<br>randr extension, development files           | 1.11.1-1ubuntu1 |                             | amd64 | X C Binding,            |
| ii libxcb-render-util0:amd64<br>C Binding -- render-util                   | 0.3.9-1         |                             | amd64 | utility libraries for X |
| ii libxcb-render0:amd64<br>render extension                                | 1.11.1-1ubuntu1 |                             | amd64 | X C Binding,            |
| ii libxcb-render0:i386<br>extension                                        | 1.11.1-1ubuntu1 |                             | i386  | X C Binding, render     |
| ii libxcb-render0-dev:amd64<br>render extension, development files         | 1.11.1-1ubuntu1 |                             | amd64 | X C Binding,            |
| ii libxcb-shape0:amd64<br>shape extension                                  | 1.11.1-1ubuntu1 |                             | amd64 | X C Binding,            |
| ii libxcb-shape0-dev:amd64<br>shape extension, development files           | 1.11.1-1ubuntu1 |                             | amd64 | X C Binding,            |
| ii libxcb-shm0:amd64<br>extension                                          | 1.11.1-1ubuntu1 |                             | amd64 | X C Binding, shm        |
| ii libxcb-shm0:i386<br>extension                                           | 1.11.1-1ubuntu1 |                             | i386  | X C Binding, shm        |
| ii libxcb-shm0-dev:amd64<br>shm extension, development files               | 1.11.1-1ubuntu1 |                             | amd64 | X C Binding,            |
| ii libxcb-sync-dev:amd64<br>extension, development files                   | 1.11.1-1ubuntu1 |                             | amd64 | X C Binding, sync       |

|                                                                    |                 |       |                                      |
|--------------------------------------------------------------------|-----------------|-------|--------------------------------------|
| ii libxcb-sync1:amd64<br>extension                                 | 1.11.1-1ubuntu1 | amd64 | X C Binding, sync                    |
| ii libxcb-sync1:i386<br>1.11.1-1ubuntu1                            | i386            |       | X C Binding, sync extension          |
| ii libxcb-util1:amd64<br>C Binding -- atom, aux and event          | 0.4.0-0ubuntu3  | amd64 | utility libraries for X              |
| ii libxcb-xfixes0:amd64<br>xfixes extension                        | 1.11.1-1ubuntu1 | amd64 | X C Binding,                         |
| ii libxcb-xfixes0:i386<br>extension                                | 1.11.1-1ubuntu1 | i386  | X C Binding, xfixes                  |
| ii libxcb-xfixes0-dev:amd64<br>xfixes extension, development files | 1.11.1-1ubuntu1 | amd64 | X C Binding,                         |
| ii libxcb-xkb1:amd64<br>XKEYBOARD extension                        | 1.11.1-1ubuntu1 | amd64 | X C Binding,                         |
| ii libxcb1:amd64<br>amd64 X C Binding                              | 1.11.1-1ubuntu1 |       |                                      |
| ii libxcb1:i386                                                    | 1.11.1-1ubuntu1 | i386  | X C Binding                          |
| ii libxcb1-dev:amd64<br>development files                          | 1.11.1-1ubuntu1 | amd64 | X C Binding,                         |
| ii libxcomposite-dev<br>extension library (development headers)    | 1:0.4.4-1       | amd64 | X11 Composite                        |
| ii libxcomposite1:amd64<br>extension library                       | 1:0.4.4-1       | amd64 | X11 Composite                        |
| ii libxcomposite1:i386<br>extension library                        | 1:0.4.4-1       | i386  | X11 Composite                        |
| ii libxcursor-dev:amd64<br>library (development files)             | 1:1.1.14-1      | amd64 | X cursor management                  |
| ii libxcursor1:amd64<br>library                                    | 1:1.1.14-1      | amd64 | X cursor management                  |
| ii libxcursor1:i386<br>library                                     | 1:1.1.14-1      | i386  | X cursor management                  |
| ii libxdamage-dev:amd64<br>extension library (development headers) | 1:1.1.4-2       | amd64 | X11 damaged region                   |
| ii libxdamage1:amd64<br>extension library                          | 1:1.1.4-2       | amd64 | X11 damaged region                   |
| ii libxdamage1:i386<br>extension library                           | 1:1.1.4-2       | i386  | X11 damaged region                   |
| ii libxdmcp-dev:amd64<br>library (development headers)             | 1:1.1.2-1.1     | amd64 | X11 authorisation                    |
| ii libxdmcp6:amd64<br>library                                      | 1:1.1.2-1.1     | amd64 | X11 Display Manager Control Protocol |
| ii libxdmcp6:i386<br>Control Protocol library                      | 1:1.1.2-1.1     | i386  | X11 Display Manager                  |
| ii libxerces2-java<br>Java with DOM level 3 support                | 2.11.0-7        | all   | Validating XML parser for            |
| ii libxext-dev:amd64                                               | 2:1.3.3-1       | amd64 | X11 miscellaneous                    |

|                                                 |                  |       |                                            |
|-------------------------------------------------|------------------|-------|--------------------------------------------|
| extensions library (development headers)        |                  |       |                                            |
| ii libxext6:amd64                               | 2:1.3.3-1        | amd64 | X11 miscellaneous                          |
| extension library                               |                  |       |                                            |
| ii libxext6:i386                                | 2:1.3.3-1        | i386  | X11 miscellaneous extension                |
| library                                         |                  |       |                                            |
| ii                                              |                  |       |                                            |
| libxfixes-dev:amd64                             | 1:5.0.1-2        | amd64 | X11 miscellaneous                          |
| 'fixes' extension library (development headers) |                  |       |                                            |
| ii libxfixes3:amd64                             | 1:5.0.1-2        | amd64 | X11 miscellaneous                          |
| 'fixes' extension library                       |                  |       |                                            |
| ii libxfixes3:i386                              | 1:5.0.1-2        | i386  | X11 miscellaneous 'fixes'                  |
| extension library                               |                  |       |                                            |
| ii libxfont1:amd64                              | 1:1.5.1-1        | amd64 | X11 font rasterisation                     |
| library                                         |                  |       |                                            |
| ii libxft-dev                                   | 2.3.2-1          | amd64 | FreeType-based font drawing                |
| library for X (development files)               |                  |       |                                            |
| ii libxft2:amd64                                | 2.3.2-1          | amd64 | FreeType-based                             |
| font drawing library for X                      |                  |       |                                            |
| ii libxi-dev                                    | 2:1.7.6-1        | amd64 | X11 Input extension library                |
| (development headers)                           |                  |       |                                            |
| ii libxi6:amd64                                 | 2:1.7.6-1        | amd64 | X11 Input extension                        |
| library                                         |                  |       |                                            |
| ii libxi6:i386                                  | 2:1.7.6-1        | i386  | X11 Input extension library                |
| ii libxinerama-dev:amd64                        | 2:1.1.3-1        | amd64 | X11 Xinerama                               |
| extension library (development headers)         |                  |       |                                            |
| ii libxinerama1:amd64                           | 2:1.1.3-1        | amd64 | X11 Xinerama                               |
| extension library                               |                  |       |                                            |
| ii libxinerama1:i386                            | 2:1.1.3-1        | i386  | X11 Xinerama extension                     |
| library                                         |                  |       |                                            |
| ii libxkbcommon-x11-0:amd64                     |                  |       |                                            |
|                                                 | 0.5.0-1ubuntu2   | amd64 | library to create keymaps with the XKB X11 |
| protocol                                        |                  |       |                                            |
| ii libxkbcommon0:amd64                          | 0.5.0-1ubuntu2   | amd64 | library interface                          |
| to the XKB compiler - shared library            |                  |       |                                            |
| ii libxkbfile1:amd64                            | 1:1.0.9-0ubuntu1 | amd64 | X11 keyboard file                          |
| manipulation library                            |                  |       |                                            |
| ii libxklavier16:amd64                          | 5.4-0ubuntu2     | amd64 | X Keyboard                                 |
| Extension high-level API                        |                  |       |                                            |
| ii libxml-commons-external-java                 | 1.4.01-2build1   | all   | XML Commons                                |
| external code - DOM, SAX, and JAXP, etc         |                  |       |                                            |
| ii libxml-commons-resolver1.1-java              | 1.2-7build1      | all   | XML entity and                             |
| URI resolver library                            |                  |       |                                            |
| ii libxml-dom-perl                              |                  |       |                                            |
|                                                 | 1.44-2           | all   | Perl module for building DOM Level 1       |
| compliant doc structures                        |                  |       |                                            |
| ii libxml-parser-perl                           | 2.44-1build1     | amd64 | Perl module for parsing                    |
| XML files                                       |                  |       |                                            |
| ii libxml-perl                                  | 0.08-2           | all   | Perl modules for working with              |

## XML

|                            |                           |       |                                                            |
|----------------------------|---------------------------|-------|------------------------------------------------------------|
| ii libxml-regexp-perl      | 0.04-1                    | all   | Perl module for regular expressions for XML tokens         |
| ii libxml-twig-perl        | 1:3.48-1                  | all   | Perl module for processing huge XML documents in tree mode |
| ii libxml-xpathengine-perl | 0.13-1                    | all   | re-usable XPath engine for DOM-like trees                  |
| ii libxml2:amd64           | 2.9.3+dfsg1-1ubuntu0.1    | amd64 | GNOME XML library                                          |
| ii libxml2:i386            | 2.9.3+dfsg1-1ubuntu0.1    | i386  | GNOME XML library                                          |
| ii libxml2-dev:amd64       | 2.9.3+dfsg1-1ubuntu0.1    | amd64 | Development files for the GNOME XML library                |
| ii libxml2-utils           | 2.9.3+dfsg1-1ubuntu0.1    | amd64 | XML utilities                                              |
| ii libxmu6:amd64           | 2:1.1.2-2                 | amd64 | X11 miscellaneous utility library                          |
| ii libxmu1:amd64           | 2:1.1.2-2                 | amd64 | X11 miscellaneous micro-utility library                    |
| ii libxom-java             | 1.2.10-1                  |       |                                                            |
|                            | all                       |       | New XML object model for Java                              |
| ii libxpm4:amd64           | 1:3.5.11-1ubuntu0.16.04.1 | amd64 | X11 pixmap library                                         |
| ii libxpp2-java            | 2.1.10-7build1            | all   | XML pull parser library for java V2                        |
| ii libxpp3-java            | 1.1.4c-2build1            | all   | XML pull parser library for java                           |
| ii libxrandr-dev:amd64     | 2:1.5.0-1                 | amd64 | X11 RandR extension library (development headers)          |
| ii libxrandr2:amd64        | 2:1.5.0-1                 | amd64 | X11 RandR extension library                                |
| ii libxrandr2:i386         | 2:1.5.0-1                 | i386  | X11 RandR extension library                                |
| ii libxrender-dev:amd64    | 1:0.9.9-0ubuntu1          | amd64 | X Rendering Extension client library (development files)   |
| ii libxrender1:amd64       | 1:0.9.9-0ubuntu1          | amd64 | X Rendering Extension client library                       |
| ii libxrender1:i386        | 1:0.9.9-0ubuntu1          | i386  | X Rendering Extension client library                       |
| ii libxres1:amd64          | 2:1.0.7-1                 | amd64 | X11 Resource extension library                             |
| ii libxshmfence-dev:amd64  | 1.2-1                     | amd64 | X shared memory fences - development files                 |
| ii libxshmfence1:amd64     | 1.2-1                     | amd64 | X shared memory fences - shared library                    |
| ii libxshmfence1:i386      |                           |       |                                                            |

|                                                |                    |       |                                         |
|------------------------------------------------|--------------------|-------|-----------------------------------------|
|                                                | 1.2-1              | i386  | X shared memory fences - shared library |
| ii libxslt1.1:amd64                            | 1.1.28-2.1         | amd64 | XSLT 1.0 processing                     |
| library - runtime library                      |                    |       |                                         |
| ii libxslt1.1:i386                             | 1.1.28-2.1         | i386  | XSLT 1.0 processing library             |
| - runtime library                              |                    |       |                                         |
| ii libxss1:amd64                               | 1:1.2.2-1          | amd64 | X11 Screen Saver                        |
| extension library                              |                    |       |                                         |
| ii libxss1:i386                                | 1:1.2.2-1          | i386  | X11 Screen Saver extension              |
| library                                        |                    |       |                                         |
| ii libxt6:amd64                                | 1:1.1.5-0ubuntu1   | amd64 | X11 toolkit intrinsics                  |
| library                                        |                    |       |                                         |
| ii libxt6:i386                                 | 1:1.1.5-0ubuntu1   | i386  | X11 toolkit intrinsics library          |
|                                                |                    |       |                                         |
| ii libxtables11:amd64                          | 1.6.0-2ubuntu3     | amd64 | netfilter xtables                       |
| library                                        |                    |       |                                         |
| ii libxtst6:amd64                              | 2:1.2.2-1          | amd64 | X11 Testing -- Record                   |
| extension library                              |                    |       |                                         |
| ii libxtst6:i386                               | 2:1.2.2-1          | i386  | X11 Testing -- Record                   |
| extension library                              |                    |       |                                         |
| ii libxv1:amd64                                | 2:1.0.10-1         | amd64 | X11 Video extension                     |
| library                                        |                    |       |                                         |
| ii libxv1:i386                                 | 2:1.0.10-1         | i386  | X11 Video extension library             |
|                                                |                    |       |                                         |
| ii libxvidcore4:amd64                          | 2:1.3.4-1          |       |                                         |
| amd64 Open source MPEG-4 video codec (library) |                    |       |                                         |
| ii libxvmc1:amd64                              | 2:1.0.9-1ubuntu1   | amd64 | X11 Video                               |
| extension library                              |                    |       |                                         |
| ii libxxf86dga1:amd64                          | 2:1.1.4-1          | amd64 | X11 Direct Graphics                     |
| Access extension library                       |                    |       |                                         |
| ii libxxf86vm-dev:amd64                        | 1:1.1.4-1          | amd64 | X11 XFree86 video                       |
| mode extension library (development headers)   |                    |       |                                         |
| ii libxxf86vm1:amd64                           | 1:1.1.4-1          | amd64 | X11 XFree86 video                       |
| mode extension library                         |                    |       |                                         |
| ii libxxf86vm1:i386                            | 1:1.1.4-1          | i386  | X11 XFree86 video mode                  |
| extension library                              |                    |       |                                         |
| ii libyajl2:amd64                              | 2.1.0-2            | amd64 |                                         |
| Yet Another JSON Library                       |                    |       |                                         |
| ii libyaml-0-2:amd64                           | 0.1.6-3            | amd64 | Fast YAML 1.1 parser                    |
| and emitter library                            |                    |       |                                         |
| ii libyaml-libyaml-perl                        | 0.41-6build1       | amd64 | Perl interface to                       |
| libyaml, a YAML implementation                 |                    |       |                                         |
| ii libyaml-tiny-perl                           | 1.69-1             | all   | Perl module for reading and             |
| writing YAML files                             |                    |       |                                         |
| ii libyelp0:amd64                              | 3.18.1-1ubuntu4    | amd64 | Library for the                         |
| GNOME help browser                             |                    |       |                                         |
| ii libzbar0:amd64                              | 0.10+doc-10ubuntu1 | amd64 | bar code scanner                        |
| and decoder (library)                          |                    |       |                                         |
| ii libzeitgeist-1.0-1:amd64                    | 0.3.18-1ubuntu3    | amd64 | library to access                       |

|                                                   |                                      |       |                                                      |  |
|---------------------------------------------------|--------------------------------------|-------|------------------------------------------------------|--|
| Zeitgeist - shared library                        |                                      |       |                                                      |  |
| ii libzeitgeist-2.0-0:amd64                       | 0.9.16-0ubuntu4                      | amd64 | library to access                                    |  |
| Zeitgeist - shared library                        |                                      |       |                                                      |  |
| ii libzmq5:amd64                                  | 4.1.4-7                              | amd64 | lightweight messaging                                |  |
| kernel (shared library)                           |                                      |       |                                                      |  |
| ii libzvb-common                                  | 0.2.35-10                            | all   | Vertical Blanking Interval                           |  |
| decoder (VBI) - common files                      |                                      |       |                                                      |  |
| ii libzvb0:amd64                                  | 0.2.35-10                            | amd64 | Vertical Blanking                                    |  |
| Interval decoder (VBI) - runtime files            |                                      |       |                                                      |  |
| ii libzzip-0-13:amd64                             | 0.13.62-3                            | amd64 | library providing read                               |  |
| access on ZIP-archives - library                  |                                      |       |                                                      |  |
| ii light-themes                                   | 14.04+16.04.20161024-0ubuntu1        |       |                                                      |  |
| all                                               | Light Themes (Ambiance and Radiance) |       |                                                      |  |
| ii lightdm                                        | 1.18.3-0ubuntu1                      | amd64 | Display Manager                                      |  |
| ii lintian                                        | 2.5.43                               | all   | Debian package checker                               |  |
| ii linux-base                                     | 4.0ubuntu1                           | all   | Linux image base package                             |  |
| ii linux-firmware                                 | 1.157.8                              | all   | Firmware for Linux kernel                            |  |
| drivers                                           |                                      |       |                                                      |  |
| ii linux-generic                                  | 4.4.0.62.65                          | amd64 | Complete Generic Linux                               |  |
| kernel and headers                                |                                      |       |                                                      |  |
| ii linux-headers-4.4.0-59                         | 4.4.0-59.80                          | all   | Header files related to                              |  |
| Linux kernel version 4.4.0                        |                                      |       |                                                      |  |
| ii linux-headers-4.4.0-59-generic                 | 4.4.0-59.80                          | amd64 | Linux kernel headers for version 4.4.0 on 64 bit x86 |  |
| SMP                                               |                                      |       |                                                      |  |
| ii linux-headers-4.4.0-62                         | 4.4.0-62.83                          | all   | Header files related to                              |  |
| Linux kernel version 4.4.0                        |                                      |       |                                                      |  |
| ii linux-headers-4.4.0-62-generic                 | 4.4.0-62.83                          | amd64 | Linux kernel                                         |  |
| headers for version 4.4.0 on 64 bit x86 SMP       |                                      |       |                                                      |  |
| ii linux-headers-generic                          | 4.4.0.62.65                          | amd64 | Generic Linux kernel                                 |  |
| headers                                           |                                      |       |                                                      |  |
| rc linux-image-4.4.0-57-generic                   | 4.4.0-57.78                          | amd64 | Linux kernel                                         |  |
| image for version 4.4.0 on 64 bit x86 SMP         |                                      |       |                                                      |  |
| ii linux-image-4.4.0-59-generic                   | 4.4.0-59.80                          | amd64 | Linux kernel image                                   |  |
| for                                               |                                      |       |                                                      |  |
| version 4.4.0 on 64 bit x86 SMP                   |                                      |       |                                                      |  |
| ii linux-image-4.4.0-62-generic                   | 4.4.0-62.83                          | amd64 | Linux kernel image                                   |  |
| for version 4.4.0 on 64 bit x86 SMP               |                                      |       |                                                      |  |
| rc linux-image-extra-4.4.0-57-generic             | 4.4.0-57.78                          | amd64 | Linux kernel                                         |  |
| extra modules for version 4.4.0 on 64 bit x86 SMP |                                      |       |                                                      |  |
| ii linux-image-extra-4.4.0-59-generic             | 4.4.0-59.80                          | amd64 | Linux kernel                                         |  |
| extra modules for version 4.4.0 on 64 bit x86 SMP |                                      |       |                                                      |  |
| ii linux-image-extra-4.4.0-62-generic             | 4.4.0-62.83                          | amd64 | Linux kernel                                         |  |
| extra modules for version 4.4.0 on 64 bit x86 SMP |                                      |       |                                                      |  |
| ii linux-image-generic                            | 4.4.0.62.65                          | amd64 | Generic Linux kernel                                 |  |
| image                                             |                                      |       |                                                      |  |
| ii linux-libc-dev:amd64                           | 4.4.0-62.83                          |       |                                                      |  |

|    |                                               |                                                                             |       |                          |
|----|-----------------------------------------------|-----------------------------------------------------------------------------|-------|--------------------------|
|    | amd64                                         | Linux Kernel Headers for development                                        |       |                          |
| ii | linux-signed-generic                          | 4.4.0.62.65                                                                 | amd64 | Complete Signed          |
|    | Generic Linux kernel and headers              |                                                                             |       |                          |
| rc | linux-signed-image-4.4.0-57-generic           | 4.4.0-57.78                                                                 | amd64 | Signed kernel            |
|    | image generic                                 |                                                                             |       |                          |
| ii | linux-signed-image-4.4.0-59-generic           | 4.4.0-59.80                                                                 | amd64 | Signed kernel            |
|    | image generic                                 |                                                                             |       |                          |
| ii | linux-signed-image-4.4.0-62-generic           | 4.4.0-62.83                                                                 | amd64 | Signed kernel            |
|    | image generic                                 |                                                                             |       |                          |
| ii | linux-signed-image-generic                    | 4.4.0.62.65                                                                 | amd64 | Signed Generic           |
|    | Linux kernel image                            |                                                                             |       |                          |
| ii | linux-sound-base                              | 1.0.25+dfsg-0ubuntu5                                                        | all   | base package for         |
|    | ALSA and OSS sound systems                    |                                                                             |       |                          |
| ii | linux-tools-4.4.0-59                          | 4.4.0-59.80                                                                 | amd64 | Linux kernel version     |
|    | specific tools for version 4.4.0-59           |                                                                             |       |                          |
| ii | linux-tools-4.4.0-59-generic                  | 4.4.0-59.80                                                                 | amd64 | Linux kernel version     |
|    | specific tools for version 4.4.0-59           |                                                                             |       |                          |
| ii | linux-tools-4.4.0-62                          | 4.4.0-62.83                                                                 | amd64 | Linux kernel version     |
|    | specific tools for version 4.4.0-62           |                                                                             |       |                          |
| ii | linux-tools-4.4.0-62-generic                  | 4.4.0-62.83                                                                 | amd64 | Linux kernel version     |
|    | specific tools for version 4.4.0-62           |                                                                             |       |                          |
| ii | linux-tools-common                            | 4.4.0-62.83                                                                 | all   | Linux kernel version     |
|    | specific tools for version 4.4.0              |                                                                             |       |                          |
| ii | linux-tools-virtual                           | 4.4.0.62.65                                                                 |       |                          |
|    | amd64                                         | This package will always depend on the latest minimal generic kernel tools. |       |                          |
| ii | lldb                                          | 1:3.8-33ubuntu3.1                                                           | amd64 | Next generation, high-   |
|    | performance debugger                          |                                                                             |       |                          |
| ii | lldb-3.8                                      | 1:3.8-2ubuntu4                                                              | amd64 | Next generation, high-   |
|    | performance debugger                          |                                                                             |       |                          |
| ii | llvm-3.8                                      | 1:3.8-2ubuntu4                                                              | amd64 | Modular compiler and     |
|    | toolchain technologies                        |                                                                             |       |                          |
| ii | llvm-3.8-dev                                  | 1:3.8-2ubuntu4                                                              | amd64 | Modular compiler and     |
|    | toolchain technologies, libraries and headers |                                                                             |       |                          |
| ii | llvm-3.8-runtime                              | 1:3.8-2ubuntu4                                                              | amd64 | Modular compiler and     |
|    | toolchain technologies, IR interpreter        |                                                                             |       |                          |
| ii | lmodern                                       | 2.004.5-1                                                                   | all   | scalable PostScript and  |
|    | OpenType fonts based on Computer Modern       |                                                                             |       |                          |
| ii | locales                                       | 2.23-0ubuntu5                                                               | all   | GNU C Library: National  |
|    | Language (locale) data [support]              |                                                                             |       |                          |
| ii | login                                         | 1:4.2-3.1ubuntu5                                                            | amd64 | system login tools       |
| ii | logrotate                                     | 3.8.7-2ubuntu2                                                              | amd64 | Log rotation utility     |
| ii | lp-solve                                      | 5.5.0.13-7build2                                                            | amd64 | Solve (mixed integer)    |
|    | linear programming problems                   |                                                                             |       |                          |
| ii | lsb-base                                      | 9.20160110ubuntu0.2                                                         | all   | Linux Standard Base init |
|    | script functionality                          |                                                                             |       |                          |
| ii | lsb-release                                   |                                                                             |       |                          |



|                                   |                       |       |                                                             |
|-----------------------------------|-----------------------|-------|-------------------------------------------------------------|
|                                   | 9.20160110ubuntu0.2   | all   | Linux Standard Base version reporting utility               |
| ii lshw                           | 02.17-1.1ubuntu3.2    | amd64 | information about hardware configuration                    |
| ii lsof                           | 4.89+dfsg-0.1         | amd64 | Utility to list open files                                  |
| ii ltrace                         | 0.7.3-5.1ubuntu4      | amd64 | Tracks runtime library calls in dynamically linked programs |
| ii m4                             | 1.4.17-5              | amd64 | macro processing language                                   |
| ii make                           | 4.1-6                 | amd64 | utility for directing compilation                           |
| ii makedev                        | 2.3.1-93ubuntu1       | all   | creates device files in /dev                                |
| ii man-db                         | 2.7.5-1               | amd64 | on-line manual pager                                        |
| ii manpages                       | 4.04-2                | all   | Manual pages about using a GNU/Linux system                 |
| ii manpages-dev                   | 4.04-2                | all   | Manual pages about using GNU/Linux for development          |
| ii mathpiper                      | 0.81f+svn4469+dfsg3-3 | all   | Java Computer Algebra System                                |
| ii maven                          | 3.3.9-3               | all   | Java software project management and comprehension tool     |
| ii mawk                           | 1.3.3-17ubuntu2       | amd64 | a pattern scanning and text processing language             |
| ii media-player-info              | 22-2                  | all   | Media player identification files                           |
| ii memtest86+                     | 5.01-3ubuntu2         | amd64 | thorough real-mode memory tester                            |
| ii mesa-common-dev:amd64          | 11.2.0-1ubuntu2.2     | amd64 | Developer documentation for Mesa                            |
| ii mesa-vedpau-drivers:amd64      | 11.2.0-1ubuntu2.2     | amd64 | Mesa VDPAU video acceleration drivers                       |
| ii metacity-common                | 1:3.18.7-0ubuntu0.2   | all   | shared files for the Metacity window manager                |
| ii mime-support                   | 3.59ubuntu1           | all   | MIME files 'mime.types' & 'mailcap', and support programs   |
| ii mlocate                        | 0.26-1ubuntu2         | amd64 | quickly find files on the filesystem based on their name    |
| ii mobile-broadband-provider-info | 20140317-1            | all   | database of mobile broadband service providers              |
| ii modemmanager                   | 1.4.12-1ubuntu1       | amd64 | D-Bus service for managing modems                           |
| ii mokutil                        | 0.3.0-0ubuntu3        | amd64 | tools for manipulating machine owner keys                   |
| ii mongodb-org-server             | 3.0.14                | amd64 | MongoDB database server                                     |
| ii mongodb-org-shell              | 3.0.14                | amd64 | MongoDB shell client                                        |
| ii mongodb-org-tools              | 3.0.14                | amd64 | MongoDB tools                                               |

|                                                                      |                             |       |       |                                |
|----------------------------------------------------------------------|-----------------------------|-------|-------|--------------------------------|
| ii mono-4.0-gac<br>CLI 4.0)                                          | 4.2.1.102+dfsg2-7ubuntu4    | amd64 | all   | Mono GAC tool (for             |
| ii mono-csharp-shell                                                 | 4.2.1.102+dfsg2-7ubuntu4    | amd64 | all   | interactive C# shell           |
| ii mono-devel<br>tools                                               | 4.2.1.102+dfsg2-7ubuntu4    | amd64 | all   | Mono development               |
| ii mono-gac                                                          | 4.2.1.102+dfsg2-7ubuntu4    | amd64 | all   | Mono GAC tool                  |
| ii mono-mcs<br>4.0 / 5.0 compiler for CLI 2.0 / 4.0 / 4.5            | 4.2.1.102+dfsg2-7ubuntu4    | amd64 | all   | Mono C# 2.0 / 3.0 /            |
| ii mono-runtime<br>4.2.1.102+dfsg2-7ubuntu4                          | amd64                       | amd64 | all   | Mono runtime - default version |
| ii mono-runtime-common<br>runtime - common files                     | 4.2.1.102+dfsg2-7ubuntu4    | amd64 | amd64 | Mono                           |
| ii mono-runtime-sgen<br>- SGen                                       | 4.2.1.102+dfsg2-7ubuntu4    | amd64 | amd64 | Mono runtime                   |
| ii mono-utils                                                        | 4.2.1.102+dfsg2-7ubuntu4    | amd64 | amd64 | Mono utilities                 |
| ii mono-xbuild<br>build system for Mono                              | 4.2.1.102+dfsg2-7ubuntu4    | amd64 | all   | MSBuild-compatible             |
| ii mount<br>manipulating filesystems                                 | 2.27.1-6ubuntu3.2           | amd64 | amd64 | tools for mounting and         |
| ii mountall<br>mounting tool                                         | 2.54ubuntu1                 | amd64 | amd64 | filesystem                     |
| ii mousetweaks<br>enhancements for the GNOME desktop                 | 3.12.0-1ubuntu2             | amd64 | amd64 | mouse accessibility            |
| ii mscompress<br>"compress.exe/expand.exe" compatible (de)compressor | 0.4-3                       | amd64 | amd64 | Microsoft                      |
| ii mtools<br>MSDOS files                                             | 4.0.18-2ubuntu0.16.04       | amd64 | amd64 | Tools for manipulating         |
| ii mtr-tiny<br>traceroute tool                                       | 0.86-1ubuntu0.1             | amd64 | amd64 | Full screen ncurses            |
| ii multiarch-support<br>to ensure multiarch compatibility            | 2.23-0ubuntu5               | amd64 | amd64 | Transitional package           |
| ii mysql-common<br>database common files, e.g. /etc/mysql/my.cnf     | 5.7.17-0ubuntu0.16.04.1     | amd64 | all   | MySQL                          |
| ii mythes-en-au<br>for OpenOffice.org                                | 2.1-5.4                     | amd64 | all   | Australian English Thesaurus   |
| ii mythes-en-us<br>Thesaurus for LibreOffice                         | 1:5.1.0-1ubuntu2.2          | amd64 | all   | English (USA)                  |
| ii mythes-it<br>OpenOffice.org 2                                     | 2.0.7.gh.deb1-4.1           | amd64 | all   | Italian Thesaurus for          |
| ii nano<br>inspired by Pico                                          | 2.5.3-2ubuntu1              | amd64 | amd64 | small, friendly text editor    |
| ii nautilus<br>graphical shell for GNOME                             | 1:3.18.4.is.3.14.3-0ubuntu5 | amd64 | amd64 | file manager and               |
| ii nautilus-data<br>data files for nautilus                          | 1:3.18.4.is.3.14.3-0ubuntu5 | amd64 | all   |                                |
| ii nautilus-sendto<br>and Pidgin into the Nautilus file manager      | 3.8.2-1ubuntu1              | amd64 | amd64 | integrates Evolution           |
| ii nautilus-share                                                    | 0.7.3-2ubuntu1              | amd64 | amd64 | Nautilus extension to          |

|                                                                                  |                        |     |       |                                                               |
|----------------------------------------------------------------------------------|------------------------|-----|-------|---------------------------------------------------------------|
| share folder using Samba                                                         |                        |     |       |                                                               |
| ii ncurses-base<br>definitions                                                   | 6.0+20160213-1ubuntu1  |     | all   | basic terminal type                                           |
| ii ncurses-bin<br>programs and man pages                                         | 6.0+20160213-1ubuntu1  |     | amd64 | terminal-related                                              |
| ii net-tools<br>toolkit                                                          | 1.60-26ubuntu1         |     | amd64 | NET-3 networking                                              |
| ii netbase<br>ii                                                                 | 5.3                    | all |       | Basic TCP/IP networking system                                |
| netcat-openbsd<br>knife                                                          | 1.105-7ubuntu1         |     | amd64 | TCP/IP swiss army                                             |
| ii netpbm<br>between image formats                                               | 2:10.0-15.3            |     | amd64 | Graphics conversion tools                                     |
| ii network-manager<br>management framework (daemon and userspace tools)          | 1.2.2-0ubuntu0.16.04.3 |     | amd64 | network                                                       |
| ii network-manager-gnome<br>management framework (GNOME frontend)                | 1.2.0-0ubuntu0.16.04.4 |     | amd64 | network                                                       |
| ii network-manager-pptp<br>management framework (PPTP plugin core)               | 1.1.93-1ubuntu1        |     | amd64 | network                                                       |
| ii network-manager-pptp-gnome<br>management framework (PPTP<br>plugin GNOME GUI) | 1.1.93-1ubuntu1        |     | amd64 | network                                                       |
| ii node-abbrev<br>set of strings - Node.js module                                | 1.0.5-2                |     | all   | Get unique abbreviations for a                                |
| ii node-ansi<br>for Node.js                                                      | 0.3.0-2                |     | all   | Advanced ANSI formatting tool                                 |
| ii node-ansi-color-table<br>ansi output - Node.js module                         | 1.0.0-1                |     | all   | Color and format tables for                                   |
| ii node-archy<br>module for Node.js                                              | 0.0.2-1                |     | all   | Pretty-print nested hierarchies                               |
| ii node-async<br>common patterns for asynchronous Javascript                     | 0.8.0-1                |     | all   | higher-order functions and                                    |
| ii node-block-stream<br>all                                                      | 0.0.7-1                |     |       | Stream of fixed-size blocks, with zero-padding when necessary |
| ii node-combined-stream<br>another - module for Node.js                          | 0.0.5-1                |     | all   | Append streams one after                                      |
| ii node-cookie-jar<br>clients - module for Node.js                               | 0.3.1-1                |     | all   | Cookie handling for HTTP                                      |
| ii node-delayed-stream<br>later handling - module for Node.js                    | 0.0.5-1                |     | all   | Buffer stream events for                                      |
| ii node-forever-agent<br>keep-alive requests - module for Node.js                | 0.5.1-1                |     | all   | HTTP agent supporting                                         |
| ii node-form-data<br>streams module for Node.js                                  | 0.1.0-1                |     | all   | Create multipart/form-data                                    |
| ii<br>node-fstream<br>tools for Node.js                                          | 0.1.24-1               |     | all   | Advanced filesystem streaming                                 |
| ii node-fstream-ignore                                                           | 0.0.6-2                |     | all   | Directory reader                                              |

|                                            |                |     |                                                                |
|--------------------------------------------|----------------|-----|----------------------------------------------------------------|
| configurable by .ignore module for Node.js |                |     |                                                                |
| ii node-github-url-from-git                | 1.1.1-1        | all | Convert github git or gist url to an http url - Node.js module |
| ii node-glob                               | 4.0.5-1        | all | glob functionality for Node.js                                 |
| ii node-graceful-fs                        | 3.0.2-1        | all | drop-in replacement improving the Node.js fs module            |
| ii node-gyp                                | 3.0.3-2ubuntu1 | all | Native addon build tool for Node.js                            |
| ii node-inherits                           | 2.0.1-3        | all | Exposes inherits function from Node.js environment             |
| ii node-ini                                | 1.1.0-1        | all | ini format parser and serializer for Node.js                   |
| ii node-json-stringify-safe                | 5.0.0-1        | all | JSON.stringify with circular references module for Node.js     |
| ii node-lockfile                           | 0.4.1-1        | all | Asynchronous file lock module for Node.js                      |
| ii node-lru-cache                          | 2.3.1-1        | all | least-recently-used cache object for Node.js                   |
| ii node-mime                               | 1.3.4-1        | all | library for mime-type mapping for Node.js                      |
| ii node-minimatch                          | 1.0.0-1        | all | Convert glob expressions into RegExp objects for Node.js       |
| ii node-mkdirp                             | 0.5.0-1        | all | Recursively create directories - Node.js module                |
| ii node-mute-stream                        | 0.0.4-1        | all | Pass-through stream that can be muted module for Node.js       |
| ii node-node-uuid                          | 1.4.0-1        | all | simple, fast generation of RFC4122 UUIDs - Node module         |
| ii node-nopt                               | 3.0.1-1        | all | Command-line option parser for Node.js                         |
| ii node-normalize-package-data             | 0.2.2-1        | all | Normalizes package metadata - Node.js module                   |
| ii node-npmlog                             | 0.0.4-1        | all | Logger with custom levels and colored output for Node.js       |
| ii node-once                               | 1.1.1-1        | all | Run a function only once with this module for Node.js          |
| ii node-osenv                              | 0.1.0-1        | all | Environment settings lookup module for Node.js                 |
| ii node-qs                                 | 2.2.4-1        | all | Parse, stringify query strings for Node.js                     |
| ii node-read                               | 1.0.5-1        | all | Read user input from stdin module for Node.js                  |
| ii node-read-package-json                  | 1.2.4-1        | all | Read package.json for npm module for Node.js                   |
| ii node-request                            | 2.26.1-1       | all | simplified HTTP request client module for Node.js              |
| ii node-retry                              | 0.6.0-1        | all | Retry strategies for failed operations module for Node.js      |

|                                                            |                                |       |                                               |
|------------------------------------------------------------|--------------------------------|-------|-----------------------------------------------|
| ii node-rimraf<br>module for Node.js                       | 2.2.8-1                        | all   | Deep deletion (like rm -rf)                   |
| ii node-semver<br>Node.js                                  | 2.1.0-2                        | all   | Semantic Versioning for                       |
| ii node-sha<br>hashes - module for Node.js                 | 1.2.3-1                        | all   | Check and get file or stream                  |
| ii node-sigmund<br>for Node.js                             | 1.0.0-1                        | all   | Quick and dirty signatures for Objects module |
| ii node-slide<br>flow control module for Node.js           | 1.1.4-1                        | all   | Simple chain and asyncMap                     |
| ii node-tar<br>archives module for Node.js                 | 1.0.3-2                        | all   | read and write portable tar                   |
| ii node-tunnel-agent<br>module for Node.js                 | 0.3.1-1                        | all   | HTTP proxy tunneling agent                    |
| ii node-underscore<br>programming helper library - NodeJS  | 1.7.0~dfsg-1ubuntu1            | all   | JavaScript's functional                       |
| ii node-which<br>'which' module for Node.js                | 1.0.5-2                        | all   | Cross-platform                                |
| ii nodejs<br>javascript                                    | 4.2.6~dfsg-1ubuntu4.1          | amd64 | evented I/O for V8                            |
| ii nodejs-dev<br>javascript (development files)            | 4.2.6~dfsg-1ubuntu4.1          | amd64 | evented I/O for V8                            |
| ii nodejs-legacy<br>javascript (legacy symlink)            | 4.2.6~dfsg-1ubuntu4.1          | all   | evented I/O for V8                            |
| ii notify-osd<br>displays passive pop-up notifications     | 0.9.35+16.04.20160415-0ubuntu1 | amd64 | daemon that                                   |
| ii notify-osd-icons<br>icons                               | 0.8+15.10.20151016.2-0ubuntu1  | all   | Notify-OSD                                    |
| ii npm<br>ii                                               | 3.5.2-0ubuntu4                 | all   | package manager for Node.js                   |
| ntfs-3g<br>driver for FUSE                                 | 1:2015.3.14AR.1-1ubuntu0.1     | amd64 | read/write NTFS                               |
| ii nux-tools<br>toolkit for real-time applications - tools | 4.0.8+16.04.20160705-0ubuntu1  | amd64 | Visual rendering                              |
| ii ocl-icd-libopencl1:amd64<br>Loader                      | 2.2.8-1                        | amd64 | Generic OpenCL ICD                            |
| ii ocl-icd-opencl-dev:amd64<br>files                       | 2.2.8-1                        | amd64 | OpenCL development                            |
| ii onboard<br>Keyboard                                     | 1.2.0-0ubuntu5                 | amd64 | Simple On-screen                              |
| ii onboard-data<br>the word suggestion feature of Onboard  | 1.2.0-0ubuntu5                 | all   | Language model files for                      |
| ii opencl-headers<br>files                                 | 2.0~svn32091-2                 | all   | OpenCL (Open Computing Language) header       |
| ii opencv-data<br>opencv                                   | 2.4.9.1+dfsg-1.5ubuntu1        | all   | development data for                          |

|                                 |                                          |       |                                                                 |
|---------------------------------|------------------------------------------|-------|-----------------------------------------------------------------|
| ii openoffice.org-hyphenation   | 0.9                                      | all   | Hyphenation patterns for OpenOffice.org                         |
| ii openprinting-ppds            | 20160212-0ubuntu1                        | all   | OpenPrinting printer support - PostScript PPD files             |
| ii openssh-client               | 1:7.2p2-4ubuntu2.1                       | amd64 | secure shell (SSH) client, for secure access to remote machines |
| ii openssl                      | 1.0.2g-1ubuntu4.6                        | amd64 | Secure Sockets Layer toolkit - cryptographic utility            |
| ii oracle-java8-installer       | 8u121-1~webupd8~0                        | all   | Oracle Java(TM) Development Kit (JDK) 8                         |
| ii oracle-java8-set-default     | 8u121-1~webupd8~0                        | all   | Set Oracle JDK 8 as default Java                                |
| ii os-prober                    | 1.70ubuntu3                              | amd64 | utility to detect other OSes on a set of drives                 |
| ii overlay-scrollbar            | 0.2.17.1+16.04.20151117-0ubuntu1.16.04.1 | all   | Scrollbar overlay - configuration                               |
| ii overlay-scrollbar-gtk2:amd64 | 0.2.17.1+16.04.20151117-0ubuntu1.16.04.1 | amd64 | GTK 2 module for overlay scrollbars                             |
| ii oxideqt-codecs-extra:amd64   | 1.20.4-0ubuntu0.16.04.1                  | amd64 | Web browser engine for Qt (codecs)                              |
| ii p11-kit                      | 0.23.2-5~ubuntu16.04.1                   | amd64 | p11-glue utilities                                              |
| ii p11-kit-modules:amd64        | 0.23.2-5~ubuntu16.04.1                   | amd64 | p11-glue proxy and trust modules                                |
| ii pandoc                       | 1.16.0.2~dfsg-1                          | amd64 | general markup converter                                        |
| ii pandoc-data                  | 1.16.0.2~dfsg-1                          | all   | general markup converter - data files                           |
| ii parted                       | 3.2-15                                   | amd64 | disk partition manipulator                                      |
| ii passwd                       | 1:4.2-3.1ubuntu5                         | amd64 | change and administer password and group data                   |
| ii patch                        | 2.7.5-1                                  | amd64 | Apply a diff file to an original                                |
| ii patchutils                   | 0.3.4-1                                  | amd64 | Utilities to work with patches                                  |
| ii pciutils                     | 1:3.3.1-1.1ubuntu1                       | amd64 | Linux PCI Utilities                                             |
| ii pcmciautils                  | 018-8                                    | amd64 | PCMCIA utilities for Linux 2.6                                  |
| ii perl                         | 5.22.1-9                                 | amd64 | Larry Wall's Practical Extraction and Report Language           |
| ii perl-base                    | 5.22.1-9                                 | amd64 | minimal Perl system                                             |
| ii perl-modules-5.22            | 5.22.1-9                                 | all   | Core Perl modules                                               |
| ii pgdg-keyring                 | 2014.1                                   | all   | keyring for apt.postgresql.org                                  |
| ii pinentry-gnome3              | 0.9.7-3                                  | amd64 | GNOME 3 PIN or pass-phrase entry dialog for GnuPG               |
| ii pkg-config                   | 0.29.1-0ubuntu1                          | amd64 | manage compile and link flags for libraries                     |
| ii plainbox-provider-checkbox   | 0.25-1                                   | amd64 | CheckBox provider for PlainBox                                  |

|                                                                                       |                     |       |                                            |
|---------------------------------------------------------------------------------------|---------------------|-------|--------------------------------------------|
| ii plainbox-provider-resource-generic<br>resource jobs provider                       | 0.23-1              | amd64 | CheckBox generic                           |
| ii plainbox-secure-policy<br>use plainbox (secure version)                            | 0.25-1              | all   | policykit policy required to               |
| ii plymouth<br>0.9.2-3ubuntu13.1                                                      | amd64               |       | boot animation, logger and I/O multiplexer |
| ii plymouth-label<br>logger and I/O multiplexer - label control                       | 0.9.2-3ubuntu13.1   | amd64 | boot animation,                            |
| ii plymouth-theme-ubuntu-logo<br>animation, logger and I/O multiplexer - ubuntu theme | 0.9.2-3ubuntu13.1   | amd64 | boot                                       |
| ii plymouth-theme-ubuntu-text<br>logger and I/O multiplexer - ubuntu text theme       | 0.9.2-3ubuntu13.1   | amd64 | boot animation,                            |
| ii pm-utils<br>management                                                             | 1.4.1-16            | all   | utilities and scripts for power            |
| ii po-debconf<br>file translations with gettext                                       | 1.0.19              | all   | tool for managing templates                |
| ii<br>policykit-1<br>administrative policies and privileges                           | 0.105-14.1          | amd64 | framework for managing                     |
| ii policykit-1-gnome<br>authentication agent for PolicyKit-1                          | 0.105-2ubuntu2      | amd64 | GNOME                                      |
| ii policykit-desktop-privileges<br>actions without password                           | 0.20                | all   | run common desktop                         |
| ii poppler-data<br>PDF rendering library                                              | 0.4.7-7             | all   | encoding data for the poppler              |
| ii poppler-utils<br>Poppler)                                                          | 0.41.0-0ubuntu1.1   | amd64 | PDF utilities (based on                    |
| ii popularity-contest<br>packages automatically                                       | 1.64ubuntu2         | all   | Vote for your favourite                    |
| ii postgresql<br>database (supported version)                                         | 9.6+178.pgdg16.04+1 | all   | object-relational SQL                      |
| ii postgresql-9.5<br>SQL database, version 9.5 server                                 | 9.5.5-1.pgdg16.04+1 | amd64 | object-relational                          |
| ii postgresql-9.6<br>SQL database, version 9.6 server                                 | 9.6.1-2.pgdg16.04+1 | amd64 | object-relational                          |
| ii postgresql-client-9.5<br>for PostgreSQL 9.5                                        | 9.5.5-1.pgdg16.04+1 | amd64 | front-end programs                         |
| ii postgresql-client-9.6<br>for PostgreSQL 9.6                                        | 9.6.1-2.pgdg16.04+1 | amd64 | front-end programs                         |
| ii postgresql-client-common<br>multiple PostgreSQL client versions                    | 178.pgdg16.04+1     | all   | manager for                                |
| ii postgresql-common<br>database-cluster manager                                      | 178.pgdg16.04+1     | all   | PostgreSQL                                 |
| ii postgresql-contrib<br>for PostgreSQL (supported version)                           | 9.6+178.pgdg16.04+1 | all   | additional facilities                      |
| ii postgresql-contrib-9.5<br>facilities for PostgreSQL                                | 9.5.5-1.pgdg16.04+1 | amd64 | additional                                 |
| ii postgresql-contrib-9.6                                                             | 9.6.1-2.pgdg16.04+1 | amd64 | additional                                 |

|                                                                                |                         |       |                             |
|--------------------------------------------------------------------------------|-------------------------|-------|-----------------------------|
| facilities for PostgreSQL                                                      |                         |       |                             |
| ii powermgmt-base<br>configs for power management                              | 1.31+nmu1               | all   | Common utils and            |
| ii ppp<br>Protocol (PPP) - daemon                                              | 2.4.7-1+2ubuntu1        | amd64 | Point-to-Point              |
| ii pppconfig<br>configuring ppp                                                | 2.3.22                  | all   | Text menu based utility for |
| ii pppoeconf<br>connections                                                    | 1.21ubuntu1             | all   | configures PPPoE/ADSL       |
| ii pptp-linux<br>Protocol (PPTP) Client                                        | 1.8.0-1                 | amd64 | Point-to-Point Tunneling    |
| ii preview-latex-style<br>from LaTeX documents as graphics                     | 11.88-1.1ubuntu1        | all   | extraction of elements      |
| ii printer-driver-brlaser<br>(some) Brother laser printers                     | 3-5~ubuntu1             | amd64 | printer driver for          |
| ii printer-driver-c2esp<br>driver for Kodak ESP AiO color inkjet Series        | 27-2                    | amd64 | printer                     |
| ii printer-driver-foo2zjs<br>for ZjStream-based printers                       | 20151024dfsg0-1ubuntu1  | amd64 | printer driver              |
| ii printer-driver-foo2zjs-common<br>for ZjStream-based printers - common files | 20151024dfsg0-1ubuntu1  | all   | printer driver              |
| ii printer-driver-gutenprint<br>CUPS                                           | 5.2.11-1                | amd64 | printer drivers for         |
| ii printer-driver-hpcups<br>and Imaging - CUPS Raster driver (hpcups)          | 3.16.3+repack0-1        | amd64 | HP Linux Printing           |
| ii printer-driver-min12xxw<br>KonicaMinolta PagePro 1[234]xxW                  | 0.0.9-9                 | amd64 | printer driver for          |
| ii printer-driver-pnm2ppa<br>amd64 printer driver for HP-GDI printers          | 1.13+nondbs-0ubuntu5    |       |                             |
| ii printer-driver-postscript-hp<br>PostScript Descriptions                     | 3.16.3+repack0-1        | all   | HP Printers                 |
| ii printer-driver-ptouch<br>touch label printers                               | 1.4-1                   | amd64 | printer driver Brother P-   |
| ii printer-driver-pxljr<br>Color LaserJet 35xx/36xx                            | 1.4+repack0-4           | amd64 | printer driver for HP       |
| ii printer-driver-sag-gdi<br>Aficio SP 1000s/SP 1100s                          | 0.1-4ubuntu1            | all   | printer driver for Ricoh    |
| ii printer-driver-splix<br>Samsung and Xerox SPL2 and SPLc laser printers      | 2.0.0+svn315-4fakesync1 | amd64 | Driver for                  |
| ii procps<br>amd64 /proc file system utilities                                 | 2:3.3.10-4ubuntu2.3     |       |                             |
| ii prosper<br>transparencies                                                   | 1.00.4+cvs.2007.05.01-4 | all   | LaTeX class for writing     |
| ii ps2eps<br>EPS (Encapsulated PostScript) files                               | 1.68+binaryfree-1       | amd64 | convert PostScript to       |
| ii psmisc<br>file system                                                       | 22.21-2.1build1         | amd64 | utilities that use the proc |
| ii psutils                                                                     | 1.17.dfsg-2             | amd64 | PostScript document         |



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|-------------------------------------------------------------------|------------------------------------|-------|-------------------------------|----------------------------------------------------------|
| handling utilities                                                |                                    |       |                               |                                                          |
| ii pulse                                                          | 8.2                                | all   | Pulse Secure Client for Linux |                                                          |
| ii pulseaudio                                                     | 1:8.0-0ubuntu3.2                   |       | amd64                         |                                                          |
| PulseAudio sound server                                           |                                    |       |                               |                                                          |
| ii pulseaudio-module-bluetooth                                    | 1:8.0-0ubuntu3.2                   |       | amd64                         | Bluetooth                                                |
| module for PulseAudio sound server                                |                                    |       |                               |                                                          |
| ii pulseaudio-module-x11                                          | 1:8.0-0ubuntu3.2                   |       | amd64                         | X11 module for                                           |
| PulseAudio sound server                                           |                                    |       |                               |                                                          |
| ii pulseaudio-utils                                               | 1:8.0-0ubuntu3.2                   |       | amd64                         | Command line tools                                       |
| for the PulseAudio sound server                                   |                                    |       |                               |                                                          |
| ii pyotherside                                                    | 1.4.0-2                            | all   |                               | transitional dummy package                               |
| ii python                                                         | 2.7.11-1                           | amd64 |                               | interactive high-level object-                           |
| oriented language (default version)                               |                                    |       |                               |                                                          |
| ii python-alabaster                                               | 0.7.7-1                            | all   |                               | Configurable                                             |
| sidebar-enabled Sphinx theme (Python 2)                           |                                    |       |                               |                                                          |
| ii python-all                                                     | 2.7.11-1                           | amd64 |                               | package depending on all                                 |
| supported Python runtime versions                                 |                                    |       |                               |                                                          |
| ii python-all-dev                                                 | 2.7.11-1                           | amd64 |                               | package depending on all                                 |
| supported Python development packages                             |                                    |       |                               |                                                          |
| ii python-appindicator                                            | 12.10.1+15.04.20141110-0ubuntu1    |       | amd64                         | Python                                                   |
| bindings for libappindicator                                      |                                    |       |                               |                                                          |
| ii python-apt                                                     | 1.1.0~beta1build1                  |       | amd64                         | Python interface to                                      |
| libapt-pkg                                                        |                                    |       |                               |                                                          |
| ii python-apt-common                                              | 1.1.0~beta1build1                  |       | all                           | Python interface to                                      |
| libapt-pkg (locales)                                              |                                    |       |                               |                                                          |
| ii python-babel                                                   | 1.3+dfsg.1-6                       |       |                               |                                                          |
| all tools for internationalizing Python applications - Python 2.x |                                    |       |                               |                                                          |
| ii python-babel-localedata                                        | 1.3+dfsg.1-6                       |       | all                           | tools for                                                |
| internationalizing Python applications - locale data files        |                                    |       |                               |                                                          |
| ii python-cairo                                                   | 1.8.8-2                            | amd64 |                               | Python bindings for the                                  |
| Cairo vector graphics library                                     |                                    |       |                               |                                                          |
| ii python-chardet                                                 | 2.3.0-2                            | all   |                               | universal character encoding                             |
| detector for Python2                                              |                                    |       |                               |                                                          |
| ii python-compizconfig:amd64                                      | 1:0.9.12.2+16.04.20160823-0ubuntu1 |       | amd64                         |                                                          |
| Compizconfig bindings for Python                                  |                                    |       |                               |                                                          |
| ii python-dev                                                     | 2.7.11-1                           | amd64 |                               | header files and a static                                |
| library for Python (default)                                      |                                    |       |                               |                                                          |
| ii python-docutils                                                | 0.12+dfsg-1                        | all   |                               | text processing system for reStructuredText (implemented |
| in Python 2)                                                      |                                    |       |                               |                                                          |
| ii python-gi                                                      | 3.20.0-0ubuntu1                    |       | amd64                         | Python 2.x bindings for                                  |
| gobject-introspection libraries                                   |                                    |       |                               |                                                          |
| ii python-gobject                                                 | 3.20.0-0ubuntu1                    |       | all                           | Python 2.x bindings for                                  |
| GObject - transitional package                                    |                                    |       |                               |                                                          |
| ii python-gobject-2                                               | 2.28.6-12ubuntu1                   |       | amd64                         | deprecated static                                        |
| Python bindings for the GObject library                           |                                    |       |                               |                                                          |
| ii python-gtk2                                                    | 2.24.0-4ubuntu1                    |       | amd64                         | Python bindings for the                                  |
| GTK+ widget set                                                   |                                    |       |                               |                                                          |

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| ii python-jinja2            | 2.8-1                   | all   | small but fast and easy to use stand-alone template engine            |
| ii python-lldb-3.8          | 1:3.8-2ubuntu4          | amd64 | Next generation, high-performance debugger, python lib                |
| ii python-lockfile          | 1:0.12.2-1              | all   | file locking library for Python — Python 2 library                    |
| ii python-markupsafe        | 0.23-2build2            | amd64 | HTML/XHTML/XML string library for Python                              |
| ii python-minimal           | 2.7.11-1                | amd64 | minimal subset of the Python language (default version)               |
| ii python-numpy             | 1:1.11.0-1ubuntu1       | amd64 | Numerical Python adds a fast array facility to the Python language    |
| ii python-pil:amd64         | 3.1.2-0ubuntu1          | amd64 | Python Imaging Library (Pillow fork)                                  |
| ii python-pil.imagetk:amd64 | 3.1.2-0ubuntu1          | amd64 | Python Imaging Library - ImageTk Module (Pillow fork)                 |
| ii python-pip               | 8.1.1-2ubuntu0.4        | all   | alternative Python package installer                                  |
| ii python-pip-whl           | 8.1.1-2ubuntu0.4        | all   | alternative Python package installer                                  |
| ii python-pkg-resources     | 20.7.0-1                | all   | Package Discovery and Resource Access using pkg_resources             |
| ii python-ply               | 3.7-1                   | all   | Lex and Yacc implementation for Python2                               |
| ii python-pygments          | 2.1+dfsg-1              | all   | syntax highlighting package written in Python                         |
| ii python-roman             | 2.0.0-2                 | all   | module for generating/analyzing Roman numerals for Python 2           |
| ii python-setuptools        | 20.7.0-1                | all   | Python Distutils Enhancements                                         |
| ii python-six               | 1.10.0-3                | all   | Python 2 and 3 compatibility library (Python 2 interface)             |
| ii python-sphinx            | 1.3.6-2ubuntu1          | all   | documentation generator for Python projects (implemented in Python 2) |
| ii python-sphinx-rtd-theme  | 0.1.9-1                 | all   | sphinx theme from readthedocs.org (Python 2)                          |
| ii python-talloc            | 2.1.5-2                 | amd64 | hierarchical pool based memory allocator - Python bindings            |
| ii python-tk                | 2.7.11-2                | amd64 | Tkinter - Writing Tk applications with Python                         |
| ii python-tz                | 2014.10~dfsg1-0ubuntu2  | all   | Python version of the Olson timezone database                         |
| ii python-wheel             | 0.29.0-1                | all   | built-package format for Python                                       |
| ii python2.7                | 2.7.12-1ubuntu0~16.04.1 | amd64 | Interactive high-level object-oriented language (version 2.7)         |
| ii python2.7-dev            | 2.7.12-1ubuntu0~16.04.1 | amd64 | Header files and a                                                    |

|                                  |                               |                         |       |                                                                           |
|----------------------------------|-------------------------------|-------------------------|-------|---------------------------------------------------------------------------|
| static library for Python (v2.7) |                               |                         |       |                                                                           |
| ii                               | python2.7-minimal             | 2.7.12-1ubuntu0~16.04.1 | amd64 | Minimal subset of the Python language (version 2.7)                       |
| ii                               | python3                       | 3.5.1-3                 | amd64 | interactive high-level object-oriented language (default python3 version) |
| ii                               | python3-apport                | 2.20.1-0ubuntu2.5       | all   | Python 3 library for Apport crash report handling                         |
| ii                               | python3-apt                   | 1.1.0~beta1build1       | amd64 | Python 3 interface to libapt-pkg                                          |
| ii                               | python3-aptdaemon             | 1.1.1+bzr982-0ubuntu14  | all   | Python 3 module for the server and client of aptdaemon                    |
| ii                               | python3-aptdaemon.gtk3widgets | 1.1.1+bzr982-0ubuntu14  | all   | Python 3 GTK+ 3 widgets to run an aptdaemon client                        |
| ii                               | python3-aptdaemon.pkcompat    | 1.1.1+bzr982-0ubuntu14  | all   | PackageKit compatibilty for AptDaemon                                     |
| ii                               | python3-blinker               | 1.3.dfsg2-1build1       | all   | fast, simple object-to-object and broadcast signaling library             |
| ii                               | python3-brlapi                | 5.3.1-2ubuntu2.1        | amd64 | Braille display access via BRLTTY - Python3 bindings                      |
| ii                               | python3-bs4                   | 4.4.1-1                 | all   | error-tolerant HTML parser for Python 3                                   |
| ii                               | python3-cairo                 | 1.10.0+dfsg-5build1     | amd64 | Python 3 bindings for the Cairo vector graphics library                   |
| ii                               | python3-cffi-backend          | 1.5.2-1ubuntu1          | amd64 | Foreign Function Interface for Python 3 calling C code - runtime          |
| ii                               | python3-chardet               | 2.3.0-2                 | all   | universal character encoding detector for Python3                         |
| ii                               | python3-checkbox-support      | 0.22-1                  | all   | collection of Python modules used by PlainBox providers                   |
| ii                               | python3-commandnotfound       | 0.3ubuntu16.04.2        | all   | Python 3 bindings for command-not-found.                                  |
| ii                               | python3-cryptography          | 1.2.3-1ubuntu0.1        | amd64 | Python library exposing cryptographic recipes and primitives (Python 3)   |
| ii                               | python3-cups                  | 1.9.73-0ubuntu2         | amd64 | Python3 bindings for CUPS                                                 |
| ii                               | python3-cupshelpers           | 1.5.7+20160212-0ubuntu2 | all   | Python modules for printer configuration with CUPS                        |
| ii                               | python3-dbus                  | 1.2.0-3                 | amd64 | simple interprocess messaging system (Python 3 interface)                 |
| ii                               | python3-debian                | 0.1.27ubuntu2           | all   | Python 3 modules to work with Debian-related data formats                 |
| ii                               | python3-defer                 | 1.0.6-2build1           | all   | Small framework for asynchronous programming (Python 3)                   |
| ii                               | python3-distupgrade           | 1:16.04.20              | all   | manage release upgrades                                                   |
| ii                               | python3-feedparser            | 5.1.3-3build1           | all   | Universal Feed Parser for Python 3                                        |

|                           |                    |       |                                                                          |
|---------------------------|--------------------|-------|--------------------------------------------------------------------------|
| ii python3-gdbm:amd64     | 3.5.1-1            | amd64 | GNU dbm database support for Python 3.x                                  |
| ii python3-gi             | 3.20.0-0ubuntu1    | amd64 | Python 3 bindings for gobject-introspection libraries                    |
| ii python3-gi-cairo       | 3.20.0-0ubuntu1    | amd64 | Python 3 Cairo bindings for the GObject library                          |
| ii python3-guacamole      | 0.9.2-1            | all   | framework for creating command line applications (Python 3)              |
| ii python3-html5lib       | 0.999-4            | all   | HTML parser/tokenizer based on the WHATWG HTML5 specification (Python 3) |
| ii python3-httplib2       | 0.9.1+dfsg-1       | all   | comprehensive HTTP client library written for Python3                    |
| ii python3-idna           | 2.0-3              | all   | Python IDNA2008 (RFC 5891) handling (Python 3)                           |
| ii python3-jinja2         | 2.8-1              | all   | small but fast and easy to use stand-alone template engine               |
| ii python3-jwt            | 1.3.0-1            | all   | Python 3 implementation of JSON Web Token                                |
| ii python3-louis          | 2.6.4-2            | all   | Python bindings for liblouis                                             |
| ii python3-lxml           | 3.5.0-1build1      | amd64 | pythonic binding for the lxml2 and libxslt libraries                     |
| ii python3-mako           | 1.0.3+ds1-1ubuntu1 | all   | fast and lightweight templating for the Python 3 platform                |
| ii python3-markupsafe     | 0.23-2build2       | amd64 | HTML/XHTML/XML string library for Python 3                               |
| ii python3-minimal        | 3.5.1-3            | amd64 | minimal subset of the Python language (default python3 version)          |
| ii python3-oauthlib       | 1.0.3-1            | all   | generic, spec-compliant implementation of OAuth for Python3              |
| ii python3-padme          | 1.1.1-2            | all   | mostly transparent proxy class for Python 3                              |
| ii python3-pexpect        | 4.0.1-1            | all   | Python 3 module for automating interactive applications                  |
| ii python3-pil:amd64      | 3.1.2-0ubuntu1     | amd64 | Python Imaging Library (Python3)                                         |
| ii python3-pkg-resources  | 20.7.0-1           | all   | Package Discovery and Resource Access using pkg_resources                |
| ii python3-plainbox       | 0.25-1             | all   | toolkit for software and hardware testing (python3 module)               |
| ii python3-problem-report | 2.20.1-0ubuntu2.5  | all   | Python 3 library to handle problem reports                               |
| ii python3-ptyprocess     | 0.5-1              | all   | Run a subprocess in a pseudo terminal from Python 3                      |
| ii python3-pyasn1         | 0.1.9-1            | all   | ASN.1 library for Python (Python 3 module)                               |
| ii python3-pyatspi        | 2.18.0+dfsg-3      | all   | Assistive Technology Service Provider Interface - Python3 bindings       |

|                                                                                     |                           |       |                              |
|-------------------------------------------------------------------------------------|---------------------------|-------|------------------------------|
| ii python3-pycurl<br>libcurl (Python 3)                                             | 7.43.0-1ubuntu1           | amd64 | Python bindings to           |
| ii python3-pyparsing<br>module, Python3 package                                     | 2.0.3+dfsg1-1ubuntu0.1    | all   | Python parsing               |
| ii python3-renderpm:amd64<br>render interface                                       | 3.3.0-1                   | amd64 | python low level             |
| ii python3-reportlab<br>PDF documents using Python3                                 | 3.3.0-1                   | all   | ReportLab library to create  |
| ii python3-reportlab-accel:amd64<br>accelerator for the ReportLab<br>Toolkit        | 3.3.0-1                   | amd64 | C coded extension            |
| ii python3-requests<br>library for Python3, built for human beings                  | 2.9.1-3                   | all   | elegant and simple HTTP      |
| ii python3-six<br>library (Python 3 interface)                                      | 1.10.0-3                  | all   | Python 2 and 3 compatibility |
| ii python3-software-properties<br>that you install software from                    | 0.96.20.5                 | all   | manage the repositories      |
| ii python3-speechd<br>Speech Dispatcher                                             | 0.8.3-1ubuntu3            | all   | Python interface to          |
| ii python3-systemd<br>systemd                                                       | 231-2build1               | amd64 | Python 3 bindings for        |
| ii python3-uno<br>Python-UNO bridge                                                 | 1:5.1.4-0ubuntu1          | amd64 |                              |
| ii python3-update-manager<br>update-manager                                         | 1:16.04.5                 | all   | python 3.x module for        |
| ii python3-urllib3<br>thread-safe connection pooling for Python3                    | 1.13.1-2ubuntu0.16.04.1   | all   | HTTP library with            |
| ii python3-xdg<br>freedesktop.org standards                                         | 0.25-4                    | all   | Python 3 library to access   |
| ii python3-xkit<br>of xorg.conf files (Python 3)                                    | 0.5.0ubuntu2              | all   | library for the manipulation |
| ii python3-xlsxwriter<br>creating Excel XLSX files                                  | 0.7.3-1                   | all   | Python 3 module for          |
| ii python3.5<br>amd64 Interactive high-level object-oriented language (version 3.5) | 3.5.2-2ubuntu0~16.04.1    |       |                              |
| ii python3.5-minimal<br>of the Python language (version 3.5)                        | 3.5.2-2ubuntu0~16.04.1    | amd64 | Minimal subset               |
| ii qdbus                                                                            | 4:4.8.7+dfsg-5ubuntu2     | amd64 | Qt 4 D-Bus tool              |
| ii qml-module-io-thp-pyotherside:amd64<br>Python 3 Bindings for Qt 5 (QML plugin)   | 1.4.0-2                   | amd64 | asynchronous                 |
| ii qml-module-qt-labs-folderlistmodel:amd64<br>folderlistmodel QML module           | 5.5.1-2ubuntu6            | amd64 | Qt 5                         |
| ii qml-module-qt-labs-settings:amd64<br>QML module                                  | 5.5.1-2ubuntu6            | amd64 | Qt 5 settings                |
| ii qml-module-qtfeedback:amd64<br>Feedback<br>QML module                            | 5.0~git20130529-0ubuntu13 | amd64 | Qt 5                         |
| ii qml-module-qtgraphicaleffects:amd64                                              | 5.5.1-1ubuntu1            | amd64 | Qt 5                         |

|                                                             |                                            |                                                 |       |                                               |
|-------------------------------------------------------------|--------------------------------------------|-------------------------------------------------|-------|-----------------------------------------------|
| Graphical Effects module                                    |                                            |                                                 |       |                                               |
| ii                                                          | qml-module-qtquick-layouts:amd64           | 5.5.1-1ubuntu1                                  | amd64 | Qt 5 Quick                                    |
| Layouts QML module                                          |                                            |                                                 |       |                                               |
| ii                                                          | qml-module-qtquick-window2:amd64           | 5.5.1-2ubuntu6                                  | amd64 | Qt 5                                          |
| window 2 QML module                                         |                                            |                                                 |       |                                               |
| ii                                                          | qml-module-qtquick2:amd64                  | 5.5.1-2ubuntu6                                  | amd64 | Qt 5 Qt Quick                                 |
| 2 QML module                                                |                                            |                                                 |       |                                               |
| ii                                                          | qml-module-qttest:amd64                    | 5.5.1-2ubuntu6                                  | amd64 | Qt 5 test QML                                 |
| module                                                      |                                            |                                                 |       |                                               |
| ii                                                          | qml-module-ubuntu-components:amd64         | 1.3.1918+16.04.20160404-0ubuntu1                | amd64 |                                               |
| Qt Components for Ubuntu - Components QML plugin            |                                            |                                                 |       |                                               |
| ii                                                          | qml-module-ubuntu-layouts:amd64            | 1.3.1918+16.04.20160404-0ubuntu1                | amd64 | Qt Components for Ubuntu - Layouts QML plugin |
| ii                                                          | qml-module-ubuntu-onlineaccounts:amd64     | 0.6+16.04.20151106-0ubuntu1                     | amd64 |                                               |
| Expose the Online Accounts API to QML applications          |                                            |                                                 |       |                                               |
| ii                                                          | qml-module-ubuntu-performancemetrics:amd64 | 1.3.1918+16.04.20160404-0ubuntu1                | amd64 |                                               |
| Qt Components for Ubuntu - PerformanceMetrics QML plugin    |                                            |                                                 |       |                                               |
| ii                                                          | qml-module-ubuntu-test:amd64               | 1.3.1918+16.04.20160404-0ubuntu1                | amd64 | Qt                                            |
| Components for Ubuntu - Test QML plugin                     |                                            |                                                 |       |                                               |
| ii                                                          | qml-module-ubuntu-web:amd64                | 0.23+16.04.20161028-0ubuntu2                    | amd64 |                                               |
| Ubuntu web QML module                                       |                                            |                                                 |       |                                               |
| ii                                                          | qmlscene                                   | 5.5.1-2ubuntu6                                  | amd64 | Qt 5 QML scene viewer                         |
| ii                                                          | qpdf                                       | 6.0.0-2                                         |       |                                               |
|                                                             | amd64                                      | tools for transforming and inspecting PDF files |       |                                               |
| ii                                                          | qt-at-spi:amd64                            | 0.4.0-3                                         | amd64 | at-spi accessibility plugin                   |
| for Qt                                                      |                                            |                                                 |       |                                               |
| ii                                                          | qt-at-spi:i386                             | 0.4.0-3                                         | i386  | at-spi accessibility plugin for               |
| Qt                                                          |                                            |                                                 |       |                                               |
| ii                                                          | qtchooser                                  | 52-gae5eeef-2build1~gcc5.2                      | amd64 | Wrapper to select                             |
| between Qt development binary versions                      |                                            |                                                 |       |                                               |
| ii                                                          | qtcore4-110n                               | 4:4.8.7+dfsg-5ubuntu2                           | all   | Qt 4 core module                              |
| translations                                                |                                            |                                                 |       |                                               |
| ii                                                          | qtdeclarative5-accounts-plugin:amd64       | 0.6+16.04.20151106-0ubuntu1                     | amd64 |                                               |
| transitional dummy package for Online Accounts QML clients  |                                            |                                                 |       |                                               |
| ii                                                          | qtdeclarative5-dev-tools                   | 5.5.1-2ubuntu6                                  |       |                                               |
|                                                             | amd64                                      | Qt 5 declarative development programs           |       |                                               |
| ii                                                          | qtdeclarative5-qtquick2-plugin:amd64       | 5.5.1-2ubuntu6                                  | amd64 | transitional                                  |
| dummy package Qt 5 Qt Quick 2 QML module                    |                                            |                                                 |       |                                               |
| ii                                                          | qtdeclarative5-test-plugin:amd64           | 5.5.1-2ubuntu6                                  | amd64 | transitional                                  |
| dummy package for Qt 5 test QML module                      |                                            |                                                 |       |                                               |
| ii                                                          | qtdeclarative5-ubuntu-ui-toolkit-plugin    | 1.3.1918+16.04.20160404-0ubuntu1                | amd64 |                                               |
| Transitional dummy package for Ubuntu UI Toolkit QML plugin |                                            |                                                 |       |                                               |
| ii                                                          | qtdeclarative5-unity-action-plugin:amd64   | 1.1.0+14.04.20140304-0ubuntu2~gcc5.1            | amd64 |                                               |
| Unity Action QML Components                                 |                                            |                                                 |       |                                               |
| ii                                                          | qttranslations5-110n                       | 5.5.1-2build1                                   | all   | translations for Qt 5                         |
| ii                                                          | rake                                       | 10.5.0-2                                        |       |                                               |
|                                                             | all                                        | ruby make-like utility                          |       |                                               |
| ii                                                          | readline-common                            | 6.3-8ubuntu2                                    | all   | GNU readline and                              |

|                                             |                                                                |       |                                |
|---------------------------------------------|----------------------------------------------------------------|-------|--------------------------------|
| history libraries, common files             |                                                                |       |                                |
| ii remmina                                  | 1.1.2-3ubuntu1                                                 | amd64 | remote desktop client for      |
| GNOME desktop environment                   |                                                                |       |                                |
| ii remmina-common                           | 1.1.2-3ubuntu1                                                 | all   | common files for               |
| remmina remote desktop client               |                                                                |       |                                |
| ii remmina-plugin-rdp                       | 1.1.2-3ubuntu1                                                 | amd64 | RDP plugin for                 |
| remmina remote desktop client               |                                                                |       |                                |
| ii remmina-plugin-vnc                       | 1.1.2-3ubuntu1                                                 | amd64 | VNC plugin for                 |
| remmina remote desktop client               |                                                                |       |                                |
| ii rename                                   | 0.20-4                                                         |       |                                |
| all                                         | Perl extension for renaming multiple files                     |       |                                |
| ii resolvconf                               | 1.78ubuntu2                                                    | all   | name server information        |
| handler                                     |                                                                |       |                                |
| ii rfkill                                   | 0.5-1ubuntu3                                                   | amd64 | tool for enabling and          |
| disabling wireless devices                  |                                                                |       |                                |
| ii rhythmbox                                | 3.3-1ubuntu7                                                   | amd64 | music player and               |
| organizer for GNOME                         |                                                                |       |                                |
| ii rhythmbox-data                           | 3.3-1ubuntu7                                                   | all   | data files for rhythmbox       |
| ii rhythmbox-plugin-zeitgeist               | 3.3-1ubuntu7                                                   | all   | zeitgeist plugin for           |
| rhythmbox music player                      |                                                                |       |                                |
| ii rhythmbox-plugins                        | 3.3-1ubuntu7                                                   | amd64 |                                |
| plugins for rhythmbox music player          |                                                                |       |                                |
| ii rsync                                    | 3.1.1-3ubuntu1                                                 | amd64 | fast, versatile, remote (and   |
| local) file-copying tool                    |                                                                |       |                                |
| ii rsyslog                                  | 8.16.0-1ubuntu3                                                | amd64 | reliable system and kernel     |
| logging daemon                              |                                                                |       |                                |
| ii rtkit                                    | 0.11-4                                                         | amd64 | Realtime Policy and Watchdog   |
| Daemon                                      |                                                                |       |                                |
| ii ruby                                     | 1:2.3.0+1                                                      | all   | Interpreter of object-oriented |
| scripting language Ruby (default version)   |                                                                |       |                                |
| ii ruby-did-you-mean                        | 1.0.0-2                                                        | all   | smart error messages for       |
| Ruby > 2.3                                  |                                                                |       |                                |
| ii ruby-minitest                            | 5.8.4-2                                                        |       |                                |
| all                                         | Ruby test tools supporting TDD, BDD, mocking, and benchmarking |       |                                |
| ii ruby-net-telnet                          | 0.1.1-2                                                        | all   | telnet client library          |
| ii ruby-power-assert                        | 0.2.7-1                                                        | all   | library showing values of      |
| variables and method calls in an expression |                                                                |       |                                |
| ii ruby-test-unit                           | 3.1.7-2                                                        | all   | unit testing framework for     |
| Ruby                                        |                                                                |       |                                |
| ii ruby2.3                                  | 2.3.1-2~16.04                                                  | amd64 | Interpreter of object-         |
| oriented scripting language Ruby            |                                                                |       |                                |
| ii rubygems-integration                     | 1.10                                                           | all   | integration of Debian Ruby     |
| packages with Rubygems                      |                                                                |       |                                |
| ii s-nail                                   | 14.8.6-1                                                       |       |                                |
| amd64                                       | feature-rich BSD mail(1)                                       |       |                                |
| ii samba-libs:amd64                         | 2:4.3.11+dfsg-0ubuntu0.16.04.3                                 | amd64 | Samba core                     |
| libraries                                   |                                                                |       |                                |
| ii sane-utils                               | 1.0.26-git20160712-xenial0                                     | amd64 | API library for                |

|                                                                      |                                        |       |                                     |
|----------------------------------------------------------------------|----------------------------------------|-------|-------------------------------------|
| scanners -- utilities                                                |                                        |       |                                     |
| ii sbsigntool<br>verifying files for UEFI Secure Boot                | 0.6-0ubuntu10.1                        | amd64 | utility for signing and             |
| ii seahorse<br>GnuPG                                                 | 3.18.0-2ubuntu1                        | amd64 | GNOME front end for                 |
| ii secureboot-db<br>and DBX                                          | 1.1                                    | amd64 | Secure Boot updates for DB          |
| ii sed<br>stream editor                                              | 4.2.2-7                                | amd64 | The GNU sed                         |
| ii sensible-utils<br>selection                                       | 0.0.9                                  | all   | Utilities for sensible alternative  |
| ii session-migration<br>session settings                             | 0.2.3                                  | amd64 | Tool to migrate in user             |
| ii session-shortcuts<br>logout, and reboot from dash                 | 1.2                                    | all   | Allows you to shutdown,             |
| ii sessioninstaller<br>using PackageKit's session Dbus API           | 0.20+bzr150-0ubuntu4.1                 | all   | APT based installer                 |
| ii sgml-base<br>and SGML catalog file support                        | 1.26+nmu4ubuntu1                       | all   | SGML infrastructure                 |
| ii shared-mime-info<br>shared MIME database and spec                 | 1.5-2ubuntu0.1                         | amd64 | FreeDesktop.org                     |
| ii shim<br>signed boot loaders under Secure Boot                     | 0.8-0ubuntu2                           | amd64 | boot loader to chain-load           |
| ii shim-signed<br>chain-loading bootloader (Microsoft-signed binary) | 1.19~16.04.1+0.8-0ubuntu2              | amd64 | Secure Boot                         |
| ii shotwell<br>organizer                                             | 0.22.0+git20160108.r1.f2fb1f7-0ubuntu1 | amd64 | digital photo                       |
| ii shotwell-common<br>organizer - common files                       | 0.22.0+git20160108.r1.f2fb1f7-0ubuntu1 | all   | digital photo                       |
| ii signon-keyring-extension<br>keyring extension for signond         | 0.6+14.10.20140513-0ubuntu2            | amd64 | GNOME                               |
| ii signon-plugin-oauth2<br>Single Signon oauth2 plugin               | 0.23+16.04.20151209-0ubuntu1           | amd64 |                                     |
| ii signon-plugin-password<br>Password plugin for Single Sign On      | 8.58+16.04.20151106-0ubuntu1           | amd64 | Plain                               |
| ii signon-ui<br>package for signon-ui                                | 0.17+16.04.20151125-0ubuntu1           | all   | Dummy transitional                  |
| ii signon-ui-service<br>file for signon-ui                           | 0.17+16.04.20151125-0ubuntu1           | all   | D-Bus service                       |
| ii signon-ui-x11<br>UI                                               | 0.17+16.04.20151125-0ubuntu1           | amd64 | Single Sign-on                      |
| ii signond<br>framework                                              | 8.58+16.04.20151106-0ubuntu1           | amd64 | Single Sign On                      |
| ii simple-scan<br>Utility                                            | 3.20.0-0ubuntu1                        | amd64 | Simple Scanning                     |
| ii skype:i386<br>4.3.0.37-1                                          | i386                                   |       | Wherever you are, wherever they are |
| ii slack-desktop                                                     | 2.4.2                                  | amd64 | Slack Desktop                       |



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|-------------------------------------------------------------------------------------------|-------------------------------|-------|------------------------------------------------------|
| ii smartmontools<br>storage systems using S.M.A.R.T.                                      | 6.4+svn4214-1                 | amd64 | control and monitor                                  |
| ii snap-confine<br>apply confinement for snappy apps                                      | 2.20.1ubuntu1                 | amd64 | Support executable to                                |
| ii snapd<br>Ubuntu Core Snappy.                                                           | 2.20.1ubuntu1                 | amd64 | Tool to interact with                                |
| ii snapd-login-service<br>non-root access to snapd                                        | 1.2-0ubuntu1.1~xenial         | amd64 | Daemon to allow                                      |
| ii sni-qt:amd64<br>0.2.7+15.10.20150729-0ubuntu1                                          | amd64                         |       | indicator support for Qt                             |
| ii sni-qt:i386<br>for Qt                                                                  | 0.2.7+15.10.20150729-0ubuntu1 | i386  | indicator support                                    |
| ii software-properties-common<br>repositories that you install software from (common)     | 0.96.20.5                     | all   | manage the                                           |
| ii software-properties-gtk<br>that you install software from (gtk)                        | 0.96.20.5                     | all   | manage the repositories                              |
| ii sound-theme-freedesktop<br>theme                                                       | 0.8-1                         | all   | freedesktop.org sound                                |
| ii speech-dispatcher<br>speech synthesizers                                               | 0.8.3-1ubuntu3                | amd64 | Common interface to                                  |
| ii speech-dispatcher-audio-plugins:amd64<br>amd64 Speech Dispatcher: Audio output plugins | 0.8.3-1ubuntu3                |       |                                                      |
| ii sphinx-common<br>generator for Python projects - common data                           | 1.3.6-2ubuntu1                | all   | documentation                                        |
| ii sphinx-doc<br>for Python projects - documentation                                      | 1.3.6-2ubuntu1                | all   | documentation generator                              |
| ii sphinx-rtd-theme-common<br>readthedocs.org (common files)                              | 0.1.9-1                       | all   | sphinx theme from                                    |
| ii squashfs-tools<br>append to squashfs filesystems                                       | 1:4.3-3ubuntu2                | amd64 | Tool to create and                                   |
| ii ssl-cert<br>OpenSSL                                                                    | 1.0.37                        | all   | simple debconf wrapper for                           |
| ii steam-launcher<br>1.0.0.54                                                             |                               | all   | Launcher for the Steam software distribution service |
| ii strace                                                                                 | 4.11-1ubuntu3                 | amd64 | System call tracer                                   |
| ii sudo<br>user privileges to specific users                                              | 1.8.16-0ubuntu1.2             | amd64 | Provide limited super                                |
| ii suru-icon-theme<br>Icon theme                                                          | 14.04+16.04.20161024-0ubuntu1 | all   | Ubuntu Suru                                          |
| ii swig<br>interfaces to C/C++ code                                                       | 3.0.8-0ubuntu3                | amd64 | Generate scripting                                   |
| ii swig3.0<br>interfaces to C/C++ code                                                    | 3.0.8-0ubuntu3                | amd64 | Generate scripting                                   |
| ii syslinux<br>amd64 collection of bootloaders (DOS FAT and NTFS bootloader)              | 3:6.03+dfsg-11ubuntu1         |       |                                                      |
| ii syslinux-common<br>bootloaders (common)                                                | 3:6.03+dfsg-11ubuntu1         | all   | collection of                                        |
| ii syslinux-legacy                                                                        | 2:3.63+dfsg-2ubuntu8          | amd64 | Bootloader for                                       |

|                                                                                    |                         |       |                                        |  |
|------------------------------------------------------------------------------------|-------------------------|-------|----------------------------------------|--|
| Linux/i386 using MS-DOS floppies                                                   |                         |       |                                        |  |
| ii sysstat<br>for Linux                                                            | 11.2.0-1ubuntu0.1       | amd64 | system performance tools               |  |
| ii system-config-printer-common<br>configuration GUI                               | 1.5.7+20160212-0ubuntu2 | all   | Printer                                |  |
| ii system-config-printer-gnome<br>configuration GUI                                | 1.5.7+20160212-0ubuntu2 | all   | Printer                                |  |
| ii system-config-printer-udev<br>Printer auto-configuration facility based on udev | 1.5.7+20160212-0ubuntu2 | amd64 |                                        |  |
| ii systemd<br>manager                                                              | 229-4ubuntu16           | amd64 | system and service                     |  |
| ii systemd-sysv<br>manager - SysV links                                            | 229-4ubuntu16           | amd64 | system and service                     |  |
| ii sysv-rc<br>change mechanism                                                     | 2.88dsf-59.3ubuntu2     | all   | System-V-like runlevel                 |  |
| ii sysvinit-utils                                                                  | 2.88dsf-59.3ubuntu2     | amd64 | System-V-like utilities                |  |
| ii t1utils<br>font manipulation programs                                           | 1.39-2                  | amd64 | Collection of simple Type 1            |  |
| ii tar<br>the tar archiving utility                                                | 1.28-2.1ubuntu0.1       | amd64 | GNU version of                         |  |
| ii tcl<br>(default version) - shell                                                | 8.6.0+9                 | amd64 | Tool Command Language                  |  |
| ii tcl8.6<br>Language) v8.6 - shell                                                | 8.6.5+dfsg-2            | amd64 | Tcl (the Tool Command                  |  |
| ii tcpd<br>wrapper utilities                                                       | 7.6.q-25                | amd64 | Wietse Venema's TCP                    |  |
| ii tcpdump<br>traffic analyzer                                                     | 4.7.4-1ubuntu1          | amd64 | command-line network                   |  |
| ii teamviewer:i386<br>Control Application)                                         | 11.0.57095              | i386  | TeamViewer (Remote                     |  |
| ii telnet                                                                          | 0.17-40                 | amd64 | basic telnet client                    |  |
| ii tex-common<br>installing TeX                                                    | 6.04                    | all   | common infrastructure for building and |  |
| ii tex-gyre<br>OpenType fonts based on URW Fonts                                   | 20150923-1              | all   | scalable PostScript and                |  |
| ii texlive<br>selection of the TeX Live packages                                   | 2015.20160320-1         | all   | TeX Live: A decent                     |  |
| ii texlive-base<br>programs and files                                              | 2015.20160320-1         | all   | TeX Live: Essential                    |  |
| ii texlive-binaries<br>Live                                                        | 2015.20160222.37495-1   | amd64 | Binaries for TeX                       |  |
| ii texlive-extra-utils<br>programs                                                 | 2015.20160320-1         | all   | TeX Live: TeX auxiliary                |  |
| ii texlive-font-utils<br>2015.20160320-1                                           |                         | all   | TeX Live: Graphics and font utilities  |  |
| ii texlive-fonts-recommended<br>Recommended fonts                                  | 2015.20160320-1         | all   | TeX Live:                              |  |

|                                                   |                                  |       |       |                                                    |
|---------------------------------------------------|----------------------------------|-------|-------|----------------------------------------------------|
| ii texlive-fonts-recommended-doc                  | 2015.20160320-1                  |       | all   | TeX Live:                                          |
| Documentation files for texlive-fonts-recommended |                                  |       |       |                                                    |
| ii texlive-generic-recommended                    | 2015.20160320-1                  |       | all   | TeX Live:                                          |
| Generic recommended packages                      |                                  |       |       |                                                    |
| ii texlive-lang-english                           | 2015.20160223-1                  |       | all   | TeX Live: US and UK                                |
| English                                           |                                  |       |       |                                                    |
| ii texlive-lang-italian                           | 2015.20160223-1                  |       | all   | TeX Live: Italian                                  |
| ii texlive-latex-base                             | 2015.20160320-1                  | all   |       | TeX Live: LaTeX fundamental packages               |
| ii texlive-latex-base-doc                         | 2015.20160320-1                  |       | all   | TeX Live:                                          |
| Documentation files for texlive-latex-base        |                                  |       |       |                                                    |
| ii texlive-latex-extra                            | 2015.20160320-1                  |       | all   | TeX Live: LaTeX                                    |
| additional packages                               |                                  |       |       |                                                    |
| ii texlive-latex-extra-doc                        | 2015.20160320-1                  |       | all   | TeX Live:                                          |
| Documentation files for texlive-latex-extra       |                                  |       |       |                                                    |
| ii texlive-latex-recommended                      | 2015.20160320-1                  |       | all   | TeX Live: LaTeX                                    |
| recommended packages                              |                                  |       |       |                                                    |
| ii texlive-latex-recommended-doc                  | 2015.20160320-1                  |       | all   | TeX Live:                                          |
| Documentation files for texlive-latex-recommended |                                  |       |       |                                                    |
| ii texlive-pictures                               | 2015.20160320-1                  | all   |       | TeX Live: Graphics, pictures, diagrams             |
| ii texlive-pictures-doc                           | 2015.20160320-1                  |       | all   | TeX Live:                                          |
| Documentation files for texlive-pictures          |                                  |       |       |                                                    |
| ii texlive-pstricks                               | 2015.20160320-1                  |       | all   | TeX Live: PSTricks                                 |
| ii texlive-pstricks-doc                           | 2015.20160320-1                  |       | all   | TeX Live:                                          |
| Documentation files for texlive-pstricks          |                                  |       |       |                                                    |
| ii texlive-science                                | 2015.20160320-1                  |       | all   | TeX Live: Natural and                              |
| computer sciences                                 |                                  |       |       |                                                    |
| ii texlive-science-doc                            | 2015.20160320-1                  |       | all   | TeX Live:                                          |
| Documentation files for texlive-science           |                                  |       |       |                                                    |
| ii texmaker                                       | 4.4.1-1.1                        | amd64 |       | cross-platform LaTeX editor                        |
| ii texmaker-data                                  | 4.4.1-1.1                        |       | all   | Texmaker LaTeX editor --                           |
| arch-independent files                            |                                  |       |       |                                                    |
| ii thermald                                       | 1.5-2ubuntu2                     |       | amd64 | Thermal monitoring and                             |
| controlling daemon                                |                                  |       |       |                                                    |
| ii thunderbird                                    | 1:45.7.0+build1-0ubuntu0.16.04.1 |       | amd64 | Email, RSS and                                     |
| newsgroup client with integrated spam filter      |                                  |       |       |                                                    |
| ii thunderbird-gnome-support                      | 1:45.7.0+build1-0ubuntu0.16.04.1 |       | amd64 | Email,                                             |
| RSS and newsgroup client - GNOME support          |                                  |       |       |                                                    |
| ii thunderbird-locale-en                          | 1:45.7.0+build1-0ubuntu0.16.04.1 |       | amd64 | English                                            |
| language pack for Thunderbird                     |                                  |       |       |                                                    |
| ii thunderbird-locale-en-gb                       | 1:45.7.0+build1-0ubuntu0.16.04.1 | all   |       | Transitional English language pack for Thunderbird |
| ii thunderbird-locale-en-us                       | 1:45.7.0+build1-0ubuntu0.16.04.1 |       | all   | Transitional                                       |
| English language pack for Thunderbird             |                                  |       |       |                                                    |
| ii thunderbird-locale-it                          | 1:45.7.0+build1-0ubuntu0.16.04.1 |       | amd64 | Italian                                            |
| language pack for Thunderbird                     |                                  |       |       |                                                    |

|                                                                     |                                 |       |                                               |
|---------------------------------------------------------------------|---------------------------------|-------|-----------------------------------------------|
| ii time<br>measuring CPU resource usage                             | 1.7-25.1                        | amd64 | GNU time program for                          |
| ii tipa<br>symbols in LaTeX                                         | 2:1.3-20                        | all   | system for processing phonetic                |
| ii tk<br>(default version) - windowing shell                        | 8.6.0+9                         | amd64 | Toolkit for Tcl and X11                       |
| ii tk8.6<br>windowing shell                                         | 8.6.5-1                         | amd64 | Tk toolkit for Tcl and X11 v8.6 -             |
| ii tk8.6-blit2.5<br>for Tcl/Tk - library                            | 2.5.3+dfsg-3                    | amd64 | graphics extension library                    |
| ii tlp                                                              | 0.8-1                           | all   | Save battery power on laptops                 |
| ii tlp-rdw                                                          | 0.8-1                           | all   | Radio device wizard                           |
| ii toshset<br>laptop hardware interface                             | 1.76-4                          | amd64 | Access much of the Toshiba                    |
| ii totem<br>the GNOME desktop based on GStreamer                    | 3.18.1-1ubuntu4                 | amd64 | Simple media player for                       |
| ii totem-common                                                     | 3.18.1-1ubuntu4                 | all   | Data files for the Totem media player         |
| ii totem-plugins<br>media player                                    | 3.18.1-1ubuntu4                 | amd64 | Plugins for the Totem                         |
| ii traceroute<br>packets over an IPv4/IPv6 network                  | 1:2.0.21-1                      | amd64 | Traces the route taken by                     |
| ii transmission-common<br>BitTorrent client (common files)          | 2.84-3ubuntu3                   | all   | lightweight                                   |
| ii transmission-gtk<br>client (GTK+ interface)                      | 2.84-3ubuntu3                   | amd64 | lightweight BitTorrent                        |
| ii tree<br>tree, in color                                           | 1.7.0-3                         | amd64 | displays an indented directory                |
| ii ttf-ancient-fonts-symbola<br>Unicode 7.0 (transitional package)  | 2.59-1                          | all   | symbolic font providing emoji characters from |
| ii ttf-bitstream-vera<br>free TrueType fonts                        | 1.10-8                          | all   | The Bitstream Vera family of                  |
| ii ttf-ubuntu-font-family<br>sans-serif typeface hinted for clarity | 1:0.83-0ubuntu2                 | all   | Ubuntu Font Family,                           |
| ii tzdata<br>saving time data                                       | 2016j-0ubuntu0.16.04            | all   | time zone and daylight-                       |
| ii ubuntu-artwork<br>and artwork                                    | 1:14.04+16.04.20161024-0ubuntu1 | all   | Ubuntu themes                                 |
| ii ubuntu-core-launcher<br>ubuntu-core<br>(snappy) apps             | 2.20.1ubuntu1                   | amd64 | Launcher for                                  |
| ii ubuntu-desktop<br>system                                         | 1.361                           | amd64 | The Ubuntu desktop                            |
| ii ubuntu-docs                                                      | 16.04.4                         | all   | Ubuntu Desktop Guide                          |
| ii ubuntu-drivers-common<br>additional Ubuntu driver packages       | 1:0.4.17.2                      | amd64 | Detect and install                            |

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|--------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------|-------------------------------|
| ii ubuntu-keyring<br>archive                                             | 2012.05.19                                    | all                                                            | GnuPG keys of the Ubuntu      |
| ii ubuntu-minimal                                                        | 1.361                                         | amd64                                                          | Minimal core of Ubuntu        |
| ii ubuntu-mobile-icons<br>Mobile Icon theme                              | 14.04+16.04.20161024-0ubuntu1                 | all                                                            | Ubuntu                        |
| ii ubuntu-mono<br>14.04+16.04.20161024-0ubuntu1                          | all                                           | Ubuntu Mono Icon theme                                         |                               |
| ii ubuntu-release-upgrader-core<br>upgrades                              | 1:16.04.20                                    | all                                                            | manage release                |
| ii ubuntu-release-upgrader-gtk<br>upgrades                               | 1:16.04.20                                    | all                                                            | manage release                |
| ii ubuntu-restricted-addons<br>restricted packages for Ubuntu            | 23                                            | amd64                                                          | Commonly used                 |
| ii ubuntu-session                                                        | 3.18.1.2-1ubuntu1.16.04.2                     | all                                                            | Ubuntu session                |
| ii ubuntu-settings<br>Ubuntu desktop                                     | 15.10.8                                       | all                                                            | default settings for the      |
| ii ubuntu-software<br>for browsing, installing,<br>and removing software | 3.20.1+git20161013.0.d77d6cf-0ubuntu2~xenial1 | amd64                                                          | Utility                       |
| ii ubuntu-sounds<br>theme                                                | 0.13                                          | all                                                            | Ubuntu's GNOME audio          |
| ii ubuntu-standard<br>system                                             | 1.361                                         | amd64                                                          | The Ubuntu standard           |
| ii ubuntu-system-service<br>system-wide configurations                   | 0.3                                           | all                                                            | DBus service to set various   |
| ii ubuntu-touch-sounds<br>Touch image                                    | 15.08                                         | all                                                            | sounds for the Ubuntu         |
| ii ubuntu-ui-toolkit-theme<br>Components for Ubuntu - Ubuntu Theme       | 1.3.1918+16.04.20160404-0ubuntu1              | amd64                                                          | Qt                            |
| ii ubuntu-wallpapers<br>ii ubuntu-wallpapers-xenial<br>16.04.1-0ubuntu1  | 16.04.1-0ubuntu1                              | all                                                            | Ubuntu Wallpapers             |
| ii ucf<br>preserve user changes to config files                          | 3.0036                                        | all                                                            | Update Configuration File(s): |
| ii udev<br>management daemon                                             | 229-4ubuntu16                                 | amd64                                                          | /dev/ and hotplug             |
| ii udisks2<br>and manipulate storage devices                             | 2.1.7-1ubuntu1                                | amd64                                                          | D-Bus service to access       |
| ii ufw<br>Netfilter firewall                                             | 0.35-0ubuntu2                                 | all                                                            | program for managing a        |
| ii unattended-upgrades<br>of security upgrades                           | 0.90ubuntu0.3                                 | all                                                            | automatic installation        |
| ii unity<br>7.4.0+16.04.20160906-0ubuntu1                                | amd64                                         | Interface designed for efficiency of<br>space and interaction. |                               |
| ii unity-accessibility-profiles<br>Manager - Unity profile data          | 0.1.10-0ubuntu3                               | all                                                            | Accessibility Profile         |
| ii unity-asset-pool                                                      | 0.8.24+15.04.20141217-0ubuntu2                | all                                                            | Unity Assets                  |

|                                                                              |                                  |       |                         |  |
|------------------------------------------------------------------------------|----------------------------------|-------|-------------------------|--|
| Pool                                                                         |                                  |       |                         |  |
| ii unity-control-center<br>configure the GNOME desktop                       | 15.04.0+16.04.20160705-0ubuntu1  | amd64 | utilities to            |  |
| ii unity-control-center-faces<br>configure the GNOME desktop - faces images  | 15.04.0+16.04.20160705-0ubuntu1  | all   | utilities to            |  |
| ii unity-control-center-signon<br>Control Center extension for single signon | 0.1.8+16.04.20160201-0ubuntu1    | amd64 | Unity                   |  |
| ii unity-greeter<br>16.04.2-0ubuntu1                                         |                                  | amd64 | Unity Greeter           |  |
| ii unity-gtk-module-common<br>files for GtkMenuShell D-Bus exporter          | 0.0.0+15.04.20150118-0ubuntu2    | all   | Common                  |  |
| ii unity-gtk2-module:amd64<br>GtkMenuShell D-Bus exporter                    | 0.0.0+15.04.20150118-0ubuntu2    | amd64 |                         |  |
| ii unity-gtk3-module:amd64<br>GtkMenuShell D-Bus exporter                    | 0.0.0+15.04.20150118-0ubuntu2    | amd64 |                         |  |
| ii unity-lens-applications<br>lens for unity                                 | 7.1.0+16.04.20160701-0ubuntu1    | amd64 | Application             |  |
| ii unity-lens-files<br>unity                                                 | 7.1.0+16.04.20151217-0ubuntu1    | amd64 | File lens for           |  |
| ii unity-lens-music<br>Music lens for unity                                  | 6.9.1+16.04-0ubuntu1             | amd64 |                         |  |
| ii unity-lens-photos<br>Unity                                                | 1.0+14.04.20140318-0ubuntu1      | all   | Photos lens for         |  |
| ii unity-lens-video<br>lens                                                  | 0.3.15+16.04.20160212.1-0ubuntu1 | amd64 | Unity Video             |  |
| ii unity-schemas<br>designed for efficiency of space and interaction.        | 7.4.0+16.04.20160906-0ubuntu1    | all   | Interface               |  |
| ii unity-scope-calculator<br>scope for Unity                                 | 0.1+14.04.20140328-0ubuntu1      | all   | Calculator              |  |
| ii unity-scope-chromiumbookmarks<br>Chromium bookmarks scope for Unity       | 0.1+13.10.20130723-0ubuntu1      | all   |                         |  |
| ii unity-scope-colourlovers<br>COLOURlovers scope for Unity                  | 0.1+13.10.20130723-0ubuntu1      | all   |                         |  |
| ii unity-scope-devhelp<br>0.1+14.04.20140328-0ubuntu1                        |                                  | all   | devhelp scope for Unity |  |
| ii unity-scope-firefoxbookmarks<br>bookmarks scope for Unity                 | 0.1+13.10.20130809.1-0ubuntu1    | all   | Firefox                 |  |
| ii unity-scope-gdrive<br>scope for Unity                                     | 0.9+16.04.20151125-0ubuntu1      | all   | Google Drive            |  |
| ii unity-scope-home<br>that aggregates results from multiple scopes          | 6.8.2+16.04.20160212.1-0ubuntu1  | amd64 | Home scope              |  |
| ii unity-scope-manpages<br>scope for Unity                                   | 3.0+14.04.20140324-0ubuntu1      | all   | Manual pages            |  |
| ii unity-scope-openclipart<br>scope for Unity                                | 0.1+13.10.20130723-0ubuntu1      | all   | OpenClipArt             |  |
| ii unity-scope-texdoc<br>all Texdoc scope for Unity                          | 0.1+14.04.20140328-0ubuntu1      |       |                         |  |
| ii unity-scope-tomboy                                                        | 0.1+13.10.20130723-0ubuntu1      | all   | Tomboy scope            |  |

|                                                                                          |                                  |       |                                         |  |
|------------------------------------------------------------------------------------------|----------------------------------|-------|-----------------------------------------|--|
| for Unity                                                                                |                                  |       |                                         |  |
| ii unity-scope-video-remote<br>videos engine                                             | 0.3.15+16.04.20160212.1-0ubuntu1 | amd64 | Remote                                  |  |
| ii unity-scope-virtualbox<br>scope for Unity                                             | 0.1+13.10.20130723-0ubuntu1      | all   | VirtualBox                              |  |
| ii unity-scope-yelp<br>Unity                                                             | 0.1+13.10.20130723-0ubuntu1      | all   | Help scope for                          |  |
| ii unity-scope-zotero<br>Unity                                                           | 0.1+13.10.20130723-0ubuntu1      | all   | Zotero scope for                        |  |
| ii unity-scopes-master-default<br>that aggregates results from multiple scopes           | 6.8.2+16.04.20160212.1-0ubuntu1  | all   | Home scope                              |  |
| ii unity-scopes-runner<br>7.1.4+16.04.20160701-0ubuntu1                                  | all                              |       | desktop runner for misceallenous scopes |  |
| ii unity-services<br>Unity interface                                                     | 7.4.0+16.04.20160906-0ubuntu1    | amd64 | Services for the                        |  |
| ii unity-settings-daemon<br>handling the Unity session settings                          | 15.04.1+16.04.20160701-0ubuntu1  | amd64 | daemon                                  |  |
| ii unity-webapps-common<br>WebApp integration scripts                                    | 2.4.17+15.10.20150616-0ubuntu2   | all   | Unity                                   |  |
| ii unity-webapps-qml<br>Webapps QML component                                            | 0.1+16.04.20160114-0ubuntu1      | amd64 | Unity                                   |  |
| ii unity-webapps-service<br>Web Apps integration with the Unity desktop                  | 2.5.0~+16.04.20160201-0ubuntu1   | amd64 | Service for                             |  |
| ii uno-libs3<br>amd64 LibreOffice UNO runtime environment -- public shared libraries     | 5.1.4-0ubuntu1                   |       |                                         |  |
| ii unzip                                                                                 | 6.0-20ubuntu1                    | amd64 | De-archiver for .zip files              |  |
| ii update-inetd                                                                          | 4.43                             | all   | inetd configuration file updater        |  |
| ii update-manager<br>manages apt updates                                                 | 1:16.04.5                        | all   | GNOME application that                  |  |
| ii update-manager-core                                                                   | 1:16.04.5                        | all   | manage release upgrades                 |  |
| ii update-notifier<br>about package updates                                              | 3.168.3                          | amd64 | Daemon which notifies                   |  |
| ii update-notifier-common<br>all Files shared between update-notifier and other packages | 3.168.3                          |       |                                         |  |
| ii upower<br>management                                                                  | 0.99.4-2ubuntu0.3                | amd64 | abstraction for power                   |  |
| ii upstart<br>- essential binaries                                                       | 1.13.2-0ubuntu21.1               | amd64 | event-based init daemon                 |  |
| ii ure<br>environment                                                                    | 5.1.4-0ubuntu1                   | amd64 | LibreOffice UNO runtime                 |  |
| ii ureadahead<br>advance                                                                 | 0.100.0-19                       | amd64 | Read required files in                  |  |
| ii usb-creator-common<br>using a CD or disc image (common files)                         | 0.3.2                            | amd64 | create a startup disk                   |  |
| ii usb-creator-gtk<br>amd64 create a startup disk using a CD or disc image (for GNOME)   | 0.3.2                            |       |                                         |  |
| ii usb-modeswitch<br>tool for controlling "flip flop" USB devices                        | 2.2.5+repack0-1ubuntu1           | amd64 | mode switching                          |  |

|    |                                                                                |                              |       |                                        |
|----|--------------------------------------------------------------------------------|------------------------------|-------|----------------------------------------|
| ii | usb-modeswitch-data<br>for usb-modeswitch                                      | 20151101-1                   | all   | mode switching data                    |
| ii | usbmuxd<br>for iPhone and iPod Touch devices                                   | 1.1.0-2                      | amd64 | USB multiplexor daemon                 |
| ii | usbutils                                                                       | 1:007-4                      | amd64 | Linux USB utilities                    |
| ii | util-linux<br>utilities                                                        | 2.27.1-6ubuntu3.2            | amd64 | miscellaneous system utilities         |
| ii | uuid-runtime<br>amd64 runtime components for the Universally Unique ID library | 2.27.1-6ubuntu3.2            |       |                                        |
| ii | va-driver-all:amd64<br>API -- driver metapackage                               | 1.7.0-1                      | amd64 | Video Acceleration (VA)                |
| ii | vbetool<br>code to alter hardware state                                        | 1.1-3                        | amd64 | run real-mode video BIOS               |
| ii | vdpa-driver-all:amd64<br>Presentation API for Unix (driver metapackage)        | 1.1.1-3ubuntu1               | amd64 | Video Decode and                       |
| ii | vdpa-va-driver:amd64<br>backend for VA API                                     | 0.7.4-5                      | amd64 | VDPAU-based                            |
| ii | vim<br>enhanced vi editor                                                      | 2:7.4.1689-3ubuntu1.2        | amd64 | Vi IMproved -                          |
| ii | vim-common<br>amd64 Vi IMproved - Common files                                 | 2:7.4.1689-3ubuntu1.2        |       |                                        |
| ii | vim-runtime<br>files                                                           | 2:7.4.1689-3ubuntu1.2        | all   | Vi IMproved - Runtime                  |
| ii | vim-tiny<br>enhanced vi editor - compact version                               | 2:7.4.1689-3ubuntu1.2        | amd64 | Vi IMproved -                          |
| ii | vino                                                                           | 3.8.1-0ubuntu9.1             | amd64 | VNC server for GNOME                   |
| ii | virtualbox-5.1<br>VirtualBox                                                   | 5.1.14-112924~Ubuntu~xenial  | amd64 | Oracle VM                              |
| ii | wamerican<br>words for /usr/share/dict                                         | 7.1-1                        | all   | American English dictionary            |
| ii | wbritish<br>English dictionary words for /usr/share/dict                       | 7.1-1                        | all   | British                                |
| ii | webapp-container<br>applications container                                     | 0.23+16.04.20161028-0ubuntu2 | amd64 | Ubuntu web                             |
| ii | webbrowser-app<br>browser                                                      | 0.23+16.04.20161028-0ubuntu2 | amd64 | Ubuntu web                             |
| ii | wget<br>web                                                                    | 1.17.1-1ubuntu1.1            | amd64 | retrieves files from the               |
| ii | whiptail<br>dialog boxes from shell scripts                                    | 0.52.18-1ubuntu2             | amd64 | Displays user-friendly                 |
| ii | whois                                                                          | 5.2.11                       | amd64 | intelligent WHOIS client               |
| ii | whoopsie<br>submission                                                         | 0.2.52.2                     | amd64 | Ubuntu error tracker                   |
| ii | whoopsie-preferences<br>0.18                                                   | amd64                        |       | System preferences for error reporting |
| ii | wireless-regdb<br>database                                                     | 2015.07.20-1ubuntu1          | all   | wireless regulatory                    |
| ii | wireless-tools                                                                 | 30~pre9-8ubuntu1             | amd64 | Tools for                              |



|                                                |                   |       |       |                                              |
|------------------------------------------------|-------------------|-------|-------|----------------------------------------------|
| manipulating Linux Wireless Extensions         |                   |       |       |                                              |
| ii witalian                                    | 1.7.6             |       | all   | Italian dictionary words for                 |
| /usr/share/dict/                               |                   |       |       |                                              |
| ii wpasupplicant                               | 2.4-0ubuntu6      |       | amd64 | client support for WPA                       |
| and WPA2 (IEEE 802.11i)                        |                   |       |       |                                              |
| ii wxcrafter                                   | 2.7-1.xenial      |       | amd64 | gui generator plugin for                     |
| codelite                                       |                   |       |       |                                              |
| ii x11-apps                                    | 7.7+5+nmu1ubuntu1 | amd64 |       | X applications                               |
| ii x11-common                                  | 1:7.7+13ubuntu3   |       | all   | X Window System                              |
| (X.Org) infrastructure                         |                   |       |       |                                              |
| ii x11-session-utils                           | 7.7+2             |       | amd64 | X session utilities                          |
| ii x11-utils                                   | 7.7+3             |       | amd64 | X11 utilities                                |
| ii x11-xkb-utils                               | 7.7+2             |       | amd64 | X11 XKB utilities                            |
| ii x11-xserver-utils                           | 7.7+7             |       | amd64 | X server utilities                           |
| ii x11proto-composite-dev                      | 1:0.4.2-2         |       | all   | X11 Composite                                |
| extension wire protocol                        |                   |       |       |                                              |
| ii x11proto-core-dev                           | 7.0.28-2ubuntu1   |       | all   | X11 core wire protocol and auxiliary headers |
| ii x11proto-damage-dev                         | 1:1.2.1-2         |       | all   | X11 Damage extension                         |
| wire protocol                                  |                   |       |       |                                              |
| ii x11proto-dri2-dev                           | 2.8-2             |       | all   | X11 DRI2 extension wire                      |
| protocol                                       |                   |       |       |                                              |
| ii x11proto-fixes-dev                          | 1:5.0-2ubuntu2    |       | all   | X11 Fixes extension                          |
| wire protocol                                  |                   |       |       |                                              |
| ii x11proto-gl-dev                             | 1.4.17-1          |       | all   | X11 OpenGL extension wire                    |
| protocol                                       |                   |       |       |                                              |
| ii x11proto-input-dev                          | 2.3.1-1           |       | all   | X11 Input extension wire                     |
| protocol                                       |                   |       |       |                                              |
| ii x11proto-kb-dev                             | 1.0.7-0ubuntu1    | all   |       | X11 XKB extension wire protocol              |
| ii x11proto-randr-dev                          | 1.5.0-1           |       | all   | X11 RandR extension wire                     |
| protocol                                       |                   |       |       |                                              |
| ii x11proto-render-dev                         | 2:0.11.1-2        |       | all   | X11 Render extension                         |
| wire protocol                                  |                   |       |       |                                              |
| ii x11proto-xext-dev                           | 7.3.0-1           |       | all   | X11 various extension wire                   |
| protocol                                       |                   |       |       |                                              |
| ii x11proto-xf86vidmode-dev                    | 2.3.1-2           |       | all   | X11 Video Mode                               |
| extension wire protocol                        |                   |       |       |                                              |
| ii x11proto-xinerama-dev                       | 1.2.1-2           |       | all   | X11 Xinerama extension                       |
| wire protocol                                  |                   |       |       |                                              |
| ii xauth                                       | 1:1.0.9-1ubuntu2  |       | amd64 |                                              |
| X authentication utility                       |                   |       |       |                                              |
| ii xbitmaps                                    | 1.1.1-2           |       | all   | Base X bitmaps                               |
| ii xbrlapi                                     | 5.3.1-2ubuntu2.1  |       | amd64 | Access software for a                        |
| blind person using a braille display - xbrlapi |                   |       |       |                                              |
| ii xcursor-themes                              | 1.0.4-1           |       | all   | Base X cursor themes                         |
| ii xdg-user-dirs                               | 0.15-2ubuntu6     |       | amd64 | tool to manage well                          |

|                                                     |                                   |                                                  |       |                              |
|-----------------------------------------------------|-----------------------------------|--------------------------------------------------|-------|------------------------------|
| known user directories                              |                                   |                                                  |       |                              |
| ii xdg-user-dirs-gtk                                | 0.10-1ubuntu1                     |                                                  | amd64 | tool to manage well          |
| known user directories (Gtk extension)              |                                   |                                                  |       |                              |
| ii xdg-utils                                        | 1.1.1-1ubuntu1.16.04.1            |                                                  | all   | desktop integration          |
| utilities from freedesktop.org                      |                                   |                                                  |       |                              |
| ii xdiagnose                                        | 3.8.4.1                           |                                                  | all   | X.org diagnosis tool         |
| ii xfonts-base                                      | 1:1.0.4+nmu1                      |                                                  | all   | standard fonts for X         |
| ii xfonts-encodings                                 | 1:1.0.4-2                         |                                                  | all   | Encodings for X.Org fonts    |
| ii xfonts-scalable                                  | 1:1.0.3-1.1                       |                                                  | all   | scalable fonts for X         |
| ii xfonts-utils                                     | 1:7.7+3                           |                                                  | amd64 | X Window System font         |
| utility programs                                    |                                   |                                                  |       |                              |
| ii xinit                                            | 1.3.4-3ubuntu0.1                  |                                                  | amd64 | X server initialisation tool |
| ii xinput                                           | 1.6.2-1                           |                                                  |       |                              |
|                                                     | amd64                             | Runtime configuration and test of XInput devices |       |                              |
| ii xkb-data                                         | 2.16-1ubuntu1                     |                                                  | all   | X Keyboard Extension         |
| (XKB) configuration data                            |                                   |                                                  |       |                              |
| ii xml-core                                         | 0.13+nmu2                         |                                                  | all   | XML infrastructure and       |
| XML catalog file support                            |                                   |                                                  |       |                              |
| ii xorg                                             | 1:7.7+13ubuntu3                   |                                                  | amd64 | X.Org X Window System        |
| ii xorg-docs-core                                   | 1:1.7.1-1ubuntu1                  |                                                  | all   | Core documentation for       |
| the X.org X Window System                           |                                   |                                                  |       |                              |
| ii xorg-sgml-doctools                               | 1:1.11-1                          |                                                  | all   | Common tools for building    |
| X.Org SGML documentation                            |                                   |                                                  |       |                              |
| ii xserver-common                                   | 2:1.18.4-0ubuntu0.2               |                                                  |       |                              |
|                                                     | all                               | common files used by various X servers           |       |                              |
| ii xserver-xorg                                     | 1:7.7+13ubuntu3                   |                                                  | amd64 | X.Org X server               |
| ii xserver-xorg-core                                | 2:1.18.4-0ubuntu0.2               |                                                  | amd64 | Xorg X server -              |
| core server                                         |                                   |                                                  |       |                              |
| ii xserver-xorg-input-all                           | 1:7.7+13ubuntu3                   |                                                  | amd64 | X.Org X server --            |
| input driver metapackage                            |                                   |                                                  |       |                              |
| ii xserver-xorg-input-evdev                         | 1:2.10.1-1ubuntu2                 |                                                  | amd64 | X.Org X server --            |
| evdev input driver                                  |                                   |                                                  |       |                              |
| ii xserver-xorg-input-synaptics                     | 1.8.2-1ubuntu3                    |                                                  | amd64 | Synaptics                    |
| TouchPad driver for X.Org server                    |                                   |                                                  |       |                              |
| ii xserver-xorg-input-vmouse                        | 1:13.1.0-1ubuntu2                 |                                                  | amd64 | X.Org                        |
| X server -- VMMouse input driver to use with VMWare |                                   |                                                  |       |                              |
| ii xserver-xorg-input-wacom                         | 1:0.32.0-0ubuntu3                 |                                                  | amd64 | X.Org X server               |
| -- Wacom input driver                               |                                   |                                                  |       |                              |
| ii xserver-xorg-video-all                           | 1:7.7+13ubuntu3                   |                                                  | amd64 | X.Org X server --            |
| output driver metapackage                           |                                   |                                                  |       |                              |
| ii xserver-xorg-video-amdgpu                        | 1.1.0-1                           |                                                  | amd64 | X.Org X server --            |
| AMDGPU display driver                               |                                   |                                                  |       |                              |
| ii xserver-xorg-video-ati                           | 1:7.7.0-1                         |                                                  | amd64 | X.Org X server --            |
| AMD/ATI display driver wrapper                      |                                   |                                                  |       |                              |
| ii xserver-xorg-video-fbdev                         | 1:0.4.4-1build5                   |                                                  | amd64 | X.Org X server --            |
| fbdev display driver                                |                                   |                                                  |       |                              |
| ii xserver-xorg-video-intel                         | 2:2.99.917+git20160325-1ubuntu1.2 |                                                  | amd64 |                              |

|                                                   |                              |       |                                                  |
|---------------------------------------------------|------------------------------|-------|--------------------------------------------------|
| X.Org X server -- Intel i8xx, i9xx display driver |                              |       |                                                  |
| ii xserver-xorg-video-nouveau                     | 1:1.0.12-1build2             | amd64 | X.Org X server -                                 |
| - Nouveau display driver                          |                              |       |                                                  |
| ii xserver-xorg-video-qxl                         | 0.1.4-3ubuntu3               | amd64 | X.Org X server --                                |
| QXL display driver                                |                              |       |                                                  |
| ii xserver-xorg-video-radeon                      | 1:7.7.0-1                    | amd64 | X.Org X server --                                |
| AMD/ATI Radeon display driver                     |                              |       |                                                  |
| ii xserver-xorg-video-vesa                        | 1:2.3.4-1build2              | amd64 | X.Org X server --                                |
| VESA display driver                               |                              |       |                                                  |
| ii xserver-xorg-video-vmware                      | 1:13.1.0-2ubuntu3            | amd64 | X.Org X server                                   |
| -- VMware display driver                          |                              |       |                                                  |
| ii xterm                                          | 322-1ubuntu1                 | amd64 | X terminal                                       |
| emulator                                          |                              |       |                                                  |
| ii xtrans-dev                                     | 1.3.5-1                      | all   | X transport library                              |
| (development files)                               |                              |       |                                                  |
| ii xul-ext-ubufox                                 | 3.2-0ubuntu1                 | all   | Ubuntu modifications for                         |
| Firefox                                           |                              |       |                                                  |
| ii xz-utils                                       | 5.1.1alpha+20120614-2ubuntu2 | amd64 | XZ-format                                        |
| compression utilities                             |                              |       |                                                  |
| ii yelp                                           | 3.18.1-1ubuntu4              | amd64 | Help browser for GNOME                           |
| ii yelp-xsl                                       | 3.18.1-1                     | all   | XSL stylesheets for the yelp                     |
| help browser                                      |                              |       |                                                  |
| ii zeitgeist-core                                 | 0.9.16-0ubuntu4              | amd64 | event logging                                    |
| framework - engine                                |                              |       |                                                  |
| ii zeitgeist-datahub                              | 0.9.16-0ubuntu4              | amd64 | event logging framework - passive logging daemon |
| ii zenity                                         | 3.18.1.1-1ubuntu2            | amd64 | Display graphical dialog                         |
| boxes from shell scripts                          |                              |       |                                                  |
| ii zenity-common                                  | 3.18.1.1-1ubuntu2            | all   | Display graphical                                |
| dialog boxes from shell scripts (common files)    |                              |       |                                                  |
| ii zip                                            | 3.0-11                       | amd64 | Archiver for .zip files                          |
| ii zlib1g:amd64                                   | 1:1.2.8.dfsg-2ubuntu4        | amd64 | compression library                              |
| - runtime                                         |                              |       |                                                  |
| ii zlib1g:i386                                    | 1:1.2.8.dfsg-2ubuntu4        | i386  | compression library -                            |
| runtime                                           |                              |       |                                                  |
| ii zlib1g-dev:amd64                               | 1:1.2.8.dfsg-2ubuntu4        | amd64 | compression library - development                |

Found in path(s):

```
* /opt/cola/permits/2040574555_1717537232.8123631/0/295b9e165630428509cb78428a3228df-
a33984527a42fe4c3a6bea86d6b9a4e91b9b88e7-zip/295b9e165630428509cb78428a3228df-
a33984527a42fe4c3a6bea86d6b9a4e91b9b88e7/packages.list
```

## 1.308 gpgv 2.2.19-3ubuntu2.2

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```
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#+TITLE: List of code with permissive licenses as used by GnuPG.
#+STARTUP: showall
```

\* DNS resolver (dirmngr/dns.c)

dns.c - Recursive, Reentrant DNS Resolver.

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## 1.309 libgcc-s1 10.5.0-1ubuntu1~20.04

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Julian Seward, [jseward@bzip.org](mailto:jseward@bzip.org)  
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Any

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Version 3.1, 31 March 2009

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DRuntime: Runtime Library for the D Programming Language

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(24) - RISC-V Semihosting (riscv-\* targets)

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# 1.310 sysvinit-utils 2.96-2.1ubuntu1

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## 1.312 libcom-err 1.45.5-2ubuntu1.1

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It is part of the main e2fsprogs distribution, which can be found at:

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```

This is a Makefile stub which handles the creation of BSD shared
libraries.

In order to use this stub, the following makefile variables must be defined.

BSDLIB_VERSION = 1.0
BSDLIB_IMAGE = libce
BSDLIB_MYDIR = et
BSDLIB_INSTALL_DIR = $(SHLIBDIR)
#
```

```
all:: image
```

```
real-subdirs:: Makefile
@echo " MKDIR pic"
@mkdir -p pic
```

```
BSD_LIB = $(BSDLIB_IMAGE).so.$(BSDLIB_VERSION)
BSDLIB_PIC_FLAG = -fpic
```

```
image: $(BSD_LIB)
```

```
$(BSD_LIB): $(OBJS)
(cd pic; ld -Bshareable -o $(BSD_LIB) $(LDFLAGS_SHLIB) $(OBJS))
$(MV) pic/$(BSD_LIB) .
$(RM) -f ../$(BSD_LIB)
(cd ..; $(LN) $(LINK_BUILD_FLAGS) \
`echo $(my_dir) | sed -e 's;lib/;;'"/$(BSD_LIB) $(BSD_LIB))
```

```
install-shlibs install:: $(BSD_LIB)
@echo " INSTALL_PROGRAM $(BSDLIB_INSTALL_DIR)/$(BSD_LIB)"
@$(INSTALL_PROGRAM) $(BSD_LIB) \
$(DESTDIR)$$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
@-$(LDCONFIG)
```

```
install-strip: install
```

```
install-shlibs-strip:: install-shlibs
```

```
uninstall-shlibs uninstall::
$(RM) -f $(DESTDIR)$$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
```

clean::

\$(RM)

-rf pic

\$(RM) -f \$(BSD\_LIB)

\$(RM) -f ../\$(BSD\_LIB)

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Index: tdbsa/tdb.c

-----  
--- tdbsa.orig/tdb.c

+++ tdbsa/tdb.c

@@ -4,11 +4,11 @@ Rev: 23371

Last Changed Date: 2007-06-06 20:14:06 -0400 (Wed, 06 Jun 2007)

\*/

/\*

- Unix SMB/CIFS implementation.
- + trivial database library - standalone version

- trivial database library - private includes

-

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Gadi Oxman, August 1995

-----  
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```

```
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```
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```

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Theodore Ts'o  
23-June-2007

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```

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That's all there is to it!

This is the Debian GNU/Linux prepackaged version of the EXT2 file system utilities (e2fsck, mke2fs, etc.). The EXT2 utilities were written by Theodore Ts'o <tytso@mit.edu> and Remy Card <card@masi.ibp.fr>.

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This package was put together by Yann Dirson <dirson@debian.org>, from sources obtained from a mirror of:  
tsx-11.mit.edu:/pub/linux/packages/ext2fs/

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# 1.313 logsave 1.45.5-2ubuntu1.1

## 1.313.1 Available under license :

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Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

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This is the Debian GNU/Linux prepackaged version of the static EXT2  
file system consistency checker (e2fsck.static). The EXT2 utilities  
were written by Theodore Ts'o <tytso@mit.edu> and Remy Card  
<card@masi.ibp.fr>.

Sources were obtained from <http://sourceforge.net/projects/e2fsprogs>

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```

This is a Makefile stub which handles the creation of BSD shared
libraries.

In order to use this stub, the following makefile variables must be defined.

BSDLIB_VERSION = 1.0
BSDLIB_IMAGE = libce
BSDLIB_MYDIR = et
BSDLIB_INSTALL_DIR = $(SHLIBDIR)
#
```

```
all:: image
```

```
real-subdirs:: Makefile
@echo " MKDIR pic"
@mkdir -p pic
```

```
BSD_LIB = $(BSDLIB_IMAGE).so.$(BSDLIB_VERSION)
BSDLIB_PIC_FLAG = -fpic
```

```
image: $(BSD_LIB)
```

```
$(BSD_LIB): $(OBJS)
(cd pic; ld -Bshareable -o $(BSD_LIB) $(LDFLAGS_SHLIB) $(OBJS))
$(MV) pic/$(BSD_LIB) .
$(RM) -f ../$(BSD_LIB)
(cd ..; $(LN) $(LINK_BUILD_FLAGS) \
`echo $(my_dir) | sed -e 's;lib/;;'"/$(BSD_LIB) $(BSD_LIB))
```

```
install-shlibs install:: $(BSD_LIB)
@echo " INSTALL_PROGRAM $(BSDLIB_INSTALL_DIR)/$(BSD_LIB)"
@$(INSTALL_PROGRAM) $(BSD_LIB) \
$(DESTDIR)$$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
@-$(LDCONFIG)
```

```
install-strip: install
```

```
install-shlibs-strip:: install-shlibs
```

```
uninstall-shlibs uninstall::
$(RM) -f $(DESTDIR)$$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
```

clean::

\$(RM)

-rf pic

\$(RM) -f \$(BSD\_LIB)

\$(RM) -f ../\$(BSD\_LIB)

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This is the Debian GNU/Linux prepackaged version of the translation files of the EXT2 file system utilities. The EXT2 utilities were written by Theodore Ts'o <tytso@mit.edu> and Remy Card <card@masi.ibp.fr>.

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Index: tdbsa/tdb.c

-----  
--- tdbsa.orig/tdb.c

+++ tdbsa/tdb.c

@@ -4,11 +4,11 @@ Rev: 23371

Last Changed Date: 2007-06-06 20:14:06 -0400 (Wed, 06 Jun 2007)

\*/

/\*

- Unix SMB/CIFS implementation.
- + trivial database library - standalone version

- trivial database library - private includes

-

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Gadi Oxman, August 1995

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```
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```

```
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```

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```
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```

```
<signature of Ty Coon>, 1 April 1989
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Theodore Ts'o  
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This package was added to the e2fsprogs debian source package by Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

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## 1.315 libuuid 2.34-0.1 ubuntu9.6



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This is the Debian GNU/Linux prepackaged version of the GNU compiler collection, containing Ada, C, C++, D, Fortran 95, Go, Objective-C, Objective-C++, and Modula-2 compilers, documentation, and support libraries. In addition, Debian provides the gm2 compiler, either in the same source package, or built from a separate same source package. Packaging is done by the Debian GCC Maintainers <debian-gcc@lists.debian.org>, with sources obtained from:

ftp://gcc.gnu.org/pub/gcc/releases/ (for full releases)  
 svn://gcc.gnu.org/svn/gcc/ (for prereleases)  
 ftp://sourceware.org/pub/newlib/ (for newlib)  
 git://git.savannah.gnu.org/gm2.git (for Modula-2)

The current gcc-10 source package is taken from the SVN gcc-10-branch.

Changes: See changelog.Debian.gz

Debian splits the GNU Compiler Collection into packages for each language, library, and documentation as follows:

| Language    | Compiler package | Library package | Documentation     |
|-------------|------------------|-----------------|-------------------|
| Ada         | gnat-10          | libgnat-10      | gnat-10-doc       |
| BRIG        | gccbrig-10       | libhsail-rt0    |                   |
| C           | gcc-10           |                 | gcc-10-doc        |
| C++         | g++-10           | libstdc++6      | libstdc++6-10-doc |
| D           | gdc-10           |                 |                   |
| Fortran 95  | gfortran-10      | libgfortran5    | gfortran-10-doc   |
| Go          | gccgo-10         | libgo0          |                   |
| Objective C | gobjc-10         | libobjc4        |                   |



Objective C++ gobjc++-10

Modula-2 gm2-10 libgm2

For some language run-time libraries, Debian provides source files, development files, debugging symbols and libraries containing position-independent code in separate packages:

| Language | Sources          | Development       | Debugging         | Position-Independent |
|----------|------------------|-------------------|-------------------|----------------------|
| C++      |                  | libstdc++6-10-dbg | libstdc++6-10-pic |                      |
| D        | libphobos-10-dev |                   |                   |                      |

Additional packages include:

All languages:

libgcc1,

libgcc2, libgcc4 GCC intrinsics (platform-dependent)

gcc-10-base Base files common to all compilers

gcc-10-soft-float Software floating point (ARM only)

gcc-10-source The sources with patches

Ada:

libgnat-util10-dev, libgnat-util10 GNAT version library

C:

cpp-10, cpp-10-doc GNU C Preprocessor

libssp0-dev, libssp0 GCC stack smashing protection library

libquadmath0 Math routines for the \_\_float128 type

fixincludes Fix non-ANSI header files

C, C++ and Fortran 95:

libgomp1-dev, libgomp1 GCC OpenMP (GOMP) support library

libitm1-dev, libitm1 GNU Transactional Memory Library

Biarch support: On some 64-bit platforms which can also run 32-bit code, Debian provides additional packages containing 32-bit versions of some libraries. These packages have names beginning with 'lib32' instead of 'lib', for example lib32stdc++6. Similarly, on some 32-bit platforms which can

also run 64-bit code, Debian provides additional packages with names beginning with 'lib64' instead of 'lib'. These packages contain 64-bit versions of the libraries. (At this time, not all platforms and not all libraries support biarch.) The license terms for these lib32 or lib64 packages are identical to the ones for the lib packages.

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- libatomic
- libdecnumber
- libgomp
- libitm
- libssp
- libstdc++-v3
- libobjc
- libgfortran
- The libgnat-10 Ada support library and libgnat-util10 library.
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Version 3.1, 31 March 2009

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ldexpq.c:

- \* Conversion to long double by Ulrich Drepper,
- \* Cygnus Support, drepper@cygnus.com.

cosq\_kernel.c, expq.c, sincos\_table.c, sincosq.c, sincosq\_kernel.c, sinq\_kernel.c, truncq.c:

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isinfq.c:

- \* Written by J.T. Conklin <jtc@netbsd.org>.
- \* Change for long double by Jakub Jelinek <jj@ultra.linux.cz>
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llroundq.c, lroundq.c, tgammaq.c:

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D:

gdc-10                    GNU D Compiler  
libphobos-10-dev        D standard runtime library

The D source package is made up of the following components.

The D front-end for GCC:

- d/\*

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The DMD Compiler implementation of the D programming language:

- d/dmd/\*

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The Zlib data compression library:

- `d/phobos/etc/c/zlib/*`

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The Phobos standard runtime library:

- `d/phobos/*`

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## 1.320 liblzma 5.2.4-1ubuntu1.1

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Format: <https://www.debian.org/doc/packaging-manuals/copyright-format/1.0/>

Upstream-Name: XZ Utils

Upstream-Contact:

Lasse Collin <lasse.collin@tukaani.org>

<https://tukaani.org/xz/lists.html>

Source:

<https://tukaani.org/xz>

<https://git.tukaani.org/xz.git>

Comment:

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Comment:

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To: Jonathan Nieder <jrnieder@gmail.com>  
Subject: Re: XZ utils for Debian  
Date: Sun, 19 Jul 2009 13:28:23 +0300  
Message-Id: <200907191328.23816.lasse.collin@tukaani.org>

[...]

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windows/README

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Other-Authors: Roland McGrath, Akim Demaille, Paul Eggert,

David Mackenzie, Bruno Haible, and many others.

Origin: configure.ac from XZ Utils,

visibility.m4 serial 1 (gettext-0.15),

Autoconf 2.52g

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Files: po/Makevars

Origin: gettext-runtime/po/Makevars (gettext-0.12)

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## 1.324 libext2fs2 1.45.5-2ubuntu1.1

### 1.324.1 Available under license :

This package was added to the e2fsprogs debian source package by Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

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Sources were obtained from <http://sourceforge.net/projects/e2fsprogs>

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```
#
This is a Makefile stub which handles the creation of BSD shared
libraries.
#
In order to use this stub, the following makefile variables must be defined.
#
BSDLIB_VERSION = 1.0
BSDLIB_IMAGE = libce
BSDLIB_MYDIR = et
BSDLIB_INSTALL_DIR = $(SHLIBDIR)
#
```

all:: image

real-subdirs:: Makefile

```
@echo " MKDIR pic"
@mkdir -p pic
```

```
BSD_LIB = $(BSDLIB_IMAGE).so.$(BSDLIB_VERSION)
BSDLIB_PIC_FLAG = -fpic
```

image: \$(BSD\_LIB)

```
$(BSD_LIB): $(OBJS)
(cd pic; ld -Bshareable -o $(BSD_LIB) $(LDFLAGS_SHLIB) $(OBJS))
$(MV) pic/$(BSD_LIB) .
$(RM) -f ../$(BSD_LIB)
(cd ..; $(LN) $(LINK_BUILD_FLAGS) \
`echo $(my_dir) | sed -e 's;lib/;;' /$(BSD_LIB) $(BSD_LIB))
```

install-shlibs install:: \$(BSD\_LIB)

```
@echo " INSTALL_PROGRAM $(BSDLIB_INSTALL_DIR)/$(BSD_LIB)"
@$(INSTALL_PROGRAM) $(BSD_LIB) \
$(DESTDIR)$$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
```

@-\$(LDCONFIG)

install-strip: install

install-shlibs-strip:: install-shlibs

uninstall-shlibs uninstall::

\$(RM) -f \$(DESTDIR)\$ (BSDLIB\_INSTALL\_DIR)/\$(BSD\_LIB)

clean::

\$(RM)

-rf pic

\$(RM) -f \$(BSD\_LIB)

\$(RM) -f ../\$(BSD\_LIB)

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Index: tdbsa/tdb.c

-----  
--- tdbsa.orig/tdb.c

+++ tdbsa/tdb.c

@@ -4,11 +4,11 @@ Rev: 23371

Last Changed Date: 2007-06-06 20:14:06 -0400 (Wed, 06 Jun 2007)

\*/

/\*

- Unix SMB/CIFS implementation.
- + trivial database library - standalone version

- trivial database library - private includes

-

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Gadi Oxman, August 1995

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```

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```
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```

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```
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```

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Theodore Ts'o

23-June-2007

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This package was added to the e2fsprogs debian source package by Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

<http://sourceforge.net/projects/e2fsprogs>

Upstream Author: Theodore Ts'o <tytso@mit.edu>

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This is the Debian GNU/Linux prepackaged version of the ss command-line interface parsing library. It is currently distributed together with the EXT2 file system utilities, which are otherwise packaged as "e2fsprogs".

This package was put together by Yann Dirson <dirson@debian.org>, from sources obtained from a mirror of:  
tsx-11.mit.edu:/pub/linux/packages/ext2fs/

From the original distribution:

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This package was put together by Yann Dirson <dirson@debian.org>, from sources obtained from a mirror of:  
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# 1.325 perl-base 5.30.0-9ubuntu0.5

## 1.325.1 Available under license :

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_scannl.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:41:27 ram

?RCS: patch61: added ?F: metalint hint

?RCS:

?RCS: Revision 3.0.1.1 1995/07/25 13:59:12 ram

?RCS: patch56: made cc and ccflags optional dependencies

?RCS:

?RCS: Revision 3.0 1993/08/18 12:07:00 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: Does the scanf routine read "\n" correctly ? This is was not

?X: the case on AIX...

?X:

?MAKE:d\_scannl: cat +cc +ccflags rm Setvar

?MAKE: -pick add \$@ %<

?S:d\_scannl:

?S: This

variable conditionally defines SCAN\_NL, which indicates

?S: wether the C library routines scanf() and friends can deal with

?S: a '\n' in the input correctly. They do most of the time.

?S:.

?C:SCAN\_NL:

?C: This symbol is defined if the C library routines scanf() and friends

?C: can deal with a '\n' in the input correctly, so that you can say

?C: scanf("%d\n"); instead of scanf("%d"); getc(c); to handle the '\n'.

?C:.

?H:#\$d\_scannl SCAN\_NL /\* scanf("%d\n") works \*/

?H:.

?F:!try

?LINT:set d\_scannl

: does scanf handle "\n" correctly ?

echo " "

val="\$define"

?X: I really want to say "\n" instead of '\n', because I am referring

?X: to the string given as argument to scanf().

echo 'Let''''s see if scanf() handles "\\n" correctly...' >&4

\$cat >try.c <<'EOCP'

int main()

{

int i = 0, j = 0;

scanf("%d\n%d", &i, &j);

if (j != 3)

exit(1);

exit(0);

}

EOCP

if \$cc \$ccflags -o try try.c >/dev/null 2>&1; then

if ./try <<'EOD'

2

3

EOD

then

echo "Yes, it does."

else

echo "No, it doesn't."

val="\$undef"

fi

else

echo

"(I can't seem to compile the test program. Assuming it does.)"

fi

set d\_scannl

eval \$setvar

\$rm -f try.\* try

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/dist/U/d\_scannl.U

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?RCS:

?MAKE:d\_inetpton: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_inetpton:

?S: This variable conditionally defines the HAS\_INETPTON symbol,

?S: which indicates to the C program that the inet\_pton() function

?S: is available.

?S:.

?C:HAS\_INETPTON:

?C: This symbol, if defined, indicates that the inet\_pton() function

?C: is available to parse IPv4 and IPv6 strings.

?C:.

?H:#\$d\_inetpton HAS\_INETPTON /\*\*/

?H:.

?LINT:set d\_inetpton

: see if inet\_pton exists

set inet\_pton d\_inetpton

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/perl/d\_inetpton.U

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?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_socketmarkproto: Hasproto d\_socket

?MAKE: -pick add \$@ %<

?S:d\_socketmarkproto:

?S: This variable conditionally defines the HAS\_SOCKETMARK\_PROTO symbol,

?S: which indicates to the C program that the system provides

?S: a prototype for the socketmark() function. Otherwise, it is  
 ?S: up to the program to supply one.  
 ?S:.  
 ?C:HAS\_SOCKETMARK\_PROTO:  
 ?C: This symbol, if defined, indicates that the system provides  
 ?C: a prototype for the socketmark() function. Otherwise, it is up  
 ?C: to the program to supply one. A good  
 guess is  
 ?C: extern int socketmark(int);  
 ?C:.  
 ?H:#\$d\_socketmarkproto HAS\_SOCKETMARK\_PROTO /\*\*/  
 ?H:.  
 ?LINT:set d\_socketmarkproto  
 : see if prototype for socketmark is available  
 echo " "  
 set d\_socketmarkproto socketmark \$d\_socket sys/socket.h  
 eval \$hasproto

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_socketmarkproto.U  
 No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getprotoprotos.U,v \$  
 ?RCS:  
 ?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
 ?RCS:  
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 ?RCS: of the source tree for dist 3.0.  
 ?RCS:  
 ?MAKE:d\_getprotoprotos : Hasproto i\_netdb  
 ?MAKE: -pick add \$@ %<  
 ?S:d\_getprotoprotos:  
 ?S: This variable conditionally defines the HAS\_GETPROTO\_PROTOS symbol,  
 ?S: which indicates to the C program that <netdb.h> supplies  
 ?S: prototypes for the various getproto\*() functions.  
 ?S: See also netdbtype.U for probing for various netdb types.  
 ?S:.  
 ?C:HAS\_GETPROTO\_PROTOS:  
 ?C: This symbol, if defined, indicates that <netdb.h> includes  
 ?C: prototypes for getprotoent(), getprotobyname(), and  
 ?C: getprotobyaddr().  
 Otherwise, it is up to the program to guess  
 ?C: them. See netdbtype.U for probing for various Netdb\_XXX\_t types.  
 ?C:.



```
?H:#$d_getprotoprotos HAS_GETPROTO_PROTOS /**/
?H:.
?LINT:set d_getprotoprotos
: see if prototypes for various getprotoxxx netdb.h functions are available
echo " "
set d_getprotoprotos getprotoent $i_netdb netdb.h
eval $hasproto
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/protos/d_getprotoprotos.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: i_pwd.U,v $
```

```
?RCS: Revision 3.0.1.2 1995/07/25 14:10:57 ram
```

```
?RCS: patch56: use setvar so hint file values can override our guesses (ADO)
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.1 1994/05/06 15:03:27 ram
```

```
?RCS: patch23: had forgotten cppminus in cppstdin test (ADO)
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:08:25 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?X:
```

```
?X: This unit checks whether there is a pwd system or not
```

```
?X:
```

```
?MAKE:i_pwd d_pwquota d_pwage d_pwchange d_pwclass d_pwexpire d_pwcomment:
```

```
\
```

```
contains rm cppstdin cppflags cppminus Inhdr Findhdr Setvar
```

```
?MAKE: -pick add $@ %<
```

```
?S:i_pwd:
```

```
?S: This variable conditionally defines I_PWD, which indicates
```

```
?S: to the C program that it should include <pwd.h>.
```

```
?S:.
```

```
?S:d_pwquota:
```

```
?S: This variable conditionally defines PWQUOTA, which indicates
```

```
?S: that struct passwd contains pw_quota.
```

```
?S:.
```

?S:d\_pwage:

?S: This variable conditionally defines PWAGE, which indicates

?S: that struct passwd contains pw\_age.

?S:.

?S:d\_pwchange:

?S: This variable conditionally defines PWCHANGE, which indicates

?S: that struct passwd contains pw\_change.

?S:.

?S:d\_pwclass:

?S: This variable conditionally defines PWCLASS, which indicates

?S: that struct passwd contains pw\_class.

?S:.

?S:d\_pwexpire:

?S: This variable conditionally defines PWEXPIRE, which indicates

?S: that struct passwd contains pw\_expire.

?S:.

?S:d\_pwcomment:

?S: This variable conditionally defines PWCOMMENT, which indicates

?S: that struct passwd contains pw\_comment.

?S:.

?C:I\_PWD:

?C: This symbol,

if defined, indicates to the C program that it should

?C: include <pwd.h>.

?C:.

?C:PWQUOTA:

?C: This symbol, if defined, indicates to the C program that struct passwd

?C: contains pw\_quota.

?C:.

?C:PWAGE:

?C: This symbol, if defined, indicates to the C program that struct passwd

?C: contains pw\_age.

?C:.

?C:PWCHANGE:

?C: This symbol, if defined, indicates to the C program that struct passwd

?C: contains pw\_change.

?C:.

?C:PWCLASS:

?C: This symbol, if defined, indicates to the C program that struct passwd

?C: contains pw\_class.

?C:.

?C:PWEXPIRE:

?C: This symbol, if defined, indicates to the C program that struct passwd

?C: contains pw\_expire.

?C:.

?C:PWCOMMENT:

?C: This symbol, if defined, indicates to the C program that struct passwd

?C: contains pw\_comment.

```

?C:.
?H:#$i_pwd I_PWD /**/
?H:#$d_pwquota PWQUOTA /**/
?H:#$d_pwage PWAGE /**/
?H:#$d_pwchange PWCHANGE /**/
?H:#$d_pwclass PWCLASS /**/
?H:#$d_pwexpire PWEXPIRE /**/
?H:#$d_pwcomment PWCOMMENT /**/
?H:.
?LINT: set i_pwd d_pwquota
d_pwage d_pwchange d_pwclass d_pwexpire d_pwcomment
?T:xxx
: see if this is a pwd.h system
set pwd.h i_pwd
eval $inhdr

case "$i_pwd" in
$define)
xxx=`./findhdr pwd.h`
$cppstdin $cppflags $cppminus < $xxx >$$.h

if $contains 'pw_quota' $$.h >/dev/null 2>&1; then
val="$define"
else
val="$undef"
fi
set d_pwquota
eval $setvar

if $contains 'pw_age' $$.h >/dev/null 2>&1; then
val="$define"
else
val="$undef"
fi
set d_pwage
eval $setvar

if $contains 'pw_change' $$.h >/dev/null 2>&1; then
val="$define"
else
val="$undef"
fi
set d_pwchange
eval $setvar

if $contains 'pw_class' $$.h >/dev/null 2>&1; then
val="$define"
else

```

```

 val="$undef"
fi
set d_pwclass
eval $setvar

if $contains 'pw_expire' $$h >/dev/null 2>&1; then
 val="$define"
else
 val="$undef"
fi
set d_pwexpire
eval $setvar

if $contains 'pw_comment' $$h >/dev/null 2>&1; then
 val="$define"
else
 val="$undef"
fi
set d_pwcomment
eval $setvar

$rm -f $$h
;;
*)
val="$undef";
set
d_pwquota; eval $setvar
set d_pwage; eval $setvar
set d_pwchange; eval $setvar
set d_pwclass; eval $setvar
set d_pwexpire; eval $setvar
set d_pwcomment; eval $setvar
;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_pwd.U

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?RCS: \$Id: package.U 1 2006-08-24 12:32:52Z rmanfredi \$

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```

?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: package.U,v $
?RCS: Revision 3.0.1.3 1994/10/29 16:27:21 ram
?RCS: patch36: beware of non-ascii character sets when translating case
?RCS:
?RCS: Revision 3.0.1.2 1993/11/10 17:37:02 ram
?RCS: patch14: skip definition of spackage if not otherwise used
?RCS:
?RCS: Revision 3.0.1.1 1993/09/13 16:11:10 ram
?RCS: patch10: added package, suitable for starting sentences
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:28 ram
?RCS: Baseline for dist 3.0
 netwide release.
?RCS:
?MAKE:package spackage: Nothing
?MAKE: -pick wipe $@ %<
?S:package:
?S: This variable contains the name of the package being constructed.
?S: It is primarily intended for the use of later Configure units.
?S:.
?S:spackage:
?S: This variable contains the name of the package being constructed,
?S: with the first letter uppercased, i.e. suitable for starting
?S: sentences.
?S:.
?X: dist-4 has defined PACKAGE: here, which clashes with perly.h
?X: as package is a reserved keyword in perl
?T:first last
: set package name
package='<PACKAGENAME>'
@if spackage
first=`echo $package | sed -e 's/^(.).*\1/'`
last=`echo $package | sed -e 's/^(.*)\1/'`
?X:
?X: So early in the Configure script, we don't have ./tr set up and can't
?X: include Tr in our dependency or that would create a cycle. Therefore,
?X: we have to somehow duplicate the work done in Tr. That's life.
?X:
case ``echo AbyZ | tr '[:lower:]' '[:upper:]' 2>/dev/null``-``echo AbyZ | tr '[:upper:]' '[:lower:]'
 2>/dev/null`` in
ABYZ-abyz) spackage=`echo $first | tr '[:lower:]' '[:upper:]'`$last;;
*) spackage=`echo $first | tr '[a-z]' '[A-Z]'`$last;;
esac
@end

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/package.U

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?RCS:

?MAKE:i\_quadmath: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_quadmath:

?S: This variable conditionally defines I\_QUADMATH, which indicates

?S: to the C program that it should include <quadmath.h>.

?S:.

?C:I\_QUADMATH:

?C: This symbol, if defined, indicates that <quadmath.h> exists and

?C: should be included.

?C:.

?H:#\$i\_quadmath I\_QUADMATH /\*\*/

?H:.

?LINT:set i\_quadmath

: see if this is a quadmath.h system

set quadmath.h i\_quadmath

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_quadmath.U

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?RCS: \$Id: i\_sysmount.U,v \$

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?RCS:

?MAKE:i\_sysmount: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_sysmount:

?S: This variable conditionally defines the I\_SYSMOUNT symbol,

?S: and indicates whether a C program should include <sys/mount.h>.

?S:.

?C:I\_SYS\_MOUNT:

?C: This symbol, if defined, indicates that <sys/mount.h> exists and

?C: should be included.

?C:.

?H:#\$i\_sysmount I\_SYS\_MOUNT /\*\*/

?H:.

```
?LINT:set i_sysmount
: see if this is a sys/mount.h system
set sys/mount.h i_sysmount
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_sysmount.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_msgget.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_msgget.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:06:39 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_msgget: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_msgget:
```

```
?S: This variable conditionally defines the HAS_MSGGET symbol, which
```

```
?S: indicates to the C program that the msgget() routine is available.
```

```
?S:.
```

```
?C:HAS_MSGGET:
```

```
?C: This symbol, if defined, indicates that the msgget() routine is
```

```
?C: available to get a new message queue.
```

```
?C:.
```

```
?H:#$d_msgget
```

```
HAS_MSGGET /**/
```

```
?H:.
```

```
?LINT:set d_msgget
```

```
: see if msgget exists
```

```
set msgget d_msgget
```

```
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_msgget.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```

?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: i_sysun.U,v $
?RCS: Revision 3.0 1993/08/18 12:08:42 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit looks wether <inttypes.h> is available or not
?X:
?MAKE:i_inttypes: Inhdr
?MAKE: -pick add $@ %<
?S:i_inttypes:
?S: This variable conditionally defines I_INTTYPES, which indicates
?S: to the C program that it should include <inttypes.h> to get
?S: format conversions of integer types.
?S:.
?C:I_INTTYPES:
?C: This symbol, if defined, indicates to the C program that it should
?C: include
?C: <inttypes.h> to get format conversions of integer types.
?C:.
?H:#$i_inttypes I_INTTYPES /**/
?H:.
?LINT:set i_inttypes
: see if this is a inttypes.h system
set inttypes.h i_inttypes
eval $inhdr

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_inttypes.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_sigsetjmp.U,v 3.0.1.1 1997/02/28 15:44:33 ram Exp $
?RCS:
?RCS: Copyright (c) 1996,1998 Andy Dougherty
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
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```



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?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?RCS: \$Log: d\_sigsetjmp.U,v \$  
?RCS: Revision 3.0.1.1 1997/02/28 15:44:33 ram  
?RCS: patch61: created  
?RCS:  
?MAKE:d\_sigsetjmp: Compile Setvar cat rm\_try run i\_stdlib  
?MAKE: -pick add \$@ %<  
?S:d\_sigsetjmp:  
?S: This variable conditionally defines the HAS\_SIGSETJMP symbol,  
?S: which  
indicates that the sigsetjmp() routine is available to  
?S: call setjmp() and optionally save the process's signal mask.  
?S:.  
?C:HAS\_SIGSETJMP:  
?C: This variable indicates to the C program that the sigsetjmp()  
?C: routine is available to save the calling process's registers  
?C: and stack environment for later use by siglongjmp(), and  
?C: to optionally save the process's signal mask. See  
?C: Sigjmp\_buf, Sigsetjmp, and Siglongjmp.  
?C:.  
?C:Sigjmp\_buf:  
?C: This is the buffer type to be used with Sigsetjmp and Siglongjmp.  
?C:.  
?C:Sigsetjmp:  
?C: This macro is used in the same way as sigsetjmp(), but will invoke  
?C: traditional setjmp() if sigsetjmp isn't available.  
?C: See HAS\_SIGSETJMP.  
?C:.  
?C:Siglongjmp:  
?C: This macro is used in the same way as siglongjmp(), but will invoke  
?C: traditional longjmp() if siglongjmp isn't available.  
?C: See HAS\_SIGSETJMP.  
?C:.  
?H:%<:#\$d\_sigsetjmp HAS\_SIGSETJMP /\*\*/  
?H:%<:#ifdef HAS\_SIGSETJMP  
?H:%<:#define Sigjmp\_buf sigjmp\_buf  
?H:%<:#define Sigsetjmp(buf,save\_mask)  
sigsetjmp((buf),(save\_mask))  
?H:%<:#define Siglongjmp(buf,retval) siglongjmp((buf),(retval))  
?H:%<:#else  
?H:%<:#define Sigjmp\_buf jmp\_buf  
?H:%<:#define Sigsetjmp(buf,save\_mask) setjmp((buf))  
?H:%<:#define Siglongjmp(buf,retval) longjmp((buf),(retval))

```

?H:?%<:#endif
?H:.
?W:%<:Sigjmp_buf Sigsetjmp Siglongjmp
?F:!try
?LINT:set d_sigsetjmp
: see if sigsetjmp exists
?X: We can't check for these symbols with Inlibc because sigsetjmp
?X: is (sometimes? always?) a macro under GCC
echo " "
case "$d_sigsetjmp" in
")
$cat >try.c <<EOP
#include <setjmp.h>
#i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
sigjmp_buf env;
int set = 1;
int main()
{
if (sigsetjmp(env,1))
exit(set);
set = 0;
siglongjmp(env, 1);
exit(1);
}
EOP
set try
if eval $compile; then
if $run ./try >/dev/null 2>&1; then
echo "POSIX sigsetjmp found." >&4
val="$define"
else
$cat >&4 <<EOM
Uh-Oh! You have POSIX sigsetjmp and siglongjmp, but they do not work properly!!
I'll
ignore them.
EOM
val="$undef"
fi
else
echo "sigsetjmp not found." >&4
val="$undef"
fi
;;
*) val="$d_sigsetjmp"
case "$d_sigsetjmp" in

```

```
$define) echo "POSIX sigsetjmp found." >&4;;
$undef) echo "sigsetjmp not found." >&4;;
esac
;;
esac
set d_sigsetjmp
eval $setvar
$rm_try
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_sigsetjmp.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_time.U,v 3.0 1993/08/18 12:08:45 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: i\_time.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:45 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit finds which "time" include to use. If 'timezone' is used by the

?X: program, we also try to find which header should be included. Eventually,

?X: we look for <sys/select.h> if I\_SYSSSELECT is used, to get struct timeval.

?X:

?MAKE:i\_time i\_systime i\_systimek timeincl d\_tm\_tm\_zone d\_tm\_tm\_gmtoff: \

Compile cat \

contains rm\_try echo n

c +i\_sysselect Findhdr Hasfield i\_stdlib

?MAKE: -pick add \$@ %<

?S:i\_time:

?S: This variable unconditionally defines I\_TIME, which indicates

?S: to the C program that it should include <time.h>.

?S:.

?S:i\_systime:

?S: This variable conditionally defines I\_SYS\_TIME, which indicates

?S: to the C program that it should include <sys/time.h>.

?S:.

?S:i\_systimek:

?S: This variable conditionally defines I\_SYS\_TIME\_KERNEL, which

?S: indicates to the C program that it should include <sys/time.h>  
?S: with KERNEL defined.  
?S:.  
?S:timeincl:  
?S: This variable holds the full path of the included time header(s).  
?S:.  
?S:d\_tm\_tm\_zone:  
?S: This variable conditionally defines HAS\_TM\_TM\_ZONE, which indicates  
?S: indicates to the C program that the struct tm has the tm\_zone field.  
?S:.  
?S:d\_tm\_tm\_gmtoff:  
?S: This variable conditionally defines HAS\_TM\_TM\_GMTOFF, which indicates  
?S: indicates to the C program that the struct tm has the tm\_gmtoff field.  
?S:.  
?C:I\_TIME (USE\_TIME\_H):  
?C: This symbol is always defined,  
and indicates to the C program that  
?C: it should include <time.h>.  
?C:.  
?C:I\_SYS\_TIME (I\_SYSTIME USE\_SYS\_TIME\_H NO\_TIME\_WITH\_SYS\_TIME):  
?C: This symbol, if defined, indicates to the C program that it should  
?C: include <sys/time.h>.  
?C:.  
?C:I\_SYS\_TIME\_KERNEL (I\_SYSTIMEKERNEL):  
?C: This symbol, if defined, indicates to the C program that it should  
?C: include <sys/time.h> with KERNEL defined.  
?C:.  
?C:HAS\_TM\_TM\_ZONE:  
?C: This symbol, if defined, indicates to the C program that  
?C: the struct tm has a tm\_zone field.  
?C:.  
?C:HAS\_TM\_TM\_GMTOFF:  
?C: This symbol, if defined, indicates to the C program that  
?C: the struct tm has a tm\_gmtoff field.  
?C:.  
?H:#\$i\_time I\_TIME /\*\*/  
?H:#\$i\_systime I\_SYS\_TIME /\*\*/  
?H:#\$i\_systimek I\_SYS\_TIME\_KERNEL /\*\*/  
?H:#\$d\_tm\_tm\_zone HAS\_TM\_TM\_ZONE /\*\*/  
?H:#\$d\_tm\_tm\_gmtoff HAS\_TM\_TM\_GMTOFF /\*\*/  
?H:.  
?W::timezone  
?T:xselect flags sysselect s\_timeval s\_timezone  
?LINT:change i\_sysselect  
?LINT:set d\_tm\_tm\_zone  
?LINT:set d\_tm\_tm\_gmtoff  
: see if we should include

```

sys/time.h
echo " "
i_time='define'
if test "X$timeincl" = X; then
echo "Testing to see if we should include <sys/time.h>." >&4
$echo $n "I'm now running the test program...$c"
$cat >try.c <<EOCP
#include <sys/types.h>
#include <time.h>
#ifdef I_SYSTIME
#ifdef SYSTIMEKERNEL
#define KERNEL
#endif
#include <sys/time.h>
#endif
#ifdef I_SYSSSELECT
#include <sys/select.h>
endif
#$i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
endif
int main()
{
struct tm foo;
#ifdef S_TIMEVAL
struct timeval bar;
#endif
#ifdef S_TIMEZONE
struct timezone tzp;
#endif
if (foo.tm_sec == foo.tm_sec)
exit(0);
#ifdef S_TIMEVAL
if (bar.tv_sec == bar.tv_sec)
exit(0);
endif
exit(1);
}
EOCP
flags="
@if I_SYSSSELECT
if $contains 'timeval.*{'`./findhdr sys/select.h` >/dev/null 2>&1; then
xselect='-DI_SYSSSELECT'
else
xselect="
fi
@end

```

```

@if timezone
for s_timezone in '-DS_TIMEZONE' "; do
@else
s_timezone="
@end
?X: Every package is given a try with 'struct timeval'
@if I_SYSSSELECT
for
sysselect in $xselect "; do
@else
sysselect="
@end
for s_timeval in '-DS_TIMEVAL' "; do
for i_systimek in " '-DSYSTIMEKERNEL'; do
for i_systime in '-DI_SYSTIME' "; do
case "$flags" in
") $echo $n ". $c"
set try $i_systime $i_systimek $sysselect $s_timeval $s_timezone
if eval $compile; then
set X $i_systime $i_systimek $sysselect $s_timeval
shift
flags="$*"
echo " "
$echo $n "Succeeded with $flags$c"
fi
;;
esac
done
done
done
@if I_SYSSSELECT
done
@end
@if timezone
done
@end
timeincl="
echo " "
case "$flags" in
SYSTIMEKERNEL) i_systimek="$define"
timeincl=`./findhdr sys/time.h`
echo "We'll include <sys/time.h> with KERNEL defined." >&4;;
*) i_systimek="$undef";;
esac
case "$flags" in
I_SYSTIME) i_systime="$define"
timeincl=`./findhdr sys/time.h`" $timeincl"
echo "We'll include <sys/time.h>." >&4;;

```

```

*) i_systime="$undef";;
esac
@if I_SYSSSELECT
case "$flags" in
I_SYSSSELECT) i_syssselct="$define"
timeincl=`./findhdr
sys/select.h`" $timeincl"
echo "We'll also include <sys/select.h> to get struct timeval." >&4;;
*) case "$i_syssselct" in
") i_syssselct="$undef";;
esac
esac
@end
$rm_try
fi
: see if struct tm knows about tm_zone
case "$i_systime$i_time" in
$define)
echo " "
echo "Checking to see if your struct tm has tm_zone field..." >&4
set d_tm_tm_zone tm tm_zone $i_systime sys/time.h $i_time time.h
eval $hasfield
;;
*) val="$undef"
set d_tm_tm_zone
eval $setvar
;;
esac
case "$d_tm_tm_zone" in
"$define") echo "Yes, it does." ;;
*) echo "No, it doesn't." ;;
esac
: see if struct tm knows about tm_gmtoff
case "$i_systime$i_time" in
$define)
echo " "
echo "Checking to see if your struct tm has tm_gmtoff field..." >&4
set d_tm_tm_gmtoff tm tm_gmtoff $i_systime sys/time.h $i_time time.h
eval $hasfield
;;
*) val="$undef"
set d_tm_tm_gmtoff

eval $setvar
;;
esac
case "$d_tm_tm_gmtoff" in
"$define") echo "Yes, it does." ;;

```

```
*) echo "No, it doesn't." ;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/i_time.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Head.U,v \$

?RCS: Revision 3.0.1.9 1997/02/28 15:02:09 ram

?RCS: patch61: make sure we unset CDPATH for shells that support this

?RCS: patch61: improved Korn shell detection and handling

?RCS:

?RCS: Revision 3.0.1.8 1995/07/25 13:40:02 ram

?RCS: patch56: added SVR4-ish /opt directories to path list (ADO)

?RCS: patch56: OS/2 platforms are using another path separator

?RCS:

?RCS: Revision 3.0.1.7 1995/03/21 08:46:15 ram

?RCS: patch52: definition of paths wrongly added spurious ':' chars

?RCS:

?RCS:

Revision 3.0.1.6 1994/10/29 15:54:19 ram

?RCS: patch36: make sure ENV is unset before calling /bin/ksh

?RCS:

?RCS: Revision 3.0.1.5 1994/08/29 16:03:44 ram

?RCS: patch32: now sets PATH only using existing directories

?RCS:

?RCS: Revision 3.0.1.4 1994/06/20 06:54:28 ram

?RCS: patch30: now computes its invocation name into 'me'

?RCS: patch30: symbol me is made visible to all units read-only

?RCS:

?RCS: Revision 3.0.1.3 1993/12/15 08:15:07 ram

?RCS: patch15: added /sbin:/usr/sbin:/usr/libexec in PATH for BSD/386

?RCS:

?RCS: Revision 3.0.1.2 1993/11/10 17:32:35 ram

?RCS: patch14: ensure PATH is reset to '.' before testing for alias

?RCS:

?RCS: Revision 3.0.1.1 1993/08/27 14:38:07 ram



?RCS: patch7: not all 'test' programs support the -x option  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:04:58 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: This is the very first unit in the Configure script. It is mostly just  
?X: things to keep people from getting  
into a tizzy right off the bat.  
?X:  
?MAKE:Head:  
?MAKE: -pick wipe \$@ %<  
?V:PATH p\_\_exe me newsh  
?T:argv Id p paths OS2\_SHELL DJGPP  
?T:inksh needksh avoidksh newsh changesh reason  
?F:!\*  
?LINT:extern ENV CDPATH SHELL MACHTYPE  
?LINT:change ENV CDPATH  
?LINT:nocomment  
#!/bin/sh  
#  
# If these # comments don't work, trim them. Don't worry about any other  
# shell scripts, Configure will trim # comments from them for you.  
#  
# (If you are trying to port this package to a machine without sh,  
# I would suggest you have a look at the prototypical config\_h.SH file  
# and edit it to reflect your system. Some packages may include samples  
# of config.h for certain machines, so you might look for one of those.)  
#  
?X:  
?X: NOTE THAT A CONFIGURE SCRIPT IS IN THE PUBLIC DOMAIN (whether or not  
?X: the software which uses it is in the public domain).  
?X:  
# Yes, you may rip this off to use in other distribution packages. This  
# script belongs to the public domain and cannot be copyrighted.  
#  
?X:  
?X: WE ASK YOU  
NOT TO REMOVE OR ALTER THE FOLLOWING PARAGRAPH, PLEASE:  
?X:  
# Note: this Configure script was generated automatically. Rather than  
# working with this copy of Configure, you may wish to get metaconfig.  
# The dist package (which contains metaconfig) is available via SVN:  
# svn co <https://svn.code.sf.net/p/dist/code/trunk/dist>  
?X:  
?X: NOTA BENE:  
?X: If you develop you own version of metaconfig based on this work,  
?X: you have to add some comments telling that the script was generated

?X: by your version, not mine: It credits your work.

?X:

```
$Id: Head.U 6 2006-08-25 22:21:46Z rmanfredi $
```

```
#
```

```
Generated on <DATE> [metaconfig <VERSION> PL<PATCHLEVEL>]
```

```
cat >c1$$ <<EOF
```

```
ARGGGHHHH!!!!
```

SCO csh still thinks true is false. Write to SCO today and tell them that next year Configure ought to "rm /bin/csh" unless they fix their blasted shell. :-)

(Actually, Configure ought to just patch csh in place. Hmm. Hmmmmm. All we'd have to do is go in and swap the && and || tokens, wherever they are.)

```
[End
```

```
of diatribe. We now return you to your regularly scheduled programming...]
```

```
EOF
```

```
cat >c2$$ <<EOF
```

OOPS! You naughty creature! You didn't run Configure with sh!

I will attempt to remedy the situation by running sh for you...

```
EOF
```

```
true || cat c1$$ c2$$
```

```
true || exec sh $0 $argv:q
```

```
(exit $?0) || cat c2$$
```

```
(exit $?0) || exec sh $0 $argv:q
```

```
rm -f c1$$ c2$$
```

```
: compute my invocation name
```

```
me=$0
```

```
case "$0" in
```

```
/)
```

```
me=`echo $0 | sed -e 's!.*\!(.*)!\1!' 2>/dev/null`
```

```
test "$me" || me=$0
```

```
::
```

```
esac
```

?X:

?X: To be able to run under OS/2, we must detect that early enough to use

?X: the proper path separator, stored in \$p\_. It is : on UNIX and ; on

?X: DOSish systems such as OS/2.

?X:

: Proper separator for the PATH environment variable

p\_=:

: On OS/2 this directory should exist if this is not floppy only system ":-]"

```
if test -d c:/ ; then
```

```
if test -n "$OS2_SHELL"; then
```

```
 p_=\;
```

```
 PATH=`cmd /c "echo %PATH%" | tr '\\\` /`
```

?X: That's a bug in ksh5.22

```
 OS2_SHELL=`cmd /c "echo %OS2_SHELL%" | tr
```

```
 '\\\` / | tr '[A-Z]' [a-z]"`
```

```
elif test -n "$DJGPP"; then
```

```
 case "X${MACHTYPE:-noneschmach}" in
```

```
 *cygwin) ;;
```

```
 *) p_=\; ;;
```

```
 esac
```

```
fi
```

```
fi
```

?X:

?X: There are two schools of thoughts here. Some people correctly argue that

?X: the user has a better chance than we do of setting a reasonable PATH and

?X: others argue that Configure is the best place there is to set up a suitable

?X: PATH. Well, here we try to compromise by keeping the user's PATH and

?X: appending some directories which are known to work on some machine or the

?X: other. The rationale behind this being that a novice user might not have a

?X: proper environment variable set, and some directories like /etc (where

?X: chown is located on some BSD systems) may be missing--RAM.

?X:

?X: SVR4 adds an /opt directory for optional packages. Some sites use

?X: various permutations on /opt as opposed to /usr or /usr/local.-- ADO

?X:

?X: We only add directories that are not already in the PATH of the

?X: user and the directories must

exist also.

?X:

: Proper PATH setting

```
paths="/bin /usr/bin /usr/local/bin /usr/ucb /usr/local /usr/lbin"
```

```
paths="$paths /opt/bin /opt/local/bin /opt/local /opt/lbin"
```

```
paths="$paths /usr/5bin /etc /usr/gnu/bin /usr/new /usr/new/bin /usr/nbin"
```

```
paths="$paths /opt/gnu/bin /opt/new /opt/new/bin /opt/nbin"
```

```
paths="$paths /sys5.3/bin /sys5.3/usr/bin /bsd4.3/bin /bsd4.3/usr/ucb"
```

```
paths="$paths /bsd4.3/usr/bin /usr/bsd /bsd43/bin /usr/ccs/bin"
```

```
paths="$paths /etc /usr/lib /usr/ucblib /lib /usr/ccs/lib"
```

```
paths="$paths /sbin /usr/sbin /usr/libexec"
```

```
paths="$paths /system/gnu_library/bin"
```

```
for p in $paths
```

```
do
```

```
 case "$p_$PATH$p_" in
```

```
 $p_$p$p_) ;;
```

```
*) test -d $p && PATH=$PATH$p_$p ;;
esac
done
```

```
PATH=.$p_$PATH
export PATH
```

: shall we be using ksh?

```
inksh=""
```

```
needksh=""
```

```
avoidksh=""
```

```
newsh=/bin/ksh
```

```
changesh=""
```

?X: Use (alias -x) and not (alias) since zsh and bash recognize the alias

?X: builtin but not the -x option which is typically ksh..

?X: We need to set up PATH before calling the "alias" built-in since  
some

?X: systems like HP-UX have a binary called /bin/alias.

```
if (PATH=.; alias -x) >/dev/null 2>&1; then
```

```
 inksh=true
```

```
fi
```

?X: On HP-UX, large Configure scripts may exercise a bug in /bin/sh, use ksh

```
if test -f /hp-ux -a -f /bin/ksh; then
```

```
 needksh='to avoid sh bug in "here document" expansion'
```

```
fi
```

?X: On AIX4, /bin/sh is really ksh and it causes problems, use sh

```
if test -d /usr/lpp -a -f /usr/bin/bsh -a -f /usr/bin/uname; then
```

```
 if test X`/usr/bin/uname -v` = X4; then
```

```
 avoidksh="to avoid AIX 4's /bin/sh"
```

```
 newsh=/usr/bin/bsh
```

```
 fi
```

```
fi
```

?X: On Digital UNIX, /bin/sh may start up buggy /bin/ksh, use sh

```
if test -f /osf_boot -a -f /usr/sbin/setld; then
```

```
 if test X`/usr/bin/uname -s` = XOSF1; then
```

```
 avoidksh="to avoid Digital UNIX' ksh"
```

```
 newsh=/bin/sh
```

?X: if BIN\_SH is set to 'xpg4', sh will start up ksh

```
 unset BIN_SH
```

```
fi
```

```
fi
```

?X: If we are not in ksh and need it, then feed us back to it

case "\$inksh/\$needksh" in

```
/[a-z]*)
```

?X: Clear ENV to avoid any ~/.kshrc that could alias cd or whatever...

?X: Don't

use "unset ENV", that is not portable enough

```
ENV=""
```

```

changesh=true
reason="$needksh"
;;
esac
?X: If we are in ksh and must avoid it, then feed us back to a new shell
case "$inksh/$avoidksh" in
true/[a-z]*)
changesh=true
reason="$avoidksh"
;;
esac
?X: Warn them if they use ksh on other systems, which are those where
?X: we don't need ksh nor want to avoid it explicitly, yet are using it.
case "$inksh/$needksh-$avoidksh-" in
true/--)
cat <<EOM
(I see you are using the Korn shell. Some ksh's blow up on $me,
mainly on older exotic systems. If yours does, try the Bourne shell instead.)
EOM
;;
esac
case "$changesh" in
true)
export newsh
echo "(Feeding myself to $newsh $reason.)"
?X: Make sure they didn't say sh <Configure by checking whether $0 ends
?X: with Configure or not. If they did say sh <././Configure, then too
?X: bad for them anyway, since we lost that path indication...
?X: Otherwise, execing $0 ensures we keep the full remote source dir
?X: indication for src.U.
case
"$0" in
Configure|*/Configure) exec $newsh $0 "$@";;
*) exec $newsh Configure "$@";;
esac
;;
esac

?X: Unset CDPATH to avoid surprises when using cd under some shells
?X: Can't unset it because that's not portable to very old shells.
?X: Can't set it to " because then bash 2.02 won't do "cd UU" --AD 6/98.
?X: Don't want to set it to '.' because then ksh prints out the
?X: name of the directory every time you cd to it. --AD 6/98
?X: In order to inflict the least harm, change it only if it's set.
: if needed, set CDPATH to a harmless value that is not chatty
case "$CDPATH" in
") ;;
*) case "$SHELL" in

```

```
bash) CDPATH='!' ;;
*) CDPATH="" ;;
esac
;;
esac
```

: Configure runs within the UU subdirectory

```
test -d UU || mkdir UU
```

```
?X: Use ./* to avoid any confirmation prompts from enhanced shells -- WED
```

```
cd UU && rm -f ./*
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Head.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1999, Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: This file is included with or a derivative work of a file included
```

```
?RCS: with the metaconfig program of Raphael Manfredi's "dist" distribution.
```

```
?RCS: In accordance with clause 7 of dist's modified Artistic License:
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:multiarch: osname
```

```
?MAKE: -pick add @$ %<
```

```
?S:multiarch:
```

```
?S: This variable conditionally defines the MULTIARCH symbol
```

```
?S: which signifies the presence of multiplatform files.
```

```
?S: This is normally set by hints files.
```

```
?S:.
```

```
?C:MULTIARCH:
```

```
?C: This symbol, if defined, signifies that the build
```

```
?C: process will produce some binary files that are going to be
```

```
?C: used in a cross-platform environment. This is the case for
```

```
?C: example with the NeXT "fat" binaries that contain executables
```

```
?C: for
```

```
several CPUs.
```

```
?C:.
```

```
?H:#$multiarch MULTIARCH /**/
```

```
?H:.
```

```
: Check if is a multiplatform env
```

```
case "$osname" in
```

```
darwin) multiarch="$define" ;;
```

```
esac
```

```
case "$multiarch" in
"|[nN]*") multiarch="$undef" ;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/a_dvisory/multiarch.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: randfunc.U,v 3.0 1993/08/18 12:09:39 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: randfunc.U,v \$

?RCS: Revision 3.0 1993/08/18 12:09:39 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This is the new unit that should be used when random

?X: functions are to be used. It thus makes randbits.U obsolete.

?X:

?X: This unit gives a simple #define for Drand01, which produces

?X: doubles in the range [0,1) using the "best" random number

?X: generator available. The source should just call Drand01

?X: and not worry about the underlying

implementation.

?X: Andy Dougherty July 1998

?X:

?MAKE:randfunc drand01 seedfunc randbits randseedtype: \

Compile Myread Csym cflags

?MAKE: -pick add \$@ %<

?S:randfunc:

?S: Indicates the name of the random number function to use.

?S: Values include drand48, random, and rand. In C programs,

?S: the 'Drand01' macro is defined to generate uniformly distributed

?S: random numbers over the range [0., 1.[ (see drand01 and nrand).

?S:.

?S:drand01:

?S: Indicates the macro to be used to generate normalized

?S: random numbers. Uses randfunc, often divided by

?S: (double) (((unsigned long) 1 << randbits)) in order to

?S: normalize the result.

?S: In C programs, the macro 'Drand01' is mapped to drand01.

?S:.

?S:randseedtype:

?S: Indicates the type of the argument of the seedfunc.

?S:.

?S:seedfunc:

?S: Indicates the random number generating seed function.

?S: Values include srand48, srandom, and srand.

?S:.

?S:randbits:

?S: Indicates how many bits are produced by the function used to

?S: generate

normalized random numbers.

?S:.

?C:RANDFUNC:

?C: This symbol defines the random function used to define Drand01().

?C:.

?C:Drand01:

?C: This macro is to be used to generate uniformly distributed

?C: random numbers over the range [0., 1.[. You may have to supply

?C: an 'extern double drand48();' in your program since SunOS 4.1.3

?C: doesn't provide you with anything relevant in its headers.

?C: See HAS\_DRAND48\_PROTO.

?C:.

?C:Rand\_seed\_t:

?C: This symbol defines the type of the argument of the

?C: random seed function.

?C:.

?C:seedDrand01:

?C: This symbol defines the macro to be used in seeding the

?C: random number generator (see Drand01).

?C:.

?C:RANDBITS:

?C: This symbol indicates how many bits are produced by the

?C: function used to generate normalized random numbers.

?C: Values include 15, 16, 31, and 48.

?C:.

?H:#define RANDFUNC \$randfunc /\*\*/

?H:#define Drand01() \$drand01 /\*\*/

?H:#define Rand\_seed\_t \$randseedtype /\*\*/

?H:#define seedDrand01(x) \$seedfunc((Rand\_seed\_t)x) /\*\*/

?H:#define

RANDBITS \$randbits /\*\*/

?H:.

?LINT:change ccflags

?LINT:unclosed \$randbits))"

: How can we generate normalized random numbers ?

echo " "



```
echo "Using our internal random number implementation..." >&4
```

```
case "$ccflags" in
-Dmy_rand=|-Dmy_srand=*)
echo "Removing obsolete -Dmy_rand, -Dmy_srand, and -Drandbits from ccflags." >&4
ccflags="`echo $ccflags | sed -e 's/-Dmy_rand=random/ /'"
ccflags="`echo $ccflags | sed -e 's/-Dmy_srand=srandom/ /'"
ccflags="`echo $ccflags | sed -e 's/-Drandbits=[0-9][0-9]*/ /'"
;;
esac
```

```
randfunc=Perl_drand48
drand01="Perl_drand48()"
seedfunc="Perl_drand48_init"
randbits=48
randseedtype=U32
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/randfunc.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_msghdr\_s: Hasstruct i\_systypes d\_socket i\_sysuio Setvar

?MAKE: -pick add \$@ %<

?S:d\_msghdr\_s:

?S: This variable conditionally defines the HAS\_STRUCT\_MSGHDR symbol,

?S: which indicates that the struct msghdr is supported.

?S:.

?C:HAS\_STRUCT\_MSGHDR:

?C: This symbol, if defined, indicates that the struct msghdr

?C: is supported.

?C:.

?H:#\$d\_msghdr\_s HAS\_STRUCT\_MSGHDR /\*\*/

?H:.

?LINT:set d\_msghdr\_s

: Check for msghdr\_s

echo " "

echo "Checking to see if your system supports struct msghdr..." >&4

```
set d_msghdr_s msghdr $i_systypes sys/types.h $d_socket sys/socket.h $i_sysuio sys/uio.h
```

```
eval $hasstruct
```

```
case "$d_msghdr_s" in
```

```
"$define") echo "Yes, it does." ;;
*) echo "No, it doesn't."
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_msghdr_s.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2001 Jarkko Hietaniemi

?RCS:

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?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_flockproto: Hasproto i\_sysfile

?MAKE: -pick add \$@ %<

?S:d\_flockproto:

?S: This variable conditionally defines the HAS\_FLOCK\_PROTO symbol,

?S: which indicates to the C program that the system provides

?S: a prototype for the flock() function. Otherwise, it is

?S: up to the program to supply one.

?S:.

?C:HAS\_FLOCK\_PROTO:

?C: This symbol, if defined, indicates that the system provides

?C: a prototype for the flock() function. Otherwise, it is up

?C: to the program to supply one. A good guess is

?C: extern int flock(int,

int);

?C:.

?H:#\$d\_flockproto HAS\_FLOCK\_PROTO /\*\*/

?H:.

?LINT:set d\_flockproto

: see if prototype for flock is available

echo " "

set d\_flockproto flock \$i\_sysfile sys/file.h

eval \$hasproto

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_flockproto.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: basicshell.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: basicshell.U,v $
?RCS: Revision 3.0 1993/08/18 12:05:25 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:basicshell: Getfile Oldconfig bash csh ksh sh
?MAKE: -pick add $@ %<
?S:basicshell:
?S: This variable contains the eventual value of the BASICSHELL symbol,
?S: which contains the full name of the basic script shell on this
?S: system. Usual values are /bin/sh, /bin/ksh, /bin/csh.
?S:.
?C:BASICSHELL:
?C: This symbol contains the
full name of the basic script shell on this
?C: system. Usual values are /bin/sh, /bin/ksh, /bin/csh.
?C:.
?H:#define BASICSHELL "$basicshell" /**/
?H:.
: find the most basic shell for scripts
echo " "
case "$basicshell" in
")
case "$sh $bash $csh $ksh" in
/sh) dflt="$sh" ;;
/ksh) dflt="$ksh" ;;
/csh) dflt="$csh" ;;
/bash) dflt="$bash" ;;
*) dflt="/bin/sh" ;;
esac
;;
*)
dflt="$basicshell";;
esac
fn=f
rp="Give the full path name of the most basic shell used on your system"
./getfile
basicshell=$ans

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/basicshell.U

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_llrintl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_llrintl:

?S: This variable conditionally defines the HAS\_LLRLNTL symbol, which

?S: indicates to the C program that the llrintl() routine is available

?S: to return the long long value closest to a long double (according

?S: to the current rounding mode).

?S:.

?C:HAS\_LLRLNTL:

?C: This symbol, if defined, indicates that the llrintl routine is

?C: available to return the long long value closest to a long double

?C: (according to the current rounding mode).

?C:.

?H:#\$d\_llrintl HAS\_LLRLNTL /\*\*/

?H:.

?LINT:set d\_llrintl

: see if llrintl exists

set llrintl d\_llrintl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_llrintl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_statvfs d\_fstatvfs: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_statvfs:

?S: This variable conditionally defines the HAS\_STATVFS symbol, which

?S: indicates to the C program that the statvfs() routine is available.

?S:.

?S:d\_fstatvfs:

?S: This variable conditionally defines the HAS\_FSTATVFS symbol, which

?S: indicates to the C program that the fstatvfs() routine is available.

?S:.

?C:HAS\_STATVFS:

?C: This symbol, if defined, indicates that the statvfs routine is

?C: available to stat filesystems by filenames.

?C:.

?C:HAS\_FSTATVFS:

?C: This symbol, if defined, indicates that the fstatvfs routine is

?C: available to stat filesystems by file descriptors.

?C:.

?H:#\$d\_statvfs HAS\_STATVFS /\*\*/

?H:#\$d\_fstatvfs

HAS\_FSTATVFS /\*\*/

?H:.

?LINT:set d\_statvfs

?LINT:set d\_fstatvfs

: see if statvfs exists

set statvfs d\_statvfs

eval \$inlibc

: see if fstatvfs exists

set fstatvfs d\_fstatvfs

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_statvfs.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_utime.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: i\_utime.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:47 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:i\_utime: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_utime:

?S: This variable conditionally defines the I\_UTIME symbol, and indicates

?S: whether a C program should include <utime.h>.

```

?S:.
?C:I_UTIME:
?C: This symbol, if defined, indicates to the C program that it should
?C: include <utime.h>.
?C:.
?H:#$i_utime I_UTIME /**/
?H:.
?LINT:set i_utime
:
 see if this is an utime system
set utime.h i_utime
eval $inhdr

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_utime.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: Id
?RCS:
?RCS: Copyright (c) 2016 H.Merijn Brand & Todd Rinaldo
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:default_inc_excludes_dot: Myread cat
?MAKE: -pick add $@ %<
?S:default_inc_excludes_dot:
?S: When defined, remove the legacy '.' from @INC
?S:.
?C:DEFAULT_INC_EXCLUDES_DOT:
?C: This symbol, if defined, removes the legacy default behavior of
?C: including '.' at the end of @INC.
?C:.
?H:#$default_inc_excludes_dot DEFAULT_INC_EXCLUDES_DOT /**/
?H:.
: Include . in @INC
$cat <<EOM

```

Historically Perl has provided a final fallback of the current working directory '.' when searching for a library. This, however, can lead to problems when a Perl program which loads optional modules is called from a shared directory. This can lead to executing unexpected code.

EOM

# When changing to exclude by

```

default:
case "$default_inc_excludes_dot" in
 $undef|false|[nN]*) dflt="n" ;;
 *) dflt="y" ;;
esac
To turn exclude off by default:
#case "$default_inc_excludes_dot" in
$define|true|[yY]*) dflt="y" ;;
*) dflt="n" ;;
#esac

rp='Exclude '.' from @INC by default? '
./myread
case "$ans" in
 [nN]|undef) default_inc_excludes_dot="$undef" ;;
 *) default_inc_excludes_dot="$define" ;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/defaultincdot.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: pidtype.U,v 3.0.1.1 1994/08/29 16:31:27 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: pidtype.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:31:27 ram
?RCS: patch32: now uses new Typedef unit to compute type information
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:33 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:pidtype: Myread Typedef
?MAKE: -pick add $@ %<
?S:pidtype:
?S: This variable defines PIDTYPE to be something like pid_t, int,
?S: ushort, or whatever type is used to declare process ids in the kernel.
?S:.
?C:Pid_t (PIDTYPE):
?C: This

```

symbol holds the type used to declare process ids in the kernel.

?C: It can be int, uint, pid\_t, etc... It may be necessary to include

?C: <sys/types.h> to get any typedef'ed information.

?C:.

?H:#define Pid\_t \$pidtype /\* PID type \*/

?H:.

?LINT: set pidtype

: see what type pids are declared as in the kernel

rp="What is the type of process ids on this system?"

set pid\_t pidtype int stdio.h sys/types.h

eval \$typedef\_ask

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/pidtype.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2001 Jarkko Hietaniemi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_usleepproto: Hasproto i\_unistd

?MAKE: -pick add \$@ %<

?S:d\_usleepproto:

?S: This variable conditionally defines the HAS\_USLEEP\_PROTO symbol,

?S: which indicates to the C program that the system provides

?S: a prototype for the usleep() function. Otherwise, it is

?S: up to the program to supply one.

?S:.

?C:HAS\_USLEEP\_PROTO:

?C: This symbol, if defined, indicates that the system provides

?C: a prototype for the usleep() function. Otherwise, it is up

?C: to the program to supply one. A good guess is

?C: extern int

usleep(useconds\_t);

?C:.

?H:#\$d\_usleepproto HAS\_USLEEP\_PROTO /\*\*/

?H:.

?LINT:set d\_usleepproto

: see if prototype for usleep is available

echo " "

set d\_usleepproto usleep \$i\_unistd unistd.h



eval \$hasproto

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_usleepproto.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_vfork.U,v 3.0.1.6 1994/08/29 16:18:21 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: d\_vfork.U,v \$

?RCS: Revision 3.0.1.6 1994/08/29 16:18:21 ram

?RCS: patch32: set default to 'y' the first time

?RCS:

?RCS: Revision 3.0.1.5 1994/06/20 06:59:14 ram

?RCS: patch30: usevfork was not always properly set

?RCS:

?RCS: Revision 3.0.1.4 1994/05/13 15:20:56 ram

?RCS: patch27: modified to avoid spurious Whoa warnings (ADO)

?RCS:

?RCS: Revision 3.0.1.3 1994/05/06 14:59:09 ram

?RCS: patch23: now explicitly ask whether vfork() should be used  
(ADO)

?RCS:

?RCS: Revision 3.0.1.2 1993/10/16 13:49:39 ram

?RCS: patch12: added magic for vfork()

?RCS:

?RCS: Revision 3.0.1.1 1993/09/13 16:06:57 ram

?RCS: patch10: removed automatic remapping of vfork on fork (WAD)

?RCS: patch10: added compatibility code for older config.sh (WAD)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:07:55 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_vfork usevfork d\_pseudofork: Inlibc Myread Oldconfig Setvar

?MAKE:-pick add \$@ %<

?S:d\_vfork:

?S: This variable conditionally defines the HAS\_VFORK symbol, which

?S: indicates the vfork() routine is available.

?S:.

?S:usevfork:

?S: This variable is set to true when the user accepts to use vfork.  
?S: It is set to false when no vfork is available or when the user  
?S: explicitly requests not to use vfork.  
?S:.  
?S:d\_pseudofork:  
?S: This variable conditionally defines the HAS\_PSEUDOFORK symbol,  
?S: which indicates that an emulation of the fork routine is available.  
?S:.  
?C:HAS\_VFORK (VFORK):  
?C: This  
symbol, if defined, indicates that vfork() exists.  
?C:.  
?H:#\$d\_vfork HAS\_VFORK /\*\*/  
?H:.  
?C:HAS\_PSEUDOFORK:  
?C: This symbol, if defined, indicates that an emulation of the  
?C: fork routine is available.  
?C:.  
?H:#\$d\_pseudofork HAS\_PSEUDOFORK /\*\*/  
?H:.  
?M:vfork: HAS\_VFORK  
?M:#ifndef HAS\_VFORK  
?M:#define vfork fork  
?M:#endif  
?M:.  
?T:d\_hvfork  
: backward compatibility for d\_hvfork  
if test X\$d\_hvfork != X; then  
d\_vfork="\$d\_hvfork"  
d\_hvfork="  
fi  
?X:=====  
: see if there is a vfork  
val="  
set vfork val  
eval \$inlibc  
  
d\_pseudofork=\$undef  
  
: Ok, but do we want to use it. vfork is reportedly unreliable in  
: perl on Solaris 2.x, and probably elsewhere.  
case "\$val" in  
\$define)  
echo " "  
case "\$usevfork" in  
false) dflt='n';;  
\*) dflt='y';;  
esac

```
cat <<'EOM'
```

Perl can only use a `vfork()` that doesn't suffer from strict restrictions on calling functions or modifying global data in the child. For example, `glibc-2.1` contains such a `vfork()` that is unsuitable. If your system provides a proper `fork()` call, chances are that you do NOT want perl to use `vfork()`.

EOM

```
rp="Do you still want to use vfork()?"
. ./myread
case "$ans" in
y|Y) ;;
*)
echo "Ok, we won't use vfork()."
val="$undef"
;;
esac
;;
esac
?X:
?X: Only set it when final value is known to avoid spurious Whoa's
?X: Then set usevfork accordingly to the current value, for next run
?X:
set d_vfork
eval $setvar
case "$d_vfork" in
$define) usevfork='true';;
*) usevfork='false';;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_vfork.U
```

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```
?RCS: $Id: Chk_MANI.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: Chk_MANI.U,v $
```

```

?RCS: Revision 3.0.1.2 1997/02/28 14:57:25 ram
?RCS: patch61: added support for src.U
?RCS:
?RCS: Revision 3.0.1.1 1994/10/31 09:33:14 ram
?RCS: patch44: now lists Begin instead of Myinit in its dependencies
?RCS: patch44: leading comment now explains how this unit is included
?RCS:
?RCS: Revision 3.0 1993/08/18 12:04:45 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit checks the package by making sure
every file listed in MANIFEST
?X: is present. It is systematically "included" via the Finish unit (which
?X: is always present in every Configure script), although it may result in
?X: an empty inclusion when no MANIFEST is present.
?X:
?MAKE:Chk_MANI: Begin c n rsrc
?MAKE: -pick wipe $@ %<
?T:filelist ans tmppwd
?X: This check happens at metaconfig-time, so it's ok to hard-code the path.
@if {test -f ../MANIFEST}
: Now test for existence of everything in MANIFEST
echo " "
if test -f "$rsrc/MANIFEST"; then
echo "First let's make sure your kit is complete. Checking..." >&4
?X:
?X: Files spelled uppercased and beginning with PACK are produced by the
?X: shell archive builder and may be removed by the user. Usually, they are
?X: not listed in the MANIFEST file, but you never know...
?X:
?X: "split -l" is the new way of running a split, but we also try the older way
?X:
awk '$1 !~ /PACK[A-Z]+/ {print $1}' "$rsrc/MANIFEST" | \
(split -l 50 2>/dev/null || split -50)
rm -f missing
tmppwd=`pwd`
for
filelist in x??: do
(cd "$rsrc"; ls `cat "$tmppwd/$filelist"` \
>/dev/null 2>>"$tmppwd/missing")
done
if test -s missing; then
cat missing >&4
cat >&4 <<'EOM'

```

THIS PACKAGE SEEMS TO BE INCOMPLETE.

You have the option of continuing the configuration process, despite the distinct possibility that your kit is damaged, by typing 'y'es. If you do, don't blame me if something goes wrong. I advise you to type 'n'o and contact the author (<MAINTLOC>).

EOM

?X: Can't use \$echo at this early stage

```
echo $n "Continue? [n] $c" >&4
```

```
read ans
```

```
case "$ans" in
```

```
y*)
```

```
echo "Continuing..." >&4
```

```
rm -f missing
```

```
;;
```

```
*)
```

?X:

?X: Use kill and not exit, so that the trap gets executed to clean up

?X:

```
echo "ABORTING..." >&4
```

```
kill $$
```

```
;;
```

```
esac
```

```
else
```

```
echo "Looks good..."
```

```
fi
```

else

```
echo "There is no MANIFEST file. I hope your kit is complete !"
```

```
fi
```

```
rm -f missing x??
```

@end

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Chk_MANI.U
```

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?RCS:

?MAKE:d\_signbit: nvtype Compile Setvar cat run rm\_try echo n c i\_sunmath

?MAKE: -pick add \$@ %<

?S:d\_signbit:

?S: This variable conditionally defines the HAS\_SIGNBIT symbol, which

?S: indicates to the C program that the signbit() routine is available

?S: and safe to use with perl's intern NV type.

```

?S:.
?C:HAS_SIGNBIT:
?C: This symbol, if defined, indicates that the signbit routine is
?C: available to check if the given number has the sign bit set.
?C: This should include correct testing of -0.0. This will only be set
?C: if the signbit() routine is safe to use with the NV type used internally
?C: in perl. Users should call Perl_signbit(), which will be #defined to
?C: the system's signbit() function or macro if this symbol is defined.
?C:.
?H:#$d_signbit
HAS_SIGNBIT /**/
?H:.
?F:!try
?LINT:set d_signbit
: see if signbit exists
$echo $n "Checking to see if you have signbit() available to work on $nvtype... $c" >&4
$cat >try.c <<EOCP
#$i_sunmath I_SUNMATH
#include <math.h>
#ifdef I_SUNMATH /* Solaris special math library */
include <sunmath.h>
#endif
#define NV $nvtype
int main(int argc, char **argv)
{
 NV x = 0.0;
 NV y = -1.0;
 if ((signbit(x) == 0) && (signbit(y) != 0))
return 0;
 else
return 1;
}
EOCP
val="$undef"
set try
if eval $compile; then
 if $run ./try; then
 $echo "Yes." >&4
val="$define"
 else
 $echo "Signbit seems to be available, but doesn't work as I expected."
 $echo "I won't use it." >&4
val="$undef"
 fi
else
 $echo "Nope." >&4
 dflt="$undef"
fi

```

```
set d_signbit
eval $setvar
$rm_try
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_signbit.U
```

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?RCS:

?MAKE:gccversion gccosandvers gccansipedantic: cat cpp rm +cc \

Myread Guess Options Oldconfig Loc osname osvers run

?MAKE: -pick add \$@ %<

?S:gccversion:

?S: If GNU cc (gcc) is used, this variable holds '1' or '2' to

?S: indicate whether the compiler is version 1 or 2. This is used in

?S: setting some of the default cflags. It is set to " if not gcc.

?S:.

?S:gccosandvers:

?S: If GNU cc (gcc) is used, this variable holds the operating system

?S: and version used to compile gcc. It is set to " if not gcc,

?S: or if

nothing useful can be parsed as the os version.

?S:.

?S:gccansipedantic:

?S: If GNU cc (gcc) is used, this variable will enable (if set) the

?S: -ansi and -pedantic ccflags for building core files (through

?S: cflags script). (See Porting/pumpkin.pod for full description).

?S:.

?D:gccversion="

?D:gccansipedantic="

?T:gccshortvers

?T:incdir

?T:warn

?F:!try

?LINT:change cpp

?LINT:extern ccflags

?LINT:extern ldflags

?LINT:extern locincpth

```

?LINT:extern ccname
?LINT:change ccname
?LINT:change locincpth
?LINT:change ccflags
?LINT:set gccansipedantic
?X: Check if they have gcc in any guise.
: Check if we are using GNU gcc and what its version is
echo " "
echo "Checking for GNU cc in disguise and/or its version number..." >&4
$cat >try.c <<EOM
#include <stdio.h>
int main() {
#if defined(__GNUC__) && !defined(__INTEL_COMPILER)
#ifdef __VERSION__
printf("%s\n", __VERSION__);
#else
printf("%s\n", "1");
#endif
#endif
return(0);
}
EOM
if $cc -o try $ccflags $ldflags try.c; then
gccversion=`$run
./try`
case "$gccversion" in
") echo "You are not using GNU cc." ;;
*) echo "You are using GNU cc $gccversion."
ccname=gcc
;;
esac
else
echo " "
echo "*** WHOA THERE!!! ***" >&4
echo " Your C compiler \"$cc\" doesn't seem to be working!" >&4
?X: using -K will prevent aborting--maybe they're cross compiling?
case "$knowitall" in
")
echo " You'd better start hunting for one and let me know about it." >&4
exit 1
;;
esac
fi
$rm -f try try.*
case "$gccversion" in
1*) cpp=`./loc gcc-cpp $cpp $pth` ;;
esac
case "$gccversion" in

```



```

") gccosandvers=" ;;
) gccshortvers=`echo "$gccversion"|sed 's/ .//'^
gccosandvers=`$cc -v 2>&1|grep '/specs$|sed "s!.*[^-]*-[^-]*-([^-]*)/$gccshortvers/specs!\|1!"^
gccshortvers="
case "$gccosandvers" in
$osname) gccosandvers=" ;; # linux gccs seem to have no linux osvers, grr
$osname$osvers) ;; # looking good
$osname*) cat <<EOM >&4

```

\*\*\* WHOA THERE!!! \*\*\*

Your gcc has not been compiled for the exact  
release of  
your operating system (\$gccosandvers versus \$osname\$osvers).

In general it is a good idea to keep gcc synchronized with  
the operating system because otherwise serious problems  
may ensue when trying to compile software, like Perl.

I'm trying to be optimistic here, though, and will continue.  
If later during the configuration and build icky compilation  
problems appear (headerfile conflicts being the most common  
manifestation), I suggest reinstalling the gcc to match  
your operating system release.

EOM

```

;;
*) gccosandvers=" ;; # failed to parse, better be silent
esac
;;
esac
case "$ccname" in
") ccname="$cc" ;;
esac

```

# gcc 3.\* complain about adding -Idirectories that they already know about,  
# so we will take those off from locincpth.

```

case "$gccversion" in
3*)
echo "main(){}">try.c
for incdir in $locincpth; do
warn=`$cc $ccflags -I$incdir -c try.c 2>&1 | \
grep '^c[cp]p*[01]: warning: changing search
order ^
if test "X$warn" != X; then
locincpth=`echo " $locincpth " | sed "s! $incdir ! !!"^
fi
done

```

```

 $rm -f try try.*
esac

gcc 4.9 by default does some optimizations that break perl.
see ticket 121505.
#
The -fwrapv disables those optimizations (and probably others,) so
for gcc 4.9 (and later, since the optimizations probably won't go
away), add -fwrapv unless the user requests -fno-wrapv, which
disables -fwrapv, or if the user requests -fsanitize=undefined,
which turns the overflows -fwrapv ignores into runtime errors.
case "$gccversion" in
4.[3-9].*|4.[1-9][0-9]*|[5-9].*|[1-9][0-9]*)
 case "$ccflags" in
 -fno-wrapv|*-fsanitize=undefined*|*-fwrapv*) ;;
 *) ccflags="$ccflags -fwrapv" ;;
 esac
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/gccvers.U

```

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?RCS: \$Id: i\_fp\_class.U,v \$

?RCS:

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?RCS:

?MAKE:i\_fp\_class: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_fp\_class:

?S: This variable conditionally defines the I\_FP\_CLASS symbol, and indicates

?S: whether a C program should include <fp\_class.h>.

?S:.

?C:I\_FP\_CLASS:

?C: This symbol, if defined, indicates that <fp\_class.h> exists and

?C: should be included.

?C:.

?H:#\$i\_fp\_class I\_FP\_CLASS /\*\*/

?H:.

?LINT:set i\_fp\_class

: see if this is a fp\_class.h system

set fp\_class.h i\_fp\_class

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_fp\_class.U

No license file was found, but licenses were detected in source scan.

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?RCS:

?MAKE:d\_scalbnl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_scalbnl:

?S: This variable conditionally defines the HAS\_SCALBNL symbol, which

?S: indicates to the C program that the scalbnl() routine is available.

?S: If ilogbl is also present we can emulate frexpl.

?S:.

?C:HAS\_SCALBNL:

?C: This symbol, if defined, indicates that the scalbnl routine is

?C: available. If ilogbl is also present we can emulate frexpl.

?C:.

?H:#\$d\_scalbnl HAS\_SCALBNL /\*\*/

?H:.

?LINT:set d\_scalbnl

: see if scalbnl exists

set scalbnl d\_scalbnl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_scalbnl.U

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?RCS:

?MAKE:d\_ctime64 d\_localtime64 d\_gmtime64 d\_mktime64 d\_diffime64 d\_asctime64: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_ctime64:

?S: This variable conditionally defines the HAS\_CTIME64 symbol, which

?S: indicates to the C program that the ctime64 () routine is available.

?S:.

?S:d\_localtime64:

?S: This variable conditionally defines the HAS\_LOCALTIME64 symbol, which

?S: indicates to the C program that the localtime64 () routine is available.

?S:.

?S:d\_gmtime64:

?S: This variable conditionally defines the HAS\_GMTIME64 symbol, which

?S: indicates to the C program that the gmtime64 () routine is available.

?S:.

?S:d\_mktime64:

?S: This variable conditionally defines the HAS\_MKTIME64 symbol, which

?S: indicates to the

C program that the mktime64 () routine is available.

?S:.

?S:d\_difftime64:

?S: This variable conditionally defines the HAS\_DIFFTIME64 symbol, which

?S: indicates to the C program that the difftime64 () routine is available.

?S:.

?S:d\_asctime64:

?S: This variable conditionally defines the HAS\_ASCTIME64 symbol, which

?S: indicates to the C program that the asctime64 () routine is available.

?S:.

?C:HAS\_CTIME64:

?C: This symbol, if defined, indicates that the ctime64 () routine is

?C: available to do the 64bit variant of ctime ()

?C:.

?C:HAS\_LOCALTIME64:

?C: This symbol, if defined, indicates that the localtime64 () routine is

?C: available to do the 64bit variant of localtime ()

?C:.

?C:HAS\_GMTIME64:

?C: This symbol, if defined, indicates that the gmtime64 () routine is

?C: available to do the 64bit variant of gmtime ()

?C:.

?C:HAS\_MKTIME64:

?C: This symbol, if defined, indicates that the mktime64 () routine is

?C: available to do the 64bit variant of mktime ()

?C:.

?C:HAS\_DIFFTIME64:

?C: This

symbol, if defined, indicates that the difftime64 () routine is

?C: available to do the 64bit variant of difftime ()

?C:.

?C:HAS\_ASCTIME64:

?C: This symbol, if defined, indicates that the asctime64 () routine is

?C: available to do the 64bit variant of asctime ()

?C:.

?H:#\$d\_ctime64 HAS\_CTIME64 /\*\*/

?H:#\$d\_localtime64 HAS\_LOCALTIME64 /\*\*/

```
?H:#$d_gmtime64 HAS_GMTIME64 /**/
?H:#$d_mktime64 HAS_MKTIME64 /**/
?H:#$d_diffime64 HAS_DIFFTIME64 /**/
?H:#$d_asctime64 HAS_ASCTIME64 /**/
?H:.
?LINT:set d_ctime64 d_localtime64 d_gmtime64 d_mktime64 d_diffime64 d_asctime64
: see if 64bit time functions exists
```

```
set ctime64 d_ctime64
eval $inlibc
```

```
set localtime64 d_localtime64
eval $inlibc
```

```
set gmtime64 d_gmtime64
eval $inlibc
```

```
set mktime64 d_mktime64
eval $inlibc
```

```
set diffime64 d_diffime64
eval $inlibc
```

```
set asctime64 d_asctime64
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_timefuncs64.U
```

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: H.Merijn Brand

?RCS:

?MAKE:d\_isblank: cc cat cflags ldflags rm libs Setvar

?MAKE:-pick add \$@ %<

?S:d\_isblank:

?S: This variable conditionally defines the HAS\_ISBLANK constant,

?S: which indicates to the C program that isblank() is available.

?S:.

?C:HAS\_ISBLANK:

?C: This manifest constant lets the C program know that isblank

?C: is available.

?C:.

?H:#\$d\_isblank HAS\_ISBLANK /\*\*/

?H:.

?LINT:set d\_isblank

?X: Can't use Inlibc because isblank() might be a macro.

: Look for isblank

echo " "

\$cat >isblank.c <<'EOCP'

#include

<stdio.h>

#include <ctype.h>

int main() {

int c = ' ';

if (isblank(c))

return 0 ;

else

return 1 ;

}

EOCP

if \$cc \$ccflags \$ldflags -o isblank isblank.c \$libs >/dev/null 2>&1 ; then

echo "isblank() found." >&4

val="\$define"

else

echo "isblank() NOT found." >&4

val="\$undef"

fi

set d\_isblank

eval \$setvar

\$rm -f isblank\*

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_isblank.U

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Csym.U,v \$

?RCS: Revision 3.0.1.4 1995/07/25 13:36:29 ram

?RCS: patch56: re-arranged compile line to include ldflags before objects

?RCS: patch56: added quotes for OS/2 support

?RCS:

?RCS: Revision 3.0.1.3 1995/05/12 12:00:33 ram

?RCS: patch54: fixed C test program to bypass gcc builtin type checks (ADO)

?RCS:

?RCS: Revision 3.0.1.2 1994/10/31 09:34:13 ram

?RCS: patch44: added Options to the MAKE line since it's no longer in Init.U

?RCS:

?RCS: Revision 3.0.1.1 1993/08/25 14:00:05 ram

?RCS:

patch6: added ldflags as a conditional dependency and to compile line

?RCS: patch6: a final double quote was missing in csym variable after eval

?RCS:

?RCS: Revision 3.0 1993/08/18 12:04:50 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:Csym: Options contains libc libs runnm +cc +ccflags +ldflags rm

?MAKE: -pick add \$@ %<

?LINT:define csym

?LINT:use libc

?S:csym:

?S: This shell variable is used internally by Configure to check

?S: whether a given C symbol is defined or not. A typical use is:

?S: set symbol result [-fva] [previous]

?S: eval \$csym

?S: That will set result to 'true' if the function [-f], variable [-v]

?S: or array [-a] is defined, 'false' otherwise. If a previous value is

?S: given and the -r flag was provided on the command line, that value

?S: is reused without questioning.

?S:.

?V:csym

?T:tval tx tlook tf tdc tc

: is a C symbol defined?

csym='tlook=\$1;

case "\$3" in

-v) tf=libc.tmp; tc=""; tdc="";;

-a) tf=libc.tmp; tc="[0]"; tdc="[]";;

\*) tlook="^\$1\$";

tf=libc.list; tc=""; tdc="()";;

esac;

tx=yes;

case "\$reuseval-\$4" in

true-) ;;

true-\*) tx=no; eval "tval=\\$\$4"; case "\$tval" in "") tx=yes;; esac;;

esac;

case "\$tx" in

```

yes)
case "$runnm" in
true)
if $contains $tlook $tf >/dev/null 2>&1;
then tval=true;
else tval=false;
fi;;
*)
?X:
?X: We use 'char' instead of 'int' to try to circumvent overzealous
?X: optimizing compilers using built-in prototypes for commonly used
?X: routines to complain when seeing a different external declaration. For
?X: instance, gcc 2.6.3 fails if we use 'int' and we attempt a test against
?X: memcpy() on machines where sizeof(int) == sizeof(char *) (the usual return
?X: type), the compiler assuming it's a built-in declaration given that the
?X: returned size matches. At least with 'char' we are safe! -- RAM, for ADO
?X:
?X: Let's thank GNU cc for making our lifes so easy! :-)
?X: (An alternative for the future would be to use our knowledge about gcc
?X: to force a -fno-builtin option in the
?X: compile test, in case the 'char'
?X: trick is obsoleted by future gcc releases). -- RAM
?X:
?X: Lastly, gcc 3.4 otimizes &missing == 0 away, so we use + 2 instead now.
?X: The GNU folks like to do weird things, don't they? -- RAM, 2004-06-05
?X:
echo "extern char 1tdc; int main() { return &1tc + 2; }" > t.c;
if $cc $ccflags $ldflags -o t t.c $libs >/dev/null 2>&1;
then tval=true;
else tval=false;
fi;
$rm -f t t.c;;
esac;;
*)
case "$tval" in
$define) tval=true;;
*) tval=false;;
esac;;
esac;
eval "$2=$tval"

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Csym.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: rootid.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```



```

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: rootid.U,v $
?RCS: Revision 3.0.1.1 1995/01/30 14:45:36 ram
?RCS: patch49: now only prints a single empty line when outputting something
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:42 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:rootid: sed
?MAKE: -pick add $@ %<
?S:rootid:
?S: This variable contains the eventual value of the ROOTID symbol,
?S: which is the uid of root.
?S:.
?C:ROOTID:
?C: This symbol contains the uid of root, normally
0.
?C:.
?H:#define ROOTID $rootid /**/
?H:.
: determine root id
rootid=`$sed -e "/^root:/{s/^[^:]*:[^:]*:([[:^:]]*).*$"/\1/" -e "q" -e "}" -e "d" </etc/passwd`
case "$rootid" in
") rootid=0 ;;
*) echo " "; echo "Root uid = $rootid" >&4 ;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/rootid.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_uwait.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
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?RCS: of the source tree for dist 4.0.

```

?RCS:  
?RCS: \$Log: d\_uwait.U,v \$  
?RCS: Revision 3.0.1.1 1994/01/24 14:10:49 ram  
?RCS: patch16: added knowledge about wait3()  
?RCS: patch16: revised 'union wait' look-up algorithm  
?RCS: patch16: fixed make dependency line accordingly  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:07:54 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_uwait d\_uwait3: cat contains cppstdin cppminus +cppflags rm \  
Setvar Findhdr  
?MAKE: -pick add \$@ %<  
?S:d\_uwait:  
?S: This symbol  
conditionally defines UNION\_WAIT which indicates to the C  
?S: program that argument for the wait() system call should be declared as  
?S: 'union wait status' instead of 'int status'.  
?S:.  
?S:d\_uwait3:  
?S: This symbol conditionally defines UNION\_WAIT3 which indicates to the C  
?S: program that the first argument for the wait3() system call should be  
?S: declared as 'union wait status' instead of 'int status'.  
?S:.  
?C:UNION\_WAIT:  
?C: This symbol if defined indicates to the C program that the argument  
?C: for the wait() system call should be declared as 'union wait status'  
?C: instead of 'int status'. You probably need to include <sys/wait.h>  
?C: in the former case (see I\_SYSWAIT).  
?C:.  
?C:UNION\_WAIT3:  
?C: This symbol if defined indicates to the C program that the first argument  
?C: for the wait3() system call should be declared as 'union wait status'  
?C: instead of 'int status'. You probably need to include <sys/wait.h>  
?C: in the former case (see I\_SYSWAIT). It seems safe to assume that  
the  
?C: same rule applies to the second parameter of wait4().  
?C:.  
?H:#\$d\_uwait UNION\_WAIT /\*\*/  
?H:#\$d\_uwait3 UNION\_WAIT3 /\*\*/  
?H:.  
?T:val2 flags f also  
?LINT:set d\_uwait d\_uwait3  
: see if union wait is available  
echo " "  
?X:  
?X: Unfortunately, we can't just grep <sys/wait.h> for "union wait" because  
?X: some weird systems (did I hear HP-UX?) define union wait only when \_BSD

?X: is defined. The same thing happens on OSF/1, who is pushing weirdness to  
?X: its limits by requiring wait() to use (int \*) but wait3() to use  
?X: (union wait \*), unless \_BSD is defined and -lbsd is used, in which case  
?X: wait() also expects (union wait \*). Aaargh!--RAM

?X:

```
set X $cpflags
shift
flags="
also="
for f in $*; do
 case "$f" in
 NO_PROTO) ;;
 *) flags="$flags $f";;
 esac
done
$cat `./findhdr sys/wait.h` /dev/null | \
 $cpstdin $flags $cpminus >wait.out 2>/dev/null
if $contains 'union.*wait.*{' wait.out >/dev/null 2>&1 ; then
 echo "Looks like your <sys/wait.h> knows about 'union wait'..."
 >&4
 val="$define"
 @if UNION_WAIT
 also='also '
 if $contains 'extern.*wait[]*([]*int' wait.out >/dev/null 2>&1
 then
 echo "But wait() seems to expect an 'int' pointer (POSIX way)." >&4
 val="$undef"
 also="
 elif $contains 'extern.*wait[]*([]*union' wait.out >/dev/null 2>&1
 then
 echo "And indeed wait() expects an 'union wait' pointer (BSD way)." >&4
 else
 echo "So we'll use that for wait()." >&4
 fi
 @end
 @if UNION_WAIT3 || d_uwait3
 val2="$define"
 @end
 @if UNION_WAIT3
 if $contains 'extern.*wait3[]*([]*int' wait.out >/dev/null 2>&1
 then
 echo "However wait3() seems to expect an 'int' pointer, weird." >&4
 val2="$undef"
 elif $contains 'extern.*wait3[]*([]*union' wait.out >/dev/null 2>&1
 then
 echo "And wait3() ${also} expects an 'union wait' pointer, fine." >&4
 else
 echo "As expected, wait3() ${also} uses an 'union wait' pointer." >&4
```

```

fi
@end
else
echo "No trace of 'union wait' in <sys/wait.h>..." >&4
val="$undef"
@if UNION_WAIT && UNION_WAIT3
echo
"Both wait() and wait3() will use a plain 'int' pointer then." >&4
@elseif UNION_WAIT
echo "Your wait() should be happy with a plain 'int' pointer." >&4
@elseif UNION_WAIT3
echo "Your wait3() should be happy with a plain 'int' pointer." >&4
@end
fi
set d_uwait
eval $setvar
@if UNION_WAIT3 || d_uwait3
val="$val2"; set d_uwait3
eval $setvar
@end
$rm -f wait.out

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_uwait.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Myread.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Myread.U,v \$

?RCS: Revision 3.0.1.6 1997/02/28 15:05:39 ram

?RCS: patch61: myread script now starts with a "startsh"

?RCS: patch61: miscellaneous fixes

?RCS:

?RCS: Revision 3.0.1.5 1995/01/11 15:14:22 ram

?RCS: patch45: added & escape allowing user to turn on -d from the prompt

?RCS:

?RCS: Revision 3.0.1.4 1994/10/31 09:48:04 ram

?RCS: patch44: added Options to the MAKE line since it's no longer in Init.U

?RCS:

?RCS: Revision 3.0.1.3 1994/10/29  
 15:56:20 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:

?RCS: Revision 3.0.1.2 1993/08/30 08:57:59 ram

?RCS: patch8: added new visible 'nostick' symbol, mainly for Finish.U

?RCS:

?RCS: Revision 3.0.1.1 1993/08/27 14:39:20 ram

?RCS: patch7: now sticks to the question when no default and empty answer

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:08 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit produces a bit of shell code that must be dotted in in order

?X: to do a read. It allows for shell escapes, default assignment and

?X: parameter evaluation.

?X:

?X: To use this unit, \$rp and \$dflt must hold the question and the

?X: default answer. The question will be printed by the script itself.

?X: Neither \$rp nor \$dflt is altered by the script.

?X:

?X: The myread script will stick to the question if no default is proposed

?X: and the user answer is empty, which prevents mistakes. However, at the

?X: end of Configure, there is an exception

to this rule (Finish.U) where we

?X: set nostick to a non-empty value to allow the Return key to play its role!

?X:

?MAKE:Myread: Options startsh n c trnl

?MAKE: -pick add \$@ %<

?V:ans:dflt rp nostick

?F:./myread

?T:COLUMNS xxxm rp dflt answ aok myecho

?LINT:change fastread

?X: Some shells (Ultrix) do not understand \${COLUMNS:-80}, sigh!

: compute the number of columns on the terminal for proper question formatting

case "\$COLUMNS" in

") COLUMNS='80';;

esac

: set up the echo used in my read

?X:

?X: This variable is intended to be eval'ed. It will echo the two

?X: variables \$rp and \$dflt (provided this latter has a non null value).

?X: It is mainly used by the myread script to echo the questions.

?X:

?X: The \$n and \$c below are substituted before Loc does its silly echo check

?X: so don't put a \$ on the echo below so we get builtin, even if \$echo is

?X: pointing to /bin/echo.

?X:

```
myecho="case \"\$xxm\" in
*) echo $n \"\$rp $c\" >&4;;
*) case \"\$rp\" in
*) echo $n \"[\$xxm] $c\";;
*)
if
test `echo \"\$rp [\$xxm] \" | wc -c` -ge $COLUMNS; then
echo \"\$rp\" >&4
echo $n \"[\$xxm] $c\" >&4
else
echo $n \"\$rp [\$xxm] $c\" >&4
fi
;;
esac;;
esac"
```

: now set up to do reads with possible shell escape and default assignment

```
cat <<EOESC >myread
```

```
$startsh
```

?X:

?X: Save value of default -- do not alter original in case of eval

?X:

```
xxm=\$dflt
```

```
$myecho
```

?X:

?X: If there is no default, then stop, regardless of the value in fastread.

?X: In silent mode, no new-line is to be echoed if the question is empty,

?X: since this is used to wait for the "return" key.

?X:

```
ans=''
```

```
case \"\$fastread\" in
```

```
yes) case \"\$dflt\" in
```

```
) ;;
```

```
*) ans=";
```

```
case \"\$silent-\"$rp\" in
```

```
true-) ;;
```

```
*) echo " " >&4;;
```

```
esac;;
```

```
esac;;
```

```
*) case \"\$silent\" in
```

```
true) case \"\$rp\" in
```

```
) ans="";;
```

```
esac;;
```

```
esac;;
```

```
esac
```

```
while expr "X\$ans" : "X!" >/dev/null; do
```

read answ

?X:

?X: Run 'eval' on the answer, in order to do variable substitution, in case

?X: the user types \$HOME or \$WHATEVER.

Variables must be evaluated now.

?X: Typing '\$HOME' won't currently prevent from substitution -- use '\$HOME'

?X: The \$1 .. \$9 and \$\*, as well as \$@, are available to refer to the

?X: default value.

?X:

```
set x \"$xxxm
```

```
shift
```

```
aok="; eval "ans=\\\"$answ\\\"\" && aok=y
```

```
case \"$answ\" in
```

?X:

?X: Use "!" and not a plain ! because of a bug in BSD 4.4 shell

?X: (reported by Wayne Davison)

?X: We must handle the shell escapes before dealing with possible variable

?X: substitution, since the shell we're launching in that case will be able

?X: to do it as well as we can -- RAM, 15/03/96

?X

```
"!")
```

```
sh 1>&4
```

```
echo " "
```

```
$myecho
```

```
::
```

```
!*)
```

```
set x `expr "X$ans" : "X!(.*)\$" `
```

```
shift
```

```
sh 1>&4 -c \"$*"
```

```
echo " "
```

```
$myecho
```

```
::
```

```
\"$ans")
```

```
case \"$ans\" in
```

?X:

?X: Answers starting with & are hooks allowing to dynamically turn on/off

?X: some Configure options. That's for the future. -- RAM, 09/01/95

?X: Today, we only recognize '& -d' to mean 'go on as if Configure -d, which

?X: is a hardwired

behaviour compatible with our general scheme.

?X:

```
\\&*)
```

```
set x `expr "X$ans" : "X&(.*?)\$" `
```

```
shift
```

```
case \"$1\" in
```

```
-d)
```

```
fastread=yes
```

```
echo "(OK, I'll run with -d after this question.)" >&4
```

```

;;
-*)
echo "*** Sorry, \${1} not supported yet." >&4
;;
esac
$myecho
ans=!
;;
esac;;
*)
case "\$aok" in
y)
echo "*** Substitution done -- please confirm."
xxxm="\$ans"
ans=\`echo $n "\$ans$c" | tr 'trnl' ' '\`
xxxm="\$ans"
ans=!
;;
*)
echo "*** Error -- try again."
ans=!
;;
esac
$myecho
;;
esac
?X: Stick in myread if no default answer and nothing was answered
case "\$ans\$xxxm\$nostick" in
")
ans=!
$myecho
;;
esac
done
case "\$ans" in
") ans="\$xxxm";;
esac
EOSC

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Myread.U
```

No license file was found, but licenses were detected in source scan.

```
$Id: errnolist.sh,v 3.0.1.1 1994/01/24 14:00:00 ram Exp ram $
```

```
#
```

```
Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
#
```



```

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You may reuse parts of this distribution only within the terms of
that same Artistic Licence; a copy of which may be found at the root
of the source tree for dist 4.0.
#
Original Author: Harlan Stenn <harlan@mumps.pfcs.com>
#
$Log: errnolist.sh,v $
Revision 3.0.1.1 1994/01/24 14:00:00 ram
patch16: changed top ln-style config.sh lookup into test-style one
#
Revision 3.0 1993/08/18 12:04:36 ram
Baseline for dist 3.0 netwide release.
#

```

```

case $CONFIG in
")
if test -f config.sh; then TOP=.;
elif test -f ../config.sh; then TOP=..;
elif test -f ../../config.sh; then TOP=../..;
elif test -f ../../../config.sh; then TOP=../../../../..;
elif
test -f ../../../../config.sh; then TOP=../../../../..;
else
echo "Can't find config.sh."; exit 1
fi
. $TOP/config.sh
;;
esac
case "$0" in
/) cd `expr X$0 : 'X\(.*/\)'` ;;
esac
case "$serrnolistic" in
") ;;
*)
echo "Making $serrnolistic ..."
awk -f errnolist.a < /usr/include/sys/errno.h > $serrnolistic
echo "It would be a good idea to make sure that $serrnolistic is correct."
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/lib/errnolist.SH

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2014, H.Merijn Brand  
?RCS:  
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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_backtrace.U,v \$  
?RCS:  
?MAKE:d\_backtrace: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_backtrace:  
?S: This variable conditionally defines the HAS\_BACKTRACE symbol, which  
?S: indicates to the C program that the backtrace() routine is available  
?S: to get a stack trace.  
?S:.  
?C:HAS\_BACKTRACE:  
?C: This symbol, if defined, indicates that the backtrace() routine is  
?C: available to get a stack trace. The <execinfo.h> header must be  
?C: included to use this routine.  
?C:.  
?H:#\$d\_backtrace HAS\_BACKTRACE /\*\*/  
?H:.  
?LINT:set d\_backtrace  
:  
see if backtrace exists  
set backtrace d\_backtrace  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_backtrace.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_ctermid\_r.U,v 0RCS:  
?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.  
?RCS:  
?MAKE:d\_ctermid\_r ctermid\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
usethreads extern\_C  
?MAKE: -pick add \$@ %<  
?S:d\_ctermid\_r:  
?S: This variable conditionally defines the HAS\_CTERMID\_R symbol,

?S: which indicates to the C program that the ctermid\_r()  
?S: routine is available.  
?S:.  
?S:ctermid\_r\_proto:  
?S: This variable encodes the prototype of ctermid\_r.  
?S: It is zero if d\_ctermid\_r is undef, and one of the  
?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_ctermid\_r  
?S: is defined.  
?S:.  
?C:HAS\_CTERMID\_R:  
?C: This symbol, if defined, indicates that the ctermid\_r routine  
?C: is available to ctermid re-entrantly.  
?C:.  
?C:CTERMID\_R\_PROTO:  
?C: This  
symbol encodes the prototype of ctermid\_r.  
?C: It is zero if d\_ctermid\_r is undef, and one of the  
?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_ctermid\_r  
?C: is defined.  
?C:.  
?H:#\$d\_ctermid\_r HAS\_CTERMID\_R /\*\*/  
?H:#define CTERMID\_R\_PROTO \$ctermid\_r\_proto /\*\*/  
?H:.  
?T:try hdrs d\_ctermid\_r\_proto  
: see if ctermid\_r exists  
set ctermid\_r d\_ctermid\_r  
eval \$inlibc  
case "\$d\_ctermid\_r" in  
"\$define")  
hdrs="\$i\_systypes sys/types.h define stdio.h "  
case "\$d\_ctermid\_r\_proto:\$usetthreads" in  
":define") d\_ctermid\_r\_proto=define  
set d\_ctermid\_r\_proto ctermid\_r \$hdrs  
eval \$hasproto ;;  
\*) ;;  
esac  
case "\$d\_ctermid\_r\_proto" in  
define)  
case "\$ctermid\_r\_proto" in  
"|0) try='char\* ctermid\_r(char\*);'  
./prochck "\$extern\_C \$try" \$hdrs && ctermid\_r\_proto=B\_B ;;  
esac  
case "\$ctermid\_r\_proto" in  
"|0) d\_ctermid\_r=undef  
ctermid\_r\_proto=0  
echo "Disabling ctermid\_r, cannot determine prototype." >&4 ;;  
\* ) case "\$ctermid\_r\_proto" in  
REENTRANT\_PROTO\*) ;;

```

*)
ctermid_r_proto="REENTRANT_PROTO_${ctermid_r_proto}" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "ctermid_r has no prototype, not using it." >&4 ;;
esac
d_ctermid_r=undef
ctermid_r_proto=0
;;
esac
;;
*) ctermid_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_ctermid_r.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: afs.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: afs.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:23:06 ram

?RCS: patch61: can now explicitly tell Configure whether AFS is running

?RCS:

?RCS: Revision 3.0.1.1 1993/08/24 12:24:43 ram

?RCS: patch3: created

?RCS:

?MAKE:afs afsroot: test

?MAKE: -pick add \$@ %<

?S:afs:

?S: This variable is set to 'true' if AFS (Andrew File System) is used

?S: on the system, 'false' otherwise. It is possible to override this

?S: with a hint value or command line option,

but you'd better know

?S: what you are doing.

?S:  
?S:afsroot:  
?S: This variable is by default set to '/afs'. In the unlikely case  
?S: this is not the correct root, it is possible to override this with  
?S: a hint value or command line option. This will be used in subsequent  
?S: tests for AFSness in the configure and test process.

```
?S:
: allow them to override the AFS root
case "$afsroot" in
") afsroot=/afs ;;
*) afsroot=$afsroot ;;
esac
```

```
: is AFS running?
echo " "
case "$afs" in
$define|true) afs=true ;;
$undef|false) afs=false ;;
*) if $test -d $afsroot; then
 afs=true
 else
 afs=false
 fi
;;
esac
if $afs; then
 echo "AFS may be running... I'll be extra cautious then..." >&4
else
 echo "AFS does not seem to be running..." >&4
fi
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/afs.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: libs.U,v $
?RCS: Revision 3.0.1.6 1997/02/28 16:09:11 ram
```

?RCS: patch61: replaced .a with \$\_a all over the place  
?RCS:  
?RCS: Revision 3.0.1.5 1995/07/25 14:12:05 ram  
?RCS: patch56: now knows about OS/2 platforms  
?RCS:  
?RCS: Revision 3.0.1.4 1994/10/29 16:24:22 ram  
?RCS: patch36: removed old broken thislib/thatlib processing (ADO)  
?RCS:  
?RCS: Revision 3.0.1.3 1994/06/20 07:05:44 ram  
?RCS: patch30: code cleanup with if/elif by ADO and RAM  
?RCS: patch30: undone patch23 for libswanted default  
setting  
?RCS:  
?RCS: Revision 3.0.1.2 1994/05/06 15:08:45 ram  
?RCS: patch23: now includes ordered default libswanted variable (ADO)  
?RCS: patch23: major cleanup for library lookups (ADO)  
?RCS:  
?RCS: Revision 3.0.1.1 1993/08/25 14:02:31 ram  
?RCS: patch6: added default for libs  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:03 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:libs libsfound libsfiles libsdirs libspath libscheck: \  
test cat Myread Oldconfig Loc libpth package xlibpth so \_a \  
+usesocks sed +cc +ccflags +ldflags rm  
?MAKE: -pick add \$@ %<  
?S:libs:  
?S: This variable holds the additional libraries we want to use.  
?S: It is up to the Makefile to deal with it. The list can be empty.  
?S:.  
?S:libsfound:  
?S: This variable holds the full pathnames of the libraries  
?S: we found and accepted.  
?S:.  
?S:libsfiles:  
?S: This variable holds the filenames aka basenames of the libraries  
?S: we found and accepted.  
?S:.  
?S:libsdirs:  
?S: This variable holds the directory  
names aka dirnames of the libraries  
?S: we found and accepted, duplicates are removed.  
?S:.  
?S:libspath:  
?S: This variable holds the directory names probed for libraries.  
?S:.  
?S:libscheck:

?S: This variable is intended to be set by hint files, if needed.

?S: It should contain shell code that will be eval'ed with \$xxx holding

?S: some library file. It may change \$xxx if needed.

?S: For instance, on an Irix platform, you may make sure the right

?S: library file is used depending on the cc command line, so that the

?S: correct library is used depending on the selected ABI (for 32 and

?S: 64-bit compilations).

?S:

?S: Here is an example of code that could be found in a hint file on Irix

?S: when the selected compiler was for 32-bit -- that code is put in the

?S: cc.cbu call-back unit to be invoked AFTER the C compiler and its

?S: flags have been chosen:

?S:

```

?S: libscheck='case "$xxx" in
?S: *.a) /bin/ar p $xxx ` /bin/ar t $xxx | sed q` >$$o;
?S: case "`/usr/bin/file $$o`" in
?S: *N32*)
?S: rm -f $$o ;;
?S: *) rm -f $$o; xxx=/no/n32$xxx ;;
?S: esac ;;
?S: *) case "`/usr/bin/file $xxx`" in
?S: *N32*) ;;
?S: *) xxx=/no/n32$xxx ;;
?S: esac ;;
?S: esac'
?S:.
?D:libs="
?LINT:extern libswanted
?LINT:change libswanted
?INIT:: default library list
?INIT:libswanted="
?X: This order is chosen so that libraries -lndir, -ldir, -lucb, -lbsd,
?X: -lBSD, -lPW, and -lx only get used if there are unresolved
?X: routines at link time. Usually, these are backwards compatability
?X: libraries, and may not be as reliable as the standard c library.
?X:
?X: The -lsocket -linet -lnsl order has been reported to be necessary
?X: for at least one SVR4 implementation.
?X: -lc must proceed -lucb or -lbsd for most Solaris applications.
?X: -lc_s proceeds -lc so we pick up the shared library version, if
?X: it is available.
?X:
?X: The ordering of c, posix, and cposix is a guess and almost
?X: certainly wrong on about half of all systems.
?X:
?X: Set proper libswanted in your private
?X: Myinit.U if needed.
?X:

```

```

?X:: default ordered library list
?X:libswanted='net socket inet bind nsl nm sdbm gdbm ndbm dbm malloc dl'
?X:libswanted="$libswanted dld sun m c_s c posix cposix ndir dir ucb"
?X:libswanted="$libswanted bsd BSD PW x"
?X:
?INIT:: should be set by hint files if needed
?INIT:libscheck=""
?T:xxx yyy thislib thisdir libstyle linkmsg
?F:lt.c lt
: Looking for optional libraries
echo " "
echo "Checking for optional libraries..." >&4
case "$libs" in
'|') dflt="";;
*) dflt="$libs";;
esac
case "$libswanted" in
") libswanted='c_s';;
esac
?X: libsocks has nasty naming scheme.
?X: This does not work if somebody wants SOCKS 4.
case "$susesocks" in
"$define") libswanted="$libswanted socks5 socks5_sh" ;;
esac
?X: Used later for link checks
echo "extern char printf(); int main() { printf(); return 0; }" > lt.c
libsfound=""
libsfiles=""
libsdirs=""
libspath=""
for thisdir in $libpth $xlibpth; do
test -d $thisdir && libspath="$libspath $thisdir"
done
for thislib in $libswanted;
do
for thisdir in $libspath; do
xxx=""
if $test ! -f "$xxx" ; then
xxx=`ls $thisdir/lib$thislib.$so.[0-9]* 2>/dev/null | $sed -n '1p'`
$test -f "$xxx" && eval $libscheck
$test -f "$xxx" && libstyle=shared
fi
if test ! -f "$xxx"; then
xxx=$thisdir/lib$thislib.$so
$test -f "$xxx" && eval $libscheck
$test -f "$xxx" && libstyle=shared
fi
if test ! -f "$xxx"; then

```



```

xxx=$thisdir/lib$thislib$_a
 $test -f "$xxx" && eval $libscheck
$test -f "$xxx" && libstyle=static
fi
if test ! -f "$xxx"; then
xxx=$thisdir/$thislib$_a
 $test -f "$xxx" && eval $libscheck
$test -f "$xxx" && libstyle=static
fi
if test ! -f "$xxx"; then
xxx=$thisdir/lib${thislib}_s$_a
 $test -f "$xxx" && eval $libscheck
$test -f "$xxx" && libstyle=static
$test -f "$xxx" && thislib=${thislib}_s
fi
if test ! -f "$xxx"; then
xxx=$thisdir/Slib$thislib$_a
 $test -f "$xxx" && eval $libscheck
$test
-f "$xxx" && libstyle=static
fi
if $test -f "$xxx"; then
?X:
?X: It is not sufficient to find a .so on the disk. We must make sure
?X: that we can indeed supply the -lfoo line on the cc line to link against
?X: that library. On Linux for instance, a versioned .so will not be
?X: implicitly linked against, whereas it will work fine on Solaris 2.6.
?X: --RAM, 10/10/2003
?X:
if $cc -o lt $ccflags $ldflags lt.c -l$thislib >/dev/null 2>&1;
then
 linkmsg=""
else
 linkmsg=" but I can't link against it"
fi
case "$libstyle" in
shared) echo "Found -l$thislib (shared)$linkmsg." ;;
static) echo "Found -l$thislib$linkmsg." ;;
*) echo "Found -l$thislib ($libstyle)$linkmsg." ;;
esac
case " $dflt " in
" -l$thislib ") ;;
*)
case "$linkmsg" in
")
dflt="$dflt -l$thislib"
libsfound="$libsfound $xxx"
yyy=`basename $xxx`

```

```

libsfiles="$libsfiles $yyy"
yyy=`echo $xxx|sed -e "s%/$yyy\\$%%"`
case " $libsdirs
" in
" $yyy ") ;;
*) libsdirs="$libsdirs $yyy" ;;
esac
;;
esac
;;
esac
break
fi
done
if $test ! -f "$xxx"; then
 echo "No -l$thislib."
fi
done
set X $dflt
shift
dflt="$*"
case "$libs" in
") dflt="$dflt";;
*) dflt="$libs";;
esac
case "$dflt" in
'|') dflt='none';;
esac
$rm -f lt.c lt

```

\$cat <<EOM

In order to compile \$package on your machine, a number of libraries are usually needed. Include any other special libraries here as well.

Say "none" for none. The default list is almost always right.

EOM

```

echo " "
rp="Which libraries to use?"
./myread
case "$ans" in
none) libs='';;
*) libs="$ans";;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/libs.U

```

No license file was found, but licenses were detected in source scan.

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS: Copyright (c) 2019, Karl Williamson

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?MAKE:d\_setlocale d\_setlocale\_accepts\_any\_locale\_name d\_has\_C\_UTF8: cat Compile run rm\_try i\_locale  
i\_wctype d\_towupper

?MAKE: -pick add \$@ %<

?S:d\_has\_C\_UTF8:

?S: This variable is set to either "true" or "false" depending on

?S: whether the compilation system supports the C.UTF-8 locale.

?S:.

?S:d\_setlocale:

?S: This variable conditionally defines HAS\_SETLOCALE if setlocale() is

?S: available to handle locale-specific ctype implementations.

?S:.

?S:d\_setlocale\_accepts\_any\_locale\_name:

?S: This

variable conditionally defines SETLOCALE\_ACCEPTS\_ANY\_LOCALE\_NAME

?S: if setlocale() accepts any locale name.

?S:.

?C:HAS\_SETLOCALE:

?C: This symbol, if defined, indicates that the setlocale routine is

?C: available to handle locale-specific ctype implementations.

?C:.

?C:SETLOCALE\_ACCEPTS\_ANY\_LOCALE\_NAME:

?C: This symbol, if defined, indicates that the setlocale routine is

?C: available and it accepts any input locale name as valid.

?C:.

?H:#\$d\_setlocale HAS\_SETLOCALE /\*\*/

?H:#\$d\_setlocale\_accepts\_any\_locale\_name SETLOCALE\_ACCEPTS\_ANY\_LOCALE\_NAME /\*\*/

?H:.

?F:!try

?T:LC\_CTYPE

: check for setlocale function and behavior

\$cat <<EOM

Checking to see if you have setlocale() and its behavior

EOM

\$cat >try.c <<EOCP

#include <stdlib.h>

#include <string.h>

```

#$i_locale I_LOCALE
#ifdef I_LOCALE
include <locale.h>
#endif
#$i_wctype I_WCTYPE
#ifdef I_WCTYPE
include <wctype.h>
#endif

int main() {
 const char * invalid_name = "\a"; /* This is really invalid! */
 int accepts_any_locale_name
= 0;
 int has_C_UTF8 = 0;
 unsigned char bad_setlocale = 255;

 /* If LC_CTYPE isn't defined the compilation will fail, and locales will be
 * disabled. It's hard to imagine an instance where meaningful locale
 * handling could be done without LC_CTYPE */
 const char * name = setlocale(LC_CTYPE, "C");

 if (name == NULL || strcmp(name, "C") != 0) {
 exit(bad_setlocale);
 }

 name = setlocale(LC_CTYPE, invalid_name);
 if (name != NULL) {

 /* Let it pass if it accepts the name but gives back one of the C
 * locales */
 if (strcmp(name, "C") != 0 && strcmp(name, "C.UTF-8") != 0) {
 accepts_any_locale_name = 1;
 }
 }

 name = setlocale(LC_CTYPE, "C.UTF-8");
 if (name != NULL) {
 unsigned char y_with_diaeresis = ('A' == 193) ? 0xDF : 0xFF;

#$d_towupper HAS_TOWUPPER
#ifdef HAS_TOWUPPER

 /* We assume that if the machine doesn't have the C99 towupper, it
 * doesn't
 have C.UTF-8, even if we successfully changed locales to
 * include it. This seems safer even on platforms that didn't accept
 * the really invalid name */

```

```

 if (towupper(y_with_diaeresis) == 0x178) {
 has_C_UTF8 = 1;
 }

#endif

}

#if 0

/* Currently unused code to determine if LC_ALL with disparate values uses
 * category = value pairs or positional, and to determine the separator
 * between the categories. We could add code so that if the separator were
 * > '9', we subtract 10; similarly for 'Z' and 'z', and then just about
 * every possible ASCII separator would fit in the 5 bits available in the
 * exit code. This would not be true in EBCDIC. And then if LC_ALL is
 * positional, we probably would want to know the order of the categories.
 * Using a file between the C program and the shell script would really be
 * require to do that */
#endif

#ifdef LC_ALL

unsigned char min_separator = ' ' - 1;
unsigned char separator = min_separator;
int uses_name_value_pair_names = 0;

name = setlocale(LC_ALL, "C");
if (name == NULL || strcmp(name, "C") != 0) {
 exit(bad_setlocale);
}

if (has_C_UTF8) {
 char * pos;

 name = setlocale(LC_CTYPE, "C.UTF-8");
 if (name == NULL) {
 exit(bad_setlocale);
 }
 name = setlocale(LC_ALL, NULL);
 if (name == NULL) {
 exit(bad_setlocale);
 }

 pos = strstr(name, "LC_CTYPE" "=C.UTF-8");
 if (pos != NULL) {
 uses_name_value_pair_names = 1;
 if (pos == name) {
 separator = name[sizeof("LC_CTYPE=C.UTF-8") - 1];
 }
 }
}

```

```

 else {
 separator = *(pos - 1);
 }
 }
 else {
 pos = strstr(name, "C.UTF-8");
 if (pos == NULL) {
 /* bad */
 }
 else if (pos == name) {
 separator = name[sizeof("C.UTF-8")
- 1];
 }
 else {
 separator = *(pos - 1);
 }
 }
}

#endif
#endif

exit(0 /* (separator - min_separator) << 3
| uses_name_value_pair_names << 2
*/
| has_C_UTF8 << 1
| accepts_any_locale_name);

}
EOCP
set try
if eval $compile; then
 echo "Your system has setlocale()..." >&4
 $run ./try
 case $? in
 0) echo "and it seems sane" >&4
 d_setlocale="$define"
 d_setlocale_accepts_any_locale_name="$undef"
 d_has_C_UTF8="false"
 ;;
 1) echo "and it seems sane, but accepts any locale name as valid" >&4
 d_setlocale="$define"
 d_setlocale_accepts_any_locale_name="$define"
 d_has_C_UTF8="false"
 ;;
 2) echo "and it seems sane" >&4
 d_setlocale="$define"
 d_setlocale_accepts_any_locale_name="$undef"

```

```

 d_has_C_UTF8="true"

;;
3) echo "and it seems sane, but accepts any locale name as valid" >&4
 d_setlocale="$define"
 d_setlocale_accepts_any_locale_name="$define"
 d_has_C_UTF8="true"
 ;;
*) echo "but it doesn't seem to work, so we won't use it." >&4
 d_setlocale="$undef"
 d_setlocale_accepts_any_locale_name="$undef"
 d_has_C_UTF8="false"
 ;;
esac
else
 echo "your system does not have setlocale()" >&4
 d_setlocale="$undef"
 d_setlocale_accepts_any_locale_name="$undef"
 d_has_C_UTF8="false"
fi
$rm_try

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_setlocale.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: Guess.U,v 3.0.1.5 1995/07/25 13:37:14 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: Guess.U,v $
?RCS: Revision 3.0.1.5 1995/07/25 13:37:14 ram
?RCS: patch56: now knows about OS/2 platforms
?RCS:
?RCS: Revision 3.0.1.4 1994/10/29 15:53:55 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS: patch36: call ./xenix explicitly instead of relying on PATH
?RCS:
?RCS: Revision 3.0.1.3 1993/12/15 08:14:35 ram
?RCS: patch15: variable d_bsd was not always set properly
?RCS:

```

?RCS: Revision 3.0.1.2 1993/08/30 08:57:14 ram

?RCS:  
patch8: fixed comment which wrongly attributed the usrinc symbol

?RCS: patch8: no more ugly messages when no /usr/include/ctype.h

?RCS:  
?RCS: Revision 3.0.1.1 1993/08/27 14:37:37 ram

?RCS: patch7: added support for OSF/1 machines

?RCS:  
?RCS: Revision 3.0 1993/08/18 12:04:57 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:  
?X:  
?X: This unit hazards some guesses as to what the general nature of the system  
?X: is. The information it collects here is used primarily to establish default  
?X: answers to other questions.

?X:  
?MAKE:Guess d\_eunice d\_xenix d\_bsd: cat test echo n c contains \  
rm Loc eunicefix tr sysroot

?MAKE: -pick add \$@ %<

?S:d\_eunice:  
?S: This variable conditionally defines the symbols EUNICE and VAX, which  
?S: alerts the C program that it must deal with idiosyncrasies of VMS.

?S:.  
?S:d\_xenix:  
?S: This variable conditionally defines the symbol XENIX, which alerts  
?S: the C program that it runs under Xenix.

?S:.  
?S:d\_bsd:  
?S: This symbol conditionally defines the  
symbol BSD when running on a  
?S: BSD system.

?S:.  
?C:EUNICE:  
?C: This symbol, if defined, indicates that the program is being compiled  
?C: under the EUNICE package under VMS. The program will need to handle  
?C: things like files that don't go away the first time you unlink them,  
?C: due to version numbering. It will also need to compensate for lack  
?C: of a respectable link() command.

?C:.  
?X: Should we define VMS here? Is Eunice actually used anymore?

?X:?C:VMS:  
?X:?C: This symbol, if defined, indicates that the program is running under  
?X:?C: VMS. It is currently only set in conjunction with the EUNICE symbol.

?X:?C:.  
?C:XENIX:  
?C: This symbol, if defined, indicates that the program is running under  
?C: Xenix (at least 3.0 ?).

?C:.



?X: We don't use BSD in the perl source. It's too vague, and already  
?X: defined in some header files anyway (e.g. NetBSD). This just gives  
?X: us a spurious redefinition error upon compilation.  
?X: --Andy Dougherty Feb 11, 1998

?X: ?C:BSD:

?X:

?C: This symbol, if defined, indicates that the program is running under

?X: ?C: a BSD system.

?X: ?C:.

?H:#\$d\_eunice EUNICE /\*\*/

?X:?H:#\$d\_eunice VMS /\*\*/

?H:#\$d\_xenix XENIX /\*\*/

?X: ?H:#\$d\_bsd BSD /\*\*/

?H:.

?F:./bsd ./usg ./v7 ./osf1 ./eunice ./xenix ./venix ./os2

?T:xxx

: make some quick guesses about what we are up against

echo " "

\$echo \$n "Hmm... \$c"

echo exit 1 >bsd

echo exit 1 >usg

echo exit 1 >v7

echo exit 1 >osf1

echo exit 1 >eunice

echo exit 1 >xenix

echo exit 1 >venix

echo exit 1 >os2

d\_bsd="\$undef"

?X:

?X: Do not use 'usrinc', or we get a circular dependency. because

?X: usrinc is defined in usrinc.U, which relies on us...

?X:

\$cat \$sysroot/usr/include/signal.h \$sysroot/usr/include/sys/signal.h >foo 2>/dev/null

if test -f /osf\_boot || \$contains 'OSF/1' \$sysroot/usr/include/ctype.h >/dev/null 2>&1

then

echo "Looks kind of like an OSF/1 system, but we'll see..."

echo exit 0 >osf1

elif test `echo abc | \$tr a-z A-Z` = Abc ; then

xxx=`./loc addbib blurfl \$pth`

if \$test

-f \$xxx; then

echo "Looks kind of like a USG system with BSD features, but we'll see..."

echo exit 0 >bsd

echo exit 0 >usg

else

if \$contains SIGTSTP foo >/dev/null 2>&1 ; then

echo "Looks kind of like an extended USG system, but we'll see..."

else

```

 echo "Looks kind of like a USG system, but we'll see..."
fi
echo exit 0 >usg
fi
elif $contains SIGTSTP foo >/dev/null 2>&1 ; then
 echo "Looks kind of like a BSD system, but we'll see..."
 d_bsd="$define"
 echo exit 0 >bsd
else
 echo "Looks kind of like a Version 7 system, but we'll see..."
 echo exit 0 >v7
fi
case "$eunicefix" in
unixtovms)
 $cat <<'EOI'
 There is, however, a strange, musty smell in the air that reminds me of
 something...hmm...yes...I've got it...there's a VMS nearby, or I'm a Blit.
 EOI
 echo exit 0 >eunice
 d_eunice="$define"
: it so happens the Eunice I know will not run shell scripts in Unix format
;;
*)
 echo " "
 echo "Congratulations. You aren't running Eunice."
 d_eunice="$undef"
;;
esac
: Detect
OS2. The p_ variable is set above in the Head.U unit.
: Note that this also -- wrongly -- detects e.g. dos-djgpp, which also uses
: semicolon as a patch separator
case "$p_" in
:) ;;
*)
 $cat <<'EOI'
 I have the feeling something is not exactly right, however...don't tell me...
 lemme think...does HAL ring a bell?...no, of course, you're only running OS/2!
 (Or you may be running DOS with DJGPP.)
 EOI
 echo exit 0 >os2
;;
esac
if test -f /xenix; then
 echo "Actually, this looks more like a XENIX system..."
 echo exit 0 >xenix
 d_xenix="$define"
else

```

```

echo " "
echo "It's not Xenix..."
d_xenix="$undef"
fi
chmod +x xenix
$unicefix xenix
if test -f /venix; then
echo "Actually, this looks more like a VENIX system..."
echo exit 0 >venix
else
echo " "
if ./xenix; then
: null
else
echo "Nor is it Venix..."
fi
fi
chmod +x bsd usg v7 osf1 eunice xenix venix os2
$unicefix bsd usg v7 osf1 eunice xenix venix os2
$rm -f foo

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Guess.U
```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_newlocale d\_freelocale d\_uselocale d\_duplocale d\_querylocale i\_xlocale: Inlibc Inhdr

?MAKE: -pick add \$@ %<

?S:d\_newlocale:

?S: This variable conditionally defines the HAS\_NEWLOCALE symbol, which

?S: indicates to the C program that the newlocale() routine is available

?S: to return a new locale object or modify an existing locale object.

?S:.

?S:d\_freelocale:

?S: This variable conditionally defines the HAS\_FREELOCALE symbol, which

?S: indicates to the C program that the freelocale() routine is available

?S: to deallocate the resources associated with a locale object.

?S:.

?S:d\_uselocale:

?S: This variable conditionally defines the HAS\_USELOCALE symbol, which

?S: indicates to the C program that the uselocale() routine is available

?S: to set the current locale

for the calling thread.

?S:.

?S:d\_duplocale:

?S: This variable conditionally defines the HAS\_DUPLOCALE symbol, which  
?S: indicates to the C program that the duplocale() routine is available  
?S: to duplicate a locale object.  
?S:.  
?S:d\_querylocale:  
?S: This variable conditionally defines the HAS\_QUERYLOCALE symbol, which  
?S: indicates to the C program that the querylocale() routine is available  
?S: to return the name of the locale for a category mask.  
?S:.  
?S:i\_xlocale:  
?S: This symbol, if defined, indicates to the C program that it should  
?S: include <xlocale.h> to get uselocale() and its friends  
?S:.  
?C:HAS\_NEWLOCALE:  
?C: This symbol, if defined, indicates that the newlocale routine is  
?C: available to return a new locale object or modify an existing  
?C: locale object.  
?C:.  
?C:HAS\_FREELOCALE:  
?C: This symbol, if defined, indicates that the freelocale routine is  
?C: available to deallocate the resources associated with a locale object.  
?C:.  
?C:HAS\_USELOCALE:  
?C: This symbol, if defined,  
indicates that the uselocale routine is  
?C: available to set the current locale for the calling thread.  
?C:.  
?C:HAS\_DUPLOCALE:  
?C: This symbol, if defined, indicates that the duplocale routine is  
?C: available to duplicate a locale object.  
?C:.  
?C:HAS\_QUERYLOCALE:  
?C: This symbol, if defined, indicates that the querylocale routine is  
?C: available to return the name of the locale for a category mask.  
?C:.  
?C:I\_XLOCALE:  
?C: This symbol, if defined, indicates to the C program that it should  
?C: include <xlocale.h> to get uselocale() and its friends.  
?C:.  
?H:#\$d\_newlocale HAS\_NEWLOCALE /\*\*/  
?H:#\$d\_freelocale HAS\_FREELOCALE /\*\*/  
?H:#\$d\_uselocale HAS\_USELOCALE /\*\*/  
?H:#\$d\_duplocale HAS\_DUPLOCALE /\*\*/  
?H:#\$d\_querylocale HAS\_QUERYLOCALE /\*\*/  
?H:#\$i\_xlocale I\_XLOCALE /\*\*/  
?H:.  
?LINT:set i\_xlocale  
?LINT:set d\_newlocale

```
?LINT:set d_freelocale
?LINT:set d_uselocale
?LINT:set d_duplocale
?LINT:set d_querylocale
: see if this is an xlocale.h system
set xlocale.h i_xlocale
eval $inhdr
```

```
:
: see if newlocale exists
set newlocale d_newlocale
eval $inlibc
```

```
: see if freelocale exists
set freelocale d_freelocale
eval $inlibc
```

```
: see if uselocale exists
set uselocale d_uselocale
eval $inlibc
```

```
: see if duplocale exists
set duplocale d_duplocale
eval $inlibc
```

```
: see if querylocale exists
set querylocale d_querylocale
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_newlocale.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: alignbytes.U,v 3.0.1.2 1994/10/29 16:02:28 ram Exp $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: alignbytes.U,v $
```

```
?RCS: Revision 3.0.1.2 1994/10/29 16:02:28 ram
```

```
?RCS: patch36: added ?F: line for metalint file checking
```

```
?RCS:
```

```

?RCS: Revision 3.0.1.1 1994/05/06 14:25:20 ram
?RCS: patch23: avoid ALIGNBYTES, since it conflicts on NetBSD
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:23 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:alignbytes: Myread Compile cat rm_try multiarch run test nvtype
?MAKE: -pick add $@ %<
?S:alignbytes:
?S: This
 variable holds the number of bytes required to align a
?S: double-- or a long double when applicable. Usual values are
?S: 2, 4 and 8. The default is eight, for safety.
?S:.
?X: This used to be called ALIGNBYTES, but that conflicts with
?X: <machines/param.h> in NetBSD.
?C:MEM_ALIGNBYTES (ALIGNBYTES):
?C: This symbol contains the number of bytes required to align a
?C: double, or a long double when applicable. Usual values are 2,
?C: 4 and 8. The default is eight, for safety. For cross-compiling
?C: or multiarch support, Configure will set a minimum of 8.
?C:.
?H:%<:#define MEM_ALIGNBYTES $alignbytes
?H:.
?F:!try
: check for alignment requirements
echo " "
case "$alignbytes" in
 *) echo "Checking alignment constraints..." >&4
 $cat >try.c <<EOCP
#include <stdio.h>
struct foobar {
 char foo;
 $nvtype bar;
} try_algn;
int main()
{
 printf("%d\n", (int)((char *)&try_algn.bar - (char *)&try_algn.foo));
 return(0);
}
EOCP
set try
if eval $compile_ok; then
 dflt=`$run
./try`
else
 dflt='8'
 echo "(I can't seem to compile the test program...)"

```

```

fi
case "$multiarch" in
 $define)
 : The usual safe value is 8, but Darwin with -Duselongdouble
 : needs 16. Hence, we will take 8 as a minimum, but allow
 : Configure to pick a larger value if needed.
 if $test "$dflt" -lt 8; then
 dflt='8'
 echo "Setting alignment to 8 for multiarch support.">&4
 fi
 ;;
esac
;;
*) dflt="$alignbytes"
;;
esac
rp="Doubles must be aligned on a how-many-byte boundary?"
./myread
alignbytes="$ans"
$rm_try

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/alignbytes.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Protochk.U,v \$

?RCS:

?RCS: Copyright (c) 1998 Andy Dougherty

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?X: This unit generates a ./protochk script that is used internally

?X: by Configure to check if this system will accept a particular

?X: prototype.

?X:

?X: To use it, say something like:

?X: hdrs="\$define sys/types.h

?X: \$i\_system sys/time.h

?X: \$i\_sysselect sys/select.h

?X: \$d\_socket sys/socket.h"

?X: \$xxx='fd\_set \*'

?X: try='extern int select \_((int, \$xxx, \$xxx, \$xxx, struct timeval \*));'

?X: if ./protochk "\$try" \$hdrs; then

?X: echo "Your system accepts \$xxx for the arguments to select."

?X: fi

?X: (Of course select is harder, since the first arg can be int,

?X: size\_t, or unsigned long, and the last arg may or may not have a  
?X: 'const' before the 'struct timeval' :-(. Also SunOS  
4.1.3 doesn't  
?X: provide a select prototype so the compiler accepts anything :-).  
?X:  
?X: The C compiler on QNX warns about invalid pointer types, but  
?X: still exits with a 0 exit status, so it's not much help here.  
?X: (It does correctly detect incorrect non-pointer arguments).  
?X: Still, since QNX is a POSIX-ish system, just make your first  
?X: a POSIX-ish one, and QNX will probably accept it.  
?X:  
?X: For determining argument types, your compiler must support  
?X: prototypes, and the header files must use them. Determining  
?X: return types, however, is easier. Just give an ridiculous  
?X: return type, something like  
?X: ./protochk 'extern int atof\_((void));' \$i\_stdlib stdlib.h  
?X: that should surely fail if atof() is defined in <stdlib.h>  
?X:  
?X: There is also an 'escape' hatch built in. If you have a pair  
?X: of args 'literal 'stuff' then 'stuff' gets included literally  
?X: into the test program. This could be useful for doing something  
?X: like  
?X: hdrs="\$define stdio.h  
?X: \$define  
sys/types.h"  
?X: ./protochk 'extern int fsetpos(FILE \*, Fpos\_t);' \$args \  
?X: 'literal' '#define Fpos\_t long long'  
?X: but you have to be really careful about the spaces in "literal".  
?X:  
?X: Andy Dougherty Feb. 1998  
?MAKE:Protochk: cat rm\_try startsh eunicefix +cc +optimize +ccflags \  
i\_thread usethreads  
?MAKE: -pick add \$@ %<  
?F:./protochk  
?X: Comfort metalint. All these are actually used in the protochk script.  
?T:foo status pthread\_h\_done  
?LINT: change cc optimize ccflags define rm\_try  
?LINT: extern pthread\_h\_first  
?LINT: change pthread\_h\_first  
?LINT: change usethreads  
?LINT: change i\_thread  
: define a function to check prototypes  
\$cat > protochk <<EOSH  
\$startsh  
cc="\$cc"  
optimize="\$optimize"  
ccflags="\$ccflags"  
define="\$define"



```
rm_try="$rm_try"
usethreads=$usethreads
i_pthread=$i_pthread
pthread_h_first=$pthread_h_first
EOSH
```

```
$cat >> protochk <<'EOSH'
```

```
$rm_try
foo="$1"
shift
while test $# -ge 2; do
 case "$1" in
 $define) echo "#include <$2>" >> try.c ;;
 literal)
 echo "$2" >> try.c ;;
 esac
 # Extra magic for the benefit of systems that need pthread.h
 # to be included early to correctly detect threadsafe functions.
 # Such functions must guarantee themselves, though, that the usethreads
 # and i_pthread have been defined, before calling protochk.
 if test "$usethreads" = "$define" -a "$i_pthread" = "$define" -a "$pthread_h_first" = "$define" -a
"$pthread_h_done" = ""; then
 echo "#include <pthread.h>" >> try.c
 pthread_h_done=yes
 fi
 shift 2
 done
 cat >> try.c <<'EOCP'
 #define _(args) args
 EOCP
 echo "$foo" >> try.c
 ?X: Just so we have something to compile.
 echo 'int no_real_function_has_this_name _((void)) { return 0; }' >> try.c
 $cc $optimize $ccflags -c try.c > /dev/null 2>&1
 status=$?
 $rm_try
 exit $status
 EOSH
 chmod +x protochk
 $unicefix protochk
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/protos/Protochk.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_memchr.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:06:32 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_memchr: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_memchr:  
?S: This variable conditionally defines the HAS\_MEMCHR symbol, which  
?S: indicates to the C program that the memchr() routine is available  
?S: to scan a block of memory for a character.  
?S:.  
?C:HAS\_MEMCHR:  
?C: This symbol, if defined, indicates that the memchr routine is available  
?C: to scan a block of memory for a character.  
If undefined, roll your own.  
?C:.  
?H:#\$d\_memchr HAS\_MEMCHR /\*\*/  
?H:.  
?LINT:set d\_memchr  
: see if memchr exists  
set memchr d\_memchr  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_memchr.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_access.U,v \$

```

?RCS: Revision 3.0 1993/08/18 12:05:42 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_access: test +cc cat +cppflags h_fcntl h_sysfile rm Inlibc Findhdr
?MAKE: -pick add $@ %<
?S:d_access:
?S: This variable conditionally defines HAS_ACCESS if the access() system
?S: call is available to check for access permissions using real IDs.
?S:.
?C:HAS_ACCESS:
?C: This manifest constant lets the C program know that the access()
?C: system call is available to check for accessibility
using real UID/GID.
?C: (always present on UNIX.)
?C:.
?H:#$d_access HAS_ACCESS /**/
?H:.
?W:%<:R_OK W_OK X_OK F_OK
?LINT:set d_access
?LINT:change h_fcntl h_sysfile
: access call always available on UNIX
set access d_access
eval $inlibc

: locate the flags for 'access()'
case "$d_access" in
"$define")
echo " "
$cat >access.c <<'EOCP'
#include <sys/types.h>
#ifdef I_FCNTL
#include <fcntl.h>
#endif
#ifdef I_SYS_FILE
#include <sys/file.h>
#endif
#ifdef I_UNISTD
#include <unistd.h>
#endif
int main() {
exit(R_OK);
}
EOCP
: check sys/file.h first, no particular reason here
if $test `./findhdr sys/file.h` && \
$cc -o access $cppflags -DI_SYS_FILE access.c >/dev/null 2>&1 ; then
h_sysfile=true;
echo "<sys/file.h> defines the *_OK access constants." >&4

```

```

elif $test `./findhdr fcntl.h` && \
 $cc -o access $cppflags -DI_FCNTL access.c >/dev/null 2>&1 ; then
 h_fcntl=true;
 echo "<fcntl.h> defines the *_OK access constants." >&4
@if I_UNISTD
elif $test `./findhdr unistd.h`
&& \
 $cc -o access $cppflags -DI_UNISTD access.c >/dev/null 2>&1 ; then
 echo "<unistd.h> defines the *_OK access constants." >&4
@end
else
 echo "I can't find the four *_OK access constants--I'll use mine." >&4
fi
;;
esac
$rm -f access*

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_access.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: install.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

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?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: install.U,v \$

?RCS: Revision 3.0.1.2 1995/09/25 09:16:37 ram

?RCS: patch59: all possible install programs are now looked for

?RCS:

?RCS: Revision 3.0.1.1 1995/01/11 15:30:41 ram

?RCS: patch45: created

?RCS:

?MAKE:install installdir: Loc Oldconfig Getfile cat test startsh rm +cc \  
eunicefix package contains mkdir echo n c

?MAKE: -pick add \$@ %<

?S:install:

?S: This variable contains the name of an install program that can accept

?S: BSD-style arguments.

It must correctly support -c, -s, and -m at least.

?S: It is a fully qualified pathname when found. If you have a local

?S: install.SH file at the root directory of your package, it is assumed to

```

?S: be the default script emulating a BSD install and the variable will be
?S: set to ./install. Otherwise, it is set to plain 'install', relying on
?S: the user's PATH to perform miracles.
?S:.
?S:installdir:
?S: This variable contains the name of a program that can install nested
?S: directories. Often set to 'mkdir -p', it can also be 'install -d' if
?S: you have such a beast and lack the former. If you have an install.SH
?S: file at the root directory of your package, it will be used in last
?S: resort, setting the variable to './install -d'. Otherwise, it is set to
?S: plain 'mkdir', and cross your fingers!
?S:.
?T:dir file tryit prog creatdir either
?F:!tryinst
: locate a BSD compatible install program
echo " "
echo "Looking for a BSD-compatible install program..." >&4
@if installdir
creatdir="
@end
case
"$install" in
")
tryit="
for dir in $pth; do
for file in ginstall installbsd scoinst install; do
if $test -f $dir/$file; then
tryit="$stryit $dir/$file"
fi
done
done
$cat >try.c <<EOC
int main()
{
printf("OK\n");
exit(0);
}
EOC
if $cc -o try try.c >/dev/null 2>&1; then
cp try try.ns
strip try >/dev/null 2>&1
else
echo "(I can't seem to compile a trivial C program -- bypassing.)"
echo "try" >try
cp try try.ns
fi
$cat >tryinst <<EOS
$startsh

```

```

$rm -rf foo d
@if installdir
\ $1 -d foo/bar
@end
$mkdir d
\ $1 -c -m 764 try.ns d
\ $1 -c -s -m 642 try.ns d/try
EOS
chmod +x tryinst
$eunicefix tryinst
dflt=""
either=""
for prog in $stryit; do
 $echo $n "Checking $prog... $c"
 ./tryinst $prog >/dev/null 2>&1
@if installdir
 if $test -d foo/bar; then
 creatdir="$prog -d"
 fi
@end
 (ls -l d/try >try.ls; ls -l d/try.ns >tryno.ls) 2>/dev/null
 if (cmp -s d/try try && cmp -s d/try.ns try.ns && \
 $contains 'rwxrw-r--' tryno.ls && \
 \
 $contains 'rw-r---w-' try.ls) >/dev/null 2>&1
 then
 dflt="$prog"
 echo "ok, that will do."
 break
 fi
 echo "not good$either."
 either=' either'
 $rm -f try*.ls
done
$rm -rf foo d tryinst try try*.ls try.*
case "$dflt" in
 ")
@if {test -f ../install.SH}
 echo "Hopefully, $package comes with its own install script!"
 dflt='./install'
@else
 dflt='install'
@end
 ;;
esac
 ;;
*) dflt="$install";;
esac

```

\$cat <<EOM

I will be requiring a BSD-compatible install program (one that allows options like -s to strip executables or -m to specify a file mode) to install \$package.

If the question below contains a fully qualified default path, then it is probably ok. If it is an unqualified name such as 'install', then it means I was unable to find out a good install program I could use. If

```
@if {test -f ../install.SH}
```

you know of one, please tell me about it. If the default is './install', then I shall be using the install script supplied with \$package.

```
@else
```

you know of one,

please tell me about it.

```
@end
```

EOM

```
@if {test -f ../install.SH}
```

```
fn='/fe~(install,./install)'
```

```
@else
```

```
fn='/fe~(install)'
```

```
@end
```

```
rp="Which install program shall I use?"
```

```
./getfile
```

```
install="$ans"
```

```
@if installdir
```

```
: how can we create nested directories?
```

```
echo " "
```

```
echo "Ok, let's see how we can create nested directories..." >&4
```

```
case "$installdir" in
```

```
")
```

```
?X: First time, maybe we already found out a working one in $creatdir above...
```

```
?X: Prefer "mkdir -p" because of bugs in GNU install when not running as root
```

```
$mkdir -p foo/bar >/dev/null 2>&1
```

```
if $test -d foo/bar; then
```

```
echo "Great, we can build them using 'mkdir -p'."
```

```
creatdir='mkdir -p'
```

```
else
```

```
case "$creatdir" in
```

```
")
```

```
if eval "$install -d foo/bar"; $test -d foo/bar; then
```

```
creatdir="install -d"
```

```
echo "It looks like '$creatdir' will do it for us."
```

```
fi
```

```
::
```

```
*)
```

```

eval "$creatdir foo/bar" >/dev/null 2>&1
if $test -d foo/bar; then
 echo "Ah! We can use 'creatdir' to do just that."
else
 creatdir="
fi
;;
esac
fi
$rm
-rf foo
case "$creatdir" in
")
 echo "Heck! Another ancient system lacking the comfort of modern ones!"
@if { test -f ../install.SH}
 echo "You can thank $package for bringing you its own install script!"
 installdir='./install -d'
@else
 echo "We have no choice but to use plain old 'mkdir' -- wish me luck!"
 installdir=mkdir
@end
;;
*) installdir="$creatdir";;
esac
;;
*) echo "As you already told me, '$installdir' should work.";;
esac

@end

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/install.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_time.U,v \$

?RCS: Revision 3.0.1.2 1995/07/25 14:07:43 ram

?RCS: patch56: typo fix, sytem -> system



```

?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 16:16:38 ram
?RCS: patch36: now uses new Typedef unit to compute type information (ADO)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:07:45 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X: Maybe <sys/types.h> should be included?
?X:INC: i_systypes
?MAKE:d_time timetype: Csym Setvar Findhdr Myread Typedef
?MAKE: -pick add $@ %<
?S:d_time:
?S: This
 variable conditionally defines the HAS_TIME symbol, which indicates
?S: that the time() routine exists. The time() routine is normally
?S: provided on UNIX systems.
?S:.
?S:timetype:
?S: This variable holds the type returned by time(). It can be long,
?S: or time_t on BSD sites (in which case <sys/types.h> should be
?S: included). Anyway, the type Time_t should be used.
?S:.
?C:HAS_TIME (TIMER):
?C: This symbol, if defined, indicates that the time() routine exists.
?C:.
?C:Time_t (TIMETYPE):
?C: This symbol holds the type returned by time(). It can be long,
?C: or time_t on BSD sites (in which case <sys/types.h> should be
?C: included).
?C:.
?H:#$d_time HAS_TIME /**/
?H:#define Time_t $timetype /* Time type */
?H:.
?LINT:set d_time
: see if time exists
echo " "
if set time val -f d_time; eval $csym; $val; then
echo 'time() found.'>&4
val="$define"
set time_t timetype long stdio.h sys/types.h
eval $typedef
dflt="$timetype"
echo " "
rp="What type is returned by time() on this
system?"
. ./myread
timetype="$ans"
else

```

```
echo 'time() not found, hope that will do.' >&4
val="$undef"
timetype='int';
fi
set d_time
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_time.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_endnetent\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_endnetent\_r endnetent\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
usethreads i\_netdb extern\_C

?MAKE: -pick add \$@ %<

?S:d\_endnetent\_r:

?S: This variable conditionally defines the HAS\_ENDNETENT\_R symbol,

?S: which indicates to the C program that the endnetent\_r()

?S: routine is available.

?S:.

?S:endnetent\_r\_proto:

?S: This variable encodes the prototype of endnetent\_r.

?S: It is zero if d\_endnetent\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_endnetent\_r

?S: is defined.

?S:.

?C:HAS\_ENDNETENT\_R:

?C: This symbol, if defined, indicates that the endnetent\_r routine

?C: is

available to endnetent re-entrantly.

?C:.

?C:ENDNETENT\_R\_PROTO:

?C: This symbol encodes the prototype of endnetent\_r.

?C: It is zero if d\_endnetent\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_endnetent\_r

?C: is defined.

?C:.

?H:#\$d\_endnetent\_r HAS\_ENDNETENT\_R /\*\*/

?H:#define ENDNETENT\_R\_PROTO \$endnetent\_r\_proto /\*\*/

?H:.

```

?T:try hdrs d_endnetent_r_proto
: see if endnetent_r exists
set endnetent_r d_endnetent_r
eval $inlibc
case "$d_endnetent_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_netdb netdb.h"
case "$d_endnetent_r_proto:$usetthreads" in
":define") d_endnetent_r_proto=define
set d_endnetent_r_proto endnetent_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_endnetent_r_proto" in
define)
case "$endnetent_r_proto" in
"|0) try='int endnetent_r(struct netent_data*);'
./protochk "$extern_C $try" $hdrs && endnetent_r_proto=I_D ;;
esac
case "$endnetent_r_proto" in
"|0) try='void endnetent_r(struct netent_data*);'
./protochk
"$extern_C $try" $hdrs && endnetent_r_proto=V_D ;;
esac
case "$endnetent_r_proto" in
"|0) d_endnetent_r=undef
endnetent_r_proto=0
echo "Disabling endnetent_r, cannot determine prototype." >&4 ;;
*) case "$endnetent_r_proto" in
REENTRANT_PROTO*) ;;
*) endnetent_r_proto="REENTRANT_PROTO_$endnetent_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "endnetent_r has no prototype, not using it." >&4 ;;
esac
d_endnetent_r=undef
endnetent_r_proto=0
;;
esac
;;
*) endnetent_r_proto=0
;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_endnetent\_r.U

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:sizesize: Myread Typedef sizetype Compile run i\_stdlib

?MAKE: -pick add \$@ %<

?S:sizesize:

?S: This variable contains the size of a sizetype in bytes.

?S:.

?C:Size\_t\_size:

?C: This symbol holds the size of a Size\_t in bytes.

?C:.

?H:#define Size\_t\_size \$sizesize /\*\*/

?H:.

?T:yyy zzz

?F:!try

: Check size of size

echo " "

case "\$sizetype" in

\*\_t) zzz="\$sizetype" ;;

\*) zzz="filesize" ;;

esac

echo "Checking the size of \$zzz..." >&4

cat > try.c <<EOCP

#include <sys/types.h>

#include <stdio.h>

#\$i\_stdlib I\_STDLIB

#ifdef I\_STDLIB

#include

<stdlib.h>

#endif

int main() {

printf("%d\n", (int)sizeof(\$sizetype));

exit(0);

}

EOCP

set try

if eval \$compile\_ok; then

yyy=`\$run ./try`

```

case "$yyy" in
") sizesize=4
echo "(I can't execute the test program--guessing $sizesize.)" >&4
;;
*) sizesize=$yyy
echo "Your $zzz size is $sizesize bytes."
;;
esac
else
sizesize=4
echo "(I can't compile the test program--guessing $sizesize.)" >&4
fi

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/sizesize.U

```

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```

?RCS: $Id: d_chsize.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_chsize.U,v $
?RCS: Revision 3.0 1993/08/18 12:05:50 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_chsize: Inlibc
?MAKE: -pick add $@ %<
?S:d_chsize:
?S: This variable conditionally defines the CHSIZE symbol, which
?S: indicates to the C program that the chsize() routine is available
?S: to truncate files. You might need a -lx to get this routine.
?S:.
?C:HAS_CHSIZE (CHSIZE):
?C: This symbol, if defined, indicates that the chsize
routine is available
?C: to truncate files. You might need a -lx to get this routine.
?C:.
?H:#$d_chsize HAS_CHSIZE /**/
?H:.
?LINT:set d_chsize
: see if chsize exists

```

```
set chsize d_chsize
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_chsize.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: html1dir.U,v $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1999 Andy Dougherty
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: html1dir.U,v $
```

```
?RCS:
```

```
?MAKE:html1dir html1direxp installhtml1dir: cat Loc Myread \
```

```
package test Getfile Setprefixvar Prefixit Prefixup
```

```
?MAKE: -pick add $@ %<
```

```
?Y:TOP
```

```
?D:html1dir="
```

```
?S:html1dir:
```

```
?S: This variable contains the name of the directory in which html
```

```
?S: source pages are to be put. This directory is for pages
```

```
?S: that describe whole programs, not libraries or modules. It
```

```
?S: is intended to correspond roughly to section 1 of the Unix
```

```
?S: manuals.
```

```
?S:.
```

```
?D:html1direxp="
```

```
?S:html1direxp:
```

```
?S: This
```

```
variable is the same as the html1dir variable, but is filename
```

```
?S: expanded at configuration time, for convenient use in makefiles.
```

```
?S:.
```

```
?D:installhtml1dir="
```

```
?S:installhtml1dir:
```

```
?S: This variable is really the same as html1direxp, unless you are
```

```
?S: using a different installprefix. For extra portability, you
```

```
?S: should only use this variable within your makefiles.
```

```
?S:.
```

```
?LINT:change prefixvar
```

```
?LINT:set html1direxp
```

```
?LINT:set installhtml1dir
```

```
: determine where html pages for programs go
```

```
set html1dir html1dir none
eval $prefixit
$cat <<EOM
```

If you wish to install html files for programs in \$spackage, indicate the appropriate directory here. To skip installing html files, answer "none".

EOM

```
case "$html1dir" in
 "|none|$undef|' ') dflt=none ;;
 *) dflt=$html1dir ;;
esac
fn=dn+~
rp="Directory for the main $spackage html pages?"
./getfile
prefixvar=html1dir
./setprefixvar
: Use ' ' for none so value is preserved next time through Configure
$test X"$html1dir" = "X" && html1dir=' '
```

Found

in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/html1dir.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_strctcpy.U,v \$

?RCS: Revision 3.0 1993/08/18 12:07:34 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_strctcpy: cat rm\_try cc Setvar

?MAKE: -pick add \$@ %<

?S:d\_strctcpy:

?S: This variable conditionally defines the USE\_STRUCTURE\_COPY symbol, which

?S: indicates to the C program that this C compiler knows how to copy

?S: structures.

?S:.

?C:USE\_STRUCTURE\_COPY (STRUCTCOPY):

?C: This symbol, if defined, indicates that this C compiler knows how  
?C: to copy structures. If undefined, you'll  
need to use a block copy  
?C: routine of some sort instead.

?C:.

?H:#\$d\_strctcpy USE\_STRUCT\_COPY /\*\*/

?H:.

?LINT:set d\_strctcpy

: check for structure copying

echo " "

echo "Checking to see if your C compiler can copy structs..." >&4

\$cat >try.c <<'EOCP'

int main()

{

struct blurfl {

int dyick;

} foo, bar;

foo = bar;

}

EOCP

if \$cc -c try.c >/dev/null 2>&1 ; then

val="\$define"

echo "Yup, it can."

else

val="\$undef"

echo "Nope, it can't."

fi

set d\_strctcpy

eval \$setvar

\$rm\_try

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-  
5.30.0/dist/U/d\_strctcpy.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_closedir.U,v 3.0.1.3 1997/02/28 15:31:26 ram Exp \$

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>



```

?RCS:
?RCS: $Log: d_closedir.U,v $
?RCS: Revision 3.0.1.3 1997/02/28 15:31:26 ram
?RCS: patch61: added ?F: metalint hint
?RCS:
?RCS: Revision 3.0.1.2 1994/10/29 16:11:18 ram
?RCS: patch36: added 'ldflags' to the test compile line (ADO)
?RCS:
?RCS: Revision 3.0.1.1 1994/08/29 16:07:21 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_closedir d_void_closedir: Inlibc i_dirent i_sysdir i_sysndir
\
i_systypes Compile Setvar rm_try run
?MAKE: -pick add $@ %<
?S:d_closedir:
?S: This variable conditionally defines HAS_CLOSEDIR if closedir() is
?S: available.
?S:.
?C:HAS_CLOSEDIR:
?C: This symbol, if defined, indicates that the closedir() routine is
?C: available.
?C:.
?H:#$d_closedir HAS_CLOSEDIR /**/
?H:.
?S:d_void_closedir:
?S: This variable conditionally defines VOID_CLOSEDIR if closedir()
?S: does not return a value.
?S:.
?C:VOID_CLOSEDIR:
?C: This symbol, if defined, indicates that the closedir() routine
?C: does not return a value.
?C:.
?H:#$d_void_closedir VOID_CLOSEDIR /**/
?H:.
?F:!try
?LINT:set d_closedir d_void_closedir
: see if closedir exists
set closedir d_closedir
eval $inlibc

@if VOID_CLOSEDIR || d_void_closedir
?X: The following contortions are designed so we can call closedir()
?X: and check whether it returns a value. The contortions are designed
?X: to portably pick up the correct directory header, for those
?X: systems that support various mutually incompatible
?X: directory functions.
?X: This is from perl5's perl.h

```

```

case "$d_closedir" in
"$define")
echo " "
echo "Checking whether closedir() returns a status..." >&4
cat > try.c <<EOM
#i_dirent I_DIRENT /**/
#i_sysdir I_SYS_DIR /**/
#i_sysndir I_SYS_NDIR /**/
#i_systypes I_SYS_TYPES /**/

#if defined(I_SYS_TYPES)
#include <sys/types.h>
#endif
#if defined(I_DIRENT)
#include <dirent.h>
#else
#ifdef I_SYS_NDIR
#include <sys/ndir.h>
#else
#ifdef I_SYS_DIR
#include <sys/dir.h>
#endif
#endif
#endif
#endif
int main() { return closedir(opendir(".")); }
EOM
set try
if eval $compile_ok; then
if $run ./try > /dev/null 2>&1 ; then
echo "Yes, it does."
val="$undef"
else
echo "No, it doesn't."
val="$define"
fi
else
echo "(I can't seem to compile the test program--assuming it doesn't)"
val="$define"
fi
;;
*)
val="$undef";
;;
esac
set d_void_closedir
eval $setvar
$rm_try
@end

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d\_closedir.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_sysstat.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS:

?RCS: \$Log: i\_sysstat.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:48:30 ram

?RCS: patch61: created

?RCS:

?MAKE:i\_sysstat: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_sysstat:

?S: This variable conditionally defines the I\_SYS\_STAT symbol,

?S: and indicates whether a C program should include <sys/stat.h>.

?S:.

?C:I\_SYS\_STAT (I\_SYSSTAT):

?C: This symbol, if defined, indicates to the C program that it should

?C: include <sys/stat.h>.

?C:.

?H:#\$i\_sysstat I\_SYS\_STAT /\*\*/

?H:.

?LINT:set

i\_sysstat

: see if sys/stat.h is available

set sys/stat.h i\_sysstat

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_sysstat.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_crypt.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_crypt.U,v \$  
?RCS: Revision 3.0.1.1 1997/02/28 15:31:47 ram  
?RCS: patch61: replaced .a with \$\_a all over the place  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:05:52 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_crypt cryptlib: Loc test xlibpth libpth Csym Setvar \_a Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_crypt:  
?S: This variable conditionally defines the CRYPT symbol, which  
?S: indicates to the C program that the crypt() routine is available  
?S: to  
encrypt passwords and the like.  
?S:.  
?S:cryptlib:  
?S: This variable holds -lcrypt or the path to a libcrypt.a archive if  
?S: the crypt() function is not defined in the standard C library. It is  
?S: up to the Makefile to use this.  
?S:.  
?C:HAS\_CRYPT (CRYPT):  
?C: This symbol, if defined, indicates that the crypt routine is available  
?C: to encrypt passwords and the like.  
?C:.  
?H:#\$d\_crypt HAS\_CRYPT /\*\*/  
?H:.  
?LINT:set d\_crypt  
?T:val  
: see if crypt exists  
echo " "  
set crypt d\_crypt  
eval \$inlibc  
case "\$d\_crypt" in  
\$define) cryptlib="";;  
\*) if set crypt val -f d\_crypt; eval \$csym; \$val; then  
echo 'crypt() found.'>&4  
val="\$define"  
cryptlib="  
else  
cryptlib=`./loc Slibcrypt\$\_a "" \$xlibpth`  
if \$test -z "\$cryptlib"; then  
cryptlib=`./loc Mlibcrypt\$\_a "" \$xlibpth`

```

else
 cryptlib=-lcrypt
fi
if $test -z "$cryptlib"; then
 cryptlib=`./loc Libcrypt$_a "" $xlibpth`
else
 cryptlib=-lcrypt
fi
if $test -z "$cryptlib"; then
 cryptlib=`./loc libcrypt$_a ""
$libpth`
else
 cryptlib=-lcrypt
fi
if $test -z "$cryptlib"; then
 echo 'crypt() NOT found.' >&4
 val="$undef"
else
 val="$define"
fi
fi
set d_crypt
eval $setvar
;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_crypt.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: so.U,v \$

?RCS: Revision 3.0.1.2 1994/10/29 16:30:04 ram

?RCS: patch36: now tells user how he can suppress shared lib lookup (ADO)

?RCS: patch36: removed echo at the top, since it's now in the here-doc (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/06/20 07:07:02 ram

?RCS: patch30: created

```

?RCS:
?X:
?X: This unit computes the shared-object / shared-lib extension
?X:
?MAKE:so: test libpth Loc Myread Oldconfig cat
?MAKE: -pick add $@ %<
?S:so:
?S: This variable holds the extension used to identify
shared libraries
?S: (also known as shared objects) on the system. Usually set to 'so'.
?S:.
?T: xxx
: compute shared library extension
case "$so" in
")
if xxx=`./loc libc.sl X $libpth`; $test -f "$xxx"; then
dflt='sl'
else
dflt='so'
fi
;;
*) dflt="$so";;
esac
$cat <<EOM

```

On some systems, shared libraries may be available. Answer 'none' if you want to suppress searching of shared libraries for the remainder of this configuration.

```

EOM
rp='What is the file extension used for shared libraries?'
./myread
so="$ans"

```

```

Found in path(s):
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/so.U
No license file was found, but licenses were detected in source scan.

```

```

?RCS: Id
?RCS:
?RCS: Copyright (c) 1999 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_fstatfs : Inlibc
?MAKE: -pick add $@ %<

```

?S:d\_fstatfs:

?S: This variable conditionally defines the HAS\_FSTATFS symbol, which

?S: indicates to the C program that the fstatfs() routine is available.

?S:.

?C:HAS\_FSTATFS:

?C: This symbol, if defined, indicates that the fstatfs routine is

?C: available to stat filesystems by file descriptors.

?C:.

?H:#\$d\_fstatfs HAS\_FSTATFS /\*\*/

?H:.

?LINT:set d\_fstatfs

: see if fstatfs exists

set fstatfs d\_fstatfs

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fstatfs.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: mailer.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: mailer.U,v \$

?RCS: Revision 3.0.1.3 1995/01/11 15:32:11 ram

?RCS: patch45: can now use Loc variables since path stripping is deferred

?RCS:

?RCS: Revision 3.0.1.2 1994/05/06 15:10:04 ram

?RCS: patch23: ensure full path value is used for rmail also

?RCS:

?RCS: Revision 3.0.1.1 1994/01/24 14:14:18 ram

?RCS: patch16: now use \_sendmail vars and friends for portability issues

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:10 ram

?RCS: Baseline for dist

3.0 netwide release.

?RCS:

?MAKE:mailer: test cat rmail mail smail sendmail Getfile Oldconfig

?MAKE: -pick add \$@ %<

?S:mailer:

?S: This variable contains the full pathname of a reasonable mailer.

?S: By reasonable, we mean some program which can understand internet

?S: addresses or at least forward them to some internet router. This

?S: mailer should be invoked as "mailer [options] recipients <mail>".

?S:.

: determine the name of a reasonable mailer

case "\$mailer" in

")

if \$test -f "\$sendmail"; then

  dflt="\$sendmail"

elif \$test -f "\$smail"; then

  dflt="\$smail"

elif \$test -f "\$rmail"; then

  dflt="\$rmail"

elif \$test -f /bin/mail; then

  dflt=/bin/mail

else

  dflt=\$mail

fi

;;

\*) dflt="\$mailer";;

esac

\$cat <<EOM

I need the full pathname of the program used to deliver mail on your system.

A typical answer would be /usr/lib/sendmail or /bin/rmail, but you may choose

any other program, as long as it can be fed from standard input and will

honour any user-supplied headers.

EOM

fn=f

rp='Mail

transport agent to be used?'

./getfile

mailer="\$ans"

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/mailer.U

No license file was found, but licenses were detected in source scan.

?RCS: Copyright (c) 2017, Karl Williamson

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

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?RCS:



?MAKE:d\_mbrlen: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_mbrlen:  
?S: This variable conditionally defines the HAS\_MBRLLEN symbol if the  
?S: mbrlen() routine is available to be used to get the length of  
?S: multi-byte character strings.  
?S:.  
?C:HAS\_MBRLLEN:  
?C: This symbol, if defined, indicates that the mbrlen routine is  
?C: available to get the length of multi-byte character strings.  
?C:.  
?H:#\$d\_mbrlen HAS\_MBRLLEN /\*\*/  
?H:.  
?LINT: set d\_mbrlen  
: see if mbrlen exists  
set mbrlen d\_mbrlen  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_mbrlen.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_psignal.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_psignal.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:06:49 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_psignal: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_psignal:  
?S: This variable conditionally defines the HAS\_P SIGNAL symbol, which  
?S: indicates that the psignal() routine exists. The psignal() routine  
?S: prints a description of a signal on the standard error output.  
?S:.  
?C:HAS\_P SIGNAL (PSIGNAL):  
?C: This symbol, if defined, indicates  
?C: that the psignal() routine exists.  
?C:.

?H:#\$d\_psignal HAS\_P SIGNAL /\*\*/

?H:.

?LINT:set d\_psignal

: see if psignal exists

set psignal d\_psignal

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_psignal.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: stdchar.U,v \$

?RCS: Revision 3.0 1993/08/18 12:09:52 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:stdchar: contains Findhdr cppstdin cppminus rm

?MAKE: -pick add \$@ %<

?S:stdchar:

?S: This variable conditionally defines STDCHAR to be the type of char

?S: used in stdio.h. It has the values "unsigned char" or "char".

?S:.

?C:STDCHAR:

?C: This symbol is defined to be the type of char used in stdio.h.

?C: It has the values "unsigned char" or "char".

?C:.

?H:#define STDCHAR \$stdchar /\*\*/

?H:.

?F:!stdioh

:

see what type of char stdio uses.

echo " "

?X: untangle the #include nest

echo '#include <stdio.h>' | \$cppstdin \$cppminus > stdioh

if \$contains 'unsigned.\*char.\*\_ptr;' stdioh >/dev/null 2>&1 ; then

echo "Your stdio uses unsigned chars." >&4

stdchar="unsigned char"

else

```
echo "Your stdio uses signed chars." >&4
stdchar="char"
fi
$rm -f stdioh
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/stdchar.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Whoa.U,v 3.0.1.2 1997/02/28 15:21:21 ram Exp $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
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```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: Whoa.U,v $
```

```
?RCS: Revision 3.0.1.2 1997/02/28 15:21:21 ram
```

```
?RCS: patch61: whoa script now starts with leading "startsh"
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.1 1994/10/29 16:02:01 ram
```

```
?RCS: patch36: added ?F: line for metalint file checking
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:05:19 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?X:
```

```
?X: This unit produces a bit of shell code that must be dotted in in order
```

```
?X: to warn the user in case a change into a variable
```

```
is noticed.
```

```
?X:
```

```
?X: To use this unit, $was must hold the old value that has changed. Upon
```

```
?X: exit, the two variables $td and $tu are set to the correct value for
```

```
?X: respectively defining or undefining a variable. For instance, if $vas was
```

```
?X: $undef, but now $var is $define, after calling . whoa, you should use
```

```
?X: eval "$var=$tu" to finally set $var to the correct value. See unit Inlibc.
```

```
?X:
```

```
?MAKE:Whoa: Myread startsh hint
```

```
?MAKE:-pick add $@ %<
```

```
?F:./whoa
```

```
?T:var was td tu hintfile
```

```
: set up the script used to warn in case of inconsistency
```

```
cat <<EOS >whoa
```

```
$startsh
```

```

EOS
cat <<'EOSC' >>whoa
dflt=y
case "$hint" in
 recommended)
case "$hintfile" in
 *) echo "The $hint value for \$$var on this machine was \"\$was\!" ">&4
 ;;
 *) echo "Hmm. Based on the hints in hints/$hintfile.sh, " ">&4
 echo "the $hint value for \$$var on this machine was \"\$was\!" ">&4
 ;;
esac
;;
*) echo " "
echo "*** WHOA THERE!!! ***" ">&4
echo " The $hint value for \$$var on this machine was
\"$was\!" ">&4
;;
esac
rp=" Keep the $hint value?"
./myread
case "$ans" in
y) td=$was; tu=$was;;
esac
EOSC

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Whoa.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: cf\_who.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:28:50 ram

?RCS: patch61: new computation method avoiding use of temporary file

?RCS:

?RCS: Revision 3.0.1.1 1994/05/06 14:42:34 ram

?RCS: patch23: login name now computed the hard way

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:32 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: Oldconfig dependency is there to ensure computation occurs after old values

?X: from config.sh have been loaded, so that we can supersede them.

?X:

?MAKE:cf\_time

cf\_by: date Oldconfig

?MAKE: -pick add \$@ %<

?S:cf\_time:

?S: Holds the output of the "date" command when the configuration file was

?S: produced. This is used to tag both config.sh and config\_h.SH.

?S:.

?S:cf\_by:

?S: Login name of the person who ran the Configure script and answered the

?S: questions. This is used to tag both config.sh and config\_h.SH.

?S:.

?LINT:change LC\_ALL LANGUAGE

: who configured the system

?X: Ensure English date -- Jarkko Hietaniemi

cf\_time=`LC\_ALL=C; LANGUAGE=C; export LC\_ALL; export LANGUAGE; \$date 2>&1`

?X:

?X: Leave a white space between first two '(' for ksh. The sub-shell is needed

?X: on some machines to avoid the error message when logname is not found; e.g.

?X: on SUN-OS 3.2, (logname || whoami) would not execute whoami if logname was

?X: not found. Sigh!

?X:

?X: Convex had a broken logname executable which returned a non-zero status,

?X: and that broke the previous:

?X: cf\_by=`(logname) 2>/dev/null || whoami) 2>&1`

?X: Switch to emergency

mode... -- RAM, 19/04/94

?X:

?X: Parentheses needed to avoid error message if the program does not exist.

?X: Uses case instead of \$test so it can be put before \$test is defined.

?X: Don't redirect to a file because on Ultrix (under script?) logname

?X: outputs a blank line first. This method will apparently work.

```

case "$cf_by" in
"")
cf_by=`(logname) 2>/dev/null`
case "$cf_by" in
"")
cf_by=`(whoami) 2>/dev/null`
case "$cf_by" in
"") cf_by=unknown ;;
esac ;;
esac ;;

```

esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/cf\_who.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_waitpid.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_waitpid.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:02 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_waitpid: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_waitpid:

?S: This variable conditionally defines HAS\_WAITPID if waitpid() is

?S: available to wait for child process.

?S:.

?C:HAS\_WAITPID (WAITPID):

?C: This symbol, if defined, indicates that the waitpid routine is

?C: available to wait for child process.

?C:.

?H:#\$d\_waitpid HAS\_WAITPID /\*\*/

?H:.

?LINT:set

d\_waitpid

: see if waitpid exists

set waitpid d\_waitpid

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_waitpid.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

```

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?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_sgndchr.U,v $
?RCS: Revision 3.0.1.2 1997/02/28 15:44:25 ram
?RCS: patch61: added a ?F: metalint hint
?RCS:
?RCS: Revision 3.0.1.1 1995/07/25 14:00:24 ram
?RCS: patch56: made cc and ccflags optional dependencies
?RCS:
?RCS: Revision 3.0 1993/08/18 12:07:16 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_sgndchr: cat rm +cc +ccflags Setvar
?MAKE: -pick add $@ %<
?S:d_sgndchr:
?S: This variable conditionally defines the SIGNEDCHAR symbol, which
?S: indicates to the C program
?S: that signed characters are available.
?S:
?C:SIGNEDCHAR:
?C: This symbol, if defined, indicates that characters are a signed type.
?C: If not defined, things declared as signed characters (and that make
?C: use of negative values) should probably be declared as shorts instead.
?C:
?H:#$d_sgndchr SIGNEDCHAR /**/
?H:
?F:!try
?LINT:set d_sgndchr
: check for signed chars
echo " "
echo "Checking to see if your C compiler can do signed chars..." >&4
$cat >try.c <<'EOCP'
int main()
{
char c = 0;

c--;
exit(c >= 0);
}
EOCP
$cc $ccflags -o try try.c
if ./try; then
val="$define"
echo "It certainly can."

```

```
else
val="$undef"
echo "It can't. I'll have to make some things type short."
fi
set d_sgndchr
eval $setvar
$rm -f try*
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_sgndchr.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_wifstat.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 15:47:43 ram

?RCS: patch61: added a ?F: metalint hint

?RCS:

?RCS: Revision 3.0.1.2 1995/07/25 14:09:10 ram

?RCS: patch56: re-arranged compile line to include ldflags before objects

?RCS:

?RCS: Revision 3.0.1.1 1995/03/21 08:47:46 ram

?RCS: patch52: created

?RCS:

?MAKE:d\_wifstat: d\_uwait +cc +ccflags +ldflags +libs Oldconfig cat rm

?MAKE: -pick add \$@ %<

?S:d\_wifstat:

?S: This symbol conditionally defines USE\_WIFSTAT if the C program can

?S: safely

use the WIFxxx macros with the kind of wait() parameter

?S: declared in the program (see UNION\_WAIT), or if it can't. Should

?S: only matter on HP-UX, where the macros are incorrectly written and

?S: therefore cause programs using them with an 'union wait' variable

?S: to not compile properly.

?S:.

?C:USE\_WIFSTAT:

?C: This symbol, if defined, indicates to the C program that the argument

?C: for the WIFxxx set of macros such as WIFSIGNALED or WIFEXITED can

?C: be of the same kind as the one used to hold the wait() status. Should



?C: only matter on HP-UX, where the macros are incorrectly written and

?C: therefore cause programs using them with an 'union wait' variable

?C: to not compile properly. See also UNION\_WAIT.

?C:.

?H:#\$d\_wifstat USE\_WIFSTAT /\*\*/

?H:.

?T:type

?F:!foo

: see if we can use WIFxxx macros

echo " "

case "\$d\_wifstat" in

"\$define") echo "As before, you can safely use WIFEXITED and friends!" >&4;;

"\$undef") echo "You still can't use WIFEXITED and friends!" >&4;;

\*)

echo

"Let's see whether you can use the WIFEXITED(status) macro and its"

case "\$d\_uwait" in

"\$define") type='union wait';

\*) type='int';;

esac

echo "friends with status declared as '\$type status'..."

\$cat >foo.c <<EOCP

#include <sys/types.h>

#include <sys/wait.h>

int main()

{

  \$type status;

  int e = 0;

#ifdef WIFEXITED

  if (WIFEXITED(status))

    printf("\n");

    exit(0);

#else

  exit(2);

#endif

}

EOCP

d\_wifstat="\$undef"

if \$cc \$ccflags \$ldflags -o foo foo.c \$libs >/dev/null 2>&1; then

  if ./foo >/dev/null; then

    echo "Great! Looks like we can use the WIFxxx macros." >&4

    d\_wifstat="\$define"

  else

    echo "You don't seem to have WIFxxx macros, but that's ok." >&4

  fi

else

```
echo "Apparently you can't use WIFxxx macros properly." >&4
fi
$rm -f foo.* foo core
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_wifstat.U
```

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?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:siteman3dir siteman3direxp installsiteman3dir: Getfile \

Setprefixvar prefix siteprefix man3dir sed

?MAKE: -pick add \$@ %<

?Y:TOP

?D:siteman3dir="

?S:siteman3dir:

?S: This variable contains the name of the directory in which site-specific

?S: library man source pages are to be put. It is the responsibility of the

?S: Makefile.SH to get the value of this into the proper command.

?S: You must be prepared to do the ~name expansion yourself.

?S: The standard distribution will put nothing in this directory.

?S: After

perl has been installed, users may install their own local

?S: man3 pages in this directory with

?S: MakeMaker Makefile.PL

?S: or equivalent. See INSTALL for details.

?S:.

?D:siteman3direxp="

?S:siteman3direxp:

?S: This variable is the same as the siteman3dir variable, but is filename

?S: expanded at configuration time, for convenient use in makefiles.

?S:.

?D:installsiteman3dir="

?S:installsiteman3dir:

?S: This variable is really the same as siteman3direxp, unless you are using

?S: AFS in which case it points to the read/write location whereas

?S: man3direxp only points to the read-only access location. For extra

?S: portability, you should only use this variable within your makefiles.

?S:.

?LINT:change prefixvar

?LINT:set installsiteman3dir

?LINT:set siteman3dir

?LINT:set siteman3direxp

: determine where add-on library man pages go

case "\$siteman3dir" in

") dflt=`echo \$man3dir | \$sed "s#^\$prefix#\$siteprefix#" ` ;;

\*) dflt=\$siteman3dir ;;

esac

case "\$dflt" in

"|' ') dflt=none ;;

esac

fn=dn+~

rp='Pathname

where the site-specific library manual pages should be installed?'

./getfile

prefixvar=siteman3dir

./setprefixvar

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/siteman3dir.U

No license file was found, but licenses were detected in source scan.

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_vfork.U,v \$

?RCS: Revision 3.0.1.6 1994/08/29 16:18:21 ram

?RCS: patch32: set default to 'y' the first time

?RCS:

?RCS: Revision 3.0.1.5 1994/06/20 06:59:14 ram

?RCS: patch30: usevfork was not always properly set

?RCS:

?RCS: Revision 3.0.1.4 1994/05/13 15:20:56 ram

?RCS: patch27: modified to avoid spurious Whoa warnings (ADO)

?RCS:

?RCS: Revision 3.0.1.3 1994/05/06 14:59:09 ram

?RCS: patch23: now explicitly ask whether vfork() should be used (ADO)

```

?RCS:
?RCS: Revision 3.0.1.2 1993/10/16
 13:49:39 ram
?RCS: patch12: added magic for vfork()
?RCS:
?RCS: Revision 3.0.1.1 1993/09/13 16:06:57 ram
?RCS: patch10: removed automatic remapping of vfork on fork (WAD)
?RCS: patch10: added compatibility code for older config.sh (WAD)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:07:55 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_vfork usevfork: Inlibc Myread Oldconfig Setvar
?MAKE: -pick add $@ %<
?S:d_vfork:
?S: This variable conditionally defines the HAS_VFORK symbol, which
?S: indicates the vfork() routine is available.
?S:.
?S:usevfork:
?S: This variable is set to true when the user accepts to use vfork.
?S: It is set to false when no vfork is available or when the user
?S: explicitly requests not to use vfork.
?S:.
?C:HAS_VFORK (VFORK):
?C: This symbol, if defined, indicates that vfork() exists.
?C:.
?H:#$d_vfork HAS_VFORK /**/
?H:.
?M:vfork: HAS_VFORK
?M:#ifndef HAS_VFORK
?M:#define vfork fork
?M:#endif
?M:.
?LINT:set d_vfork
: see if there is a vfork
val="
set
vfork val
eval $inlibc

: Ok, but do we want to use it. vfork is reportedly unreliable in
: perl on Solaris 2.x, and probably elsewhere.
case "$val" in
$define)
echo " "
case "$usevfork" in
false) dflt='n';;
*) dflt='y';;

```

```

esac
rp="Some systems have problems with vfork(). Do you want to use it?"
. ./myread
case "$ans" in
y|Y) ;;
*)
echo "Ok, we won't use vfork()."
val="$undef"
;;
esac
;;
esac
esac
?X:
?X: Only set it when final value is known to avoid spurious Whoas
?X: Then set usevfork accordingly to the current value, for next run
?X:
set d_vfork
eval $setvar
case "$d_vfork" in
$define) usevfork='true';;
*) usevfork='false';;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_vfork.U
```

No license file was found, but licenses were detected in source scan.

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Cppsym.U,v \$

?RCS: Revision 3.0.1.5 1995/05/12 11:59:11 ram

?RCS: patch54: split awk command onto two lines for older awks (ADO)

?RCS:

?RCS: Revision 3.0.1.4 1995/01/11 14:55:57 ram

?RCS: patch45: new cc vs. cpp symbol checking suggested by JHI

?RCS: patch45: added more cpp symbols (JHI)

?RCS:

?RCS: Revision 3.0.1.3 1994/10/29 15:51:32 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS: patch36: new symbols ardent and titan (ADO)  
?RCS:  
?RCS: Revision 3.0.1.2 1994/06/20  
06:53:32 ram  
?RCS: patch30: extended cpp symbol lookup list (JHI)  
?RCS: patch30: renamed attrlist symbol into al for brevity  
?RCS:  
?RCS: Revision 3.0.1.1 1993/12/15 08:14:14 ram  
?RCS: patch15: added new cpp symbols \_\_bsdi\_\_ and BSD\_NET2  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:04:50 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: This unit produces a shell script called Cppsym, which can be used to  
?X: determine whether any in a list of symbols is defined by the C compilation  
?X: chain (C preprocessor symbols plus C compiler native ones).  
?X: It can determine the status of any symbol, though the symbols in \$al  
?X: are more easily determined. If you want to add to \$al you can do  
?X: it in Myinit.U.  
?X:  
?MAKE:Cppsym ccsymbols cppsymbols cppccsymbols: run \  
eunicefix Guess awk cat tr sed sort rm startsh osname \  
+cc gccversion test comm uniq echo Options trnl \  
optimize ccflags ldflags libs  
?MAKE: -pick add \$@ %<  
?S:ccsymbols:  
?S: The variable contains the symbols  
defined by the C compiler alone.  
?S: The symbols defined by cpp or by cc when it calls cpp are not in  
?S: this list, see cppsymbols and cppccsymbols.  
?S: The list is a space-separated list of symbol=value tokens.  
?S:.  
?S:cppsymbols:  
?S: The variable contains the symbols defined by the C preprocessor  
?S: alone. The symbols defined by cc or by cc when it calls cpp are  
?S: not in this list, see ccsymbols and cppccsymbols.  
?S: The list is a space-separated list of symbol=value tokens.  
?S:.  
?S:cppccsymbols:  
?S: The variable contains the symbols defined by the C compiler  
?S: when it calls cpp. The symbols defined by the cc alone or cpp  
?S: alone are not in this list, see ccsymbols and cppsymbols.  
?S: The list is a space-separated list of symbol=value tokens.  
?S:.  
?T:also symbols i postprocess\_cc\_v flags  
?F:./Cppsym  
?F:!Cppsym.true !Cppsym.know !ccsym.com !ccsym.cpp !ccsym.own

```

: determine known pre-processor and compiler symbols
echo " "
$echo "Guessing which symbols your C compiler and preprocessor
define..." >&4
?X:
?X: The symbol list is in alpha order for ease of maintenance...
?X:
?X: Lots of new symbols (mostly rummaged from gcc), courtesy of
?X: Jarkko Hietaniemi <jhi@snakemail.hut.fi> -- RAM, 06/06/94
?X:
?X: If your symbol is mixed case, just add it as-is.
?X: All symbols will be transformed to both all-lower and all-upper.
?X: Also drop any leading/trailing underscores, the scan will try all those.
?X:
$cat <<'EOSH' > Cppsym.know
a29k ABI64 aegis AES_SOURCE AIX AIX32 AIX370
AIX41 AIX42 AIX43 AIX_SOURCE aixpc ALL_SOURCE
alliant alpha am29000 AM29000 AMD64 amiga AMIGAOS AMIX
ansi ANSI_C_SOURCE apollo ardent ARM32 atarist att386 att3b
BeOS BIG_ENDIAN BIT_MSF bsd BSD bsd43 bsd4_2 bsd4_3 BSD4_3 bsd4_4
BSD_4_3 BSD_4_4 BSD_NET2 BSD_TIME BSD_TYPES BSDCOMPAT bsd
bull c cadmus clipper CMU COFF COMPILER_VERSION
concurrent convex cpu cray CRAY CRAYMPP ctix CX_UX
CYGWIN DGUX DGUX_SOURCE DJGPP dmert DOLPHIN DPX2 DSO
Dynix DynixPTX ELF encore EPI EXTENSIONS FAVOR_BSD
FILE_OFFSET_BITS
FreeBSD GCC_NEW_VARARGS gcos gcx gimpel
GLIBC GLIBC_MINOR
GNU_SOURCE GNUC GNUC_MINOR GNU_LIBRARY GO32 gould GOULD_PN
H3050R H3050RX hbulx20 hex host_mips
hp200 hp300 hp700 HP700 hp800 hp9000
hp9000s200 hp9000s300 hp9000s400 hp9000s500
hp9000s700 hp9000s800 hp9k8 hp_osf hppa hpux HPUX_SOURCE
i186 i286 i386 i486 i586 i686 i8086 i80960 i860 I960
IA64 iAPX286 ibm ibm032 ibmesa IBMR2 ibmrt ILP32 ILP64
INLINE_INTRINSICS INTRINSICS INT64 interdata is68k ksr1
LANGUAGE_C LARGE_FILE_API LARGEFILE64_SOURCE
LARGEFILE_SOURCE LFS64_LARGEFILE LFS_LARGEFILE
Linux LITTLE_ENDIAN LONG64 LONG_DOUBLE LONG_LONG
LONGDOUBLE LONGLONG LP64 luna luna88k Lynx
M68000 m68k m88100 m88k M88KBCS_TARGET M_COFF
M_I186 M_I286 M_I386 M_I8086 M_I86 M_I86SM M_SYS3
M_SYS5 M_SYSIII M_SYSV M_UNIX M_XENIX MACH machine MachTen
MATH_HAS_NO_SIDE_EFFECTS
mc300 mc500 mc68000 mc68010 mc68020 mc68030 mc68040
mc68060 mc68k mc68k32 mc700 mc88000 mc88100 merlin
mert MiNT mips MIPS_FPSET MIPS_ISA MIPS_SIM MIPS_SZINT
MIPS_SZLONG

```

```

MIPS_SZPTR MIPSEB MIPSEL MODERN_C motorola
mpeix MSDOS MTXINU MULTIMAX mvs MVS n16 ncl_el ncl_mr
NetBSD news1500 news1700 news1800 news1900 news3700
news700 news800 news900 NeXT NLS nonstopux ns16000 ns32000
ns32016 ns32332 ns32k nsc32000
OCS88 OEMVS OpenBSD os OS2 OS390 osf OSF1 OSF_SOURCE
pa_risc PA_RISC1_1 PA_RISC2_0 PARAGON parisc
pc532 pdp11 PGC PIC plexus PORTAR posix
POSIX1B_SOURCE POSIX2_SOURCE POSIX4_SOURCE
POSIX_C_SOURCE POSIX_SOURCE POWER
PROTOTYPES PWB pyr QNX R3000 REENTRANT RES Rhapsody RISC6000
riscix riscos RT S390 SA110 scs SCO sequent sgi SGI_SOURCE SH3 sinix
SIZE_INT SIZE_LONG SIZE_PTR SOCKET_SOURCE SOCKETS_SOURCE
sony sony_news sonyrisc sparc sparclite spectrum
stardent stdc STDC_EXT stratos sun sun3 sun386
Sun386i svr3 svr4 SVR4_2 SVR4_SOURCE svr5
SX system SYSTYPE_BSD SYSTYPE_BSD43 SYSTYPE_BSD44
SYSTYPE_SVR4 SYSTYPE_SVR5 SYSTYPE_SYSV SYSV SYSV3 SYSV4 SYSV5
sysV68 sysV88 Tek4132 Tek4300 titan
TM3200 TM5400 TM5600
tower tower32 tower32_200 tower32_600 tower32_700
tower32_800
tower32_850 tss
u370 u3b u3b2 u3b20 u3b200 u3b20d u3b5
ultrix UMAXV UnicomPBB UnicomPBD UNICOS UNICOSMK
unix UNIX95 UNIX99 unixpc unos
USE_BSD USE_FILE_OFFSET64 USE_GNU USE_ISOC9X USE_LARGEFILE USE_LARGEFILE64
USE_MISC USE_POSIX USE_POSIX199309 USE_POSIX199506 USE_POSIX2
USE_REENTRANT USE_SVID USE_UNIX98 USE_XOPEN USE_XOPEN_EXTENDED
USGr4 USGr4_2
Utek UTeK UTS UWIN uxpm uxps vax venix VMESA vms xenix Xenix286
XOPEN_SOURCE XOPEN_SOURCE_EXTENDED XPG2 XPG2_EXTENDED
XPG3 XPG3_EXTENDED XPG4 XPG4_EXTENDED
z8000
EOSH
?X: Maybe put other stuff here too.
cat <<EOSH >>Cppsym.know
$osname
EOSH
./tr '[a-z]' '[A-Z]' < Cppsym.know > Cppsym.a
./tr '[A-Z]' '[a-z]' < Cppsym.know > Cppsym.b
$cat Cppsym.know > Cppsym.c
$cat Cppsym.a Cppsym.b Cppsym.c | $tr ' ' $trnl | $sort | $uniq > Cppsym.know
$rm -f Cppsym.a Cppsym.b Cppsym.c
cat <<EOSH > Cppsym
$startsh
if $test \ $# -gt 0; then
 echo \ $* | $tr " " "$trnl" | ./Cppsym.try > Cppsym.got

```



```

if $test -s Cppsym.got; then
 $rm -f Cppsym.got
 exit 0
fi
$rm -f Cppsym.got
exit 1
else
 $tr " " "$trml" | ./Cppsym.try
 exit 0
fi
EOSH
chmod +x Cppsym
$eunicefix Cppsym
?X: The below awk script will die a horrible death if
?X: some of the tested symbols are not long ints.
?X: Also, we do not make difference between just defined and defined zero.
cat <<EOSH > Cppsym.try
$startsh
cat <<'EOCP' > try.c
#include <stdio.h>
int main() {
EOCP
?X: The length($1) command guards against possible empty entries.
?X: The awk snippet is know to give heartburn to UNICOS/mk awk.
$awk \\
EOSH
cat <<'EOSH' >> Cppsym.try
'length($1) > 0 {
 printf "#ifdef %s\n#if %s+0\nprintf(\"%s=%ld\n\", (long)%s);\n#else\nprintf(\"%s\n\");\n#endif\n#endif\n", $1,
$1, $1, $1, $1
 printf "#ifdef __%s\n#if __%s+0\nprintf(\"_%s=%ld\n\",
(long)_%s);\n#else\nprintf(\"_%s\n\");\n#endif\n#endif\n", $1, $1, $1, $1, $1
 printf "#ifdef __%s\n#if __%s+0\nprintf(\"_%s=%ld\n\",
(long)_%s);\n#else\nprintf(\"_%s\n\");\n#endif\n#endif\n",
$1, $1, $1, $1, $1
 printf "#ifdef __%s_\n#if __%s_+0\nprintf(\"_%s_=%ld\n\",
(long)_%s_);\n#else\nprintf(\"_%s_\n\");\n#endif\n#endif\n", $1, $1, $1, $1, $1
}' >> try.c
echo 'return 0;}' >> try.c
EOSH
cat <<EOSH >> Cppsym.try
flags="$ccflags"
case "$osname-$gccversion" in
irix-) flags="\$flags -woff 1178" ;;
os2-*) flags="\$flags -Zlinker /PM:VIO" ;;
esac
$cc -o try $optimize \$flags $ldflags try.c $libs && $run ./try
EOSH

```

```

chmod +x Cppsym.try
$unicefix Cppsym.try
./Cppsym < Cppsym.know > Cppsym.true
: now check the C compiler for additional symbols
?X: suggested by Jarkko Hietaniemi <jhi@snakemail.hut.fi>, thanks!
postprocess_cc_v="
case "$osname" in
aix) postprocess_cc_v="|$tr , ' "' ;;
esac
$cat >ccsym <<EOS
$startsh
$cat >tmp.c <<EOF
extern int foo;
EOF
for i in ` $cc -v -c tmp.c 2>&1 $postprocess_cc_v `
do
case "$i" in
-D*) echo "$i" | $sed 's/^-D//';;
-A*) $test "$gccversion" && echo "$i" | $sed 's/^-A//' | $sed 's/(.*)/(.*)\1=2/';;
esac
done
$rm
-f try.c
EOS
postprocess_cc_v="
chmod +x ccsym
$unicefix ccsym
./ccsym > ccsym1.raw
?X: AIX complains if $uniq is passed an empty file. ($sort apparently
?X: doesn't care.) --AD 14 July 1998
if $test -s ccsym1.raw; then
 $sort ccsym1.raw | $uniq >ccsym.raw
else
 mv ccsym1.raw ccsym.raw
fi

?X: canonicalize symbols for easier sort/uniq/comm usage: append =1 if no = sign
?X: the awk script must be on two lines for older awk programs, sigh! -- ADO
$awk '/^=/ { print $0; next }
{ print $0"=1" }' ccsym.raw >ccsym.list
$awk '/^=/ { print $0; next }
{ print $0"=1" }' Cppsym.true >ccsym.true
$comm -13 ccsym.true ccsym.list >ccsym.own
$comm -12 ccsym.true ccsym.list >ccsym.com
$comm -23 ccsym.true ccsym.list >ccsym.cpp
also="
if $test -z ccsym.raw; then
 echo "Your C compiler doesn't seem to define any symbols!" >&4

```

```

echo " "
echo "However, your C preprocessor defines the following symbols:"
$cat Cppsym.true
 ccsymbols="
cppsymbols=`$cat Cppsym.true`
 cppsymbols=`echo
$cppsymbols`
cppccsymbols="$cppsymbols"
else
if $test -s ccsym.com; then
 echo "Your C compiler and pre-processor define these symbols:"
 $sed -e 's/(.*\)=.*\1/' ccsym.com
 also='also '
 symbols='ones'
 cppccsymbols=`$cat ccsym.com`
 cppccsymbols=`echo $cppccsymbols`
 $test "$$silent" || sleep 1
fi
if $test -s ccsym.cpp; then
 $test "$$also" && echo " "
 echo "Your C pre-processor ${also}defines the following symbols:"
 $sed -e 's/(.*\)=.*\1/' ccsym.cpp
 also='further '
 cppsymbols=`$cat ccsym.cpp`
 cppsymbols=`echo $cppsymbols`
 $test "$$silent" || sleep 1
fi
if $test -s ccsym.own; then
 $test "$$also" && echo " "
 echo "Your C compiler ${also}defines the following cpp symbols:"
 $sed -e 's/(.*\)=1\1/' ccsym.own
 $sed -e 's/(.*\)=.*\1/' ccsym.own | $uniq >>Cppsym.true
 ccsymbols=`$cat ccsym.own`
 ccsymbols=`echo $ccsymbols`
 $test "$$silent" || sleep 1
fi
fi
$rm -f Cppsym.know Cppsym.true

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Cppsym.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getpwent\_r.U,v ORCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_getpwent\_r getpwent\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
 usethreads i\_pwd extern\_C

?MAKE: -pick add \$@ %<

?S:d\_getpwent\_r:

?S: This variable conditionally defines the HAS\_GETPWENT\_R symbol,  
 ?S: which indicates to the C program that the getpwent\_r()  
 ?S: routine is available.

?S:.

?S:getpwent\_r\_proto:

?S: This variable encodes the prototype of getpwent\_r.  
 ?S: It is zero if d\_getpwent\_r is undef, and one of the  
 ?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getpwent\_r  
 ?S: is defined.

?S:.

?C:HAS\_GETPWENT\_R:

?C: This symbol, if defined, indicates that the getpwent\_r routine  
 ?C: is available to  
 getpwent re-entrantly.

?C:.

?C:GETPWENT\_R\_PROTO:

?C: This symbol encodes the prototype of getpwent\_r.  
 ?C: It is zero if d\_getpwent\_r is undef, and one of the  
 ?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getpwent\_r  
 ?C: is defined.

?C:.

?H:#\$d\_getpwent\_r HAS\_GETPWENT\_R /\*\*/  
 ?H:#define GETPWENT\_R\_PROTO \$getpwent\_r\_proto /\*\*/  
 ?H:.

?T:try hdrs d\_getpwent\_r\_proto  
 : see if getpwent\_r exists  
 set getpwent\_r d\_getpwent\_r  
 eval \$inlibc  
 case "\$d\_getpwent\_r" in  
 "\$define")  
 hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_pwd pwd.h"  
 case "\$d\_getpwent\_r\_proto:\$usethreads" in  
 ":define") d\_getpwent\_r\_proto=define  
 set d\_getpwent\_r\_proto getpwent\_r \$hdrs  
 eval \$hasproto ;;  
 \*) ;;  
 esac  
 case "\$d\_getpwent\_r\_proto" in  
 define)  
 case "\$getpwent\_r\_proto" in

```

"|0) try='int getpwent_r(struct passwd*, char*, size_t, struct passwd**);'
./protochk "$extern_C $try" $hdrs && getpwent_r_proto=I_SBWR ;;
esac
case "$getpwent_r_proto" in
"|0) try='int getpwent_r(struct passwd*, char*, int, struct passwd**);'
./protochk
"$extern_C $try" $hdrs && getpwent_r_proto=I_SBIR ;;
esac
case "$getpwent_r_proto" in
"|0) try='struct passwd* getpwent_r(struct passwd*, char*, size_t);'
./protochk "$extern_C $try" $hdrs && getpwent_r_proto=S_SBW ;;
esac
case "$getpwent_r_proto" in
"|0) try='struct passwd* getpwent_r(struct passwd*, char*, int);'
./protochk "$extern_C $try" $hdrs && getpwent_r_proto=S_SBI ;;
esac
case "$getpwent_r_proto" in
"|0) try='int getpwent_r(struct passwd*, char*, int);'
./protochk "$extern_C $try" $hdrs && getpwent_r_proto=I_SBI ;;
esac
case "$getpwent_r_proto" in
"|0) try='int getpwent_r(struct passwd*, char*, int, FILE**);'
./protochk "$extern_C $try" $hdrs && getpwent_r_proto=I_SBIH ;;
esac
case "$getpwent_r_proto" in
"|0) d_getpwent_r=undef
getpwent_r_proto=0
echo "Disabling getpwent_r, cannot determine prototype." >&4 ;;
*) case "$getpwent_r_proto" in
REENTRANT_PROTO*) ;;
*) getpwent_r_proto="REENTRANT_PROTO_${getpwent_r_proto}" ;;
esac
echo
"Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "getpwent_r has no prototype, not using it." >&4 ;;
esac
d_getpwent_r=undef
getpwent_r_proto=0
;;
esac
;;
*) getpwent_r_proto=0
;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_getpwent\_r.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: pkgsrc.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?MAKE:pkgsrc: src rsrc

?MAKE: -pick add \$@ %<

?S:pkgsrc:

?S: This variable holds the absolute path of the package source.

?S:.

?C:PACKAGE\_SOURCE\_DIR:

?C: Holds the directory name holding the package source.

?C:.

?H:#define PACKAGE\_SOURCE\_DIR "\$pkgsrc"

?H:.

: define absolute package source directory

case "\$src" in

/\*) pkgsrc=\$src;;

\*) pkgsrc=`cd \$rsrc; pwd`;;

esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/pkgsrc.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_off64\_t: \

Inlibc Setvar Compile rm\_try cat lseeksize

?MAKE: -pick add \$@ %<

?S:d\_off64\_t:

?S: This symbol will be defined if the C compiler supports off64\_t.

```

?S:.
?C:HAS_OFF64_T:
?C: This symbol will be defined if the C compiler supports off64_t.
?C:.
?H:#$d_off64_t HAS_OFF64_T /**/
?H:.
?LINT:set d_off64_t
: check for off64_t
echo " "
echo "Checking to see if you have off64_t..." >&4
$cat >try.c <<EOCP
#include <sys/types.h>
#include <unistd.h>
int main() { off64_t x = 7; }
EOCP
set try
if eval $compile; then
 val="$define"
 echo "You have off64_t."
else
 val="$undef"
 echo "You do not have off64_t."
 case "$lseeksize" in
 8) echo "(Your off_t is 64 bits, so you could use that.)" ;;
 esac
fi
$rm_try
set
 d_off64_t
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_off64_t.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_cmsg\_hdr\_s: Hasstruct i\_systypes d\_socket i\_sysuio Setvar

?MAKE: -pick add \$@ %<

?S:d\_cmsg\_hdr\_s:

?S: This variable conditionally defines the HAS\_STRUCT\_CMSGHDR symbol,

?S: which indicates that the struct cmsghdr is supported.

```

?S:.
?C:HAS_STRUCT_CMSGHDR:
?C: This symbol, if defined, indicates that the struct cmsghdr
?C: is supported.
?C:.
?H:#$d_cmsghdr_s HAS_STRUCT_CMSGHDR /**/
?H:.
?LINT:set d_cmsghdr_s
: Check for cmsghdr support
echo " "
echo "Checking to see if your system supports struct cmsghdr..." >&4
set d_cmsghdr_s cmsghdr $i_systypes sys/types.h $d_socket sys/socket.h $i_sysuio sys/uio.h
eval $hasstruct
case "$d_cmsghdr_s" in
"$define") echo "Yes, it does." ;;
*) echo
 "No, it doesn't." ;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/perl/d_cmsghdr_s.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_setpwent.U,v $
?RCS:
?RCS: Copyright (c) 1998 Andy Dougherty
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: $Log: d_setpwent.U,v $
?RCS:
?MAKE:d_setpwent: Inlibc
?MAKE: -pick add $@ %<
?S:d_setpwent:
?S: This variable conditionally defines the HAS_SETPWENT symbol, which
?S: indicates to the C program that the setpwent() routine is available
?S: for initializing sequential access to the passwd database.
?S:.
?C:HAS_SETPWENT:
?C: This symbol, if defined, indicates that the setpwent routine is
?C: available for initializing sequential access of the passwd database.
?C:.
?H:#$d_setpwent HAS_SETPWENT /**/
?H:.
?LINT:set d_setpwent
: see if setpwent exists

```



```
set setpwent d_setpwent
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_setpwent.U
```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_round: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_round:

?S: This variable conditionally defines the HAS\_ROUND symbol, which

?S: indicates to the C program that the round() routine is available.

?S:.

?C:HAS\_ROUND:

?C: This symbol, if defined, indicates that the round routine is

?C: available to round to nearest integer, away from zero.

?C:.

?H:#\$d\_round HAS\_ROUND /\*\*/

?H:.

?LINT:set d\_round

: see if round exists

set round d\_round

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_round.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999-2016 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_PRIfldbl sPRIfldbl d\_PRIgldbl d\_PRIFUldbl sPRIGUldbl d\_PRIEUldbl \

sPRIGldbl d\_PRIldbl sPRIldbl sPRIFUldbl d\_PRIGUldbl sPRIEUldbl \

d\_SCNfldbl d\_double\_style\_vax d\_double\_style\_ieee \

d\_double\_style\_ibm d\_double\_style\_cray d\_double\_has\_subnormals \

d\_double\_has\_inf d\_double\_has\_nan d\_double\_has\_negative\_zero \

sSCNfldbl doublekind: \

d\_longdbl longdblsize doublesize uselongdouble test echo cat rm\_try \

Setvar Compile run i\_stdlib osname gccversion ccflags

?MAKE: -pick add \$@ %<

?S:doublekind:

?S: This variable, if defined, encodes the type of a double:

?S: 1 = IEEE 754 32-bit little endian,

?S: 2 = IEEE 754 32-bit big endian,

?S: 3 = IEEE 754 64-bit little endian,

?S: 4 = IEEE

754 64-bit big endian,

?S: 5 = IEEE 754 128-bit little endian,

?S: 6 = IEEE 754 128-bit big endian,

?S: 7 = IEEE 754 64-bit mixed endian le-be,

?S: 8 = IEEE 754 64-bit mixed endian be-le,

?S: 9 = VAX 32bit little endian F float format

?S: 10 = VAX 64bit little endian D float format

?S: 11 = VAX 64bit little endian G float format

?S: 12 = IBM 32bit format

?S: 13 = IBM 64bit format

?S: 14 = Cray 64bit format

?S: -1 = unknown format.

?S:.

?S:d\_PRIfldbl:

?S: This variable conditionally defines the PERL\_PRIfldbl symbol, which

?S: indicates that stdio has a symbol to print long doubles.

?S:.

?S:d\_PRIgldbl:

?S: This variable conditionally defines the PERL\_PRIfldbl symbol, which

?S: indicates that stdio has a symbol to print long doubles.

?S:.

?S:d\_PRIldbl:

?S: This variable conditionally defines the PERL\_PRIfldbl symbol, which

?S: indicates that stdio has a symbol to print long doubles.

?S:.

?S:d\_PRIFUldbl:

?S: This variable conditionally defines the PERL\_PRIfldbl symbol, which

?S: indicates

that stdio has a symbol to print long doubles.

?S: The 'U' in the name is to separate this from d\_PRIfldbl so that even

?S: case-blind systems can see the difference.

?S:.

?S:d\_PRIGUldbl:

?S: This variable conditionally defines the PERL\_PRIfldbl symbol, which

?S: indicates that stdio has a symbol to print long doubles.

?S: The 'U' in the name is to separate this from d\_PRIgldbl so that even

?S: case-blind systems can see the difference.

?S:.

?S:d\_PRIEUldbl:

?S: This variable conditionally defines the PERL\_PRIfldbl symbol, which

?S: indicates that stdio has a symbol to print long doubles.

?S: The 'U' in the name is to separate this from d\_PRIldbl so that even  
?S: case-blind systems can see the difference.  
?S:.  
?S:d\_SCNfldbl:  
?S: This variable conditionally defines the PERL\_PRIfldbl symbol, which  
?S: indicates that stdio has a symbol to scan long doubles.  
?S:.  
?S:sPRIfldbl:  
?S: This variable, if defined, contains the string used by stdio to  
?S: format long doubles (format 'f') for  
output.  
?S:.  
?S:sPRIGldbl:  
?S: This variable, if defined, contains the string used by stdio to  
?S: format long doubles (format 'g') for output.  
?S:.  
?S:sPRIldbl:  
?S: This variable, if defined, contains the string used by stdio to  
?S: format long doubles (format 'e') for output.  
?S:.  
?S:sPRIFUldbl:  
?S: This variable, if defined, contains the string used by stdio to  
?S: format long doubles (format 'F') for output.  
?S: The 'U' in the name is to separate this from sPRIfldbl so that even  
?S: case-blind systems can see the difference.  
?S:.  
?S:sPRIGUldbl:  
?S: This variable, if defined, contains the string used by stdio to  
?S: format long doubles (format 'G') for output.  
?S: The 'U' in the name is to separate this from sPRIGldbl so that even  
?S: case-blind systems can see the difference.  
?S:.  
?S:sPRIEUldbl:  
?S: This variable, if defined, contains the string used by stdio to  
?S: format long doubles (format 'E') for output.  
?S: The 'U' in the name is to separate this from sPRIldbl so that even  
?S: case-blind  
systems can see the difference.  
?S:.  
?S:sSCNfldbl:  
?S: This variable, if defined, contains the string used by stdio to  
?S: format long doubles (format 'f') for input.  
?S:.  
?S:d\_double\_has\_inf:  
?S: This variable conditionally defines the symbol DOUBLE\_HAS\_INF  
?S: which indicates that the double type has an infinity.  
?S:.  
?S:d\_double\_has\_nan:

?S: This variable conditionally defines the symbol `DOUBLE_HAS_NAN`  
?S: which indicates that the double type has a not-a-number.  
?S:.  
?S:`d_double_has_negative_zero`:  
?S: This variable conditionally defines the symbol `DOUBLE_HAS_NEGATIVE_ZERO`  
?S: which indicates that the double type has a negative zero.  
?S:.  
?S:`d_double_has_subnormals`:  
?S: This variable conditionally defines the symbol `DOUBLE_HAS_SUBNORMALS`  
?S: which indicates that the double type has subnormals (denormals).  
?S:.  
?S:`d_double_style_cray`:  
?S: This variable conditionally defines the symbol `DOUBLE_STYLE_CRAY`  
?S: which indicates that the double is the 64-bit CRAY mainframe  
format.  
?S:.  
?S:`d_double_style_ibm`:  
?S: This variable conditionally defines the symbol `DOUBLE_STYLE_IBM`,  
?S: which indicates that the double is the 64-bit IBM mainframe format.  
?S:.  
?S:`d_double_style_ieee`:  
?S: This variable conditionally defines the symbol `DOUBLE_STYLE_IEEE`,  
?S: which indicates that the double is the 64-bit IEEE 754.  
?S:.  
?S:`d_double_style_vax`:  
?S: This variable conditionally defines the symbol `DOUBLE_STYLE_VAX`,  
?S: which indicates that the double is the 64-bit VAX format D or G.  
?S:.  
?C:`PERL_PRIldbl`:  
?C: This symbol, if defined, contains the string used by `stdio` to  
?C: format long doubles (format 'f') for output.  
?C:.  
?C:`PERL_PRIgdbl`:  
?C: This symbol, if defined, contains the string used by `stdio` to  
?C: format long doubles (format 'g') for output.  
?C:.  
?C:`PERL_PRIeldbl`:  
?C: This symbol, if defined, contains the string used by `stdio` to  
?C: format long doubles (format 'e') for output.  
?C:.  
?C:`PERL_PRIfldbl`:  
?C: This symbol, if defined, contains the string used by `stdio`  
to  
?C: format long doubles (format 'F') for output.  
?C:.  
?C:`PERL_PRIGdbl`:  
?C: This symbol, if defined, contains the string used by `stdio` to  
?C: format long doubles (format 'g') for output.

?C:.

?C:PERL\_PRIEdbl:

?C: This symbol, if defined, contains the string used by stdio to

?C: format long doubles (format 'e') for output.

?C:.

?C:PERL\_SCNfdbl:

?C: This symbol, if defined, contains the string used by stdio to

?C: format long doubles (format 'f') for input.

?C:.

?C:DOUBLEKIND:

?C: DOUBLEKIND will be one of

?C: DOUBLE\_IS\_IEEE\_754\_32\_BIT\_LITTLE\_ENDIAN

?C: DOUBLE\_IS\_IEEE\_754\_32\_BIT\_BIG\_ENDIAN

?C: DOUBLE\_IS\_IEEE\_754\_64\_BIT\_LITTLE\_ENDIAN

?C: DOUBLE\_IS\_IEEE\_754\_64\_BIT\_BIG\_ENDIAN

?C: DOUBLE\_IS\_IEEE\_754\_128\_BIT\_LITTLE\_ENDIAN

?C: DOUBLE\_IS\_IEEE\_754\_128\_BIT\_BIG\_ENDIAN

?C: DOUBLE\_IS\_IEEE\_754\_64\_BIT\_MIXED\_ENDIAN\_LE\_BE

?C: DOUBLE\_IS\_IEEE\_754\_64\_BIT\_MIXED\_ENDIAN\_BE\_LE

?C: DOUBLE\_IS\_VAX\_F\_FLOAT

?C: DOUBLE\_IS\_VAX\_D\_FLOAT

?C: DOUBLE\_IS\_VAX\_G\_FLOAT

?C: DOUBLE\_IS\_IBM\_SINGLE\_32\_BIT

?C: DOUBLE\_IS\_IBM\_DOUBLE\_64\_BIT

?C: DOUBLE\_IS\_CRAY\_SINGLE\_64\_BIT

?C: DOUBLE\_IS\_UNKNOWN\_FORMAT

?C:.

?C:DOUBLE\_HAS\_INF:

?C: This

symbol, if defined, indicates that the double has

?C: the infinity.

?C:.

?C:DOUBLE\_HAS\_NAN:

?C: This symbol, if defined, indicates that the double has

?C: the not-a-number.

?C:.

?C:DOUBLE\_HAS\_NEGATIVE\_ZERO:

?C: This symbol, if defined, indicates that the double has

?C: the negative\_zero.

?C:.

?C:DOUBLE\_HAS\_SUBNORMALS:

?C: This symbol, if defined, indicates that the double has

?C: the subnormals (denormals).

?C:.

?C:DOUBLE\_STYLE\_CRAY:

?C: This symbol, if defined, indicates that the double is

?C: the 64-bit CRAY mainframe format.

?C:.

?C:DOUBLE\_STYLE\_IBM:  
?C: This symbol, if defined, indicates that the double is  
?C: the 64-bit IBM mainframe format.  
?C:.

?C:DOUBLE\_STYLE\_IEEE:  
?C: This symbol, if defined, indicates that the double is  
?C: the 64-bit IEEE 754.  
?C:.

?C:DOUBLE\_STYLE\_VAX:  
?C: This symbol, if defined, indicates that the double is  
?C: the 64-bit VAX format D or G.  
?C:.

?LINT:known  
DOUBLE\_IS\_IEEE\_754\_32\_BIT\_LITTLE\_ENDIAN  
?LINT:known DOUBLE\_IS\_IEEE\_754\_32\_BIT\_BIG\_ENDIAN  
?LINT:known DOUBLE\_IS\_IEEE\_754\_64\_BIT\_LITTLE\_ENDIAN  
?LINT:known DOUBLE\_IS\_IEEE\_754\_64\_BIT\_BIG\_ENDIAN  
?LINT:known DOUBLE\_IS\_IEEE\_754\_128\_BIT\_LITTLE\_ENDIAN  
?LINT:known DOUBLE\_IS\_IEEE\_754\_128\_BIT\_BIG\_ENDIAN  
?LINT:known DOUBLE\_IS\_IEEE\_754\_64\_BIT\_MIXED\_ENDIAN\_LE\_BE  
?LINT:known DOUBLE\_IS\_IEEE\_754\_64\_BIT\_MIXED\_ENDIAN\_BE\_LE  
?LINT:known DOUBLE\_IS\_VAX\_F\_FLOAT  
?LINT:known DOUBLE\_IS\_VAX\_D\_FLOAT  
?LINT:known DOUBLE\_IS\_VAX\_G\_FLOAT  
?LINT:known DOUBLE\_IS\_IBM\_SINGLE\_32\_BIT  
?LINT:known DOUBLE\_IS\_IBM\_DOUBLE\_64\_BIT  
?LINT:known DOUBLE\_IS\_CRAY\_SINGLE\_64\_BIT  
?LINT:known DOUBLE\_IS\_UNKNOWN\_FORMAT  
?H:#define DOUBLEKIND \$doublekind /\*\*/  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_IEEE\_754\_32\_BIT\_LITTLE\_ENDIAN 1  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_IEEE\_754\_32\_BIT\_BIG\_ENDIAN 2  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_IEEE\_754\_64\_BIT\_LITTLE\_ENDIAN 3  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_IEEE\_754\_64\_BIT\_BIG\_ENDIAN 4  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_IEEE\_754\_128\_BIT\_LITTLE\_ENDIAN 5  
?H:?DOUBLEKIND:#define  
DOUBLE\_IS\_IEEE\_754\_128\_BIT\_BIG\_ENDIAN 6  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_IEEE\_754\_64\_BIT\_MIXED\_ENDIAN\_LE\_BE 7  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_IEEE\_754\_64\_BIT\_MIXED\_ENDIAN\_BE\_LE 8  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_VAX\_F\_FLOAT 9  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_VAX\_D\_FLOAT 10  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_VAX\_G\_FLOAT 11  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_IBM\_SINGLE\_32\_BIT 12  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_IBM\_DOUBLE\_64\_BIT 13  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_CRAY\_SINGLE\_64\_BIT 14  
?H:?DOUBLEKIND:#define DOUBLE\_IS\_UNKNOWN\_FORMAT -1  
?H:#\$d\_PRIfldbl PERL\_PRIfldbl \$\$PRIfldbl /\*\*/  
?H:#\$d\_PRIgldbl PERL\_PRIgldbl \$\$PRIgldbl /\*\*/  
?H:#\$d\_PRIeldbl PERL\_PRIeldbl \$\$PRIeldbl /\*\*/

```

?H:#$d_PRIFUldbl PERL_PRIFldbl $sPRIFUldbl /**/
?H:#$d_PRIGUldbl PERL_PRIGldbl $sPRIGUldbl /**/
?H:#$d_PRIEUldbl PERL_PRIEldbl $sPRIEUldbl /**/
?H:#$d_SCNFldbl PERL_SCNFldbl $sSCNFldbl /**/
?H:#$d_double_has_inf DOUBLE_HAS_INF
?H:#$d_double_has_nan DOUBLE_HAS_NAN
?H:#$d_double_has_negative_zero
DOUBLE_HAS_NEGATIVE_ZERO
?H:#$d_double_has_subnormals DOUBLE_HAS_SUBNORMALS
?H:#$d_double_style_cray DOUBLE_STYLE_CRAY
?H:#$d_double_style_ibm DOUBLE_STYLE_IBM
?H:#$d_double_style_ieee DOUBLE_STYLE_IEEE
?H:#$d_double_style_vax DOUBLE_STYLE_VAX
?H:.
?T:yyy message saveccflags
?F:!try
?LINT:change ccflags
?LINT:change uselongdouble
: Check what kind of doubles your system has
$echo "Checking the kind of doubles you have..." >&4
$cat >try.c <<EOP
#$i_stdlib I_STDLIB
#define DOUBLESIZE $doublesize
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#include <stdio.h>
static const double d = -0.1;
int main() {
 unsigned const char* b = (unsigned const char*)&d;
 #if DOUBLESIZE == 4
 if (b[0] == 0xCD && b[3] == 0xBD) {
 /* IEEE 754 32-bit little-endian */
 printf("1\n");
 exit(0);
 }
 if (b[0] == 0xBD && b[3] == 0xCD) {
 /* IEEE 754 32-bit big-endian */
 printf("2\n");
 exit(0);
 }
 if (b[0] == 0xCC && b[3] == 0xCC) {
 /* VAX format F, 32-bit
PDP-style mixed endian. */
 printf("9\n");
 exit(0);
 }
 if (b[0] == 0xC0 && b[3] == 0x9A) {

```

```

/* IBM single 32-bit */
printf("12\n");
exit(0);
}
#endif
#if DOUBLESIZE == 8
if (b[0] == 0x9A && b[7] == 0xBF) {
/* IEEE 754 64-bit little-endian */
printf("3\n");
exit(0);
}
if (b[0] == 0xBF && b[7] == 0x9A) {
/* IEEE 754 64-bit big-endian */
printf("4\n");
exit(0);
}
if (b[0] == 0x99 && b[3] == 0xBF && b[4] == 0x9A && b[7] == 0x99) {
/* ARM mixed endian: two little-endian 32-bit floats, in big endian order:
* 4 5 6 7 0 1 2 3 (MSB = 7, LSB = 0)
* 99 99 b9 bf 9a 99 99 99 */
printf("7\n");
exit(0);
}
if (b[0] == 0x99 && b[3] == 0x9A && b[4] == 0xBF && b[7] == 0x99) {
/* The opposite of case 7, mixed endian: two big-endian 32-bit floats,
* in little endian order: 3 2 1 0 7 6 5 4 (MSB = 7, LSB = 0)
* 99 99 99 9a bf b9 99 99 */
printf("8\n");
exit(0);
}
if (b[0] == 0xCC && b[7] == 0xCC) {
/* VAX
format D, 64-bit PDP-style mixed endian. */
printf("10\n");
exit(0);
}
if (b[0] == 0xD9 && b[7] == 0x99) {
/* VAX format G, 64-bit PDP-style mixed endian. */
printf("11\n");
exit(0);
}
if (b[0] == 0xC0 && b[7] == 0x9A) {
/* IBM double 64-bit */
printf("13\n");
exit(0);
}
if (b[0] == 0xBF && b[7] == 0xCD) {
/* CRAY single 64-bit */

```



```

 printf("14\n");
 exit(0);
}
#endif
#if DOUBLESIZE == 16
if (b[0] == 0x9A && b[15] == 0xBF) {
 /* IEEE 754 128-bit little-endian */
 printf("5\n");
 exit(0);
}
if (b[0] == 0xBF && b[15] == 0x9A) {
 /* IEEE 754 128-bit big-endian */
 printf("6\n");
 exit(0);
}
#endif
/* Then there are old mainframe/miniframe formats like IBM and CRAY.
 * Whether those environments can still build Perl is debatable. */
printf("-1\n"); /* unknown */
exit(0);
}
EOP
set try
if eval $compile; then
 doublekind=`$run ./try`
else
 doublekind=-1
fi
case "$doublekind" in
1) echo "You have IEEE
 754 32-bit little endian doubles." >&4 ;;
2) echo "You have IEEE 754 32-bit big endian doubles." >&4 ;;
3) echo "You have IEEE 754 64-bit little endian doubles." >&4 ;;
4) echo "You have IEEE 754 64-bit big endian doubles." >&4 ;;
5) echo "You have IEEE 754 128-bit little endian doubles." >&4 ;;
6) echo "You have IEEE 754 128-bit big endian doubles." >&4 ;;
7) echo "You have IEEE 754 64-bit mixed endian doubles (32-bit LEs in BE)." >&4 ;;
8) echo "You have IEEE 754 64-bit mixed endian doubles (32-bit BEs in LE)." >&4 ;;
9) echo "You have VAX format F 32-bit PDP-style mixed endian doubles." >&4 ;;
10) echo "You have VAX format D 64-bit PDP-style mixed endian doubles." >&4 ;;
11) echo "You have VAX format G 64-bit PDP-style mixed endian doubles." >&4 ;;
12) echo "You have IBM short 32-bit doubles." >&4 ;;
13) echo "You have IBM long 64-bit doubles." >&4 ;;
14) echo "You have Cray single 64-bit doubles." >&4 ;;
*) echo "Cannot figure out your double. You Cyber, or something?" >&4 ;;
esac
d_double_style_ieee=$undef
d_double_style_vax=$undef

```

```

d_double_style_ibm=$undef
d_double_style_cray=$undef
case
"$doublekind" in
1|2|3|4|5|6|7|8) d_double_style_ieee=$define ;;
9|10|11) d_double_style_vax=$define ;;
12|13) d_double_style_ibm=$define ;;
14) d_double_style_cray=$define ;;
esac
case "$d_double_style_ieee" in
$define)
 d_double_has_inf=$define
 d_double_has_nan=$define
 d_double_has_negative_zero=$define
 d_double_has_subnormals=$define
 ;;
*)
 d_double_has_inf=$undef
 d_double_has_nan=$undef
 d_double_has_negative_zero=$undef
 d_double_has_subnormals=$undef
 ;;
esac
$rm_try

: Check print/scan long double stuff
echo " "

if $test X"$d_longdbl" = X"$define"; then

echo "Checking how to print long doubles..." >&4

if $test X"$sPRIldbl" = X -a X"$doublesize" = X"$longdblsize"; then
 $cat >try.c <<'EOCP'
#include <sys/types.h>
#include <stdio.h>
int main() {
 double d = 123.456;
 printf("%.3f\n", d);
}
EOCP
set try
if eval $compile; then
 yyy=`$run
./try`
 case "$yyy" in
 123.456)
 sPRIldbl="f"; sPRIgldbl="g"; sPRIeldbl="e";

```

```

sPRIFUdbl="F"; sPRIGUdbl="G"; sPRIEUdbl="E";
echo "We will use %f."
;;
esac
fi
fi

if $test X"$sPRIfdbl" = X; then
$cat >try.c <<'EOCP'
#include <sys/types.h>
#include <stdio.h>
int main() {
long double d = 123.456;
printf("%.3Lf\n", d);
}
EOCP
set try
if eval $compile; then
yyy=`$run ./try`
case "$yyy" in
123.456)
sPRIfdbl="Lf"; sPRIGdbl="Lg"; sPRIeldbl="Le";
sPRIFUdbl="LF"; sPRIGUdbl="LG"; sPRIEUdbl="LE";
echo "We will use %Lf."
;;
esac
fi
fi

if $test X"$sPRIfdbl" = X; then
$cat >try.c <<'EOCP'
#include <sys/types.h>
#include <stdio.h>
int main() {
long double d = 123.456;
printf("%.3llf\n", d);
}
EOCP
set try
if eval $compile; then
yyy=`$run ./try`
case "$yyy" in
123.456)
sPRIfdbl="llf"; sPRIGdbl="llg"; sPRIeldbl="lle";
sPRIFUdbl="llF"; sPRIGUdbl="llG"; sPRIEUdbl="llE";
echo "We
will use %llf."
;;

```

```

 esac
fi
fi

if $test X"$sPRIfldbl" = X; then
 $cat >try.c <<'EOCP'
#include <sys/types.h>
#include <stdio.h>
int main() {
 long double d = 123.456;
 printf("%.3lf\n", d);
}
EOCP
set try
if eval $compile; then
 yyy=`$run ./try`
 case "$yyy" in
 123.456)
 sPRIfldbl="lf"; sPRIGldbl="lg"; sPRIeldbl="le";
 sPRIFUldbl="lF"; sPRIGUldbl="lG"; sPRIEUldbl="lE";
 echo "We will use %lf."
 ;;
 esac
 fi
fi

if $test X"$sPRIfldbl" = X; then
 echo "Cannot figure out how to print long doubles." >&4
else
 sSCNfldbl=$sPRIfldbl # expect consistency
fi

$rm_try

fi # d_longdbl

case "$sPRIfldbl" in
 *) d_PRIfldbl="$sundef"; d_PRIGldbl="$sundef"; d_PRIeldbl="$sundef";
 d_PRIFUldbl="$sundef"; d_PRIGUldbl="$sundef"; d_PRIEUldbl="$sundef";
 d_SCNfldbl="$sundef";
 ;;
 *) d_PRIfldbl="$sdefine"; d_PRIGldbl="$sdefine"; d_PRIeldbl="$sdefine";
 d_PRIFUldbl="$sdefine"; d_PRIGUldbl="$sdefine"; d_PRIEUldbl="$sdefine";
 d_SCNfldbl="$sdefine";
 ;;
esac

```

: Before committing on uselongdouble,

see whether that looks sane.

```
if $test "$uselongdouble" = "$define"; then
 message=""
 echo " "
 echo "Checking if your long double math functions work right..." >&4
 $cat > try.c <<EOF
#include <math.h>
#include <stdio.h>
int main() {
 printf("%$PRIgdbl\n", sqrt(logl(exp(cosl(sinl(0.0L))))+powl(2.0L, 3.0L)));
}
EOF
 case "$osname:$gccversion" in
 aix:*) saveccflags="$ccflags"
 ccflags="$ccflags -qlongdouble" ;; # to avoid core dump
 esac
 set try
 if eval $compile_ok; then
 yyy=`$run ./try`
 fi
 case "$yyy" in
 3) echo "Your long double math functions are working correctly." >&4 ;;
 *) echo "Your long double math functions are broken, not using long doubles." >&4
 uselongdouble=$undef
 ;;
 esac
 $rm_try
 case "$osname:$gccversion" in
 aix:*) ccflags="$saveccflags" ;; # restore
 esac
fi
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/longdblfoo.U
```

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?RCS:

?RCS: \$Log: d\_msg.U,v \$

```

?RCS: Revision 3.0 1993/08/18 12:06:37 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_msg: test d_msgctl d_msgget d_msgsnd d_msgrcv Setvar Findhdr osname
?MAKE: -pick add $@ %<
?S:d_msg:
?S: This variable conditionally defines the HAS_MSG symbol, which
?S: indicates that the entire msg*(2) library is present.
?S:.
?C:HAS_MSG:
?C: This symbol, if defined, indicates that the entire msg*(2) library is
?C: supported (IPC mechanism based on message queues).
?C:.
?H:#$d_msg
HAS_MSG /**/
?H:.
?T:h_msg
?LINT:set d_msg
: see how much of the 'msg*(2)' library is present.
h_msg=true
echo " "
case "d_msgctld_msggetd_msgsndd_msgrcv" in
"$undef") h_msg=false;;
esac
case "$osname" in
freebsd)
 case "`ipcs 2>&1`" in
 "SVID messages"*"not configured"*)
 echo "Your $osname does not have the msg*(2) configured." >&4
 h_msg=false
 val="$undef"
 set msgctl d_msgctl
 eval $setvar
 set msgget d_msgget
 eval $setvar
 set msgsnd d_msgsnd
 eval $setvar
 set msgrcv d_msgrcv
 eval $setvar
 ;;
 esac
 ;;
 esac
: we could also check for sys/ipc.h ...
if $h_msg && $test `./findhdr sys/msg.h`; then
 echo "You have the full msg*(2) library." >&4
 val="$define"
else

```

```
echo "You don't have the full msg*(2) library." >&4
val="$undef"
fi
set d_msg
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_msg.U
```

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?RCS:

?RCS: \$Log: nis.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 16:17:38 ram

?RCS: patch61: ensure suitable defaults for hostcat and friends

?RCS:

?RCS: Revision 3.0.1.2 1995/03/21 08:48:34 ram

?RCS: patch52: continued fix for NeXT NIS/NetInfo handling

?RCS:

?RCS: Revision 3.0.1.1 1995/02/15 14:16:23 ram

?RCS: patch51: now correctly handles NeXT using NIS rather than NetInfo

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:24 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:passcat groupcat hostcat:

Myread Oldconfig test contains

?MAKE: -pick add \$@ %<

?S:passcat:

?S: This variable contains a command that produces the text of the

?S: /etc/passwd file. This is normally "cat /etc/passwd", but can be

?S: "ypcat passwd" when NIS is used.

?S:.

?S:groupcat:

?S: This variable contains a command that produces the text of the

?S: /etc/group file. This is normally "cat /etc/group", but can be

?S: "ypcat group" when NIS is used.

?S:.

?S:hostcat:

?S: This variable contains a command that produces the text of the

?S: /etc/hosts file. This is normally "cat /etc/hosts", but can be

?S: "ypcat hosts" when NIS is used.

?S:.

: see if we have to deal with yellow pages, now NIS.

?X: NeXT gives us some fun here, as always, by having both NIS (former YP)

?X: and NetInfo. But since it has both, it's ok to put the test inside the if.

?X: Contributed by Thomas Neumann <tom@smart.bo.open.de>.

```
if $test -d /usr/etc/yp || $test -d /etc/yp || $test -d /usr/lib/yp; then
```

```
if $test -f /usr/etc/nibindd; then
```

```
 echo
```

```
 " "
```

```
 echo "I'm fairly confident you're on a NeXT."
```

```
@if passcat || groupcat
```

```
 echo " "
```

```
 rp='Do you get the passwd file via NetInfo?'
```

```
 dflt=y
```

```
 case "$passcat" in
```

```
 nidump*) ;;
```

```
 *) ;;
```

```
 *) dflt=n;;
```

```
 esac
```

```
 ./myread
```

```
 case "$ans" in
```

```
 y*) passcat='nidump passwd .'
```

```
@if groupcat
```

```
 echo "(Assuming /etc/group is also distributed.)"
```

```
 groupcat='nidump group .'
```

```
@end
```

```
;;
```

```
*) echo "You told me, so don't blame me."
```

```
case "$passcat" in
```

```
 nidump*) passcat="
```

```
@if groupcat
```

```
 groupcat="";;
```

```
@end
```

```
esac
```

```
@if groupcat
```

```
 echo "(Assuming /etc/group is handled the same way.)"
```

```
@end
```

```
;;
```

```
esac
```

```
@end
```

```
@if hostcat
```

```
 echo " "
```

```
 rp='Do you get the hosts file via NetInfo?'
```

```
 dflt=y
```

```
 case "$hostcat" in
```



```

nidump*) ;;
") ;;
*) dflt=n;;
esac
./myread
case "$ans" in
y*) hostcat='nidump hosts .';;
*) case "$hostcat" in
nidump*) hostcat="";;
esac
;;
esac
@end
fi
@if passcat || groupcat
case "$passcat" in
nidump*) ;;
*)
case "$passcat" in
*y*cat*) dflt=y;;
")
if $contains '^+' /etc/passwd >/dev/null 2>&1; then
dflt=y
else
dflt=n
fi;;
*) dflt=n;;
esac
echo " "
rp='Are you getting the passwd file via yellow pages?'
./myread
case "$ans" in
y*) passcat='ypcat passwd'
@if groupcat
echo "(Assuming /etc/group is also distributed.)"
groupcat='ypcat group'
@end
;;
*) passcat='cat /etc/passwd'
@if groupcat
echo "(Assuming /etc/group is also local.)"
groupcat='cat /etc/group'
@end
;;
esac
;;
esac
@end

```

```

@if hostcat
case "$hostcat" in
nidump*) ;;
*)
case "$hostcat" in
yocat) dflt=y;;
") if $contains '^\\+' /etc/passwd >/dev/null 2>&1; then
dflt=y
else
dflt=n
fi;;
*) dflt=n;;
esac
echo " "
rp='Are you getting the hosts file via yellow pages?'
./myread
case "$ans" in
y*) hostcat='yocat hosts';;
*) hostcat='cat /etc/hosts';;
esac
;;
esac
@end
fi
?X: Ensure suitable default -- Manoj Srivastava
case "$hostcat" in
") hostcat=':
$test -f /etc/hosts && hostcat='cat
/etc/hosts';;
esac
case "$groupcat" in
") groupcat=':
$test -f /etc/group && groupcat='cat /etc/group';;
esac
case "$passcat" in
") passcat=':
$test -f /etc/passwd && passcat='cat /etc/passwd';;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/nis.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_fchown.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_fchown.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:06:01 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_fchown: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_fchown:  
?S: This variable conditionally defines the HAS\_FCHOWN symbol, which  
?S: indicates to the C program that the fchown() routine is available  
?S: to change ownership of opened files.  
?S:.  
?C:HAS\_FCHOWN (FCHOWN):  
?C: This symbol, if defined, indicates that the fchown routine is available  
?C: to  
change ownership of opened files. If unavailable, use chown().  
?C:.  
?H:#\$d\_fchown HAS\_FCHOWN /\*\*/  
?H:.  
?LINT:set d\_fchown  
: see if fchown exists  
set fchown d\_fchown  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_fchown.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_fp.U,v \$  
?RCS:  
?RCS: Copyright (c) 1998 Jarkko Hietaniemi  
?RCS:  
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?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:i\_fp: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_fp:  
?S: This variable conditionally defines the I\_FP symbol, and indicates  
?S: whether a C program should include <fp.h>.  
?S:.  
?C:I\_FP:

?C: This symbol, if defined, indicates that <fp.h> exists and

?C: should be included.

?C:.

?H:#\$i\_fp I\_FP /\*\*/

?H:.

?LINT:set i\_fp

: see if this is a fp.h system

set fp.h i\_fp

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_fp.U

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?RCS:

?MAKE:d\_lgamma\_r: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_lgamma\_r:

?S: This variable conditionally defines the HAS\_LGAMMA\_R symbol, which

?S: indicates to the C program that the lgamma\_r() routine is available

?S: for the log gamma function, without using the global signgam variable.

?S:.

?C:HAS\_LGAMMA\_R:

?C: This symbol, if defined, indicates that the lgamma\_r routine is

?C: available to do the log gamma function without using the global

?C: signgam variable.

?C:.

?H:#\$d\_lgamma\_r HAS\_LGAMMA\_R /\*\*/

?H:.

?LINT:set d\_lgamma\_r

: see if lgamma\_r exists

set lgamma\_r d\_lgamma\_r

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_lgamma\_r.U

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?RCS: \$Id\$

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?RCS:  
?MAKE:d\_isfinitel: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_isfinitel:  
?S: This variable conditionally defines the HAS\_ISFINITEL symbol, which  
?S: indicates to the C program that the isfinitel() routine is available.  
?S:.  
?C:HAS\_ISFINITEL:  
?C: This symbol, if defined, indicates that the isfinitel routine is  
?C: available to check whether a long double is finite.  
?C: (non-infinity non-NaN).  
?C:.  
?H:#\$d\_isfinitel HAS\_ISFINITEL /\*\*/  
?H:.  
?LINT:set d\_isfinitel  
: see if isfinitel exists  
set isfinitel d\_isfinitel  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_isfinitel.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Inlibc.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: Inlibc.U,v \$  
?RCS: Revision 3.0.1.1 1994/10/29 15:55:08 ram  
?RCS: patch36: call ./whoa explicitly instead of relying on PATH  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:05:03 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: This unit checks for the definition of a given function.  
?X:  
?X: To use it, say:  
?X: set function d\_func  
?X: eval \$inlibc  
?X:

```

?MAKE:Inlibc: Csym Whoa Oldconfig
?MAKE: -pick add $@ %<
?LINT:define inlibc
?V:inlibc
?S:inlibc:
?S: This
 shell variable is used internally by Configure to check
?S: wether a given function is defined or not. A typical use is:
?S: set function d_func
?S: eval $inlibc
?S: That will print a message, saying wether function was found or
?S: not and set d_func accordingly.
?S:.
?T:was tx sym tres td tu var
: define an is-in-libc? function
inlibc='echo " "; td=$define; tu=$undef;
sym=$1; var=$2; eval "was=\$2";
tx=yes;
case "$reuseval$was" in
true) ;;
true*) tx=no;;
esac;
case "$tx" in
yes)
set $sym tres -f;
eval $csym;
case "$tres" in
true)
echo "$sym() found." >&4;
case "$was" in $undef) . ./whoa; esac; eval "$var=\$td";;
*)
echo "$sym() NOT found." >&4;
case "$was" in $define) . ./whoa; esac; eval "$var=\$tu";;
esac;;
*)
case "$was" in
$define) echo "$sym() found." >&4;;
*) echo "$sym() NOT found." >&4;;
esac;;
esac'

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Inlibc.U

```

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```
?RCS: Id
```

```
?RCS:
```

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.

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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: floatsize.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:17:09 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:

?RCS: Revision 3.0 1993/08/18 12:08:09 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:floatsize: cat rm Myread +cc +ccflags

?MAKE: -pick add \$@ %<

?S:floatsize:

?S: This variable contains the value of the FLOATSIZE symbol, which  
?S: indicates to the C program how many bytes there are in a float.

?S:.

?C:FLOATSIZE:

?C: This symbol contains the size of  
a float, so that the C preprocessor  
?C: can make decisions based on it.

?C:.

?H:#define FLOATSIZE \$floatsize /\*\*/

?H:.

?F:!try

: check for length of float

echo " "

case "\$floatsize" in

")

echo "Checking to see how big your floating point numbers are..." >&4

\$cat >try.c <<'EOCP'

#include <stdio.h>

int main()

{

printf("%d\n", sizeof(float));

}

EOCP

if \$cc \$ccflags -o try try.c >/dev/null 2>&1 ; then

dflt=`./try`

else

dflt='4'

echo "(I can't seem to compile the test program. Guessing...)"

fi

::

```
*)
dflt="$floatsize"
;;
esac
rp="What is the size of a floating point number (in bytes)?"
./myread
floatsize="$ans"
$rm -f try.c try
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/floatsize.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_getfsstat : Inlibc

?MAKE: -pick add \$@ %<

?S:d\_getfsstat:

?S: This variable conditionally defines the HAS\_GETFSSTAT symbol, which

?S: indicates to the C program that the getfsstat() routine is available.

?S:.

?C:HAS\_GETFSSTAT:

?C: This symbol, if defined, indicates that the getfsstat routine is

?C: available to stat filesystems in bulk.

?C:.

?H:#\$d\_getfsstat HAS\_GETFSSTAT /\*\*/

?H:.

?LINT:set d\_getfsstat

: see if getfsstat exists

set getfsstat d\_getfsstat

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_getfsstat.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Instruct.U,v 3.0.1.3 1997/02/28 15:02:55 ram Exp \$

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: Instruct.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 15:02:55 ram

?RCS: patch61: logname / whoami sequence rewritten to use case

?RCS:

?RCS: Revision 3.0.1.2 1995/02/15 14:11:34 ram

?RCS: patch51: author name now appears at the end of the paragraph (WED)

?RCS:

?RCS: Revision 3.0.1.1 1995/01/11 15:12:05 ram

?RCS: patch45: now documents the & escape to turn -d on at the read prompt

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:04 ram

?RCS: Baseline for

dist 3.0 netwide release.

?RCS:

?X:

?X: This unit spew out the directions that we want everyone to read. I try to

?X: keep the first "pagefull" much less than a page since they don't know it

?X: isn't going to go shooting off the top of the screen, and we don't want

?X: to panic them yet.

?X:

?MAKE:Instruct: Myread Configdir Devel contains

?MAKE: -pick wipe \$@ %<

?T:user needman firsttime

: general instructions

needman=true

firsttime=true

user=`(logname) 2>/dev/null`

case "\$user" in

") user=`whoami 2>&1`;;

esac

if \$contains "^\$user\$" ../.config/instruct >/dev/null 2>&1; then

firsttime=false

echo " "

rp='Would you like to see the instructions?'

dflt=n

. /myread

case "\$ans" in

[yY]\*) ;;

\*) needman=false;;

esac

fi

if \$needman; then

cat <<EOH

This installation shell script will examine your system and ask you questions to determine how the <PACKAGENAME> package should be installed. If you get stuck on a question, you may use a ! shell escape to start a subshell or execute a command. Many of the questions will have default answers in square brackets; typing carriage return will give you the default.

On some of the questions which ask for file or directory names you are allowed to use the ~name construct to specify the login directory belonging to "name", even if you don't have a shell which knows about that. Questions where this is allowed will be marked "(~name ok)".

```
EOH
rp="
dflt='Type carriage return to continue'
. ./myread
cat <<'EOH'
```

The prompter used in this script allows you to use shell variables and backticks in your answers. You may use \$1, \$2, etc... to refer to the words in the default answer, as if the default line was a set of arguments given to a script shell. This means you may also use \$\* to repeat the whole default line, so you do not have to re-type everything to add something to the default.

Every time there is a substitution, you will have to confirm. If there is an error (e.g. an unmatched backtick), the default answer will remain unchanged and you will be prompted again.

If you are in a hurry, you may run 'Configure -d'. This will bypass nearly all the questions and use the computed defaults (or the previous answers if there was already a config.sh file). Type 'Configure -h' for a list of options. You may also start interactively and then answer '& -d' at any prompt to turn on the non-interactive behaviour for the remainder of the execution.

```
EOH
. ./myread
cat <<EOH
```

Much effort has been expended to ensure that this shell script will run on any Unix system. If despite that it blows up on yours, your best bet is to edit Configure and run it again. If you can't run Configure for some reason, you'll have to generate a config.sh file by hand. Whatever problems you have, let me (<MAINTLOC>) know how I blew it.

This installation script affects things in two ways:

- 1) it may do direct variable substitutions on some of the files included in this kit.
- 2) it builds a config.h file for inclusion in C programs. You may edit any of these files as the need arises after running this script.

If you make a mistake on a question, there is no easy way to back up to it currently. The easiest thing to do is to edit config.sh and rerun all the SH files. Configure will offer to let you do this before it runs the SH files.

EOH

?X: In case they played with the prompter...

```
dflt='Type carriage return to continue'
. ./myread
case "$firsttime" in
true) echo $user >>../.config/instruct;;
esac
fi
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Instruct.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: MailList.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Graham Stoney <greyham@research.canon.oz.au>

?RCS:

?RCS: \$Log: MailList.U,v \$

?RCS: Revision 3.0.1.1 1994/01/24 14:01:49 ram

?RCS: patch16: created

?RCS:

?RCS:

?X:

?X: This unit offers the user the option of subscribing to the mailing

?X: list. To force inclusion of this unit, you must add it's name to the

?X: dependancies on the MAKE line in your private copy of End.U.

?X: The address of the mailing list server must be set via a "list\_request=..."

?X:

entry in the .package file. This is usually done by running packinit and

?X: answering the proper questions.

?X:

?MAKE:MailList: cat mailer package Myread cf\_name cf\_email

?MAKE: -pick wipe \$@ %<

?T:list\_request list\_sub list\_unsub list\_name

?X:

?X: The cf\_name dependency is used through list\_sub when the mailing list

?X: manager happens to be listserv, whereas cf\_email is used with majordomo

?X: or when the mailing list request address is scanned by a human. Since

?X: they do not appear within the unit itself, we need a lint hint.

?X:

?LINT:use cf\_name cf\_email

: offer to join the mailing list

list\_request='<\$list\_request>'

list\_sub="<\$list\_sub>"

list\_unsub="<\$list\_unsub>"

list\_name="<\$list\_name>"

\$cat <<EOM

There is a mailing list for discussion about \$package and related issues.

This is the preferred place to ask questions about the program and discuss modifications and additions with the author and other users. If you are able to send mail to the Internet, you

are encouraged to subscribe. You need only

ever subscribe once, and you can unsubscribe automatically at any time in the

future. If you have already subscribed and you wish to unsubscribe now, you

may do so by answering "unsubscribe". Answer "subscribe" to subscribe to the list.

EOM

rp="Subscribe to or unsubscribe from the \$list\_name mailing list?"

dflt=neither

./myread

case "\$ans" in

[sS]\*) \$cat <<EOM

You will be sent a message from the list server to let you know when your subscription has been successful and telling you how to submit articles and

how to unsubscribe again when necessary. You may also unsubscribe by running this script again and asking it to do so for you.

EOM

echo "Sending mail to subscribe you to the \$list\_name list..." >&4

\$mailer \$list\_request <<EOM >/dev/null 2>&1

Precedence: junk

To: \$list\_request

```
$list_sub
EOM
;;
[uU]*) echo "Sending mail to unsubscribe you from the $list_name list..." >&4
$mailer $list_request <<EOM >/dev/null 2>&1
Precedence: junk
To:
$list_request
```

```
$list_unsub
EOM
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/MailList.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Extras.U,v$
?RCS:
?RCS: Copyright (c) 2001, Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:extras: Myread Oldconfig Setvar rm
?MAKE: -pick add $@ %<
?Y:TOP
?S:extras:
?S: This variable holds a list of extra modules to install.
?S:.
: See if we want extra modules installed
echo " "
case "$extras" in
") dflt='n';;
*) dflt='y';;
esac
cat <<EOM
```

Perl can be built with extra modules or bundles of modules which will be fetched from the CPAN and installed alongside Perl.

Notice that you will need access to the CPAN; either via the Internet, or a local copy, for example a CD-ROM or a local CPAN mirror. (You will be asked later to configure the CPAN.pm module which will in turn do the installation of the rest of the extra modules or bundles.)

Notice also that if the modules require

any external software such as libraries and headers (the libz library and the zlib.h header for the Compress::Zlib module, for example) you MUST have any such software already installed, this configuration process will NOT install such things for you.

If this doesn't make any sense to you, just accept the default '\$dfmt'.

EOM

```
rp='Install any extra modules (y or n)?'
./myread
case "$ans" in
y|Y)
cat <<EOM
```

Please list any extra modules or bundles to be installed from CPAN, with spaces between the names. The names can be in any format the 'install' command of CPAN.pm will understand. (Answer 'none', without the quotes, to install no extra modules or bundles.)

EOM

```
rp='Extras?'
dfmt="$extras"
./myread
extras="$ans"
esac
case "$extras" in
"|none")
val=""
$rm -f ../extras.lst
;;
*) echo "(Saving the list of extras for later...)"
echo "$extras" > ../extras.lst
val="$extras"
;;
esac
set extras
eval $setvar
echo " "
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/Extras.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_getitimer: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_getitimer:

?S: This variable conditionally defines the HAS\_GETITIMER symbol, which

?S: indicates to the C program that the getitimer() routine is available.

?S:.

?C:HAS\_GETITIMER:

?C: This symbol, if defined, indicates that the getitimer routine is

?C: available to return interval timers.

?C:.

?H:#\$d\_getitimer HAS\_GETITIMER /\*\*/

?H:.

?LINT:set d\_getitimer

: see if getitimer exists

set getitimer d\_getitimer

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_getitimer.U

No license file was found, but licenses were detected in source scan.

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: usrinc.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 16:27:12 ram

?RCS: patch61: don't ask for the include path unless they are on a MIPS

?RCS:

?RCS: Revision 3.0.1.2 1995/05/12 12:24:36 ram

?RCS: patch54: ensure that ./mips always exists (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/05/06 15:18:31 ram

?RCS: patch23: ensure usrinc value is preserved across sessions (WED)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:58 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:usrinc incpath mips\_type:

```

test cat echo n c Getfile Guess \
Oldconfig eunicefix contains rm
?MAKE: -pick add $@ %<
?S:usrinc:
?S: This variable holds the path of the include files, which is
?S: usually /usr/include. It is mainly used by other Configure units.
?S:.
?S:incpath:
?S: This variable must precede the normal include path to get the
?S: right one, as in "$incpath/usr/include" or "$incpath/usr/lib".
?S: Value can be "" or "/bsd43" on mips.
?S:.
?S:mips_type:
?S: This variable holds the environment type for the mips system.
?S: Possible values are "BSD 4.3" and "System V".
?S:.
?D:usrinc='/usr/include'
?LINT:create mips
?T:xxx_prompt
?F:./mips
: What should the include directory be ?
echo " "
$echo $n "Hmm... $c"
dflt='/usr/include'
incpath=""
?X: mips_type is used later, to add -DSYSTYPE_BSD43 to cppflags if needed.
mips_type=""
?X:
?X: Cannot put the following in Guess, or we get a circular dependency.
?X:
if $test -f /bin/mips && /bin/mips; then
echo "Looks like a MIPS system..."
$cat >usr.c
<<'EOCP'
#ifdef SYSTYPE_BSD43
/bsd43
#endif
EOCP
if cc -E usr.c > usr.out && $contains /usr.out >/dev/null 2>&1; then
dflt='/bsd43/usr/include'
incpath='/bsd43'
mips_type='BSD 4.3'
else
mips_type='System V'
fi
$rm -f usr.c usr.out
echo "and you're compiling with the $mips_type compiler and libraries."
xxx_prompt=y

```



```

echo "exit 0" >mips
else
echo "Doesn't look like a MIPS system."
xxx_prompt=n
echo "exit 1" >mips
fi
chmod +x mips
$unicefix mips
case "$usrinc" in
") ;;
*) dflt="$usrinc";;
esac
case "$xxx_prompt" in
y) fn=d/
echo " "
rp='Where are the include files you want to use?'
./getfile
usrinc="$ans"
;;
*) usrinc="$dflt"
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/usrinc.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_mmap.U,v \$

?RCS: Revision 3.0.1.1 1993/12/15 08:19:12 ram

?RCS: patch15: created

?RCS:

?MAKE:d\_mmap: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_mmap:

?S: This variable conditionally defines HAS\_MMAP if mmap() is

?S: available to map a file into memory.

?S:.

?C:HAS\_MMAP:

?C: This symbol, if defined, indicates that the mmap system call is

?C: available to map a file into memory.

?C:.

?H:#\$d\_mmap HAS\_MMAP /\*\*/

?H:.

?LINT:set d\_mmap

: see if mmap exists

set mmap d\_mmap

eval \$inlibc

Found in path(s):

\*

/opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_mmap.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_ttyname\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_ttyname\_r ttyname\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
usethreads i\_unistd extern\_C

?MAKE: -pick add \$@ %<

?S:d\_ttyname\_r:

?S: This variable conditionally defines the HAS\_TTYNAME\_R symbol,

?S: which indicates to the C program that the ttyname\_r()

?S: routine is available.

?S:.

?S:ttyname\_r\_proto:

?S: This variable encodes the prototype of ttyname\_r.

?S: It is zero if d\_ttyname\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_ttyname\_r

?S: is defined.

?S:.

?C:HAS\_TTYNAME\_R:

?C: This symbol, if defined, indicates that the ttyname\_r routine

?C: is available to ttyname re-entrantly.

?C:.

?C:TTYNAME\_R\_PROTO:

?C: This

symbol encodes the prototype of ttyname\_r.

?C: It is zero if d\_ttyname\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_ttyname\_r

```

?C: is defined.
?C:.
?H:#$d_ttyname_r HAS_TTYNAME_R /**/
?H:#define TTYNAME_R_PROTO $ttyname_r_proto /**/
?H:.
?T:try hdrs d_ttyname_r_proto
: see if ttyname_r exists
set ttyname_r d_ttyname_r
eval $inlibc
case "$d_ttyname_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_unistd unistd.h"
case "$d_ttyname_r_proto:$usethreads" in
":define") d_ttyname_r_proto=define
set d_ttyname_r_proto ttyname_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_ttyname_r_proto" in
define)
case "$ttyname_r_proto" in
"|0) try='int ttyname_r(int, char*, size_t);'
./protochk "$extern_C $try" $hdrs && ttyname_r_proto=I_IBW ;;
esac
case "$ttyname_r_proto" in
"|0) try='int ttyname_r(int, char*, int);'
./protochk "$extern_C $try" $hdrs && ttyname_r_proto=I_IBI ;;
esac
case "$ttyname_r_proto"
in
"|0) try='char* ttyname_r(int, char*, int);'
./protochk "$extern_C $try" $hdrs && ttyname_r_proto=B_IBI ;;
esac
case "$ttyname_r_proto" in
"|0) d_ttyname_r=undef
ttyname_r_proto=0
echo "Disabling ttyname_r, cannot determine prototype." >&4 ;;
*) case "$ttyname_r_proto" in
REENTRANT_PROTO*) ;;
*) ttyname_r_proto="REENTRANT_PROTO_$ttyname_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "ttyname_r has no prototype, not using it." >&4 ;;
esac
d_ttyname_r=undef

```

```
ttyname_r_proto=0
;;
esac
;;
*) ttyname_r_proto=0
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_ttyname_r.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_vfork.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: i_vfork.U,v $
?RCS: Revision 3.0.1.1 1994/05/06 15:05:44 ram
?RCS: patch23: avoid inclusion of <vfork.h> if no vfork() used (ADO)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:50 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:i_vfork: Inhdr d_vfork
?MAKE: -pick add $@ %<
?S:i_vfork:
?S: This variable conditionally defines the I_VFORK symbol, and indicates
?S: whether a C program should include vfork.h.
?S:.
?C:I_VFORK:
?C: This symbol,
if defined, indicates to the C program that it should
?C: include vfork.h.
?C:.
?H:#$i_vfork I_VFORK /**/
?H:.
: see if this is a vfork system
case "$d_vfork" in
"$define")
set vfork.h i_vfork
eval $inhdr
```

```
;;
*)
i_vfork="$Sundef"
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_vfork.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_fchdir: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fchdir:

?S: This variable conditionally defines the HAS\_FCHDIR symbol, which

?S: indicates to the C program that the fchdir() routine is available.

?S:.

?C:HAS\_FCHDIR:

?C: This symbol, if defined, indicates that the fchdir routine is

?C: available to change directory using a file descriptor.

?C:.

?H:#\$d\_fchdir HAS\_FCHDIR /\*\*/

?H:.

?LINT:set d\_fchdir

: see if fchdir exists

set fchdir d\_fchdir

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_fchdir.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Signal.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Signal.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:20:01 ram

?RCS: patch61: created

?RCS:

?X:

?X: This unit produces three files:

?X: 1- A signal.c file, which, when compiled and run, produces an output like:

?X:

?X: HUP 1

?X: INT 2

?X: QUIT 3

?X: etc...

?X:

?X: 2- A signal.awk script to parse the output of signal.c, fill

?X: in gaps (up to NSIG) and move duplicates to the end.

?X: 3- A signal\_cmd script to compile signal.c and run it

?X: through

sort -n -k 2 | uniq | awk -f signal.awk.

?X: (we try also sort -n +1 since some old hosts don't grok sort -k)

?X: (This is called signal\_cmd to avoid OS/2 confusion with

?X: signal.cmd vs. signal.

?X: The signal\_cmd script also falls back on checking signals one at a

?X: time in case the signal.c program fails. On at least one version of

?X: Linux 2.1.x, the header file #define'd SIGRTMAX to a symbol that

?X: is not defined by the compiler/linker. :-(. Further, on that same

?X: version of Linux, the user had a defective C-shell that gave an

?X: incorrect list for kill -l, so the fall-back didn't work.

?X:

?X: This unit is then used by sig\_name.U.

?X:

?MAKE:Signal: test tr rm awk cat grep startsh eunicefix sed sort uniq \  
Findhdr cppstdin +cppflags cppminus Compile \_o \_exe trnl run i\_stdlib \  
sysroot

?MAKE: -pick add \$@ %<

?X:all files declared as "public" since they're used from other units

?F:signal.c signal\_cmd signal.lst signal signal.awk

?T: xx xxx xxxfiles

?LINT:use rm run

\_o \_exe

?LINT:extern sig\_num\_init

: Trace out the files included by signal.h, then look for SIGxxx names.

?X: Remove SIGARRAYSIZE used by HPUX.

?X: Remove SIGSTKSIZE used by Linux.

?X: Remove SIGSTKSZ used by POSIX.

?X: Remove SIGTYP void lines used by OS2.

?X: Some cpps, like os390, do not give the file name anywhere

```

case "$sig_num_init" in
")
if ["X$fieldn" = X]; then
: Just make some guesses. We check them later.
xxx="$sysroot/usr/include/signal.h $sysroot/usr/include/sys/signal.h"
else
xxx=`echo '#include <signal.h>' |
$cppstdin $cppminus $cppflags 2>/dev/null |
$grep '^[]*#.*include' |
$awk '{print \\$fieldn}' | $sed 's!'!g' | \
$sed 's!\\\\\\\\\\\\\\\\!g' | $sort | $uniq`
fi
?X: Check this list of files to be sure we have parsed the cpp output ok.
?X: This will also avoid potentially non-existent files, such
?X: as ../foo/bar.h
xxxfiles=""
?X: Add /dev/null in case the $xxx list is empty.
for xx in $xxx /dev/null ; do
$test -f "$xx" && xxxfiles="$xxxfiles $xx"
done
?X:
If we have found no files, at least try signal.h
case "$xxxfiles" in
") xxxfiles=`./findhdr signal.h` ;;
esac
xxx=`awk '
$1 ~ /^#define$/ && $2 ~ /^SIG[A-Z0-9]*$/ && $2 !~ /SIGARRAYSIZE/ && $2 !~ /SIGSTKSIZE/ && $2 !~
/SIGSTKSZ/ && $3 !~ /void/ {
print substr($2, 4, 20)
}
$1 == "#" && $2 ~ /^define$/ && $3 ~ /^SIG[A-Z0-9]*$/ && $3 !~ /SIGARRAYSIZE/ && $4 !~ /void/ {
print substr($3, 4, 20)
}' $xxxfiles`
: Append some common names just in case the awk scan failed.
xxx="$xxx ABRT ALRM BUS CANCEL CHLD CLD CONT DIL EMT FPE"
xxx="$xxx FREEZE HUP ILL INT IO IOT KILL LOST LWP PHONE"
xxx="$xxx PIPE POLL PROF PWR QUIT RTMAX RTMIN SEGV STKFLT STOP"
xxx="$xxx SYS TERM THAW TRAP TSTP TTIN TTOU URG USR1 USR2"
xxx="$xxx USR3 USR4 VTALRM WAITING WINCH WIND WINDOW XCPU XFSZ"

: generate a few handy files for later
$cat > signal.c <<EOCP
#include <sys/types.h>
#include <signal.h>
#i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif

```

```
#include <stdio.h>
int main() {

/* Strange style to avoid
deeply-nested #if/#else/#endif */
#ifndef NSIG
ifdef _NSIG
define NSIG (_NSIG)
endif
#endif

#ifndef NSIG
ifdef SIGMAX
define NSIG (SIGMAX+1)
endif
#endif

#ifndef NSIG
ifdef SIG_MAX
define NSIG (SIG_MAX+1)
endif
#endif

#ifndef NSIG
ifdef _SIG_MAX
define NSIG (_SIG_MAX+1)
endif
#endif

#ifndef NSIG
ifdef MAXSIG
define NSIG (MAXSIG+1)
endif
#endif

#ifndef NSIG
ifdef MAX_SIG
define NSIG (MAX_SIG+1)
endif
#endif

#ifndef NSIG
ifdef SIGARRAYSIZE
define NSIG SIGARRAYSIZE /* Assume ary[SIGARRAYSIZE] */
endif
#endif

#ifndef NSIG
```



```

ifdef _sys_nsig
define NSIG (_sys_nsig) /* Solaris 2.5 */
endif
#endif

/* Default to some arbitrary number that's big enough to get most
 of the common signals.
*/
#ifndef NSIG
define NSIG 50
#endif

printf("NSIG %d\n", NSIG);

#ifndef JUST_NSIG

EOCP

echo $xxx | $tr ' ' $trnl | $sort | $uniq | $awk '
{
 printf "#ifdef SIG"; printf $1; printf "\n"
 printf "printf(\"";
 printf $1; printf " %%d\n\",SIG";
 printf $1; printf ");\n"
 printf "#endif\n"
}
END {
 printf "#endif /* JUST_NSIG *\n";
 printf "exit(0);\n}\n";
}
' >>signal.c
$cat >signal.awk <<'EOP'
BEGIN { ndups = 0 }
$1 ~ /^NSIG$/ { nsig = $2 }
($1 !~ /^NSIG$/) && (NF == 2) && ($2 ~ /^[0-9][0-9]*$/) {
 if ($2 > maxsig) { maxsig = $2 }
 if (sig_name[$2]) {
 dup_name[ndups] = $1
 dup_num[ndups] = $2
 ndups++
 }
 else {
 sig_name[$2] = $1
 sig_num[$2] = $2
 }
}
END {
 if (nsig == 0) {

```

```

 nsig = maxsig + 1
}
printf("NSIG %d\n", nsig);
for (n = 1; n < nsig; n++) {
if (sig_name[n]) {
 printf("%s %d\n", sig_name[n], sig_num[n])
}
else {
 printf("NUM%d %d\n", n, n)
}
}
for (n = 0; n < ndups; n++) {
printf("%s %d\n", dup_name[n], dup_num[n])
}
}
EOP
$cat >signal_cmd <<EOS
$startsh
if $test -s signal.lst; then
 echo "Using your existing signal.lst file"
exit 0
fi
xxx="$xxx"
EOS
?X: Avoid variable interpolation problems, especially with
?X:
 xxx, which contains newlines.
$cat >>signal_cmd <<'EOS'

set signal
if eval $compile_ok; then
 $run ./signal$_exe | ($sort -n -k 2 2>/dev/null || $sort -n +1) |\
 $uniq | $awk -f signal.awk >signal.lst
else
 echo "(I can't seem be able to compile the whole test program)" >&4
 echo "(I'll try it in little pieces.)" >&4
 set signal -DJUST_NSIG
 if eval $compile_ok; then
 $run ./signal$_exe > signal.nsg
 $cat signal.nsg
 else
 echo "I can't seem to figure out how many signals you have." >&4
 echo "Guessing 50." >&4
 echo 'NSIG 50' > signal.nsg
 fi
: Now look at all the signal names, one at a time.
for xx in `echo $xxx | $tr ' ' $trnl | $sort | $uniq`; do
 $cat > signal.c <<EOCP

```

```

#include <sys/types.h>
#include <signal.h>
#include <stdio.h>
int main() {
printf("$xx %d\n", SIG${xx});
return 0;
}
EOCP
set signal
if eval $compile; then
echo "SIG${xx} found."
$run ./signal$_exe >> signal.ls1
else
echo "SIG${xx} NOT found."
fi
done
if $test -s signal.ls1; then
$cat
signal.nsg signal.ls1 |
$sort -n | $uniq | $awk -f signal.awk >signal.lst
fi

fi
if $test -s signal.lst; then
:
else
echo "(AAK! I can't compile the test programs -- Guessing)" >&4
echo 'kill -l' >signal
set X `csh -f <signal`
$rm -f signal
shift
case $# in
0) set HUP INT QUIT ILL TRAP ABRT EMT FPE KILL BUS SEGV SYS PIPE ALRM TERM;;
esac
echo $@ | $tr ' ' $trnl | \
$awk '{ printf "%s %d\n", $1, ++s; }
END { printf "NSIG %d\n", ++s }' >signal.lst
fi
$rm -f signal.c signal$_exe signal$_o signal.nsg signal.ls1
EOS
chmod a+x signal_cmd
$seunicefix signal_cmd
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Signal.U

```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_longdbl.U,v $
?RCS:
?RCS: Copyright (c) 1998 Andy Dougherty
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: $Log: d_longdbl.U,v $
?RCS:
?MAKE:d_longdbl longdblsize d_ldexpl longdblkind \
d_long_double_style_ieee d_long_double_style_ieee_doubledouble \
d_long_double_style_ieee_extended d_long_double_style_ieee_std \
d_long_double_style_vax: Compile Setvar Myread \
Inlibc run echo cat rm_try test doublesize i_stdlib
?MAKE: -pick add $@ %<
?S:d_longdbl:
?S: This variable conditionally defines HAS_LONG_DOUBLE if
?S: the long double type is supported.
?S:.
?S:d_ldexpl:
?S: This variable conditionally defines the HAS_LDEXPL symbol, which
?S: indicates to the C program that the ldexpl() routine is available.
?S:.
?S:longdblsize:
?S: This variable contains the value of the LONG_DOUBLESIZE symbol,
?S: which
?S: indicates to the C program how many bytes there are in a long double,
?S: if this system supports long doubles. Note that this is
?S: sizeof(long double), which may include unused bytes.
?S:.
?S:longdblkind:
?S: This variable, if defined, encodes the type of a long double:
?S: 0 = double,
?S: 1 = IEEE 754 128-bit little endian,
?S: 2 = IEEE 754 128-bit big endian,
?S: 3 = x86 80-bit little endian,
?S: 4 = x86 80-bit big endian,
?S: 5 = double-double 128-bit little endian,
?S: 6 = double-double 128-bit big endian,
?S: 7 = 128-bit mixed-endian double-double (64-bit LEs in BE),
?S: 8 = 128-bit mixed-endian double-double (64-bit BEs in LE),
?S: 9 = 128-bit PDP-style mixed-endian long doubles,
?S: -1 = unknown format.
?S:.
?S:d_long_double_style_ieee:
?S: This variable conditionally defines LONG_DOUBLE_STYLE_IEEE
```

?S: if the long double is any of the IEEE 754 style long doubles:  
 ?S: LONG\_DOUBLE\_STYLE\_IEEE\_STD, LONG\_DOUBLE\_STYLE\_IEEE\_EXTENDED,  
 ?S: LONG\_DOUBLE\_STYLE\_IEEE\_DOUBLEDDOUBLE.  
 ?S:.  
 ?S:d\_long\_double\_style\_ieee\_doubledouble:  
 ?S: This  
 variable conditionally defines LONG\_DOUBLE\_STYLE\_IEEE\_DOUBLEDDOUBLE  
 ?S: if the long double is the 128-bit IEEE 754 double-double.  
 ?S:.  
 ?S:d\_long\_double\_style\_ieee\_extended:  
 ?S: This variable conditionally defines LONG\_DOUBLE\_STYLE\_IEEE\_EXTENDED  
 ?S: if the long double is the 80-bit IEEE 754 extended precision.  
 ?S: Note that despite the 'extended' this is less than the 'std',  
 ?S: since this is an extension of the double precision.  
 ?S:.  
 ?S:d\_long\_double\_style\_ieee\_std:  
 ?S: This variable conditionally defines LONG\_DOUBLE\_STYLE\_IEEE\_STD  
 ?S: if the long double is the 128-bit IEEE 754.  
 ?S:.  
 ?S:d\_long\_double\_style\_vax:  
 ?S: This variable conditionally defines LONG\_DOUBLE\_STYLE\_VAX  
 ?S: if the long double is the 128-bit VAX format H.  
 ?S:.  
 ?C:HAS\_LONG\_DOUBLE:  
 ?C: This symbol will be defined if the C compiler supports long  
 ?C: doubles.  
 ?C:.  
 ?C:LONG\_DOUBLESIZE:  
 ?C: This symbol contains the size of a long double, so that the  
 ?C: C  
 preprocessor can make decisions based on it. It is only  
 ?C: defined if the system supports long doubles. Note that this  
 ?C: is sizeof(long double), which may include unused bytes.  
 ?C:.  
 ?C:HAS\_LDEXPL:  
 ?C: This symbol, if defined, indicates that the ldexpl routine is  
 ?C: available to shift a long double floating-point number  
 ?C: by an integral power of 2.  
 ?C:.  
 ?C:LONG\_DOUBLEKIND:  
 ?C: LONG\_DOUBLEKIND will be one of  
 ?C: LONG\_DOUBLE\_IS\_DOUBLE  
 ?C: LONG\_DOUBLE\_IS\_IEEE\_754\_128\_BIT\_LITTLE\_ENDIAN  
 ?C: LONG\_DOUBLE\_IS\_IEEE\_754\_128\_BIT\_BIG\_ENDIAN  
 ?C: LONG\_DOUBLE\_IS\_X86\_80\_BIT\_LITTLE\_ENDIAN  
 ?C: LONG\_DOUBLE\_IS\_X86\_80\_BIT\_BIG\_ENDIAN  
 ?C: LONG\_DOUBLE\_IS\_DOUBLEDDOUBLE\_128\_BIT\_LE\_LE  
 ?C: LONG\_DOUBLE\_IS\_DOUBLEDDOUBLE\_128\_BIT\_BE\_BE

?C: LONG\_DOUBLE\_IS\_DOUBLEDDOUBLE\_128\_BIT\_LE\_BE  
?C: LONG\_DOUBLE\_IS\_DOUBLEDDOUBLE\_128\_BIT\_BE\_LE  
?C: LONG\_DOUBLE\_IS\_VAX\_H\_FLOAT  
?C: LONG\_DOUBLE\_IS\_UNKNOWN\_FORMAT  
?C: It is only defined if the system supports long doubles.  
?C:.  
?C:LONG\_DOUBLE\_STYLE\_IEEE:  
?C: This symbol, if defined, indicates  
that the long double  
?C: is any of the IEEE 754 style long doubles:  
?C: LONG\_DOUBLE\_STYLE\_IEEE\_STD, LONG\_DOUBLE\_STYLE\_IEEE\_EXTENDED,  
?C: LONG\_DOUBLE\_STYLE\_IEEE\_DOUBLEDDOUBLE.  
?C:.  
?C:LONG\_DOUBLE\_STYLE\_IEEE\_DOUBLEDDOUBLE:  
?C: This symbol, if defined, indicates that the long double is  
?C: the 128-bit double-double.  
?C:.  
?C:LONG\_DOUBLE\_STYLE\_IEEE\_EXTENDED:  
?C: This symbol, if defined, indicates that the long double is  
?C: the 80-bit IEEE 754. Note that despite the 'extended' this  
?C: is less than the 'std', since this is an extension of  
?C: the double precision.  
?C:.  
?C:LONG\_DOUBLE\_STYLE\_IEEE\_STD:  
?C: This symbol, if defined, indicates that the long double is  
?C: the 128-bit IEEE 754.  
?C:.  
?C:LONG\_DOUBLE\_STYLE\_VAX:  
?C: This symbol, if defined, indicates that the long double is  
?C: the 128-bit VAX format H.  
?C:.  
?H:#\$d\_ldexpl HAS\_LDEXPL /\*\*/  
?H:#\$d\_longdbl HAS\_LONG\_DOUBLE /\*\*/  
?H:?LONG\_DOUBLESIZE:#ifdef HAS\_LONG\_DOUBLE  
?H:?LONG\_DOUBLESIZE:#define LONG\_DOUBLESIZE \$longdblsize /\*\*/  
?H:?LONG\_DOUBLESIZE:#define  
LONG\_DOUBLEKIND \$longdblkind /\*\*/  
?H:?LONG\_DOUBLESIZE:#define LONG\_DOUBLE\_IS\_DOUBLE 0  
?H:?LONG\_DOUBLESIZE:#define LONG\_DOUBLE\_IS\_IEEE\_754\_128\_BIT\_LITTLE\_ENDIAN 1  
?H:?LONG\_DOUBLESIZE:#define LONG\_DOUBLE\_IS\_IEEE\_754\_128\_BIT\_BIG\_ENDIAN 2  
?H:?LONG\_DOUBLESIZE:#define LONG\_DOUBLE\_IS\_X86\_80\_BIT\_LITTLE\_ENDIAN 3  
?H:?LONG\_DOUBLESIZE:#define LONG\_DOUBLE\_IS\_X86\_80\_BIT\_BIG\_ENDIAN 4  
?H:?LONG\_DOUBLESIZE:#define LONG\_DOUBLE\_IS\_DOUBLEDDOUBLE\_128\_BIT\_LE\_BE 5  
?H:?LONG\_DOUBLESIZE:#define LONG\_DOUBLE\_IS\_DOUBLEDDOUBLE\_128\_BIT\_BE\_BE 6  
?H:?LONG\_DOUBLESIZE:#define LONG\_DOUBLE\_IS\_DOUBLEDDOUBLE\_128\_BIT\_LE\_BE 7  
?H:?LONG\_DOUBLESIZE:#define LONG\_DOUBLE\_IS\_DOUBLEDDOUBLE\_128\_BIT\_BE\_LE 8  
?H:?LONG\_DOUBLESIZE:#define LONG\_DOUBLE\_IS\_VAX\_H\_FLOAT 9  
?H:?LONG\_DOUBLESIZE:#define LONG\_DOUBLE\_IS\_UNKNOWN\_FORMAT -1

```

?H:?LONG_DOUBLESIZE:#define LONG_DOUBLE_IS_DOUBLEDDOUBLE_128_BIT_LITTLE_ENDIAN
LONG_DOUBLE_IS_DOUBLEDDOUBLE_128_BIT_LE_LE /* back-compat */
?H:?LONG_DOUBLESIZE:#define LONG_DOUBLE_IS_DOUBLEDDOUBLE_128_BIT_BIG_ENDIAN
LONG_DOUBLE_IS_DOUBLEDDOUBLE_128_BIT_BE_BE
/* back-compat */
?H:?LONG_DOUBLESIZE:#$d_long_double_style_ieee LONG_DOUBLE_STYLE_IEEE
?H:?LONG_DOUBLESIZE:#$d_long_double_style_ieee_doubledouble
LONG_DOUBLE_STYLE_IEEE_DOUBLEDDOUBLE
?H:?LONG_DOUBLESIZE:#$d_long_double_style_ieee_extended
LONG_DOUBLE_STYLE_IEEE_EXTENDED
?H:?LONG_DOUBLESIZE:#$d_long_double_style_ieee_std LONG_DOUBLE_STYLE_IEEE_STD
?H:?LONG_DOUBLESIZE:#$d_long_double_style_vax LONG_DOUBLE_STYLE_VAX
?H:?LONG_DOUBLESIZE:#endif
?H:.
?F:!try
?LINT:known LONG_DOUBLE_IS_DOUBLE LONG_DOUBLE_IS_IEEE_754_128_BIT_LITTLE_ENDIAN
?LINT:known LONG_DOUBLE_IS_IEEE_754_128_BIT_BIG_ENDIAN
LONG_DOUBLE_IS_X86_80_BIT_LITTLE_ENDIAN
?LINT:known LONG_DOUBLE_IS_X86_80_BIT_BIG_ENDIAN
LONG_DOUBLE_IS_DOUBLEDDOUBLE_128_BIT_LITTLE_ENDIAN
?LINT:known LONG_DOUBLE_IS_DOUBLEDDOUBLE_128_BIT_BIG_ENDIAN
LONG_DOUBLE_IS_UNKNOWN_FORMAT
?LINT:known LONG_DOUBLE_IS_DOUBLEDDOUBLE_128_BIT_LE_LE
?LINT:known LONG_DOUBLE_IS_DOUBLEDDOUBLE_128_BIT_BE_BE
?LINT:known
LONG_DOUBLE_IS_DOUBLEDDOUBLE_128_BIT_LE_BE
?LINT:known LONG_DOUBLE_IS_DOUBLEDDOUBLE_128_BIT_BE_LE
?LINT:known LONG_DOUBLE_IS_VAX_H_FLOAT
?LINT:set d_longdbl
?LINT:set d_ldexpl
: check for long doubles
echo " "
echo "Checking to see if you have long double..." >&4
echo 'int main() { long double x = 7.0; }' > try.c
set try
if eval $compile; then
val="$define"
echo "You have long double."
else
val="$undef"
echo "You do not have long double."
fi
$rm_try
set d_longdbl
eval $setvar

: see if ldexpl exists
set ldexpl d_ldexpl

```

eval \$inlibc

```
@if LONG_DOUBLESIZE || longdblsize
: check for length of long double
?X: Check only if d_longdbl and if longdblsize is not already set.
case "${d_longdbl}${longdblsize}" in
$define)
echo " "
echo "Checking to see how big your long doubles are..." >&4
$cat >try.c <<'EOCP'
#include <stdio.h>
int main()
{
printf("%d\n", sizeof(long double));
}
EOCP
set try
?X: Don't use compile_ok because some compilers warn you that they have
?X: 'long double'
as just 'double'.
set try
if eval $compile; then
longdblsize=`$run ./try`
echo "Your long doubles are $longdblsize bytes long."
else
dflt='8'
echo " "
echo "(I can't seem to compile the test program. Guessing...)" >&4
rp="What is the size of a long double (in bytes)?"
./myread
longdblsize="$ans"
fi
if $test "X$doublesize" = "X$longdblsize"; then
echo "That isn't any different from an ordinary double."
echo "I'll keep your setting anyway, but you may see some"
echo "harmless compilation warnings."
fi
;;
esac
$rm_try
@end

$echo "Checking the kind of long doubles you have..." >&4
case "$d_longdbl" in
define)
$cat <<EOP >try.c
#i_stdlib I_STDLIB
#define LONGDBLSIZE $longdblsize
```



```

#define DOUBLESIZE $doublesize
#include <float.h>
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#include <stdio.h>
static const long double d = -0.1L;
int main() {
 unsigned const char* b = (unsigned const char*)&d;
#ifdef DOUBLESIZE == LONGDBLSIZE
 printf("0\n"); /* if it floats
like double */
 exit(0);
#endif
#if (LDBL_MANT_DIG == 113 || FLT128_MANT_DIG == 113) && LONGDBLSIZE == 16
 if (b[0] == 0x9A && b[1] == 0x99 && b[15] == 0xBF) {
 /* IEEE 754 128-bit little-endian */
 printf("1\n");
 exit(0);
 }
 if (b[0] == 0xBF && b[14] == 0x99 && b[15] == 0x9A) {
 /* IEEE 128-bit big-endian, e.g. solaris sparc */
 printf("2\n");
 exit(0);
 }
#endif
 /* For alignment 32-bit platforms have the 80 bits in 12 bytes,
 * while 64-bits platforms have it in 16 bytes. The trailing bytes
 * cannot be trusted. */
#ifdef LDBL_MANT_DIG == 64 && (LONGDBLSIZE == 16 || LONGDBLSIZE == 12)
 if (b[0] == 0xCD && b[9] == 0xBF) {
 /* x86 80-bit little-endian, sizeof 12 (ILP32, Solaris x86)
 * or 16 (LP64, Linux and OS X), 4 or 6 bytes of padding.
 * Also known as "extended precision". */
 printf("3\n");
 exit(0);
 }
 if (b[0] == 0xBF && b[9] == 0xCD) {
 /* Is there ever big-endian 80-bit, really?
 *
 * The Motorola 68881 had another "extended
precision" format:
 * sign:1 exp:15 zero:16 integer:1 mantissa:63
 * for total of 96 bits of bytes. The zero bits were unused.
 * See "M68000 FAMILY PROGRAMMER'S REFERENCE MANUAL" for more details.
 * If it ever becomes relevant, this format should be allocated
 * a new doublekind code since it's quite different from the Intel x87.
 */

```

```

printf("4\n");
exit(0);
}
#endif
#if (LDBL_MANT_DIG == 106 || LDBL_MANT_DIG == 107) && LONGDBLSIZE == 16
/* software "double double", the 106 is 53+53.
 * but irix thinks it is 107. */
if (b[0] == 0x9A && b[7] == 0x3C && b[8] == 0x9A && b[15] == 0xBF) {
/* double double 128-bit fully little-endian,
 * little-endian doubles in little-endian order,
 * 9a 99 99 99 99 99 59 3c 9a 99 99 99 99 99 b9 bf */
printf("5\n");
exit(0);
}
if (b[0] == 0xBF && b[7] == 0x9A && b[8] == 0x3C && b[15] == 0x9A) {
/* double double 128-bit fully big-endian,
 * big-endian doubles in big-endian order,
 * e.g. PPC/Power and MIPS:
 * bf b9 99 99 99 99 99 9a 3c 59 99 99 99 99 9a */
printf("6\n");
exit(0);
}
if (b[0] == 0x9A && b[7] == 0xBF && b[8] == 0x9A && b[15] == 0x3C) {
/* double double 128-bit mixed endian.
 * little-endian doubles in big-endian order,
 * e.g. ppc64el,
 * 9a 99 99 99 99 99 b9 bf 9a 99 99 99 99 59 3c */
printf("7\n");
exit(0);
}
if (b[0] == 0x3C && b[7] == 0x9A && b[8] == 0xBF && b[15] == 0x9A) {
/* double double 128-bit mixed endian,
 * big-endian doubles in little-endian order,
 * 3c 59 99 99 99 99 99 9a bf b9 99 99 99 99 9a */
printf("8\n");
exit(0);
}
}
#endif
/* We are largely making this up because it may well be
 * that the VAX format H was never made available to C,
 * only to Fortran. */
#if LONGDBLSIZE == 16 && defined(__vax__)
if (b[0] == 0xFD && b[15] == 0x99) {
/* VAX format H, PDP-11 mixed endian. */
printf("9\n");
exit(0);
}
}
#endif

```

```

printf("-1\n"); /* unknown
*/
exit(0);
}
EOP
set try
if eval $compile; then
 longdblkind=`$run ./try`
else
 longdblkind=-1
fi
;;
*) longdblkind=0 ;;
esac
case "$longdblkind" in
0) echo "Your long doubles are doubles." >&4 ;;
1) echo "You have IEEE 754 128-bit little endian long doubles." >&4 ;;
2) echo "You have IEEE 754 128-bit big endian long doubles." >&4 ;;
3) echo "You have x86 80-bit little endian long doubles." >& 4 ;;
4) echo "You have x86 80-bit big endian long doubles." >& 4 ;;
5) echo "You have 128-bit fully little-endian double-double long doubles (64-bit LEs in LE)." >& 4 ;;
6) echo "You have 128-bit fully big-endian double-double long doubles (64-bit BEs in BE)." >& 4 ;;
7) echo "You have 128-bit mixed-endian double-double long doubles (64-bit LEs in BE)." >& 4 ;;
8) echo "You have 128-bit mixed-endian double-double long doubles (64-bit BEs in LE)." >& 4 ;;
9) echo "You have 128-bit PDP-style mixed-endian long doubles (VAX format H)." >& 4 ;;
*) echo "Cannot figure out your long double."
 >&4 ;;
esac
d_long_double_style_ieee=$undef
d_long_double_style_ieee_std=$undef
d_long_double_style_ieee_extended=$undef
d_long_double_style_ieee_doubledouble=$undef
d_long_double_style_vax=$undef
case "$longdblkind" in
1|2|3|4|5|6|7|8) d_long_double_style_ieee=$define ;;
esac
case "$longdblkind" in
1|2) d_long_double_style_ieee_std=$define ;;
esac
case "$longdblkind" in
3|4) d_long_double_style_ieee_extended=$define ;;
esac
case "$longdblkind" in
5|6|7|8) d_long_double_style_ieee_doubledouble=$define ;;
esac
case "$longdblkind" in
9) d_long_double_style_vax=$define ;;
esac

```

\$rm\_try

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_longdbl.U

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?RCS:

?MAKE:d\_unsetenv: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_unsetenv:

?S: This variable conditionally defines the HAS\_UNSETENV symbol, which

?S: indicates to the C program that the unsetenv () routine is available.

?S:.

?C:HAS\_UNSETENV:

?C: This symbol, if defined, indicates that the unsetenv () routine is

?C: available for use.

?C:.

?H:#\$d\_unsetenv HAS\_UNSETENV /\*\*/

?H:.

?LINT:set d\_unsetenv

: see if unsetenv exists

set unsetenv d\_unsetenv

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_unsetenv.U

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?RCS: \$Id: d\_static\_inline.U,v \$

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?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafayette.edu>

?RCS:

```

?MAKE:d_static_inline perl_static_inline: Compile Setvar gccversion \
cat echo run hint rm rm_try
?MAKE: -pick add $@ %<
?S:d_static_inline:
?S: This variable conditionally defines the HAS_STATIC_INLINE symbol,
?S: which indicates that the C compiler supports C99-style static
?S: inline. That is, the function can't be called from another
?S: translation unit.
?S:.
?S:perl_static_inline:
?S: This variable defines the PERL_STATIC_INLINE
symbol to
?S: the best-guess incantation to use for static inline functions.
?S: Possibilities include
?S: static inline (c99)
?S: static __inline__ (gcc -ansi)
?S: static __inline (MSVC)
?S: static _inline (older MSVC)
?S: static (c89 compilers)
?S:.
?C:HAS_STATIC_INLINE :
?C: This symbol, if defined, indicates that the C compiler supports
?C: C99-style static inline. That is, the function can't be called
?C: from another translation unit.
?C:.
?C:PERL_STATIC_INLINE:
?C: This symbol gives the best-guess incantation to use for static
?C: inline functions. If HAS_STATIC_INLINE is defined, this will
?C: give C99-style inline. If HAS_STATIC_INLINE is not defined,
?C: this will give a plain 'static'. It will always be defined
?C: to something that gives static linkage.
?C: Possibilities include
?C: static inline (c99)
?C: static __inline__ (gcc -ansi)
?C: static __inline (MSVC)
?C: static _inline (older MSVC)
?C: static
 (c89 compilers)
?C:.
?H:#$d_static_inline HAS_STATIC_INLINE /**/
?H:#define PERL_STATIC_INLINE $perl_static_inline /**/
?H:.
?LINT:set d_static_inline
?T:inline xxx
?F:!try
: see what flavor, if any, of static inline is supported
echo " "
echo "Checking to see if your system supports static inline..."

```

?X: Build two programs. The first uses static inline in file a.c and  
?X: should work. The second also includes b.c which tries to link against  
?X: the static function in a.c. This should fail.  
?X:.

```
$cat > try.c <<'EOCP'
#include <stdlib.h>
extern int f_via_a(int x);
extern int f_via_b(int x);
int main(int argc, char **argv)
{
 int y;

 y = f_via_a(0);
#ifdef USE_B
 y = f_via_b(0);
#endif
 if (y == 42) {
 return EXIT_SUCCESS;
 }
 else {
 return EXIT_FAILURE;
 }
}
```

EOCP

```
$cat > a.c <<'EOCP'
static INLINE int f(int x) {
 int y;
 y = x + 42;
 return y;
}
```

```
int f_via_a(int x)
{
 return f(x);
}
```

EOCP

```
$cat > b.c <<'EOCP'
extern int f(int x);
```

```
int
f_via_b(int x)
{
 return f(x);
}
```

EOCP

```
Respect a hint (or previous) value for perl_static_inline, if there is one.
case "$perl_static_inline" in
```

```

") # Check the various possibilities, and break out on success.
For gcc, prefer __inline__, which will still permit
cflags.SH to add in -ansi.
case "$gccversion" in
 *) xxx="__inline__ __inline__ __inline__ __inline__";;
 *) xxx="__inline__ inline __inline__ inline";;
esac
for inline in $xxx; do
 set try -DINLINE=$inline a.c
 if eval $compile && $run ./try; then
 # Now make sure there is no external linkage of static
 # functions
 set try -DINLINE=$inline -DUSE_B a.c b.c
 if eval $compile && $run ./try; then
 $echo "Your compiler supports static $inline, " >&4
 $echo "but it also creates an external definition," >&4
 $echo "so I won't use it." >&4
 val=$undef
 else
 $echo "Your compiler supports static $inline." >&4
 val=$define
 perl_static_inline="static $inline";
 break;
 fi
 else
 $echo
 "Your compiler does NOT support static $inline." >&4
 val="$undef"
 fi
done
;;
inline) # Some variant of inline exists.
echo "Keeping your $hint value of $perl_static_inline."
val=$define
;;
static) # No inline capabilities
echo "Keeping your $hint value of $perl_static_inline."
val=$undef
;;
*) # Unrecognized previous value -- blindly trust the supplied
value and hope it makes sense. Use old value for
d_static_inline, if there is one.
echo "Keeping your $hint value of $perl_static_inline."
case "$d_static_inline" in
 *) val=$define ;;
 *) val=$d_static_inline ;;
esac
;;

```

```
esac
Fallback to plain 'static' if nothing worked.
case "$perl_static_inline" in
")
perl_static_inline="static"
val=$undef
;;
esac
set d_static_inline
eval $setvar
$rm -f a.[co] b.[co]
$rm_try
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_static_inline.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_strtod.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1996, Andy Dougherty
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_strtod.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 15:46:36 ram
?RCS: patch61: created
?RCS:
?RCS:
?MAKE:d_strtod: Inlibc
?MAKE: -pick add $@ %<
?S:d_strtod:
?S: This variable conditionally defines the HAS_STRTOD symbol, which
?S: indicates to the C program that the strtod() routine is available
?S: to provide better numeric string conversion than atof().
?S:
?C:HAS_STRTOD (STRTOD):
?C: This symbol, if defined,
indicates that the strtod routine is
?C: available to provide better numeric string conversion than atof().
?C:
?H:#$d_strtod HAS_STRTOD /**/
?H:
```



```
?LINT:set d_strtod
: see if strtod exists
set strtod d_strtod
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_strtod.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: models.U,v $
```

```
?RCS: Revision 3.0.1.2 1997/02/28 16:13:17 ram
```

```
?RCS: patch61: added ?F: metalint hint
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.1 1993/08/25 14:02:39 ram
```

```
?RCS: patch6: added default for large
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:09:17 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:models split small medium large huge: test cat Myread sysman Oldconfig \
```

```
Loc Warn contains rm
```

```
?MAKE: -pick add $@ %<
```

```
?S:models:
```

```
?S: This variable contains the list of memory models supported by
this
```

```
?S: system. Possible component values are none, split, unsplit, small,
```

```
?S: medium, large, and huge. The component values are space separated.
```

```
?S:.
```

```
?S:split:
```

```
?S: This variable contains a flag which will tell the C compiler and loader
```

```
?S: to produce a program that will run in separate I and D space, for those
```

```
?S: machines that support separation of instruction and data space. It is
```

```
?S: up to the Makefile to use this.
```

```
?S:.
```

```
?S:small:
```

```
?S: This variable contains a flag which will tell the C compiler and loader
```

```
?S: to produce a program running with a small memory model. It is up to
```

?S: the Makefile to use this.

?S:.

?S:medium:

?S: This variable contains a flag which will tell the C compiler and loader

?S: to produce a program running with a medium memory model. If the

?S: medium model is not supported, contains the flag to produce large

?S: model programs. It is up to the Makefile to use this.

?S:.

?S:large:

?S: This variable contains a flag which will tell the C compiler and loader

?S: to

produce a program running with a large memory model. It is up to

?S: the Makefile to use this.

?S:.

?S:huge:

?S: This variable contains a flag which will tell the C compiler and loader

?S: to produce a program running with a huge memory model. If the

?S: huge model is not supported, contains the flag to produce large

?S: model programs. It is up to the Makefile to use this.

?S:.

?T:unsplit tans modelcc

?F:!pdp11

?D:large="

?LINT:extern cc

: see what memory models we can support

case "\$models" in

")

?X: We may not use Cppsym or we get a circular dependency through cc.

?X: But this should work regardless of which cc we eventually use.

```
$cat >pdp11.c <<'EOP'
```

```
int main() {
```

```
#ifdef pdp11
```

```
exit(0);
```

```
#else
```

```
exit(1);
```

```
#endif
```

```
}
```

```
EOP
```

?X: Run cc in a subshell in case they don't have a 'cc' command.

?X: Presumably they do have gcc or something.

```
case "$cc" in
```

```
") modelcc="$cc" ;;
```

```
*) modelcc="cc" ;;
```

```
esac
```

```
($modelcc -o pdp11 pdp11.c) >/dev/null 2>&1
```

```
if $test -f pdp11 && ./pdp11 2>/dev/null;
```

```
then
```

```
dflt='unsplit split'
```

```

else
tans=`./loc . X /lib/small /lib/large /usr/lib/small /usr/lib/large /lib/medium /usr/lib/medium /lib/huge`
case "$tans" in
X) dflt='none';;
*) if $test -d /lib/small || $test -d /usr/lib/small; then
 dflt='small'
 else
 dflt=""
 fi
if $test -d /lib/medium || $test -d /usr/lib/medium; then
 dflt="$dflt medium"
 fi
if $test -d /lib/large || $test -d /usr/lib/large; then
 dflt="$dflt large"
 fi
if $test -d /lib/huge || $test -d /usr/lib/huge; then
 dflt="$dflt huge"
 fi
esac
fi;;
*) dflt="$models";;
esac
$cat <<EOM

```

Some systems have different model sizes. On most systems they are called small, medium, large, and huge. On the PDP11 they are called unsplit and split. If your system doesn't support different memory models, say "none". If you wish to force everything to one memory model, say "none" here and put the appropriate flags later when it asks you for other cc and ld flags. Venix systems may wish to put "none" and let the compiler figure things out. (In the following question multiple model names should be space separated.)

The default for most systems is "none".

```

EOM
rp="Which memory models are supported?"
./myread
models="$ans"

case "$models" in
none)
small=""
medium=""
large=""
huge=""
unsplit=""
split=""

```

```

;;
*split)
case "$split" in
") if $contains \-i' $sysman/ld.1 >/dev/null 2>&1 || \
 $contains \-i' $sysman/cc.1 >/dev/null 2>&1; then
 dflt='-i'
else
 dflt='none'
fi;;
*) dflt="$split";;
esac
rp="What flag indicates separate I and D space?"
. ./myread
tans="$ans"
case "$tans" in
none) tans="";;
esac
split="$tans"
unsplit="";;
large|*small*|*medium*|*huge*)
case "$models" in
large)
case "$large" in
") dflt='-Ml';;
*) dflt="$large";;
esac
rp="What flag indicates large model?"
. ./myread
tans="$ans"
case "$tans" in
none) tans="";;
esac
large="$tans";;
*) large="";;
esac
case "$models" in
huge) case "$huge" in
")
dflt='-Mh';;
*) dflt="$huge";;
esac
rp="What flag indicates huge model?"
. ./myread
tans="$ans"
case "$tans" in
none) tans="";;
esac
huge="$tans";;

```

```

*) huge="$large";;
esac
case "$models" in
medium) case "$medium" in
") dflt='-Mm';;
*) dflt="$medium";;
esac
rp="What flag indicates medium model?"
./myread
tans="$sans"
case "$tans" in
none) tans="";
esac
medium="$tans";;
*) medium="$large";;
esac
case "$models" in
small) case "$small" in
") dflt='none';;
*) dflt="$small";;
esac
rp="What flag indicates small model?"
./myread
tans="$sans"
case "$tans" in
none) tans="";
esac
small="$tans";;
*) small="";;
esac
;;
*)
./warn "Unrecognized memory models--you may have to edit Makefile.SH"
;;
esac
$rm -f pdp11.* pdp11

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/models.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_strerror.U,v 3.0.1.3 1994/05/13 15:20:27 ram Exp \$

?RCS:

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?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: d\_strerror.U,v \$  
?RCS: Revision 3.0.1.3 1994/05/13 15:20:27 ram  
?RCS: patch27: now uses new macro support for cleaner Strerror def  
?RCS:  
?RCS: Revision 3.0.1.2 1994/05/06 14:58:26 ram  
?RCS: patch23: renamed strerror into Strerror to protect name space (ADO)  
?RCS:  
?RCS: Revision 3.0.1.1 1994/01/24 14:08:56 ram  
?RCS: patch16: protected code looking for sys\_errnolist[] with @if  
?RCS: patch16: added default value for d\_syserrlst  
?RCS:  
?RCS: Revision  
3.0 1993/08/18 12:07:35 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_syserrlst d\_syserrlst: Csym Findhdr  
?MAKE: -pick add @\$@ %<  
?S:d\_syserrlst:  
?S: This variable conditionally defines HAS\_SYS\_ERRLIST if sys\_errlist[] is  
?S: available to translate error numbers to strings.  
?S:.  
?S:d\_syserrnolist:  
?S: This variable conditionally defines HAS\_SYS\_ERRNOLIST if sys\_errnolist[]  
?S: is available to translate error numbers to the symbolic name.  
?S:.  
?C:HAS\_SYS\_ERRLIST (SYSERRLIST):  
?C: This symbol, if defined, indicates that the sys\_errlist array is  
?C: available to translate error numbers to strings. The extern int  
?C: sys\_nerr gives the size of that table.  
?C:.  
?C:HAS\_SYS\_ERRNOLIST (SYSERRNOLIST):  
?C: This symbol, if defined, indicates that the sys\_errnolist array is  
?C: available to translate an errno code into its symbolic name (e.g.  
?C: ENOENT). The extern int sys\_nerrno gives the size of that table.  
?C:.  
?H:#\$d\_syserrlst HAS\_SYS\_ERRLIST /\*\*/  
?H:#\$d\_syserrnolist HAS\_SYS\_ERRNOLIST /\*\*/  
?H:.  
?D:d\_syserrlst="  
?T:val  
:  
see if sys\_errlist[] exists  
echo " "  
if test "\$d\_syserrlst" = X; then

```

if set sys_errlist val -a d_syserrlst; eval $csym; $val; then
 echo "You have sys_errlist[], so we could roll our own strerror."
 d_syserrlst="$define"
else
 echo "You don't have sys_errlist[], so strerror() is welcome."
 d_syserrlst="$undef"
fi
fi
@if d_syserrlst || HAS_SYS_ERRNOLIST
if set sys_errnolist val -a d_syserrlst; eval $csym; $val; then
 echo "(Symbolic error codes can be fetched via the sys_errnolist[] array.)"
 d_syserrlst="$define"
else
 echo "(However, I can't extract the symbolic error code out of errno.)"
 d_syserrlst="$undef"
fi
@end

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_strerror.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_sethostent\_r.U,v 0RCS:

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?RCS:

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?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_sethostent\_r sethostent\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
 usethreads i\_netdb extern\_C

?MAKE: -pick add \$@ %<

?S:d\_sethostent\_r:

?S: This variable conditionally defines the HAS\_SETHOSTENT\_R symbol,

?S: which indicates to the C program that the sethostent\_r()

?S: routine is available.

?S:.

?S:sethostent\_r\_proto:

?S: This variable encodes the prototype of sethostent\_r.

?S: It is zero if d\_sethostent\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_sethostent\_r

?S: is defined.

?S:.

?C:HAS\_SETHOSTENT\_R:

?C: This symbol, if defined, indicates that the sethostent\_r routine

?C: is

available to sethostent re-entrantly.

?C:.

?C:SETHOSTENT\_R\_PROTO:

?C: This symbol encodes the prototype of sethostent\_r.

?C: It is zero if d\_sethostent\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_sethostent\_r

?C: is defined.

?C:.

?H:#\$d\_sethostent\_r HAS\_SETHOSTENT\_R /\*\*/

?H:#define SETHOSTENT\_R\_PROTO \$sethostent\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_sethostent\_r\_proto

: see if sethostent\_r exists

set sethostent\_r d\_sethostent\_r

eval \$inlibc

case "\$d\_sethostent\_r" in

"\$define")

hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_netdb netdb.h"

case "\$d\_sethostent\_r\_proto:\$susethreads" in

":define") d\_sethostent\_r\_proto=define

set d\_sethostent\_r\_proto sethostent\_r \$hdrs

eval \$hasproto ;;

\*) ;;

esac

case "\$d\_sethostent\_r\_proto" in

define)

case "\$sethostent\_r\_proto" in

"|0) try='int sethostent\_r(int, struct hostent\_data\*);'

./prochck "\$extern\_C \$try" \$hdrs && sethostent\_r\_proto=I\_ID ;;

esac

case "\$sethostent\_r\_proto" in

"|0) try='void

sethostent\_r(int, struct hostent\_data\*);'

./prochck "\$extern\_C \$try" \$hdrs && sethostent\_r\_proto=V\_ID ;;

esac

case "\$sethostent\_r\_proto" in

"|0) d\_sethostent\_r=undef

sethostent\_r\_proto=0

echo "Disabling sethostent\_r, cannot determine prototype." >&4 ;;

\* ) case "\$sethostent\_r\_proto" in

REENTRANT\_PROTO\*) ;;

\*) sethostent\_r\_proto="REENTRANT\_PROTO\_\$sethostent\_r\_proto" ;;

esac

echo "Prototype: \$try" ;;

esac

::

\*) case "\$susethreads" in

define) echo "sethostent\_r has no prototype, not using it." >&4 ;;



```
esac
d_sethostent_r=undef
sethostent_r_proto=0
;;
esac
;;
*) sethostent_r_proto=0
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_sethostent_r.U
```

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?RCS:

?MAKE:gccversion gccosandvers: cat cpp rm +cc \

Myread Guess Options Oldconfig Loc osname osvers grep run ccname

?MAKE: -pick add \$@ %<

?S:gccversion:

?S: If GNU cc (gcc) is used, this variable holds '1' or '3' (for instance)

?S: to indicate whether the compiler is version 1 or 3. This is used in

?S: setting some of the default cflags. It is set to " if not gcc.

?S:.

?S:gccosandvers:

?S: If GNU cc (gcc) is used, this variable the operating system and

?S: version

used to compile the gcc. It is set to " if not gcc,

?S: or if nothing useful can be parsed as the os version.

?S:.

?T:gccshortvers incdir d

?F:!try.c !try

?LINT:extern locincpth ccflags ldflags

?LINT:change locincpth ccname cpp

: Check whether they have gcc in any guise.

echo " "

echo "Checking for GNU cc in disguise and/or its version number..." >&4

```

$cat >try.c <<EOM
#include <stdio.h>
int main() {
#ifdef __GNUC__
#ifdef __VERSION__
printf("%s\n", __VERSION__);
#else
printf("%s\n", "1");
#endif
#endif
exit(0);
}
EOM
if $cc -o try $ccflags $ldflags try.c >/dev/null 2>&1; then
gccversion=`$run ./try`
case "$gccversion" in
") echo "You are not using GNU cc." ;;
*) echo "You are using GNU cc $gccversion."
ccname=gcc
;;
esac
else
echo " "
echo "*** WHOA THERE!!! ***" >&4
echo " Your C compiler \"$cc\" doesn't seem to be working!" >&4
?X: using -K will prevent aborting--maybe they're cross compiling?
case "$knowitall" in
")
echo " You'd better
start hunting for one and let me know about it." >&4
exit 1
;;
esac
fi
$rm -f try try.*
case "$gccversion" in
1*) cpp=`./loc gcc-cpp $cpp $pth` ;;
esac
case "$gccversion" in
") gccosandvers=" ;;
) gccshortvers=`echo "$gccversion"|sed 's/ .//`
gccosandvers=`$cc -v 2>&1 | \
$grep '/specs'$|sed 's!.*/[^-]*-[^-]*-([^-]*)/$gccshortvers/specs!\|1!`
gccshortvers="
case "$gccosandvers" in
$osname) gccosandvers=" ;; # linux gccs seem to have no linux osvers, grr
$osname$osvers) ;; # looking good
$osname*) cat <<EOM >&4

```

\*\*\* WHOA THERE!!! \*\*\*

Your gcc has not been compiled for the exact release of your operating system (\$gccosandvers versus \$osname\$osvers).

In general it is a good idea to keep gcc synchronized with the operating system because otherwise serious problems may ensue when trying to compile software, like Perl.

I'm trying to be optimistic here, though, and will continue. If later during the configuration and build icky compilation problems appear (headerfile conflicts being the most common manifestation), I suggest reinstalling the gcc to match your operating system release.

EOM

```
;;
*) gccosandvers=" ;; # failed to parse, better be silent
esac
;;
esac
case "$ccname" in
") ccname="$cc" ;;
esac
```

: gcc 3.1 complains about adding -Idirectories that it already knows about,  
: so we will take those off from locincpth.

```
case "$gccversion" in
3*)
echo "main(){}">try.c
for indir in `$cc -v -c try.c 2>&1 | \
sed '1,/^#include <\\.\\.\\.>/d;/^End of search list/,$/s/^ //'` ; do
locincpth=`echo $locincpth | sed s!$indir!!`
done
$rm -f try try.*
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/gccvers.U
```

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?RCS:

?MAKE:gidsign: Myread Typedef gidtype Compile run

?MAKE: -pick add \$@ %<

?S:gidsign:

?S: This variable contains the signedness of a gidtype.

?S: 1 for unsigned, -1 for signed.

?S:.

?C:Gid\_t\_sign:

?C: This symbol holds the signedness of a Gid\_t.

?C: 1 for unsigned, -1 for signed.

?C:.

?H:#define Gid\_t\_sign \$gidsign /\* GID sign \*/

?H:.

?T:yyy zzz

?F:!try

: Check if GID is signed

echo " "

case "\$gidtype" in

\*\_t) zzz="\$gidtype" ;;

\*) zzz="gid" ;;

esac

echo "Checking the sign of \$zzz..." >&4

cat > try.c <<EOCP

#include <sys/types.h>

#include

<stdio.h>

int main() {

\$gidtype foo = -1;

if (foo < 0)

printf("-1\n");

else

printf("1\n");

}

EOCP

set try

if eval \$compile; then

yyy=`\$run ./try`

case "\$yyy" in

") gidsign=1

echo "(I can't execute the test program--guessing unsigned.)" >&4

::

\*) gidsign=\$yyy

case "\$gidsign" in

1) echo "Your \$zzz is unsigned." ;;

```

-1) echo "Your $zzz is signed." ;;
esac
;;
esac
else
gidsign=1
echo "(I can't compile the test program--guessing unsigned.)" >&4
fi

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/gidsign.U

```

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```

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?RCS:
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?RCS:
?MAKE:usemorebits: Setvar
?MAKE: -pick add $@ %<
?Y:TOP
?S:usemorebits:
?S: This variable conditionally defines the USE_MORE_BITS symbol,
?S: and indicates that explicit 64-bit interfaces and long doubles
?S: should be used when available.
?S:.
?C:USE_MORE_BITS:
?C: This symbol, if defined, indicates that 64-bit interfaces and
?C: long doubles should be used when available.
?C:.
?H:?%<:#ifndef USE_MORE_BITS
?H:?%<:#$usemorebits USE_MORE_BITS /**/
?H:?%<:#endif
?H:.
?LINT:extern use64bitint
?LINT:change use64bitint
?LINT:extern uselongdouble
?LINT:change uselongdouble
: Check if morebits is requested
case "$usemorebits" in
"$define"|true|[yY]*)
use64bitint="$define"
uselongdouble="$define"
usemorebits="$define"
;;

```

```
*) usemorebits="$undef"
```

```
::
```

```
esac
```

Found

in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/usemorebits.U
```

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```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1999, Jarkko Hietaniemi
```

```
?RCS:
```

```
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```
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```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?MAKE:d_mmap mmaptype: Inlibc i_sysmman cat cc cflags
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_mmap:
```

```
?S: This variable conditionally defines HAS_MMAP if mmap() is
```

```
?S: available to map a file into memory.
```

```
?S:.
```

```
?S:mmaptype:
```

```
?S: This symbol contains the type of pointer returned by mmap()
```

```
?S: (and simultaneously the type of the first argument).
```

```
?S: It can be 'void *' or 'caddr_t'.
```

```
?S:.
```

```
?C:HAS_MMAP:
```

```
?C: This symbol, if defined, indicates that the mmap system call is
```

```
?C: available to map a file into memory.
```

```
?C:.
```

```
?C:Mmap_t:
```

```
?C: This symbol
```

```
holds the return type of the mmap() system call
```

```
?C: (and simultaneously the type of the first argument).
```

```
?C: Usually set to 'void *' or 'caddr_t'.
```

```
?C:.
```

```
?H:#$d_mmap HAS_MMAP /**/
```

```
?H:#define Mmap_t $mmaptype /**/
```

```
?H:.
```

```
?LINT:set d_mmap
```

```
: see if mmap exists
```

```
set mmap d_mmap
```

```
eval $inlibc
```

```

: see what shmat returns
: default to something harmless
mmaptype='void *'
case "$i_sysmman$d_mmap" in
"$define$define")
$cat >mmap.c <<'END'
#include <sys/mman.h>
void *mmap();
END
if $cc $ccflags -c mmap.c >/dev/null 2>&1; then
mmaptype='void *'
else
mmaptype='caddr_t'
fi
echo "and it returns ($mmaptype)." >&4
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_mmap.U

```

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```

?RCS: $Id: i_malloc.U,v 3.5 2008/03/29 14:06:51 merijn Exp $
?RCS:
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?RCS:
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?RCS: of the source tree for dist 3.5.
?RCS:
?MAKE:i_mallocmalloc: Inhdr
?MAKE: -pick add $@ %<
?S:i_mallocmalloc:
?S: This variable conditionally defines the I_MALLOCMALLOC symbol,
?S: and indicates whether a C program should include <malloc/malloc.h>.
?S:
?C:I_MALLOCMALLOC:
?C: This symbol, if defined, indicates to the C program that it should
?C: include <malloc/malloc.h>.
?C:
?H:#$i_mallocmalloc I_MALLOCMALLOC /**/
?H:
?LINT:set i_mallocmalloc
: see if malloc/malloc.h has to be included
set malloc/malloc.h i_mallocmalloc

```

eval  
\$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_mallocmalloc.U

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:gidsize: Myread Typedef gidtype Compile run i\_stdlib

?MAKE: -pick add \$@ %<

?S:gidsize:

?S: This variable contains the size of a gidtype in bytes.

?S:.

?C:Gid\_t\_size:

?C: This symbol holds the size of a Gid\_t in bytes.

?C:.

?H:#define Gid\_t\_size \$gidsize /\* GID size \*/

?H:.

?T:yyy zzz

?F:!try

: Check the size of GID

echo " "

case "\$gidtype" in

\*\_t) zzz="\$gidtype" ;;

\*) zzz="gid" ;;

esac

echo "Checking the size of \$zzz..." >&4

cat > try.c <<EOCP

#include <sys/types.h>

#include <stdio.h>

#\$i\_stdlib I\_STDLIB

#ifdef I\_STDLIB

#include

<stdlib.h>

#endif

int main() {

printf("%d\n", (int)sizeof(\$gidtype));

exit(0);

}



```

EOCP
set try
if eval $compile_ok; then
 yyy=`$run ./try`
 case "$yyy" in
 *) gidsize=4
 echo "(I can't execute the test program--guessing $gidsize.)" >&4
 ;;
 *) gidsize=$yyy
 echo "Your $zzz is $gidsize bytes long."
 ;;
 esac
else
 gidsize=4
 echo "(I can't compile the test program--guessing $gidsize.)" >&4
fi

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/gidsize.U

```

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```

?RCS: $Id: d_normsig.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_normsig.U,v $
?RCS: Revision 3.0.1.2 1997/02/28 15:37:03 ram
?RCS: patch61: replaced .a with $_a all over the place
?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 16:14:48 ram
?RCS: patch36: call ./bsd explicitly instead of relying on PATH
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:44 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_normsig joblib: test Setvar Guess _a
?MAKE: -pick add $@ %<
?S:d_normsig:
?S: This variable conditionally
defines the NORMSIG symbol, which
?S: indicates to the C program that the normal signal handling routines

```

?S: should be used, as opposed to the ones in 4.1bsd (sigset, etc.).

?S:.

?S:jobslib:

?S: This variable holds the argument to be passed to the loader to include

?S: the strange signal handling routines from 4.1bsd. On systems that

?S: have NORMSIG defined this variable is null.

?S:.

?C:NORMSIG:

?C: This symbol, if defined, indicates that normal signal handling routines

?C: should be used, as opposed to the ones in 4.1bsd (sigset, etc.).

?C:.

?H:#\$d\_normsig NORMSIG /\*\*/

?H:.

?LINT:set d\_normsig

: see if we need -ljobs and if we have sigset, etc.

```
echo " "
```

```
if $test -r /usr/lib/libjobs$_a || $test -r /usr/local/lib/libjobs$_a ; then
```

```
echo "Jobs library found." >&4
```

```
val="$undef"
```

```
jobslib='-ljobs'
```

```
else
```

```
if ./bsd; then
```

```
echo "No jobs library found. (I suppose this is at least 4.2...)" >&4
```

```
else
```

```
echo "No jobs library found. (That's okay, we all have our faults.)" >&4
```

```
fi
```

```
val="$define"
```

```
jobslib=""
```

```
fi
```

```
set
```

```
d_normsig
```

```
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_normsig.U
```

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?RCS:

?MAKE:uselargefiles \

ccflags\_uselargefiles \

ldflags\_uselargefiles \

```

libswanted_uselargefiles: \
Myread Oldconfig Setvar test lseeksize fpossize \
fpostype Compile echo n c cat lseektype rm_try run \
use64bitint use64bitall i_stdlib
?MAKE: -pick add $@ %<
?Y:TOP
?S:uselargefiles:
?S: This variable conditionally defines the USE_LARGE_FILES symbol,
?S: and indicates that large file interfaces should be used when
?S: available.
?S:.
?S:ccflags_uselargefiles:
?S: This variable contains the compiler flags needed by large file builds
?S: and added to ccflags by hints files.
?S:.
?S:ldflags_uselargefiles:
?S: This variable contains the loader flags needed by large file builds
?S: and added to ldflags by
?S: hints files.
?S:.
?S:libswanted_uselargefiles:
?S: This variable contains the libraries needed by large file builds
?S: and added to ldflags by hints files. It is a space separated list
?S: of the library names without the "lib" prefix or any suffix, just
?S: like libswanted..
?S:.
?C:USE_LARGE_FILES:
?C: This symbol, if defined, indicates that large file support
?C: should be used when available.
?C:.
?H:?%<:#ifndef USE_LARGE_FILES
?H:?%<:#$uselargefiles USE_LARGE_FILES /**/
?H:?%<:#endif
?H:.
?INIT:ccflags_uselargefiles="
?INIT:ldflags_uselargefiles="
?INIT:libswanted_uselargefiles="
?T:yyy zzz
?F:!uselargefiles.cbu !try
?LINT:change lseeksize
?LINT:change fpossize
?LINT:extern uselfs
?LINT:use use64bitint
?LINT:use use64bitall
: Check for large file support
Backward compatibility (uselfs is deprecated).
case "$uselfs" in
"$define"|true|[yY]*)

```

```
cat <<EOM >&4
```

\*\*\* Configure -Duselfs is deprecated, using -Duselargefiles instead.

```
EOM
```

```
uselargefiles="$define"
```

```
::
```

```
esac
```

```
case "$lseeksize:$fpossize"
```

```
in
```

```
8:8) cat <<EOM
```

You can have files larger than 2 gigabytes.

```
EOM
```

```
val="$define" ;;
```

```
*) case "$uselargefiles" in
```

```
"$undef"|false|[nN]*) dflt='n' ;;
```

```
*) dflt='y' ;;
```

```
esac
```

```
cat <<EOM
```

Perl can be built to understand large files (files larger than 2 gigabytes) on some systems. To do so, Configure can be run with -Duselargefiles.

If this doesn't make any sense to you, just accept the default '\$dflt'.

```
EOM
```

```
rp="Try to understand large files, if available?"
```

```
./myread
```

```
case "$ans" in
```

```
y|Y) val="$define" ;;
```

```
*) val="$undef" ;;
```

```
esac
```

```
::
```

```
esac
```

```
set uselargefiles
```

```
eval $setvar
```

```
: Look for a hint-file generated 'call-back-unit'. If the
```

```
: user has specified that a large files perl is to be built,
```

```
: we may need to set or change some other defaults.
```

```
if $test -f uselargefiles.cbu; then
```

```
echo "Your platform has some specific hints regarding large file builds, using them..."
```

```
./uselargefiles.cbu
```

```
fi
```

```
case "$uselargefiles" in
```

```
"$define")
```

```
if $test -f uselargefiles.cbu;
```

```
then
```

```
echo " "
```

```

echo "Rechecking to see how big your file offsets are..." >&4
$cat >try.c <<EOCP
#include <sys/types.h>
#include <stdio.h>
int main()
{
 printf("%d\n", (int)sizeof($lseektype));
 return(0);
}
EOCP
set try
if eval $compile_ok; then
 lseeksize=`$run ./try`
 $echo "Your file offsets are now $lseeksize bytes long."
else
 dflt="$lseeksize"
 echo " "
 echo "(I can't seem to compile the test program. Guessing...)"
 rp="What is the size of your file offsets (in bytes)?"
 ./myread
 lseeksize="$ans"
fi
case "$fpostype" in
*_t) zzz="$fpostype" ;;
*) zzz="fpos_t" ;;
esac
$echo $n "Rechecking the size of $zzz...$c" >&4
$cat > try.c <<EOCP
#include <sys/types.h>
#include <stdio.h>
#i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
int main() {
 printf("%d\n", (int)sizeof($fpostype));
 return(0);
}
EOCP
set try
if eval $compile_ok; then
 yyy=`$run ./try`
 dflt="$lseeksize"
 case "$yyy" in
 ") echo
 " "
 echo "(I can't execute the test program--guessing $fposize.)" >&4
 ;;

```

```

*) fpossizе=$yyy
echo " $fpossizе bytes." >&4
;;
esac
else
dflt="$fpossizе"
echo " "
echo "(I can't compile the test program. Guessing...)" >&4
rp="What is the size of your file positions (in bytes)?"
./myread
fpossizе="$ans"
fi
$rm_try
fi
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/uselfs.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_sigblock.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_sigblock.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:21 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_sigblock: Inlibc
?MAKE: -pick add $@ %<
?S:d_sigblock:
?S: This variable conditionally defines HAS_SIGBLOCK if sigblock() is
?S: available to block signal reception.
?S:.
?C:HAS_SIGBLOCK:
?C: This symbol, if defined, indicates that the sigblock routine is
?C: available to block signal reception.
?C:.
?H:#$d_sigblock HAS_SIGBLOCK /**/
?H:.

```

```
?LINT:set
d_sigblock
: see if sigblock exists
set sigblock d_sigblock
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_sigblock.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Config_h.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: Config_h.U,v $
```

```
?RCS: Revision 3.0.1.5 1997/02/28 14:57:43 ram
```

```
?RCS: patch61: added support for src.U
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.4 1995/09/25 09:10:49 ram
```

```
?RCS: patch59: commented the purpose of the #un-def directive
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.3 1995/01/30 14:25:39 ram
```

```
?RCS: patch49: typo fixes in leading config.h comment (WED)
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.2 1993/08/24 12:13:20 ram
```

```
?RCS: patch3: added TOP as a local shell temporary variable
```

```
?RCS:
```

```
?RCS:
```

```
Revision 3.0.1.1 1993/08/19 06:42:20 ram
```

```
?RCS: patch1: leading config.sh searching was not aborting properly
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:04:47 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?X:
```

```
?X: This file ends up producing the config_h.SH script, which is run to produce
```

```
?X: the config.h file. The file ./Config_h below contains all the ?H: lines
```

```
?X: extracted out of all the units. Metaconfig itself adds the !GROK!THIS!.
```

```
?X: Note that this code isn't included into Configure, but must be shipped with.
```

```
?X:
```

```
?X: For those who wish to know why the file is config_h.SH instead of the more
```

?X: natural config.h.SH, well... it is to support systems like MS-DOG. Only one  
?X: 'dot' is allowed within the file name, as it is part of the "extension" of  
?X: the file. MS-DOG will not let you have two 'dots' because that would mean  
?X: two "extensions".  
?X:  
?MAKE:Config\_h: Id End Config\_sh Obsol\_h myuname cf\_time cf\_by package src  
?MAKE: -pick c\_h\_weed \$@ %<  
?MAKE: -pick  
c\_h\_weed \$@ ./Config\_h  
?MAKE: -pick c\_h\_weed \$@ ./Obsol\_h  
?T:PERL\_CONFIG\_SH TOP  
?LINT:unclosed !GROK!THIS!  
?LINT:extern CONFIG\_H CONFIG\_SH  
?LINT:change CONFIG\_H CONFIG\_SH  
?X:?LINT:nocomment  
: Set up for generating config\_h.SH  
case "\$CONFIG\_SH" in  
") CONFIG\_SH=config.sh;;  
esac  
case "\$CONFIG\_H" in  
") CONFIG\_H=config.h;;  
esac  
case \$PERL\_CONFIG\_SH in  
")  
if test -f \$CONFIG\_SH; then TOP=.;  
elif test -f ../\$CONFIG\_SH; then TOP=..;  
elif test -f ../../\$CONFIG\_SH; then TOP=../../;  
elif test -f ../../../\$CONFIG\_SH; then TOP=../../../;  
elif test -f ../../../../\$CONFIG\_SH; then TOP=../../../../;  
else  
echo "Can't find \$CONFIG\_SH."; exit 1  
fi  
. \$TOP/\$CONFIG\_SH  
;;  
esac  
?X: Make sure we are in the directory where the .SH file is located.  
case "\$0" in  
\*/\*) cd `expr X\$0 : 'X\(.\*/)'` ;;  
esac  
echo "Extracting \$CONFIG\_H (with variable substitutions)"  
?X:  
?X: Since we unconditionally translate leading #undef into /\*#define, we're  
?X: stuck when we really want to have a #undef in \$CONFIG\_H.  
That's why there  
?X: is provision here for #un-def, which is translated back into #undef after  
?X: all original #undef have been processed.  
?X:  
?X: Previously, we changed all



```

?X: #undef FOO /**/
?X: into
?X: /*#define FOO /**/
?X: The xlc compiler (available on IBM's AIX) complains that this is
?X: an illegal attempt to write a nested comment, and warns against it.
?X: There's apparently no way to shut the compiler up, either.
?X: This sed command from Hallvard B Furuseth <h.b.furuseth@usit.uio.no>
?X: changes it to
?X: /*#define FOO / **/
sed <<!GROK!THIS! >$CONFIG_H -e 's!^#undef(.*)\!\!/^##define\1 \!' -e 's!^#un-def!#undef!'
/* This file was produced by running the config_h.SH script, which
* gets its values from $CONFIG_SH, which is generally produced by
* running Configure.
*
* Feel free to modify any of this as the need arises. Note, however,
* that running config_h.SH again will wipe out any changes you've made.
* For a more permanent change edit $CONFIG_SH and
* rerun config_h.SH.
*/

/* Package name : $package
* Source directory : $src
* Configuration time: $cf_time
* Configured by : $cf_by
* Target system : $myuname
*/

#endif _config_h_
#define _config_h_

Found in path(s):
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/modified/Config_h.U
No license file was found, but licenses were detected in source scan.

?RCS: $Id: i_syslog.U,v $
?RCS:
?RCS: Copyright (c) 2000 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:i_syslog: Inhdr Hasfield
?MAKE: -pick add $@ %<
?S:i_syslog:
?S: This variable conditionally defines the I_SYSLOG symbol,
?S: and indicates whether a C program should include <syslog.h>.
?S:..

```

?C:I\_SYSLOG:

?C: This symbol, if defined, indicates that <syslog.h> exists and

?C: should be included.

?C:.

?H:#\$i\_syslog I\_SYSLOG /\*\*/

?H:.

?LINT:set i\_syslog

: see if this is a syslog.h system

set syslog.h i\_syslog

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_syslog.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_rdchk.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS:

?RCS: \$Log: d\_rdchk.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:51 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_rdchk: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_rdchk:

?S: This variable conditionally defines the HAS\_RDCHK symbol, which

?S: indicates to the C program that the rdchk() routine is available

?S: to find out if there is input pending on an IO channel.

?S:.

?C:HAS\_RDCHK (RDCHK):

?C: This symbol, if defined, indicates that the rdchk routine  
is available

?C: to find out if there is input pending on an IO channel. Generally

?C: the routine is used only if FIONREAD and O\_NDELAY aren't available.

?C:.

?H:#\$d\_rdchk HAS\_RDCHK /\*\*/

?H:.

?LINT:set d\_rdchk

: see if rdchk exists

set rdchk d\_rdchk

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_rdchk.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getprotoent\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_getprotoent\_r getprotoent\_r\_proto: Inlibc Protochk Hasproto \  
i\_systypes usethreads i\_netdb extern\_C

?MAKE: -pick add \$@ %<

?S:d\_getprotoent\_r:

?S: This variable conditionally defines the HAS\_GETPROTOENT\_R symbol,

?S: which indicates to the C program that the getprotoent\_r()

?S: routine is available.

?S:.

?S:getprotoent\_r\_proto:

?S: This variable encodes the prototype of getprotoent\_r.

?S: It is zero if d\_getprotoent\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getprotoent\_r

?S: is defined.

?S:.

?C:HAS\_GETPROTOENT\_R:

?C: This symbol, if defined, indicates that the getprotoent\_r  
routine

?C: is available to getprotoent re-entrantly.

?C:.

?C:GETPROTOENT\_R\_PROTO:

?C: This symbol encodes the prototype of getprotoent\_r.

?C: It is zero if d\_getprotoent\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getprotoent\_r

?C: is defined.

?C:.

?H:#\$d\_getprotoent\_r HAS\_GETPROTOENT\_R /\*\*/

?H:#define GETPROTOENT\_R\_PROTO \$getprotoent\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_getprotoent\_r\_proto

: see if getprotoent\_r exists

set getprotoent\_r d\_getprotoent\_r

eval \$inlibc

case "\$d\_getprotoent\_r" in

```

"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_netdb netdb.h"
case "$d_getprotoent_r_proto:$susethreads" in
":define") d_getprotoent_r_proto=define
set d_getprotoent_r_proto getprotoent_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_getprotoent_r_proto" in
define)
case "$getprotoent_r_proto" in
"|0) try='int getprotoent_r(struct protoent*, char*, size_t, struct protoent**);'
./protochk "$sextern_C $try" $hdrs && getprotoent_r_proto=I_SBWR
;;
esac
case "$getprotoent_r_proto" in
"|0) try='int getprotoent_r(struct protoent*, char*, int);'
./protochk "$sextern_C $try" $hdrs && getprotoent_r_proto=I_SBI ;;
esac
case "$getprotoent_r_proto" in
"|0) try='struct protoent* getprotoent_r(struct protoent*, char*, int);'
./protochk "$sextern_C $try" $hdrs && getprotoent_r_proto=S_SBI ;;
esac
case "$getprotoent_r_proto" in
"|0) try='int getprotoent_r(struct protoent*, struct protoent_data*);'
./protochk "$sextern_C $try" $hdrs && getprotoent_r_proto=I_SD ;;
esac
case "$getprotoent_r_proto" in
"|0) d_getprotoent_r=undef
getprotoent_r_proto=0
echo "Disabling getprotoent_r, cannot determine prototype." >&4 ;;
*) case "$getprotoent_r_proto" in
REENTRANT_PROTO*) ;;
*) getprotoent_r_proto="REENTRANT_PROTO_${getprotoent_r_proto}" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$susethreads" in
define) echo "getprotoent_r has no prototype, not using it." >&4 ;;
esac
d_getprotoent_r=undef
getprotoent_r_proto=0
;;
esac
;;
*) getprotoent_r_proto=0
;;

```

esac

Found

in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_getprotoent\_r.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_sigaction.U,v 3.0.1.1 1997/02/28 15:44:29 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: d\_sigaction.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:44:29 ram

?RCS: patch61: created

?RCS:

?RCS:

?MAKE:d\_sigaction: Csym Compile Setvar cat rm\_try i\_stdlib

?MAKE: -pick add \$@ %<

?S:d\_sigaction:

?S: This variable conditionally defines the HAS\_SIGACTION symbol, which

?S: indicates that the Vr4 sigaction() routine is available.

?S:.

?C:HAS\_SIGACTION:

?C: This symbol, if defined, indicates that Vr4's sigaction() routine

?C: is available.

?C:.

?H:#\$d\_sigaction

HAS\_SIGACTION /\*\*/

?H:.

?T:val

?LINT:set d\_sigaction

: see if we have sigaction

echo " "

if set sigaction val -f d\_sigaction; eval \$csym; \$val; then

echo 'sigaction() found.'>&4

?X:

?X: Solaris 2.5\_x86 with SunWorks Pro C 3.0.1 doesn't have a complete

?X: sigaction structure if compiled with cc -Xc. This compile test

?X: will fail then. <doughera@lafcol.lafayette.edu>

?X:

\$cat > try.c <<EOP

```

#include <stdio.h>
#include <sys/types.h>
#include <signal.h>
#ifdef I_STDLIB
#include <stdlib.h>
#endif
int main()
{
 struct sigaction act, oact;
 act.sa_flags = 0;
 oact.sa_handler = 0;
 /* so that act and oact are used */
 exit(act.sa_flags == 0 && oact.sa_handler == 0);
}

```

EOP

```

set try
if eval $compile_ok; then
 val="$define"
else
 echo "But you don't seem to have a usable struct sigaction." >&4
 val="$undef"
fi
else
 echo 'sigaction NOT found.' >&4
 val="$undef"
fi
set d_sigaction; eval $setvar
$rm_try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_sigaction.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_niin.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: i\_niin.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:24 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:  
?X:  
?X: This unit looks whether <netinet/in.h> is available or not  
?X:  
?MAKE:i\_niin i\_sysin: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_niin:  
?S: This variable conditionally defines I\_NETINET\_IN, which indicates  
?S: to the C program that it should include <netinet/in.h>. Otherwise,  
?S: you may try <sys/in.h>.  
?S:.  
?S:i\_sysin:  
?S: This variable conditionally  
defines I\_SYS\_IN, which indicates  
?S: to the C program that it should include <sys/in.h> instead of  
?S: <netinet/in.h>.  
?S:.  
?C:I\_NETINET\_IN:  
?C: This symbol, if defined, indicates to the C program that it should  
?C: include <netinet/in.h>. Otherwise, you may try <sys/in.h>.  
?C:.  
?C:I\_SYS\_IN (I\_SYSIN):  
?C: This symbol, if defined, indicates to the C program that it should  
?C: include <sys/in.h> instead of <netinet/in.h>.  
?C:.  
?H:#\$i\_niin I\_NETINET\_IN /\*\*/  
?H:#\$i\_sysin I\_SYS\_IN /\*\*/  
?H:.  
?LINT:set i\_niin i\_sysin  
: see if this is a netinet/in.h or sys/in.h system  
set netinet/in.h i\_niin sys/in.h i\_sysin  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_niin.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:

?RCS: \$Log: d\_gethbynm.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:06:08 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_gethbynm: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_gethbynm (d\_gethstby):  
?S: This variable conditionally defines the HAS\_GETHOSTBYNAME symbol, which  
?S: indicates to the C program that the gethostbyname() routine is available  
?S: to lookup host names in some data base or other.  
?S:.  
?C:HAS\_GETHOSTBYNAME (GETHOSTBYNAME):  
?C: This symbol, if defined, indicates that the gethostbyname()  
routine is  
?C: available to lookup host names in some data base or other.  
?C:.  
?H:#\$d\_gethbynm HAS\_GETHOSTBYNAME /\*\*/  
?H:.  
?LINT:set d\_gethbynm  
: see if gethostbyname exists  
set gethostbyname d\_gethbynm  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_gethbynm.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
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?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_safemcpy.U,v \$  
?RCS: Revision 3.0.1.5 1997/02/28 15:41:12 ram  
?RCS: patch61: improved overlapping copy check  
?RCS: patch61: comfort them if they have memmove  
?RCS: patch61: added ?F: metalint hint  
?RCS:  
?RCS: Revision 3.0.1.4 1995/07/25 13:58:46 ram  
?RCS: patch56: re-arranged compile line to include ldflags before objects  
?RCS:  
?RCS: Revision 3.0.1.3 1995/03/21 08:47:26 ram



```

?RCS: patch52: swapped two first arguments of memcpy() calls
?RCS:
?RCS: Revision 3.0.1.2 1994/10/29 16:15:10
 ram
?RCS: patch36: added 'ldflags' to the test compile line (ADO)
?RCS:
?RCS: Revision 3.0.1.1 1994/05/06 14:53:12 ram
?RCS: patch23: ensure string is not optimized in read-only memory (ADO)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:58 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_safemcpy: cat d_memcpy +cc +optimize +ccflags +libs +ldflags rm \
d_memmove i_memory i_stdlib i_string i_unistd Oldconfig Setvar
?MAKE: -pick add $@ %<
?S:d_safemcpy:
?S: This variable conditionally defines the HAS_SAFE_MEMCPY symbol if
?S: the memcpy() routine can do overlapping copies.
?S:.
?C:HAS_SAFE_MEMCPY (SAFE_MEMCPY):
?C: This symbol, if defined, indicates that the memcpy routine is available
?C: to copy potentially overlapping memory blocks. Otherwise you should
?C: probably use memmove() or memcpy(). If neither is defined, roll your
?C: own version.
?C:.
?H:#$d_safemcpy HAS_SAFE_MEMCPY /**/
?H:.
?F:!safemcpy
?LINT: set d_safemcpy
: can memcpy handle overlapping blocks?
?X:
 assume the worst
 val="$undef"
 case "$d_memcpy" in
"$define")
 echo " "
 echo "Checking to see if your memcpy() can do overlapping copies..." >&4
 $cat >foo.c <<EOCP
 #i_memory I_MEMORY
 #i_stdlib I_STDLIB
 #i_string I_STRING
 #i_unistd I_UNISTD
 EOCP
 $cat >>foo.c <<'EOCP'
 #include <stdio.h>
 #ifdef I_MEMORY
 # include <memory.h>
 #endif

```

```

#ifdef I_STDLIB
include <stdlib.h>
#endif
#ifdef I_STRING
include <string.h>
#else
include <strings.h>
#endif
#ifdef I_UNISTD
include <unistd.h> /* Needed for NetBSD */
#endif
int main()
{
char buf[128], abc[128];
char *b;
int len;
int off;
int align;

/* Copy "abcde..." string to char abc[] so that gcc doesn't
 try to store the string in read-only memory. */
memcpy(abc, "abcdefghijklmnopqrstuvwxy0123456789", 36);

for (align = 7; align >= 0; align--) {
for (len = 36; len; len--) {
b = buf+align;
memcpy(b, abc, len);
for (off = 1; off <= len; off++) {
memcpy(b+off, b, len);
memcpy(b, b+off, len);
if (memcmp(b, abc, len))
exit(1);
}
}
}
exit(0);
}
EOCP
if
$cc $optimize $ccflags $ldflags \
-o safemcpy foo.c $libs >/dev/null 2>&1; then
if ./safemcpy 2>/dev/null; then
echo "Yes, it can."
val="$define"
else
echo "It can't, sorry."
case "$d_memmove" in
"$define") echo "But that's Ok since you have memmove()." ;;

```

```

 esac
fi
else
 echo "(I can't compile the test program, so we'll assume not...)"
 case "$d_memmove" in
 "$define") echo "But that's Ok since you have memmove()." ;;
 esac
fi
;;
esac
$rm -f foo.* safemcpy core
set d_safemcpy
eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_safemcpy.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Inhdr.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Inhdr.U,v \$

?RCS: Revision 3.0.1.2 1995/05/12 12:01:31 ram

?RCS: patch54: deleted tabs that caused some /bin/sh to core dump (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/10/29 15:55:01 ram

?RCS: patch36: call ./whoa explicitly instead of relying on PATH

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:01 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit checks whether a set of header files exists or not.

?X: If the first header is not

found, the function tries to locate

?X: the next header, and so on, until one is found or there is no

?X: more header in the list.

?X:

?X: To use it, say:

?X: set header i\_header [ header2 i\_header2 ... ]

```

?X: eval $inhdr
?X:
?MAKE:Inhdr: test Findhdr Whoa
?MAKE: -pick add $@ %<
?LINT:define inhdr
?V:inhdr
?S:inhdr:
?S: This shell variable is used internally by Configure to check
?S: whether a set of headers exist or not. A typical use is:
?S: set header i_header [header2 i_header2 ...]
?S: eval $inhdr
?S: That will print a message, saying whether header was found or not
?S: and set i_header* accordingly. If the first header is not found,
?S: we try the next one, until the list is empty or one is found.
?S:.
?T:xxx xxf var td xxnf tu yyy instead was cont
: define an alternate in-header-list? function
inhdr='echo " "; td=$define; tu=$undef; yyy=$@;
cont=true; xxf="echo \"<\\$1> found.\" >&4";
case $# in 2) xxnf="echo \"<\\$1> NOT found.\" >&4";;
*) xxnf="echo \"<\\$1> NOT found, ...\" >&4";;
esac;
case
$# in 4) instead=instead;; *) instead="at last";; esac;
while $test "$cont"; do
xxx=`./findhdr $1`
var=$2; eval "was=\\$2";
if $test "$xxx" && $test -r "$xxx";
then eval $xxf;
?X: Next line shifted left 1 tabstop to avoid sh core dump on MachTen 2.1.1.
eval "case \\\"\\$var\\\" in $undef) . ./whoa; esac"; eval "$var=\\$td";
cont="";
else eval $xxnf;
?X: Likewise, the next line has been shifted left 1 tabstop -- ADO, 08/03/95
eval "case \\\"\\$var\\\" in $define) . ./whoa; esac"; eval "$var=\\$tu"; fi;
set $yyy; shift; shift; yyy=$@;
case $# in 0) cont="";;
2) xxf="echo \"but I found <\\$1> $instead.\" >&4";
xxnf="echo \"and I did not find <\\$1> either.\" >&4";;
*) xxf="echo \"but I found <\\$1> instead.\" >&4";
xxnf="echo \"there is no <\\$1>, ...\" >&4";;
esac;
done;
?X: Remaining values are set to 'undef'
while $test "$yyy";
do set $yyy; var=$2; eval "was=\\$2";
eval "case \\\"\\$var\\\" in $define) . ./whoa; esac"; eval "$var=\\$tu";
set $yyy; shift; shift; yyy=$@;

```

done'

Found

in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Inhdr.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: socksizetype.U,v $
```

```
?RCS:
```

```
?RCS: Copyright (c) 2000 Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:socksizetype: \
```

```
Protochk Oldconfig Myread cat d_socket d_socklen_t sizetype \
usesocks i_socks i_systypes extern_C
```

```
?MAKE: -pick add $@ %<
```

```
?S:socksizetype:
```

```
?S: This variable holds the type used for the size argument
```

```
?S: for various socket calls like accept. Usual values include
```

```
?S: socklen_t, size_t, and int.
```

```
?S:.
```

```
?C:Sock_size_t:
```

```
?C: This symbol holds the type used for the size argument of
```

```
?C: various socket calls (just the base type, not the pointer-to).
```

```
?C:.
```

```
?H:#define Sock_size_t $socksizetype /**/
```

```
?H:.
```

```
?T:xxx yyy try
```

```
@if Sock_size_t
```

```
: check for type of the size argument to socket calls
```

```
case "$d_socket" in
```

```
"$define")
```

```
$cat <<EOM
```

Checking to see what type is the last argument

of accept().

```
EOM
```

```
yyy="
```

```
case "$d_socklen_t" in
```

```
"$define") yyy="$yyy socklen_t"
```

```
esac
```

```
yyy="$yyy $sizetype int long unsigned"
```

```
for xxx in $yyy; do
```

```
case "$socksizetype" in
```

```
") try="$extern_C int accept(int, struct sockaddr *, $xxx *);"
```

```

case "$susesocks" in
"$define")
if ./protochk "$try" $i_systypes sys/types.h $d_socket sys/socket.h literal '#define INCLUDE_PROTOTYPES'
$i_socks socks.h.; then
echo "Your system accepts '$xxx *' for the last argument of accept()."
socksizetype="$xxx"
fi
;;
*) if ./protochk "$try" $i_systypes sys/types.h $d_socket sys/socket.h; then
echo "Your system accepts '$xxx *' for the last argument of accept()."
socksizetype="$xxx"
fi
;;
esac
;;
esac
done
: In case none of those worked, prompt the user.
case "$socksizetype" in
") rp='What is the type for socket address structure sizes?'
dflt='int'
./myread
socksizetype=$ans
;;
esac
;;
*) : no sockets, so pick relatively harmless default
socksizetype='int'
;;
esac
@end

```

Found

in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/protos/socksizetype.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: nlist_pfx.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```

?RCS: $Log: nlist_pfx.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:26:18 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:25 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:nlist_pfx nlist_fnd: cat test Myread Oldconfig libnlist \
+cc +ccflags
?MAKE: -pick add $@ %<
?S:nlist_pfx:
?S: This variable holds any characters which precede the symbol name
?S: when doing an nlist search.
?S:.
?S:nlist_fnd:
?S: This
variable holds the member of the nlist structure which is
?S: nonzero if an nlist search succeeds. Presently, it is always "n_value".
?S:.
?C:NLIST_PREFIX:
?C: This manifest constant holds the string of characters which should
?C: precede the symbol name when doing an nlist search.
?C:.
?C:NLIST_FOUND:
?C: This manifest constant holds the member of the nlist structure which
?C: is nonzero if an nlist search succeeds.
?C:.
?H:#define NLIST_PREFIX $nlist_pfx /**/
?H:#define NLIST_FOUND $nlist_fnd /**/
?H:.
?F:!nlisttest
?T:nlist_loc
: Nose around for nlist stuff
echo " "
echo "Checking out nlist stuff..." >&4
$cat >nlisttest.c <<'EOCP'
#include <stdio.h>
#include <nlist.h>

main(argc, argv)
int argc;
char **argv;
{
int (*loc)();
extern int hereIam();
static struct nlist nl[] = {
{ "IamNotFound", 0 },
{ "hereIam", 0 },

```

```

 { "_hereIam", 0 },
 { ".hereIam", 0 },
 { "", 0 }
};

loc = hereIam;

if(argc == 1) {
 printf("%d\n", loc);}
else {
 int i;
 int rc;

 if(nlist("./nlisttest",
nl) == -1) exit(-1);
 i = argv[1][0] - '0';
 printf("%d %d %d\n", nl[i].n_name, nl[i].n_type, nl[i].n_value);
 }
 exit(0);}

int hereIam() {

 return;}
EOCP
nlist_fnd=n_value
if $cc $ccflags -o nlisttest nlisttest.c $libnlist >/dev/null 2>&1 ; then
set `./nlisttest`
nlist_loc=$1

set `./nlisttest 0`
if $test "$3" = "0" ; then
 echo "$nlist_fnd is 0 if nlist() fails, as I expected."
else
 $cat <<EOM
Hello, Jim. We have just discovered that $nlist_fnd was nonzero on an
nlist() lookup failure! Your mission, should you choose to accept it, is to
edit either config.sh (to provide a Good value for nlist_fnd) or The Code
(to find an alternative to NLIST_FOUND), and reporting the full details of
your success to the MetaConfig Police. Of course, should you fail...
EOM
 nlist_fnd="/* Bletch! */"
fi

set `./nlisttest 1`
if $test "$nlist_loc" = "$3" ; then
 echo "Symbols are stored with no initial characters."
 nlist_pfx=
else

```



```

set `./nlisttest 2`
if
$test "$nlist_loc" = "$3" ; then
 echo "Symbols are stored with an initial underscore."
 nlist_pfx=_
else
 set `./nlisttest 3`
 if $test "$nlist_loc" = "$3" ; then
 echo "Symbols are stored with an initial dot."
 nlist_pfx=.
 else
 $cat <<EOM

```

I can't figure out the symbol prefix!

You get to edit config.sh and fix 'nlist\_pfx' (Configure will let you do this at the end of its configuration questions), or config.h and fix the value of the NLIST\_PREFIX symbol.

EOM

```

 nlist_pfx="/* Bletch! */ /*/"
 fi
 fi
 fi
else
 $cat <<EOM

```

I can't get the nlist test program working!

You get to edit config.sh and fix 'nlist\_pfx' (Configure will let you do this at the end of its configuration questions) and 'nlist\_fnd', or config.h and fix the value of the NLIST\_PREFIX and NLIST\_FOUND symbols.

EOM

```

nlist_pfx="/* Bletch! */ /*/"
nlist_fnd="/* Bletch! */ /*/"
fi

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/nlist_pfx.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: lseektype.U,v 3.0.1.1 1994/08/29 16:30:10 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: lseektype.U,v \$

```

?RCS: Revision 3.0.1.1 1994/08/29 16:30:10 ram
?RCS: patch32: now uses new Typedef unit to compute type information
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:08 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:lseektype lseeksize: Myread Typedef cat Compile rm_try longsize run
?MAKE: -pick add $@ %<
?S:lseektype:
?S: This variable defines lseektype to be something like off_t, long,
?S: or whatever type is used to declare
lseek offset's type in the
?S: kernel (which also appears to be lseek's return type).
?S:.
?S:lseeksize:
?S: This variable defines lseektype to be something like off_t, long,
?S: or whatever type is used to declare lseek offset's type in the
?S: kernel (which also appears to be lseek's return type).
?S:.
?C:Off_t (LSEEKTYPE):
?C: This symbol holds the type used to declare offsets in the kernel.
?C: It can be int, long, off_t, etc... It may be necessary to include
?C: <sys/types.h> to get any typedef'ed information.
?C:.
?C:LSEEKSIZE:
?C: This symbol holds the number of bytes used by the Off_t.
?C:.
?C:Off_t_size:
?C: This symbol holds the number of bytes used by the Off_t.
?C:.
?H:#define Off_t $lseektype /* <offset> type */
?H:#define LSEEKSIZE $lseeksize /* <offset> size */
?H:#define Off_t_size $lseeksize /* <offset> size */
?H:.
?F:!try
?LINT:set lseektype
: see what type lseek is declared as in the kernel
rp="What is the type used for lseek's offset on this system?"
set off_t lseektype
long stdio.h sys/types.h
eval $typedef_ask

echo " "
echo "Checking to see how big your file offsets are..." >&4
$cat >try.c <<EOCP
#include <sys/types.h>
#include <stdio.h>
int main()

```

```

{
 printf("%d\n", (int)sizeof($lseektype));
 return(0);
}
EOCP
set try
if eval $compile_ok; then
 lseeksize=`$run ./try`
 echo "Your file offsets are $lseeksize bytes long."
else
 dflt=$longsize
 echo " "
 echo "(I can't seem to compile the test program. Guessing...)"
 rp="What is the size of your file offsets (in bytes)?"
 ./myread
 lseeksize="$sans"
fi
$rm_try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/lseektype.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: ccflags.U,v 3.0.1.9 1997/02/28 15:27:07 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
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?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: ccflags.U,v $
?RCS: Revision 3.0.1.9 1997/02/28 15:27:07 ram
?RCS: patch61: removed support for NO_PROTOTYPE detection on SCO
?RCS: patch61: new locincpth variable
?RCS: patch61: added info on the "additional ld flags" question
?RCS:
?RCS: Revision 3.0.1.8 1995/07/25 13:48:54 ram
?RCS: patch56: re-arranged compile line to include ldflags before objects
?RCS:
?RCS: Revision 3.0.1.7 1995/05/12 12:08:33 ram
?RCS: patch54: now checks for cc/ccflags/ldflags
?RCS: coherency
?RCS:
?RCS: Revision 3.0.1.6 1994/10/29 16:07:02 ram

```

?RCS: patch36: gcc versioning no longer relies on the C compiler's name  
?RCS: patch36: simplified check for gcc version checking (ADO)  
?RCS:  
?RCS: Revision 3.0.1.5 1994/08/29 16:06:35 ram  
?RCS: patch32: propagate -posix flag from ccflags to ldflags  
?RCS:  
?RCS: Revision 3.0.1.4 1994/05/06 14:28:45 ram  
?RCS: patch23: -fpcc-struct-return only needed in gcc 1.x (ADO)  
?RCS: patch23: cppflags now computed on an option-by-option basis  
?RCS: patch23: magically added cc flags now only done the first time  
?RCS:  
?RCS: Revision 3.0.1.3 1993/09/13 15:58:29 ram  
?RCS: patch10: explicitly mention -DDEBUG just in case they need it (WAD)  
?RCS: patch10: removed all the "tans" variable usage (WAD)  
?RCS:  
?RCS: Revision 3.0.1.2 1993/08/27 14:39:38 ram  
?RCS: patch7: added support for OSF/1 machines  
?RCS:  
?RCS: Revision 3.0.1.1 1993/08/25 14:00:24 ram  
?RCS: patch6: added defaults for cppflags, ccflags and ldflags  
?RCS:  
?RCS:  
Revision 3.0 1993/08/18 12:05:31 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:ccflags ldflags lkflags cppflags optimize locincpth: test cat osname \  
Myread Guess Options Oldconfig +gccversion mips\_type +usrinc \  
package contains rm +cc cppstdin cppminus cprun cpplast libpth \  
libs loclibpth hint usesocks sh run rm\_try sysroot  
?MAKE: -pick add \$@ %<  
?S:ccflags:  
?S: This variable contains any additional C compiler flags desired by  
?S: the user. It is up to the Makefile to use this.  
?S:.  
?S:cppflags:  
?S: This variable holds the flags that will be passed to the C pre-  
?S: processor. It is up to the Makefile to use it.  
?S:.  
?S:optimize:  
?S: This variable contains any optimizer/debugger flag that should be used.  
?S: It is up to the Makefile to use it.  
?S:.  
?S:ldflags:  
?S: This variable contains any additional C loader flags desired by  
?S: the user. It is up to the Makefile to use this.  
?S:.  
?S:lkflags:  
?S: This variable contains any additional C partial linker flags

```

desired by
?S: the user. It is up to the Makefile to use this.
?S:.
?S:locincpth:
?S: This variable contains a list of additional directories to be
?S: searched by the compiler. The appropriate '-I' directives will
?S: be added to cflags. This is intended to simplify setting
?S: local directories from the Configure command line.
?S: It's not much, but it parallels the loclibpth stuff in libpth.U.
?S:.
?T:inctest thisincl xxx inclwanted ftry previous thislibdir
?T:EBUGGING DEBUGGING
?T:check flag callback checkccflag
?F:!cpp.c !gcctest !try
?D:cppflags="
?D:cflags="
?D:ldflags="
?D:optimize="
?LINT:extern _sysroot
?INIT:: Possible local include directories to search.
?INIT:: Set locincpth to "" in a hint file to defeat local include searches.
?INIT:locincpth="/usr/local/include /opt/local/include /usr/gnu/include"
?INIT:locincpth="$locincpth /opt/gnu/include /usr/GNU/include /opt/GNU/include"
?INIT::
?INIT:: no include file wanted by default
?INIT:inclwanted="
?INIT:
?INIT::
Enable -DEBUGGING and -DDEBUGGING from the command line
?INIT:EBUGGING="
?INIT:DEBUGGING="
?INIT:
: determine optimization, if desired, or use for debug flag also
?X: Allow for Configure -Uoptimize -- it's not strictly sensible, but
?X: it has happened and we know what they mean. AD 2/16/98
case "$optimize" in
'|$undef) dflt='none';;
") dflt='-O';;
*) dflt="$optimize";;
esac
$cat <<EOH

```

By default, \$package compiles with the -O flag to use the optimizer. Alternately, you might want to use the symbolic debugger, which uses the -g flag (on traditional Unix systems). Either flag can be specified here. To use neither flag, specify the word "none".

EOH

```

rp="What optimizer/debugger flag should be used?"
./myread
optimize="$ans"
case "$optimize" in
'none') optimize=" ";;
esac

: Check what DEBUGGING is required from the command line
: -DEBUGGING or -DDEBUGGING or
: -DEBUGGING=both = -g + -DDEBUGGING
: -DEBUGGING=-g or -Doptimize=-g = -g
: -DEBUGGING=none or -UDEBUGGING =
:
: -DEBUGGING=old or -DEBUGGING=default = ? $optimize
case "$DEBUGGING" in
") ;;
*) DEBUGGING=$DEBUGGING ;;
esac

case "$DEBUGGING" in
-g|both|$define)
case "$optimize" in
-g) ;;
*) optimize="$optimize -g" ;;
esac ;;
none|$undef)
case "$optimize" in
-g) set `echo "X $optimize " | sed 's/ -g / /'`
shift
optimize="$*"
;;
esac ;;
esac

dflt="
case "$DEBUGGING" in
both|$define) dflt='-DDEBUGGING'
esac

: argument order is deliberate, as the flag will start with - which set could
: think is an option
checkccflag='check=$1; flag=$2; callback=$3;
echo " ";
echo "Checking if your compiler accepts $flag" 2>&1;
["X$sysroot" != "X"] && echo "For sysroot = $sysroot";
echo "int main(void) { return 0; }" > gcctest.c;
if $cc $_sysroot -O2 $flag -o gcctest gcctest.c 2>gcctest.out && $run ./gcctest; then
echo "Yes, it does." 2>&1;

```

```

if $test -s gcctest.out ; then
 echo "But your platform does not like it:";
 cat gcctest.out;
else
case "$ccflags"
in
$check)
 echo "Leaving current flags $ccflags alone." 2>&1
 ;;
*) dflt="$dflt $flag";
 eval $callback
 ;;
esac
fi
else
 echo "Nope, it does not, but that is ok." 2>&1;
fi
,

```

: We will not override a previous value, but we might want to

: augment a hint file

```
case "$hint" in
```

```
default|recommended)
```

```
case "$gccversion" in
```

```
1*) dflt="$dflt -fpcc-struct-return" ;;
```

```
esac
```

```
case "$optimize:$DEBUGGING" in
```

```
-g:old) dflt="$dflt -DDEBUGGING";;
```

```
esac
```

?X: check for POSIXized ISC

```
case "$gccversion" in
```

```
2*) if $test -d /etc/conf/kconfig.d &&
```

```
$contains _POSIX_VERSION $usrinc/sys/unistd.h >/dev/null 2>&1
```

```
then
```

```
Interactive Systems (ISC) POSIX mode.
```

```
dflt="$dflt -posix"
```

```
fi
```

```
;;
```

```
esac
```

?X: If the user has gcc-2.95 or greater, try adding -fno-strict-alias.

?X: Since the gcc "version" can be non-numeric, e.g.

?X: "2.95.1 19990809 (prerelease)" , we'll do the test on any version

?X: greater than 2.8.

?X: --Andy Dougherty 27 Aug 1999

```
case "$gccversion" in
```

```
1*) ;;
```

```
2.[0-8]*)
```

```

;;
?*) set strict-aliasing -fno-strict-aliasing
eval $checkccflag
;;
esac
?X: HMB 200405
?X: -pipe has shown a compile time speedup of about 40% on Linux and HP-UX
?X: and also worked on cygwin-1.5.9
?X: If a system fails, disable it in the hints. 99% of gcc uses binutils
For gcc, adding -pipe speeds up compilations for some, but apparently
some assemblers can't read from stdin. (It also slows down compilations
in other cases, but those are apparently rarer these days.) AD 5/2004.
case "$gccversion" in
?*) set pipe -pipe
eval $checkccflag
;;
esac

?X: NWC 200712
on x86_64 (at least) we require an extra library (libssp) in the
link command line. This library is not named, so I infer that it is
an implementation detail that may change. Hence the safest approach
is to add the flag to the flags passed to the compiler at link time,
as that way the compiler can do the right implementation dependant
thing. (NWC)
case "$osname" in
amigaos)
;; # -fstack-protector builds but doesn't work
*) case "$gccversion" in
?*) set stack-protector-strong -fstack-protector-strong
eval $checkccflag
case "$dflt" in
-fstack-protector-strong) ;; # It got added.
*) # Try the plain/older -fstack-protector.
set stack-protector -fstack-protector
eval $checkccflag
;;
esac
;;
esac
;;
esac
;;
esac
;;
esac

```

?X: In USG mode, a MIPS system may need some BSD includes

```

case "$mips_type" in
BSD|*) inclwanted="$locincpth $usrinc";;

```



```

*) inclwanted="$locincpth $inclwanted $usrinc/bsd";;
esac
for thisincl in $inclwanted; do
if $test -d $thisincl; then
if $test x$thisincl != x$usrinc; then
case "$dflt" in
" -I$thisincl ");;
*) dflt="$dflt -I$thisincl ";;
esac
fi
fi
done

?X: Include test function (header, symbol)
inctest='if $contains $2 $usrinc/$1 >/dev/null 2>&1; then
xxx=true;
elif $contains $2 $usrinc/sys/$1 >/dev/null 2>&1; then
xxx=true;
else
xxx=false;
fi;
if $xxx; then
case "$dflt" in
$2);;
*)
dflt="$dflt -D$2";;
esac;
fi'

set signal.h LANGUAGE_C; eval $inctest

case "$susesocks" in
$define)
ccflags="$ccflags -DSOCKS"
;;
esac

case "$hint" in
default|recommended) dflt="$ccflags $dflt" ;;
*) dflt="$ccflags";;
esac

case "$dflt" in
'| ') dflt=none;;
esac

$cat <<EOH

```

Your C compiler may want other flags. For this question you should include -I/whatever and -DWHATEVER flags and any other flags used by the C compiler, but you should NOT include libraries or ld flags like -lwhatever. If you want \$package to honor its debug switch, you should include -DDEBUGGING here. Your C compiler might also need additional flags, such as -D\_POSIX\_SOURCE.

To use no flags, specify the word "none".

EOH

?X: strip leading space

set X \$dflt

shift

dflt=\${1+"\$@"}

rp="Any additional cc flags?"

./myread

case "\$ans" in

none) ccflags="";;

\*) ccflags="\$ans";;

esac

: the following weeds options from ccflags that are of no interest to cpp

case "\$cppflags" in

") cppflags="\$ccflags"

::

\*) set X \$ccflags; shift

case " \$cppflags " in

\*" \$1 "\*" );; # Try to avoid doubling the cppflags.

\*) cppflags="\$cppflags \$ccflags" ;;

esac

::

esac

case "\$gccversion" in

1\*) cppflags="\$cppflags -D\_\_GNUC\_\_"

esac

case "\$mips\_type" in

");;

\*BSD\*) cppflags="\$cppflags -DSYSTYPE\_BSD43";;

esac

case "\$cppflags" in

");;

\*)

echo " "

echo "Let me guess what the preprocessor flags are..." >&4

set X \$cppflags

shift

cppflags="

\$cat >cpp.c <<'EOM'

#define BLURFL foo

BLURFL xx LFRULB

EOM

?X:

?X: For each cc flag, try it out with both cppstdin and cprun, since the

?X: first is almost surely a cc wrapper. We have to try both in case

?X: of cc flags like '-Olimit 2900' that are actually two words...

?X:

```
previous=""
for flag in $*
do
case "$flag" in
-*) ftry="$flag";;
*) ftry="$previous $flag";;
esac
if $cppstdin -DLFRULB=bar $cppflags $ftry $cppminus <cpp.c \
>cpp1.out 2>/dev/null && \
$cpprun -DLFRULB=bar $cppflags $ftry $cppplast <cpp.c \
>cpp2.out
2>/dev/null && \
$contains 'foo.*xx.*bar' cpp1.out >/dev/null 2>&1 && \
$contains 'foo.*xx.*bar' cpp2.out >/dev/null 2>&1
then
cppflags="$cppflags $ftry"
previous=""
else
previous="$flag"
fi
done
set X $cppflags
shift
cppflags=${1+"$@"}
case "$cppflags" in
~) echo "They appear to be: $cppflags";;
esac
$rm -f cpp.c cpp?.out
;;
esac
```

: flags used in final linking phase

```
case "$ldflags" in
```

```
~) if ./venix; then
```

```
 dflt='-i -z'
```

```
else
```

```
 dflt=""
```

```
fi
```

```
case "$ccflags" in
```

```
~posix) dflt="$dflt -posix" ;;
```

```

esac
;;
*) dflt="$ldflags";;
esac
See note above about -fstack-protector
case "$ccflags" in
-fstack-protector-strong)
case "$dflt" in
-fstack-protector-strong) ;; # Don't add it again
*) dflt="$dflt -fstack-protector-strong" ;;
esac
;;
-fstack-protector)
case "$dflt" in
-fstack-protector) ;; # Don't add it again
*) dflt="$dflt -fstack-protector" ;;
esac
;;
esac

```

: Try to guess additional flags to pick up local libraries.

```

for thislibdir in $libpth;
do
case " $loclibpth " in
" $thislibdir ")
case "$dflt " in
-L$thislibdir ") ;;
*) dflt="$dflt -L$thislibdir" ;;
esac
;;
esac
done

```

```

case "$dflt" in
") dflt='none' ;;
esac

```

```
$cat <<EOH
```

Your C linker may need flags. For this question you should include `-L/whatever` and any other flags used by the C linker, but you should NOT include libraries like `-lwhatever`.

Make sure you include the appropriate `-L/path` flags if your C linker does not normally search all of the directories you specified above, namely

```
$libpth
```

To use no flags, specify the word "none".

EOH

```
rp="Any additional ld flags (NOT including libraries)?"
```

```
./myread
```

```
case "$ans" in
```

```
none) ldflags=";;
```

```
*) ldflags="$ans";;
```

```
esac
```

```
rmlist="$rmlist pdp11"
```

```
@if lkflags
```

```
: partial linking may need other flags
```

```
case "$lkflags" in
```

```
) case "$ldflags" in
```

```
) dflt='none';;
```

```
*) dflt="$ldflags";;
```

```
esac;;
```

```
*) dflt="$lkflags";;
```

```
esac
```

```
echo " "
```

```
rp="Partial linking flags to be used (NOT including -r)?"
```

```
./myread
```

```
case "$ans" in
```

```
none)
```

```
lkflags=";;
```

```
*) lkflags="$ans";;
```

```
esac
```

```
@end
```

```
?X:
```

```
?X: If the user changes compilers after selecting a hint file, it's
```

```
?X: possible that the suggested cflags/ldflags will be wrong. Try to
```

```
?X: compile and run a simple test program. Let the user see all the
```

```
?X: error messages. -- ADO and RAM
```

```
?X: Sometimes, particularly on Linux systems, there is a bad library
```

```
?X: (e.g. a dangling symlink or incompatible library or a "run-time"
```

```
?X: version but not a "development" version of a library). This test
```

```
?X: will catch those sorts of problems too, though how to fix them
```

```
?X: may not be obvious.
```

```
?X:
```

```
: coherency check
```

```
echo " "
```

```
echo "Checking your choice of C compiler and flags for coherency..." >&4
```

```
$cat > try.c <<'EOF'
```

```
#include <stdio.h>
```

```
int main() { printf("Ok\n"); return(0); }
```

```
EOF
```

?X: Strip extra blanks in case some of the following variables are empty

```
set X $cc -o try $optimize $ccflags $ldflags try.c $libs
```

```
shift
```

```
$cat >try.msg <<'EOM'
```

I've tried to compile and run the following simple program:

```
EOM
```

```
$cat
```

```
try.c >> try.msg
```

```
$cat >> try.msg <<EOM
```

I used the command:

```
$*
```

```
$run ./try
```

and I got the following output:

```
EOM
```

```
dflt=y
```

?X: Use "sh -c" to avoid error messages tagged with leading "Configure:".

?X: We need to try the resulting executable, because cc might yield a 0 status

?X: even when ld failed, in which case the executable will not run properly,

?X: if its x bit is set at all...

```
if $sh -c "$cc -o try $optimize $ccflags $ldflags try.c $libs" >>try.msg 2>&1; then
```

```
if $sh -c "$run ./try " >>try.msg 2>&1; then
```

```
xxx=`$run ./try`
```

```
case "$xxx" in
```

```
"Ok") dflt=n ;;
```

```
*) echo "The program compiled OK, but produced no output." >> try.msg ;;
```

```
esac
```

```
else
```

```
echo "The program compiled OK, but exited with status $?." >>try.msg
```

```
rp="You have a problem. Shall I abort Configure"
```

```
dflt=y
```

```
fi
```

```
else
```

```
echo "I can't compile the test program." >>try.msg
```

```
rp="You have a BIG problem. Shall I abort Configure"
```

```
dflt=y
```

```
fi
```

```
case "$dflt" in
```

```
y)
```

```
$cat try.msg >&4
```

?X: using -K will prevent

default aborting--maybe they're cross compiling?

```
case "$knowitall" in
```

```

")
echo "(The supplied flags or libraries might be incorrect.)"
;;
*) dflt=n;;
esac
echo " "
. ./myread
case "$ans" in
n*|N*) ;;
*) echo "Ok. Stopping Configure." >&4
exit 1
;;
esac
;;
n) echo "OK, that should do.";;
esac
$rm_try gcctest gcctest.out

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/ccflags.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_pause.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_pause.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:09:54 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_pause: Inlibc
?MAKE: -pick add $@ %<
?S:d_pause:
?S: This variable conditionally defines the HAS_PAUSE symbol, which
?S: indicates to the C program that the pause() routine is available
?S: to suspend a process until a signal is received.
?S:.
?C:HAS_PAUSE :
?C: This symbol,

```

if defined, indicates that the pause routine is  
?C: available to suspend a process until a signal is received.  
?C:.  
?H:#\$d\_pause HAS\_PAUSE /\*\*/  
?H:.  
?LINT:set d\_pause  
: see if pause exists  
set pause d\_pause  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_pause.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_drem.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>  
?RCS:  
?RCS: \$Log: d\_drem.U,v \$  
?RCS: Revision 3.0.1.1 1994/10/29 16:12:14 ram  
?RCS: patch36: created by ADO  
?RCS:  
?MAKE:d\_drem: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_drem:  
?S: This variable conditionally defines the HAS\_DREM symbol, which  
?S: indicates to the C program that the drem() routine is available.  
?S:.  
?C:HAS\_DREM :  
?C: This symbol, if defined, indicates that the drem routine is  
?C: available.  
This routine is roughly the same as fmod, i.e. it  
?C: computes the remainder  $r=x-n*y$ , where  $n=rint(x/y)$ , whereas fmod  
?C: uses  $n=trunc(x/y)$ .  
?C:.  
?H:#\$d\_drem HAS\_DREM /\*\*/  
?H:.  
?LINT:set d\_drem  
: see if drem exists



```
set drem d_drem
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_drem.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 2001 Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:d_thread_atfork: Inlibc cat Compile usethreads Setvar
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_thread_atfork:
```

```
?S: This variable conditionally defines the HAS_PTHREAD_ATFORK symbol,
```

```
?S: which indicates to the C program that the pthread_atfork()
```

```
?S: routine is available.
```

```
?S:.
```

```
?C:HAS_PTHREAD_ATFORK:
```

```
?C: This symbol, if defined, indicates that the pthread_atfork routine
```

```
?C: is available to setup fork handlers.
```

```
?C:.
```

```
?H:#$d_thread_atfork HAS_PTHREAD_ATFORK /**/
```

```
?H:.
```

```
?LINT:set d_thread_atfork
```

```
: see whether the pthread_atfork exists
```

```
$cat >try.c <<EOP
```

```
#include <pthread.h>
```

```
#include <stdio.h>
```

```
int main() {
```

```
#ifdef PTHREAD_ATFORK
```

```
 pthread_atfork(NULL,NULL,NULL);
```

```
#endif
```

```
}
```

```
EOP
```

```
: see if pthread_atfork exists
```

```
set
```

```
try -DPTHREAD_ATFORK
```

```
if eval $compile; then
```

```
 val="$define"
```

```
else
```

```
 val="$undef"
```

```
fi
```

```

case "$susetthreads" in
$define)
 case "$sval" in
 $define) echo 'pthread_atfork found.' >&4 ;;
 *) echo 'pthread_atfork NOT found.' >&4 ;;
 esac
esac
set d_pthread_atfork
eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_pthread_atfork.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_mblen.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_mblen.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:09:40 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_mblen: Inlibc
?MAKE: -pick add $@ %<
?S:d_mblen:
?S: This variable conditionally defines the HAS_MBLEN symbol, which
?S: indicates to the C program that the mblen() routine is available
?S: to find the number of bytes in a multibyte character.
?S:.
?C:HAS_MBLEN:
?C: This
 symbol, if defined, indicates that the mblen routine is available
?C: to find the number of bytes in a multibyte character.
?C:.
?H:#$d_mblen HAS_MBLEN /**/
?H:.
?LINT:set d_mblen
: see if mblen exists
set mblen d_mblen

```

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_mblen.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_asctime\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_asctime\_r asctime\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
usethreads i\_time i\_systime extern\_C

?MAKE: -pick add \$@ %<

?S:d\_asctime\_r:

?S: This variable conditionally defines the HAS\_ASCTIME\_R symbol,

?S: which indicates to the C program that the asctime\_r()

?S: routine is available.

?S:.

?S:asctime\_r\_proto:

?S: This variable encodes the prototype of asctime\_r.

?S: It is zero if d\_asctime\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_asctime\_r

?S: is defined.

?S:.

?C:HAS\_ASCTIME\_R:

?C: This symbol, if defined, indicates that the asctime\_r routine

?C: is available to asctime

re-entrantly.

?C:.

?C:ASCTIME\_R\_PROTO:

?C: This symbol encodes the prototype of asctime\_r.

?C: It is zero if d\_asctime\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_asctime\_r

?C: is defined.

?C:.

?H:#\$d\_asctime\_r HAS\_ASCTIME\_R /\*\*/

?H:#define ASCTIME\_R\_PROTO \$asctime\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_asctime\_r\_proto

: see if asctime\_r exists

set asctime\_r d\_asctime\_r

eval \$inlibc

case "\$d\_asctime\_r" in

```

"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_time time.h $i_systime sys/time.h"
case "$d_asctime_r_proto:$usethreads" in
":define") d_asctime_r_proto=define
set d_asctime_r_proto asctime_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_asctime_r_proto" in
define)
case "$asctime_r_proto" in
"|0) try='char* asctime_r(const struct tm*, char*);'
./protochk "$extern_C $try" $hdrs && asctime_r_proto=B_SB ;;
esac
case "$asctime_r_proto" in
"|0) try='char* asctime_r(const struct tm*, char*, int);'
./protochk "$extern_C $try" $hdrs
&& asctime_r_proto=B_SBI ;;
esac
case "$asctime_r_proto" in
"|0) try='int asctime_r(const struct tm*, char*);'
./protochk "$extern_C $try" $hdrs && asctime_r_proto=I_SB ;;
esac
case "$asctime_r_proto" in
"|0) try='int asctime_r(const struct tm*, char*, int);'
./protochk "$extern_C $try" $hdrs && asctime_r_proto=I_SBI ;;
esac
case "$asctime_r_proto" in
"|0) d_asctime_r=undef
asctime_r_proto=0
echo "Disabling asctime_r, cannot determine prototype." >&4 ;;
*) case "$asctime_r_proto" in
REENTRANT_PROTO*) ;;
*) asctime_r_proto="REENTRANT_PROTO_$asctime_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "asctime_r has no prototype, not using it." >&4 ;;
esac
d_asctime_r=undef
asctime_r_proto=0
;;
esac
;;
*) asctime_r_proto=0
;;

```

esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_asctime\_r.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: i\_termio.U,v \$

?RCS: Revision 3.0.1.4 1994/10/29 16:20:54 ram

?RCS: patch36: call ./usg and ./Cpplib explicitly instead of relying on PATH

?RCS:

?RCS: Revision 3.0.1.3 1994/08/29 16:26:38 ram

?RCS: patch32: don't include all three I\_\* symbols in config.h

?RCS: patch32: (had forgotten to undo this part last time)

?RCS:

?RCS: Revision 3.0.1.2 1994/05/13 15:25:03 ram

?RCS: patch27: undone ADO's fix in previous patch since it was useless

?RCS:

?RCS: Revision 3.0.1.1 1994/05/06 15:05:23

ram

?RCS: patch23: now include all three defines in config.h (ADO)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:08:44 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:i\_termio i\_sgty i\_termios: test Inlibc Cpplib Guess Setvar Findhdr Warn

?MAKE: -pick add \$@ %<

?S:i\_termio:

?S: This variable conditionally defines the I\_TERMIO symbol, which

?S: indicates to the C program that it should include <termio.h> rather

?S: than <sgty.h>.

?S:.

?S:i\_termios:

?S: This variable conditionally defines the I\_TERMIOS symbol, which

?S: indicates to the C program that the POSIX <termios.h> file is

?S: to be included.

?S:.

?S:i\_sgty:

?S: This variable conditionally defines the I\_SGTTY symbol, which  
?S: indicates to the C program that it should include <sgtty.h> rather  
?S: than <termio.h>.

?S:.

?C:I\_TERMIO:

?C: This symbol, if defined, indicates that the program should include

?C: <termio.h> rather than <sgtty.h>. There are also differences in

?C: the ioctl() calls that depend on the value of

this symbol.

?C:.

?C:I\_TERMIOS:

?C: This symbol, if defined, indicates that the program should include

?C: the POSIX termios.h rather than sgtty.h or termio.h.

?C: There are also differences in the ioctl() calls that depend on the

?C: value of this symbol.

?C:.

?C:I\_SGTTY:

?C: This symbol, if defined, indicates that the program should include

?C: <sgtty.h> rather than <termio.h>. There are also differences in

?C: the ioctl() calls that depend on the value of this symbol.

?C:.

?H:#\$i\_termio I\_TERMIO /\*\*/

?H:#\$i\_termios I\_TERMIOS /\*\*/

?H:#\$i\_sgtty I\_SGTTY /\*\*/

?H:.

?T:val2 val3

?LINT:set i\_termio i\_sgtty i\_termios

: see if this is a termio system

val="\$undef"

val2="\$undef"

val3="\$undef"

?X: Prefer POSIX-approved termios.h over all else

if \$test `./findhdr termios.h`; then

set tcsetattr i\_termios

eval \$inlibc

val3="\$i\_termios"

fi

echo " "

case "\$val3" in

"\$define") echo "You have POSIX termios.h... good!" >&4;;

\*) if ./Cppsym pyr; then

case "`/bin/universe`" in

ucb) if \$test `./findhdr

sgtty.h`; then

val2="\$define"

echo "<sgtty.h> found." >&4

else

echo "System is pyramid with BSD universe."

```

./warn "<sgtty.h> not found--you could have problems."
fi;;
*) if $test `./findhdr termio.h`; then
 val="$define"
 echo "<termio.h> found." >&4
 else
 echo "System is pyramid with USG universe."
 ./warn "<termio.h> not found--you could have problems."
 fi;;
esac
?X: Start with USG to avoid problems if both usg/bsd was guessed
elif ./usg; then
if $test `./findhdr termio.h`; then
 echo "<termio.h> found." >&4
 val="$define"
elif $test `./findhdr sgtty.h`; then
 echo "<sgtty.h> found." >&4
 val2="$define"
else
 ./warn "Neither <termio.h> nor <sgtty.h> found--cross fingers!"
fi
else
if $test `./findhdr sgtty.h`; then
 echo "<sgtty.h> found." >&4
 val2="$define"
elif $test `./findhdr termio.h`; then
 echo "<termio.h> found." >&4
 val="$define"
else
 ./warn "Neither <sgtty.h> nor <termio.h> found--cross
fingers!"
fi
fi;;
esac
set i_termio; eval $setvar
val=$val2; set i_sgtty; eval $setvar
val=$val3; set i_termios; eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_termio.U
```

No license file was found, but licenses were detected in source scan.

?RCS: Copyright (c) 2006-2007, H.Merijn Brand

?RCS:

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```

?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?MAKE:d_c99_variadic_macros: Compile Setvar cat rm_try run
?MAKE: -pick add $@ %<
?S:d_c99_variadic_macros:
?S: This variable conditionally defines the HAS_C99_VARIADIC_MACROS
?S: symbol, which indicates to the C program that C99 variadic macros
?S: are available.
?S:.
?C:HAS_C99_VARIADIC_MACROS:
?C: If defined, the compiler supports C99 variadic macros.
?C:.
?H:#$d_c99_variadic_macros HAS_C99_VARIADIC_MACROS /**/
?H:.
?F:!try
: see if the Compiler supports C99 variadic macros
echo "Checking for C99 variadic macros." >&4
$cat >try.c <<EOCP
#include
<stdio.h>
#include <stdarg.h>

#define foo(buffer, format, ...) sprintf(buffer, format, __VA_ARGS__)

int main() {
char buf[20];
foo(buf, "%d %g %.*s", 123, 456.0, (int)3, "789fail");
puts(buf);
return 0;
}
EOCP
set try
if eval $compile && $run ./try 2>&1 >/dev/null; then
case "$run ./try`" in
"123 456 789")
echo "You have C99 variadic macros." >&4
d_c99_variadic_macros="$define"
;;
*)
echo "You don't have functional C99 variadic macros." >&4
d_c99_variadic_macros="$undef"
;;
esac
else
echo "I couldn't compile and run the test program, so I assume that you don't have functional C99 variadic
macros." >&4
d_c99_variadic_macros="$undef"

```



fi

\$rm\_try

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_c99\_variadic.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Config\_h.U,v \$

?RCS: Revision 3.0.1.5 1997/02/28 14:57:43 ram

?RCS: patch61: added support for src.U

?RCS:

?RCS: Revision 3.0.1.4 1995/09/25 09:10:49 ram

?RCS: patch59: commented the purpose of the #un-def directive

?RCS:

?RCS: Revision 3.0.1.3 1995/01/30 14:25:39 ram

?RCS: patch49: typo fixes in leading config.h comment (WED)

?RCS:

?RCS: Revision 3.0.1.2 1993/08/24 12:13:20 ram

?RCS: patch3: added TOP as a local shell temporary variable

?RCS:

?RCS: Revision 3.0.1.1 1993/08/19 06:42:20

ram

?RCS: patch1: leading config.sh searching was not aborting properly

?RCS:

?RCS: Revision 3.0 1993/08/18 12:04:47 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This file ends up producing the config\_h.SH script, which is run to produce

?X: the config.h file. The file ./Config\_h below contains all the ?H: lines

?X: extracted out of all the units. Metaconfig itself adds the !GROK!THIS!.

?X: Note that this code isn't included into Configure, but must be shipped with.

?X:

?X: For those who wish to know why the file is config\_h.SH instead of the more

?X: natural config.h.SH, well... it is to support systems like MS-DOG. Only one

?X: 'dot' is allowed within the file name, as it is part of the "extension" of

?X: the file. MS-DOG will not let you have two 'dots' because that would mean

```

?X: two "extensions".
?X:
?MAKE:Config_h: Id End Config_sh Obsol_h myuname cf_time cf_by package src
?MAKE: -pick c_h_weed $@ %<
?MAKE: -pick c_h_weed $@ ./Config_h
?MAKE: -pick
c_h_weed $@ ./Obsol_h
?T:CONFIG TOP
?LINT:unclosed !GROK!THIS!
?LINT:extern CONFIG_H CONFIG_SH
?LINT:change CONFIG_H CONFIG_SH
?LINT:nocomment
case "$CONFIG_SH" in
") CONFIG_SH=config.sh;;
esac
case "$CONFIG_H" in
") CONFIG_H=config.h;;
esac
case $CONFIG in
")
if test -f $CONFIG_SH; then TOP=.;
elif test -f ../$CONFIG_SH; then TOP=..;
elif test -f ../../$CONFIG_SH; then TOP=../../;
elif test -f ../../../$CONFIG_SH; then TOP=../../../;
elif test -f ../../../../$CONFIG_SH; then TOP=../../../../;
else
echo "Can't find $CONFIG_SH."; exit 1
fi
. $TOP/$CONFIG_SH
;;
esac
?X: Make sure we are in the directory where the .SH file is located.
case "$0" in
/) cd `expr X$0 : 'X\(.*/\)` ;;
esac
echo "Extracting $CONFIG_H (with variable substitutions)"
?X:
?X: Since we unconditionally translate leading #undef into /*#define, we're
?X: stuck when we really want to have a #undef in config.h. That's why there
?X: is provision here for #un-def, which is translated back into #undef after
?X:
all original #undef have been processed.
?X:
?X: Previously, we changed all
?X: #undef FOO /**/
?X: into
?X: /*#define FOO /**/
?X: The xlc compiler (available on IBM's AIX) complains that this is

```

?X: an illegal attempt to write a nested comment, and warns against it.

?X: There's apparently no way to shut the compiler up, either.

?X: This sed command from Hallvard B Furuseth <h.b.furuseth@usit.uio.no>

?X: changes it to

?X: /\*#define FOO / \*\*/

```
sed <<!GROK!THIS! >${CONFIG_H} -e 's!^#undef(.*)\!/^##define\1 \!' -e 's!^#un-def!#undef!'
/*
```

```
* This file was produced by running the config_h.SH script, which
* gets its values from $CONFIG_SH, which is generally produced by
* running Configure.
```

\*

```
* Feel free to modify any of this as the need arises. Note, however,
* that running config_h.SH again will wipe out any changes you've made.
* For a more permanent change edit $CONFIG_SH and rerun config_h.SH.
```

\*

```
* \Id: Config_h.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
*/
```

```
/*
```

```
* Package name
```

```
 : $package
```

```
* Source directory : $src
```

```
* Configuration time: $cf_time
```

```
* Configured by : $cf_by
```

```
* Target system : $myuname
```

```
*/
```

```
#ifndef _config_h_
```

```
#define _config_h_
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Config_h.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getnetbyname\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

```
?MAKE:d_getnetbyname_r getnetbyname_r_proto: Inlibc Protochk Hasproto \
i_systypes usethreads i_netdb extern_C
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_getnetbyname_r:
```

?S: This variable conditionally defines the HAS\_GETNETBYNAME\_R symbol,

?S: which indicates to the C program that the getnetbyname\_r()  
?S: routine is available.  
?S:.  
?S:getnetbyname\_r\_proto:  
?S: This variable encodes the prototype of getnetbyname\_r.  
?S: It is zero if d\_getnetbyname\_r is undef, and one of the  
?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getnetbyname\_r  
?S: is defined.  
?S:.  
?C:HAS\_GETNETBYNAME\_R:  
?C: This symbol, if defined, indicates that  
the getnetbyname\_r routine  
?C: is available to getnetbyname re-entrantly.  
?C:.  
?C:GETNETBYNAME\_R\_PROTO:  
?C: This symbol encodes the prototype of getnetbyname\_r.  
?C: It is zero if d\_getnetbyname\_r is undef, and one of the  
?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getnetbyname\_r  
?C: is defined.  
?C:.  
?H:#\$d\_getnetbyname\_r HAS\_GETNETBYNAME\_R /\*\*/  
?H:#define GETNETBYNAME\_R\_PROTO \$getnetbyname\_r\_proto /\*\*/  
?H:.  
?T:try hdrs d\_getnetbyname\_r\_proto  
: see if getnetbyname\_r exists  
set getnetbyname\_r d\_getnetbyname\_r  
eval \$inlibc  
case "\$d\_getnetbyname\_r" in  
"\$define")  
hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_netdb netdb.h"  
case "\$d\_getnetbyname\_r\_proto:\$usethreads" in  
":define") d\_getnetbyname\_r\_proto=define  
set d\_getnetbyname\_r\_proto getnetbyname\_r \$hdrs  
eval \$hasproto ;;  
\*) ;;  
esac  
case "\$d\_getnetbyname\_r\_proto" in  
define)  
case "\$getnetbyname\_r\_proto" in  
"|0) try='int getnetbyname\_r(const char\*, struct netent\*, char\*, size\_t, struct netent\*\*, int\*);'  
./protochk "\$extern\_C  
\$try" \$hdrs && getnetbyname\_r\_proto=I\_CSBWRE ;;  
esac  
case "\$getnetbyname\_r\_proto" in  
"|0) try='int getnetbyname\_r(const char\*, struct netent\*, char\*, int);'  
./protochk "\$extern\_C \$try" \$hdrs && getnetbyname\_r\_proto=I\_CSBI ;;  
esac  
case "\$getnetbyname\_r\_proto" in

```

"|0) try='struct netent* getnetbyname_r(const char*, struct netent*, char*, int);'
./protochk "$extern_C $try" $hdrs && getnetbyname_r_proto=S_CSBI ;;
esac
case "$getnetbyname_r_proto" in
"|0) try='int getnetbyname_r(const char*, struct netent*, struct netent_data*);'
./protochk "$extern_C $try" $hdrs && getnetbyname_r_proto=I_CSD ;;
esac
case "$getnetbyname_r_proto" in
"|0) d_getnetbyname_r=undef
getnetbyname_r_proto=0
echo "Disabling getnetbyname_r, cannot determine prototype." >&4 ;;
*) case "$getnetbyname_r_proto" in
REENTRANT_PROTO*) ;;
*) getnetbyname_r_proto="REENTRANT_PROTO_${getnetbyname_r_proto}" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo
"getnetbyname_r has no prototype, not using it." >&4 ;;
esac
d_getnetbyname_r=undef
getnetbyname_r_proto=0
;;
esac
;;
*) getnetbyname_r_proto=0
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_getnetbyname_r.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_strerror.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_strerror.U,v \$

?RCS: Revision 3.0 1993/08/18 12:07:39 ram

?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_strtol: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_strtol:  
?S: This variable conditionally defines the HAS\_STRTOL symbol, which  
?S: indicates to the C program that the strtol() routine is available  
?S: to provide better numeric string conversion than atoi() and friends.  
?S:.  
?C:HAS\_STRTOL (STRTOL):  
?C: This symbol, if defined, indicates that  
the strtol routine is available  
?C: to provide better numeric string conversion than atoi() and friends.  
?C:.  
?H:#\$d\_strtol HAS\_STRTOL /\*\*/  
?H:.  
?LINT:set d\_strtol  
: see if strtol exists  
set strtol d\_strtol  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_strtol.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: defeditor.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: defeditor.U,v \$  
?RCS: Revision 3.0.1.1 1995/01/11 15:30:16 ram  
?RCS: patch45: can now use the 'vi' variable since path stripping is deferred  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:08:05 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:defeditor: Getfile Oldconfig Loc vi  
?MAKE: -pick add \$@ %<  
?S:defeditor:  
?S: This variable contains the eventual value of the DEFEDITOR symbol,  
?S: which contains the name of the default editor.

```

?S:.
?C:DEFEDITOR:
?C: This
symbol contains the full pathname of the default editor.
?C:.
?H:#define DEFEDITOR "$defeditor" /**/
?H:.
: determine default editor
echo " "
case "$defeditor" in
")
case "$vi" in
/) dflt="$vi";;
*) dflt=/usr/ucb/vi;;
esac
;;
*) dflt="$defeditor"
;;
esac
fn=f/
rp="What is the default editor on your system?"
./getfile
defeditor="$ans"

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/defeditor.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_castneg.U,v 3.0.1.2 1995/05/12 12:11:21 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
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?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: d_castneg.U,v $
?RCS: Revision 3.0.1.2 1995/05/12 12:11:21 ram
?RCS: patch54: made sure cc and cflags are conditional dependencies
?RCS: patch54: added improved test case for Interactive Unix
?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 16:10:50 ram
?RCS: patch36: don't forget to tell user about compilation failures (ADO)
?RCS: patch36: declare signal handler correctly using 'signal_t' (ADO)
?RCS:

```

```

?RCS: Revision 3.0 1993/08/18 12:05:47 ram
?RCS: Baseline
for dist 3.0 netwide release.
?RCS:
?X:
?X: Can the compiler cast negative / odd floats to unsigned values.
?X:
?MAKE:d_castneg castflags: cat Compile rm_try Setvar signal_t run i_stdlib
?MAKE:-pick add $@ %<
?S:d_castneg:
?S: This variable conditionally defines CASTNEG, which indicates
?S: whether the C compiler can cast negative float to unsigned.
?S:.
?S:castflags:
?S: This variable contains a flag that precise difficulties the
?S: compiler has casting odd floating values to unsigned long:
?S: 0 = ok
?S: 1 = couldn't cast < 0
?S: 2 = couldn't cast >= 0x80000000
?S: 4 = couldn't cast in argument expression list
?S:.
?C:CASTNEGFLOAT:
?C: This symbol is defined if the C compiler can cast negative
?C: numbers to unsigned longs, ints and shorts.
?C:.
?C:CASTFLAGS:
?C: This symbol contains flags that say what difficulties the compiler
?C: has casting odd floating values to unsigned long:
?C: 0 = ok
?C: 1 = couldn't cast < 0
?C: 2 = couldn't cast >= 0x80000000
?C: 4 = couldn't
cast in argument expression list
?C:.
?H:#$d_castneg CASTNEGFLOAT /**/
?H:#define CASTFLAGS $castflags /**/
?H:.
?F:!try
?LINT:set d_castneg
: check for ability to cast negative floats to unsigned
echo " "
echo 'Checking whether your C compiler can cast negative float to unsigned.' >&4
$cat >try.c <<EOCP
#include <stdio.h>
#$i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif

```



```

#include <sys/types.h>
#include <signal.h>
$signal_t blech(int s) { exit(7); }
$signal_t blech_in_list(int s) { exit(4); }
unsigned long dummy_long(unsigned long p) { return p; }
unsigned int dummy_int(unsigned int p) { return p; }
unsigned short dummy_short(unsigned short p) { return p; }
int main()
{
double f;
unsigned long along;
unsigned int aint;
unsigned short ashort;
int result = 0;
char str[16];

/* Frustrate gcc-2.7.2's optimizer which failed this test with
 a direct f = -123. assignment. gcc-2.8.0 reportedly
 optimized the whole file away
*/
/* Store the number in a writable
string for gcc to pass to
sscanf under HP-UX.
*/
sprintf(str, "-123");
sscanf(str, "%lf", &f); /* f = -123.; */

signal(SIGFPE, blech);
along = (unsigned long)f;
aint = (unsigned int)f;
ashort = (unsigned short)f;
if (along != (unsigned long)-123)
result |= 1;
if (aint != (unsigned int)-123)
result |= 1;
if (ashort != (unsigned short)-123)
result |= 1;
sprintf(str, "1073741824.");
sscanf(str, "%lf", &f); /* f = (double)0x40000000; */
f = f + f;
along = 0;
along = (unsigned long)f;
if (along != 0x80000000)
result |= 2;
f -= 1.;
along = 0;
along = (unsigned long)f;
if (along != 0x7fffffff)

```

```

result |= 1;
f += 2.;
along = 0;
along = (unsigned long)f;
if (along != 0x80000001)
 result |= 2;
if (result)
 exit(result);

```

?X:

?X: The following is a test for Interactive Unix Version 4.1, which

?X: has an 'improved' compiler which can correctly cast negative

?X: floats in expression lists, but apparently not in argument lists.

?X: Contributed by Winfried Koenig

<win@incom.rhein-main.de>

?X:

```

signal(SIGFPE, blech_in_list);
sprintf(str, "123.");
sscanf(str, "%lf", &f); /* f = 123.; */
along = dummy_long((unsigned long)f);
aint = dummy_int((unsigned int)f);
ashort = dummy_short((unsigned short)f);
if (along != (unsigned long)123)
 result |= 4;
if (aint != (unsigned int)123)
 result |= 4;
if (ashort != (unsigned short)123)
 result |= 4;
exit(result);

```

}

EOCP

set try

if eval \$compile\_ok; then

\$run ./try 2>/dev/null

castflags=\$?

else

echo "(I can't seem to compile the test program--assuming it can't)"

castflags=7

fi

case "\$castflags" in

0) val="\$define"

echo "Yup, it can."

::

\*) val="\$undef"

echo "Nope, it can't."

::

esac

set d\_castneg

eval \$setvar

\$rm\_try

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d\_castneg.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_tzmin.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_tzmin.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:16:58 ram

?RCS: patch36: call ./bsd explicitly instead of relying on PATH

?RCS:

?RCS: Revision 3.0 1993/08/18 12:07:49 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_tzmin: contains cppstdin cppminus timeincl rm Setvar Guess

?MAKE: -pick add \$@ %<

?S:d\_tzmin:

?S: This symbol conditionally defines TZ\_MINUTESWEST if the system uses

?S: tz\_minuteswest in time header instead of timezone.

?S:.

?C:TZ\_MINUTESWEST:

?C: This

symbol is defined if this system uses tz\_minuteswest

?C: in time header instead of timezone.

?C: If not defined, you may have to use struct timeb and ftime() rather

?C: than the new gettimeofday() system call.

?C:.

?H:#\$d\_tzmin TZ\_MINUTESWEST /\*\*/

?H:.

?LINT:set d\_tzmin

: see if tz\_minuteswest is defined in time header

echo " "

val="\$undef"

\$cppstdin \$cppminus < \$timeincl > try 2>&1

if \$contains 'tz\_minuteswest' try >/dev/null 2>&1; then

echo "You have tz\_minuteswest defined in \$timeincl rather than timezone." >&4

val="\$define"

```

elif $contains 'timezone' try >/dev/null 2>&1; then
echo "You have timezone defined in $timeincl rather than tz_minuteswest." >&4
else
echo "Your $timeincl file looks strange." >&4
fi
if ./bsd; then
case "$d_tzmin" in
"$undef") echo "(Maybe your system is an USG one after all?)";;
esac
fi
set d_tzmin
eval $setvar
$rm -f try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_tzmin.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: warnflags.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Graham Stoney <greyham@research.canon.oz.au>
?RCS:
?RCS: $Log: warnflags.U,v $
?RCS: Revision 3.0 1993/08/18 12:10:02 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:warnflags: cat cc contains Myread Guess Oldconfig Findhdr
?MAKE: -pick add $@ %<
?S:warnflags:
?S: This variable contains any additional C compiler flags to generate
?S: warnings from the compiler. It is up to the Makefile to use this.
?S:.
: offer additional
warning flags for compilation
$cat <<EOH

```

You may wish to compile with extra compiler warnings enabled.  
Note that doing so enhances your chance of receiving your free set of steak knives, particularly if you find any bugs and report them.

If you don't want extra warnings, answer "none".

EOH

```
case "$warnflags" in
") case "$cc" in
gcc)
dflt="-Wall -Wno-comment"
if $contains 'fprintf' `./findhdr stdio.h` >/dev/null 2>&1; then
:
else
dflt="$dflt -Wno-implicit"
fi
;;
*) dflt="none";;
esac
;;
') dflt="none";;
*) dflt="$warnflags";;
esac
```

rp="Any \$cc flags to enable warnings?"

```
./myread
case "$ans" in
none) warnflags=' ';;
*) warnflags="$ans";;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/warnflags.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: packadmin.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1996, Andy Dougherty

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?MAKE:packadmin: cf\_email Oldconfig Myread cat spackage package

?MAKE: -pick add \$@ %<

?Y:TOP

?S:packadmin:

?S: Electronic mail address of the package administrator.

?S:  
: check whether they will act as local admin for the package  
\$cat <<EOM

If you or somebody else will be maintaining \$package at your site, please fill in the correct e-mail address here so that they may be contacted if necessary. You may enter "none" for no administrator.

```
EOM
case "$packadmin" in
") dflt="$cf_email";;
*) dflt="$packadmin";;
esac
rp="$package administrator e-mail address"
./myread
packadmin="$ans"
```

Found in path(s):  
\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/packadmin.U  
No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1999 Jarkko Hietaniemi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?MAKE:d_telldirproto: Hasproto i_systypes i_dirent
?MAKE: -pick add $@ %<
?S:d_telldirproto:
?S: This variable conditionally defines the HAS_TELLDIR_PROTO symbol,
?S: which indicates to the C program that the system provides
?S: a prototype for the telldir() function. Otherwise, it is
?S: up to the program to supply one.
?S:
?C:HAS_TELLDIR_PROTO:
?C: This symbol, if defined, indicates that the system provides
?C: a prototype for the telldir() function. Otherwise, it is up
?C: to the program to supply one. A good guess
is
?C: extern long telldir(DIR*);
?C:.
```

```
?H:#$d_telldirproto HAS_TELLDIR_PROTO /**/
?H:.
?LINT:set d_telldirproto
: see if prototype for telldir is available
echo " "
set d_telldirproto telldir $i_systypes sys/types.h $i_dirent dirent.h
eval $hasproto
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_telldirproto.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_setrgid.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_setrgid.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:14 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_setrgid: Inlibc
?MAKE: -pick add $@ %<
?S:d_setrgid:
?S: This variable conditionally defines the HAS_SETRGID symbol, which
?S: indicates to the C program that the setrgid() routine is available
?S: to change the real gid of the current program.
?S:.
?C:HAS_SETRGID (SETRGID):
?C: This symbol, if defined, indicates that the setrgid
routine is available
?C: to change the real gid of the current program.
?C:.
?H:#$d_setrgid HAS_SETRGID /**/
?H:.
?LINT:set d_setrgid
: see if setrgid exists
set setrgid d_setrgid
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
```

5.30.0/dist/U/d\_setrgid.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:ivdformat uvuformat uvoformat uvxformat uvXUformat \

nvEUformat nvFUformat nvGUformat \

nveformat nvfformat nvgformat: \

ivsize longsize intsize shortsize \

sPRId64 sPRIu64 sPRIo64 sPRIx64 sPRIXU64 \

uselongdouble d\_longdbl usequadmath d\_PRIgldbl \

sPRIEUdbl sPRIFUdbl sPRIGUdbl sPRIeldbl sPRIfldbl sPRIgldbl \

test echo

?MAKE: -pick add \$@ %<

?S:ivdformat:

?S: This variable contains the format string used for printing

?S: a Perl IV as a signed decimal integer.

?S:.

?S:uvuformat:

?S: This variable contains the format string used for printing

?S: a Perl UV as an unsigned decimal integer.

?S:.

?S:uvoformat:

?S: This variable contains the format string used for printing

?S: a Perl UV as an unsigned

octal integer.

?S:.

?S:uvxformat:

?S: This variable contains the format string used for printing

?S: a Perl UV as an unsigned hexadecimal integer in lowercase abcdef.

?S:.

?S:uvXUformat:

?S: This variable contains the format string used for printing

?S: a Perl UV as an unsigned hexadecimal integer in uppercase ABCDEF.

?S:.

?S:nveformat:

?S: This variable contains the format string used for printing

?S: a Perl NV using %e-ish floating point format.

?S:.

?S:nvfformat:

?S: This variable contains the format string used for printing

?S: a Perl NV using %f-ish floating point format.

?S:.



?S:nvgformat:

?S: This variable contains the format string used for printing

?S: a Perl NV using %g-ish floating point format.

?S:.

?S:nvEUformat:

?S: This variable contains the format string used for printing

?S: a Perl NV using %E-ish floating point format.

?S:.

?S:nvFUformat:

?S: This variable contains the format string used for printing

?S: a Perl NV using %F-ish floating point format.

?S:.

?S:nvGUformat:

?S: This

variable contains the format string used for printing

?S: a Perl NV using %G-ish floating point format.

?S:.

?C:IVdf:

?C: This symbol defines the format string used for printing a Perl IV

?C: as a signed decimal integer.

?C:.

?C:UVuf:

?C: This symbol defines the format string used for printing a Perl UV

?C: as an unsigned decimal integer.

?C:.

?C:UVof:

?C: This symbol defines the format string used for printing a Perl UV

?C: as an unsigned octal integer.

?C:.

?C:UVxf:

?C: This symbol defines the format string used for printing a Perl UV

?C: as an unsigned hexadecimal integer in lowercase abcdef.

?C:.

?C:UVXf:

?C: This symbol defines the format string used for printing a Perl UV

?C: as an unsigned hexadecimal integer in uppercase ABCDEF.

?C:.

?C:NVef:

?C: This symbol defines the format string used for printing a Perl NV

?C: using %e-ish floating point format.

?C:.

?C:NVff:

?C: This symbol defines the format string used for printing a Perl NV

?C: using %f-ish floating point  
format.

?C:.

?C:NVgf:

?C: This symbol defines the format string used for printing a Perl NV

```

?C: using %g-ish floating point format.
?C:.
?C:NVEf:
?C: This symbol defines the format string used for printing a Perl NV
?C: using %E-ish floating point format.
?C:.
?C:NVff:
?C: This symbol defines the format string used for printing a Perl NV
?C: using %F-ish floating point format.
?C:.
?C:NVGf:
?C: This symbol defines the format string used for printing a Perl NV
?C: using %G-ish floating point format.
?C:.
?H:#define IVdf $ivdformat /**/
?H:#define UVuf $uvuformat /**/
?H:#define UVof $uvoformat /**/
?H:#define UVxf $uvxf format /**/
?H:#define UVXf $uvXUformat /**/
?H:#define NVEf $nveformat /**/
?H:#define NVff $nvffformat /**/
?H:#define NVgf $nvgformat /**/
?H:#define NVEf $nvEUformat /**/
?H:#define NVFf $nvFUformat /**/
?H:#define NVGf $nvGUformat /**/
?H:.
: Check format strings for internal types
echo " "
$echo "Checking the format strings to be used for Perl's
internal types..." >&4

if $test X"$ivsize" = X8; then
ivdformat="$sPRId64"
uvuformat="$sPRIu64"
uvoformat="$sPRIo64"
uvxf format="$sPRIx64"
uvXUformat="$sPRIXU64"
else
if $test X"$ivsize" = X"$longsize"; then
ivdformat=""ld""
uvuformat=""lu""
uvoformat=""lo""
uvxf format=""lx""
uvXUformat=""lX""
else
if $test X"$ivsize" = X"$intsize"; then
ivdformat=""d""
uvuformat=""u""

```

```

uvoformat=""o""
uvxformat=""x""
uvXUformat=""X""
else
: far out
if $test X"$ivsize" = X"$shortsize"; then
 ivdformat=""hd""
 uvuformat=""hu""
 uvoformat=""ho""
 uvxformat=""hx""
 uvXUformat=""hX""
fi
fi
fi
fi

if $test X"$usequadmath" = X"$define"; then
 nveformat=""Qe""
 nvffformat=""Qf""
 nviformat=""Qg""
 nvEUformat=""QE""
 nvFUformat=""QF""
 nvGUformat=""QG""
else
 if $test X"$uselongsdouble" = X"$define" -a X"$d_longdbl" = X"$define" -a X"$d_PRIgldbl" = X"$define"; then
 nveformat=""$sPRIeldbl""
 nvffformat=""$sPRIfldbl""
 nviformat=""$sPRIgldbl""
 nvEUformat=""$sPRIEUdbl""
 nvFUformat=""$sPRIFUdbl""
 nvGUformat=""$sPRIGUdbl""
 else
 nveformat=""e""
 nvffformat=""f""
 nviformat=""g""
 nvEUformat=""E""
 nvFUformat=""F""
 nvGUformat=""G""
 fi
fi

case "$ivdformat" in
) echo "$0: Fatal: failed to find format strings, cannot continue." >&4
 exit 1
;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/perlxf.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_endpwent\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_endpwent\_r endpwent\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
usethreads i\_pwd extern\_C

?MAKE: -pick add \$@ %<

?S:d\_endpwent\_r:

?S: This variable conditionally defines the HAS\_ENDPWENT\_R symbol,

?S: which indicates to the C program that the endpwent\_r()

?S: routine is available.

?S:.

?S:endpwent\_r\_proto:

?S: This variable encodes the prototype of endpwent\_r.

?S: It is zero if d\_endpwent\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_endpwent\_r

?S: is defined.

?S:.

?C:HAS\_ENDPWENT\_R:

?C: This symbol, if defined, indicates that the endpwent\_r routine

?C: is available to

endpwent re-entrantly.

?C:.

?C:ENDPWENT\_R\_PROTO:

?C: This symbol encodes the prototype of endpwent\_r.

?C: It is zero if d\_endpwent\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_endpwent\_r

?C: is defined.

?C:.

?H:#\$d\_endpwent\_r HAS\_ENDPWENT\_R /\*\*/

?H:#define ENDPWENT\_R\_PROTO \$endpwent\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_endpwent\_r\_proto

: see if endpwent\_r exists

set endpwent\_r d\_endpwent\_r

eval \$inlibc

case "\$d\_endpwent\_r" in

"\$define")

hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_pwd pwd.h"

case "\$d\_endpwent\_r\_proto:\$usethreads" in

```

":define") d_endpwent_r_proto=define
set d_endpwent_r_proto endpwent_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_endpwent_r_proto" in
define)
case "$endpwent_r_proto" in
"|0) try='int endpwent_r(FILE**);'
./protochk "$extern_C $try" $hdrs && endpwent_r_proto=I_H ;;
esac
case "$endpwent_r_proto" in
"|0) try='void endpwent_r(FILE**);'
./protochk "$extern_C $try" $hdrs && endpwent_r_proto=V_H ;;
esac
case "$endpwent_r_proto"
in
"|0) d_endpwent_r=undef
endpwent_r_proto=0
echo "Disabling endpwent_r, cannot determine prototype." >&4 ;;
*) case "$endpwent_r_proto" in
REENTRANT_PROTO*) ;;
*) endpwent_r_proto="REENTRANT_PROTO_$endpwent_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$susethreads" in
define) echo "endpwent_r has no prototype, not using it." >&4 ;;
esac
d_endpwent_r=undef
endpwent_r_proto=0
;;
esac
;;
*) endpwent_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_endpwent_r.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_sysdir.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

```

?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: i_sysdir.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:22:30 ram
?RCS: patch32: fixed typo in I_SYS_DIR symbol name
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:30 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:i_sysdir: Inhdr
?MAKE: -pick add $@ %<
?S:i_sysdir:
?S: This variable conditionally defines the I_SYS_DIR symbol, and indicates
?S: whether a C program should include <sys/dir.h>.
?S:.
?C:I_SYS_DIR (I_SYSDIR):
?C: This symbol, if
 defined, indicates to the C program that it should
?C: include <sys/dir.h>.
?C:.
?H:#$i_sysdir I_SYS_DIR /**/
?H:.
?LINT:set i_sysdir
: see if this is an sysdir system
set sys/dir.h i_sysdir
eval $inhdr

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/i_sysdir.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_munmap.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_munmap.U,v $
?RCS: Revision 3.0.1.1 1993/12/15 08:19:22 ram

```

?RCS: patch15: created  
?RCS:  
?MAKE:d\_munmap: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_munmap:  
?S: This variable conditionally defines HAS\_MUNMAP if munmap() is  
?S: available to unmap a region mapped by mmap().  
?S:.  
?C:HAS\_MUNMAP:  
?C: This symbol, if defined, indicates that the munmap system call is  
?C: available to unmap a region, usually mapped by mmap().  
?C:.  
?H:#\$d\_munmap HAS\_MUNMAP /\*\*/  
?H:.  
?LINT:set  
d\_munmap  
: see if munmap exists  
set munmap d\_munmap  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_munmap.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_dbl\_dig.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
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?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>  
?RCS:  
?RCS: \$Log: d\_dbl\_dig.U,v \$  
?RCS: Revision 3.0.1.1 1994/08/29 16:07:28 ram  
?RCS: patch32: created by ADO  
?RCS:  
?MAKE:d\_dbl\_dig: Myread contains cat rm Setvar \  
cppstdin cppflags cppminus  
?MAKE: -pick add \$@ %<  
?S:d\_dbl\_dig:  
?S: This variable conditionally defines d\_dbl\_dig if this system's  
?S: header files provide DBL\_DIG, which is the number of significant  
?S: digits in a double precision

```

number.
?S:.
?C:HAS_DBL_DIG:
?C: This symbol, if defined, indicates that this system's <float.h>
?C: or <limits.h> defines the symbol DBL_DIG, which is the number
?C: of significant digits in a double precision number. If this
?C: symbol is not defined, a guess of 15 is usually pretty good.
?C:.
?H:#$d_dbl_dig HAS_DBL_DIG /**/
?H:.
?F:!dbl_dig.c
?LINT:set d_dbl_dig
: See if number of significant digits in a double precision number is known
echo " "
$cat >dbl_dig.c <<EOM
#include <limits.h>
#include <float.h>
#ifdef DBL_DIG
printf("Contains DBL_DIG");
#endif
EOM
$cpptest $cpptestflags $cpptestminus < dbl_dig.c >dbl_dig.E 2>/dev/null
if $contains 'DBL_DIG' dbl_dig.E >/dev/null 2>&1; then
echo "DBL_DIG found." >&4
val="$define"
else
echo "DBL_DIG NOT found." >&4
val="$undef"
fi
$rm -f dbl_dig.?
set d_dbl_dig
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_dbl_dig.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: installstyle.U,v 1.2 1999/07/13 14:56:06 doughera Exp $
?RCS:
?RCS: Copyright (c) 1999 Andy Dougherty
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:

```



?RCS: \$Log: installstyle.U,v \$  
?RCS: Revision 1.2 1999/07/13 14:56:06 doughera  
?RCS: Fix dependencies. Add more comments.  
?RCS:  
?RCS: Revision 1.1 1999/07/12 17:30:41 doughera  
?RCS: Initial revision  
?RCS:  
?RCS:  
?MAKE:installstyle: prefix Myread  
?MAKE: -pick add \$@ %<  
?X: Myread dependence is for dflt.  
?S:installstyle:  
?S: This variable describes the "style" of the perl installation.  
?S: This is intended to be useful for tools that need to  
?S: manipulate entire perl  
distributions. Perl itself doesn't use  
?S: this to find its libraries -- the library directories are  
?S: stored directly in Config.pm. Currently, there are only two  
?S: styles: "lib" and "lib/perl5". The default library locations  
?S: (e.g. privlib, sitelib) are either \$prefix/lib or  
?S: \$prefix/lib/perl5. The former is useful if \$prefix is a  
?S: directory dedicated to perl (e.g. /opt/perl), while the latter  
?S: is useful if \$prefix is shared by many packages, e.g. if  
?S: \$prefix=/usr/local.  
?S:  
?S: Unfortunately, while this "style" variable is used to set  
?S: defaults for all three directory hierarchies (core, vendor, and  
?S: site), there is no guarantee that the same style is actually  
?S: appropriate for all those directories. For example, \$prefix  
?S: might be /opt/perl, but \$siteprefix might be /usr/local.  
?S: (Perhaps, in retrospect, the "lib" style should never have been  
?S: supported, but it did seem like a nice idea at the time.)  
?S:  
?S: The situation is even less clear for  
tools such as MakeMaker  
?S: that can be used to install additional modules into  
?S: non-standard places. For example, if a user intends to install  
?S: a module into a private directory (perhaps by setting PREFIX on  
?S: the Makefile.PL command line), then there is no reason to  
?S: assume that the Configure-time \$installstyle setting will be  
?S: relevant for that PREFIX.  
?S:  
?S: This may later be extended to include other information, so  
?S: be careful with pattern-matching on the results.  
?S:  
?S: For compatibility with perl5.005 and earlier, the default  
?S: setting is based on whether or not \$prefix contains the string  
?S: "perl".

```
?S:
: determine installation style
: For now, try to deduce it from prefix unless it is already set.
: Reproduce behavior of 5.005 and earlier, maybe drop that in 5.7.
case "$installstyle" in
") case "$prefix" in
 perl) dflt='lib';;
 *) dflt='lib/perl5' ;;
esac
;;
*) dflt="$installstyle" ;;
esac
: Probably not worth prompting for this since we prompt
for all
: the directories individually, and the prompt would be too long and
: confusing anyway.
installstyle=$dflt
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/installstyle.U
```

No license file was found, but licenses were detected in source scan.

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS:

?MAKE:i\_fenv: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_fenv:

?S: This variable conditionally defines the I\_FENV symbol, which

?S: indicates to the C program that <fenv.h> exists and should

?S: be included.

?S:.

?C:I\_FENV:

?C: This symbol, if defined, indicates to the C program that it should

?C: include <fenv.h> to get the floating point environment definitions.

?C:.

?H:#\$i\_fenv I\_FENV /\*\*/

?H:.

?LINT:set i\_fenv

: see if this is a fenv.h system

set fenv.h i\_fenv

eval \$inhdr

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_fenv.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Init.U,v 3.0.1.1 1994/10/31 09:45:59 ram Exp \$  
?RCS:  
?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: Init.U,v \$  
?RCS: Revision 3.0.1.1 1994/10/31 09:45:59 ram  
?RCS: patch44: removed Options from MAKE to prevent Init overrides  
?RCS: patch44: option processing now done after Myinit thanks to new Begin.U  
?RCS: patch44: moved "Beginning of configuration questions" to Begin.U  
?RCS: patch44: moved signal trapping instruction to Begin.U as well  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:05:02 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: This file  
initializes certain default variables used by Configure. They  
?X: may be overridden or added to by definitions in Myinit.U.  
?X:  
?MAKE:Init eunicefix: Null  
?MAKE: -pick add \$@ %<  
?MAKE: -pick weed \$@ ./Init  
?S:eunicefix:  
?S: When running under Eunice this variable contains a command which will  
?S: convert a shell script to the proper form of text file for it to be  
?S: executable by the shell. On other systems it is a no-op.  
?S:.  
?V:define undef smallmach:rmlist  
?X:  
?X: Throughout the units, one may make use of \$define and \$undef to reference  
?X: a defined symbol or an undefined one. There is no need to add them in  
?X: the dependency line since this unit makes them visible via ?V:, and  
?X: everyone inherits from those symbols since by convention Init.U is the  
?X: root dependency.  
?X:  
?LINT:extern DJGPP  
?LINT:extern \_exe  
?LINT:change \_exe  
?LINT:extern is\_os2  
: Detect odd OSs

```
define='define'
undef='undef'
smallmach='pdp11 i8086 z8000 i80286 iAPX286'
rmlist=""
```

```
: We must find out about
```

```
Eunice early
```

```
eunicefix=':'
```

```
if test -f /etc/unixtovms; then
```

```
 eunicefix=/etc/unixtovms
```

```
fi
```

```
if test -f /etc/unixtovms.exe; then
```

```
 eunicefix=/etc/unixtovms.exe
```

```
fi
```

```
: Set executable suffix now -- needed before hints available
```

```
if test -f "/libs/version.library"; then
```

```
: Amiga OS
```

```
 _exe=""
```

```
elif test -f "/system/gnu_library/bin/ar.pm"; then
```

```
: Stratus VOS
```

```
 _exe=".pm"
```

```
elif test -n "$DJGPP"; then
```

```
: DOS DJGPP
```

```
 _exe=".exe"
```

```
elif test -f /kern/cookiejar; then
```

```
: MiNT
```

```
 _exe=""
```

```
elif test -d c:/ -o -n "$is_os2" ; then
```

```
: OS/2 or cygwin
```

```
 _exe=".exe"
```

```
fi
```

```
Found in path(s):
```

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Init.U
```

```
No license file was found, but licenses were detected in source scan.
```

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```

?RCS: $Log: bitpbyte.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:02:54 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:27 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:bitpbyte: cat rm Myread +cc +ccflags
?MAKE: -pick add $@ %<
?S:bitpbyte:
?S: This variable contains the value of the BITS_PER_BYTE symbol, which
?S: indicates to the C program how many bits there are in a byte.
?S:.
?C:BITS_PER_BYTE:
?C: This symbol contains the number
of bits in a byte, so that the C
?C: preprocessor can make decisions based on it.
?C:.
?H:#define BITS_PER_BYTE $bitpbyte /**/
?H:.
?F:!try
: check for length of byte
echo " "
case "$bitpbyte" in
")
echo "Checking to see how many bits there are in a byte..." >&4
$cat >try.c <<'EOCP'
#include <stdio.h>
?X: Standard C requires a macro CHAR_BIT in <limits.h>
#ifdef __STDC__
#include <limits.h>
#ifndef CHAR_BIT
#define CHAR_BIT 8
#endif
#ifndef BITSPERBYTE
#define BITSPERBYTE CHAR_BIT
#endif
#else
?X: On non standard C, try with <values.h>
#include <values.h>
#ifndef BITSPERBYTE
#define BITSPERBYTE 8
#endif
#endif
int main()
{
printf("%d\n", BITSPERBYTE);
}

```

```
EOCP
if $cc $ccflags -o try try.c >/dev/null 2>&1 ; then
 dflt=`./try`
else
 dflt='8'
 echo "(I can't seem to compile the test program. Guessing...)"
fi
;;
*)
 dflt="$bitpbyte"
 ;;
esac
rp="What is the length of a byte (in bits)?"
./myread
bitpbyte="$ans"
$rm -f try.c try
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/bitpbyte.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_getgrent_r.U,v 0RCS:
?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.
?RCS:
?MAKE:d_getgrent_r getgrent_r_proto: Inlibc Protochk Hasproto i_systypes \
 usethreads i_grp extern_C
?MAKE: -pick add $@ %<
?S:d_getgrent_r:
?S: This variable conditionally defines the HAS_GETGRENTR symbol,
?S: which indicates to the C program that the getgrent_r()
?S: routine is available.
?S:.
?S:getgrent_r_proto:
?S: This variable encodes the prototype of getgrent_r.
?S: It is zero if d_getgrent_r is undef, and one of the
?S: REENTRANT_PROTO_T_ABC macros of reentr.h if d_getgrent_r
?S: is defined.
?S:.
?C:HAS_GETGRENTR:
?C: This symbol, if defined, indicates that the getgrent_r routine
?C: is available to
```

```

getgrent re-entrantly.
?C:.
?C:GETGRENT_R_PROTO:
?C: This symbol encodes the prototype of getgrent_r.
?C: It is zero if d_getgrent_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_getgrent_r
?C: is defined.
?C:.
?H:#$d_getgrent_r HAS_GETGRENT_R /**/
?H:#define GETGRENT_R_PROTO $getgrent_r_proto /**/
?H:.
?T:try hdrs d_getgrent_r_proto
: see if getgrent_r exists
set getgrent_r d_getgrent_r
eval $inlibc
case "$d_getgrent_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_grp grp.h"
case "$d_getgrent_r_proto:$usethreads" in
":define") d_getgrent_r_proto=define
set d_getgrent_r_proto getgrent_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_getgrent_r_proto" in
define)
case "$getgrent_r_proto" in
"|0) try='int getgrent_r(struct group*, char*, size_t, struct group**);'
./protochk "$extern_C $try" $hdrs && getgrent_r_proto=I_SBWR ;;
esac
case "$getgrent_r_proto" in
"|0) try='int getgrent_r(struct group*, char*, int, struct group**);'
./protochk
"$extern_C $try" $hdrs && getgrent_r_proto=I_SBIR ;;
esac
case "$getgrent_r_proto" in
"|0) try='struct group* getgrent_r(struct group*, char*, size_t);'
./protochk "$extern_C $try" $hdrs && getgrent_r_proto=S_SBW ;;
esac
case "$getgrent_r_proto" in
"|0) try='struct group* getgrent_r(struct group*, char*, int);'
./protochk "$extern_C $try" $hdrs && getgrent_r_proto=S_SBI ;;
esac
case "$getgrent_r_proto" in
"|0) try='int getgrent_r(struct group*, char*, int);'
./protochk "$extern_C $try" $hdrs && getgrent_r_proto=I_SBI ;;
esac
case "$getgrent_r_proto" in

```

```

"|0) try='int getgrent_r(struct group*, char*, int, FILE**);'
./protochk "$extern_C $try" $hdrs && getgrent_r_proto=I_SBIH ;;
esac
case "$getgrent_r_proto" in
"|0) d_getgrent_r=undef
getgrent_r_proto=0
echo "Disabling getgrent_r, cannot determine prototype." >&4 ;;
*) case "$getgrent_r_proto" in
REENTRANT_PROTO*) ;;
*) getgrent_r_proto="REENTRANT_PROTO_${getgrent_r_proto}" ;;
esac
echo "Prototype:
$try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "getgrent_r has no prototype, not using it." >&4 ;;
esac
d_getgrent_r=undef
getgrent_r_proto=0
;;
esac
;;
*) getgrent_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_getgrent_r.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: rcs_branch.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: rcs_branch.U,v $
?RCS: Revision 3.0 1993/08/18 12:09:40 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:rcs_branch: Myread contains Loc
?MAKE: -pick add $@ %<

```



```

?S:rcs_branch:
?S: This variable will hold "true" if rcs can take the -b<revision>
?S: option, which can make Life Easier on those folks who like to run
?S: rcsdiff manually.
?S:.
?T:xxx
: Tra la la la la
echo " "
echo "Checking to see if RCS understands the -b switch..." >&4
xxx=`./loc
rcs " $pth`
case "$xxx" in
")
rcs_branch=false
echo "Oh. You don't seem to have RCS here."
;;
*)
rcs > rcsbranch.out 2>&1
if $contains 'b\[rev\]' rcsbranch.out >/dev/null 2>&1 ; then
rcs_branch=true
echo "Nice! Your RCS is spiffy!"
else
rcs_branch=false
echo "Well, at least you have RCS. You know, a newer version is available."
fi
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/rcs_branch.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: Id
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: userm.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 16:26:40 ram
?RCS: patch61: don't use nm with the GNU C library
?RCS: patch61: added support for Linux shared libs
?RCS:

```

```

?RCS: Revision 3.0 1993/08/18 12:09:57 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:usenm runnm nm_opt nm_so_opt: cat test Myread Oldconfig grep \
d_gnulibc nm egrep rsrc osname Guess
?MAKE: -pick add $@ %<
?S:usenm:
?S: This variable contains 'true' or 'false' depending whether the
?S: nm extraction is wanted
or not.
?S:.
?S:runnm:
?S: This variable contains 'true' or 'false' depending whether the
?S: nm extraction should be performed or not, according to the value
?S: of usenm and the flags on the Configure command line.
?S:.
?S:nm_opt:
?S: This variable holds the options that may be necessary for nm.
?S:.
?S:nm_so_opt:
?S: This variable holds the options that may be necessary for nm
?S: to work on a shared library but that can not be used on an
?S: archive library. Currently, this is only used by Linux, where
?S: nm --dynamic is *required* to get symbols from an ELF library which
?S: has been stripped, but nm --dynamic is *fatal* on an archive library.
?S: Maybe Linux should just always set usenm=false.
?S:.
: see if nm is to be used to determine whether a symbol is defined or not
?X: If there is enough inquiries, it might be worth to wait for the nm
?X: extraction. Otherwise, the C compilations might be a better deal.
?X:
?X: Don't bother if we're using GNU libc -- skimo
case "$usenm"
in
")
dflt="
case "$d_gnulibc" in
"$define")
echo " "
echo "$nm probably won't work on the GNU C Library." >&4
dflt=n
;;
esac
case "$dflt" in
")
if $test "$osname" = aix -a ! -f /lib/syscalls.exp; then
echo " "
echo "Whoops! This is an AIX system without /lib/syscalls.exp!" >&4

```

```

echo "'nm' won't be sufficient on this system." >&4
dflt=n
fi
;;
esac
case "$dflt" in
")
if ./gnu; then
echo " "
echo "Hmm... A GNU system without a GNU C Library? Weird..." >&4
dflt=n
else
dflt=`$grep 'inlibc|csym' $src/Configure | wc -l 2>/dev/null`
if $test $dflt -gt 20; then
dflt=y
else
dflt=n
fi
fi
;;
esac
;;
*)
case "$usenm" in
true|$define) dflt=y;;
*) dflt=n;;
esac
;;
esac
$cat <<EOM

```

I can use \$nm to extract the symbols from your C libraries. This is a time consuming task which may generate huge output on the disk (up to 3 megabytes) but that should make the symbols extraction faster. The alternative is to skip the 'nm' extraction part and to compile a small test program instead to determine whether each symbol is present. If you have a fast C compiler and/or if your 'nm' output cannot be parsed, this may be the best solution.

```

EOM
rp='Shall I use nm to extract C symbols from the libraries?'
./myread
case "$ans" in
[Nn]*) usenm=false;;
*) usenm=true;;
esac

```

?X: Name extraction is to be run if 'nm' usage is wanted and if no -r flag  
?X: was provided to configure (in which case we simply re-use the previous  
?X: values).

```
runnm=$usenm
case "$reuseval" in
true) runnm=false;;
esac
```

: nm options which may be necessary

```
case "$nm_opt" in
") if $test -f /mach_boot; then
 nm_opt=" # Mach
elif $test -d /usr/ccs/lib; then
 nm_opt='-p' # Solaris (and SunOS?)
elif $test -f /dgux; then
 nm_opt='-p' # DG-UX
elif $test -f /lib64/rld; then
 nm_opt='-p' # 64-bit Irix
else
 nm_opt="
fi;;
esac
```

?X: nm options which may be necessary for shared libraries but illegal

?X: for archive libraries. Thank you,

Linux.

```
case "$nm_so_opt" in
") case "$osname" in
linux)
 if $nm --help | $grep 'dynamic' > /dev/null 2>&1; then
 nm_so_opt='--dynamic'
 fi
 ;;
esac
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/usernm.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:  
?MAKE:d\_strtold: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_strtold:  
?S: This variable conditionally defines the HAS\_STRTOLD symbol, which  
?S: indicates to the C program that the strtold() routine is available.  
?S:.  
?C:HAS\_STRTOLD:  
?C: This symbol, if defined, indicates that the strtold routine is  
?C: available to convert strings to long doubles.  
?C:.  
?H:#\$d\_strtold HAS\_STRTOLD /\*\*/  
?H:.  
?LINT:set d\_strtold  
: see if strtold exists  
set strtold d\_strtold  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_strtold.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Copyright (c) 2001 Jarkko Hietaniemi  
?RCS:  
?MAKE:run to from targetarch usecrosscompile: src awk cat grep test rm \  
echo sed mkdir cp touch chmod  
?MAKE: -pick add \$@ %<  
?Y:TOP  
?S:usecrosscompile:  
?S: This variable conditionally defines the USE\_CROSS\_COMPILE symbol,  
?S: and indicates that our package has been cross-compiled.  
?S:.  
?S:run:  
?S: This variable contains the command used by Configure  
?S: to copy and execute a cross-compiled executable in the  
?S: target host. Useful and available only during

the build.

?S: Empty string " if not cross-compiling.

?S:.

?S:from:

?S: This variable contains the command used by Configure

?S: to copy files from the target host. Useful and available

?S: only during the build.

?S: The string ':' if not cross-compiling.

?S:.

?S:to:

?S: This variable contains the command used by Configure

?S: to copy to from the target host. Useful and available

?S: only during the build.

?S: The string ':' if not cross-compiling.

?S:.

?S:targetarch:

?S: If cross-compiling, this variable contains the target architecture.

?S: If not, this will be empty.

?S:.

?C:USE\_CROSS\_COMPILE:

?C: This symbol, if defined, indicates that the package is being

?C: cross-compiled.

?C:.

?C:CROSS\_TARGET\_ARCH:

?C: This symbol, if defined, indicates the target architecture

?C: the package has been cross-compiled to.

?C: Undefined if not a cross-compile.

?C:.

?H:?usecrosscompile:#ifndef USE\_CROSS\_COMPILE

?H:?usecrosscompile:#\$usecrosscompile USE\_CROSS\_COMPILE /\*\*/

?H:?usecrosscompile:#define

CROSS\_TARGET\_ARCH "\$targetarch" /\*\*/

?H:?usecrosscompile:#endif

?H:.

?T:croak pwd exe f q i j cwd

?LINT:extern usecrosscompile

?LINT:extern cc

?LINT:extern usrinc

?LINT:change usrinc

?LINT:change ar

?LINT:change nm

?LINT:change ranlib

?LINT:extern targethost

?LINT:extern targetdir

?LINT:change targetdir

?LINT:extern targetuser

?LINT:change targetuser

?LINT:extern targetrun

```

?LINT:extern targetfrom
?LINT:extern targetto
?LINT:extern targetmkdir
?LINT:change targetrun
?LINT:change targetfrom
?LINT:change targetto
?LINT:change targetmkdir
?LINT:extern incpth
?LINT:extern libpth
?LINT:change incpth
?LINT:change libpth
?LINT:extern locincpth
?LINT:extern loclibpth
?LINT:change locincpth
?LINT:change loclibpth
?LINT:extern TMPDIR
: setup for possible cross-compilation
run="
to=:
from=:
usecrosscompile='undef'
targetarch="
case "$usecrosscompile" in
$define|true|[yY]*)
@if { test -d ../Cross }
?X:
?X: Cross-compilation is enabled when there is a 'Cross' directory found
?X: at the root
of the package. This directory must contain the following
?X: entries for defining the cross-compilation process:
?X:
?X: FIXME FIXME
?X: WE MUST DISTINGUISH BETWEEN LOCAL cross-compiling AND REMOTE ONE
?X: ACTUALLY, REMOTE COMPILATION SHOULD BE CONFIGURED INTERACTIVELY
?X: IT WILL COPY ALL THE FILES FROM THE MANIFEST DOWN TO THE REMOTE DIR...
?X: (and copy things like 'mkdep', etc...)
?X:
$echo "Cross-compiling..."
croak="
case "$cc" in
--gcc)
?X: A cross-compiling gcc, probably.
targetarch=`$echo $cc|$sed 's/-gcc$//`
ar=$targetarch-ar
?X: leave out ld, choosing it is more complex
nm=$targetarch-nm
ranlib=$targetarch-ranlib
$echo 'extern int foo;' > try.c

```

```

set X `\$cc -v -E try.c 2>&1 | \
Sawk '/^#include </,/^End of search /'|$grep '/include`
shift
if $test $# -gt 0; then
 incpth="$incpth $*"
 incpth="" $echo $incpth|$sed 's/^ //'
 echo "Guessing incpth '$incpth.'" >&4
 for i in $*; do
 j="" $echo $i|$sed 's,/include$,/lib,`"
 if
$test -d $j; then
 libpth="$libpth $j"
 fi
 done
 libpth="" $echo $libpth|$sed 's/^ //'
 echo "Guessing libpth '$libpth.'" >&4
 fi
 $rm -f try.c
 ;;
 esac
case "$targetarch" in
 ") echo "Targetarch not defined." >&4; croak=y ;;
 *) echo "Using targetarch $targetarch." >&4 ;;
 esac
case "$incpth" in
 ") echo "Incpth not defined." >&4; croak=y ;;
 *) echo "Using incpth '$incpth.'" >&4 ;;
 esac
case "$libpth" in
 ") echo "Libpth not defined." >&4; croak=y ;;
 *) echo "Using libpth '$libpth.'" >&4 ;;
 esac
case "$usrinc" in
 ")
 for i in $incpth; do
 if $test -f $i/errno.h -a -f $i/stdio.h -a -f $i/time.h; then
 usrinc=$i
 echo "Guessing usrinc $usrinc." >&4
 break
 fi
 done
 case "$usrinc" in
 ") echo "Usrinc not defined." >&4; croak=y ;;
 esac
 ;;
 *) echo "Using usrinc $usrinc." >&4 ;;
 esac
case "$targethost" in

```



```

") echo "Targethost not defined." >&4; croak=y ;;
*) echo "Using targethost $targethost."
>&4
esac
locincpth=''
loclibpth=''
case "$croak" in
y) echo "Cannot continue, aborting." >&4; exit 1 ;;
esac
case "$src" in
/*) run=$src/Cross/run
 targetmkdir=$src/Cross/mkdir
 to=$src/Cross/to
 from=$src/Cross/from
 ;;
*) pwd=`$stest -f ../Configure & cd ..; pwd`
 run=$pwd/Cross/run
 targetmkdir=$pwd/Cross/mkdir
 to=$pwd/Cross/to
 from=$pwd/Cross/from
 ;;
esac
case "$targetrun" in
") targetrun=ssh ;;
esac
case "$targetto" in
") targetto=scp ;;
esac
case "$targetfrom" in
") targetfrom=scp ;;
esac
run=$run-$targetrun
to=$to-$targetto
from=$from-$targetfrom
case "$targetdir" in
")
 targetdir="{TMPDIR:-/tmp}"
 echo "Guessing targetdir $targetdir." >&4
 ;;
esac
case "$targetuser" in
")
 targetuser=root
 echo "Guessing targetuser $targetuser." >&4
 ;;
esac
case "$targetfrom" in
scp) q=-q ;;

```

```

*) q=" ;;
esac
case "$targetrun" in
ssh|rsh)
 $cat >$run <<EOF
#!/bin/sh
case "\$1" in
-cwd)
 shift
 cwd=\$1
 shift
 ;;
esac
case "\$cwd" in
") cwd=$targetdir ;;
esac
exe=\$1
shift
if $test ! -f \$exe.xok; then
 $to \$exe
 $touch \$exe.xok
fi
$targetrun -l $targetuser $targethost "cd \$cwd && ./$exe \$@"
EOF
;;
*) echo "Unknown targetrun '$targetrun'" >&4
 exit 1
 ;;
esac
case "$targetmkdir" in
*/Cross/mkdir)
 $cat >$targetmkdir <<EOF
#!/bin/sh
$targetrun -l $targetuser $targethost "mkdir -p \$@"
EOF
 $chmod a+rx $targetmkdir
 ;;
*) echo "Unknown targetmkdir '$targetmkdir'" >&4
 exit 1
 ;;
esac
case "$targetto" in
scp|rcp)
 $cat >$to <<EOF
#!/bin/sh
for f in \$@
do
 case "\$f" in

```

```

/*)
 $targetmkdir \dirname \f\
 $targetto $q \f $targetuser@$targethost:\f || exit 1
;;
*)
 $targetmkdir $targetdir\dirname \f\
 $targetto $q \f $targetuser@$targethost:$targetdir\f || exit 1
;;
esac
done
exit 0
EOF
;;
cp) $cat >$to <<EOF
#!/bin/sh
for f in \${@}
do
 case "\f" in
 /*)
 $mkdir -p $targetdir\dirname
 \f\
 $cp \f $targetdir\f || exit 1
 ;;
 *)
 $targetmkdir $targetdir\dirname \f\
 $cp \f $targetdir\f || exit 1
 ;;
 esac
done
exit 0
EOF
;;
*) echo "Unknown targetto \"$targetto\"" >&4
 exit 1
 ;;
esac
case "$targetfrom" in
scp|rcp)
 $cat >$from <<EOF
#!/bin/sh
for f in \${@}
do
 $rm -f \f
 $targetfrom $q $targetuser@$targethost:$targetdir\f . || exit 1
done
exit 0
EOF
;;

```

```

cp) $cat >$from <<EOF
#!/bin/sh
for f in @$@
do
$rm -f $f
cp $targetdir/$f . || exit 1
done
exit 0
EOF
;;
*) echo "Unknown targetfrom '$targetfrom'" >&4
exit 1
;;
esac
if $test ! -f $run; then
echo "Target 'run' script '$run' not found." >&4
else
$chmod a+rx $run
fi
if $test ! -f $to; then
echo "Target 'to' script '$to' not found." >&4
else
$chmod a+rx $to
fi
if $test ! -f $from; then
echo "Target 'from' script '$from' not found." >&4
else
$chmod a+rx $from
fi
if $test ! -f $run -o ! -f $to -o !
-f $from; then
exit 1
fi
$cat >&4 <<EOF
Using '$run' for remote execution,
and '$from' and '$to'
for remote file transfer.
EOF
@else
echo "Cross-compilation is not supported for this package." >&4
exit 1
@end
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Cross.U

```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 2001 Jarkko Hietaniemi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?MAKE:d_dbminiproto: Hasproto i_dbm
?MAKE: -pick add $@ %<
?S:d_dbminiproto:
?S: This variable conditionally defines the HAS_DBMINIT_PROTO symbol,
?S: which indicates to the C program that the system provides
?S: a prototype for the dbminiproto() function. Otherwise, it is
?S: up to the program to supply one.
?S:
?C:HAS_DBMINIT_PROTO:
?C: This symbol, if defined, indicates that the system provides
?C: a prototype for the dbminiproto() function. Otherwise, it is up
?C: to the program to supply one. A good guess is
?C: extern
?C: int dbminiproto(char *);
?C:
?H:#$d_dbminiproto HAS_DBMINIT_PROTO /**/
?H:
?LINT:set d_dbminiproto
: see if prototype for dbminiproto is available
echo " "
set d_dbminiproto dbminiproto $i_dbm dbm.h
eval $hasproto
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_dbminiproto.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: newslib.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: newslib.U,v \$

?RCS: Revision 3.0 1993/08/18 12:09:23 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:newslib newslibexp: test inews Oldconfig Getfile

?MAKE: -pick add \$@ %<

?S:newslib:

?S: This variable contains the eventual value of the NEWSLIB symbol,

?S: which holds the name of the directory serving as the news library.

?S: It may have a ~ on the front. See newslibexp for expanded version.

?S:.

?S:newslibexp:

?S: This variable contains

the ~ expanded name of the news library

?S: directory. See newslib.

?S:.

?C:NEWSLIB:

?C: This symbol contains the name of the directory serving as the news

?C: library. The program must be prepared to do ~ expansion on it.

?C:.

?C:NEWSLIB\_EXP:

?C: This symbol is the ~ expanded version of NEWSLIB, for programs that

?C: do not wish to deal with it at run-time.

?C:.

?H:#define NEWSLIB "\$newslib" /\*\*/

?H:#define NEWSLIB\_EXP "\$newslibexp" /\*\*/

?H:.

?LINT:change inews

```
: figure out news library
case "$newslib" in
")
dflt=/usr/lib/news
;;
*) dflt=$newslib ;;
esac
echo " "
fn=d~
rp="Where is your news library?"
./getfile
newslib="$ans"
newslibexp="$ansexp"
if $test -f $newslibexp/inews; then
echo "Aha! Inews is really in $newslibexp! Maybe this is 2.10.2..." >&4
case "$inews" in
inews)
: null
```

```
;;
*) echo "(Make sure $news isn't an old version.)";;
esac
inews=$newslibexp/inews
fi
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/newslib.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_endgrent_r.U,v 0RCS:
?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.
?RCS:
?MAKE:d_endgrent_r endgrent_r_proto: Inlibc Protochk Hasproto i_systypes \
 usethreads i_grp extern_C
?MAKE: -pick add $@ %<
?S:d_endgrent_r:
?S: This variable conditionally defines the HAS_ENDGRENT_R symbol,
?S: which indicates to the C program that the endgrent_r()
?S: routine is available.
?S:.
?S:endgrent_r_proto:
?S: This variable encodes the prototype of endgrent_r.
?S: It is zero if d_endgrent_r is undef, and one of the
?S: REENTRANT_PROTO_T_ABC macros of reentr.h if d_endgrent_r
?S: is defined.
?S:.
?C:HAS_ENDGRENT_R:
?C: This symbol, if defined, indicates that the endgrent_r routine
?C: is available to
 endgrent re-entrantly.
?C:.
?C:ENDGRENT_R_PROTO:
?C: This symbol encodes the prototype of endgrent_r.
?C: It is zero if d_endgrent_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_endgrent_r
?C: is defined.
?C:.
?H:#$d_endgrent_r HAS_ENDGRENT_R /**/
?H:#define ENDGRENT_R_PROTO $endgrent_r_proto /**/
?H:.
?T:try hdrs d_endgrent_r_proto
```

```

: see if endgrent_r exists
set endgrent_r d_endgrent_r
eval $inlibc
case "$d_endgrent_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_grp grp.h"
case "$d_endgrent_r_proto:$usethreads" in
":define") d_endgrent_r_proto=define
set d_endgrent_r_proto endgrent_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_endgrent_r_proto" in
define)
case "$endgrent_r_proto" in
"|0) try='int endgrent_r(FILE**);'
./prochck "$extern_C $try" $hdrs && endgrent_r_proto=I_H ;;
esac
case "$endgrent_r_proto" in
"|0) try='void endgrent_r(FILE**);'
./prochck "$extern_C $try" $hdrs && endgrent_r_proto=V_H ;;
esac
case "$endgrent_r_proto"
in
"|0) d_endgrent_r=undef
endgrent_r_proto=0
echo "Disabling endgrent_r, cannot determine prototype." >&4 ;;
*) case "$endgrent_r_proto" in
REENTRANT_PROTO*) ;;
*) endgrent_r_proto="REENTRANT_PROTO_$endgrent_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "endgrent_r has no prototype, not using it." >&4 ;;
esac
d_endgrent_r=undef
endgrent_r_proto=0
;;
esac
;;
*) endgrent_r_proto=0
;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-



5.30.0/U/threads/d\_endgrent\_r.U

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_dup2.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_dup2.U,v $
?RCS: Revision 3.0 1993/08/18 12:05:56 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_dup2: Inlibc
?MAKE: -pick add $@ %<
?S:d_dup2:
?S: This variable conditionally defines HAS_DUP2 if dup2() is
?S: available to duplicate file descriptors.
?S:.
?C:HAS_DUP2 (DUP2):
?C: This symbol, if defined, indicates that the dup2 routine is
?C: available to duplicate file descriptors.
?C:.
?H:#$d_dup2 HAS_DUP2 /**/
?H:.
?LINT:set d_dup2
:
 see if dup2 exists
 set dup2 d_dup2
 eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_dup2.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_memcmp.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_memcmp.U,v \$  
?RCS: Revision 3.0.1.1 1993/09/13 16:02:35 ram  
?RCS: patch10: removed text recommending bcmp over memcmp (WAD)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:06:33 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_memcmp: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_memcmp:  
?S: This variable conditionally defines the HAS\_MEMCMP symbol, which  
?S: indicates to the C program that the memcmp() routine is available  
?S: to compare blocks of  
memory.  
?S:.  
?C:HAS\_MEMCMP (MEMCMP):  
?C: This symbol, if defined, indicates that the memcmp routine is available  
?C: to compare blocks of memory.  
?C:.  
?H:#\$d\_memcmp HAS\_MEMCMP /\*\*/  
?H:.  
?LINT:set d\_memcmp  
: see if memcmp exists  
set memcmp d\_memcmp  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_memcmp.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_pipe.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>  
?RCS:  
?RCS: \$Log: d\_pipe.U,v \$  
?RCS: Revision 3.0.1.1 1994/08/29 16:11:44 ram  
?RCS: patch32: created by ADO

?RCS:  
?MAKE:d\_pipe: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_pipe:  
?S: This variable conditionally defines the HAS\_PIPE symbol, which  
?S: indicates to the C program that the pipe() routine is available  
?S: to create an inter-process channel.  
?S:.  
?C:HAS\_PIPE :  
?C: This symbol, if defined, indicates  
that the pipe routine is  
?C: available to create an inter-process channel.  
?C:.  
?H:#\$d\_pipe HAS\_PIPE /\*\*/  
?H:.  
?LINT:set d\_pipe  
: see if pipe exists  
set pipe d\_pipe  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_pipe.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: startperl.U,v \$  
?RCS: Revision 3.0.1.1 1997/02/28 16:25:06 ram  
?RCS: patch61: warn them if the #! line is too long for their OS  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:50 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:startperl: cat rm sharpbang perlpath d\_portable Myread  
?MAKE: -pick add \$@ %<  
?S:startperl:  
?S: This variable contains the string to put on the front of a perl  
?S: script to make sure (hopefully) that it runs with perl and not some  
?S: shell. Of course, that

leading line must be followed by the classical

?S: perl idiom:

```
?S: eval 'exec perl -S $0 ${1+"$@"}'
```

```
?S: if $running_under_some_shell;
```

?S: to guarantee perl startup should the shell execute the script. Note

?S: that this magic incantation is not understood by csh.

?S:.

?C:STARTPERL:

?C: This symbol is the string that should be put on the front of a

?C: perl script to make sure (hopefully) that it runs with perl and

?C: not under some shell. That line should be followed by the classical

?C: invocation magic:

```
?C: eval 'exec perl -S $0 ${1+"$@"}'
```

```
?C: if $running_under_some_shell;
```

?C: to guarantee perl startup should the shell execute the script at first.

?C:.

```
?H:#define STARTPERL "$startperl"
```

?H:.

```
?T:pdft
```

```
?F:!xtry
```

: figure out how to guarantee perl startup

case "\$sharpbang" in

\*)

?X:

?X: Make sure the #!\$perlpath magic incantation indeed works on this

?X: system... It might not if the length of the #! hook is greater

?X: than some hardwired kernel limit. -- RAM, 15/03/96

?X:

```
$cat
```

```
>xtry <<EOP
```

```
#!$perlpath
```

```
system("exit 0");
```

```
EOP
```

```
chmod a+x xtry
```

```
if ./xtry >/dev/null 2>&1; then
```

```
$cat <<EOH
```

I can use the #! construct to start perl on your system. This will make startup of perl scripts faster, but may cause problems if you want to share those scripts and perl is not in a standard place (/usr/bin/perl) on all your platforms. The alternative is to force a shell by starting the script with a single '.' character.

```
EOH
```

```
pdft=y
```

```
else
```

```
$cat <<EOH
```

I could use the `#!` construct to start perl on your system, but using `#!/$perlpath` would be too long for your kernel to grok. Indeed, most systems do limit the size of the leading `#!` string to 32 characters.

EOH

```
pdfilt=n
fi
$rm -f xtry
case "$startperl" in
!) dflt=y;;
") case "$d_portable" in
"$define") dflt=n;;
*) dflt=$pdfilt;;
esac;;
*) dflt=n;;
esac
rp='Shall I use #! to start up perl?'
./myread
case "$ans" in
y*|Y*) startperl="#!/$perlpath";;
*) startperl=": # use perl";;
esac;;
*) startperl=":
use perl";;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/startperl.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: voidflags.U,v 3.0.1.2 1997/02/28 16:27:58 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
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?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: voidflags.U,v $
?RCS: Revision 3.0.1.2 1997/02/28 16:27:58 ram
?RCS: patch61: don't prompt them if the void support is high enough for us
?RCS:
?RCS: Revision 3.0.1.1 1995/01/11 15:37:44 ram
?RCS: patch45: cosmetic change to avoid spurious blank lines when using -s
```

?RCS:  
?RCS: Revision 3.0 1993/08/18 12:10:01 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:voidflags defvoidused: cat rm\_try contains +cc +ccflags package \  
Oldconfig  
Myread i\_stdlib  
?MAKE: -pick add \$@ %<  
?S:voidflags:  
?S: This variable contains the eventual value of the VOIDFLAGS symbol,  
?S: which indicates how much support of the void type is given by this  
?S: compiler. See VOIDFLAGS for more info.  
?S:.  
?S:defvoidused:  
?S: This variable contains the default value of the VOIDUSED symbol (15).  
?S:.  
?X: Exceptionally, we have to explicitly alias the symbol name for  
?X: config\_h.SH, otherwise the comment would not appear.  
?C:VOIDFLAGS ~ %<:  
?C: This symbol indicates how much support of the void type is given by this  
?C: compiler. What various bits mean:  
?C:  
?C: 1 = supports declaration of void  
?C: 2 = supports arrays of pointers to functions returning void  
?C: 4 = supports comparisons between pointers to void functions and  
?C: addresses of void functions  
?C: 8 = supports declaration of generic void pointers  
?C:  
?C: The package designer should define VOIDUSED to indicate the requirements  
?C: of the package. This can be done either  
by #defining VOIDUSED before  
?C: including config.h, or by defining defvoidused in Myinit.U. If the  
?C: latter approach is taken, only those flags will be tested. If the  
?C: level of void support necessary is not present, defines void to int.  
?C:.  
?H:%<:#ifndef VOIDUSED  
?H:%<:#define VOIDUSED \$defvoidused  
?H:%<:#endif  
?H:%<:#define VOIDFLAGS \$voidflags  
?H:%<:#if (VOIDFLAGS & VOIDUSED) != VOIDUSED  
?H:%<:#define void int /\* is void to be avoided? \*/  
?H:%<:#define M\_VOID /\* Xenix strikes again \*/  
?H:%<:#endif  
?H:.  
?INIT:: full support for void wanted by default  
?INIT:defvoidused=15  
?INIT:  
?LINT:known void M\_VOID VOIDUSED

```

: check for void type
echo " "
echo "Checking to see how well your C compiler groks the void type..." >&4
case "$voidflags" in
")
$cat >try.c <<EOCP
#i_stdlib L_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#if TRY & 1
void sub() {
#else
sub() {
#endif
extern void moo(); /* function returning void */
void (*goo)(); /* ptr to func returning void
*/
#if TRY & 8
void *hue; /* generic ptr */
#endif
#if TRY & 2
void (*foo[10])();
#endif

#if TRY & 4
if(goo == moo) {
exit(0);
}
#endif
exit(0);
}
int main() { sub(); }
EOCP
?X: This unit used to use cc -S in those tests to try to speed up things, but
?X: unfortunately, AIX 3.2 does not support this option.
if $cc $cflags -c -DTRY=$defvoidused try.c >.out 2>&1 ; then
voidflags=$defvoidused
echo "Good. It appears to support void to the level $package wants.">&4
if $contains warning .out >/dev/null 2>&1; then
echo "However, you might get some warnings that look like this:"
$cat .out
fi
else
echo "Hmm, your compiler has some difficulty with void. Checking further..." >&4
if $cc $cflags -c -DTRY=1 try.c >/dev/null 2>&1; then
echo "It supports 1..."
if $cc $cflags -c -DTRY=3 try.c >/dev/null 2>&1; then

```

```

echo "It also supports 2..."
if $cc $ccflags -c -DTRY=7 try.c >/dev/null 2>&1; then
 voidflags=7
 echo "And it supports 4 but not 8 definitely."
else
 echo
 "It doesn't support 4..."
 if $cc $ccflags -c -DTRY=11 try.c >/dev/null 2>&1; then
 voidflags=11
 echo "But it supports 8."
 else
 voidflags=3
 echo "Neither does it support 8."
 fi
fi
else
 echo "It does not support 2..."
 if $cc $ccflags -c -DTRY=13 try.c >/dev/null 2>&1; then
 voidflags=13
 echo "But it supports 4 and 8."
 else
 if $cc $ccflags -c -DTRY=5 try.c >/dev/null 2>&1; then
 voidflags=5
 echo "And it supports 4 but has not heard about 8."
 else
 echo "However it supports 8 but not 4."
 fi
 fi
fi
else
 echo "There is no support at all for void."
 voidflags=0
fi
fi
esac
?X: Only prompt user if support does not match the level we want
case "$voidflags" in
"$defvoidused") ;;
*) $cat >&4 <<'EOM'
Support flag bits are:
 1: basic void declarations.
 2: arrays of pointers to functions returning void.
 4: operations between pointers to and addresses of
void functions.
 8: generic void pointers.
EOM
dflt="$voidflags";
rp="Your void support flags add up to what?"

```



```
. /myread
voidflags="$ans"
;;
esac
$rm_try
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/voidflags.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000, Jarkko Hietaniemi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_lseekproto: Hasproto i\_systypes i\_unistd

?MAKE: -pick add \$@ %<

?S:d\_lseekproto:

?S: This variable conditionally defines the HAS\_LSEEK\_PROTO symbol,

?S: which indicates to the C program that the system provides

?S: a prototype for the lseek() function. Otherwise, it is

?S: up to the program to supply one.

?S:.

?C:HAS\_LSEEK\_PROTO:

?C: This symbol, if defined, indicates that the system provides

?C: a prototype for the lseek() function. Otherwise, it is up

?C: to the program to supply one. A good guess is

?C: extern

off\_t lseek(int, off\_t, int);

?C:.

?H:#\$d\_lseekproto HAS\_LSEEK\_PROTO /\*\*/

?H:.

?LINT:set d\_lseekproto

: see if prototype for lseek is available

echo " "

set d\_lseekproto lseek \$i\_systypes sys/types.h \$i\_unistd unistd.h

eval \$hasproto

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/protos/d_lseekproto.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_gethostent_r.U,v 0RCS:
?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.
?RCS:
?MAKE:d_gethostent_r gethostent_r_proto: Inlibc Protochk Hasproto i_systypes \
 usethreads i_netdb extern_C
?MAKE: -pick add $@ %<
?S:d_gethostent_r:
?S: This variable conditionally defines the HAS_GETHOSTENT_R symbol,
?S: which indicates to the C program that the gethostent_r()
?S: routine is available.
?S:.
?S:gethostent_r_proto:
?S: This variable encodes the prototype of gethostent_r.
?S: It is zero if d_gethostent_r is undef, and one of the
?S: REENTRANT_PROTO_T_ABC macros of reentr.h if d_gethostent_r
?S: is defined.
?S:.
?C:HAS_GETHOSTENT_R:
?C: This symbol, if defined, indicates that the gethostent_r routine
?C: is
 available to gethostent re-entrantly.
?C:.
?C:GETHOSTENT_R_PROTO:
?C: This symbol encodes the prototype of gethostent_r.
?C: It is zero if d_gethostent_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_gethostent_r
?C: is defined.
?C:.
?H:#$d_gethostent_r HAS_GETHOSTENT_R /**/
?H:#define GETHOSTENT_R_PROTO $gethostent_r_proto /**/
?H:.
?T:try hdrs d_gethostent_r_proto
: see if gethostent_r exists
set gethostent_r d_gethostent_r
eval $inlibc
case "$d_gethostent_r" in
"$define")
 hdrs="$i_systypes sys/types.h define stdio.h $i_netdb netdb.h"
 case "$d_gethostent_r_proto:$usethreads" in
 ":define") d_gethostent_r_proto=define
 set d_gethostent_r_proto gethostent_r $hdrs
```

```

eval $hasproto ;;
*) ;;
esac
case "$d_gethostent_r_proto" in
define)
case "$gethostent_r_proto" in
"|0) try='int gethostent_r(struct hostent*, char*, size_t, struct hostent**, int*);'
./protochk "$extern_C $try" $hdrs && gethostent_r_proto=I_SBWRE ;;
esac
case "$gethostent_r_proto"
in
"|0) try='int gethostent_r(struct hostent*, char*, int, int*);'
./protochk "$extern_C $try" $hdrs && gethostent_r_proto=I_SBIE ;;
esac
case "$gethostent_r_proto" in
"|0) try='struct hostent* gethostent_r(struct hostent*, char*, int, int*);'
./protochk "$extern_C $try" $hdrs && gethostent_r_proto=S_SBIE ;;
esac
case "$gethostent_r_proto" in
"|0) try='struct hostent* gethostent_r(struct hostent*, char*, int);'
./protochk "$extern_C $try" $hdrs && gethostent_r_proto=S_SBI ;;
esac
case "$gethostent_r_proto" in
"|0) try='int gethostent_r(struct hostent*, char*, int);'
./protochk "$extern_C $try" $hdrs && gethostent_r_proto=I_SBI ;;
esac
case "$gethostent_r_proto" in
"|0) try='int gethostent_r(struct hostent*, struct hostent_data*);'
./protochk "$extern_C $try" $hdrs && gethostent_r_proto=I_SD ;;
esac
case "$gethostent_r_proto" in
"|0) d_gethostent_r=undef
gethostent_r_proto=0
echo "Disabling gethostent_r, cannot determine prototype." >&4 ;;
*) case
"$gethostent_r_proto" in
REENTRANT_PROTO*) ;;
*) gethostent_r_proto="REENTRANT_PROTO_${gethostent_r_proto}" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "gethostent_r has no prototype, not using it." >&4 ;;
esac
d_gethostent_r=undef
gethostent_r_proto=0
;;

```

```
esac
;;
*) gethostent_r_proto=0
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_gethostent_r.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_gethostbyaddr\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_gethostbyaddr\_r gethostbyaddr\_r\_proto: Inlibc Protochk Hasproto \  
i\_systypes usethreads i\_netdb extern\_C

?MAKE: -pick add \$@ %<

?S:d\_gethostbyaddr\_r:

?S: This variable conditionally defines the HAS\_GETHOSTBYADDR\_R symbol,

?S: which indicates to the C program that the gethostbyaddr\_r()

?S: routine is available.

?S:.

?S:gethostbyaddr\_r\_proto:

?S: This variable encodes the prototype of gethostbyaddr\_r.

?S: It is zero if d\_gethostbyaddr\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_gethostbyaddr\_r

?S: is defined.

?S:.

?C:HAS\_GETHOSTBYADDR\_R:

?C: This symbol, if defined, indicates

that the gethostbyaddr\_r routine

?C: is available to gethostbyaddr re-entrantly.

?C:.

?C:GETHOSTBYADDR\_R\_PROTO:

?C: This symbol encodes the prototype of gethostbyaddr\_r.

?C: It is zero if d\_gethostbyaddr\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_gethostbyaddr\_r

?C: is defined.

?C:.

?H:#\$d\_gethostbyaddr\_r HAS\_GETHOSTBYADDR\_R /\*\*/

?H:#define GETHOSTBYADDR\_R\_PROTO \$gethostbyaddr\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_gethostbyaddr\_r\_proto

```

: see if gethostbyaddr_r exists
set gethostbyaddr_r d_gethostbyaddr_r
eval $inlibc
case "$d_gethostbyaddr_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_netdb netdb.h"
case "$d_gethostbyaddr_r_proto:$usetreads" in
":define") d_gethostbyaddr_r_proto=define
set d_gethostbyaddr_r_proto gethostbyaddr_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_gethostbyaddr_r_proto" in
define)
case "$gethostbyaddr_r_proto" in
"|0) try='int gethostbyaddr_r(const char*, size_t, int, struct hostent*, char*,
size_t, struct hostent**, int*);'
./protochk "$extern_C $try" $hdrs && gethostbyaddr_r_proto=I_CWISBWRE ;;
esac
case "$gethostbyaddr_r_proto" in
"|0) try='struct hostent* gethostbyaddr_r(const char*, size_t, int, struct hostent*, char*, size_t, int, int*);'
./protochk "$extern_C $try" $hdrs && gethostbyaddr_r_proto=S_CWISBWIE ;;
esac
case "$gethostbyaddr_r_proto" in
"|0) try='struct hostent* gethostbyaddr_r(const char*, size_t, int, struct hostent*, char*, int, int*);'
./protochk "$extern_C $try" $hdrs && gethostbyaddr_r_proto=S_CWISBIE ;;
esac
case "$gethostbyaddr_r_proto" in
"|0) try='struct hostent* gethostbyaddr_r(const void*, size_t, int, struct hostent*, char*, int, int*);'
./protochk "$extern_C $try" $hdrs && gethostbyaddr_r_proto=S_TWISBIE ;;
esac
case "$gethostbyaddr_r_proto" in
"|0) try='struct hostent* gethostbyaddr_r(const char*, int, int, struct hostent*, char*, int, int*);'
./protochk "$extern_C $try" $hdrs && gethostbyaddr_r_proto=S_CIISBIE ;;
esac
case
"$gethostbyaddr_r_proto" in
"|0) try='struct hostent* gethostbyaddr_r(const char*, struct hostent*, char*, int, int*);'
./protochk "$extern_C $try" $hdrs && gethostbyaddr_r_proto=S_CSBIE ;;
esac
case "$gethostbyaddr_r_proto" in
"|0) try='struct hostent* gethostbyaddr_r(const void*, struct hostent*, char*, int, int*);'
./protochk "$extern_C $try" $hdrs && gethostbyaddr_r_proto=S_TSBIE ;;
esac
case "$gethostbyaddr_r_proto" in
"|0) try='int gethostbyaddr_r(const char*, size_t, int, struct hostent*, struct hostent_data*);'
./protochk "$extern_C $try" $hdrs && gethostbyaddr_r_proto=I_CWISD ;;
esac

```

```

case "$gethostbyaddr_r_proto" in
"|0) try='int gethostbyaddr_r(const char*, int, int, struct hostent*, struct hostent_data*);'
./protochk "$extern_C $try" $hdrs && gethostbyaddr_r_proto=I_CIIISD ;;
esac
case "$gethostbyaddr_r_proto" in
"|0) try='int gethostbyaddr_r(const char*, int, int);'
./protochk "$extern_C $try" $hdrs && gethostbyaddr_r_proto=I_CII ;;
esac
case
"$gethostbyaddr_r_proto" in
"|0) try='int gethostbyaddr_r(const void*, socklen_t, int, struct hostent*, char*, size_t, struct hostent**, int*);'
./protochk "$extern_C $try" $hdrs && gethostbyaddr_r_proto=I_TsISBWRE ;;
esac
case "$gethostbyaddr_r_proto" in
"|0) d_gethostbyaddr_r=undef
gethostbyaddr_r_proto=0
echo "Disabling gethostbyaddr_r, cannot determine prototype." >&4 ;;
*) case "$gethostbyaddr_r_proto" in
REENTRANT_PROTO*) ;;
*) gethostbyaddr_r_proto="REENTRANT_PROTO_$gethostbyaddr_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetreads" in
define) echo "gethostbyaddr_r has no prototype, not using it." >&4 ;;
esac
d_gethostbyaddr_r=undef
gethostbyaddr_r_proto=0
;;
esac
;;
*) gethostbyaddr_r_proto=0
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_gethostbyaddr_r.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_wctomb.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>  
?RCS:  
?RCS: \$Log: d\_wctomb.U,v \$  
?RCS: Revision 3.0.1.1 1994/08/29 16:20:43 ram  
?RCS: patch32: created by ADO  
?RCS:  
?MAKE:d\_wctomb: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_wctomb:  
?S: This variable conditionally defines the HAS\_WCTOMB symbol, which  
?S: indicates to the C program that the wctomb() routine is available  
?S: to convert a wide character to a multibyte.  
?S:.  
?C:HAS\_WCTOMB (WCTOMB):  
?C: This  
symbol, if defined, indicates that the wctomb routine is available  
?C: to convert a wide character to a multibyte.  
?C:.  
?H:#\$d\_wctomb HAS\_WCTOMB /\*\*/  
?H:.  
?LINT:set d\_wctomb  
: see if wctomb exists  
set wctomb d\_wctomb  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_wctomb.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_semctl.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_semctl.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:07:04 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_semctl: Inlibc

?MAKE: -pick add \$@ %<  
?S:d\_semctl:  
?S: This variable conditionally defines the HAS\_SEMCTL symbol, which  
?S: indicates to the C program that the semctl() routine is available.  
?S:.  
?C:HAS\_SEMCTL:  
?C: This symbol, if defined, indicates that the semctl() routine is  
?C: available to perform semaphore control operations.  
?C:.  
?H:#\$d\_semctl  
HAS\_SEMCTL /\*\*/  
?H:.  
?LINT:set d\_semctl  
: see if semctl exists  
set semctl d\_semctl  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_semctl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: sbrksmart.U,v \$  
?RCS: Revision 3.0.1.2 1995/01/11 15:35:41 ram  
?RCS: patch45: now sets sbrksmart to undef explicitly when lacking sbrk()  
?RCS: patch45: forgot a cast when using return value from sbrk()  
?RCS:  
?RCS: Revision 3.0.1.1 1994/01/24 14:16:45 ram  
?RCS: patch16: created  
?RCS:  
?MAKE:sbrksmart: cat d\_sbrk +cc +ccflags +libs rm  
?MAKE: -pick add \$@ %<  
?S:sbrksmart:  
?S: This variable conditionally defines HAS\_SMART\_SBRK if the sbrk()  
?S: routine honors a negative argument to lower the break  
value.  
?S:.  
?C:HAS\_SMART\_SBRK:



?C: This symbol is defined when the sbrk() system call may be used with

?C: a negative argument to lower the break value, therefore releasing

?C: core to the system. If not, you'd probably be better off using the

?C: mmap() system call.

?C:.

?H:#\$sbrksmart HAS\_SMART\_SBRK /\*\*/

?H:.

?T:dumb

?F:!sbrk

: see whether sbrk can release core to the kernel

echo " "

case "\$d\_sbrk" in

"\$define")

echo "Let's see if your sbrk() is smart enough to release core..." >&4

\$cat > sbrk.c <<EOC

#define INC 256 /\* Small enough to be less than a page size \*/

int main()

{

char \*obrk = (char \*) sbrk(0);

char \*nbrk;

nbrk = (char \*) sbrk(INC);

if (nbrk == (char \*) -1)

exit(1); /\* Not enough memory \*/

if (nbrk != obrk)

exit(2); /\* Unreliable sbrk() \*/

nbrk = (char \*) sbrk(-INC);

if (nbrk == (char \*) -1)

exit(3); /\* May have understood negative arg as huge positive \*/

if (obrk != (char \*) sbrk(0))

exit(4); /\* Not smart, definitely \*/

exit(0); /\* Ok \*/

}

EOC

sbrksmart="\$undef"

dumb='--

assuming dumb sbrk()'

if \$cc \$ccflags -o sbrk sbrk.c \$libs >/dev/null 2>&1; then

./sbrk >/dev/null 2>&1

case \$? in

0) sbrksmart="\$define"

echo "Yes, it can be used with negative values." ;;

1) echo "Sorry, not enough memory \$dumb" ;;

2) echo "No it's not, and besides it seems to be buggy..." ;;

3) echo "No, it fails with negative values." ;;

4) echo "Nope, your sbrk() is too dumb." ;;

```

*) echo "Err... Unexpected result $dumb" ;;
esac
else
echo "(Could not compile test program $dumb)"
fi
;;
*)
echo "Since you don't have sbrk(), let's forget about the smart test!"
sbrksmart="$undef"
;;
esac
$rm -f sbrk sbrk.* core

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/sbrksmart.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2001 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_nl\_langinfo: Inlibc i\_langinfo

?MAKE: -pick add \$@ %<

?S:d\_nl\_langinfo:

?S: This variable conditionally defines the HAS\_NL\_LANGINFO symbol, which

?S: indicates to the C program that the nl\_langinfo() routine is available.

?S:.

?C:HAS\_NL\_LANGINFO:

?C: This symbol, if defined, indicates that the nl\_langinfo routine is

?C: available to return local data. You will also need <langinfo.h>

?C: and therefore I\_LANGINFO.

?C:.

?H:#\$d\_nl\_langinfo HAS\_NL\_LANGINFO /\*\*/

?H:.

?LINT:set d\_nl\_langinfo

?LINT:use i\_langinfo

: see if nl\_langinfo exists

set nl\_langinfo d\_nl\_langinfo

eval \$inlibc

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_nl_langinfo.U

```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_nolnbuf.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_nolnbuf.U,v $
?RCS: Revision 3.0.1.1 1994/05/06 14:46:07 ram
?RCS: patch23: avoid looping in the "see that again?" prompt (WED)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:43 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_nolnbuf: test +cc cat rm Setvar Myread
?MAKE: -pick add $@ %<
?S:d_nolnbuf:
?S: This variable conditionally defines the NOLINEBUF symbol, which
?S: indicates to the C program that stdout is not buffered, so that
?S: the
 program can call setbuf() or setlinebuf() for efficiency.
?S:.
?C:NOLINEBUF:
?C: This symbol, if defined, indicates that stdout is not buffered, so that
?C: the program can call setbuf() or setlinebuf() for efficiency.
?C:.
?H:#$d_nolnbuf NOLINEBUF /**/
?H:.
?T:xxx
?F:!blurfl
?LINT:set d_nolnbuf
: check for buffering of stdout
echo " "
case "$d_nolnbuf" in
")
 $cat <<'EOT' >blurfl.c
#include <stdio.h>
int main()
{
 int i;

 for (i = 0; i < 5; i++) {
 putchar(i+'a');
```

```

sleep(1);
}
putchar('\n');
}
EOT
$cc -o blurfl blurfl.c >/dev/null 2>&1;
$rm -f blurfl.c
$cat >&4 <<'EOM'
Checking for buffering of stdout to terminal.

```

Observe the following characters as they are printed out, to see whether they print out all at once, or with a 1 second pause between each of them. If they print out one by one, you don't have buffering. If they print together (after about a 5 second pause), you do have buffering.

```

EOM
dflt='Type return to start printing the test characters'
rp=""
.
./myread
xxx=y
while $test "$xxx" = 'y'; do
./blurfl 1>&4
dflt=n
rp='Would you like to see that again?'
. ./myread
case "$ans" in
[yY]*) xxx="y";;
*) xxx="n";;
esac
done
dflt=y
rp="Do you have buffering (printed all at once)?"
. ./myread
case "$ans" in
n*) val="$define";;
*) val="$undef";;
esac
;;
*)
case "$d_nolnbuf" in
"$define") dflt=n;;
*) dflt=y;;
esac
rp="Do you have buffering on stdout to terminals?"
. ./myread
case "$ans" in
n*) val="$define";;

```

```
*) val="$undef";;
esac
;;
esac
set d_nolnbuf
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_nolnbuf.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Magic_h.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
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```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: Magic_h.U,v $
```

```
?RCS: Revision 3.0.1.2 1993/11/10 17:32:58 ram
```

```
?RCS: patch14: forgot to mention Id in the dependencies
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.1 1993/10/16 13:46:59 ram
```

```
?RCS: patch12: created for ?M: lines support (magic symbols)
```

```
?RCS:
```

```
?X:
```

```
?X: This file ends up producing the confmagic.h include, which is used to
```

```
?X: automagically remap some C symbols via cpp redefinitions.
```

```
?X:
```

```
?X: The file ./Magic_h below contains all the ?M: lines extracted out
of all
```

```
?X: the units. Metaconfig itself adds the final #endif statement.
```

```
?X: Note that this code isn't included into Configure, but must be shipped with.
```

```
?X:
```

```
?MAKE:Magic_h: Id Config_h
```

```
?MAKE: -pick cm_h_weed $@ %<
```

```
?MAKE: -pick cm_h_weed $@ ./Magic_h
```

```
?LINT:nocomment
```

```
/*
```

```
* This file was produced by running metaconfig and is intended to be included
```

```
* after config.h and after all the other needed includes have been dealt with.
```

```
*
```

```
* This file may be empty, and should not be edited. Rerun metaconfig instead.
```

```
* If you wish to get rid of this magic, remove this file and rerun metaconfig
```

```
* without the -M option.
*
* $Id: Magic_h.U 1 2006-08-24 12:32:52Z rmanfredi $
*/
```

```
#ifndef _confmagic_h_
#define _confmagic_h_
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Magic_h.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_ustat.U,v $
?RCS:
?RCS: Copyright (c) 1998 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:i_ustat: Inhdr Hasfield
?MAKE: -pick add $@ %<
?S:i_ustat:
?S: This variable conditionally defines the I_USTAT symbol, and indicates
?S: whether a C program should include <ustat.h>.
?S:.
?C:I_USTAT:
?C: This symbol, if defined, indicates that <ustat.h> exists and
?C: should be included.
?C:.
?H:#$i_ustat I_USTAT /**/
?H:.
?LINT:set i_ustat
: see if this is a ustat.h system
set ustat.h i_ustat
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_ustat.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Prefixit.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
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```

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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: Prefixit.U,v \$  
?RCS: Revision 3.0.1.1 1995/01/30 14:29:22 ram  
?RCS: patch49: created  
?RCS:  
?X:  
?X: Used as: "set dflt var dir; eval \$prefixit" to set \$dflt to be  
?X: \$prefix/dir by default, or the previous \$var depending on certain  
?X: conditions:  
?X: - If the \$oldprefix variable is empty, then \$prefix holds the same  
?X: value as on previous runs. Therefore, reuse \$var if set, otherwise  
?X: set \$dflt to \$prefix/dir.  
?X: - If \$oldprefix is not  
empty, then set \$dflt to \$prefix/dir if \$var  
?X: is empty (first run). Otherwise, if \$var is \$oldprefix/dir, then  
?X: change it to \$prefix/dir. If none of the above, reuse the old \$var.  
?X:  
?X: When dir is omitted, the dflt variable is set to \$var if prefix did not  
?X: change, to an empty value otherwise. If dir=none, then a single space  
?X: in var is kept as-is, even if the prefix changes.  
?X:  
?MAKE:Prefixit: prefix oldprefix  
?MAKE: -pick add \$@ %<  
?LINT:define prefixit  
?S:prefixit:  
?S: This shell variable is used internally by Configure to reset  
?S: the leading installation prefix correctly when it is changed.  
?S: set dflt var [dir]  
?S: eval \$prefixit  
?S: That will set \$dflt to \$var or \$prefix/dir depending on the  
?S: value of \$var and \$oldprefix.  
?S:.  
?V:prefixit  
?T:tp  
: set the prefixit variable, to compute a suitable default value  
prefixit='case "\$3" in  
""|none)  
case "\$oldprefix" in  
"") eval "\$1=\"\\\$2\"";;  
\*)  
case "\$3" in  
"") eval "\$1=";;  
none)  
eval "tp=\"\\\$2\"";  
case

```

"$tp" in
 ""|" ") eval "$1=\\"$2\"";;
 *) eval "$1="";;
 esac;;
esac;;
esac;;
*)
eval "tp=\\"$oldprefix-\\"$2-\\""; eval "tp=\\"$tp\\"";
case "$tp" in
 --/*--|\~*--) eval "$1=\\"$prefix/$3\\"";;
/*-$oldprefix/*|\~*-$oldprefix/*)
 eval "$1=\`echo \\"$2 | sed \\'s,^\\"$oldprefix,\$prefix,\\"\\\"";;
 *) eval "$1=\\"$2\\"";;
 esac;;
esac'

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Prefixit.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: as specified in the README file that comes with the distribution.

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: lib.U,v \$

?RCS: Revision 3.0.1.3 1995/09/25 09:16:47 ram

?RCS: patch59: unit is now forced to the top of Configure, if possible

?RCS:

?RCS: Revision 3.0.1.2 1995/01/30 14:38:08 ram

?RCS: patch49: can now handle installation prefix changes (from WED)

?RCS:

?RCS: Revision 3.0.1.1 1994/08/29 16:27:40 ram

?RCS: patch32: now uses installation prefix to set the default

?RCS:

?RCS: Revision 3.0 1993/08/18 12:08:56 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:lib libexp: Getfile

Loc Oldconfig Prefixit Prefixup prefixexp

?MAKE: -pick add \$@ %<

?Y:TOP



```

?S:lib:
?S: This variable holds the name of the directory in which the user wants
?S: to put public library files for the package in question. It is most
?S: often a local directory such as /usr/local/lib. Programs using this
?S: variable must be prepared to deal with filename expansion.
?S:.
?S:libexp:
?S: This variable is the same as the lib variable, but is filename expanded
?S: at configuration time, for convenient use in your makefiles.
?S:.
: determine where public libraries go
set lib lib
eval $prefixit
case "$lib" in
")
dflt=`./loc . ." $prefixexp/lib /usr/local/lib /usr/lib /lib`
set dflt
eval $prefixup
;;
*) dflt="$lib";;
esac
echo " "
fn=d~
rp="Where do you want to put the public libraries?"
./getfile
lib="$ans"
libexp="$ansexp"

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/lib.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: groupstype.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: groupstype.U,v $
?RCS: Revision 3.0.1.2 1994/10/29 16:18:08 ram
?RCS: patch36: no longer uses Setvar to set 'groupstype' (ADO)

```

```

?RCS: patch36: typo fix in the word 'argument' (ADO)
?RCS:
?RCS: Revision 3.0.1.1 1994/06/20 07:00:18 ram
?RCS: patch30: created by ADO
?RCS:
?MAKE:groupstype: gidtype d_getgrps Myread Oldconfig Findhdr cat d_setgrps
?MAKE: -pick add $@ %<
?INIT:groupstype=""
?S:groupstype:
?S: This
 variable defines Groups_t to be something like gid_t, int,
?S: ushort, or whatever type is used for the second argument to
?S: getgroups() and setgroups(). Usually, this is the same as
?S: gidtype (gid_t), but sometimes it isn't.
?S:.
?C:Groups_t (GROUPSTYPE):
?C: This symbol holds the type used for the second argument to
?C: getgroups() and setgroups(). Usually, this is the same as
?C: gidtype (gid_t) , but sometimes it isn't.
?C: It can be int, ushort, gid_t, etc...
?C: It may be necessary to include <sys/types.h> to get any
?C: typedef'ed information. This is only required if you have
?C: getgroups() or setgroups()..
?C:.
?H:%<:#if defined(HAS_GETGROUPS) || defined(HAS_SETGROUPS)
?H:%<:#define Groups_t $groupstype /* Type for 2nd arg to [sg]etgroups() */
?H:%<:#endif
?H:.
?W:%<:getgroups HAS_GETGROUPS setgroups HAS_SETGROUPS
: Find type of 2nd arg to 'getgroups()' and 'setgroups()'
echo " "
case "$d_getgrps$d_setgrps" in
define)
case
"$groupstype" in
") dflt="$gidtype" ;;
*) dflt="$groupstype" ;;
esac
$cat <<EOM
What type of pointer is the second argument to getgroups() and setgroups()?
Usually this is the same as group ids, $gidtype, but not always.

EOM
rp='What type pointer is the second argument to getgroups() and setgroups()?'
. ./myread
groupstype="$ans"
;;
*) groupstype="$gidtype";;

```

esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/groupstype.U

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_fdim: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fdim:

?S: This variable conditionally defines the HAS\_FDIM symbol, which

?S: indicates to the C program that the fdim() routine is available.

?S:.

?C:HAS\_FDIM:

?C: This symbol, if defined, indicates that the fdim routine is

?C: available to do the positive difference function.

?C:.

?H:#\$d\_fdim HAS\_FDIM /\*\*/

?H:.

?LINT:set d\_fdim

: see if fdim exists

set fdim d\_fdim

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fdim.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_attribut.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_attribut.U,v \$

?RCS: Revision 3.0.1.3 1995/01/30 14:33:45 ram

?RCS: patch49: test C program now includes <stdio.h> (WED)

?RCS:

?RCS: Revision 3.0.1.2 1995/01/11 15:25:47 ram  
?RCS: patch45: fixed typo in the d\_attribut variable (ADO)  
?RCS:  
?RCS: Revision 3.0.1.1 1994/10/29 16:08:55 ram  
?RCS: patch36: created by ADO  
?RCS:  
?MAKE:d\_attribute\_deprecated d\_attribute\_format  
d\_attribute\_malloc \  
d\_attribute\_nonnull d\_attribute\_noreturn d\_attribute\_pure \  
d\_attribute\_unused d\_attribute\_warn\_unused\_result \  
d\_printf\_format\_null: \  
Myread Oldconfig cat cc cflags rm Setvar contains i\_stdlib run \  
i\_inttypes  
?MAKE: -pick add \$@ %<  
?S:d\_attribute\_format:  
?S: This variable conditionally defines HASATTRIBUTE\_FORMAT, which  
?S: indicates the C compiler can check for printf-like formats.  
?S:.  
?S:d\_attribute\_deprecated:  
?S: This variable conditionally defines HASATTRIBUTE\_DEPRECATED, which  
?S: indicates that GCC can handle the attribute for marking deprecated  
?S: APIs  
?S:.  
?S:d\_printf\_format\_null:  
?S: This variable conditionally defines PRINTF\_FORMAT\_NULL\_OK, which  
?S: indicates the C compiler allows printf-like formats to be null.  
?S:.  
?S:d\_attribute\_malloc:  
?S: This variable conditionally defines HASATTRIBUTE\_MALLOC, which  
?S: indicates the C compiler can understand functions as having  
?S: malloc-like semantics.  
?S:.  
?S:d\_attribute\_nonnull:  
?S: This  
variable conditionally defines HASATTRIBUTE\_NONNULL, which  
?S: indicates that the C compiler can know that certain arguments  
?S: must not be NULL, and will check accordingly at compile time.  
?S:.  
?S:d\_attribute\_noreturn:  
?S: This variable conditionally defines HASATTRIBUTE\_NORETURN, which  
?S: indicates that the C compiler can know that certain functions  
?S: are guaranteed never to return.  
?S:.  
?S:d\_attribute\_pure:  
?S: This variable conditionally defines HASATTRIBUTE\_PURE, which  
?S: indicates that the C compiler can know that certain functions  
?S: are "pure" functions, meaning that they have no side effects, and  
?S: only rely on function input and/or global data for their results.

?S:  
?S:d\_attribute\_unused:  
?S: This variable conditionally defines HASATTRIBUTE\_UNUSED, which  
?S: indicates that the C compiler can know that certain variables  
?S: and arguments may not always be used, and to not throw warnings  
?S: if they don't get used.  
?S:  
?S:d\_attribute\_warn\_unused\_result:  
?S: This variable  
conditionally defines  
?S: HASATTRIBUTE\_WARN\_UNUSED\_RESULT, which indicates that the C  
?S: compiler can know that certain functions have a return values  
?S: that must not be ignored, such as malloc() or open().  
?S:  
?C:HASATTRIBUTE\_FORMAT ~ %< (GNU\_ATTRIBUTE\_CHECK):  
?C: Can we handle GCC attribute for checking printf-style formats  
?C:  
?C:PRINTF\_FORMAT\_NULL\_OK:  
?C: Allows \_\_printf\_\_ format to be null when checking printf-style  
?C:  
?C:HASATTRIBUTE\_MALLOC:  
?C: Can we handle GCC attribute for malloc-style functions.  
?C:  
?C:HASATTRIBUTE\_NONNULL:  
?C: Can we handle GCC attribute for nonnull function parms.  
?C:  
?C:HASATTRIBUTE\_NORETURN:  
?C: Can we handle GCC attribute for functions that do not return  
?C:  
?C:HASATTRIBUTE\_PURE:  
?C: Can we handle GCC attribute for pure functions  
?C:  
?C:HASATTRIBUTE\_UNUSED:  
?C: Can we handle GCC attribute for unused variables and arguments  
?C:  
?C:HASATTRIBUTE\_DEPRECATED:  
?C: Can we handle GCC attribute for marking deprecated APIs  
?C:  
?C:HASATTRIBUTE\_WARN\_UNUSED\_RESULT  
~ %< (HASATTRIBUTE):  
?C: Can we handle GCC attribute for warning on unused results  
?C:  
?H:%<:#\$d\_attribute\_deprecated HASATTRIBUTE\_DEPRECATED /\*\*/  
?H:%<:#\$d\_attribute\_format HASATTRIBUTE\_FORMAT /\*\*/  
?H:%<:#\$d\_printf\_format\_null PRINTF\_FORMAT\_NULL\_OK /\*\*/  
?H:%<:#\$d\_attribute\_noreturn HASATTRIBUTE\_NORETURN /\*\*/  
?H:%<:#\$d\_attribute\_malloc HASATTRIBUTE\_MALLOC /\*\*/  
?H:%<:#\$d\_attribute\_nonnull HASATTRIBUTE\_NONNULL /\*\*/

```

?H:?%<:#$d_attribute_pure HASATTRIBUTE_PURE /**/
?H:?%<:#$d_attribute_unused HASATTRIBUTE_UNUSED /**/
?H:?%<:#$d_attribute_warn_unused_result HASATTRIBUTE_WARN_UNUSED_RESULT /**/
?H:.
?F:!attrib !attrib.out !attrib.c
?LINT:set d_attribute_deprecated
?LINT:set d_attribute_format
?LINT:set d_printf_format_null
?LINT:set d_attribute_malloc
?LINT:set d_attribute_nonnull
?LINT:set d_attribute_noreturn
?LINT:set d_attribute_pure
?LINT:set d_attribute_unused
?LINT:set d_attribute_warn_unused_result
: Look for GCC-style attribute format
case "$d_attribute_format"
in
")
echo " "
echo "Checking whether your compiler can handle __attribute__((format)) ..." >&4
$cat >attrib.c <<'EOCP'
#include <stdio.h>
void my_special_printf(char* pat,...) __attribute__((__format__(__printf__,1,2)));
EOCP
if $cc $ccflags -c attrib.c >attrib.out 2>&1 ; then
if $contains 'warning' attrib.out >/dev/null 2>&1 ; then
echo "Your C compiler doesn't support __attribute__((format))."
val="$undef"
else
echo "Your C compiler supports __attribute__((format))."
val="$define"
fi
else
echo "Your C compiler doesn't seem to understand __attribute__ at all."
val="$undef"
fi
;;
*) val="$d_attribute_format" ;;
esac
set d_attribute_format
eval $setvar
$rm -f attrib*

: Look for GCC-style attribute format with null format allowed
case "$d_printf_format_null" in
") case "$d_attribute_format" in
$define)
echo " "

```

```

echo "Checking whether your compiler allows __printf__ format to be null ..." >&4
$cat >attrib.c <<EOCP
#include <stdio.h>
#$i_stdlib I_STDLIB
#ifdef
I_STDLIB
#include <stdlib.h>
#endif
#$i_inttypes I_INTTYPES
#ifdef I_INTTYPES
#include <inttypes.h>
#endif
#ifndef INTPTR_MAX
#define intptr_t int
#endif
int null_printf (char* pat,...) __attribute__((__format__(__printf__,1,2)));
int null_printf (char* pat,...) { return (int)(intptr_t)pat; }
int main () { exit(null_printf(NULL)); }
EOCP
if $cc $cflags -o attrib attrib.c >attrib.out 2>&1 ; then
: run the executable in case it produces a run-time warning
if $run ./attrib >>attrib.out 2>&1; then
if $contains 'warning' attrib.out >/dev/null 2>&1; then
echo "Your C compiler doesn't allow __printf__ format to be null."
val="$undef"
else
echo "Your C compiler allows __printf__ format to be null."
val="$define"
fi
else
echo "Your C compiler executable failed with __printf__ format null."
val="$undef"
fi
else
echo "Your C compiler fails with __printf__ format null."
val="$undef"
fi
;;
*) val="$undef" ;;
esac
;;
*)
val="$d_printf_format_null" ;;
esac
set d_printf_format_null
eval $setvar
$rm -f attrib*

```

```

: Look for GCC-style attribute malloc
case "$d_attribute_malloc" in
")
echo " "
echo "Checking whether your compiler can handle __attribute__((malloc)) ..." >&4
$cat >attrib.c <<'EOCP'
#include <stdio.h>
char *go_get_some_memory(int how_many_bytes) __attribute__((malloc));
EOCP
if $cc $ccflags -c attrib.c >attrib.out 2>&1 ; then
if $contains 'warning' attrib.out >/dev/null 2>&1; then
echo "Your C compiler doesn't support __attribute__((malloc))."
val="$undef"
else
echo "Your C compiler supports __attribute__((malloc))."
val="$define"
fi
else
echo "Your C compiler doesn't seem to understand __attribute__ at all."
val="$undef"
fi
*) val="$d_attribute_malloc" ;;
esac
set d_attribute_malloc
eval $setvar
$rm -f attrib*

```

```

: Look for GCC-style attribute nonnull
case "$d_attribute_nonnull" in
")
echo " "
echo "Checking whether your compiler can handle __attribute__((nonnull(1))) ..."
>&4
$cat >attrib.c <<'EOCP'
#include <stdio.h>
void do_something (char *some_pointer,...) __attribute__((nonnull(1)));
EOCP
if $cc $ccflags -c attrib.c >attrib.out 2>&1 ; then
if $contains 'warning' attrib.out >/dev/null 2>&1; then
echo "Your C compiler doesn't support __attribute__((nonnull))."
val="$undef"
else
echo "Your C compiler supports __attribute__((nonnull))."
val="$define"
fi
else
echo "Your C compiler doesn't seem to understand __attribute__ at all."

```



```

val="$undef"
fi
;;
*) val="$d_attribute_nonnull" ;;
esac
set d_attribute_nonnull
eval $setvar
$rm -f attrib*

: Look for GCC-style attribute noreturn
case "$d_attribute_noreturn" in
")
echo " "
echo "Checking whether your compiler can handle __attribute__((noreturn)) ..." >&4
$cat >attrib.c <<'EOCP'
#include <stdio.h>
void fall_over_dead(void) __attribute__((noreturn));
EOCP
if $cc $ccflags -c attrib.c >attrib.out 2>&1 ; then
if $contains 'warning' attrib.out >/dev/null 2>&1 ; then
echo "Your C compiler doesn't
support __attribute__((noreturn))."
val="$undef"
else
echo "Your C compiler supports __attribute__((noreturn))."
val="$define"
fi
else
echo "Your C compiler doesn't seem to understand __attribute__ at all."
val="$undef"
fi
;;
*) val="$d_attribute_noreturn" ;;
esac
set d_attribute_noreturn
eval $setvar
$rm -f attrib*

: Look for GCC-style attribute pure
case "$d_attribute_pure" in
")
echo " "
echo "Checking whether your compiler can handle __attribute__((pure)) ..." >&4
$cat >attrib.c <<'EOCP'
#include <stdio.h>
int square(int n) __attribute__((pure));
EOCP
if $cc $ccflags -c attrib.c >attrib.out 2>&1 ; then

```

```

if $contains 'warning' attrib.out >/dev/null 2>&1; then
 echo "Your C compiler doesn't support __attribute__((pure))."
 val="$undef"
else
 echo "Your C compiler supports __attribute__((pure))."
 val="$define"
fi
else
 echo "Your C compiler doesn't seem to understand __attribute__ at all."
 val="$undef"
fi
;;
*) val="$d_attribute_pure" ;;
esac
set d_attribute_pure
eval
$setvar
$rm -f attrib*

: Look for GCC-style attribute unused
case "$d_attribute_unused" in
 ")
 echo " "
 echo "Checking whether your compiler can handle __attribute__((unused)) ..." >&4
 $cat >attrib.c <<'EOCP'
 #include <stdio.h>
 int do_something(int dummy __attribute__((unused)), int n);
 EOCP
 if $cc $ccflags -c attrib.c >attrib.out 2>&1 ; then
 if $contains 'warning' attrib.out >/dev/null 2>&1; then
 echo "Your C compiler doesn't support __attribute__((unused))."
 val="$undef"
 else
 echo "Your C compiler supports __attribute__((unused))."
 val="$define"
 fi
 else
 echo "Your C compiler doesn't seem to understand __attribute__ at all."
 val="$undef"
 fi
 ;;
*) val="$d_attribute_unused" ;;
esac
set d_attribute_unused
eval $setvar
$rm -f attrib*

: Look for GCC-style attribute deprecated

```

```

case "$d_attribute_deprecated" in
")
echo " "
echo "Checking whether your compiler can handle __attribute__((deprecated)) ..." >&4
$cat >attrib.c <<'EOCP'
#include <stdio.h>
int I_am_deprecated(void)
__attribute__((deprecated));
EOCP
if $cc $ccflags -c attrib.c >attrib.out 2>&1 ; then
if $contains 'warning' attrib.out >/dev/null 2>&1; then
echo "Your C compiler doesn't support __attribute__((deprecated))."
val="$undef"
else
echo "Your C compiler supports __attribute__((deprecated))."
val="$define"
fi
else
echo "Your C compiler doesn't seem to understand __attribute__ at all."
val="$undef"
fi
*) val="$d_attribute_deprecated" ;;
esac
set d_attribute_deprecated
eval $setvar
$rm -f attrib*

: Look for GCC-style attribute warn_unused_result
case "$d_attribute_warn_unused_result" in
")
echo " "
echo "Checking whether your compiler can handle __attribute__((warn_unused_result)) ..." >&4
$cat >attrib.c <<'EOCP'
#include <stdio.h>
int I_will_not_be_ignored(void) __attribute__((warn_unused_result));
EOCP
if $cc $ccflags -c attrib.c >attrib.out 2>&1 ; then
if $contains 'warning' attrib.out >/dev/null 2>&1; then
echo "Your C compiler doesn't support __attribute__((warn_unused_result))."
val="$undef"
else
echo
"Your C compiler supports __attribute__((warn_unused_result))."
val="$define"
fi
else
echo "Your C compiler doesn't seem to understand __attribute__ at all."

```

```

val="$undef"
fi
;;
*) val="$d_attribute_warn_unused_result" ;;
esac
set d_attribute_warn_unused_result
eval $setvar
$rm -f attrib*

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_attribut.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: libdbm.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: libdbm.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 15:56:57 ram
?RCS: patch61: replaced .a with $_a all over the place
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:58 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:libdbm: test Loc libpth _a
?MAKE: -pick add $@ %<
?S:libdbm:
?S: This variable contains the argument to pass to the loader in order
?S: to get the dbm library routines. If there is no dbm or ndbm
?S: library, it is null.
?S:.
?T:xxx
:
see if we should include -ldbm
echo " "
if $test -r /usr/lib/libndbm$_a || $test -r /usr/local/lib/libndbm$_a ; then
echo "-ldbm found." >&4
libdbm='-ldbm'
elif $test -r /usr/lib/libdbm$_a || $test -r /usr/local/lib/libdbm$_a ; then
echo "-ldbm found." >&4
libdbm='-ldbm'

```

```

else
xxx=`./loc libdbm$_a x $libpth`
case "$xxx" in
x)
echo "No dbm library found." >&4
libdbm=""
;;
*)
echo "DBM library found in $xxx." >&4
libdbm="$xxx"
;;
esac
fi

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/libdbm.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: Configdir.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: Configdir.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 14:58:36 ram
?RCS: patch61: have README explicitly mention the package name
?RCS:
?RCS: Revision 3.0 1993/08/18 12:04:49 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:Configdir: package
?MAKE: -pick add $@ %<
: create .config dir to save info across Configure sessions
test -d ../.config || mkdir ../.config
cat >../.config/README <<EOF
This directory created by Configure to save
information that should
persist across sessions for $package.

You may safely delete it if you wish.
EOF

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Configdir.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_itimer.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_itimer.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:25 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_itimer: Inlibc

?MAKE: -pick add @\$ %<

?S:d\_itimer:

?S: This variable conditionally defines the HAS\_ITIMER symbol, which

?S: indicates that the setitimer() routine exists. The setitimer()

?S: routine supports sub-second accuracy for one real-time and two

?S: cpu clocks.

?S:.

?C:HAS\_ITIMER (ITIMER):

?C: This symbol, if defined, indicates

that the setitimer() routine exists.

?C:.

?H:#\$d\_itimer HAS\_ITIMER /\*\*/

?H:.

?LINT:set d\_itimer

: see if setitimer exists

set setitimer d\_itimer

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_itimer.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Filexp.U,v \$

?RCS: Revision 3.0.1.2 1994/10/29 15:52:53 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS: patch36: added HOME to the ?T: line since metalint now checks \${HOME}

?RCS:

?RCS: Revision 3.0.1.1 1994/05/06 14:03:00 ram

?RCS: patch23: made sure error status from csh is propagated (WED)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:04:53 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit produces a shell script which will expand filenames beginning

?X:

with tildes. The script is deleted at the end of Configure.

?X:

?MAKE:Filexp: startsh sed test expr eunicefix

?MAKE: -pick add \$@ %<

?F:./filexp

?T:HOME LOGDIR dir me name failed

: set up shell script to do ~ expansion

cat >filexp <<EOSS

\$startsh

: expand filename

?X:

?X: The case entries below escape the ~ as some shells have shown expansion

?X: of the ~ during here-doc processing.

?X:

```

case "$1" in
|~/*/~)
echo \ $1 | $sed "s|~|${HOME-~LOGDIR}|"
;;
|~*)
if $test -f /bin/csh; then
/bin/csh -f -c "glob \ $1"
failed=\ $?
echo ""
exit \ $failed
else
name=\ $expr x\ $1 : '.*\ ([^/]*)\`
dir=\ $sed -n -e "/^\${name}:/ {s/^[^:]*:[^:]*:[^:]*:[^:]*:[^:]*:([/]*).*""\ $""/1/" -e p -e q -e '}' </etc/passwd\`
if $test ! -d "\ $dir"; then
me=\ `basename \ $0\`

```

```

echo "\$me: can't locate home directory for: \$name" >&2
exit 1
fi
case "$1" in
/)
echo \$dir/\$expr x\$1 : '..[^/]*^(.*)\'
;;
*)
echo \$dir
;;
esac
fi
;;
*)
echo \$1
;;
esac
EOSS
chmod
+x filexp
$eunicefix filexp

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Filexp.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_isascii.U,v 3.0.1.2 1994/10/29 16:13:39 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_isascii.U,v $
?RCS: Revision 3.0.1.2 1994/10/29 16:13:39 ram
?RCS: patch36: added 'ldflags' to the test compile line (ADO)
?RCS:
?RCS: Revision 3.0.1.1 1994/08/29 16:09:32 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_isascii: Compile cat rm Setvar i_stdlib
?MAKE: -pick add $@ %<

```



?S:d\_isascii:

?S: This variable conditionally defines the HAS\_ISASCII constant,

?S: which indicates

to the C program that isascii() is available.

?S:.

?C:HAS\_ISASCII:

?C: This manifest constant lets the C program know that isascii

?C: is available.

?C:.

?H:#\$d\_isascii HAS\_ISASCII /\*\*/

?H:.

?LINT:set d\_isascii

?X: Can't use Inlibc because isascii() might be a macro.

: Look for isascii

echo " "

\$cat >isascii.c <<EOCP

#include <stdio.h>

#include <ctype.h>

#\$i\_stdlib I\_STDLIB

#ifdef I\_STDLIB

#include <stdlib.h>

#endif

int main() {

int c = 'A';

if (isascii(c))

exit(0);

else

exit(1);

}

EOCP

set isascii

if eval \$compile; then

echo "isascii() found." >&4

val="\$define"

else

echo "isascii() NOT found." >&4

val="\$undef"

fi

set d\_isascii

eval \$setvar

\$rm -f isascii\*

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d\_isascii.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_stat.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:  
 ?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
 ?RCS:  
 ?RCS: You may redistribute only under the terms of the Artistic Licence,  
 ?RCS: as specified in the README file that comes with the distribution.  
 ?RCS: You may reuse parts of this distribution only within the terms of  
 ?RCS: that same Artistic Licence; a copy of which may be found at the root  
 ?RCS: of the source tree for dist 4.0.  
 ?RCS:  
 ?RCS: \$Log: d\_stat.U,v \$  
 ?RCS: Revision 3.0 1993/08/18 12:07:28 ram  
 ?RCS: Baseline for dist 3.0 netwide release.  
 ?RCS:  
 ?MAKE:d\_stat: Inlibc  
 ?MAKE: -pick add \$@ %<  
 ?S:d\_stat:  
 ?S: This variable conditionally defines HAS\_STAT if stat() is  
 ?S: available to get file status.  
 ?S:.  
 ?C:HAS\_STAT (STAT):  
 ?C: This symbol, if defined, indicates that the stat routine is  
 ?C: available to get file status.  
 ?C:.  
 ?H:#\$d\_stat HAS\_STAT /\*\*/  
 ?H:.  
 ?LINT:set d\_stat  
 : see if stat exists  
 set  
 stat d\_stat  
 eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_stat.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
 ?RCS:  
 ?RCS: Copyright (c) 2000 Jarkko Hietaniemi  
 ?RCS:  
 ?RCS: You may distribute under the terms of either the GNU General Public  
 ?RCS: License or the Artistic License, as specified in the README file.  
 ?RCS:  
 ?MAKE:d\_getcwd: Inlibc  
 ?MAKE: -pick add \$@ %<  
 ?S:d\_getcwd:  
 ?S: This variable conditionally defines the HAS\_GETCWD symbol, which  
 ?S: indicates to the C program that the getcwd() routine is available

?S: to get the current working directory.  
?S:.  
?C:HAS\_GETCWD :  
?C: This symbol, if defined, indicates that the getcwd routine is  
?C: available to get the current working directory.  
?C:.  
?H:#\$d\_getcwd HAS\_GETCWD /\*\*/  
?H:.  
?LINT:set d\_getcwd  
: see if getcwd exists  
set getcwd d\_getcwd  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_getcwd.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_system.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_system.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:07:44 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_system: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_system:  
?S: This variable conditionally defines HAS\_SYSTEM if system() is  
?S: available to issue a shell command.  
?S:.  
?C:HAS\_SYSTEM (SYSTEM):  
?C: This symbol, if defined, indicates that the system routine is  
?C: available to issue a shell command.  
?C:.  
?H:#\$d\_system HAS\_SYSTEM /\*\*/  
?H:.  
?LINT:set  
d\_system  
: see if system exists  
set system d\_system

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_system.U

No license file was found, but licenses were detected in source scan.

/\*

\* \$Id: rename.C,v 3.0.1.1 1994/01/24 13:58:42 ram Exp ram \$

\*

\* Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

\*

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\* as specified in the README file that comes with the distribution.

\* You may reuse parts of this distribution only within the terms of

\* that same Artistic Licence; a copy of which may be found at the root

\* of the source tree for dist 4.0.

\*

\* \$Log: rename.C,v \$

\* Revision 3.0.1.1 1994/01/24 13:58:42 ram

\* patch16: created

\*

\*/

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/lib/C/fake/rename.C

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_setitimer: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_setitimer:

?S: This variable conditionally defines the HAS\_SETITIMER symbol, which

?S: indicates to the C program that the setitimer() routine is available.

?S:.

?C:HAS\_SETITIMER:

?C: This symbol, if defined, indicates that the setitimer routine is

?C: available to set interval timers.

?C:.

?H:#\$d\_setitimer HAS\_SETITIMER /\*\*/

?H:.

```
?LINT:set d_setitimer
: see if setitimer exists
set setitimer d_setitimer
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_setitimer.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_shm.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:07:17 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_shm: test d_shmctl d_shmget d_shmat d_shmdt Setvar Findhdr
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_shm:
```

```
?S: This variable conditionally defines the HAS_SHM symbol, which
```

```
?S: indicates that the entire shm*(2) library is present.
```

```
?S:.
```

```
?C:HAS_SHM:
```

```
?C: This symbol, if defined, indicates that the entire shm*(2) library is
```

```
?C: supported.
```

```
?C:.
```

```
?H:#$d_shm HAS_SHM /**/
```

```
?H:.
```

```
?T:h_shm
```

```
?LINT:set d_shm
```

```
:
```

```
see how much of the 'shm*(2)' library is present.
```

```
h_shm=true
```

```
echo " "
```

```
case "d_shmctld_shmgetd_shmatd_shmdt" in
```

```
"$undef") h_shm=false;;
```

```
esac
```

```
: we could also check for sys/ipc.h ...
```

```
if $h_shm && $test `./findhdr sys/shm.h`; then
```

```
echo "You have the full shm*(2) library." >&4
```

```
val="$define"
else
echo "You don't have the full shm*(2) library." >&4
val="$undef"
fi
set d_shm
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_shm.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: i\_sysmman.U,v \$

?RCS: Revision 3.0.1.1 1994/01/24 14:11:20 ram

?RCS: patch16: created

?RCS:

?X:

?X: Look wether <sys/mman.h> needs to be included.

?X:

?MAKE:i\_sysmman: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_sysmman:

?S: This variable conditionally defines the I\_SYS\_MMAN symbol,

?S: and indicates whether a C program should include <sys/mman.h>.

?S:.

?C:I\_SYS\_MMAN:

?C: This symbol, if defined, indicates to the C program that it should

?C: include <sys/mman.h>.

?C:.

?H:#\$i\_sysmman I\_SYS\_MMAN /\*\*/

?H:.

?LINT:set

i\_sysmman

: see if sys/mman.h has to be included

set sys/mman.h i\_sysmman

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_sysmman.U

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?RCS: \$Id: d\_ftime.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_ftime.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:06 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_ftime d\_gettimeod: Inlibc Setvar

?MAKE: -pick add \$@ %<

?S:d\_ftime:

?S: This variable conditionally defines the HAS\_FTIME symbol, which indicates

?S: that the ftime() routine exists. The ftime() routine is basically

?S: a sub-second accuracy clock.

?S:.

?S:d\_gettimeod:

?S: This variable conditionally defines the HAS\_GETTIMEOFDAY symbol,  
which

?S: indicates that the gettimeofday() system call exists (to obtain a

?S: sub-second accuracy clock). You should probably include <sys/resource.h>.

?S:.

?C:HAS\_FTIME (FTIMER):

?C: This symbol, if defined, indicates that the ftime() routine exists.

?C: It is basically a sub-second accuracy clock, but is less accurate

?C: than gettimeofday(2) anyway. The type "Timeval" should be used to

?C: refer to "struct timeb".

?C:.

?C:HAS\_GETTIMEOFDAY (GETTIMEOFDAY):

?C: This symbol, if defined, indicates that the gettimeofday() system

?C: call is available for a sub-second accuracy clock. Usually, the file

?C: <sys/resource.h> needs to be included (see I\_SYS\_RESOURCE).

?C: The type "Timeval" should be used to refer to "struct timeval".

?C:.

?H:#\$d\_ftime HAS\_FTIME /\*\*/

?H:#\$d\_gettimeod HAS\_GETTIMEOFDAY /\*\*/

?H:%<:@if HAS\_FTIME

?H:%<:#ifdef HAS\_FTIME

```

?H:?%<:#define Timeval struct timeb /* Structure used by ftime() */
?H:?%<:#endif
?H:?%<:@end
?H:?%<:@if HAS_GETTIMEOFDAY
?H:?%<:#ifdef HAS_GETTIMEOFDAY
?H:?%<:#define
 Timeval struct timeval /* Structure used by gettimeofday() */
?H:?%<:#endif
?H:?%<:@end
?H:.
?X:FIXME
?X:?I:?d_ftime:i_systimeb
?X:?I:?d_gettimeod:i_sysresrc
?LINT:set d_gettimeod d_ftime
?LINT:known Timeval
: see if gettimeofday or ftime exists
?X:
?X: Give priority to gettimeofday(2) because timing is more accurate
?X:
set gettimeofday d_gettimeod
eval $inlibc
case "$d_gettimeod" in
"$undef")
 set ftime d_ftime
 eval $inlibc
 ;;
*)
 val="$undef"; set d_ftime; eval $setvar
 ;;
esac
case "$d_gettimeod$d_ftime" in
"$undef$undef")
 echo " "
 echo 'No ftime() nor gettimeofday() -- timing may be less accurate.' >&4
 ;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_ftime.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: i_limits.U 1 2006-08-24 12:32:52Z rmanfredi $

```

```

?RCS:

```

```

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

```

```

?RCS:

```

```

?RCS: You may redistribute only under the terms of the Artistic Licence,

```

```

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```



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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: i\_limits.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:08:20 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:i\_limits: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_limits:  
?S: This variable conditionally defines the I\_LIMITS symbol, and indicates  
?S: whether a C program may include <limits.h> to get symbols like WORD\_BIT  
?S: and friends.  
?S:.  
?C:I\_LIMITS:  
?C: This symbol, if defined, indicates to the C program that it should  
?C: include <limits.h> to  
get definition of symbols like WORD\_BIT or  
?C: LONG\_MAX, i.e. machine dependant limitations.  
?C:.  
?H:#\$i\_limits I\_LIMITS /\*\*/  
?H:.  
?LINT:set i\_limits  
: see if this is a limits.h system  
set limits.h i\_limits  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_limits.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_mktime.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>  
?RCS:  
?RCS: \$Log: d\_mktime.U,v \$  
?RCS: Revision 3.0.1.1 1994/08/29 16:09:44 ram  
?RCS: patch32: created by ADO

?RCS:  
?MAKE:d\_mktime: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_mktime:  
?S: This variable conditionally defines the HAS\_MKTIME symbol, which  
?S: indicates to the C program that the mktime() routine is available.  
?S:.  
?C:HAS\_MKTIME :  
?C: This symbol, if defined, indicates that the mktime routine  
is  
?C: available.  
?C:.  
?H:#\$d\_mktime HAS\_MKTIME /\*\*/  
?H:.  
?LINT:set d\_mktime  
: see if mktime exists  
set mktime d\_mktime  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_mktime.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: vendorscript.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera \$  
?RCS:  
?RCS: Copyright (c) 1999, Andy Dougherty  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: vendorscript.U,v \$  
?RCS: Revision 1.1 1999/07/08 18:32:57 doughera  
?RCS: Initial revision  
?RCS:  
?MAKE:d\_vendorscript vendorscript vendorscriptexp installvendorscript: Getfile \  
vendorbin cat Setprefixvar Oldconfig Prefixit test vendorprefix  
?MAKE: -pick add \$@ %<  
?Y:TOP  
?S:vendorscript:  
?S: This variable contains the eventual value of the VENDORSRIPT symbol.  
?S: It may have a ~ on the front.  
?S: The standard distribution will put nothing in this  
directory.  
?S: Vendors who distribute perl may wish to place additional

?S: executable scripts in this directory with  
?S: MakeMaker Makefile.PL INSTALLDIRS=vendor  
?S: or equivalent. See INSTALL for details.  
?S:.  
?S:vendorscriptexp:  
?S: This variable is the ~name expanded version of vendorscript, so that you  
?S: may use it directly in Makefiles or shell scripts.  
?S:.  
?D:installvendorscript="  
?S:installvendorscript:  
?S: This variable is really the same as vendorscriptexp but may differ on  
?S: those systems using AFS. For extra portability, only this variable  
?S: should be used in makefiles.  
?S:.  
?S:d\_vendorscript:  
?S: This variable conditionally defines PERL\_VENDORSCRIPT.  
?S:.  
?C:PERL\_VENDORSCRIPT:  
?C: If defined, this symbol contains the name of a directory  
?C: for holding vendor-supplied executable scripts.  
?C: It may have a ~ on the front.  
?C: The standard distribution will put nothing in this directory.  
?C: Vendors who distribute perl may wish to place additional  
?C: executable  
scripts in this directory with  
?C: MakeMaker Makefile.PL INSTALLDIRS=vendor  
?C: or equivalent. See INSTALL for details.  
?C:.  
?C:PERL\_VENDORSCRIPT\_EXP:  
?C: This symbol contains the ~name expanded version of VENDORSCRIPT, to be used  
?C: in programs that are not prepared to deal with ~ expansion at run-time.  
?C:.  
?H:#\$d\_vendorscript PERL\_VENDORSCRIPT "\$vendorscript" /\*\*/  
?H:#\$d\_vendorscript PERL\_VENDORSCRIPT\_EXP "\$vendorscriptexp" /\*\*/  
?H:.  
?LINT:change prefixvar  
?LINT:set installvendorscript  
: Set the vendorscript variables  
case "\$vendorprefix" in  
") d\_vendorscript="\$undef"  
vendorscript="  
vendorscriptexp="  
;;  
\*) d\_vendorscript="\$define"  
: determine where vendor-supplied scripts go.  
case "\$vendorscript" in  
") dflt=\$vendorprefix/script  
\$test -d \$dflt || dflt=\$vendorbin ;;

```
*) dflt="$vendorscript" ;;
esac
$cat <<EOM
```

The installation process will create a directory for vendor-supplied scripts.

```
EOM
fn=d~+
rp='Pathname for the vendor-supplied scripts directory?'
./getfile
vendorscript="$ans"
vendorscriptexp="$ansexp"
;;
esac
prefixvar=vendorscript
.
./installprefix
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/vendorscript.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_dbm.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: i_dbm.U,v $
?RCS: Revision 3.0.1.2 1997/02/28 15:48:20 ram
?RCS: patch61: added I_RPCSV_CDBM check
?RCS:
?RCS: Revision 3.0.1.1 1995/05/12 12:16:05 ram
?RCS: patch54: made more robust by checking both header and lib (ADO)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:15 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:i_dbm i_rpcsvcdbm: Inhdr Inlibc Setvar
?MAKE: -pick add $@ %<
?S:i_dbm (d_odbm):
?S: This variable conditionally defines
```

```

the I_DBM symbol, which
?S: indicates to the C program that <dbm.h> exists and should
?S: be included.
?S:.
?S:i_rpcsvdbm:
?S: This variable conditionally defines the I_RPC SVC_DBM symbol, which
?S: indicates to the C program that <rpcsvc/dbm.h> exists and should
?S: be included. Some System V systems might need this instead of <dbm.h>.
?S:.
?C:I_DBM (HAS_ODBM ODBM):
?C: This symbol, if defined, indicates that <dbm.h> exists and should
?C: be included.
?C:.
?C:I_RPC SVC_DBM:
?C: This symbol, if defined, indicates that <rpcsvc/dbm.h> exists and
?C: should be included.
?C:.
?H:#$i_dbm I_DBM /**/
?H:#$i_rpcsvdbm I_RPC SVC_DBM /**/
?H:.
?T:d_dbmclose
?LINT:set i_dbm i_rpcsvdbm
: see if dbm.h is available
?X: We might just have the header, not the library.
?X: We look for dbmclose() rather than dbminit() because
?X: some versions of SCO Unix have -ldb, but are missing dbmclose(). -- ADO
?X: Some System V systems have <rpcsvc/dbm.h> instead of <dbm.h>.
: see if dbmclose exists
set dbmclose
d_dbmclose
eval $inlibc

case "$d_dbmclose" in
$define)
set dbm.h i_dbm
eval $inhdr
case "$i_dbm" in
$define)
val="$undef"
set i_rpcsvdbm
eval $setvar
;;
*) set rpcsvc/dbm.h i_rpcsvdbm
eval $inhdr
;;
esac
;;
*) echo "We won't be including <dbm.h>"

```

```
val="$undef"
set i_dbm
eval $setvar
val="$undef"
set i_rpcsvcdbm
eval $setvar
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_dbm.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: cppstdn.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: cppstdn.U,v $
?RCS: Revision 3.0.1.4 1994/10/29 16:08:34 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0.1.3 1994/01/24 14:05:38 ram
?RCS: patch16: comment for CPPLAST was missing
?RCS:
?RCS: Revision 3.0.1.2 1993/12/15 08:18:58 ram
?RCS: patch15: new variables cpprun and cpplast, guaranteed wrapper-free
?RCS: patch15: cppstdn now tries to use cc, even at the cost of a wrapper
?RCS:
?RCS: Revision 3.0.1.1
1993/08/25 14:00:53 ram
?RCS: patch6: remove wrapper when not actually used
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:38 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:cppstdn cppminus cpprun cpplast: contains test \
Myread Oldconfig Loc cpp +cc rm hint osname gccversion
?MAKE: -pick add $@ %<
?S:cppstdn:
?S: This variable contains the command which will invoke the C
?S: preprocessor on standard input and put the output to stdout.
```

?S: It is primarily used by other Configure units that ask about

?S: preprocessor symbols.

?S:.

?S:cppminus:

?S: This variable contains the second part of the string which will invoke

?S: the C preprocessor on the standard input and produce to standard

?S: output. This variable will have the value "-" if cppstdin needs

?S: a minus to specify standard input, otherwise the value is "".

?S:.

?S:cprun:

?S: This variable contains the command which will invoke a C preprocessor

?S: on standard input and put the output to stdout. It is guaranteed

not

?S: to be a wrapper and may be a null string if no preprocessor can be

?S: made directly available. This preprocessor might be different from the

?S: one used by the C compiler. Don't forget to append cpplast after the

?S: preprocessor options.

?S:.

?S:cpplast:

?S: This variable has the same functionality as cppminus, only it applies

?S: to cprun and not cppstdin.

?S:.

?C:CPPSTDIN:

?C: This symbol contains the first part of the string which will invoke

?C: the C preprocessor on the standard input and produce to standard

?C: output. Typical value of "cc -E" or "/lib/cpp", but it can also

?C: call a wrapper. See CPPRUN.

?C:.

?C:CPPMINUS:

?C: This symbol contains the second part of the string which will invoke

?C: the C preprocessor on the standard input and produce to standard

?C: output. This symbol will have the value "-" if CPPSTDIN needs a minus

?C: to specify standard input, otherwise the value is "".

?C:.

?C:CPPRUN:

?C: This symbol contains the string which will invoke

a C preprocessor on

?C: the standard input and produce to standard output. It needs to end

?C: with CPPLAST, after all other preprocessor flags have been specified.

?C: The main difference with CPPSTDIN is that this program will never be a

?C: pointer to a shell wrapper, i.e. it will be empty if no preprocessor is

?C: available directly to the user. Note that it may well be different from

?C: the preprocessor used to compile the C program.

?C:.

?C:CPPLAST:

?C: This symbol is intended to be used along with CPPRUN in the same manner

?C: symbol CPPMINUS is used with CPPSTDIN. It contains either "-" or "".

?C:.

```

?H:#define CPPSTDIN "$cppstdin"
?H:#define CPPMINUS "$cppminus"
?H:#define CPPRUN "$cpprun"
?H:#define CPPLAST "$cpplast"
?H:
?F:cppstdin !testcpp.out !testcpp.c
?T:wrapper x_cpp x_minus ok
?LINT:extern cppflags
: see how we invoke the C preprocessor
echo " "
echo "Now, how can we feed standard input to your C preprocessor..." >&4
cat <<'EOT' >testcpp.c
#define ABC abc
#define
 XYZ xyz
ABC.XYZ
EOT
cd ..
if test ! -f cppstdin; then
 if test "X$osname" = "Xaix" -a "X$gccversion" = X; then
 # AIX cc -E doesn't show the absolute headerfile
 # locations but we'll cheat by using the -M flag.
 echo 'cat >.$$.c; rm -f .$$.u; ""$cc"" ${1+"$@"} -M -c .$$.c 2>/dev/null; test -s .$$.u && awk """"$2 ~ /\.h$/ { print
"#0 \\""$2"\\""" }"""" .$$.u; rm -f .$$.o .$$.u; ""$cc"" -E ${1+"$@"} .$$.c; rm .$$.c' > cppstdin
 else
 echo 'cat >.$$.c; ""$cc $cppflags"" -E ${1+"$@"} .$$.c; rm .$$.c' >cppstdin
 fi
else
 echo "Keeping your $hint cppstdin wrapper."
fi
chmod 755 cppstdin
wrapper=`pwd`/cppstdin
ok='false'
cd UU

?X:
?X: We'll run the cpp tests again if we don't have any valid C preprocessor
?X: yet or don't know how to proceed without a wrapper (in which case cpprun
?X: is empty and that's really annoying...)
?X:
if $test "X$cppstdin" != "X" && \
 $cppstdin $cppminus <testcpp.c >testcpp.out 2>&1 && \
 $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1
then
 echo "You used
 to use $cppstdin $cppminus so we'll use that again."
 case "$cpprun" in
 ") echo "But let's see if we can live without a wrapper..." ;;

```



```

*)
if $cpprun $cpplast <testcpp.c >testcpp.out 2>&1 && \
 $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1
then
 echo "(And we'll use $cpprun $cpplast to preprocess directly.)"
 ok='true'
else
 echo "(However, $cpprun $cpplast does not work, let's see...)"
fi
;;
esac
else
case "$cppstdin" in
 *)
 echo "Good old $cppstdin $cppminus does not seem to be of any help..."
 ;;
 esac
fi

if $ok; then
 : nothing
elif echo 'Maybe ""$cc" -E" will work...'; \
 $cc -E <testcpp.c >testcpp.out 2>&1; \
 $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
 echo "Yup, it does."
 x_cpp="$cc $cppflags -E"
 x_minus="";
elif echo 'Nope...maybe ""$cc" -E -" will work...'; \
 $cc -E - <testcpp.c >testcpp.out 2>&1; \
 $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
 echo "Yup, it does."
 x_cpp="$cc $cppflags -E"
 x_minus='-';
elif
 echo 'Nope...maybe ""$cc" -P" will work...'; \
 $cc -P <testcpp.c >testcpp.out 2>&1; \
 $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
 echo "Yipee, that works!"
 x_cpp="$cc $cppflags -P"
 x_minus="";
elif echo 'Nope...maybe ""$cc" -P -" will work...'; \
 $cc -P - <testcpp.c >testcpp.out 2>&1; \
 $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
 echo "At long last!"
 x_cpp="$cc $cppflags -P"
 x_minus='-';
elif echo 'No such luck, maybe "$cpp" will work...'; \

```

```

$cpp <testcpp.c >testcpp.out 2>&1; \
$contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
echo "It works!"
x_cpp="$cpp $cppflags"
x_minus="";
elif echo 'Nixed again...maybe "$cpp' -" will work...'; \
$cpp - <testcpp.c >testcpp.out 2>&1; \
$contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
echo "Hooray, it works! I was beginning to wonder."
x_cpp="$cpp $cppflags"
x_minus='-';
elif echo 'Uh-uh. Time to get fancy. Trying a wrapper...'; \
$wrapper <testcpp.c >testcpp.out 2>&1; \
$contains
'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
x_cpp="$wrapper"
x_minus="
echo "Eureka!"
else
dflt="
rp="No dice. I can't find a C preprocessor. Name one:"
./myread
x_cpp="$ans"
x_minus="
$x_cpp <testcpp.c >testcpp.out 2>&1
if $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
echo "OK, that will do." >&4
else
echo "Sorry, I can't get that to work. Go find one and rerun Configure." >&4
exit 1
fi
fi

case "$ok" in
false)
cppstdin="$x_cpp"
cppminus="$x_minus"
cpprun="$x_cpp"
cpplast="$x_minus"
?X:
?X: If /lib/cpp is used, try using a wrapper to increase our chances to have
?X: the C compiler and our $cppstdin agree on the same symbols... However,
?X: since cpprun is guaranteed not to be a wrapper, we must clear it if the
?X: only preprocessor we found was a wrapper, with all our luck...
?X:
set X $x_cpp
shift
case "$1" in

```

```

"$cpp")
echo "Perhaps can we force $cc -E using a wrapper..."
if $wrapper <testcpp.c >testcpp.out 2>&1; \
 $contains 'abc.*xyz'
testcpp.out >/dev/null 2>&1
then
 echo "Yup, we can."
 cppstdin="$wrapper"
 cppminus="";
else
 echo "Nope, we'll have to live without it..."
fi
;;
esac
case "$cpprun" in
"$wrapper")
 cpprun="
 cpplast="
 ;;
esac
;;
esac

```

```

case "$cppstdin" in
"$wrapper"|"cppstdin") ;;
*) $rm -f $wrapper;;
esac
$rm -f testcpp.c testcpp.out

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/cppstdin.U

```

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_eofpipe.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:12:40 ram

?RCS: patch36: call ./bsd explicitly instead of relying on PATH

?RCS:

```

?RCS: Revision 3.0 1993/08/18 12:05:57 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_eofpipe: cat +cc +ccflags +libs rm Oldconfig Guess echo n c
?MAKE: -pick add $@ %<
?S:d_eofpipe:
?S: This variable conditionally defines the EOFPIPE symbol, which
?S: indicates to the C program that select will correctly detect the EOF
?S: condition when pipe
is closed from the other end.
?S:.
?C:EOFPIPE:
?C: This symbol, if defined, indicates that EOF condition will be detected
?C: by the reader of the pipe when it is closed by the writing process.
?C: That is, a select() call on that file descriptor will not block when
?C: only an EOF remains (typical behaviour for BSD systems).
?C:.
?H:#$d_eofpipe EOFPIPE /**/
?H:.
?F:!mpipe
: see if pipe correctly gives the EOF condition
echo " "
case "$d_eofpipe" in
")
echo "Let's see if your pipes return EOF to select() upon closing..." >&4
$cat >pipe.c <<'EOP'
int main()
{
int pd[2];
int mask;

pipe(pd);
if (0 == fork()) {
close(pd[0]);
close(pd[1]);
exit(0);
}

close(pd[1]);
mask = 1 << pd[0];
alarm(2);
select(32, &mask, (int *) 0, (int *) 0, (char *) 0);
if (0 == read(pd[0], &mask, 1))
exit(0);

exit(1);
}
EOP

```

```

if $cc $cflags -o pipe pipe.c $libs >/dev/null 2>&1; then
?X: Use a script to avoid the possible 'alarm call' message
echo "./pipe || exit 1" > mpipe
chmod +x
mpipe
./mpipe >/dev/null 2>&1
case $? in
0) d_eofpipe="$define";;
*) d_eofpipe="$undef";;
esac
else
echo "(The test program did not compile correctly -- Guessing.)"
if ./bsd; then
d_eofpipe="$define"
else
d_eofpipe="$undef"
fi
fi
case "$d_eofpipe" in
"$define") echo "Yes, they do.";;
*) echo "No, they don't! (sigh)";;
esac
;;
*)
$echo $n "Your pipes $c"
case "$d_eofpipe" in
"$define") echo "allow select() to see EOF upon closing.";;
*) echo "won't let select() see EOF on closing.";;
esac
;;
esac
$rm -f *pipe* core

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_eofpipe.U

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?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

```

?RCS: $Log: d_sem.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:03 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_sem: test d_semctl d_semget d_semop Setvar Findhdr osname
?MAKE: -pick add $@ %<
?S:d_sem:
?S: This variable conditionally defines the HAS_SEM symbol, which
?S: indicates that the entire sem*(2) library is present.
?S:.
?C:HAS_SEM:
?C: This symbol, if defined, indicates that the entire sem*(2) library is
?C: supported.
?C:.
?H:#$d_sem HAS_SEM /**/
?H:.
?T:h_sem
?LINT:set d_sem
:
 see how much of the 'sem*(2)' library is present.
h_sem=true
echo " "
case "d_semctld_semget$d_semop" in
"$undef") h_sem=false;;
esac
case "$osname" in
freebsd)
 case "`ipcs 2>&1`" in
 "SVID messages"*"not configured"*)
 echo "Your $osname does not have the sem*(2) configured." >&4
 h_sem=false
 val="$undef"
 set semctl d_semctl
 eval $setvar
 set semget d_semget
 eval $setvar
 set semop d_semop
 eval $setvar
 ;;
 esac
 ;;
 esac
: we could also check for sys/ipc.h ...
if $h_sem && $test `./findhdr sys/sem.h`; then
 echo "You have the full sem*(2) library." >&4
 val="$define"
else
 echo "You don't have the full sem*(2) library." >&4

```

```
val="$undef"
fi
set d_sem
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_sem.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_isascii.U,v \$

?RCS: Revision 3.0.1.2 1994/10/29 16:13:39 ram

?RCS: patch36: added 'ldflags' to the test compile line (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/08/29 16:09:32 ram

?RCS: patch32: created by ADO

?RCS:

?MAKE:d\_isascii: cc cat ccflags ldflags rm libs Setvar

?MAKE: -pick add \$@ %<

?S:d\_isascii:

?S: This variable conditionally defines the HAS\_ISASCII constant,

?S: which indicates to the C program that isascii()

is available.

?S:.

?C:HAS\_ISASCII:

?C: This manifest constant lets the C program know that isascii

?C: is available.

?C:.

?H:#\$d\_isascii HAS\_ISASCII /\*\*/

?H:.

?LINT:set d\_isascii

?X: Can't use Inlibc because isascii() might be a macro.

: Look for isascii

echo " "

\$cat >isascii.c <<'EOCP'

#include <stdio.h>

```

#include <ctype.h>
int main() {
int c = 'A';
if (isascii(c))
 exit(0);
else
 exit(1);
}
EOCP
if $cc $ccflags $ldflags -o isascii isascii.c $libs >/dev/null 2>&1 ; then
 echo "isascii() found." >&4
 val="$define"
else
 echo "isascii() NOT found." >&4
 val="$undef"
fi
set d_isascii
eval $setvar
$rm -f isascii*

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/d_isascii.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: i_poll.U,v $
?RCS:
?RCS: Copyright (c) 2001 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:i_langinfo: Inhdr Hasfield
?MAKE: -pick add $@ %<
?S:i_langinfo:
?S: This variable conditionally defines the I_LANGINFO symbol,
?S: and indicates whether a C program should include <langinfo.h>.
?S:.
?C:I_LANGINFO:
?C: This symbol, if defined, indicates that <langinfo.h> exists and
?C: should be included.
?C:.
?H:#$i_langinfo I_LANGINFO /**/
?H:.
?LINT:set i_langinfo
: see if this is a langinfo.h system
set langinfo.h i_langinfo
eval $inhdr

```



Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_langinfo.U

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?RCS:

?RCS: Original Author: Tye McQueen <tye@metronet.com>

?RCS:

?RCS: \$Log: d\_stdstdio.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 15:46:32 ram

?RCS: patch61: merged with perl5's unit

?RCS:

?RCS: Revision 3.0.1.2 1995/07/25 14:06:54 ram

?RCS: patch56: typo fix on ?C: line for FILE\_bufsiz

?RCS: patch56: fixed unbalanced parenthesis (ADO)

?RCS: patch56: check whether FILE\_cnt and FILE\_ptr can be assigned to (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1995/05/12 12:12:11 ram

?RCS: patch54: complete rewrite by Tye McQueen  
to fit modern systems

?RCS:

?RCS: Revision 3.0 1993/08/18 12:07:31 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_stdstdio d\_stdiobase stdio\_ptr stdio\_cnt stdio\_base \  
stdio\_bufsiz d\_stdio\_cnt\_lval d\_stdio\_ptr\_lval stdio\_filbuf: cat \  
+cc +ccflags contains +ldflags +libs rm\_try \  
Setvar Findhdr Oldconfig

?MAKE: -pick add \$@ %<

?MAKE: -pick add \$@ %<

?MAKE: -pick add \$@ %<

?S:d\_stdstdio:

?S: This variable conditionally defines USE\_STDIO\_PTR if this system

?S: has a FILE structure declaring usable \_ptr and \_cnt fields (or

?S: equivalent) in stdio.h.

?S:.

?S:stdio\_ptr:

?S: This variable defines how, given a FILE pointer, fp, to access the

?S: \_ptr field (or equivalent) of stdio.h's FILE structure. This will

?S: be used to define the macro FILE\_ptr(fp).

?S:.

?S:d\_stdio\_ptr\_lval:

?S: This variable conditionally defines `STDIO_PTR_LVALUE` if the

?S: `FILE_ptr` macro can be used as an lvalue.

?S:.

?S:stdio\_cnt:

?S: This variable defines how, given a `FILE` pointer, `fp`, to access the

?S: `_cnt` field (or equivalent) of

stdio.h's `FILE` structure. This will

?S: be used to define the macro `FILE_cnt(fp)`.

?S:.

?S:d\_stdio\_cnt\_lval:

?S: This variable conditionally defines `STDIO_CNT_LVALUE` if the

?S: `FILE_cnt` macro can be used as an lvalue.

?S:.

?S:stdio\_filbuf:

?S: This variable defines how, given a `FILE` pointer, `fp`, to tell

?S: stdio to refill its internal buffers (?). This will

?S: be used to define the macro `FILE_filbuf(fp)`.

?S:.

?S:d\_stdiobase:

?S: This variable conditionally defines `USE_STDIO_BASE` if this system

?S: has a `FILE` structure declaring a usable `_base` field (or equivalent)

?S: in `stdio.h`.

?S:.

?S:stdio\_base:

?S: This variable defines how, given a `FILE` pointer, `fp`, to access the

?S: `_base` field (or equivalent) of `stdio.h`'s `FILE` structure. This will

?S: be used to define the macro `FILE_base(fp)`.

?S:.

?S:stdio\_bufsiz:

?S: This variable defines how, given a `FILE` pointer, `fp`, to determine

?S: the number of bytes store in the I/O buffer pointer to by the

?S: `_base` field (or equivalent) of `stdio.h`'s

`FILE` structure. This will

?S: be used to define the macro `FILE_bufsiz(fp)`.

?S:.

?C:USE\_STDIO\_PTR ~ d\_stdstdio (USE\_STD\_STDIO STDSTDIO):

?C: This symbol is defined if the `_ptr` and `_cnt` fields (or similar)

?C: of the `stdio FILE` structure can be used to access the `stdio` buffer

?C: for a file handle. If this is defined, then the `FILE_ptr(fp)`

?C: and `FILE_cnt(fp)` macros will also be defined and should be used

?C: to access these fields.

?C:.

?C:FILE\_ptr:

?C: This macro is used to access the `_ptr` field (or equivalent) of the

?C: `FILE` structure pointed to by its argument. This macro will always be

?C: defined if `USE_STDIO_PTR` is defined.

?C:.

?C:STDIO\_PTR\_LVALUE:

?C: This symbol is defined if the FILE\_ptr macro can be used as an  
?C: lvalue.

?C:.

?C:FILE\_cnt:

?C: This macro is used to access the \_cnt field (or equivalent) of the  
?C: FILE structure pointed to by its argument. This macro will always be  
?C: defined if USE\_STDIO\_PTR is defined.

?C:.

?C:STDIO\_CNT\_LVALUE:

?C: This symbol is defined  
if the FILE\_cnt macro can be used as an  
?C: lvalue.

?C:.

?C:FILE\_filbuf:

?C: This macro is used to access the internal stdio \_filbuf function  
?C: (or equivalent), if STDIO\_CNT\_LVALUE and STDIO\_PTR\_LVALUE  
?C: are defined. It is typically either \_filbuf or \_\_filbuf.  
?C: This macro will only be defined if both STDIO\_CNT\_LVALUE and  
?C: STDIO\_PTR\_LVALUE are defined.

?C:.

```
?H:?d_stdstdio:#$d_stdstdio USE_STDIO_PTR /**/
?H:?d_stdstdio:#ifdef USE_STDIO_PTR
?H:#define FILE_ptr(fp) $stdio_ptr
?H:#$d_stdstdio_ptr_lval STDIO_PTR_LVALUE /**/
?H:#define FILE_cnt(fp) $stdio_cnt
?H:#$d_stdstdio_cnt_lval STDIO_CNT_LVALUE /**/
?H:?d_stdstdio:#if defined(STDIO_PTR_LVALUE) && defined(STDIO_CNT_LVALUE)
?H:#define FILE_filbuf(fp) $stdio_filbuf /**/
?H:?d_stdstdio:#endif
?H:?d_stdstdio:#endif
```

?H:.

?W:d\_stdstdio:FILE\_ptr FILE\_cnt FILE\_filbuf

?C:USE\_STDIO\_BASE ~ d\_stdiobase:

?C: This symbol is defined if the \_base field (or similar) of the  
?C: stdio FILE structure can be used to access the stdio buffer  
for  
?C: a file handle. If this is defined, then the FILE\_base(fp) macro  
?C: will also be defined and should be used to access this field.  
?C: Also, the FILE\_bufsiz(fp) macro will be defined and should be used  
?C: to determine the number of bytes in the buffer. USE\_STDIO\_BASE  
?C: will never be defined unless USE\_STDIO\_PTR is.

?C:.

?C:FILE\_base:

?C: This macro is used to access the \_base field (or equivalent) of the  
?C: FILE structure pointed to by its argument. This macro will always be  
?C: defined if USE\_STDIO\_BASE is defined.

```

?C:.
?C:FILE_bufsiz:
?C: This macro is used to determine the number of bytes in the I/O
?C: buffer pointed to by _base field (or equivalent) of the FILE
?C: structure pointed to its argument. This macro will always be defined
?C: if USE_STDIO_BASE is defined.
?C:.
?H:?d_stdibase:#$d_stdibase USE_STDIO_BASE /**/
?H:?d_stdibase:#ifdef USE_STDIO_BASE
?H:#define FILE_base(fp) $stdio_base
?H:#define FILE_bufsiz(fp) $stdio_bufsiz
?H:?d_stdibase:#endif
?H:.
?W:d_stdibase:FILE_base
FILE_bufsiz
?LINT:set d_stdstdio d_stdibase
?T:ptr_lval cnt_lval filbuf xxx
?F:!try
: see if _ptr and _cnt from stdio act std
echo " "
if $contains '_IO_fpos_t' `./findhdr stdio.h` >/dev/null 2>&1 ; then
echo "(Looks like you have stdio.h from Linux.)"
case "$stdio_ptr" in
") stdio_ptr='((fp)->_IO_read_ptr)'
ptr_lval=$define
;;
*) ptr_lval=$d_stdio_ptr_lval;;
esac
case "$stdio_cnt" in
") stdio_cnt='((fp)->_IO_read_end - (fp)->_IO_read_ptr)'
cnt_lval=$undef
;;
*) cnt_lval=$d_stdio_cnt_lval;;
esac
case "$stdio_base" in
") stdio_base='((fp)->_IO_read_base)';;
esac
case "$stdio_bufsiz" in
") stdio_bufsiz='((fp)->_IO_read_end - (fp)->_IO_read_base)';;
esac
else
case "$stdio_ptr" in
") stdio_ptr='((fp)->_ptr)'
ptr_lval=$define
;;
*) ptr_lval=$d_stdio_ptr_lval;;
esac
case "$stdio_cnt" in

```

```

") stdio_cnt='((fp)->_cnt)'
cnt_lval=$define
;;
*) cnt_lval=$d_stdio_cnt_lval;;
esac
case "$stdio_base" in
") stdio_base='((fp)->_base)';;
esac
case
"$stdio_bufsiz" in
") stdio_bufsiz='((fp)->_cnt + (fp)->_ptr - (fp)->_base)';;
esac
fi
: test whether _ptr and _cnt really work
echo "Checking how std your stdio is..." >&4
$cat >try.c <<EOP
#include <stdio.h>
#define FILE_ptr(fp) $stdio_ptr
#define FILE_cnt(fp) $stdio_cnt
int main() {
FILE *fp = fopen("try.c", "r");
char c =getc(fp);
if (
18 <= FILE_cnt(fp) &&
strncmp(FILE_ptr(fp), "include <stdio.h>\n", 18) == 0
)
exit(0);
exit(1);
}
EOP
val="$undef"
if $cc $ccflags $ldflags -o try try.c $libs >/dev/null 2>&1; then
if ./try; then
echo "Your stdio acts pretty std."
val="$define"
else
echo "Your stdio isn't very std."
fi
else
echo "Your stdio doesn't appear very std."
fi
$rm_try
set d_stdstdio
eval $setvar

@if STDIO_PTR_LVALUE || d_stdio_ptr_lval
: Can _ptr be used as an lvalue?
?X: Only makes sense if we have a known stdio implementation.

```

```

case "$d_stdstdio$ptr_lval" in
$define$define) val=$define ;;
*) val=$undef ;;
esac
set d_stdio_ptr_lval
eval
$setvar

@end
@if STDIO_CNT_LVALUE || d_stdio_cnt_lval
: Can _cnt be used as an lvalue?
?X: Only makes sense if we have a known stdio implementation.
case "$d_stdstdio$cnt_lval" in
$define$define) val=$define ;;
*) val=$undef ;;
esac
set d_stdio_cnt_lval
eval $setvar

@end
@if FILE_filbuf
: How to access the stdio _filbuf or __filbuf function.
: If this fails, check how the getc macro in stdio.h works.
case "${d_stdio_ptr_lval}${d_stdio_cnt_lval}" in
${define}${define})
: Try hint value, if any, then _filbuf, __filbuf, _fill, then punt.
: _fill is for OS/2.
xxx='notok'
for filbuf in $stdio_filbuf '_filbuf(fp)' '__filbuf(fp)' '_fill(fp)'; do
$cat >try.c <<EOP
#include <stdio.h>
#define FILE_ptr(fp) $stdio_ptr
#define FILE_cnt(fp) $stdio_cnt
#define FILE_filbuf(fp) $filbuf
int main() {
FILE *fp = fopen("try.c", "r");
int c;
c = getc(fp);
c = FILE_filbuf(fp); /* Just looking for linker errors.*/
exit(0);
}
EOP
if $cc $ccflags $ldflags -o try try.c $libs >/dev/null 2>&1 &&
./try; then
echo "Your stdio appears to use $filbuf"
stdio_filbuf="$filbuf"
xxx='ok'
break

```

```

else
 echo "Hmm. $filbuf doesn't seem to work."
fi
$rm_try
done
case "$xxx" in
notok) echo "I can't figure out how to access _filbuf"
 echo "I'll just have to work around it."
 d_stdio_ptr_lval="$undef"
 d_stdio_cnt_lval="$undef"
 ;;
esac
;;
esac
@end
@if d_stdibase || USE_STDIO_BASE || FILE_base || FILE_bufsiz
: see if _base is also standard
val="$undef"
case "$d_stdstdio" in
$define)
 $cat >try.c <<EOP
#include <stdio.h>
#define FILE_base(fp) $stdio_base
#define FILE_bufsiz(fp) $stdio_bufsiz
int main() {
 FILE *fp = fopen("try.c", "r");
 char c = getc(fp);
 if (
 19 <= FILE_bufsiz(fp) &&
 strncmp(FILE_base(fp), "#include <stdio.h>\n", 19) == 0
)
 exit(0);
 exit(1);
}
EOP
if $cc $ccflags $ldflags -o try try.c $libs > /dev/null 2>&1; then
 if ./try; then
 echo "And its _base field acts std."
 val="$define"
 else
 echo "But its _base field isn't std."
 fi
else
 echo
 "However, it seems to be lacking the _base field."
fi
$rm_try
;;

```

```
esac
set d_stdibase
eval $setvar
```

@end

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_stdstdio.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_raster.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_raster.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:50 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_raster rasterlib: cat test Setvar Myread Oldconfig

?MAKE: -pick add \$@ %<

?S:d\_raster:

?S: Conditionally defines RASTER\_TEK if this is a raster tech machine.

?S:.

?S:rasterlib (d\_rasterlib):

?S: Set to the needed compile flag if this is a raster tech machine.

?S: It is up to the Makefile to use this variable.

?S:.

?C:RASTER\_TEK:

?C: Defined

if this is a rastertech machine.

?C:.

?H:#\$d\_raster RASTER\_TEK /\*\*/

?H:.

?LINT:set d\_raster

: See if this is a raster tech machine.

val="\$undef"

rasterlib="

if \$test -r /dev/mirage; then

\$cat <<'EOM'

You seem to have a mirage device... this is normally associated with a raster



technologies graphics workstation. If this is right, you may want to use raster tech in this program.

```
EOM
dflt=y
case "$d_raster" in
"$undef") dflt=n;;
esac
rp='Use raster tech?'
. ./myread
case "$ans" in
y*) val="$define";;
esac
fi
set d_raster
eval $setvar

case "$d_raster" in
"$define") rasterlib='-lphigs';;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_raster.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: uidtype.U,v 3.0.1.3 1994/08/29 16:33:25 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: uidtype.U,v $
?RCS: Revision 3.0.1.3 1994/08/29 16:33:25 ram
?RCS: patch32: now uses new Typedef unit to compute type information
?RCS:
?RCS: Revision 3.0.1.2 1994/06/20 07:09:36 ram
?RCS: patch30: comment for uidtype referred to the obsoleted symbol
?RCS:
?RCS: Revision 3.0.1.1 1994/05/13 15:28:27 ram
?RCS: patch27: made conformant to its gidtype.U companion
?RCS: patch27: question now explicitly mentions getuid()
?RCS:
?RCS: Revision 3.0 1993/08/18
```

12:09:56 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:uidtype: Myread Typedef Findhdr

?MAKE: -pick add \$@ %<

?S:uidtype:

?S: This variable defines Uid\_t to be something like uid\_t, int,

?S: ushort, or whatever type is used to declare user ids in the kernel.

?S:.

?C:Uid\_t (UIDTYPE):

?C: This symbol holds the type used to declare user ids in the kernel.

?C: It can be int, ushort, uid\_t, etc... It may be necessary to include

?C: <sys/types.h> to get any typedef'ed information.

?C:.

?H:#define Uid\_t \$uidtype /\* UID type \*/

?H:.

?T:xxx

: see what type uids are declared as in the kernel

echo " "

echo "Looking for the type for user ids returned by getuid()."

set uid\_t uidtype xxx stdio.h sys/types.h

eval \$typedef

case "\$uidtype" in

xxx)

xxx=`./findhdr sys/user.h`

set `grep '\_ruid;' "\$xxx" 2>/dev/null` unsigned short

case \$1 in

unsigned) dflt="\$1 \$2" ;;

\*) dflt="\$1" ;;

esac

;;

\*) dflt="\$uidtype";;

esac

case "\$uidtype" in

uid\_t) echo "uid\_t found." ;;

\*) rp="What

is the type for user ids returned by getuid()?"

. ./myread

uidtype="\$ans"

;;

esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/uidtype.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_termio.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
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?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: i\_termio.U,v \$  
?RCS: Revision 3.0.1.4 1994/10/29 16:20:54 ram  
?RCS: patch36: call ./usg and ./Cpplib explicitly instead of relying on PATH  
?RCS:  
?RCS: Revision 3.0.1.3 1994/08/29 16:26:38 ram  
?RCS: patch32: don't include all three I\_\* symbols in config.h  
?RCS: patch32: (had forgotten to undo this part last time)  
?RCS:  
?RCS: Revision 3.0.1.2 1994/05/13 15:25:03 ram  
?RCS: patch27: undone ADO's fix in previous patch since it was useless  
?RCS:  
?RCS:  
Revision 3.0.1.1 1994/05/06 15:05:23 ram  
?RCS: patch23: now include all three defines in config.h (ADO)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:08:44 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:i\_termio i\_sgty i\_termios: test Inlibc Cpplib Guess Setvar Findhdr Warn run  
?MAKE: -pick add \$@ %<  
?S:i\_termio:  
?S: This variable conditionally defines the I\_TERMIO symbol, which  
?S: indicates to the C program that it should include <termio.h> rather  
?S: than <sgty.h>.  
?S:.  
?S:i\_termios:  
?S: This variable conditionally defines the I\_TERMIOS symbol, which  
?S: indicates to the C program that the POSIX <termios.h> file is  
?S: to be included.  
?S:.  
?S:i\_sgty:  
?S: This variable conditionally defines the I\_SGTTY symbol, which  
?S: indicates to the C program that it should include <sgty.h> rather  
?S: than <termio.h>.  
?S:.  
?C:I\_TERMIO:  
?C: This symbol, if defined, indicates that the program should include  
?C: <termio.h> rather than <sgty.h>. There are also differences in  
?C: the

ioctl() calls that depend on the value of this symbol.

?C:.

?C:I\_TERMIO:

?C: This symbol, if defined, indicates that the program should include

?C: the POSIX termios.h rather than sgtty.h or termio.h.

?C: There are also differences in the ioctl() calls that depend on the

?C: value of this symbol.

?C:.

?C:I\_SGTTY:

?C: This symbol, if defined, indicates that the program should include

?C: <sgtty.h> rather than <termio.h>. There are also differences in

?C: the ioctl() calls that depend on the value of this symbol.

?C:.

?H:#\$i\_termio I\_TERMIO /\*\*/

?H:#\$i\_termios I\_TERMIO /\*\*/

?H:#\$i\_sgtty I\_SGTTY /\*\*/

?H:.

?T:val2 val3

?LINT:set i\_termio i\_sgtty i\_termios

: see if this is a termio system

val="\$undef"

val2="\$undef"

val3="\$undef"

?X: Prefer POSIX-approved termios.h over all else

if \$test `./findhdr termios.h`; then

set tcsetattr i\_termios

eval \$inlibc

val3="\$i\_termios"

fi

echo " "

case "\$val3" in

"\$define") echo "You have POSIX termios.h... good!" >&4;

\*)

if ./Cppsymb pyr; then

case "\$run /bin/universe" in

ucb) if \$test `./findhdr sgtty.h`; then

val2="\$define"

echo "<sgtty.h> found." >&4

else

echo "System is pyramid with BSD universe."

./warn "<sgtty.h> not found--you could have problems."

fi;;

\*) if \$test `./findhdr termio.h`; then

val="\$define"

echo "<termio.h> found." >&4

else

echo "System is pyramid with USG universe."

./warn "<termio.h> not found--you could have problems."

```

 fi;;
esac
?X: Start with USG to avoid problems if both usg/bsd was guessed
elif ./usg; then
 if $test `./findhdr termio.h`; then
 echo "<termio.h> found." >&4
 val="$define"
 elif $test `./findhdr sgtty.h`; then
 echo "<sgtty.h> found." >&4
 val2="$define"
 else
 ./warn "Neither <termio.h> nor <sgtty.h> found--cross fingers!"
 fi
 else
 if $test `./findhdr sgtty.h`; then
 echo "<sgtty.h> found." >&4
 val2="$define"
 elif $test `./findhdr termio.h`; then
 echo "<termio.h>
found." >&4
 val="$define"
 else
 ./warn "Neither <sgtty.h> nor <termio.h> found--cross fingers!"
 fi
 fi;;
esac
set i_termio; eval $setvar
val=$val2; set i_sgtty; eval $setvar
val=$val3; set i_termios; eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i_termio.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2017 Dagfinn Ilmari Mannsåker

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_strnlen: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_strnlen:

?S: This variable conditionally defines the HAS\_STRNLEN symbol, which

?S: indicates to the C program that the strnlen () routine is available.

?S:.

?C:HAS\_STRNLEN:

?C: This symbol, if defined, indicates that the strlen () routine is

?C: available to check the length of a string up to a maximum.

?C:.

?H:#\$d\_strlen HAS\_STRNLEN /\*\*/

?H:.

?LINT:set d\_strlen

: see if strlen exists

set strlen d\_strlen

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_strlen.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_setlnbuf.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_setlnbuf.U,v \$

?RCS: Revision 3.0.1.1 1994/08/29 16:11:57 ram

?RCS: patch32: created by ADO

?RCS:

?MAKE:d\_setlinebuf: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_setlinebuf:

?S: This variable conditionally defines the HAS\_SETLINEBUF symbol, which

?S: indicates to the C program that the setlinebuf() routine is available

?S: to change stderr or stdout from block-buffered or unbuffered

to a

?S: line-buffered mode.

?S:.

?C:HAS\_SETLINEBUF :

?C: This symbol, if defined, indicates that the setlinebuf routine is

?C: available to change stderr or stdout from block-buffered or unbuffered

?C: to a line-buffered mode.

?C:.

?H:#\$d\_setlinebuf HAS\_SETLINEBUF /\*\*/

?H:.

```
?LINT:set d_setlinebuf
: see if setlinebuf exists
set setlinebuf d_setlinebuf
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_setlnbuf.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_sjis2jis.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_sjis2jis.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:07:25 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_sjis2jis: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_sjis2jis:
```

```
?S: This variable conditionally defines the HAS_SJIS2JIS symbol, which
```

```
?S: indicates to the C program that the sjis2jis() routine is available
```

```
?S: to convert SJIS to JIS.
```

```
?S:.
```

```
?C:HAS_SJIS2JIS:
```

```
?C: This symbol, if defined, indicates that the sjis2jis routine is
```

```
?C: available
```

```
to convert SJIS to JIS.
```

```
?C:.
```

```
?H:#$d_sjis2jis HAS_SJIS2JIS /**/
```

```
?H:.
```

```
?LINT:set d_sjis2jis
```

```
: see if sjis2jis exists
```

```
set sjis2jis d_sjis2jis
```

```
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_sjis2jis.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_mkstemp.U,v 3.0.1.1 1994/08/29 16:11:57 ram Exp $
?RCS:
?RCS: Copyright (c) 1998 Andy Dougherty
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_mkstemp.U,v $
?RCS:
?MAKE:d_mkstemp: Inlibc
?MAKE: -pick add $@ %<
?S:d_mkstemp:
?S: This variable conditionally defines the HAS_MKSTEMP symbol, which
?S: indicates to the C program that the mkstemp() routine is available
?S: to exclusively create and open a uniquely named temporary file.
?S:.
?C:HAS_MKSTEMP :
?C: This symbol, if defined, indicates that the mkstemp routine is
?C: available to exclusively create and open a uniquely named
?C: temporary file.
?C:.
?H:#$d_mkstemp HAS_MKSTEMP /**/
?H:.
?LINT:set d_mkstemp
: see if mkstemp exists
set mkstemp d_mkstemp
eval
$inlibc

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/modified/d_mkstemp.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: archlib.U,v 3.1 1999/07/08 18:32:29 doughera Exp doughera $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: This file is included with or a derivative work of a file included
?RCS: with the metaconfig program of Raphael Manfredi's "dist" distribution.
?RCS: In accordance with clause 7 of dist's modified Artistic License:
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

```



```

?RCS:
?RCS: $Log: archlib.U,v $
?RCS: Revision 3.1 1999/07/08 18:32:29 doughera
?RCS: Updated for perl5.005_5x
?RCS:
?RCS:
?RCS: Revision 3.0.1.4 1995/09/25 09:15:18 ram
?RCS: patch59: unit is now forced to the top of Configure, if possible
?RCS:
?RCS: Revision 3.0.1.3 1995/02/15 14:14:14 ram
?RCS: patch51: architecture name is now
 computed by a separate unit
?RCS:
?RCS: Revision 3.0.1.2 1995/01/30 14:32:22 ram
?RCS: patch49: archname is now systematically recomputed
?RCS: patch49: can now handle installation prefix changes (from WED)
?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 16:02:36 ram
?RCS: patch36: created by ADO
?RCS:
?MAKE:d_archlib archlib archlibexp installarchlib: \
 cat Getfile Setprefixvar Loc Oldconfig archname spackage \
 privlib sed test Prefixit Prefixup binexp
?MAKE: -pick add $@ %<
?Y:TOP
?S:d_archlib:
?S: This variable conditionally defines ARCHLIB to hold the pathname
?S: of architecture-dependent library files for $package. If
?S: $archlib is the same as $privlib, then this is set to undef.
?S:.
?D:archlib="
?S:archlib:
?S: This variable holds the name of the directory in which the user wants
?S: to put architecture-dependent public library files for $package.
?S: It is most often a local directory such as /usr/local/lib.
?S: Programs using this variable must be prepared to deal
?S: with
 filename expansion.
?S:.
?D:archlibexp="
?S:archlibexp:
?S: This variable is the same as the archlib variable, but is
?S: filename expanded at configuration time, for convenient use.
?S:.
?D:installarchlib="
?S:installarchlib:
?S: This variable is really the same as archlibexp but may differ on
?S: those systems using AFS. For extra portability, only this variable

```

?S: should be used in makefiles.

?S:.

?C:ARCHLIB:

?C: This variable, if defined, holds the name of the directory in

?C: which the user wants to put architecture-dependent public

?C: library files for \$package. It is most often a local directory

?C: such as /usr/local/lib. Programs using this variable must be

?C: prepared to deal with filename expansion. If ARCHLIB is the

?C: same as PRIVLIB, it is not defined, since presumably the

?C: program already searches PRIVLIB.

?C:.

?C:ARCHLIB\_EXP:

?C: This symbol contains the ~name expanded version of ARCHLIB, to be used

?C: in programs that are not prepared to deal with ~ expansion

at run-time.

?C:.

?H:#\$d\_archlib ARCHLIB "\$archlib" /\*\*/

?H:#\$d\_archlib ARCHLIB\_EXP "\$archlibexp" /\*\*/

?H:.

?T: tdfit

?LINT:change prefixvar

?LINT:set archlib

?LINT:set archlibexp

?LINT:set installarchlib

: determine where public architecture dependent libraries go

set archlib archlib

eval \$prefixit

: privlib default is /usr/local/lib/\$package/\$version

: archlib default is /usr/local/lib/\$package/\$version/\$archname

: privlib may have an optional trailing /share.

tdflt=`echo \$privlib | \$sed 's,/share\$,,'`

tdflt=\${tdflt}/\${archname}

case "\$archlib" in

\*) dflt=\${tdflt}

;;

\*) dflt="\$archlib"

;;

esac

\$cat <<EOM

\$package contains architecture-dependent library files. If you are sharing libraries in a heterogeneous environment, you might store these files in a separate location. Otherwise, you can just include them with the rest of the public library files.

EOM

?X: Force dependency on bin.U

fn=\$binexp

```
fn=d+~
rp='Where do you want to put the public architecture-dependent libraries?'
.
./getfile
prefixvar=archlib
./setprefixvar
if $test X"$sarchlib" = X"$privlib"; then
 d_archlib="$undef"
else
 d_archlib="$define"
fi
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/archlib.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_ctime\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_ctime\_r ctime\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
 usethreads i\_time i\_systime extern\_C

?MAKE: -pick add \$@ %<

?S:d\_ctime\_r:

?S: This variable conditionally defines the HAS\_CTIME\_R symbol,

?S: which indicates to the C program that the ctime\_r()

?S: routine is available.

?S:.

?S:ctime\_r\_proto:

?S: This variable encodes the prototype of ctime\_r.

?S: It is zero if d\_ctime\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_ctime\_r

?S: is defined.

?S:.

?C:HAS\_CTIME\_R:

?C: This symbol, if defined, indicates that the ctime\_r routine

?C: is available to ctime re-entrantly.

?C:.

?C:CTIME\_R\_PROTO:

?C: This

symbol encodes the prototype of ctime\_r.

?C: It is zero if d\_ctime\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_ctime\_r

```

?C: is defined.
?C:.
?H:#$d_ctime_r HAS_CTIME_R /**/
?H:#define CTIME_R_PROTO $ctime_r_proto /**/
?H:.
?T:try hdrs d_ctime_r_proto
: see if ctime_r exists
set ctime_r d_ctime_r
eval $inlibc
case "$d_ctime_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_time time.h $i_systime sys/time.h"
case "$d_ctime_r_proto:$usetthreads" in
":define") d_ctime_r_proto=define
set d_ctime_r_proto ctime_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_ctime_r_proto" in
define)
case "$ctime_r_proto" in
"|0) try='char* ctime_r(const time_t*, char*);'
./protochk "$extern_C $try" $hdrs && ctime_r_proto=B_SB ;;
esac
case "$ctime_r_proto" in
"|0) try='char* ctime_r(const time_t*, char*, int);'
./protochk "$extern_C $try" $hdrs && ctime_r_proto=B_SBI ;;
esac
case "$ctime_r_proto" in
"|0) try='int ctime_r(const
time_t*, char*);'
./protochk "$extern_C $try" $hdrs && ctime_r_proto=I_SB ;;
esac
case "$ctime_r_proto" in
"|0) try='int ctime_r(const time_t*, char*, int);'
./protochk "$extern_C $try" $hdrs && ctime_r_proto=I_SBI ;;
esac
case "$ctime_r_proto" in
"|0) d_ctime_r=undef
ctime_r_proto=0
echo "Disabling ctime_r, cannot determine prototype." >&4 ;;
*) case "$ctime_r_proto" in
REENTRANT_PROTO*) ;;
*) ctime_r_proto="REENTRANT_PROTO_$ctime_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;

```

```

*) case "$usethreads" in
define) echo "ctime_r has no prototype, not using it." >&4 ;;
esac
d_ctime_r=undef
ctime_r_proto=0
;;
esac
;;
*) ctime_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_ctime_r.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: myhostname.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 16:15:55 ram

?RCS: patch61: improved hostname lookup by using ypmatch when NIS is used

?RCS:

?RCS: Revision 3.0.1.2 1994/10/29 16:25:43 ram

?RCS: patch36: call ./xenix explicitly instead of relying on PATH

?RCS: patch36: now uses new Tr unit to convert to/from lowercase

?RCS:

?RCS: Revision 3.0.1.1 1994/06/20 07:06:20 ram

?RCS: patch30: now a little more clever for domain name guessing

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:18 ram

?RCS:

Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:myhostname phostname mydomain: contains sed test Myread Oldconfig \

Guess Loc awk echo sort uniq +usrinc rm hostcat Tr osname

?MAKE: -pick add \$@ %<

?S:myhostname (hostname):

?S: This variable contains the eventual value of the MYHOSTNAME symbol,

?S: which is the name of the host the program is going to run on.

?S: The domain is not kept with hostname, but must be gotten from mydomain.  
 ?S: The dot comes with mydomain, and need not be supplied by the program.  
 ?S:.  
 ?S:mydomain:  
 ?S: This variable contains the eventual value of the MYDOMAIN symbol,  
 ?S: which is the domain of the host the program is going to run on.  
 ?S: The domain must be appended to myhostname to form a complete host name.  
 ?S: The dot comes with mydomain, and need not be supplied by the program.  
 ?S:.  
 ?S:phostname:  
 ?S: This variable contains the eventual value of the PHOSTNAME symbol,  
 ?S: which is a command that can be fed to popen() to get the host name.  
 ?S: The program  
 should probably not presume that the domain is or isn't  
 ?S: there already.  
 ?S:.  
 ?C:MYHOSTNAME (HOSTNAME):  
 ?C: This symbol contains name of the host the program is going to run on.  
 ?C: The domain is not kept with hostname, but must be gotten from MYDOMAIN.  
 ?C: The dot comes with MYDOMAIN, and need not be supplied by the program.  
 ?C: If gethostname() or uname() exist, MYHOSTNAME may be ignored. If MYDOMAIN  
 ?C: is not used, MYHOSTNAME will hold the name derived from PHOSTNAME.  
 ?C:.  
 ?C:MYDOMAIN:  
 ?C: This symbol contains the domain of the host the program is going to  
 ?C: run on. The domain must be appended to HOSTNAME to form a complete  
 ?C: host name. The dot comes with MYDOMAIN, and need not be supplied by  
 ?C: the program. If the host name is derived from PHOSTNAME, the domain  
 ?C: may or may not already be there, and the program should check.  
 ?C:.  
 ?H:#define MYHOSTNAME "\$myhostname" /\*\*/  
 ?H:#define MYDOMAIN "\$mydomain" /\*\*/  
 ?H:.  
 ?T:cont i tans tmp\_re file  
 : now get the host name  
 echo  
 " "  
 echo "Figuring out host name..." >&4  
 case "\$myhostname" in  
 ") cont=true  
 echo 'Maybe "hostname" will work...'  
 if tans=`sh -c hostname 2>&1` ; then  
 myhostname=\$tans  
 phostname=hostname  
 cont="  
 fi  
 ;;  
 \*) cont="";;

```

esac
if $test "$scnt"; then
if ./xenix; then
echo 'Oh, dear. Maybe "/etc/systemid" is the key...'
if tans=`cat /etc/systemid 2>&1` ; then
myhostname=$tans
phostname='cat /etc/systemid'
echo "Whadyaknow. Xenix always was a bit strange..."
cont=""
fi
elif $test -r /etc/systemid; then
echo "(What is a non-Xenix system doing with /etc/systemid?)"
fi
fi
if $test "$scnt"; then
echo 'No, maybe "uname -l" will work...'
if tans=`sh -c 'uname -l' 2>&1` ; then
myhostname=$tans
phostname='uname -l'
else
echo 'Strange. Maybe "uname -n" will work...'
if tans=`sh -c 'uname -n' 2>&1` ; then
myhostname=$tans
phostname='uname -n'
else
echo 'Oh well, maybe I can mine it out of whoami.h...'
if tans=`sh -c $contains' sysname $usrinc/whoami.h'
2>&1` ; then
myhostname=`echo "$tans" | $sed 's/^(.*)"/^1/^
phostname="sed -n -e ""'/sysname/s/^(.*)"/^1/{"" -e p -e q -e '}' <$usrinc/whoami.h"
else
case "$myhostname" in
") echo "Does this machine have an identity crisis or something?"
phostname="";
*)
echo "Well, you said $myhostname before..."
phostname='echo $myhostname';;
esac
fi
fi
fi
fi
case "$myhostname" in
") myhostname=noname ;;
esac
: you do not want to know about this
set $myhostname
myhostname=$1

```

```

: verify guess
if $test "$myhostname" ; then
 dflt=y
 rp='Your host name appears to be "$myhostname"." Right?'
 . /myread
 case "$ans" in
 y*) ;;
 *) myhostname="";;
 esac
fi

```

```

: bad guess or no guess
while $test "X$myhostname" = X ; do
 dflt="
 rp="Please type the (one word) name of your host:"
 . /myread
 myhostname="$ans"
done

```

```

: translate upper to lower if necessary
case "$myhostname" in
[A-Z])
 echo "(Normalizing case in your host name)"
 myhostname=`echo
$myhostname | ./tr '[A-Z]' '[a-z]'`
;;
esac

```

```

?X: Do not ask for domain name if this is not used later on. In that
?X: case, the hostname may keep its domain name, but it doesn't matter.
@if MYDOMAIN || mydomain
case "$myhostname" in
,)
 dflt=`expr "X$myhostname" : "X[^.]*\(\.\.*\)"`
 myhostname=`expr "X$myhostname" : "X\([^.*]\)\."`
 echo "(Trimming domain name from host name--host name is now $myhostname)"
;;
*) case "$mydomain" in
")
?X:
?X: There is currently no way to say we do not want hostcat if mydomain is not
?X: used. One way to achieve that would be to put that code in a mydomain.U
?X: unit. However, we want to stick the sanity checks right after the domain
?X: name computation, or if none is done, right after the hostname computation.
?X:
{
?X: If we use NIS, try ypmatch.

```



```

test "X$hostcat" = "Xypcat hosts" &&
ypmatch "$myhostname" hosts 2>/dev/null \
 $sed -e 's/[]*#.*//; s/$/ /' > hosts && \
 $test -s hosts
} || {
?X: Extract only
the relevant hosts, reducing file size,
?X: remove comments, insert trailing space for later use.
 $hostcat | $sed -n -e "s/[]*#.*//; s^\$/ /
 /[]$myhostname[.]p" > hosts
}
tmp_re="[.]"
$test x`$awk "/[0-9].*[]$myhostname$tmp_re/ { sum++ }
 END { print sum }" hosts` = x1 || tmp_re="[]"
dflt=`$awk \
"/[0-9].*[]$myhostname$tmp_re/ {for(i=2; i<=NF;i++) print "\\$i}" \
hosts | $sort | $uniq | \
$sed -n -e "s/$myhostname\.\([-a-zA-Z0-9_]\)\1/p"
case `$echo X$dflt` in
X*\ *) echo "(Several hosts in /etc/hosts matched hostname)"
dflt=
;;
?X: There is no /etc/hosts on os390
X.)
if $test -f /etc/hosts; then
 echo "(You do not have fully-qualified names in /etc/hosts)"
else
 echo "(I cannot locate a hosts database anywhere)"
fi
;;
esac
case "$dflt" in
.)
 tans=`./loc resolv.conf X /etc /usr/etc`
 if $test -f "$tans"; then
 echo "(Attempting domain name extraction from $tans)"
?X: Look for either a search
or a domain directive.
 dflt=`$sed -n -e 's// /g' \
 -e 's/^search *([^\]*).*\1/p' $tans \
 | ./tr '[A-Z]' '[a-z]' 2>/dev/null`
 case "$dflt" in
 .) dflt=`$sed -n -e 's// /g' \
 -e 's/^domain *([^\]*).*\1/p' $tans \
 | ./tr '[A-Z]' '[a-z]' 2>/dev/null`
 ;;
esac
fi

```

```

;;
esac
case "$dflt" in
.) echo "(No help from resolv.conf either -- attempting clever guess)"
dflt=`sh -c domainname 2>/dev/null`
case "$dflt" in
") dflt='.';;
.nis.*|.yp.*|.main.*) dflt=`echo $dflt | $sed -e 's/^\.[^.]*/'`;;
esac
;;
esac
case "$dflt$osname" in
.os390)
file="//SYS1.TCPPARMS(TCPDATA)"
echo "(Attempting domain name extraction from $file)"
dflt=`awk '/^DOMAINORIGIN/ {print $2}' "$file" 2>/dev/null`
;;
esac
case "$dflt" in
.) echo "(Lost all hope -- silly guess then)"
dflt='.nonet'
;;
esac
$rm -f hosts
;;
*) dflt="$mydomain";;
esac;;
esac
echo " "
rp="What is your domain name?"
.
./myread
tans="$ans"
case "$ans" in
") ;;
.*) ;;
*) tans=".$tans";;
esac
mydomain="$tans"

: translate upper to lower if necessary
case "$mydomain" in
[A-Z])
echo "(Normalizing case in your domain name)"
mydomain=`echo $mydomain | ./tr '[A-Z]' '[a-z]'`
;;
esac

```

```

@end
: a little sanity check here
case "$phostname" in
") ;;
*)
case ` $phostname | ./tr '[A-Z]' '[a-z]` in
$myhostname$mydomain|$myhostname) ;;
*)
case "$phostname" in
sed*)
echo "(That doesn't agree with your whoami.h file, by the way.)"
;;
*)
echo "(That doesn't agree with your $phostname command, by the way.)"
;;
esac
;;
esac
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/myhostname.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_getgrgid_r.U,v 0RCS:
?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.
?RCS:
?MAKE:d_getgrgid_r getgrgid_r_proto: Inlibc Protochk Hasproto i_systypes \
 usethreads i_grp extern_C
?MAKE: -pick add $@ %<
?S:d_getgrgid_r:
?S: This variable conditionally defines the HAS_GETGRGID_R symbol,
?S: which indicates to the C program that the getgrgid_r()
?S: routine is available.
?S:.
?S:getgrgid_r_proto:
?S: This variable encodes the prototype of getgrgid_r.
?S: It is zero if d_getgrgid_r is undef, and one of the
?S: REENTRANT_PROTO_T_ABC macros of reentr.h if d_getgrgid_r
?S: is defined.
?S:.

```

?C:HAS\_GETGRGID\_R:

?C: This symbol, if defined, indicates that the getgrgid\_r routine

?C: is available to

getgrgid re-entrantly.

?C:.

?C:GETGRGID\_R\_PROTO:

?C: This symbol encodes the prototype of getgrgid\_r.

?C: It is zero if d\_getgrgid\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getgrgid\_r

?C: is defined.

?C:.

?H:#\$d\_getgrgid\_r HAS\_GETGRGID\_R /\*\*/

?H:#define GETGRGID\_R\_PROTO \$getgrgid\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_getgrgid\_r\_proto

: see if getgrgid\_r exists

set getgrgid\_r d\_getgrgid\_r

eval \$inlibc

case "\$d\_getgrgid\_r" in

"\$define")

hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_grp grp.h"

case "\$d\_getgrgid\_r\_proto:\$usethreads" in

":define") d\_getgrgid\_r\_proto=define

set d\_getgrgid\_r\_proto getgrgid\_r \$hdrs

eval \$hasproto ;;

\*) ;;

esac

case "\$d\_getgrgid\_r\_proto" in

define)

case "\$getgrgid\_r\_proto" in

"|0) try='int getgrgid\_r(gid\_t, struct group\*, char\*, size\_t, struct group\*\*);'

./protochk "\$extern\_C \$try" \$hdrs && getgrgid\_r\_proto=I\_TSBWR ;;

esac

case "\$getgrgid\_r\_proto" in

"|0) try='int getgrgid\_r(gid\_t, struct group\*, char\*, int, struct

group\*\*);'

./protochk "\$extern\_C \$try" \$hdrs && getgrgid\_r\_proto=I\_TSBIR ;;

esac

case "\$getgrgid\_r\_proto" in

"|0) try='int getgrgid\_r(gid\_t, struct group\*, char\*, int);'

./protochk "\$extern\_C \$try" \$hdrs && getgrgid\_r\_proto=I\_TSBI ;;

esac

case "\$getgrgid\_r\_proto" in

"|0) try='struct group\* getgrgid\_r(gid\_t, struct group\*, char\*, int);'

./protochk "\$extern\_C \$try" \$hdrs && getgrgid\_r\_proto=S\_TSBI ;;

esac

case "\$getgrgid\_r\_proto" in

"|0) d\_getgrgid\_r=undef

```

getgrgid_r_proto=0
echo "Disabling getgrgid_r, cannot determine prototype." >&4 ;;
*) case "$getgrgid_r_proto" in
REENTRANT_PROTO*) ;;
*) getgrgid_r_proto="REENTRANT_PROTO_${getgrgid_r_proto}" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "getgrgid_r has no prototype, not using it." >&4 ;;
esac
d_getgrgid_r=undef
getgrgid_r_proto=0
;;
esac
;;
*) getgrgid_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_getgrgid_r.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_setservent\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_setservent\_r setservent\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
usetthreads i\_netdb extern\_C

?MAKE: -pick add \$@ %<

?S:d\_setservent\_r:

?S: This variable conditionally defines the HAS\_SETSERVENT\_R symbol,

?S: which indicates to the C program that the setservent\_r()

?S: routine is available.

?S:.

?S:setservent\_r\_proto:

?S: This variable encodes the prototype of setservent\_r.

?S: It is zero if d\_setservent\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_setservent\_r

?S: is defined.

?S:.

```

?C:HAS_SETSERVENT_R:
?C: This symbol, if defined, indicates that the setservent_r routine
?C: is
available to setservent re-entrantly.
?C:.
?C:SETSERVENT_R_PROTO:
?C: This symbol encodes the prototype of setservent_r.
?C: It is zero if d_setservent_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_setservent_r
?C: is defined.
?C:.
?H:#$d_setservent_r HAS_SETSERVENT_R /**/
?H:#define SETSERVENT_R_PROTO $setservent_r_proto /**/
?H:.
?T:try hdrs d_setservent_r_proto
: see if setservent_r exists
set setservent_r d_setservent_r
eval $inlibc
case "$d_setservent_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_netdb netdb.h"
case "$d_setservent_r_proto:$susethreads" in
":define") d_setservent_r_proto=define
set d_setservent_r_proto setservent_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_setservent_r_proto" in
define)
case "$setservent_r_proto" in
"|0) try='int setservent_r(int, struct servent_data*);'
./protochk "$extern_C $try" $hdrs && setservent_r_proto=I_ID ;;
esac
case "$setservent_r_proto" in
"|0) try='void
setservent_r(int, struct servent_data*);'
./protochk "$extern_C $try" $hdrs && setservent_r_proto=V_ID ;;
esac
case "$setservent_r_proto" in
"|0) d_setservent_r=undef
setservent_r_proto=0
echo "Disabling setservent_r, cannot determine prototype." >&4 ;;
*) case "$setservent_r_proto" in
REENTRANT_PROTO*) ;;
*) setservent_r_proto="REENTRANT_PROTO_$setservent_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac

```

```

;;
*) case "$usethreads" in
define) echo "setserver_r has no prototype, not using it." >&4 ;;
esac
d_setserver_r=undef
setserver_r_proto=0
;;
esac
;;
*) setserver_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_setserver_r.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1996, Andy Dougherty

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

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?RCS: of the source tree for dist 4.0.

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: d\_sigsetjmp.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:44:33 ram

?RCS: patch61: created

?RCS:

?MAKE:d\_sigsetjmp: Setvar cat +cc +ccflags +ldflags libs rm

?MAKE: -pick add \$@ %<

?S:d\_sigsetjmp:

?S: This variable conditionally defines the HAS\_SIGSETJMP symbol,

?S: which indicates that the sigsetjmp() routine

is available to

?S: call setjmp() and optionally save the process's signal mask.

?S:.

?C:HAS\_SIGSETJMP:

?C: This variable indicates to the C program that the sigsetjmp()

?C: routine is available to save the calling process's registers

?C: and stack environment for later use by siglongjmp(), and

?C: to optionally save the process's signal mask. See  
?C: Sigjmp\_buf, Sigsetjmp, and Siglongjmp.  
?C:.  
?C:Sigjmp\_buf:  
?C: This is the buffer type to be used with Sigsetjmp and Siglongjmp.  
?C:.  
?C:Sigsetjmp:  
?C: This macro is used in the same way as sigsetjmp(), but will invoke  
?C: traditional setjmp() if sigsetjmp isn't available.  
?C: See HAS\_SIGSETJMP.  
?C:.  
?C:Siglongjmp:  
?C: This macro is used in the same way as siglongjmp(), but will invoke  
?C: traditional longjmp() if siglongjmp isn't available.  
?C: See HAS\_SIGSETJMP.  
?C:.  
?H:%<:#\$d\_sigsetjmp HAS\_SIGSETJMP /\*\*/  
?H:%<:#ifdef HAS\_SIGSETJMP  
?H:%<:#define Sigjmp\_buf sigjmp\_buf  
?H:%<:#define Sigsetjmp(buf,save\_mask) sigsetjmp((buf),(save\_mask))  
?H:%<:#define  
Siglongjmp(buf,retval) siglongjmp((buf),(retval))  
?H:%<:#else  
?H:%<:#define Sigjmp\_buf jmp\_buf  
?H:%<:#define Sigsetjmp(buf,save\_mask) setjmp((buf))  
?H:%<:#define Siglongjmp(buf,retval) longjmp((buf),(retval))  
?H:%<:#endif  
?H:.  
?W:%<:Sigjmp\_buf Sigsetjmp Siglongjmp  
?F:!set  
?LINT:set d\_sigsetjmp  
: see if sigsetjmp exists  
?X: We can't check for these symbols with Inlibc because sigsetjmp  
?X: is (sometimes? always?) a macro under GCC  
echo " "  
case "\$d\_sigsetjmp" in  
")  
\$cat >set.c <<'EOP'  
#include <setjmp.h>  
sigjmp\_buf env;  
int set = 1;  
int main()  
{  
if (sigsetjmp(env,1))  
exit(set);  
set = 0;  
siglongjmp(env, 1);  
exit(1);



```

}
EOP
if $cc $ccflags $ldflags -o set set.c $libs > /dev/null 2>&1 ; then
 if ./set >/dev/null 2>&1; then
 echo "POSIX sigsetjmp found." >&4
 val="$define"
 else
 $cat >&4 <<EOM
Uh-Oh! You have POSIX sigsetjmp and siglongjmp, but they do not work properly!!
I'll ignore them.
EOM
 val="$undef"
fi
else
 echo "sigsetjmp not found."
>&4
 val="$undef"
fi
;;
*) val="$d_sigsetjmp"
case "$d_sigsetjmp" in
 $define) echo "POSIX sigsetjmp found." >&4;;
 $undef) echo "sigsetjmp not found." >&4;;
esac
;;
esac
set d_sigsetjmp
eval $setvar
$rm -f set.c set

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_sigsetjmp.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_strncmp.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_strncmp.U,v $
```

```
?RCS: Revision 3.0.1.2 1994/05/06 14:54:34 ram
```

```
?RCS: patch23: fixed a typo (WED)
```

?RCS:  
?RCS: Revision 3.0.1.1 1993/09/13 16:04:39 ram  
?RCS: patch10: created (WAD)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:06:24 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_strerror: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_strerror:  
?S: This variable conditionally defines the HAS\_STRCASECMP symbol, which  
?S: indicates to the C program  
that the strcasecmp() routine is available  
?S: for case-insensitive string compares.  
?S:.  
?C:HAS\_STRCASECMP:  
?C: This symbol, if defined, indicates that the strcasecmp() routine is  
?C: available for case-insensitive string compares.  
?C:.  
?H:#\$d\_strerror HAS\_STRCASECMP /\*\*/  
?H:.  
?LINT:set d\_strerror  
: see if strcasecmp exists  
set strcasecmp d\_strerror  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_strerror.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: doublesize.U,v \$  
?RCS: Revision 3.0.1.1 1994/10/29 16:17:06 ram  
?RCS: patch36: added ?F: line for metalint file checking  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:08:06 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:

```

?MAKE:doublesize: cat rm_try Myread +cc +ccflags
?MAKE: -pick add $@ %<
?S:doublesize:
?S: This variable contains the value of the DOUBLESIZE symbol, which
?S: indicates to the C program how many bytes there are in a double.
?S:.
?C:DOUBLESIZE:
?C: This symbol contains the
size of a double, so that the C preprocessor
?C: can make decisions based on it.
?C:.
?H:#define DOUBLESIZE $doublesize /**/
?H:.
?F:!try
: check for length of double
echo " "
case "$doublesize" in
")
echo "Checking to see how big your double precision numbers are..." >&4
$cat >try.c <<'EOCP'
#include <stdio.h>
int main()
{
printf("%d\n", sizeof(double));
}
EOCP
if $cc $ccflags -o try try.c >/dev/null 2>&1 ; then
dflt=`./try`
else
dflt='8'
echo "(I can't seem to compile the test program. Guessing...)"
fi
;;
*)
dflt="$doublesize"
;;
esac
rp="What is the size of a double precision number (in bytes)?"
./myread
doublesize="$ans"
$rm_try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/doublesize.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: Id

```

```

?RCS:
?RCS: Copyright (c) 1998 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_sendmsg: Inlibc
?MAKE: -pick add $@ %<
?S:d_sendmsg:
?S: This variable conditionally defines the HAS_SENDMSG symbol, which
?S: indicates to the C program that the sendmsg() routine is available.
?S:.
?C:HAS_SENDMSG:
?C: This symbol, if defined, indicates that the sendmsg routine is
?C: available to send structured socket messages.
?C:.
?H:#$d_sendmsg HAS_SENDMSG /**/
?H:.
?LINT:set d_sendmsg
: see if sendmsg exists
set sendmsg d_sendmsg
eval $inlibc

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_sendmsg.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: Copyright (c) 1996, Andy Dougherty
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:perladmin: cf_email Oldconfig Myread cat
?MAKE: -pick add $@ %<
?Y:TOP
?S:perladmin:
?S: Electronic mail address of the perl5 administrator.
?S:.
: Ask e-mail of administrator
$cat <<EOM

```

If you or somebody else will be maintaining perl at your site, please fill in the correct e-mail address here so that they may be contacted if necessary. Currently, the "perlbug" program included with perl will send mail to this address in addition to perlbug@perl.org. You may enter "none" for no administrator.

```
EOM
case "$perladmin" in
") dflt="$cf_email";;
*) dflt="$perladmin";;
esac
rp='Perl administrator e-mail address'
./myread
perladmin="$ans"
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/perladmin.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_readdir.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_readdir.U,v $
?RCS: Revision 3.0.1.1 1994/05/06 14:46:37 ram
?RCS: patch23: added support for seekdir, telldir and rewinddir (ADO)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:52 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X: Force checking for <dirent.h> inclusion
?X:INC: i_dirent
?MAKE:d_readdir d_seekdir d_telldir d_rewinddir: Inlibc
?MAKE:-pick add $@ %<
?S:d_readdir:
?S: This variable conditionally defines HAS_READDIR if readdir()
is
?S: available to read directory entries.
?S:.
?C:HAS_READDIR (READDIR):
?C: This symbol, if defined, indicates that the readdir routine is
?C: available to read directory entries. You may have to include
?C: <dirent.h>. See I_DIRENT.
?C:.
?H:#$d_readdir HAS_READDIR /**/
?H:.
?S:d_seekdir:
```

?S: This variable conditionally defines HAS\_SEEKDIR if seekdir() is

?S: available.

?S:.

?C:HAS\_SEEKDIR:

?C: This symbol, if defined, indicates that the seekdir routine is

?C: available. You may have to include <dirent.h>. See I\_DIRENT.

?C:.

?H:#\$d\_seekdir HAS\_SEEKDIR /\*\*/

?H:.

?S:d\_telldir:

?S: This variable conditionally defines HAS\_TELLDIR if telldir() is

?S: available.

?S:.

?C:HAS\_TELLDIR:

?C: This symbol, if defined, indicates that the telldir routine is

?C: available. You may have to include <dirent.h>. See I\_DIRENT.

?C:.

?H:#\$d\_telldir HAS\_TELLDIR /\*\*/

?H:.

?S:d\_rewinddir:

?S: This variable conditionally defines HAS\_REWINDDIR if rewinddir() is

?S: available.

?S:.

?C:HAS\_REWINDDIR:

?C: This

symbol, if defined, indicates that the rewinddir routine is

?C: available. You may have to include <dirent.h>. See I\_DIRENT.

?C:.

?H:#\$d\_rewinddir HAS\_REWINDDIR /\*\*/

?H:.

?LINT:set d\_readdir d\_seekdir d\_telldir d\_rewinddir

: see if readdir and friends exist

set readdir d\_readdir

eval \$inlibc

@if d\_seekdir || HAS\_SEEKDIR

set seekdir d\_seekdir

eval \$inlibc

@end

@if d\_telldir || HAS\_TELLDIR

set telldir d\_telldir

eval \$inlibc

@end

@if d\_rewinddir || HAS\_REWINDDIR

set rewinddir d\_rewinddir

eval \$inlibc

@end

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_readdir.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_bcopy.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_bcopy.U,v \$  
?RCS: Revision 3.0.1.2 1993/10/16 13:48:04 ram  
?RCS: patch12: added magic support for bcopy()  
?RCS:  
?RCS: Revision 3.0.1.1 1993/09/13 16:01:11 ram  
?RCS: patch10: now only defines HAS\_BCOPY, no macro remap on memcpy (WAD)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:05:44 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_bcopy: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_bcopy:  
?S: This variable conditionally defines the HAS\_BCOPY  
symbol if  
?S: the bcopy() routine is available to copy strings.  
?S:.  
?C:HAS\_BCOPY:  
?C: This symbol is defined if the bcopy() routine is available to  
?C: copy blocks of memory.  
?C:.  
?H:#\$d\_bcopy HAS\_BCOPY /\*\*/  
?H:.  
?M:bcopy: HAS\_BCOPY  
?M:#ifndef HAS\_BCOPY  
?M:#ifndef bcopy  
?M:#define bcopy(s,d,l) memcpy((d),(s),(l))  
?M:#endif  
?M:#endif  
?M:.  
?LINT:set d\_bcopy  
: see if bcopy exists  
set bcopy d\_bcopy  
eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_bcopy.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_isfinite: Inlibc cat Compile rm\_try Setvar

?MAKE: -pick add \$@ %<

?S:d\_isfinite:

?S: This variable conditionally defines the HAS\_ISFINITE symbol, which

?S: indicates to the C program that the isfinite() routine is available.

?S:.

?C:HAS\_ISFINITE:

?C: This symbol, if defined, indicates that the isfinite routine is

?C: available to check whether a double is finite (non-infinity non-NaN).

?C:.

?LINT:set d\_isfinite

?H:#\$d\_isfinite HAS\_ISFINITE /\*\*/

?H:.

: check for isfinite

echo "Checking to see if you have isfinite..." >&4

\$cat >try.c <<EOCP

#include <math.h>

int main() { return isfinite(0.0); }

EOCP

set try

if eval \$compile; then

val="\$define"

echo "You have isfinite."

else

val="\$undef"

echo

"You do not have isfinite."

fi

\$rm\_try

set d\_isfinite

eval \$setvar

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_isfinite.U
```



No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_strcspn.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_strcspn.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:33 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_strcspn: Inlibc
?MAKE: -pick add $@ %<
?S:d_strcspn:
?S: This variable conditionally defines the HAS_STRCSPN symbol, which
?S: indicates to the C program that the strcspn() routine is available
?S: to scan strings.
?S:.
?C:HAS_STRCSPN (STRCSPN):
?C: This symbol, if defined, indicates that the strcspn routine is
?C: available to scan
strings.
?C:.
?H:#$d_strcspn HAS_STRCSPN /**/
?H:.
?LINT:set d_strcspn
: see if strcspn exists
set strcspn d_strcspn
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_strcspn.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_gethent.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
```

?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_gethent.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:06:09 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_gethent: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_gethent:  
?S: This variable conditionally defines HAS\_GETHOSTENT if gethostent() is  
?S: available to look up host names in some data base or another.  
?S:.  
?C:HAS\_GETHOSTENT:  
?C: This symbol, if defined, indicates that the gethostent() routine is  
?C: available to look up host names in some  
data base or another.  
?C:.  
?H:#\$d\_gethent HAS\_GETHOSTENT /\*\*/  
?H:.  
?LINT:set d\_gethent  
: see if gethostent exists  
set gethostent d\_gethent  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_gethent.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_regex.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Original Author: Sidney C. Smith <scsmith@cbda9.apgea.army.mil>  
?RCS:  
?RCS: \$Log: i\_regex.U,v \$  
?RCS: Revision 3.0.1.1 1995/01/30 14:35:45 ram  
?RCS: patch49: created  
?RCS:  
?RCS:  
?MAKE:i\_regex: Inhdr  
?MAKE: -pick add \$@ %<

?S:i\_regex:  
?S: This variable conditionally defines the I\_REGEX symbol, which  
?S: indicates to the C program that <regex.h> exists and should  
?S: be included.  
?S:.  
?C:I\_REGEX:  
?C: This symbol, if defined, indicates that <regex.h> exists  
and should  
?C: be included.  
?C:.  
?H:#\$i\_regex I\_REGEX /\*\*/  
?H:.  
?LINT:set i\_regex  
: see if regex is available  
set regex.h i\_regex  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_regex.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: nametype.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: nametype.U,v \$  
?RCS: Revision 3.0.1.3 1994/10/29 16:26:09 ram  
?RCS: patch36: call ./usg and ./bsd explicitly instead of relying on PATH  
?RCS:  
?RCS: Revision 3.0.1.2 1994/08/29 16:36:48 ram  
?RCS: patch32: fixed typo: /etc/password -> /etc/passwd (WED)  
?RCS:  
?RCS: Revision 3.0.1.1 1993/09/13 16:10:09 ram  
?RCS: patch10: made questions more explicit for 'Configure -s' prompting (WAD)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:20 ram  
?RCS: Baseline  
for dist 3.0 netwide release.  
?RCS:  
?MAKE:nametype d\_passnames d\_berknames d\_usgnames: Myread Guess Oldconfig cat  
?MAKE: -pick add \$@ %<

?S:nametype:  
?S: This variable indicates how full names are stored on this system.  
?S: Values are bsd, usg, and other.  
?S:.

?S:d\_passnames:  
?S: This variable conditionally defines the PASSNAMES symbol,  
?S: which indicates to the C program that full names are stored in  
?S: the /etc/passwd file.  
?S:.

?S:d\_berknames:  
?S: This variable conditionally defines the PASSNAMES symbol,  
?S: which indicates to the C program that full names are stored in  
?S: the /etc/passwd file in Berkeley format.  
?S:.

?S:d\_usgnames:  
?S: This variable conditionally defines the PASSNAMES symbol,  
?S: which indicates to the C program that full names are stored in  
?S: the /etc/passwd file in USG format.  
?S:.

?C:PASSNAMES:  
?C: This symbol, if defined, indicates that full names are stored in  
?C: the /etc/passwd file.  
?C:.

?C:BERKNAMES:  
?C: This symbol, if defined, indicates that full  
names are stored in  
?C: the /etc/passwd file in Berkeley format (name first thing, everything  
?C: up to first comma, with & replaced by capitalized login id, yuck).  
?C:.

?C:USGNAMES:  
?C: This symbol, if defined, indicates that full names are stored in  
?C: the /etc/passwd file in USG format (everything after - and before ( is  
?C: the name).  
?C:.

?H:#\$d\_passnames PASSNAMES /\* (undef to take name from ~/.fullname) \*/  
?H:#\$d\_berknames BERKNAMES /\* (that is, ":name,stuff:") \*/  
?H:#\$d\_usgnames USGNAMES /\* (that is, ":stuff-name(stuff):") \*/  
?H:.

: find out how to find out full name  
case "\$d\_berknames" in  
"\$define")  
dflt=y;;  
"\$undef")  
dflt=n;;  
\*)  
if ./bsd; then  
dflt=y  
elif ./xenix; then

```

dflt=y
else
dflt=n
fi
;;
esac
$cat <<'EOM'

```

Does your /etc/passwd file keep full names in Berkeley/V7 format (name first thing after ':' in GCOS field)? In that case, a typical entry in the password file looks like this:

```

guest:**password**:10:100:Mister Guest User:/usr/users:/bin/sh

```

```

^^^^^^^^^^^^^^^^^^^^^^^^

```

```

EOM
rp="Berkeley/V7 format for full name in /etc/passwd?"
./myread
case "$ans" in
y*) d_passnames="$define"
d_berknames="$define"
d_usgnames="$undef"
nametype=bsd
;;
*)
case "$d_usgnames" in
"$define") dflt=y;;
"$undef") dflt=n;;
*)
if ./usg; then
dflt=y
else
dflt=n
fi
;;
esac
$cat <<'EOM'

```

Does your passwd file keep full names in USG format (name sandwiched between a '-' and a '(')? In that case, a typical entry in the password file looks like this:

```

guest:**password**:10:100:000-Mister Guest User(000):/usr/users:/bin/sh

```

```

^^^^^^^^^^^^^^^^^^^^^^^^

```

```

EOM
rp="USG format for full name in /etc/passwd?"
./myread
case "$ans" in

```

```

n*) echo "Full name will be taken from ~/.fullname"
d_passnames="$undef"
d_berknames="$undef"
d_usgnames="$undef"
nametype=other
;;
*)
d_passnames="$define"
d_berknames="$undef"
d_usgnames="$define"
nametype=usg
;;
esac;;
esac

```

Found in path(s):

```

*
/opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/nametype.U

```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_remainder: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_remainder:

?S: This variable conditionally defines the HAS\_REMAINDER symbol, which

?S: indicates to the C program that the remainder() routine is available.

?S:.

?C:HAS\_REMAINDER:

?C: This symbol, if defined, indicates that the remainder routine is

?C: available to return the floating-point remainder.

?C:.

?H:#\$d\_remainder HAS\_REMAINDER /\*\*/

?H:.

?LINT:set d\_remainder

: see if remainder exists

set remainder d\_remainder

eval \$inlibc

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_remainder.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_vprintf.U,v 3.0 1993/08/18 12:07:59 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: d\_vprintf.U,v \$

?RCS: Revision 3.0 1993/08/18 12:07:59 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_vprintf d\_charvspr: Compile Guess cat Csym Setvar run rm\_try \  
i\_stdlib i\_unistd i\_stdarg i\_varargs

?MAKE:-pick add \$@ %<

?S:d\_vprintf:

?S: This variable conditionally defines the HAS\_VPRINTF symbol, which  
?S: indicates to the C program that the vprintf() routine is available  
?S: to printf with a pointer to an argument list.

?S:.

?S:d\_charvspr:

?S: This  
variable conditionally defines CHARVSPRINTF if this system  
?S: has vsprintf returning type (char\*). The trend seems to be to  
?S: declare it as "int vsprintf)".

?S:.

?C:HAS\_VPRINTF (VPRINTF):

?C: This symbol, if defined, indicates that the vprintf routine is available  
?C: to printf with a pointer to an argument list. If unavailable, you  
?C: may need to write your own, probably in terms of \_doprnt().

?C:.

?C:USE\_CHAR\_VSPRINTF (CHARVSPRINTF):

?C: This symbol is defined if this system has vsprintf() returning type  
?C: (char\*). The trend seems to be to declare it as "int vsprintf)". It  
?C: is up to the package author to declare vsprintf correctly based on the  
?C: symbol.

?C:.

?H:#\$d\_vprintf HAS\_VPRINTF /\*\*/  
?H:#\$d\_charvspr USE\_CHAR\_VSPRINTF /\*\*/  
?H:.

?T:val2

?F:!try

?LINT:set d\_vprintf d\_charvspr  
: see if vprintf exists  
echo " "  
if set vprintf val -f d\_vprintf; eval \$csym; \$val; then  
echo 'vprintf() found.' >&4  
val="\$define"

```

$cat >try.c <<EOF
#$i_stdarg I_STDARG /*
 Only one of these can be defined by i_varhrd */
#$i_varargs I_VARARGS

#$i_stdlib I_STDLIB
#$i_unistd I_UNISTD

#ifdef I_STDARG
include <stdarg.h>
#else /* I_VARARGS */
include <varargs.h>
#endif

#ifdef I_UNISTD
include <unistd.h>
#endif

#ifdef I_STDLIB
include <stdlib.h>
#endif

#include <stdio.h> /* vsprintf prototype */

#ifdef I_STDARG
void xxx(int n, ...)
{
 va_list args;
 char buf[10];
 va_start(args, n);
 exit(((unsigned long)vsprintf(buf,"%s",args) > 10L));
}
int main() { xxx(1, "foo"); }

#else /* I_VARARGS */

xxx(va_alist)
va_dcl
{
 va_list args;
 char buf[10];
 va_start(args);
 exit(((unsigned long)vsprintf(buf,"%s",args) > 10L));
}
int main() { xxx("foo"); }

#endif

```



```

EOF
set try
if eval $compile_ok; then
if $run ./try; then
echo "Your vsprintf() returns (int)." >&4
val2="$undef"
else
echo "Your vsprintf() returns (char*)." >&4
val2="$define"
fi
else
echo 'I am unable to compile the vsprintf() test program.' >&4
#
We shouldn't get here. If we do, assume the standard signature,
not the old BSD one.
echo 'Guessing that vsprintf() returns (int).' >&4
val2="$undef"
fi
else
echo 'vprintf() NOT found.' >&4
val="$undef"
val2="$undef"
fi
$rm_try
set d_vprintf
eval $setvar
val=$val2
set d_charvspr
eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_vprintf.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: vendorman1dir.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1999, Andy Dougherty
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: vendorman1dir.U,v $
```

```
?RCS: Revision 1.1 1999/07/08 18:32:57 doughera
```

```
?RCS: Initial revision
```

```

?RCS:
?MAKE:vendorman1dir vendorman1direxp installvendorman1dir: man1dir Getfile \
 Oldconfig Setprefixvar Prefixit test vendorprefix prefix sed
?MAKE: -pick add $@ %<
?Y:TOP
?S:vendorman1dir:
?S: This variable contains the name of the directory for man1
?S: pages. It may have a ~ on the front.
?S: The standard distribution will put nothing in this directory.
?S: Vendors
 who distribute perl may wish to place their own
?S: man1 pages in this directory with
?S: MakeMaker Makefile.PL INSTALLDIRS=vendor
?S: or equivalent. See INSTALL for details.
?S:.
?S:vendorman1direxp:
?S: This variable is the ~name expanded version of vendorman1dir, so that you
?S: may use it directly in Makefiles or shell scripts.
?S:.
?D:installvendorman1dir="
?S:installvendorman1dir:
?S: This variable is really the same as vendorman1direxp but may differ on
?S: those systems using AFS. For extra portability, only this variable
?S: should be used in makefiles.
?S:.
?LINT:change prefixvar
?LINT:set installvendorman1dir
: Set the vendorman1dir variables
case "$vendorprefix" in
") vendorman1dir="
 vendorman1direxp="
 ;;
*) : determine where vendor-supplied manual pages go.
 case "$vendorman1dir" in
 ") dflt=`echo "$man1dir" | $sed "s#^$prefix#$vendorprefix#"` ;;
 *) dflt=$vendorman1dir ;;
 esac
 case "$dflt" in
 "|") dflt=none ;;
 esac
 fn=nd~+
 rp='Pathname for
 the vendor-supplied manual section 1 pages?'
 ./getfile
 vendorman1dir="$ans"
 vendorman1direxp="$ansexp"
 ;;
esac

```

```
: Use ' ' for none so value is preserved next time through Configure
$test X"$vendormanldir" = "X" && vendormanldir=' '
prefixvar=vendormanldir
. ./installprefix
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/vendormanldir.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_safemcpy.U,v 3.0.1.5 1997/02/28 15:41:12 ram Exp $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: d_safemcpy.U,v $
```

```
?RCS: Revision 3.0.1.5 1997/02/28 15:41:12 ram
```

```
?RCS: patch61: improved overlapping copy check
```

```
?RCS: patch61: comfort them if they have memmove
```

```
?RCS: patch61: added ?F: metalint hint
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.4 1995/07/25 13:58:46 ram
```

```
?RCS: patch56: re-arranged compile line to include ldflags before objects
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.3 1995/03/21 08:47:26 ram
```

```
?RCS: patch52: swapped two first arguments of memcopy() calls
```

```
?RCS:
```

```
?RCS:
```

```
Revision 3.0.1.2 1994/10/29 16:15:10 ram
```

```
?RCS: patch36: added 'ldflags' to the test compile line (ADO)
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.1 1994/05/06 14:53:12 ram
```

```
?RCS: patch23: ensure string is not optimized in read-only memory (ADO)
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:06:58 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_safemcpy: Compile cat d_memcopy rm_try run \
```

```
d_memmove i_memory i_stdlib i_string i_unistd Oldconfig Setvar
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_safemcpy:
```

```
?S: This variable conditionally defines the HAS_SAFE_MEMCPY symbol if
```

```
?S: the memcopy() routine can do overlapping copies.
```

?S: For overlapping copies, memmove() should be used, if available.

?S:.

?C:HAS\_SAFE\_MEMCPY (SAFE\_MEMCPY):

?C: This symbol, if defined, indicates that the memcpy routine is available

?C: to copy potentially overlapping memory blocks. If you need to

?C: copy overlapping memory blocks, you should check HAS\_MEMMOVE and

?C: use memmove() instead, if available.

?C:.

?H:#\$d\_safemcpy HAS\_SAFE\_MEMCPY /\*\*/

?H:.

?F:!try

?LINT:

set d\_safemcpy

: can memcpy handle overlapping blocks?

echo " "

?X: assume the worst

val="\$undef"

case "\$d\_memmove" in

"\$define") echo "I'll use memmove() instead of memcpy() for overlapping copies." ;;

\*) case "\$d\_memcpy" in

"\$define")

echo "Checking to see if memcpy() can do overlapping copies..." >&4

\$cat >try.c <<EOCP

#\$i\_memory I\_MEMORY

#\$i\_stdlib I\_STDLIB

#\$i\_string I\_STRING

#\$i\_unistd I\_UNISTD

EOCP

\$cat >>try.c <<'EOCP'

#include <stdio.h>

#ifdef I\_MEMORY

# include <memory.h>

#endif

#ifdef I\_STDLIB

# include <stdlib.h>

#endif

#ifdef I\_STRING

# include <string.h>

#else

# include <strings.h>

#endif

#ifdef I\_UNISTD

# include <unistd.h> /\* Needed for NetBSD \*/

#endif

int main()

{

char buf[128], abc[128];

char \*b;

```
int len;
int off;
int align;

/* Copy "abcde..." string to char abc[] so that gcc doesn't
 try to store the string in read-only memory. */
memcpy(abc, "abcdefghijklmnopqrstuvwxy0123456789", 36);
```

```
for (align = 7; align >=
0; align--) {
for (len = 36; len; len--) {
b = buf+align;
memcpy(b, abc, len);
for (off = 1; off <= len; off++) {
memcpy(b+off, b, len);
memcpy(b, b+off, len);
if (memcmp(b, abc, len))
exit(1);
}
}
}
exit(0);
}
```

EOCP

```
set try
if eval $compile_ok; then
if $run ./try 2>/dev/null; then
echo "Yes, it can."
val="$define"
else
echo "It can't, sorry."
fi
else
echo "(I can't compile the test program, so we'll assume not...)"
fi
;;
esac
$rm_try
;;
esac
set d_safemcpy
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_safemcpy.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_pread.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_pread.U,v $
?RCS:
?MAKE:d_pread: Inlibc
?MAKE: -pick add $@ %<
?S:d_pread:
?S: This variable conditionally defines the HAS_PREAD symbol, which
?S: indicates to the C program that the pread() routine is available.
?S:.
?C:HAS_PREAD :
?C: This symbol, if defined, indicates that the pread routine is
?C: available to perform reads on a file descriptor at a given offset.
?C:.
?H:#$d_pread HAS_PREAD /**/
?H:.
?LINT:set d_pread
: see if pread exists
set
 pread d_pread
eval $inlibc

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_pread.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_gethbyad.U,v $
?RCS:
?RCS: Copyright (c) 1998 Andy Dougherty
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_gethbyaddr: Inlibc
?MAKE: -pick add $@ %<
?S:d_gethbyaddr:
?S: This variable conditionally defines the HAS_GETHOSTBYADDR symbol, which
?S: indicates to the C program that the gethostbyaddr() routine is available
?S: to look up hosts by their IP addresses.

```

?S:.

?C:HAS\_GETHOSTBYADDR:

?C: This symbol, if defined, indicates that the gethostbyaddr() routine is

?C: available to look up hosts by their IP addresses.

?C:.

?H:#\$d\_gethbyaddr HAS\_GETHOSTBYADDR /\*\*/

?H:.

?LINT:set d\_gethbyaddr

: see if gethostbyaddr exists

set gethostbyaddr d\_gethbyaddr

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_gethbyad.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_difftime.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_difftime.U,v \$

?RCS: Revision 3.0.1.1 1994/08/29 16:07:31 ram

?RCS: patch32: created by ADO

?RCS:

?MAKE:d\_difftime: Inlibc

?MAKE:-pick add \$@ %<

?S:d\_difftime:

?S: This variable conditionally defines the HAS\_DIFFTIME symbol, which

?S: indicates to the C program that the difftime() routine is available.

?S:.

?C:HAS\_DIFFTIME :

?C: This symbol, if defined, indicates that

the difftime routine is

?C: available.

?C:.

?H:#\$d\_difftime HAS\_DIFFTIME /\*\*/

?H:.

?LINT:set d\_difftime

: see if difftime exists

```
set difftime d_difftime
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_difftime.U
```

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_memrchr: Inlibc Hasproto d\_gnulibc

?MAKE: -pick add \$@ %<

?S:d\_memrchr:

?S: This variable conditionally defines the HAS\_MEMRCHR symbol, which

?S: indicates to the C program that the memrchr() routine is available

?S: to return a pointer to the last occurrence of a byte in a memory

?S: area (or NULL if not found).

?S:.

?C:HAS\_MEMRCHR:

?C: This symbol, if defined, indicates that the memrchr routine is

?C: available to return a pointer to the last occurrence of a byte in

?C: a memory area (or NULL if not found).

?C:.

?H:#\$d\_memrchr HAS\_MEMRCHR /\*\*/

?H:.

?T:d\_memrchr\_proto xx1 xx2 xx3 xx4

?LINT:set d\_memrchr

: see if memrchr exists

: We need both a prototype in string.h and the symbol in libc.

echo " "

d\_memrchr\_proto="

xx1="#\$d\_gnulibc HAS\_GNULIBC"

xx2='#if defined(HAS\_GNULIBC)

&& !defined(\_GNU\_SOURCE)'

xx3='# define \_GNU\_SOURCE'

xx4='#endif'

set d\_memrchr\_proto memrchr literal "\$xx1" literal "\$xx2" literal "\$xx3" literal "\$xx4" define string.h

eval \$hasproto

case "\$d\_memrchr\_proto" in

define) # see if memrchr exists

set memrchr d\_memrchr

eval \$inlibc

::

\*) val=\$undef

set d\_memrchr

eval \$setvar

::



esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_memrchr.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_cuserid.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_cuserid.U,v \$

?RCS: Revision 3.0.1.1 1994/08/29 16:07:25 ram

?RCS: patch32: created by ADO

?RCS:

?MAKE:d\_cuserid: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_cuserid:

?S: This variable conditionally defines the HAS\_CUSERID symbol, which

?S: indicates to the C program that the cuserid() routine is available

?S: to get character login names.

?S:.

?C:HAS\_CUSERID :

?C: This symbol,

if defined, indicates that the cuserid routine is

?C: available to get character login names.

?C:.

?H:#\$d\_cuserid HAS\_CUSERID /\*\*/

?H:.

?LINT:set d\_cuserid

: see if cuserid exists

set cuserid d\_cuserid

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_cuserid.U

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_asinh: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_asinh:

?S: This variable conditionally defines the HAS\_ASINH symbol, which

?S: indicates to the C program that the asinh() routine is available.

?S:.

?C:HAS\_ASINH:

?C: This symbol, if defined, indicates that the asinh routine is

?C: available to do the inverse hyperbolic sine function.

?C:.

?H:#\$d\_asinh HAS\_ASINH /\*\*/

?H:.

?LINT:set d\_asinh

: see if asinh exists

set asinh d\_asinh

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_asinh.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: intsize.U,v 3.0.1.2 1997/02/28 15:55:26 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: intsize.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:55:26 ram

?RCS: patch61: avoid prompting the user if the test runs ok

?RCS: patch61: moved code from longsize.U into there

?RCS: patch61: new tests for shortsize as well

?RCS:

?RCS: Revision 3.0.1.1 1994/10/29 16:21:06 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:

?RCS: Revision 3.0 1993/08/18 12:08:52 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:intsize longsize

```

shortsize: Compile Myread cat run i_stdlib rm_try
?MAKE: -pick add $@ %<
?S:intsize:
?S: This variable contains the value of the INTSIZE symbol, which
?S: indicates to the C program how many bytes there are in an int.
?S:.
?S:longsize:
?S: This variable contains the value of the LONGSIZE symbol, which
?S: indicates to the C program how many bytes there are in a long.
?S:.
?S:shortsize:
?S: This variable contains the value of the SHORTSIZE symbol which
?S: indicates to the C program how many bytes there are in a short.
?S:.
?C:INTSIZE:
?C: This symbol contains the value of sizeof(int) so that the C
?C: preprocessor can make decisions based on it.
?C:.
?C:LONGSIZE:
?C: This symbol contains the value of sizeof(long) so that the C
?C: preprocessor can make decisions based on it.
?C:.
?C:SHORTSIZE:
?C: This symbol contains the value of sizeof(short) so that the C
?C: preprocessor can make decisions based on it.
?C:.
?H:#define INTSIZE $intsize /**/
?H:#define LONGSIZE $longsize /**/
?H:#define
SHORTSIZE $shortsize /**/
?H:.
?F:!try
: check for lengths of integral types
echo " "
case "$intsize" in
")
echo "Checking to see how big your integers are..." >&4
$cat >try.c <<EOCP
#include <stdio.h>
#$i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
int main()
{
@if INTSIZE || intsize
printf("intsize=%d;\n", (int)sizeof(int));
@end

```

```

@if LONGSIZE || longsize
printf("longsize=%d;\n", (int)sizeof(long));
@end
@if SHORTSIZE || shortsize
printf("shortsize=%d;\n", (int)sizeof(short));
@end
exit(0);
}
EOCP
set try
if eval $compile_ok && $run ./try > /dev/null; then
eval ` $run ./try `
@if INTSIZE || intsize
echo "Your integers are $intsize bytes long."
@end
@if LONGSIZE || longsize
echo "Your long integers are $longsize bytes long."
@end
@if SHORTSIZE || shortsize
echo "Your short integers are $shortsize bytes long."
@end
else
$cat >&4 <<EOM
!
Help! I can't compile and run the intsize test program: please enlighten me!
(This is probably a misconfiguration
in your system or libraries, and
you really ought to fix it. Still, I'll try anyway.)
!
EOM
@if INTSIZE || intsize
dflt=4
rp="What is the size of an integer (in bytes)?"
./myread
intsize="$ans"
@end
@if LONGSIZE || longsize
dflt=$intsize
rp="What is the size of a long integer (in bytes)?"
./myread
longsize="$ans"
@end
@if SHORTSIZE || shortsize
dflt=2
rp="What is the size of a short integer (in bytes)?"
./myread
shortsize="$ans"
@end

```

```
fi
;;
esac
$rm_try
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/a_dvisory/intsize.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000, Andy Dougherty

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?RCS:

?MAKE:versiononly: cat Myread Setvar Devel

?MAKE: -pick add \$@ %<

?LINT:set versiononly

?Y:TOP

?S:versiononly:

?S: If set, this symbol indicates that only the version-specific

?S: components of a perl installation should be installed.

?S: This may be useful for making a test installation of a new

?S: version without disturbing the existing installation.

?S: Setting versiononly is equivalent to setting installperl's -v option.

?S: In particular, the non-versioned scripts and programs such as

?S: a2p, c2ph, h2xs, pod2\*, and perldoc

are not installed

?S: (see INSTALL for a more complete list). Nor are the man

?S: pages installed.

?S: Usually, this is undef.

?S:.

?LINT:extern inc\_version\_list

?LINT:change inc\_version\_list

?LINT:extern inc\_version\_list\_init

?LINT:change inc\_version\_list\_init

?LINT:extern version

: determine whether to use a version number suffix for installed binaries

echo " "

\$cat <<EOM

Do you want to use a version number suffix for installed binaries? This

will install 'perl\$version' instead of 'perl', and likewise for other

binaries like 'perldoc' and 'cpan'. This allows many versions of perl

to be installed side-by-side. Unless you are a developer, you probably do *not* want to do this.

EOM

```
case "$versiononly" in
"$define"|[Yy]*|true) dflt='y' ;;
*) dflt='n';
esac
rp="Do you want to use a version number suffix for installed binaries?"
./myread
case "$ans" in
[yY]*) val="$define";;
*) val="$undef" ;;
esac
set versiononly
eval $setvar

case "$versiononly" in
"$define") inc_version_list="
 inc_version_list_init=0
 ;;
esac
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/versiononly.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_hasmntopt: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_hasmntopt:

?S: This variable conditionally defines the HAS\_HASMNTOPT symbol, which

?S: indicates to the C program that the hasmntopt() routine is available

?S: to query the mount options of file systems.

?S:.

?C:HAS\_HASMNTOPT:

?C: This symbol, if defined, indicates that the hasmntopt routine is

?C: available to query the mount options of file systems.

?C:.

?H:#\$d\_hasmntopt HAS\_HASMNTOPT /\*\*/

?H:.

?LINT:set d\_hasmntopt

```
: see if hasmntopt exists
set hasmntopt d_hasmntopt
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_hasmntopt.U
```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_hypot: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_hypot:

?S: This variable conditionally defines HAS\_HYPOT if hypot is available

?S: for numerically stable hypotenuse function.

?S:.

?C:HAS\_HYPOT:

?C: This symbol, if defined, indicates that the hypot routine is

?C: available to do the hypotenuse function.

?C:.

?H:#\$d\_hypot HAS\_HYPOT /\*\*/

?H:.

?LINT:set d\_hypot

: see if hypot exists

set hypot d\_hypot

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_hypot.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_sysresrc.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS:

?RCS: \$Log: i\_sysresrc.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:34 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:  
 ?X: Look whether <sys/resource.h> needs to be included  
 ?X:  
 ?MAKE:i\_sysresrc: Inhdr  
 ?MAKE: -pick add \$@ %<  
 ?S:i\_sysresrc:  
 ?S: This variable conditionally defines the I\_SYS\_RESOURCE symbol,  
 ?S: and indicates whether a C program should include <sys/resource.h>.  
 ?S:.  
 ?C:I\_SYS\_RESOURCE (I\_SYSRESOURCE):  
 ?C: This symbol, if defined, indicates  
 to the C program that it should  
 ?C: include <sys/resource.h>.  
 ?C:.  
 ?H:#\$i\_sysresrc I\_SYS\_RESOURCE /\*\*/  
 ?H:.  
 ?LINT:set i\_sysresrc  
 : see if sys/resource.h has to be included  
 set sys/resource.h i\_sysresrc  
 eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_sysresrc.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_byacc.U 1 2006-08-24 12:32:52Z rmanfredi \$  
 ?RCS:  
 ?RCS: Copyright (c) 1996, Andy Dougherty  
 ?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
 ?RCS:  
 ?RCS: You may redistribute only under the terms of the Artistic Licence,  
 ?RCS: as specified in the README file that comes with the distribution.  
 ?RCS: You may reuse parts of this distribution only within the terms of  
 ?RCS: that same Artistic Licence; a copy of which may be found at the root  
 ?RCS: of the source tree for dist 4.0.  
 ?RCS:  
 ?RCS: \$Log: d\_byacc.U,v \$  
 ?RCS: Revision 3.0.1.1 1997/02/28 15:31:14 ram  
 ?RCS: patch61: created  
 ?RCS:  
 ?MAKE:d\_byacc: byacc Setvar  
 ?MAKE: -pick add \$@ %<  
 ?S:d\_byacc:  
 ?S: This variable indicates whether byacc is available.  
 ?S: If the user has specified 'portability', then Makefile.SH  
 ?S: sees \$byacc='byacc' whether or not the user actually has  
 ?S: byacc. This variable allows us to determine in a makefile



```
?S: if we really
have byacc.
?S:.
?LINT:set d_byacc
: Check if we really have byacc
case "$byacc" in
|"byacc") val="$undef" ;;
*) val="$define" ;;
esac
set d_byacc
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_byacc.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: cf_name.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Graham Stoney <greyham@research.canon.oz.au>
?RCS:
?RCS: $Log: cf_name.U,v $
?RCS: Revision 3.0.1.2 1994/05/06 14:29:36 ram
?RCS: patch23: fixed user name computation from /etc/passwd in bsd systems
?RCS:
?RCS: Revision 3.0.1.1 1994/01/24 14:05:11 ram
?RCS: patch16: created
?RCS:
?RCS:
?MAKE:+cf_name: cf_by passcat Filexp nametype cat test
?MAKE:-pick add $@ %<
?S:cf_name:
?S: Full name of the person who ran the Configure script and
answered the
?S: questions. This can be used by units that require the user's full name.
?S: This variable is for internal use only.
?S:.
?T:xxx fn NAME
: figure out their full name
case "$NAME" in
```

```

") case "$nametype" in
other)
fn=`./filexp ~/.fullname`
xxx=usg
$test -f $fn && xxx=other
;;
*)
xxx="$nametype"
;;
esac

```

```

case "$xxx" in
bsd)
cf_name=`$passcat | grep "^$cf_by:" | \
sed -e 's/^[^:]*:[^:]*:[^:]*:[^:]*:([[:^:]]*):.*\1/' \
-e 's/,.*//'^
;;
usg)
cf_name=`$passcat | grep "^$cf_by:" | \
sed -e 's/^[^:]*:[^:]*:[^:]*:[^:]*:([[:^:]]*):.*\1/' \
-e 's/[^-]*-([[:^:]]*)(.*)\1/'
;;
*)
cf_name=`$cat $fn`
;;
esac
;;
*)
cf_name="$NAME"
;;
esac

```

?X:

In the original unit, Graham asked for the user name, in case the above code was unable to figure it out correctly. Since now cf\_name has been made an internal variable only (i.e. it is not saved in config.sh), letting the user override the computed default each time would be a pain.

?X:

Therefore, I have decided to trust the above code to get it right, and for those rare cases where it will fail, too bad :-)--RAM.

?X:

```

echo " "
echo "Pleased to meet you, $cf_name."

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/cf_name.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_dbl_dig.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_dbl_dig.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:07:28 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_dbl_dig: Myread contains cat rm Setvar i_limits i_float \
cppstdin cppflags cppminus
?MAKE: -pick add $@ %<
?S:d_dbl_dig:
?S: This variable conditionally defines d_dbl_dig if this system's
?S: header files provide DBL_DIG, which is the number of significant
?S: digits
in a double precision number.
?S:.
?C:HAS_DBL_DIG:
?C: This symbol, if defined, indicates that this system's <float.h>
?C: or <limits.h> defines the symbol DBL_DIG, which is the number
?C: of significant digits in a double precision number. If this
?C: symbol is not defined, a guess of 15 is usually pretty good.
?C:.
?H:#$d_dbl_dig HAS_DBL_DIG /**/
?H:.
?F:!dbl_dig.c
?LINT:set d_dbl_dig
: See if number of significant digits in a double precision number is known
echo " "
$cat >dbl_dig.c <<EOM
#i_limits I_LIMITS
#i_float I_FLOAT
#ifdef I_LIMITS
#include <limits.h>
#endif
#ifdef I_FLOAT
#include <float.h>
#endif
#ifdef DBL_DIG
printf("Contains DBL_DIG");

```

```

#endif
EOM
$ccpstdin $ccpflags $ccpminus < dbl_dig.c >dbl_dig.E 2>/dev/null
if $contains 'DBL_DIG' dbl_dig.E >/dev/null 2>&1; then
echo "DBL_DIG found." >&4
val="$define"
else
echo "DBL_DIG NOT found." >&4
val="$undef"
fi
$rm -f dbl_dig.?
set d_dbl_dig
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_dbl_dig.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_setnent.U,v 3.0 1993/08/18 12:06:09 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: d_setnent.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:09 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_setnent: Inlibc
?MAKE: -pick add $@ %<
?S:d_setnent:
?S: This variable conditionally defines HAS_SETNETENT if setnent() is
?S: available.
?S:
?C:HAS_SETNETENT:
?C: This symbol, if defined, indicates that the setnent() routine is
?C: available.
?C:
?H:#$d_setnent HAS_SETNETENT /**/
?H:
?LINT:set d_setnent
: see if setnent exists
set

```

```
setnetent d_setnet
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_setnet.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_getpgrp2.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_getpgrp2.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:15 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_getpgrp2: Inlibc
?MAKE: -pick add $@ %<
?S:d_getpgrp2:
?S: This variable conditionally defines the HAS_GETPGRP2 symbol, which
?S: indicates to the C program that the getpgrp2() (as in DG/UX) routine
?S: is available to get the current process group.
?S:.
?C:HAS_GETPGRP2 (GETPGRP2):
?C: This symbol, if defined, indicates that the
?C: getpgrp2() (as in DG/UX)
?C: routine is available to get the current process group.
?C:.
?H:#$d_getpgrp2 HAS_GETPGRP2 /**/
?H:.
?LINT:set d_getpgrp2
: see if getpgrp2 exists
set getpgrp2 d_getpgrp2
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_getpgrp2.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: nis.U,v 3.0.1.3 1997/02/28 16:17:38 ram Exp $
?RCS:
```

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,  
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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: nis.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 16:17:38 ram

?RCS: patch61: ensure suitable defaults for hostcat and friends

?RCS:

?RCS: Revision 3.0.1.2 1995/03/21 08:48:34 ram

?RCS: patch52: continued fix for NeXT NIS/NetInfo handling

?RCS:

?RCS: Revision 3.0.1.1 1995/02/15 14:16:23 ram

?RCS: patch51: now correctly handles NeXT using NIS rather than NetInfo

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:24 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:passcat

groupcat hostcat: Myread Oldconfig test contains

?MAKE: -pick add \$@ %<

?S:passcat:

?S: This variable contains a command that produces the text of the  
?S: /etc/passwd file. This is normally "cat /etc/passwd", but can be  
?S: "ypcat passwd" when NIS is used.

?S: On some systems, such as os390, there may be no equivalent  
?S: command, in which case this variable is unset.

?S:.

?S:groupcat:

?S: This variable contains a command that produces the text of the  
?S: /etc/group file. This is normally "cat /etc/group", but can be  
?S: "ypcat group" when NIS is used.

?S: On some systems, such as os390, there may be no equivalent  
?S: command, in which case this variable is unset.

?S:.

?S:hostcat:

?S: This variable contains a command that produces the text of the  
?S: /etc/hosts file. This is normally "cat /etc/hosts", but can be  
?S: "ypcat hosts" when NIS is used.

?S: On some systems, such as os390, there may be no equivalent  
?S: command, in which case this variable is unset.

?S:.

:

see if we have to deal with yellow pages, now NIS.

?X: NeXT gives us some fun here, as always, by having both NIS (former YP)

?X: and NetInfo. But since it has both, it's ok to put the test inside the if.

?X: Contributed by Thomas Neumann <tom@smart.bo.open.de>.

```
if $test -d /usr/etc/yp || $test -d /etc/yp || $test -d /usr/lib/yp; then
```

```
@if passcat || groupcat
```

```
case "$passcat" in
```

```
 nidump*) ;;
```

```
*)
```

```
 case "$passcat" in
```

```
 ypcat) dflt=y;;
```

```
 *) if $contains '^+' /etc/passwd >/dev/null 2>&1; then
```

```
 dflt=y
```

```
 else
```

```
 dflt=n
```

```
 fi;;
```

```
*) dflt=n;;
```

```
esac
```

```
echo " "
```

```
rp='Are you getting the passwd file via yellow pages?'
```

```
./myread
```

```
case "$ans" in
```

```
 y*) passcat='ypcat passwd'
```

```
@if groupcat
```

```
 echo "(Assuming /etc/group is also distributed.)"
```

```
 groupcat='ypcat group'
```

```
@end
```

```
;;
```

```
*) passcat='cat /etc/passwd'
```

```
@if groupcat
```

```
 echo "(Assuming /etc/group is also local.)"
```

```
 groupcat='cat /etc/group'
```

```
@end
```

```
;;
```

```
esac
```

```
;;
```

```
esac
```

```
@end
```

```
@if hostcat
```

```
case "$hostcat" in
```

```
 nidump*) ;;
```

```
*)
```

```
 case
```

```
 "$hostcat" in
```

```
 ypcat) dflt=y;;
```

```
 *) if $contains '^+' /etc/passwd >/dev/null 2>&1; then
```

```
 dflt=y
```

```
 else
```

```
 dflt=n
```

```
 fi;;
```

```

*) dflt=n;;
esac
echo " "
rp='Are you getting the hosts file via yellow pages?'
./myread
case "$ans" in
y*) hostcat='ypcat hosts';;
*) hostcat='cat /etc/hosts';;
esac
;;
esac
@end
fi
?X: Ensure suitable default -- Manoj Srivastava
case "$hostcat" in
") test -f /etc/hosts && hostcat='cat /etc/hosts';;
esac
case "$groupcat" in
") test -f /etc/group && groupcat='cat /etc/group';;
esac
case "$passcat" in
") test -f /etc/passwd && passcat='cat /etc/passwd';;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/nis.U

```

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```

?RCS: $Id: d_PORTAR.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_PORTAR.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:08:42 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:40 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_PORTAR: cat +cc rm Setvar
?MAKE: -pick add $@ %<

```



```

?S:d_PORTAR:
?S: This variable conditionally handles definition of PORTAR,
?S: a creation of greater minds than I can imagine.
?S:.
?C:PORTAR:
?C: This manifest constant must
be defined to 1 for some implementations
?C: of ar.h to get the portable ar most everybody uses.
?C:.
?L:ar_fmag:
?L:ARFMAG:
?L:SARMAG:
?H:#$d_PORTAR PORTAR 1 /**/
?H:.
?F:!portar
?LINT:set d_PORTAR
: see if we need to define PORTAR
echo " "
echo 'Checking to see if we need to define PORTAR for portable archives...' >&4
$cat >portar.c <<'EOCP'
#include <ar.h>
int main() {
char *arfmag = ARFMAG;
int sarmag = SARMAG;
struct ar_hdr arh;

strncpy(arh.ar_fmag, arfmag, 2);

#ifdef PORTAR
printf("D\n");
#else
printf("U\n");
#endif
exit(0);}
EOCP
if $cc -o portar portar.c >/dev/null 2>&1 || \
$cc -DPORTAR=1 -o portar portar.c >/dev/null 2>&1 ; then
case "`./portar`" in
D)
val="$define"
echo "We'll be defining PORTAR for you."
;;
U)
val="$undef"
echo "We don't seem to need PORTAR defined here."
;;
*)
val="$define"

```

```

echo "(My test program gave me an unexpected value!)"
echo "I'll just define PORTAR to be sure."
;;
esac
else
echo "(Strange, I couldn't get my test
program to compile.)"
echo "We'll just define PORTAR in this case."
val="$define"
fi
set d_PORTAR
eval $setvar
$rm -f portar*

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_PORTAR.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_fchmod.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_fchmod.U,v $
?RCS: Revision 3.0 1993/08/18 12:05:59 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_fchmod: Inlibc
?MAKE: -pick add $@ %<
?S:d_fchmod:
?S: This variable conditionally defines the HAS_FCHMOD symbol, which
?S: indicates to the C program that the fchmod() routine is available
?S: to change mode of opened files.
?S:.
?C:HAS_FCHMOD (FCHMOD):
?C: This symbol, if defined, indicates that the fchmod routine is available
?C: to
change mode of opened files. If unavailable, use chmod().
?C:.
?H:#$d_fchmod HAS_FCHMOD /**/
?H:.
?LINT:set d_fchmod

```

```
: see if fchmod exists
set fchmod d_fchmod
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_fchmod.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2001, Jarkko Hietaniemi

?RCS:

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?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS:

?MAKE:d\_dirfd: Compile cat rm Setvar i\_dirent i\_sysdir i\_sysndir i\_systypes i\_stdlib

?MAKE: -pick add \$@ %<

?S:d\_dirfd:

?S: This variable conditionally defines the HAS\_DIRFD constant,

?S: which indicates to the C program that dirfd() is available

?S: to return the file descriptor of a directory stream.

?S:.

?C:HAS\_DIRFD:

?C: This manifest constant lets the C program know that dirfd

?C: is available.

?C:.

?H:#\$d\_dirfd HAS\_DIRFD /\*\*/

?H:.

?LINT:set d\_dirfd

?X: Can't use Inlibc because dirfd() might be a macro.

: Look

for dirfd

echo " "

```
$cat >dirfd.c <<EOM
```

```
#include <stdio.h>
```

```
#$i_stdlib I_STDLIB
```

```
#ifdef I_STDLIB
```

```
#include <stdlib.h>
```

```
#endif
```

```
#$i_dirent I_DIRENT /**/
```

```
#$i_sysdir I_SYS_DIR /**/
```

```
#$i_sysndir I_SYS_NDIR /**/
```

```
#$i_systypes I_SYS_TYPES /**/
```

```

#if defined(I_SYS_TYPES)
#include <sys/types.h>
#endif
#if defined(I_DIRENT)
#include <dirent.h>
#else
#ifdef I_SYS_NDIR
#include <sys/ndir.h>
#else
#ifdef I_SYS_DIR
#include <sys/dir.h>
#endif
#endif
#endif
int main() {
 DIR *dirp = opendir(".");
 if (dirfd(dirp) >= 0)
 exit(0);
 else
 exit(1);
}
EOM
val=$undef
set dirfd
if eval $compile; then
 val="$define"
fi
case "$val" in
$define) echo "dirfd() found." >&4 ;;
*) echo "dirfd() NOT found." >&4 ;;
esac
set d_dirfd
eval $setvar
$rm -f dirfd*

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_dirfd.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: vendorprefix.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera \$

?RCS:

?RCS: Copyright (c) 1999 Andy Dougherty

?RCS:

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```

?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: vendorprefix.U,v $
?RCS: Revision 1.1 1999/07/08 18:32:57 doughera
?RCS: Initial revision
?RCS:
?MAKE:usevendorprefix vendorprefix vendorprefixexp +oldvendorprefix: \
 Getfile Loc Oldconfig cat prefix Myread
?MAKE: -pick add $@ %<
?S:usevendorprefix:
?S: This variable tells whether the vendorprefix
?S: and consequently other vendor* paths are in use.
?S:.
?S:vendorprefix:
?S: This variable holds the full absolute path of the directory below
?S: which
 the vendor will install add-on packages.
?S: See INSTALL for usage and examples.
?S:.
?S:vendorprefixexp:
?S: This variable holds the full absolute path of the directory below
?S: which the vendor will install add-on packages. Derived from vendorprefix.
?S:.
?S:oldvendorprefix:
?S: This variable is set non-null if the vendorprefix was previously defined
?S: and gets set to a new value. Used internally by Configure only.
?S:.
: Set the vendorprefix variables
$cat <<EOM

```

The installation process will also create a directory for vendor-supplied add-ons. Vendors who supply perl with their system may find it convenient to place all vendor-supplied files in this directory rather than in the main distribution directory. This will ease upgrades between binary-compatible maintenance versions of perl.

Of course you may also use these directories in whatever way you see fit. For example, you might use them to access modules shared over a company-wide network.

The default answer should be fine for most people.

This causes further questions about vendor add-ons to be skipped and no vendor-specific directories will be configured for perl.

EOM

```

rp='Do you want to configure vendor-specific add-on directories?'
case "$usevendorprefix" in

```

```

define|true|[yY]*) dflt=y ;;
*) : User may have set vendorprefix directly on Configure command line.
case "$vendorprefix" in
"|' ') dflt=n ;;
*) dflt=y ;;
esac
;;
esac
./myread
case "$sans" in
[yY]*) fn=d~+
rp='Installation prefix to use for vendor-supplied add-ons?'
case "$vendorprefix" in
") dflt="$prefix" ;;
*) dflt=$vendorprefix ;;
esac
./getfile
: XXX Prefixit unit does not yet support siteprefix and vendorprefix
oldvendorprefix="
case "$vendorprefix" in
") ;;
*) case "$sans" in
"$prefix") ;;
*) oldvendorprefix="$prefix";;
esac
;;
esac
usevendorprefix="$define"
vendorprefix="$sans"
vendorprefixexp="$sansexp"
;;
*) usevendorprefix="$undef"
vendorprefix="
vendorprefixexp="
;;
esac

```

Found in path(s):

\*

/opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/vendorprefix.U

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?RCS:

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?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_strtoll: Inlibc d\_longlong Compile cat run

?MAKE: -pick add \$@ %<

?S:d\_strtoll:

?S: This variable conditionally defines the HAS\_STRTOULL symbol, which

?S: indicates to the C program that the strtoll() routine is available.

?S:.

?C:HAS\_STRTOULL:

?C: This symbol, if defined, indicates that the strtoll routine is

?C: available to convert strings to unsigned long longs.

?C:.

?H:#\$d\_strtoll HAS\_STRTOULL /\*\*/

?H:.

?F:!try

: see if strtoll exists

set strtoll d\_strtoll

eval \$inlibc

case "\$d\_longlong-\$d\_strtoll" in

"\$define-\$define")

\$cat <<EOM

Checking whether your strtoll() works okay...

EOM

\$cat >try.c <<'EOCP'

#include <errno.h>

#ifdef \_\_hpux

#define strtoll \_\_strtoll

#endif

#include

<stdio.h>

extern unsigned long long int strtoll(char \*s, char \*\*, int);

static int bad = 0;

int check(char \*s, long long eull, int een) {

long long gull;

errno = 0;

gull = strtoll(s, 0, 10);

if (!(gull == eull) && (errno == een))

bad++;

}

int main() {

check(" 1", 1LL, 0);

check(" 0", 0LL, 0);

check("18446744073709551615", 18446744073709551615ULL, 0);

check("18446744073709551616", 18446744073709551615ULL, ERANGE);

\*/ if 0 /\* strtoll() for /^-/ strings is undefined. \*/

check("-1", 18446744073709551615ULL, 0);

check("-18446744073709551614", 2LL, 0);

```

check("-18446744073709551615", 1LL, 0);
check("-18446744073709551616", 18446744073709551615ULL, ERANGE);
check("-18446744073709551617", 18446744073709551615ULL, ERANGE);
#endif
if (!bad)
 printf("ok\n");
}
EOCP
set try
if eval $compile; then
 case "$run ./try`" in
 ok) echo "Your strtoull()
seems to be working okay." ;;
 *) cat <<EOM >&4
Your strtoull() doesn't seem to be working okay.
EOM
 d_strtoull="$undef"
 ;;
 esac
else
 echo "(I can't seem to compile the test program--assuming it doesn't)"
 d_strtoull="$undef"
fi
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/perl/d_strtoull.U

```

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?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_socketlen\_t: Inhdr cat rm\_try Setvar Compile d\_socket sizetype

?MAKE: -pick add \$@ %<

?S:d\_socketlen\_t:

?S: This symbol will be defined if the C compiler supports socketlen\_t.

?S:.

?C:HAS\_SOCKETLEN\_T:

?C: This symbol will defined if the C compiler supports socketlen\_t.



?C: Usually the <sys/socket.h> needs to be included.

?C:.

```
?H:#$d_socklen_t HAS_SOCKLEN_T /**/
```

?H:.

```
?LINT:set d_socklen_t
```

```
: check for socklen_t
```

```
echo " "
```

```
echo "Checking to see if you have socklen_t..." >&4
```

```
$cat >try.c <<EOCP
```

```
#include <sys/types.h>
```

```
#$d_socket
```

```
HAS_SOCKET
```

```
#ifdef HAS_SOCKET
```

```
#include <sys/socket.h>
```

```
#endif
```

```
int main() { socklen_t x = 16; }
```

```
EOCP
```

```
set try
```

```
if eval $compile; then
```

```
val="$define"
```

```
echo "You have socklen_t."
```

```
else
```

```
val="$undef"
```

```
echo "You do not have socklen_t."
```

```
case "$sizetype" in
```

```
size_t) echo "(You do have size_t, that might work. Some people are happy with just an int.)" ;;
```

```
esac
```

```
fi
```

```
$rm_try
```

```
set d_socklen_t
```

```
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_socklen_t.U
```

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

```
?MAKE:d_llrint: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_llrint:
```

?S: This variable conditionally defines the HAS\_LLRINT symbol, which

?S: indicates to the C program that the llrint() routine is available

?S: to return the long long value closest to a double (according

?S: to the current rounding mode).

?S:.

?C:HAS\_LLRLINT:

?C: This symbol, if defined, indicates that the llrint routine is

?C: available to return the long long value closest to a double

?C: (according to the current rounding mode).

?C:.

?H:#\$d\_llrint HAS\_LLRLINT /\*\*/

?H:.

?LINT:set d\_llrint

: see if llrint exists

set llrint d\_llrint

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_llrint.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_netdb.U,v \$

?RCS:

?RCS: Copyright (c) 1998 Andy Dougherty

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:i\_netdb: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_netdb:

?S: This variable conditionally defines the I\_NETDB symbol, and indicates

?S: whether a C program should include <netdb.h>.

?S:.

?C:I\_NETDB:

?C: This symbol, if defined, indicates that <netdb.h> exists and

?C: should be included.

?C:.

?H:#\$i\_netdb I\_NETDB /\*\*/

?H:.

?LINT:set i\_netdb

: see if this is a netdb.h system

set netdb.h i\_netdb

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i\_netdb.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_sigvec.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_sigvec.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:45:37 ram

?RCS: patch61: there is now a separate routine for sigaction()

?RCS:

?RCS: Revision 3.0 1993/08/18 12:07:24 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X: d\_sigvec.U, from d\_ftime.U 1.0

?X:

?MAKE:d\_sigvec d\_sigvectr d\_sigintrp: Csym Inlibc Setvar

?MAKE: -pick add \$@ %<

?S:d\_sigvec:

?S: This variable conditionally defines the HAS\_SIGVEC symbol, which indicates  
?S: that BSD  
reliable signals are supported.

?S:.

?S:d\_sigvectr:

?S: This variable conditionally defines the HAS\_SIGVECTOR symbol, which  
?S: indicates that the sigvec() routine is called sigvector() instead, for  
?S: reasons known only to Hewlett-Packard.

?S:.

?S:d\_sigintrp:

?S: This variable conditionally defines the HAS\_SIGINTRP symbol, which  
?S: indicates that the siginterrupt() routine is available.

?S:.

?C:HAS\_SIGVEC (SIGVEC):

?C: This symbol, if defined, indicates that BSD reliable signals are  
?C: supported.

?C:.

?C:HAS\_SIGVECTOR (SIGVECTOR):

?C: This symbol, if defined, indicates that the sigvec() routine is called  
?C: sigvector() instead, and that sigspace() is provided instead of  
?C: sigstack(). This is probably only true for HP-UX.

?C:.

?C:HAS\_SIGINTRP (SIGINTRP):

?C: This symbol, if defined, indicates that the siginterrupt() routine  
?C: is available.

?C:.

?H:#\$d\_sigvec HAS\_SIGVEC /\*\*/  
?H:#\$d\_sigvectr HAS\_SIGVECTOR /\*\*/

```

?H:#$d_sigintrp HAS_SIGINTRP /**/
?H:.
?T:val
?LINT:set d_sigvec d_sigintrp
@if
 d_sigvectr || d_sigvec || HAS_SIGVEC || HAS_SIGVECTOR
: see if sigvector exists -- since sigvec will match the substring
echo " "
if set sigvector val -f d_sigvectr; eval $csym; $val; then
 echo 'sigvector() found--you must be running HP-UX.' >&4
 val="$define"; set d_sigvectr; eval $setvar
 val="$define"; set d_sigvec; eval $setvar
else
: try the original name
 d_sigvectr="$undef"
if set sigvec val -f d_sigvec; eval $csym; $val; then
 echo 'sigvec() found.' >&4
 val="$define"; set d_sigvec; eval $setvar
else
 echo 'sigvec() not found--race conditions with signals may occur.' >&4
 val="$undef"; set d_sigvec; eval $setvar
fi
fi

```

```

@end
@if d_sigintrp || HAS_SIGINTRP
: see if we have siginterrupt
set siginterrupt d_sigintrp
eval $inlibc

```

```
@end
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_sigvec.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_getnbyaddr.U,v $
?RCS:
?RCS: Copyright (c) 1998 Andy Dougherty
?RCS:
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?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_getnbyaddr: Inlibc
?MAKE: -pick add $@ %<
?S:d_getnbyaddr:
?S: This variable conditionally defines the HAS_GETNETBYADDR symbol, which

```

?S: indicates to the C program that the getnetbyaddr() routine is available

?S: to look up networks by their IP addresses.

?S:.

?C:HAS\_GETNETBYADDR:

?C: This symbol, if defined, indicates that the getnetbyaddr() routine is

?C: available to look up networks by their IP addresses.

?C:.

?H:#\$d\_getnbyaddr HAS\_GETNETBYADDR /\*\*/

?H:.

?LINT:set d\_getnbyaddr

: see if getnetbyaddr exists

set getnetbyaddr d\_getnbyaddr

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_getnbyad.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2017 Karl Williamson

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_thread\_safe\_nl\_langinfo\_l: Compile cat rm\_try Oldconfig \

i\_pthread i\_stdlib i\_langinfo i\_locale \

usethreads run

?MAKE: -pick add \$@ %<

?S:d\_thread\_safe\_nl\_langinfo\_l:

?S: This variable contains the eventual value of the

?S: HAS\_THREAD\_SAFE\_NL\_LANGINFO\_L symbol, which indicates if the

?S: nl\_langinfo\_l() function exists and is thread-safe.

?S:.

?C:HAS\_THREAD\_SAFE\_NL\_LANGINFO\_L:

?C: This symbol, when defined, indicates presence of the nl\_langinfo\_l()

?C: function, and that it is thread-safe.

?C:.

?H:#\$d\_thread\_safe\_nl\_langinfo\_l HAS\_THREAD\_SAFE\_NL\_LANGINFO\_L /\*\*/

?H:.

?F:!try

: check for thread\_safe\_nl\_langinfo\_l item

\$cat <<EOM

Checking to see if you have nl\_langinfo\_l() and that it is thread-safe

EOM

?X:

Despite claiming that nl\_langinfo\_l() is thread-safe, the POSIX 2008

?X: standard allows for a non-safe implementation:

?X:

?X: "nl\_langinfo\_l() uses an internal per-thread buffer, and nl\_langinfo()

?X: uses (in all threads) the same buffer that nl\_langinfo\_l() uses in the

?X: initial thread. There can be interactions, but only when

?X: nl\_langinfo\_l() is called in the initial thread"

?X:

?X: If nl\_langinfo\_l() isn't thread safe, might as well just use plain

?X: nl\_langinfo().

?X:

?X: This program calls nl\_langinfo\_l(), then creates a thread, calling plain

?X: nl\_langinfo() from within it, then sees if the buffer in the original

?X: thread was changed.

```
$cat >try.c <<EOCP
```

```
#$i_stdlib I_STDLIB
```

```
#$ifdef I_STDLIB
```

```
include <stdlib.h>
```

```
#$endif
```

```
#$include <string.h>
```

```
#$i_langinfo I_LANGINFO
```

```
#$ifdef I_LANGINFO
```

```
include <langinfo.h>
```

```
#$endif
```

```
#$i_pthread I_PTHREAD
```

```
#$ifdef I_PTHREAD
```

```
include <pthread.h>
```

```
#$endif
```

```
#$i_locale I_LOCALE
```

```
#$ifdef I_LOCALE
```

```
include <locale.h>
```

```
#$endif
```

```
void *
```

```
thread_start(void
```

```
 * arg)
```

```
{
```

```
 nl_langinfo(RADIXCHAR);
```

```
}
```

```
int main() {
```

```
 char * main_buffer;
```

```
 char save_main_buffer[1000];
```

```
 pthread_t subthread;
```

```
 pthread_attr_t attr;
```

```
 main_buffer = nl_langinfo_l(CODESET, newlocale(LC_ALL_MASK, "C", 0));
```

```

/* If too large for our generous allowance, just assume we don't have
 * it. */
if (strlen(main_buffer) >= sizeof(save_main_buffer)) {
 exit(1);
}

strcpy(save_main_buffer, main_buffer);

if (pthread_attr_init(&attr) != 0) {
 exit(1);
}

if (pthread_create(&subthread, &attr, thread_start, NULL) != 0) {
 exit(1);
}

if (pthread_join(subthread, NULL) != 0) {
 exit(1);
}

exit(!(strcmp(main_buffer, save_main_buffer) == 0));
}
EOCP
case "$setthreads" in
define)
set try
if eval $compile; then
echo "Your system has nl_langinfo_l()..." >&4
if $run ./try; then
echo "and it is thread-safe (just as I'd hoped)." >&4
d_thread_safe_nl_langinfo_l="$define"
echo "$d_thread_safe_nl_langinfo_l" >&4
else
echo "but it isn't thread-safe, so we won't use it." >&4
fi
else
echo "your system does not have nl_langinfo_l()" >&4
fi
;;
*) echo "Since threads aren't selected, we won't bother looking for nl_langinfo_l()" >&4
esac
if test X"$d_thread_safe_nl_langinfo_l" = X; then
d_thread_safe_nl_langinfo_l="$undef"
fi
$rm_try

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/threads/d\_nl\_langinfo\_1.U

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: privlib.U,v \$

?RCS: Revision 3.0.1.4 1995/09/25 09:17:09 ram

?RCS: patch59: unit is now forced to the top of Configure, if possible

?RCS:

?RCS: Revision 3.0.1.3 1995/01/30 14:44:23 ram

?RCS: patch49: can now handle installation prefix changes (from WED)

?RCS:

?RCS: Revision 3.0.1.2 1994/08/29 16:31:52 ram

?RCS: patch32: now uses installation prefix

?RCS:

?RCS: Revision 3.0.1.1 1993/09/13 16:12:34 ram

?RCS: patch10: added support for /local/lib (WED)

?RCS: patch10: prompt phrasing made

more explicit (WED)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:35 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:privlib privlibexp installprivlib: afs package cat Getfile \  
Oldconfig Prefixit test

?MAKE: -pick add \$@ %<

?Y:TOP

?S:privlib:

?S: This variable contains the eventual value of the PRIVLIB symbol,

?S: which is the name of the private library for this package. It may

?S: have a ~ on the front. It is up to the makefile to eventually create

?S: this directory while performing installation (with ~ substitution).

?S:.

?S:privlibexp:

?S: This variable is the ~name expanded version of privlib, so that you

?S: may use it directly in Makefiles or shell scripts.

?S:.

?S:installprivlib:

?S: This variable is really the same as privlibexp but may differ on

?S: those systems using AFS. For extra portability, only this variable



?S: should be used in makefiles.

?S:.

?C:PRIVLIB:

?C: This symbol contains the name of the private library for this package.

?C: The library is

private in the sense that it needn't be in anyone's

?C: execution path, but it should be accessible by the world. The program

?C: should be prepared to do ~ expansion.

?C:.

?C:PRIVLIB\_EXP:

?C: This symbol contains the ~name expanded version of PRIVLIB, to be used

?C: in programs that are not prepared to deal with ~ expansion at run-time.

?C:.

```
?H:#define PRIVLIB "$privlib" /**/
```

```
?H:#define PRIVLIB_EXP "$privlibexp" /**/
```

?H:.

: determine where private executables go

```
set dflt privlib lib/$package
```

```
eval $prefixit
```

```
$cat <<EOM
```

There are some auxiliary files for \$package that need to be put into a private library directory that is accessible by everyone.

EOM

```
fn=d~+
```

```
rp='Pathname where the private library files will reside?'
```

```
./getfile
```

```
if $test "X$privlibexp" != "X$ansexp"; then
```

```
installprivlib="
```

```
fi
```

```
privlib="$ans"
```

```
privlibexp="$ansexp"
```

```
if $afs; then
```

```
$cat <<EOM
```

Since you are running AFS, I need to distinguish the directory in which

private files reside from the directory in which they are installed

(and from

which they are presumably copied to the former directory by occult means).

EOM

```
case "$installprivlib" in
```

```
"") dflt=`echo $privlibexp | sed 's#^/afs/#/afs/#`;;
```

```
*) dflt="$installprivlib";;
```

```
esac
```

```
fn=de~
```

```
rp='Where will private files be installed?'
```

```
./getfile
installprivlib="$sans"
else
installprivlib="$privlibexp"
fi
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/privlib.U
```

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?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?MAKE:i\_poll: Inhdr

?MAKE:-pick add \$@ %<

?S:i\_poll:

?S: This variable conditionally defines the I\_POLL symbol, which

?S: indicates to the C program that it should include <poll.h>.

?S:.

?C:I\_POLL:

?C: This symbol, if defined, indicates that the program may include

?C: <poll.h>. If there is no <poll.h>, then you may check I\_SYS\_POLL

?C: instead to see whether there is a <sys/poll.h> to include.

?C:.

?H:#\$i\_poll I\_POLL /\*\*/

?H:.

?LINT:set i\_poll

: see if there is a poll.h file

set poll.h i\_poll

eval \$inhdr

Found

in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_poll.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_shadow.U,v \$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:i\_prot: Inhdr Hasfield  
?MAKE: -pick add \$@ %<  
?S:i\_prot:  
?S: This variable conditionally defines the I\_PROT symbol, and indicates  
?S: whether a C program should include <prot.h>.  
?S:.  
?C:I\_PROT:  
?C: This symbol, if defined, indicates that <prot.h> exists and  
?C: should be included.  
?C:.  
?H:#\$i\_prot I\_PROT /\*\*/  
?H:.  
?LINT:set i\_prot  
: see if this is a prot.h system  
set prot.h i\_prot  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_prot.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_statblks.U,v 3.0 1993/08/18 12:07:29 ram Exp \$  
?RCS:  
?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
?RCS:  
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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: d\_statblks.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:07:29 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_statblks: Hasfield i\_sysstat  
?MAKE: -pick add \$@ %<  
?S:d\_statblks:  
?S: This variable conditionally defines USE\_STAT\_BLOCKS  
?S: if this system has a stat structure declaring  
?S: st\_blksize and st\_blocks.  
?S:.  
?C:USE\_STAT\_BLOCKS (STATBLOCKS):

```

?C: This symbol is defined if this system has a stat structure declaring
?C: st_blksize and st_blocks.
?C:.
?H:%<:#ifndef
USE_STAT_BLOCKS
?H:%<:#$d_statblks USE_STAT_BLOCKS /**/
?H:%<:#endif
?H:.
?LINT:set d_statblks
: see if stat knows about block sizes
echo " "
echo "Checking to see if your struct stat has st_blocks field..." >&4
set d_statblks stat st_blocks $i_sysstat sys/stat.h
eval $hasfield

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/modified/d_statblks.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_internet.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_internet.U,v $
?RCS: Revision 3.0.1.1 1993/09/13 16:02:04 ram
?RCS: patch10: most mailers support Internet addresses nowadays (WAD)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:24 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_internet: Myread Oldconfig Setvar
?MAKE: -pick add $@ %<
?S:d_internet:
?S: This variable conditionally defines the INTERNET symbol, which
?S: indicates to the C program that there is a mailer available
which
?S: supports internet-style addresses (user@site.domain).
?S:.
?C:INTERNET:
?C: This symbol, if defined, indicates that there is a mailer available
?C: which supports internet-style addresses (user@site.domain).

```

```
?C:.
?H:#$d_internet INTERNET /**/
?H:.
?LINT:set d_internet
: check for internet mailer
dflt=y
case "$d_internet" in
"$undef") dflt=n;;
esac
cat <<EOM
```

Most mailers can deliver mail to addresses of the INTERNET persuasion, such as user@host.edu. Some older mailers, however, require the complete path to the destination to be specified in the address.

```
EOM
rp="Does your mailer understand INTERNET addresses?"
. ./myread
case "$ans" in
y*) val="$define";;
*) val="$undef";;
esac
set d_internet
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_internet.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_getpgrp.U,v 3.0.1.1 1997/02/28 15:34:28 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: d_getpgrp.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 15:34:28 ram
?RCS: patch61: new USE_BSD_GETPGRP to detect the getpgrp() flavor
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:15 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_getpgrp d_bsdgetpgrp: Guess Inlibc Setvar cat rm_try \
```

```

+cc +ccflags +ldflags +libs i_unistd i_stdlib run
?MAKE: -pick add $@ %<
?S:d_getpgrp:
?S: This variable conditionally defines HAS_GETPGRP if getpgrp() is
?S: available
to get the current process group.
?S:.
?S:d_bsdgetpgrp:
?S: This variable conditionally defines USE_BSD_GETPGRP if
?S: getpgrp needs one arguments whereas USG one needs none.
?S:.
?C:HAS_GETPGRP (GETPGRP):
?C: This symbol, if defined, indicates that the getpgrp routine is
?C: available to get the current process group.
?C:.
?C:USE_BSD_GETPGRP:
?C: This symbol, if defined, indicates that getpgrp needs one
?C: arguments whereas USG one needs none.
?C:.
?H:#$d_getpgrp HAS_GETPGRP /**/
?H:#$d_bsdgetpgrp USE_BSD_GETPGRP /**/
?H:.
?T:xxx
?F:!try
?LINT:set d_getpgrp d_bsdgetpgrp
: see if getpgrp exists
set getpgrp d_getpgrp
eval $inlibc

```

```

@if USE_BSD_GETPGRP || d_bsdgetpgrp
case "$d_getpgrp" in
"$define")
echo " "
echo "Checking to see which flavor of getpgrp is in use..."
$cat >try.c <<EOP
#$i_unistd I_UNISTD
#include <sys/types.h>
#ifdef I_UNISTD
include <unistd.h>
#endif
#$i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
int main()
{
if (getuid() == 0) {
printf("I

```

```

see you are running Configure as super-user...)\n");
setuid(1);
}
#ifdef TRY_BSD_PGRP
if (getpgrp(1) == 0)
 exit(0);
#else
if (getpgrp() > 0)
 exit(0);
#endif
exit(1);
}
EOP
if $cc -o try -DTRY_BSD_PGRP $ccflags $ldflags try.c $libs >/dev/null 2>&1 && $run ./try; then
echo "You have to use getpgrp(pid) instead of getpgrp()." >&4
val="$define"
elif $cc -o try $ccflags $ldflags try.c $libs >/dev/null 2>&1 && $run ./try; then
echo "You have to use getpgrp() instead of getpgrp(pid)." >&4
val="$undef"
else
echo "I can't seem to compile and run the test program."
if ./usg; then
xxx="a USG one, i.e. you use getpgrp()."
else
SVR4 systems can appear rather BSD-ish.
case "$i_unistd" in
$undef)
xxx="a BSD one, i.e. you use getpgrp(pid)."
val="$define"
;;
$define)
xxx="probably a USG one, i.e. you use getpgrp()."
val="$undef"
;;
esac
fi
echo "Assuming your getpgrp is $xxx" >&4
fi
;;
*) val="$undef";;
esac
set d_bsdgetpgrp
eval
$setvar
$rm_try
@end

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_getpgrp.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getpwnam\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_getpwnam\_r getpwnam\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
usethreads i\_pwd extern\_C

?MAKE: -pick add \$@ %<

?S:d\_getpwnam\_r:

?S: This variable conditionally defines the HAS\_GETPWNAM\_R symbol,

?S: which indicates to the C program that the getpwnam\_r()

?S: routine is available.

?S:.

?S:getpwnam\_r\_proto:

?S: This variable encodes the prototype of getpwnam\_r.

?S: It is zero if d\_getpwnam\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getpwnam\_r

?S: is defined.

?S:.

?C:HAS\_GETPWNAM\_R:

?C: This symbol, if defined, indicates that the getpwnam\_r routine

?C: is available to

getpwnam re-entrantly.

?C:.

?C:GETPWNAM\_R\_PROTO:

?C: This symbol encodes the prototype of getpwnam\_r.

?C: It is zero if d\_getpwnam\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getpwnam\_r

?C: is defined.

?C:.

?H:#\$d\_getpwnam\_r HAS\_GETPWNAM\_R /\*\*/

?H:#define GETPWNAM\_R\_PROTO \$getpwnam\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_getpwnam\_r\_proto

: see if getpwnam\_r exists

set getpwnam\_r d\_getpwnam\_r

eval \$inlibc

case "\$d\_getpwnam\_r" in

"\$define")

hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_pwd pwd.h"

case "\$d\_getpwnam\_r\_proto:\$usethreads" in



```

":define") d_getpwnam_r_proto=define
set d_getpwnam_r_proto getpwnam_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_getpwnam_r_proto" in
define)
case "$getpwnam_r_proto" in
"|0) try='int getpwnam_r(const char*, struct passwd*, char*, size_t, struct passwd**);'
./protochk "$extern_C $try" $hdrs && getpwnam_r_proto=I_CSBWR ;;
esac
case "$getpwnam_r_proto" in
"|0) try='int getpwnam_r(const char*, struct passwd*,
char*, int, struct passwd**);'
./protochk "$extern_C $try" $hdrs && getpwnam_r_proto=I_CSBIR ;;
esac
case "$getpwnam_r_proto" in
"|0) try='struct passwd* getpwnam_r(const char*, struct passwd*, char*, int);'
./protochk "$extern_C $try" $hdrs && getpwnam_r_proto=S_CSBI ;;
esac
case "$getpwnam_r_proto" in
"|0) try='int getpwnam_r(const char*, struct passwd*, char*, int);'
./protochk "$extern_C $try" $hdrs && getpwnam_r_proto=I_CSBI ;;
esac
case "$getpwnam_r_proto" in
"|0) d_getpwnam_r=undef
getpwnam_r_proto=0
echo "Disabling getpwnam_r, cannot determine prototype." >&4 ;;
*) case "$getpwnam_r_proto" in
REENTRANT_PROTO*) ;;
*) getpwnam_r_proto="REENTRANT_PROTO_$getpwnam_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$susethreads" in
define) echo "getpwnam_r has no prototype, not using it." >&4 ;;
esac
d_getpwnam_r=undef
getpwnam_r_proto=0
;;
esac
;;
*) getpwnam_r_proto=0
;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_getpwnam\_r.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_sysun.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: as specified in the README file that comes with the distribution.

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: i\_sysun.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:42 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit looks wether <sys/un.h> is available or not

?X:

?MAKE:i\_sysun: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_sysun:

?S: This variable conditionally defines I\_SYS\_UN, which indicates

?S: to the C program that it should include <sys/un.h> to get UNIX

?S: domain socket definitions.

?S:.

?C:I\_SYS\_UN:

?C: This symbol, if defined, indicates

to the C program that it should

?C: include <sys/un.h> to get UNIX domain socket definitions.

?C:.

?H:#\$i\_sysun I\_SYS\_UN /\*\*/

?H:.

?LINT:set i\_sysun

: see if this is a sys/un.h system

set sys/un.h i\_sysun

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_sysun.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_mkstemp: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_mkstemp:  
?S: This variable conditionally defines the HAS\_MKSTEMPS symbol, which  
?S: indicates to the C program that the mkstemp() routine is available  
?S: to exclusively create and open a uniquely named (with a suffix)  
?S: temporary file.  
?S:.  
?C:HAS\_MKSTEMPS :  
?C: This symbol, if defined, indicates that the mkstemp routine is  
?C: available to exclusively create and open a uniquely named  
?C: (with a suffix) temporary file.  
?C:.  
?H:#\$d\_mkstemp HAS\_MKSTEMPS /\*\*/  
?H:.  
?LINT:set d\_mkstemp  
: see if mkstemp exists  
set mkstemp d\_mkstemp  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_mkstemp.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>  
?RCS:  
?RCS: \$Log: selecttype.U,v \$  
?RCS: Revision 3.0.1.3 1997/02/28 16:20:09 ram  
?RCS: patch61: always include <sys/select.h> when available for test  
?RCS:  
?RCS: Revision 3.0.1.2 1995/07/25 14:14:06 ram  
?RCS: patch56: removed harmful spaces in assignment  
?RCS:

```

?RCS: Revision 3.0.1.1 1994/06/20 07:06:31 ram
?RCS: patch30: created by ADO
?RCS:
?MAKE:selecttype: cat +cc +ccflags rm Oldconfig Myread \
d_fd_set d_select d_socket i_systime
i_sysselect
?MAKE: -pick add $@ %<
?S:selecttype:
?S: This variable holds the type used for the 2nd, 3rd, and 4th
?S: arguments to select. Usually, this is 'fd_set *', if HAS_FD_SET
?S: is defined, and 'int *' otherwise. This is only useful if you
?S: have select(), naturally.
?S:.
?C:Select_fd_set_t:
?C: This symbol holds the type used for the 2nd, 3rd, and 4th
?C: arguments to select. Usually, this is 'fd_set *', if HAS_FD_SET
?C: is defined, and 'int *' otherwise. This is only useful if you
?C: have select(), of course.
?C:.
?H:#define Select_fd_set_t $selecttype /**/
?H:.
?T:xxx yyy
: check for type of arguments to select. This will only really
: work if the system supports prototypes and provides one for
: select.
case "$d_select" in
$define)
: Make initial guess
case "$selecttype" in
"|')
case "$d_fd_set" in
$define) xxx='fd_set *' ;;
*) xxx='int *' ;;
esac
;;
*) xxx="$selecttype"
;;
esac
: backup guess
case "$xxx" in
'fd_set *') yyy='int *'
;;
'int *') yyy='fd_set *' ;;
esac

$cat <<EOM

```

Checking to see what type of arguments are expected by select().

```

EOM
$cat >try.c <<EOCP
#$i_systime I_SYS_TIME
#$i_sysselect I_SYS_SELECT
#$d_socket HAS_SOCKET
#include <sys/types.h>
#ifdef HAS_SOCKET
#include <sys/socket.h> /* Might include <sys/bsdtypes.h> */
#endif
#ifdef I_SYS_TIME
#include <sys/time.h>
#endif
#ifdef I_SYS_SELECT
#include <sys/select.h>
#endif
int main()
{
int width;
Select_fd_set_t readfds;
Select_fd_set_t writefds;
Select_fd_set_t exceptfds;
struct timeval timeout;
select(width, readfds, writefds, exceptfds, &timeout);
exit(0);
}
EOCP
if $cc $ccflags -c -DSelect_fd_set_t="$xxx" try.c >/dev/null 2>&1 ; then
selecttype="$xxx"
echo "Your system uses $xxx for the arguments to select." >&4
elif $cc $ccflags -c -DSelect_fd_set_t="$yyy" try.c >/dev/null 2>&1 ; then
selecttype="$yyy"
echo "Your system uses $yyy for the arguments to select." >&4
else
rp='What is the type for the 2nd, 3rd, and 4th arguments
to select?'
dflt="$xxx"
./myread
selecttype="$ans"
fi
$rm -f try.[co]
;;
*) selecttype='int *'
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/selecttype.U

```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_table.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: as specified in the README file that comes with the distribution.
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_table.U,v $
?RCS: Revision 3.0.1.2 1993/11/10 17:34:14 ram
?RCS: patch14: wrongly mentionned an obsolete symbol
?RCS:
?RCS: Revision 3.0.1.1 1993/10/16 13:49:29 ram
?RCS: patch12: created
?RCS:
?MAKE:d_table: Inlibc
?MAKE: -pick add $@ %<
?S:d_table:
?S: This variable conditionally defines HAS_TABLE if table() is
?S: available to examine/update elements from a system table.
?S:.
?C:HAS_TABLE:
?C: This symbol, if defined, indicates that the OSF/1
table() system
?C: call is available to examine/update items from a system table.
?C:.
?H:#$d_table HAS_TABLE /**/
?H:.
?LINT:set d_table
: see if table exists
set table d_table
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_table.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: vendorhtml3dir.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera $
?RCS:
?RCS: Copyright (c) 1999, Andy Dougherty
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
```

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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: vendorhtml3dir.U,v \$  
?RCS: Revision 1.1 1999/07/08 18:32:57 doughera  
?RCS: Initial revision  
?RCS:  
?MAKE:vendorhtml3dir vendorhtml3direxp installvendorhtml3dir: html3dir Getfile \  
Oldconfig Setprefixvar Prefixit test vendorprefix prefix sed  
?MAKE: -pick add \$@ %<  
?Y:TOP  
?S:vendorhtml3dir:  
?S: This variable contains the name of the directory for html  
?S: library pages. It may have a ~ on the front.  
?S: The standard distribution will put nothing  
in this directory.  
?S: Vendors who distribute perl may wish to place their own  
?S: html pages for modules and extensions in this directory with  
?S: MakeMaker Makefile.PL INSTALLDIRS=vendor  
?S: or equivalent. See INSTALL for details.  
?S:.  
?S:vendorhtml3direxp:  
?S: This variable is the ~name expanded version of vendorhtml3dir, so that you  
?S: may use it directly in Makefiles or shell scripts.  
?S:.  
?D:installvendorhtml3dir="  
?S:installvendorhtml3dir:  
?S: This variable is really the same as vendorhtml3direxp but may differ on  
?S: those systems using AFS. For extra portability, only this variable  
?S: should be used in makefiles.  
?S:.  
?LINT:change prefixvar  
?LINT:set installvendorhtml3dir  
: Set the vendorhtml3dir variables  
case "\$vendorprefix" in  
") vendorhtml3dir="  
vendorhtml3direxp="  
;;  
\*) : determine where vendor-supplied module html pages go.  
: There is no standard location, so try to copy the previously-selected  
: directory structure for the core html pages.  
: XXX Better default  
suggestions would be welcome.  
case "\$vendorhtml3dir" in  
") dflt=`echo "\$html3dir" | \$sed "s#^\$prefix#\$vendorprefix#"` ;;  
\*) dflt=\$vendorhtml3dir ;;  
esac

```

case "$dflt" in
'|') dflt=none ;;
esac
fn=dn+~
rp='Pathname for the vendor-supplied html pages?'
./getfile
vendorhtml3dir="$ans"
vendorhtml3direxp="$ansexp"
;;
esac
: Use ' ' for none so value is preserved next time through Configure
$test X"$vendorhtml3dir" = "X" && vendorhtml3dir=' '
prefixvar=vendorhtml3dir
./installprefix

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/vendorhtml3dir.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Ins.U,v 3.0.1.1 1994/06/20 07:05:52 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: Ins.U,v \$

?RCS: Revision 3.0.1.1 1994/06/20 07:05:52 ram

?RCS: patch30: created by ADO

?RCS:

?X:

?X: This unit checks whether symbolic links are really supported.

?X: We can't rely on d\_symlink because that may be listed in the

?X: C library but unimplemented.

?X:

?MAKE:lns: ln rm touch

?MAKE:-pick add \$@ %<

?S:lns:

?S: This variable holds the name of the command to make

?S: symbolic

links (if they are supported). It can be used

?S: in the Makefile. It is either 'ln -s' or 'ln'



```
?S:.
: determine whether symbolic links are supported
echo " "
$touch blurfl
if $ln -s blurfl sym > /dev/null 2>&1 ; then
echo "Symbolic links are supported." >&4
lns="$ln -s"
else
echo "Symbolic links are NOT supported." >&4
lns="$ln"
fi
$rm -f blurfl sym
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/lns.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_sbrkproto: Hasproto i\_unistd

?MAKE: -pick add \$@ %<

?S:d\_sbrkproto:

?S: This variable conditionally defines the HAS\_SBRK\_PROTO symbol,

?S: which indicates to the C program that the system provides

?S: a prototype for the sbrk() function. Otherwise, it is

?S: up to the program to supply one.

?S:.

?C:HAS\_SBRK\_PROTO:

?C: This symbol, if defined, indicates that the system provides

?C: a prototype for the sbrk() function. Otherwise, it is up

?C: to the program to supply one. Good guesses are

?C: extern void\* sbrk(int);

?C: extern

void\* sbrk(size\_t);

?C:.

?H:#\$d\_sbrkproto HAS\_SBRK\_PROTO /\*\*/

?H:.

?LINT:set d\_sbrkproto

: see if prototype for sbrk is available

```
echo " "
set d_sbrkproto sbrk $i_unistd unistd.h
eval $hasproto
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_sbrkproto.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_endpwent.U,v $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1998 Andy Dougherty
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?RCS: $Log: d_endpwent.U,v $
```

```
?RCS:
```

```
?MAKE:d_endpwent: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_endpwent:
```

```
?S: This variable conditionally defines the HAS_ENDPWENT symbol, which
```

```
?S: indicates to the C program that the endpwent() routine is available
```

```
?S: for sequential access of the passwd database.
```

```
?S:.
```

```
?C:HAS_ENDPWENT:
```

```
?C: This symbol, if defined, indicates that the getgrent routine is
```

```
?C: available for finalizing sequential access of the passwd database.
```

```
?C:.
```

```
?H:#$d_endpwent HAS_ENDPWENT /**/
```

```
?H:.
```

```
?LINT:set d_endpwent
```

```
: see if endpwent exists
```

```
set endpwent d_endpwent
```

```
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_endpwent.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_dosuid.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
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```
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```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Tye McQueen <tye@metronet.com> added safe setuid script checks.  
?RCS:  
?RCS: \$Log: d\_dosuid.U,v \$  
?RCS: Revision 3.0.1.2 1997/02/28 15:33:03 ram  
?RCS: patch61: moved unit to TOP via a ?Y: layout directive  
?RCS: patch61: tell them /dev/fd is not about floppy disks  
?RCS:  
?RCS: Revision 3.0.1.1 1994/10/29 16:12:08 ram  
?RCS: patch36: added checks for secure setuid scripts (Tye McQueen)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:05:55 ram  
?RCS: Baseline for  
dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_dosuid d\_suidsafes: cat contains ls rm test Myread Setvar \  
Oldconfig Guess package hint patchlevel  
?MAKE: -pick add \$@ %<  
?S:d\_suidsafes:  
?S: This variable conditionally defines SETUID\_SCRIPTS\_ARE\_SECURE\_NOW  
?S: if setuid scripts can be secure. This test looks in /dev/fd/.  
?S:.  
?S:d\_dosuid:  
?S: This variable conditionally defines the symbol DOSUID, which  
?S: tells the C program that it should insert setuid emulation code  
?S: on hosts which have setuid #! scripts disabled.  
?S:.  
?C:SETUID\_SCRIPTS\_ARE\_SECURE\_NOW:  
?C: This symbol, if defined, indicates that the bug that prevents  
?C: setuid scripts from being secure is not present in this kernel.  
?C:.  
?C:DOSUID:  
?C: This symbol, if defined, indicates that the C program should  
?C: check the script that it is executing for setuid/setgid bits, and  
?C: attempt to emulate setuid/setgid on systems that have disabled  
?C: setuid #! scripts because the kernel can't do it securely.  
?C: It is up to the package  
designer to make sure that this emulation  
?C: is done securely. Among other things, it should do an fstat on  
?C: the script it just opened to make sure it really is a setuid/setgid  
?C: script, it should make sure the arguments passed correspond exactly  
?C: to the argument on the #! line, and it should not trust any  
?C: subprocesses to which it must pass the filename rather than the  
?C: file descriptor of the script to be executed.  
?C:.  
?H:#\$d\_suidsafes SETUID\_SCRIPTS\_ARE\_SECURE\_NOW /\*\*/

```
?H:#$d_dosuid DOSUID /**/
?H:.
?Y:TOP
?F:!reflect
?LINT: set d_suidsafes
: see if setuid scripts can be secure
$cat <<EOM
```

Some kernels have a bug that prevents setuid #! scripts from being secure. Some sites have disabled setuid #! scripts because of this.

First let's decide if your kernel supports secure setuid #! scripts.  
(If setuid #! scripts would be secure but have been disabled anyway, don't say that they are secure if asked.)

EOM

```
val="$undef"
if $test -d /dev/fd; then
 echo "#!$ls" >reflect
 chmod
 +x,u+s reflect
 ./reflect >flect 2>&1
 if $contains "/dev/fd" flect >/dev/null; then
 echo "Congratulations, your kernel has secure setuid scripts!" >&4
 val="$define"
 else
 $cat <<EOM
```

If you are not sure if they are secure, I can check but I'll need a username and password different from the one you are using right now.  
If you don't have such a username or don't want me to test, simply enter 'none'.

EOM

```
rp='Other username to test security of setuid scripts with?'
dflt='none'
. ./myread
case "$ans" in
n|none)
 case "$d_suidsafes" in
 *) echo "I'll assume setuid scripts are *not* secure." >&4
 dflt=n;;
 "$undef")
 echo "Well, the $hint value is *not* secure." >&4
 dflt=n;;
 *) echo "Well, the $hint value *is* secure." >&4
 dflt=y;;
 esac
```

```

;;
*)
$rm -f reflect flect
echo "#!$ls" >reflect
chmod +x,u+s reflect
echo >flect
chmod a+w flect
echo "'su" will (probably) prompt you for "'$ans's password."
su $ans -c './reflect
>flect'
if $contains "/dev/fd" flect >/dev/null; then
echo "Okay, it looks like setuid scripts are secure." >&4
dflt=y
else
echo "I don't think setuid scripts are secure." >&4
dflt=n
fi
;;
esac
rp='Does your kernel have *secure* setuid scripts?'
./myread
case "$ans" in
[yY]*) val="$define";;
*) val="$undef";;
esac
fi
else
echo "I don't think setuid scripts are secure (no /dev/fd directory)." >&4
echo "(That's for file descriptors, not floppy disks.)"
val="$undef"
fi
set d_suidsafesafe
eval $setvar

$rm -f reflect flect

: now see if they want to do setuid emulation
if $test $patchlevel -lt 11; then
echo " "
val="$undef"
case "$d_suidsafesafe" in
"$define")
val="$undef"
echo "No need to emulate SUID scripts since they are secure here." >&4
;;
*)
$cat <<EOM
Some systems have disabled setuid scripts, especially systems where

```

setuid scripts cannot be secure. On systems where setuid scripts have been disabled, the setuid/setgid bits on scripts are currently useless. It is possible for \$package to detect those bits and emulate setuid/setgid in a secure fashion. This emulation will only work if setuid scripts have been disabled in your kernel.

EOM

```
case "$d_dosuid" in
"$define") dflt=y ;;
*) dflt=n ;;
esac
rp="Do you want to do setuid/setgid emulation?"
. ./myread
case "$ans" in
[yY]*) val="$define";;
*) val="$undef";;
esac
;;
esac
set d_dosuid
eval $setvar
else
 case "$d_dosuid" in
"$define")
cat >&4 <<EOH
```

SUID emulation has been removed for 5.12  
Please re-run Configure without -Dd\_dosuid

EOH

```
exit 1;
;;
esac
d_dosuid=undef
fi
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_dosuid.U
```

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?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

```

?RCS:
?MAKE:d_futimes: Compile cat rm_try run
?MAKE: -pick add $@ %<
?S:d_futimes:
?S: This variable conditionally defines the HAS_FUTIMES symbol, which
?S: indicates to the C program that the futimes() routine is available.
?S:.
?C:HAS_FUTIMES:
?C: This symbol, if defined, indicates that the futimes routine is
?C: available to change file descriptor time stamps with struct timevals.
?C:.
?H:#$d_futimes HAS_FUTIMES /**/
?H:.
?T:rc
?F:!try
: check for a working futimes
d_futimes="$undef"
echo " "
echo "Checking if you have a working futimes()" >&4
$cat >try.c <<EOCP
#include <stdio.h>
#include <sys/time.h>
#include <errno.h>
#include <fcntl.h>

int main ()
{
 int fd, rv;
 fd = open ("try.c", O_RDWR);

 if (-1 == fd) exit (1);
 rv = futimes (fd, NULL);
 exit (rv == -1 ? errno : 0);
}
EOCP
set try
if eval $compile; then
 ` $run ./try `
 rc=$?
 case "$rc" in
 0) echo "Yes, you have" >&4
 d_futimes="$define"
 ;;
 *) echo "No, you have futimes, but it isn't working ($rc) (probably harmless)" >&4
 ;;
 esac
else
 echo "No, it does not (probably harmless)" >&4

```

fi

\$rm\_try

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_futimes.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_dladdr.U,v \$

?RCS:

?MAKE:d\_dladdr: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_dladdr:

?S: This variable conditionally defines the HAS\_DLADDR symbol, which

?S: indicates to the C program that the dladdr() routine is available

?S: to get a stack trace.

?S:.

?C:HAS\_DLADDR:

?C: This symbol, if defined, indicates that the dladdr() routine is

?C: available to query dynamic linker information for an address.

?C: The <dlfcn.h> header must be included to use this routine.

?C:.

?H:#\$d\_dladdr HAS\_DLADDR /\*\*/

?H:.

?LINT:set d\_dladdr

:

see if dladdr exists

set dladdr d\_dladdr

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_dladdr.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Prefixup.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi



?RCS:  
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?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: Prefixup.U,v \$  
?RCS: Revision 3.0.1.1 1995/01/30 14:30:40 ram  
?RCS: patch49: created  
?RCS:  
?X:  
?X: Used as: "set dflt; eval \$prefixup" to set \$dflt to be \$prefix/dir  
?X: instead of \$prefixexp/dir, in case portability was involved somehow  
?X: and \$prefix uses ~name expansion.  
?X:  
?MAKE:Prefixup: prefix prefixexp  
?MAKE: -pick add \$@ %<  
?LINT:define prefixup  
?S:prefixup:  
?S: This shell variable is used internally by Configure to reset  
?S: the leading  
installation prefix correctly when \$prefix uses  
?S: ~name expansion.  
?S: set dflt  
?S: eval \$prefixup  
?S: That will set \$dflt to \$prefix/dir if it was \$prefixexp/dir and  
?S: \$prefix differs from \$prefixexp.  
?S:.  
?V:prefixup  
: set the prefixup variable, to restore leading tilda escape  
prefixup='case "\$prefixexp" in  
"\$prefix") ;;  
\*) eval "\$1=\`echo \\$\$1 | sed \'s,^\$prefixexp,\$prefix,\`\'";;  
esac'

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Prefixup.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
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```

?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Copyright (c) 1998 Andy Dougherty
?RCS:
?RCS: Original author Jarkko Hietaniemi <jhi@iki.fi>
?RCS: Merged into dist by Andy Dougherty July 13, 1998
?RCS:
?MAKE:ebcdic: Compile Setvar cat rm_try run
?MAKE: -pick add $@ %<
?S:ebcdic:
?S: This variable conditionally defines EBCDIC if this
?S: system uses EBCDIC encoding. Among other things, this
?S: means that the character ranges are not contiguous.
?S: See trnl.U
?S:.
?C:EBCDIC:
?C: This symbol, if defined, indicates that this system uses
?C: EBCDIC
encoding.
?C:.
?H:#$ebcdic EBCDIC /**/
?H:.
?F:!try
?LINT:set ebcdic
: look whether system uses EBCDIC
echo " "
echo "Determining whether or not we are on an EBCDIC system..." >&4
$cat >try.c <<'EOM'
int main()
{
if ('M'==0xd4) return 0;
return 1;
}
EOM
val=$undef
set try
if eval $compile_ok; then
if $run ./try; then
echo "You seem to speak EBCDIC." >&4
val="$define"
else
echo "Nope, no EBCDIC, probably ASCII or some ISO Latin. Or UTF-8." >&4
fi
else
echo "I'm unable to compile the test program." >&4
echo "I'll assume ASCII or some ISO Latin. Or UTF8." >&4
fi

```

```
$rm_try
set ebcdic
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/ebcdic.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_getlogin_r.U,v 0RCS:
?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.
?RCS:
?MAKE:d_getlogin_r getlogin_r_proto: Inlibc Protochk Hasproto i_systypes \
 usethreads i_unistd extern_C
?MAKE: -pick add $@ %<
?S:d_getlogin_r:
?S: This variable conditionally defines the HAS_GETLOGIN_R symbol,
?S: which indicates to the C program that the getlogin_r()
?S: routine is available.
?S:
?S:getlogin_r_proto:
?S: This variable encodes the prototype of getlogin_r.
?S: It is zero if d_getlogin_r is undef, and one of the
?S: REENTRANT_PROTO_T_ABC macros of reentr.h if d_getlogin_r
?S: is defined.
?S:
?C:HAS_GETLOGIN_R:
?C: This symbol, if defined, indicates that the getlogin_r routine
?C: is available
?C: to getlogin re-entrantly.
?C:
?C:GETLOGIN_R_PROTO:
?C: This symbol encodes the prototype of getlogin_r.
?C: It is zero if d_getlogin_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_getlogin_r
?C: is defined.
?C:
?H:#$d_getlogin_r HAS_GETLOGIN_R /**/
?H:#define GETLOGIN_R_PROTO $getlogin_r_proto /**/
?H:
?T:try hdrs d_getlogin_r_proto
: see if getlogin_r exists
set getlogin_r d_getlogin_r
```

```

eval $inlibc
case "$d_getlogin_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_unistd unistd.h"
case "$d_getlogin_r_proto:$usethreads" in
":define") d_getlogin_r_proto=define
set d_getlogin_r_proto getlogin_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_getlogin_r_proto" in
define)
case "$getlogin_r_proto" in
"|0) try='int getlogin_r(char*, size_t);'
./protochk "$extern_C $try" $hdrs && getlogin_r_proto=I_BW ;;
esac
case "$getlogin_r_proto" in
"|0) try='int getlogin_r(char*, int);'
./protochk "$extern_C $try" $hdrs && getlogin_r_proto=I_BI
;;
esac
case "$getlogin_r_proto" in
"|0) try='char* getlogin_r(char*, size_t);'
./protochk "$extern_C $try" $hdrs && getlogin_r_proto=B_BW ;;
esac
case "$getlogin_r_proto" in
"|0) try='char* getlogin_r(char*, int);'
./protochk "$extern_C $try" $hdrs && getlogin_r_proto=B_BI ;;
esac
case "$getlogin_r_proto" in
"|0) d_getlogin_r=undef
getlogin_r_proto=0
echo "Disabling getlogin_r, cannot determine prototype." >&4 ;;
*) case "$getlogin_r_proto" in
REENTRANT_PROTO*) ;;
*) getlogin_r_proto="REENTRANT_PROTO_$getlogin_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "getlogin_r has no prototype, not using it." >&4 ;;
esac
d_getlogin_r=undef
getlogin_r_proto=0
;;
esac
;;

```

```
*) getlogin_r_proto=0
```

```
::
```

```
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_getlogin_r.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: ptrsize.U,v 3.0.1.1 1994/10/29 16:28:19 ram Exp $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
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```
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```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: ptrsize.U,v $
```

```
?RCS: Revision 3.0.1.1 1994/10/29 16:28:19 ram
```

```
?RCS: patch36: added ?F: line for metalint file checking
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:09:37 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:ptrsize: cat rm_try Myread Compile run use64bitall i_stdlib d_quad
```

```
?MAKE: -pick add $@ %<
```

```
?S:ptrsize:
```

```
?S: This variable contains the value of the PTRSIZE symbol, which
```

```
?S: indicates to the C program how many bytes there are in a pointer.
```

```
?S:.
```

```
?C:PTRSIZE:
```

```
?C: This
```

```
symbol contains the size of a pointer, so that the C preprocessor
```

```
?C: can make decisions based on it. It will be sizeof(void *) if
```

```
?C: the compiler supports (void *); otherwise it will be
```

```
?C: sizeof(char *).
```

```
?C:.
```

```
?H:#define PTRSIZE $ptrsize /**/
```

```
?H:.
```

```
?F:!try
```

```
?LINT:extern use64bitint
```

```
: check for length of pointer
```

```
echo " "
```

```
case "$ptrsize" in
```

```
")
```

```
echo "Checking to see how big your pointers are..." >&4
```

```

$cat >try.c <<EOCP
#include <stdio.h>
#ifdef I_STDLIB
#include <stdlib.h>
#endif
int main()
{
 printf("%d\n", (int)sizeof(void *));
 exit(0);
}
EOCP
set try
if eval $compile_ok; then
 ptrsize=`$run ./try`
 echo "Your pointers are $ptrsize bytes long."
else
 dflt='4'
 echo "(I can't seem to compile the test program. Guessing...)" >&4
 rp="What is the size of a pointer (in bytes)?"
 ./myread
 ptrsize="$ans"
fi
;;
esac
$rm_try
case "$use64bitall" in
"$define"|true|[yY]*)
 case "$ptrsize" in
4) cat <<EOM >&4

*** You
have chosen a maximally 64-bit build,
*** but your pointers are only 4 bytes wide.
*** Please rerun Configure without -Duse64bitall.
EOM
 case "$d_quad" in
define)
 cat <<EOM >&4
*** Since you have quads, you could possibly try with -Duse64bitint.
EOM
 ;;
esac
 cat <<EOM >&4
*** Cannot continue, aborting.

EOM

```

```
exit 1
;;
esac
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/ptrsize.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Guess.U,v \$

?RCS: Revision 3.0.1.5 1995/07/25 13:37:14 ram

?RCS: patch56: now knows about OS/2 platforms

?RCS:

?RCS: Revision 3.0.1.4 1994/10/29 15:53:55 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS: patch36: call ./xenix explicitly instead of relying on PATH

?RCS:

?RCS: Revision 3.0.1.3 1993/12/15 08:14:35 ram

?RCS: patch15: variable d\_bsd was not always set properly

?RCS:

?RCS: Revision 3.0.1.2 1993/08/30 08:57:14 ram

?RCS: patch8: fixed comment which wrongly

attributed the usrinc symbol

?RCS: patch8: no more ugly messages when no /usr/include/ctype.h

?RCS:

?RCS: Revision 3.0.1.1 1993/08/27 14:37:37 ram

?RCS: patch7: added support for OSF/1 machines

?RCS:

?RCS: Revision 3.0 1993/08/18 12:04:57 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit hazards some guesses as to what the general nature of the system

?X: is. The information it collects here is used primarily to establish default

?X: answers to other questions.

?X:

?MAKE:Guess d\_eunice d\_xenix d\_bsd d\_linux d\_dos d\_os2: cat test echo n c \  
contains rm tr Loc eunicefix

?MAKE: -pick add \$@ %<

?S:d\_eunice:  
?S: This variable conditionally defines the symbols EUNICE\_SYSTEM, which  
?S: alerts the C program that it must deal with ideosyncracies of VMS.  
?S:.

?S:d\_xenix:  
?S: This variable conditionally defines the symbol XENIX\_SYSTEM, which alerts  
?S: the C program that it runs under Xenix.  
?S:.

?S:d\_dos:  
?S: This symbol conditionally defines the symbol DOS\_SYSTEM  
when running on  
?S: DOS with DJGPP or Cygwin.  
?S:.

?S:d\_os2:  
?S: This symbol conditionally defines the symbol OS2\_SYSTEM when running on  
?S: an OS/2 system.  
?S:.

?S:d\_bsd:  
?S: This symbol conditionally defines the symbol BSD\_SYSTEM when running on a  
?S: BSD system.  
?S:.

?S:d\_linux:  
?S: This symbol conditionally defines the symbol LINUX\_SYSTEM when running  
?S: on a Linux system.  
?S:.

?C:EUNICE\_SYSTEM (EUNICE):  
?C: This symbol, if defined, indicates that the program is being compiled  
?C: under the EUNICE package under VMS. The program will need to handle  
?C: things like files that don't go away the first time you unlink them,  
?C: due to version numbering. It will also need to compensate for lack  
?C: of a respectable link() command.  
?C:.

?C:VMS\_SYSTEM (VMS):  
?C: This symbol, if defined, indicates that the program is running under  
?C: VMS. It is currently only set in conjunction with the EUNICE symbol.  
?C:.

?C:XENIX\_SYSTEM (XENIX):  
?C: This symbol, if defined, indicates that the program  
is running under  
?C: Xenix (at least 3.0 ?).  
?C:.

?C:DOS\_SYSTEM:  
?C: This symbol, if defined, indicates that the program is running under  
?C: DOS with DJGPP.  
?C:.



```

?C:OS2_SYSTEM:
?C: This symbol, if defined, indicates that the program is running under
?C: an OS/2 system.
?C:.
?C:BSD_SYSTEM:
?C: This symbol, if defined, indicates that the program is running under
?C: a BSD system.
?C:.
?C:LINUX_SYSTEM:
?C: This symbol, if defined, indicates that the program is running under
?C: a Linux system.
?C:.
?H:#$d_eunice EUNICE_SYSTEM /**/
?H:#$d_eunice VMS_SYSTEM /**/
?H:#$d_xenix XENIX_SYSTEM /**/
?H:#$d_dos DOS_SYSTEM /**/
?H:#$d_os2 OS2_SYSTEM /**/
?H:#$d_bsd BSD_SYSTEM /**/
?H:#$d_linux LINUX_SYSTEM /**/
?H:.
?F:./bsd ./usg ./v7 ./osf1 ./eunice ./xenix ./venix ./dos ./os2 ./gnu ./linux
?T:xxx DJGPP MACHTYPE
: make some quick guesses about what we are up against
echo " "
$echo $n "Hmm... $c"
echo exit 1 >bsd
echo exit 1 >usg
echo exit 1 >v7
echo exit 1 >osf1
echo exit 1 >eunice
echo
 exit 1 >xenix
echo exit 1 >venix
echo exit 1 >os2
echo exit 1 >gnu
echo exit 1 >linux
echo exit 1 >dos
d_bsd="$undef"
d_linux="$undef"
d_dos="$undef"
d_os2="$undef"
?X:
?X: Do not use 'usrinc', or we get a circular dependency. because
?X: usrinc is defined in usrinc.U, which relies on us...
?X:
$cat /usr/include/signal.h /usr/include/sys/signal.h >foo 2>/dev/null
if test -f /osf_boot || $contains 'OSF/1' /usr/include/ctype.h >/dev/null 2>&1
then

```

```

echo "Looks kind of like an OSF/1 system, but we'll see..."
echo exit 0 >osf1
elif test `echo abc | $tr a-z A-Z` = Abc ; then
xxx=`./loc addbib blurfl $pth`
if $test -f $xxx; then
echo "Looks kind of like a USG system with BSD features, but we'll see..."
echo exit 0 >bsd
echo exit 0 >usg
else
if $contains SIGTSTP foo >/dev/null 2>&1 ; then
echo "Looks kind of like an extended USG system, but we'll see..."
else
echo "Looks kind of like a USG system, but we'll see..."
fi
echo exit 0 >usg
fi
elif $contains SIGTSTP foo >/dev/null
2>&1 ; then
echo "Looks kind of like a BSD system, but we'll see..."
d_bsd="$define"
echo exit 0 >bsd
elif
$rm --version 2>/dev/null >foo;
$contains "Free Software Foundation" foo >/dev/null
then
xxx=`uname`
echo exit 0 >gnu
echo "Looks kind of like a GNU/$xxx system, but we'll see..."
if $test X$xxx = XLinux; then
d_linux="$define"
echo exit 0 >linux
fi
else
echo "Looks kind of like a Version 7 system, but we'll see..."
echo exit 0 >v7
fi
case "$eunicefix" in
unixtovms)
$cat <<'EOI'
There is, however, a strange, musty smell in the air that reminds me of
something...hmm...yes...I've got it...there's a VMS nearby, or I'm a Blit.
EOI
echo exit 0 >eunice
d_eunice="$define"
: it so happens the Eunice I know will not run shell scripts in Unix format
;;
*)
echo " "

```

```

echo "Congratulations. You aren't running Eunice."
d_eunice="$undef"
;;
esac
case "$p_" in
:) ;;
*)
$cat <<'EOI'
I have the feeling something is not exactly right, however...don't tell me...
EOI
if
test -n "$DJGPP"; then
case "X${MACHTYPE:-nonetheless}" in
cygwin) echo "hah!... you're running under Cygwin!";;
*) echo "got it... you're running DOS with DJGPP!";;
esac
echo exit 0 >dos
d_dos="$define"
else
$cat <<'EOI'
lemme think...does HAL ring a bell?...no, of course, you're only running OS/2!
EOI
echo exit 0 >os2
d_os2="$define"
fi
;;
esac
if test -f /xenix; then
echo "Actually, this looks more like a XENIX system..."
echo exit 0 >xenix
d_xenix="$define"
else
echo " "
echo "It's not Xenix..."
d_xenix="$undef"
fi
chmod +x xenix
$eunicefix xenix
if test -f /venix; then
echo "Actually, this looks more like a VENIX system..."
echo exit 0 >venix
else
echo " "
if ./xenix; then
: null
else
echo "Nor is it Venix..."
fi

```

fi

```
chmod +x bsd usg v7 osf1 eunice xenix venix dos os2 gnu linux
$eunicefix bsd usg v7 osf1 eunice xenix venix dos os2 gnu linux
$rm -f foo
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Guess.U
```

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?RCS: \$Id\$

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_castneg.U,v \$

?RCS: Revision 3.0.1.2 1995/05/12 12:11:21 ram

?RCS: patch54: made sure cc and ccflags are conditional dependencies

?RCS: patch54: added improved test case for Interactive Unix

?RCS:

?RCS: Revision 3.0.1.1 1994/10/29 16:10:50 ram

?RCS: patch36: don't forget to tell user about compilation failures (ADO)

?RCS: patch36: declare signal handler correctly using 'signal\_t' (ADO)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:47 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: Can

the compiler cast negative / odd floats to unsigned values.

?X:

?MAKE:d\_castneg castflags: cat +cc +ccflags rm\_try Setvar signal\_t

?MAKE: -pick add \$@ %<

?S:d\_castneg:

?S: This variable conditionally defines CASTNEG, which indicates

?S: whether the C compiler can cast negative float to unsigned.

?S:.

?S:castflags:

?S: This variable contains a flag that precise difficulties the

?S: compiler has casting odd floating values to unsigned long:

?S: 0 = ok

?S: 1 = couldn't cast < 0

?S: 2 = couldn't cast >= 0x80000000

```

?S: 4 = couldn't cast in argument expression list
?S:.
?C:CASTNEGFLOAT:
?C: This symbol is defined if the C compiler can cast negative
?C: numbers to unsigned longs, ints and shorts.
?C:.
?C:CASTFLAGS:
?C: This symbol contains flags that say what difficulties the compiler
?C: has casting odd floating values to unsigned long:
?C: 0 = ok
?C: 1 = couldn't cast < 0
?C: 2 = couldn't cast >= 0x80000000
?C: 4 = couldn't cast in argument expression list
?C:.
?H:#$d_castneg CASTNEGFLOAT /**/
?H:#define
 CASTFLAGS $castflags /**/
?H:.
?F:!try
?LINT:set d_castneg
: check for ability to cast negative floats to unsigned
echo " "
echo 'Checking whether your C compiler can cast negative float to unsigned.' >&4
$cat >try.c <<EOCP
#include <sys/types.h>
#include <signal.h>
$signal_t blech() { exit(7); }
$signal_t blech_in_list() { exit(4); }
unsigned long dummy_long(p) unsigned long p; { return p; }
unsigned int dummy_int(p) unsigned int p; { return p; }
unsigned short dummy_short(p) unsigned short p; { return p; }
int main()
{
 double f = -123.;
 unsigned long along;
 unsigned int aint;
 unsigned short ashort;
 int result = 0;

 signal(SIGFPE, blech);
 along = (unsigned long)f;
 aint = (unsigned int)f;
 ashort = (unsigned short)f;
 if (along != (unsigned long)-123)
 result |= 1;
 if (aint != (unsigned int)-123)
 result |= 1;
 if (ashort != (unsigned short)-123)

```

```

result |= 1;
f = (double)0x40000000;
f = f + f;
along = 0;
along = (unsigned long)f;
if
(along != 0x80000000)
 result |= 2;
f -= 1.;
along = 0;
along = (unsigned long)f;
if (along != 0x7fffffff)
 result |= 1;
f += 2.;
along = 0;
along = (unsigned long)f;
if (along != 0x80000001)
 result |= 2;
if (result)
 exit(result);

```

?X:

?X: The following is a test for Interactive Unix Version 4.1, which

?X: has an 'improved' compiler which can correctly cast negative

?X: floats in expression lists, but apparently not in argument lists.

?X: Contributed by Winfried Koenig <win@incom.rhein-main.de>

?X:

```

signal(SIGFPE, blech_in_list);
f = 123.;
along = dummy_long((unsigned long)f);
aint = dummy_int((unsigned int)f);
ashort = dummy_short((unsigned short)f);
if (along != (unsigned long)123)
 result |= 4;
if (aint != (unsigned int)123)
 result |= 4;
if (ashort != (unsigned short)123)
 result |= 4;
exit(result);

```

}

EOCP

```
if $cc $ccflags -o try try.c >/dev/null 2>&1; then
```

```
./try
```

```
castflags=$?
```

```
else
```

```
echo "(I can't seem to compile the test program--assuming it can't)"
```

```
castflags=7
```

```
fi
```

```
case
"$castflags" in
0) val="$define"
echo "Yup, it can."
;;
*) val="$undef"
echo "Nope, it can't."
;;
esac
set d_castneg
eval $setvar
$rm_try
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_castneg.U
```

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?RCS:

?MAKE:d\_fsync: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fsync:

?S: This variable conditionally defines the HAS\_FSYNC symbol, which

?S: indicates to the C program that the fsync() routine is available.

?S:.

?C:HAS\_FSYNC:

?C: This symbol, if defined, indicates that the fsync routine is

?C: available to write a file's modified data and attributes to

?C: permanent storage.

?C:.

?H:#\$d\_fsync HAS\_FSYNC /\*\*/

?H:.

?LINT:set d\_fsync

: see if fsync exists

set fsync d\_fsync

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_fsync.U
```

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?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:longdblinfo bytes longdblinfo bytes doubleinfo bytes doubleinfo bytes: Inlibc \  
cat Compile run rm\_try Setvar echo d\_longdbl \  
doublekind doublesize longdblkind longdblsize  
?MAKE: -pick add \$@ %<  
?S:longdblinfo bytes:  
?S: This variable contains comma-separated list of hexadecimal bytes  
?S: for the long double precision infinity.  
?S:.  
?S:longdblinfo bytes:  
?S: This variable contains comma-separated list of hexadecimal bytes  
?S: for the long double precision not-a-number.  
?S:.  
?S:doubleinfo bytes:  
?S: This variable contains comma-separated list of hexadecimal bytes  
?S: for the double precision infinity.  
?S:.  
?S:doubleinfo bytes:  
?S: This variable contains comma-separated list of hexadecimal bytes  
?S: for  
the double precision not-a-number.  
?S:.  
?C:DOUBLEINFO BYTES:  
?C: This symbol, if defined, is a comma-separated list of  
?C: hexadecimal bytes for the double precision infinity.  
?C:.  
?C:DOUBLEINFO BYTES:  
?C: This symbol, if defined, is a comma-separated list of  
?C: hexadecimal bytes (0xHH) for the double precision not-a-number.  
?C:.  
?C:LONGDBLINFO BYTES:  
?C: This symbol, if defined, is a comma-separated list of  
?C: hexadecimal bytes for the long double precision infinity.  
?C:.  
?C:LONGDBLINFO BYTES:  
?C: This symbol, if defined, is a comma-separated list of  
?C: hexadecimal bytes (0xHH) for the long double precision not-a-number.  
?C:.  
?H:#define DOUBLEINFO BYTES \$doubleinfo bytes /\*\*/  
?H:#define DOUBLEINFO BYTES \$doubleinfo bytes /\*\*/  
?H:#define LONGDBLINFO BYTES \$longdblinfo bytes /\*\*/  
?H:#define LONGDBLINFO BYTES \$longdblinfo bytes /\*\*/



```

?H:
?F:!try
: Check what kind of inf/nan your system has
$echo "Checking the kind of infinities and nans you have..." >&4
$echo "(The following tests may crash. That's
okay.)" >&4
$cat >try.c <<EOP
#define DOUBLESIZE $doublesize
#$d_longdbl HAS_LONG_DOUBLE
#ifdef HAS_LONG_DOUBLE
#define LONG_DOUBLESIZE $longdblsize
#define LONG_DOUBLEKIND $longdblkind
#endif
#include <math.h>
#include <string.h>
#include <stdio.h>
/* Note that whether the sign bit is on or off
* for NaN depends on the CPU/FPU, and possibly
* can be affected by the build toolchain.
*
* For example for older MIPS and HP-PA 2.0 the quiet NaN is:
* 0x7f, 0xf7, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff
* 0x7f, 0xf4, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00
* (respectively) as opposed to the more usual
* 0x7f, 0xf8, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00
*
* Pre-IEEE-754 floating point format do not even have inf/nan support
* at all. They might have a "max" value (DBL_MAX), which may be deadly
* to even mention, causing immediate SIGFPE or equivalent: this is
* the case with VAX floating point, for example.
*/
static void bytes(void *v, unsigned int n) {
 unsigned char *p = (unsigned
 char *)v;
 int i;
 for (i = 0; i < n; i++) {
 printf("0x%02x%s", p[i], i < n - 1 ? ", " : "\n");
 }
}
int main(int argc, char *argv[]) {
 /* We cannot use 1.0/0.0 and 0.0/0.0 (with L suffixes for long double)
 * because some compilers are 'smart' and not only warn but refuse to
 * compile such 'illegal' values. */
 double dinf = exp(1e9);
 double dnan = sqrt(-1.0);
#ifdef HAS_LONG_DOUBLE
 long double ldinf = (long double)exp(1e9);
 long double ldnan = (long double)sqrt(-1.0);

```

```

if LONG_DOUBLEKIND == 3 || LONG_DOUBLEKIND == 4
/* the 80-bit long doubles might have garbage in their excess bytes */
 memset((char *)&ldinf + 10, '\0', LONG_DOUBLESIZE - 10);
 memset((char *)&ldnan + 10, '\0', LONG_DOUBLESIZE - 10);
endif
if (argc == 2) {
 switch (argv[1][0]) {
 case '1': bytes(&dinf, sizeof(dinf)); break;
 case '2': bytes(&dnan, sizeof(dnan)); break;
 case '3': bytes(&ldinf, sizeof(ldinf)); break;
 case '4': bytes(&ldnan, sizeof(ldnan)); break;
 #endif
 }
}
return 0;
}
EOP
set try
if eval $compile; then
 doubleinfbytes=`$run ./try 1`
 doublenanbytes=`$run ./try 2`
 case "$d_longdbl" in
 $define)
 longdblinfofbytes=`$run ./try 3`
 longdblinfofbytes=`$run ./try 4`
 ;;
 esac
else
 # Defaults in case the above test program failed.
 case "$doublekind" in
 1) # IEEE 754 32-bit LE
 doubleinfbytes='0x00, 0x00, 0xf0, 0x7f'
 doublenanbytes='0x00, 0x00, 0xf8, 0x7f'
 ;;
 2) # IEEE 754 32-bit BE
 doubleinfbytes='0x7f, 0xf0, 0x00, 0x00'
 doublenanbytes='0x7f, 0xf8, 0x00, 0x00'
 ;;
 3) # IEEE 754 64-bit LE
 doubleinfbytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0xf0, 0x7f'
 doublenanbytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0xf8, 0x7f'
 ;;
 4) # IEEE 754 64-bit BE
 doubleinfbytes='0x7f, 0xf0, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00'
 doublenanbytes='0x7f, 0xf8, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00'
 ;;
 5) # IEEE 754 128-bit LE

```

```

 doubleinfbytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0xf0,
0x7f'
 doublenanbytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0xf8,
0x7f'
 ;;
6) # IEEE 754 128-bit BE
 doubleinfbytes='0x7f, 0xf0, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00,
0x00'
 doublenanbytes='0x7f, 0xf8, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00,
0x00'
 ;;
7) # IEEE 754 64-bit mixed: 32-bit LEs in BE
 doubleinfbytes='0x00, 0x00, 0xf0, 0x7f, 0x00, 0x00, 0x00, 0x00'
 doublenanbytes='0x00, 0x00, 0xf8, 0x7f, 0x00, 0x00, 0x00, 0x00'
 ;;
8) # IEEE 754 64-bit mixed: 32-bit BEs in LE
 doubleinfbytes='0x00, 0x00, 0x00, 0x00, 0x7f, 0xf0, 0x00, 0x00'
 doublenanbytes='0x00, 0x00, 0x00, 0x00, 0x7f, 0xf8, 0x00, 0x00'
 ;;
9|10|11|12|13|14) # VAX/Cray/IBM floating point formats, no inf/nan.
 doubleinfbytes=$undef
 doublenanbytes=$undef
 ;;
*) # No idea.
 doubleinfbytes=$undef
 doublenanbytes=$undef
 ;;
esac
case "$longdblkind" in
1) # IEEE 754 128-bit LE
 longdblinfbytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0xff,
0x7f'
 longdblnanbytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x80, 0xff,
0x7f'
 ;;
2) # IEEE 754 128-bit BE
 longdblinfbytes='0x7f, 0xff, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00,
0x00'
 longdblnanbytes='0x7f, 0xff, 0x80, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00,
0x00'
 ;;
3) # IEEE 754 80-bit LE, 12 or 16 bytes (x86)
 case "$longdblsize" in
12) # x86 32-bit (96 bits, or 4 x 32, or 12 x 8)
 longdblinfbytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x80, 0xff, 0x7f, 0x00, 0x00'
 longdblnanbytes='0x00,
0x00, 0x00, 0x00, 0x00, 0x00, 0xc0, 0xff, 0x7f, 0x00, 0x00'
 ;;

```

```

16) # x86_64
 longdblfnbytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x80, 0xff, 0x7f, 0x00, 0x00, 0x00, 0x00, 0x00,
0x00'
 longdblfnbytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0xc0, 0xff, 0x7f, 0x00, 0x00, 0x00, 0x00, 0x00,
0x00'
 ;;
*) # No idea.
 longdblfnbytes=$undef
 longdblfnbytes=$undef
 ;;
esac
;;
4) # IEEE 754 80-bit BE, 12 or 16 bytes
case "$longdblsize" in
12) # 32-bit system
 longdblfnbytes='0x7f, 0xff, 0x80, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00'
 longdblfnbytes='0x7f, 0xff, 0xc0, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00'
 ;;
16) # 64-bit system
 longdblfnbytes='0x7f, 0xff, 0x80, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00,
0x00'
 longdblfnbytes='0x7f,
0xff, 0xc0, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00'
 ;;
*) # No idea.
 longdblfnbytes=$undef
 longdblfnbytes=$undef
 ;;
esac
;;
5) # 128-bit LE-LE "double double"
 longdblfnbytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0xf0,
0x7f'
 longdblfnbytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0xf8,
0x7f'
 ;;
6) # 128-bit BE-BE "double double"
 longdblfnbytes='0x7f, 0xf0, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00,
0x00'
 longdblfnbytes='0x7f, 0xf8, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00,
0x00'
 ;;
7) # 128-bit LE-BE "double double"
 longdblfnbytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0xf0, 0x7f, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00,
0x00'
 longdblfnbytes='0x00, 0x00,
0x00, 0x00, 0x00, 0xf8, 0x7f, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00'
 ;;

```

```

8) # 128-bit BE-LE "double double"
 longdblinfoytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x7f, 0xf0, 0x00, 0x00, 0x00, 0x00, 0x00,
0x00'
 longdblinfoytes='0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x00, 0x7f, 0xf8, 0x00, 0x00, 0x00, 0x00, 0x00,
0x00'
 ;;
9|10|11|12|13|14) # VAX/Cray/IBM floating point formats, no inf/nan.
 longdblinfoytes=$undef
 longdblinfoytes=$undef
 ;;
*) # No idea.
 longdblinfoytes=$undef
 longdblinfoytes=$undef
 ;;
esac
fi
In case the program crashed the values are empty, turn them undef.
case "$doubleinfoytes" in
") doubleinfoytes=$undef ;;
esac
case "$doubleinfoytes" in
") doubleinfoytes=$undef ;;
esac
case "$longdblinfoytes" in
") longdblinfoytes=$undef ;;
esac
case "$longdblinfoytes" in
") longdblinfoytes=$undef ;;
esac
$rm_try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/perl/infnan.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: sbrksmart.U,v 3.0.1.2 1995/01/11 15:35:41 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: sbrksmart.U,v $
?RCS: Revision 3.0.1.2 1995/01/11 15:35:41 ram

```

```

?RCS: patch45: now sets sbrksmart to undef explicitly when lacking sbrk()
?RCS: patch45: forgot a cast when using return value from sbrk()
?RCS:
?RCS: Revision 3.0.1.1 1994/01/24 14:16:45 ram
?RCS: patch16: created
?RCS:
?MAKE:sbrksmart: cat d_sbrk Compile rm
?MAKE: -pick add $@ %<
?S:sbrksmart:
?S: This variable conditionally defines HAS_SMART_SBRK if the sbrk()
?S: routine honors a negative
argument to lower the break value.
?S:.
?C:HAS_SMART_SBRK:
?C: This symbol is defined when the sbrk() system call may be used with
?C: a negative argument to lower the break value, therefore releasing
?C: core to the system. If not, you'd probably be better off using the
?C: mmap() system call.
?C:.
?H:#$sbrksmart HAS_SMART_SBRK /**/
?H:.
?T:dumb
?F:!sbrk
: see if sbrk can release core to the kernel
echo " "
case "$d_sbrk" in
"$define")
echo "Let's see if your sbrk() is smart enough to release core..." >&4
$cat > sbrk.c <<<EOC'
#define INC 256 /* Small enough to be less than a page size */

int main()
{
char *obrk = (char *) sbrk(0);
char *nbrk;

nbrk = (char *) sbrk(INC);
if (nbrk == (char *) -1)
exit(1); /* Not enough memory */
if (nbrk != obrk)
exit(2); /* Unreliable sbrk() */
nbrk = (char *) sbrk(-INC);
if (nbrk == (char *) -1)
exit(3); /* May have understood negative arg as huge positive */
if (obrk != (char *) sbrk(0))
exit(4); /* Not smart, definitely */

exit(0); /*

```

```

Ok */
}
EOC
sbrksmart="$undef"
dumb='-- assuming dumb sbrk().'
set sbrk
if eval $compile_ok; then
./sbrk >/dev/null 2>&1
case $? in
0) sbrksmart="$define"
echo "Yes, it can be used with negative values." ;;
1) echo "Sorry, not enough memory $dumb" ;;
2) echo "No it's not, and besides it seems to be buggy..." ;;
3) echo "No, it fails with negative values." ;;
4) echo "Nope, your sbrk() is too dumb." ;;
*) echo "Err... Unexpected result $dumb" ;;
esac
else
echo "(Could not compile test program $dumb)"
fi
;;
*)
echo "Since you don't have sbrk(), let's forget about the smart test!"
sbrksmart="$undef"
;;
esac
$rm -f sbrk sbrk.* core

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/sbrksmart.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: yacc.U,v 3.0.1.1 1994/05/13 15:28:48 ram Exp \$

?RCS:

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?RCS:

?RCS: \$Log: yacc.U,v \$

?RCS: Revision 3.0.1.1 1994/05/13 15:28:48 ram

?RCS: patch27: added byacc as another alternative (ADO)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:10:03 ram

```

?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:yacc yaccflags: Guess Myread Oldconfig yacc bison cat test _exe
?MAKE: -pick add $@ %<
?S:yacc:
?S: This variable holds the name of the compiler compiler we
?S: want to use in the Makefile. It can be yacc, byacc, or bison -y.
?S:.
?S:yaccflags:
?S: This
variable contains any additional yacc flags desired by the
?S: user. It is up to the Makefile to use this.
?S:.
?T:comp
: determine compiler compiler
case "$yacc" in
")
dflt=yacc;;
*)
dflt="$yacc";;
esac
echo " "
comp='yacc'
if $test -f "$byacc$_exe"; then
dflt="$byacc"
comp="byacc or $comp"
fi
if $test -f "$bison$_exe"; then
comp="$comp or bison -y"
fi
rp="Which compiler compiler ($comp) shall I use?"
./myread
yacc="$ans"
case "$yacc" in
bis)
case "$yacc" in
-y) ;;
*)
yacc="$yacc -y"
echo "(Adding -y option to bison to get yacc-compatible behavior.)"
;;
esac
;;
esac

@if yaccflags
: see if we need extra yacc flags
dflt="$yaccflags"

```



```
case "$dflt" in
") dflt=none;;
esac
$cat <<EOH
```

Your yacc program may need extra flags to normally process the parser sources. Do NOT specify any -d or -v flags here, since those are explicitly known by the various Makefiles. However, if your machine has strange/undocumented options (like -Sr# on SCO to specify the maximum number of grammar rules), then please add them here. To use no flags, specify the word "none".

```
EOH
rp="Any additional yacc flags?"
./myread
case "$ans" in
none) yaccflags="";;
*) yaccflags="$ans";;
esac
```

@end

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/yacc.U
```

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?RCS: \$Id\$

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_statfs\_f\_flags: \

Hasfield i\_sysparam i\_sysmount i\_systypes \

i\_sysvfs i\_sysstatfs Setvar d\_statfs\_s

?MAKE: -pick add \$@ %<

?S:d\_statfs\_f\_flags:

?S: This variable conditionally defines the HAS\_STRUCT\_STATFS\_F\_FLAGS

?S: symbol, which indicates to struct statfs from has f\_flags member.

?S: This kind of struct statfs is coming from sys/mount.h (BSD),

?S: not from sys/statfs.h (SYSV).

?S:.

?C:HAS\_STRUCT\_STATFS\_F\_FLAGS:

?C: This symbol, if defined, indicates that the struct statfs

?C: does have the f\_flags member containing the mount flags of

?C: the filesystem containing the file.

?C: This kind of struct statfs is coming from <sys/mount.h> (BSD 4.3),

?C: not from <sys/statfs.h> (SYSV). Older BSDs

(like Ultrix) do not

?C: have statfs() and struct statfs, they have ustat() and getmnt()

?C: with struct ustat and struct fs\_data.

?C:.

?H:#\$d\_statfs\_f\_flags HAS\_STRUCT\_STATFS\_F\_FLAGS /\*\*/

?H:.

?LINT:set d\_statfs\_f\_flags

: see if struct statfs knows about f\_flags

case "\$d\_statfs\_s" in

define)

echo " "

echo "Checking to see if your struct statfs has f\_flags field..." >&4

set d\_statfs\_f\_flags statfs f\_flags \$i\_systypes sys/types.h \$i\_sysparam sys/param.h \$i\_sysmount sys/mount.h

\$i\_sysvfs sys/vfs.h \$i\_sysstatfs sys/statfs.h

eval \$hasfield

::

\*) val="\$undef"

set d\_statfs\_f\_flags

eval \$setvar

::

esac

case "\$d\_statfs\_f\_flags" in

"\$define") echo "Yes, it does." ;;

\*) echo "No, it doesn't." ;;

esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_statfs\_f\_flags.U

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?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: man1dir.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 16:10:29 ram

?RCS: patch61: created

?RCS:

```

?X:
?X: This was originally specific to perl5. Since perl5 has man pages that
?X: go in both man1/ and man3/ directories, we need both man1dir
?X: and man3dir. This unit is basically dist's mansrc.U with
?X: man1 used instead of man everywhere.
?X:
?MAKE:man1dir man1direxp man1ext installman1dir: afs cat nroff Loc Oldconfig \
spackage test Getfile Prefixit prefixexp
Prefixup sysman Myread
?MAKE: -pick add $@ %<
?Y:TOP
?S:man1dir:
?S: This variable contains the name of the directory in which manual
?S: source pages are to be put. It is the responsibility of the
?S: Makefile.SH to get the value of this into the proper command.
?S: You must be prepared to do the ~name expansion yourself.
?S:.
?S:man1direxp:
?S: This variable is the same as the man1dir variable, but is filename
?S: expanded at configuration time, for convenient use in makefiles.
?S:.
?S:installman1dir:
?S: This variable is really the same as man1direxp, unless you are using
?S: AFS in which case it points to the read/write location whereas
?S: man1direxp only points to the read-only access location. For extra
?S: portability, you should only use this variable within your makefiles.
?S:.
?S:man1ext:
?S: This variable contains the extension that the manual page should
?S: have: one of 'n', 'l', or '1'. The Makefile must supply the '.'.
?S: See man1dir.
?S:.
?T:lookpath
: determine
where manual pages go
set man1dir man1dir none
eval $prefixit
$cat <<EOM

$spackage has manual pages available in source form.
EOM
case "$nroff" in
nroff)
echo "However, you don't have nroff, so they're probably useless to you."
case "$man1dir" in
") man1dir="none";;
esac;;
esac

```

```

echo "If you don't want the manual sources installed, answer 'none'."
case "$man1dir" in
'|') dflt=none
;;
")
lookpath="$prefixexp/man/man1 $prefixexp/man/l_man/man1"
lookpath="$lookpath $prefixexp/man/p_man/man1"
lookpath="$lookpath $prefixexp/man/u_man/man1"
lookpath="$lookpath $prefixexp/man/man.1"
?X: Experience has shown people expect man1dir to be under prefix,
?X: so we now always put it there. Users who want other behavior
?X: can answer interactively or use a command line option.
?X: Does user have System V-style man paths.
case "$sysman" in
/?_man) dflt=`.loc . $prefixexp/l_man/man1 $lookpath` ;;
*) dflt=`.loc . $prefixexp/man/man1 $lookpath` ;;
esac
set dflt
eval $prefixup
;;
*)
dflt="$man1dir"
;;
esac
echo " "
fn=dn+~
rp="Where do the main $spackage manual pages (source) go?"
./getfile
if $test "X$man1direxp" != "X$ansexp"; then
installman1dir="
fi
man1dir="$sans"
man1direxp="$ansexp"
case "$man1dir" in
") man1dir=' '
installman1dir="";;
esac
if $afs; then
$cat <<EOM

```

Since you are running AFS, I need to distinguish the directory in which manual pages reside from the directory in which they are installed (and from which they are presumably copied to the former directory by occult means).

EOM

```

case "$installman1dir" in
") dflt=`echo $man1direxp | sed 's#^/afs/#/afs/.#`";;
*) dflt="$installman1dir";;

```

```

esac
fn=de~
rp='Where will man pages be installed?'
./getfile
installman1dir="$ans"
else
installman1dir="$man1direxp"
fi

```

: What suffix to use on installed man pages

```

case "$man1dir" in
')
man1ext='0'
;;
*)
rp="What suffix should be used for the main $spackage man pages?"
case "$man1ext" in
") case "$man1dir" in
*1) dflt=1 ;;
*1p)
dflt=1p ;;
*1pm) dflt=1pm ;;
*1) dflt=1;;
*n) dflt=n;;
*o) dflt=o;;
*p) dflt=p;;
*C) dflt=C;;
*L) dflt=L;;
*L1) dflt=L1;;
*) dflt=1;;
esac
;;
*) dflt="$man1ext";;
esac
./myread
man1ext="$ans"
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/man1dir.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: ssize.type.U,v 3.0.1.3 1997/02/28 16:24:21 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

```

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?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: ssize_t.U,v $
?RCS: Revision 3.0.1.3 1997/02/28 16:24:21 ram
?RCS: patch61: integrated perl5 concerns for mis-configured sfio
?RCS:
?RCS: Revision 3.0.1.2 1994/10/29 16:30:28 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS: patch36: added 'ldflags' to the test compile line (ADO)
?RCS:
?RCS: Revision 3.0.1.1 1994/08/29 16:33:06 ram
?RCS: patch32: created
 by ADO
?RCS:
?MAKE:ssizetype: Myread Typedef sizetype cat rm_try Compile run i_stdlib
?MAKE: -pick add $@ %<
?S:ssizetype:
?S: This variable defines ssize_t to be something like ssize_t,
?S: long or int. It is used by functions that return a count
?S: of bytes or an error condition. It must be a signed type.
?S: We will pick a type such that sizeof(SSize_t) == sizeof(Size_t).
?S:
?C:SSize_t:
?C: This symbol holds the type used by functions that return
?C: a count of bytes or an error condition. It must be a signed type.
?C: It is usually ssize_t, but may be long or int, etc.
?C: It may be necessary to include <sys/types.h> or <unistd.h>
?C: to get any typedef'ed information.
?C: We will pick a type such that sizeof(SSize_t) == sizeof(Size_t).
?C:
?H:#define SSize_t $ssizetype /* signed count of bytes */
?H:
?F:!try
: see what type is used for signed size_t
set ssize_t ssize_t int stdio.h sys/types.h
eval $typedef
dflt="$ssizetype"
?X: Now check out whether sizeof(SSize_t)
 == sizeof(Size_t)
$cat > try.c <<EOM
#include <stdio.h>

```

```

#$i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#include <sys/types.h>
#define Size_t $sizetype
#define SSize_t $dflt
int main()
{
if (sizeof(Size_t) == sizeof(SSize_t))
printf("$dflt\n");
else if (sizeof(Size_t) == sizeof(int))
printf("int\n");
else
printf("long\n");
exit(0);
}
EOM
echo " "
set try
if eval $compile_ok && $run ./try > /dev/null; then
ssizetype=`$run ./try`
echo "I'll be using $$sizetype for functions returning a byte count." >&4
else
$cat >&4 <<EOM
Help! I can't compile and run the ssize_t test program: please enlighten me!
(This is probably a misconfiguration in your system or libraries, and
you really ought to fix it. Still, I'll try anyway.)

```

I need a type that is the same size as \$sizetype, but is guaranteed to be signed. Common values are ssize\_t, int and long.

```

EOM
rp="What signed type is the same size as $sizetype?"
./myread
ssizetype="$ans"
fi
$rm_try

```

Found in path(s):

```

*
/opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/ssize_t.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

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?RCS:  
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?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_fp\_class: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_fp\_class:  
?S: This variable conditionally defines the HAS\_FP\_CLASS symbol, which  
?S: indicates to the C program that the fp\_class() routine is available.  
?S:.  
?C:HAS\_FP\_CLASS:  
?C: This symbol, if defined, indicates that the fp\_class routine is  
?C: available to classify doubles. Available for example in Digital UNIX.  
?C: The returned values are defined in <math.h> and are:  
?C:  
?C: FP\_SNAN        Signaling NaN (Not-a-Number)  
?C: FP\_QNAN        Quiet NaN (Not-a-Number)  
?C: FP\_POS\_INF     +infinity  
?C: FP\_NEG\_INF     -infinity  
?C: FP\_POS\_NORM    Positive normalized  
?C: FP\_NEG\_NORM    Negative normalized  
?C: FP\_POS\_DENORM  Positive denormalized  
?C: FP\_NEG\_DENORM  
      Negative denormalized  
?C: FP\_POS\_ZERO    +0.0 (positive zero)  
?C: FP\_NEG\_ZERO    -0.0 (negative zero)  
?C:.  
?H:#\$d\_fp\_class HAS\_FP\_CLASS /\*\*/  
?H:.  
?LINT:set d\_fp\_class  
: see if fp\_class exists  
set fp\_class d\_fp\_class  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fp\_class.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: so.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.



```

?RCS:
?RCS: $Log: so.U,v $
?RCS: Revision 3.0.1.2 1994/10/29 16:30:04 ram
?RCS: patch36: now tells user how he can suppress shared lib lookup (ADO)
?RCS: patch36: removed echo at the top, since it's now in the here-doc (ADO)
?RCS:
?RCS: Revision 3.0.1.1 1994/06/20 07:07:02 ram
?RCS: patch30: created
?RCS:
?X:
?X: This unit computes the shared-object / shared-lib extension
?X:
?MAKE:so d_libname_unique: test libpth Loc Myread Oldconfig cat Setvar
?MAKE: -pick add $@ %<
?S:so:
?S: This
 variable holds the extension used to identify shared libraries
?S: (also known as shared objects) on the system. Usually set to 'so'.
?S:.
?S:d_libname_unique:
?S: This variable is defined if the target system insists on unique
?S: basenames for shared library files. This is currently true on Android,
?S: false everywhere else we know of.
?S: Defaults to 'undef'.
?S:.
?LINT:set d_libname_unique
?T: xxx
: compute shared library extension
case "$so" in
")
if xxx=`./loc libc.sl X $libpth`; $test -f "$xxx"; then
 dflt='sl'
else
 dflt='so'
fi
;;
*) dflt="$so";;
esac
$cat <<EOM

```

On some systems, shared libraries may be available. Answer 'none' if you want to suppress searching of shared libraries for the remainder of this configuration.

```

EOM
rp='What is the file extension used for shared libraries?'
. ./myread
so="$ans"

```

: Does target system insist that shared library basenames are unique  
\$cat << EOM

Some dynamic loaders assume that the \*basename\* of shared library  
filenames  
are globally unique. We'll default this to undef as we assume your system  
is not this weird. Set to defined if you're on one of them.

EOM

```
dflt='n'
rp='Make shared library basenames unique?'
./myread
case "$ans" in
y|Y) val="$define" ;;
*) val="$undef" ;;
esac
set d_libname_unique
eval $setvar
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/so.U

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: sbrktype.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: sbrktype.U,v $
?RCS: Revision 3.0 1993/08/18 12:09:43 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:sbrktype: Myread Oldconfig Loc contains Findhdr
?MAKE: -pick add $@ %<
?S:sbrktype:
?S: This variable defines sbrktype to be something like caddr_t, char *,
?S: or whatever type is used to declare sbrk() in the kernel.
?S:.
?C:Caddr_t (SBRKTYPE):
?C: This symbol holds the type of a core address. It is inteded to be used
```

```

?C: to safely
declare the return type of system calls like sbrk(). It might
?C: be necessary to include <sys/types.h> as well.
?C:.
?H:#define Caddr_t $sbrktype /* <core address> type */
?H:.
: see what type sbrk is declared as in the kernel
case "$sbrktype" in
")
if $contains 'caddr_t;' `./findhdr sys/types.h` >/dev/null 2>&1 ; then
dflt='caddr_t';
else
dflt='char *';
fi
;;
*) dflt="$sbrktype"
;;
esac
echo " "
rp="What is the return type of sbrk() on this system?"
./myread
sbrktype="$ans"

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/sbrktype.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: prototype.U,v 3.0.1.3 1994/05/06 15:11:49 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: prototype.U,v $
?RCS: Revision 3.0.1.3 1994/05/06 15:11:49 ram
?RCS: patch23: ensure cc flags used when looking for prototype support
?RCS:
?RCS: Revision 3.0.1.2 1994/01/24 14:15:36 ram
?RCS: patch16: prototype handling macros now appear only when needed
?RCS:
?RCS: Revision 3.0.1.1 1993/08/25 14:03:12 ram
?RCS: patch6: defines were referring to non-existent VOID symbol
?RCS:

```

?RCS: Revision 3.0 1993/08/18 12:09:36 ram  
?RCS: Baseline for dist  
3.0 netwide release.  
?RCS:  
?MAKE:prototype: Nothing  
?S:prototype:  
?S: This variable holds the eventual value of CAN\_PROTOTYPE, which  
?S: indicates the C compiler can handle function prototypes.  
?S:.  
: stub, never used  
prototype=nothing

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/prototype.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_access.U,v 3.0 1993/08/18 12:05:42 ram Exp \$  
?RCS:  
?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: d\_access.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:05:42 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_access: test +cc cat +cppflags h\_fcntl h\_sysfile i\_stdlib rm Inlibc Findhdr  
?MAKE: -pick add \$@ %<  
?S:d\_access:  
?S: This variable conditionally defines HAS\_ACCESS if the access() system  
?S: call is available to check for access permissions using real IDs.  
?S:.  
?C:HAS\_ACCESS:  
?C: This manifest constant lets the C program know that the access()  
?C: system  
call is available to check for accessibility using real UID/GID.  
?C: (always present on UNIX.)  
?C:.  
?H:#\$d\_access HAS\_ACCESS /\*\*/  
?H:.  
?W:%<:R\_OK W\_OK X\_OK F\_OK  
?LINT:set d\_access  
?LINT:change h\_fcntl h\_sysfile

```

: access call always available on UNIX
set access d_access
eval $inlibc

: locate the flags for 'access()'
case "$d_access" in
"$define")
echo " "
$cat >access.c <<EOCP
#include <sys/types.h>
#ifdef I_FCNTL
#include <fcntl.h>
#endif
#ifdef I_SYS_FILE
#include <sys/file.h>
#endif
#ifdef I_UNISTD
#include <unistd.h>
#endif
#ifdef I_STDLIB
#include <stdlib.h>
#endif
int main() {
exit(R_OK);
}
EOCP
: check sys/file.h first, no particular reason here
if $test `./findhdr sys/file.h` && \
$cc -o access $cppflags -DI_SYS_FILE access.c >/dev/null 2>&1 ; then
h_sysfile=true;
echo "<sys/file.h> defines the *_OK access constants." >&4
elif $test `./findhdr fcntl.h` && \
$cc -o access $cppflags -DI_FCNTL access.c >/dev/null 2>&1 ; then
h_fcntl=true;
echo
"<fcntl.h> defines the *_OK access constants." >&4
@if I_UNISTD
elif $test `./findhdr unistd.h` && \
$cc -o access $cppflags -DI_UNISTD access.c >/dev/null 2>&1 ; then
echo "<unistd.h> defines the *_OK access constants." >&4
@end
else
echo "I can't find the four *_OK access constants--I'll use mine." >&4
fi
;;
esac
$rm -f access*

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_access.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_setreuid.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_setreuid.U,v \$

?RCS: Revision 3.0 1993/08/18 12:07:13 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_setreuid d\_setresuid: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_setreuid:

?S: This variable conditionally defines HAS\_SETREUID if setreuid() is

?S: available to change the real and effective uid of the current

?S: process.

?S:.

?S:d\_setresuid:

?S: This variable conditionally defines HAS\_SETREUID if setresuid() is

?S: available to change

the real, effective and saved uid of the current

?S: process.

?S:.

?C:HAS\_SETREUID (SETREUID):

?C: This symbol, if defined, indicates that the setreuid routine is

?C: available to change the real and effective uid of the current

?C: process.

?C:.

?C:HAS\_SETRESUID (SETRESUID):

?C: This symbol, if defined, indicates that the setresuid routine is

?C: available to change the real, effective and saved uid of the current

?C: process.

?C:.

?H:#\$d\_setreuid HAS\_SETREUID /\*\*/

?H:#\$d\_setresuid HAS\_SETRESUID /\*\*/

?H:.

?LINT:set d\_setreuid d\_setresuid

: see if setreuid exists

```
set setreuid d_setreuid
eval $inlibc
set setresuid d_setresuid
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_setreuid.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Tye McQueen <tye@metronet.com> added safe setuid script checks.

?RCS:

?RCS: \$Log: d\_dosuid.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:33:03 ram

?RCS: patch61: moved unit to TOP via a ?Y: layout directive

?RCS: patch61: tell them /dev/fd is not about floppy disks

?RCS:

?RCS: Revision 3.0.1.1 1994/10/29 16:12:08 ram

?RCS: patch36: added checks for secure setuid scripts (Tye McQueen)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:55 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_dosuid

d\_suidsafes: cat contains ls rm test Myread Setvar \

Oldconfig Guess package hint

?MAKE: -pick add \$@ %<

?S:d\_suidsafes:

?S: This variable conditionally defines SETUID\_SCRIPTS\_ARE\_SECURE\_NOW

?S: if setuid scripts can be secure. This test looks in /dev/fd/.

?S:.

?S:d\_dosuid:

?S: This variable conditionally defines the symbol DOSUID, which

?S: tells the C program that it should insert setuid emulation code

?S: on hosts which have setuid #! scripts disabled.

?S:.

?C:SETUID\_SCRIPTS\_ARE\_SECURE\_NOW:

?C: This symbol, if defined, indicates that the bug that prevents

```

?C: setuid scripts from being secure is not present in this kernel.
?C:.
?C:DOSUID:
?C: This symbol, if defined, indicates that the C program should
?C: check the script that it is executing for setuid/setgid bits, and
?C: attempt to emulate setuid/setgid on systems that have disabled
?C: setuid #! scripts because the kernel can't do it securely.
?C: It is up to the package designer to make sure that this emulation
?C: is done securely.
 Among other things, it should do an fstat on
?C: the script it just opened to make sure it really is a setuid/setgid
?C: script, it should make sure the arguments passed correspond exactly
?C: to the argument on the #! line, and it should not trust any
?C: subprocesses to which it must pass the filename rather than the
?C: file descriptor of the script to be executed.
?C:.
?H:#$d_suidsafe SETUID_SCRIPTS_ARE_SECURE_NOW /**/
?H:#$d_dosuid DOSUID /**/
?H:.
?Y:TOP
?F:!reflect
?LINT: set d_suidsafe
?LINT: set d_dosuid
: see if setuid scripts can be secure
$cat <<EOM

```

Some kernels have a bug that prevents setuid #! scripts from being secure. Some sites have disabled setuid #! scripts because of this.

First let's decide if your kernel supports secure setuid #! scripts.  
(If setuid #! scripts would be secure but have been disabled anyway, don't say that they are secure if asked.)

EOM

```

val="$undef"
if $test -d /dev/fd; then
 echo "#!$ls" >reflect
 chmod +x,u+s reflect
 ./reflect >flect
 2>&1
 if $contains "/dev/fd" flect >/dev/null; then
 echo "Congratulations, your kernel has secure setuid scripts!" >&4
 val="$define"
 else
 $cat <<EOM

```

If you are not sure if they are secure, I can check but I'll need a username and password different from the one you are using right now.



If you don't have such a username or don't want me to test, simply enter 'none'.

EOM

```
rp='Other username to test security of setuid scripts with?'
dflt='none'
./myread
case "$ans" in
n|none)
case "$d_suidSAFE" in
") echo "I'll assume setuid scripts are *not* secure." >&4
dflt=n;;
"$undef")
echo "Well, the $hint value is *not* secure." >&4
dflt=n;;
*) echo "Well, the $hint value *is* secure." >&4
dflt=y;;
esac
;;
*)
$rm -f reflect flect
echo "#!$ls" >reflect
chmod +x,u+s reflect
echo >flect
chmod a+w flect
echo "'su" will (probably) prompt you for "'$ans's password.'"
su $ans -c './reflect >flect'
if $contains "/dev/fd" flect
>/dev/null; then
echo "Okay, it looks like setuid scripts are secure." >&4
dflt=y
else
echo "I don't think setuid scripts are secure." >&4
dflt=n
fi
;;
esac
rp='Does your kernel have *secure* setuid scripts?'
./myread
case "$ans" in
[yY]*) val="$define";;
*) val="$undef";;
esac
fi
else
echo "I don't think setuid scripts are secure (no /dev/fd directory)." >&4
echo "(That's for file descriptors, not floppy disks.)"
val="$undef"
```

```
fi
set d_suidsafef
eval $setvar

$rm -f reflect flect
```

```
: now see if they want to do setuid emulation
echo " "
val="$undef"
case "$d_suidsafef" in
"$define")
val="$undef"
echo "No need to emulate SUID scripts since they are secure here." >& 4
;;
*)
```

```
$cat <<EOM
```

Some systems have disabled setuid scripts, especially systems where setuid scripts cannot be secure. On systems where setuid scripts have been disabled, the setuid/setgid bits on scripts are currently useless. It is possible for \$package to detect those bits and emulate setuid/setgid in a secure fashion. This emulation will only work if setuid scripts have been disabled in your kernel.

```
EOM
```

```
case "$d_dosuid" in
"$define") dflt=y ;;
*) dflt=n ;;
esac
rp="Do you want to do setuid/setgid emulation?"
./myread
case "$ans" in
[yY]*) val="$define";;
*) val="$undef";;
esac
;;
esac
set d_dosuid
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_dosuid.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 2003 Jarkko Hietaniemi
```

```

?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_faststdio: Setvar \
d_stdstdio d_stdio_ptr_lval d_stdio_cnt_lval d_stdio_ptr_lval_sets_cnt
?MAKE: -pick add $@ %<
?S:d_faststdio:
?S: This variable conditionally defines the HAS_FAST_STDIO symbol,
?S: which indicates to the C program that the "fast stdio" is available
?S: to manipulate the stdio buffers directly.
?S:.
?C:HAS_FAST_STDIO:
?C: This symbol, if defined, indicates that the "fast stdio"
?C: is available to manipulate the stdio buffers directly.
?C:.
?H:#$d_faststdio HAS_FAST_STDIO /**/
?H:.
?LINT:set d_faststdio
: see if fast_stdio exists
val="$undef"
case "$d_stdstdio:$d_stdio_ptr_lval" in
"$define:$define")
case "$d_stdio_cnt_lval$d_stdio_ptr_lval_sets_cnt" in
$define)
echo "You
seem to have 'fast stdio' to directly manipulate the stdio buffers." >& 4
val="$define"
;;
esac
;;
esac
set d_faststdio
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/perl/d_faststdio.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_shmctl.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root

```

?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_shmctl.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:07:18 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_shmctl: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_shmctl:  
?S: This variable conditionally defines the HAS\_SHMCTL symbol, which  
?S: indicates to the C program that the shmctl() routine is available.  
?S:.  
?C:HAS\_SHMCTL:  
?C: This symbol, if defined, indicates that the shmctl() routine is  
?C: available to perform shared memory control operations.  
?C:.  
?H:#\$d\_shmctl  
HAS\_SHMCTL /\*\*/  
?H:.  
?LINT:set d\_shmctl  
: see if shmctl exists  
set shmctl d\_shmctl  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_shmctl.U

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_exp2: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_exp2:

?S: This variable conditionally defines the HAS\_EXP2 symbol, which

?S: indicates to the C program that the exp2() routine is available.

?S:.

?C:HAS\_EXP2:

?C: This symbol, if defined, indicates that the exp2 routine is

?C: available to do the 2\*\*x function.

?C:.

?H:#\$d\_exp2 HAS\_EXP2 /\*\*/  
?H:.

?LINT:set d\_exp2

: see if exp2 exists

set exp2 d\_exp2

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_exp2.U

No license file was found, but licenses were detected in source scan.

## Perl5 Metaconfig Units

Copyright (c) 1996-1998, Andy Dougherty

Copyright (c) 1999-2011, H.Merijn Brand

All rights reserved.

These units are the ones I used to build Configure and config\_h.SH in the Perl5 distribution.

The Configure script and config\_h.SH file in the Perl distribution are generated by a program called metaconfig. To run metaconfig, you will need the full dist 3.0 distribution, maintained by Raphael Manfredi. As of this writing, the current version is dist3.0, patchlevel 70. Dist version dist-3.0@70.tar.gz is available on CPAN (the Comprehensive Perl Archive Network) as <http://www.perl.com/perl/CPAN/authors/id/RAM/dist-3.0@70.tar.gz>.

### Instructions:

1. Unpack the full perl5 sources. Execute the following command

```
chmod +w Configure config_h.SH Porting/Glossary Porting/config*
```

2. Unpack the archive containing this file in the perl5 source directory. This will create a directory 'U' under the perl5 sources. That directory will contain the metaconfig units for perl5. This will also create two files in the perl5 source tree: MANIFEST.new and .package.
3. Apply any patches to perl in the perl\_patches/ directory. (This may well be empty.)
4. Obtain and install dist-3.0p170.
4. Apply any patches to dist under the dist\_patches subdirectory.
5. From your main perl5 source directory, run packinit to regenerate the .package file. **IMPORTANT:** Change the name and address of the maintainer to your own name and address. I don't want bug reports intended for you coming to me.

6. From your main perl5 source directory, run

metalint (or mlint)

and repair every failure it reports.

7. From your main perl5 source directory, run

metaconfig -m (or mconfig -m)

8. Edit U/mkglossary and/or U/mkgloss.pl to point to your dist-3.0pl70 location. (See comments at the top.)

9. Run the Porting/mksample script to update the contents of the Porting/ subdirectory, or run all parts by hand. (see README)

NB: this script used to be U/mksample replaced by Porting/mksample; see Porting/pumpkin.pod instead for current documentation on its use.

10. Let me know about any changes, corrections, or enhancements.

Things to watch out for:

1. The Configure in 5.005 is a hand-patched version of that supplied with perl5.004\_74 or so. Most of the patches had to do with supporting MPE/iX and EBCDIC systems. I have re-integrated most of the changes back into metaconfig, but I don't really understand why MPE/iX needed some of the patches, so I may have missed something important. I did try to flag questionable changes in the individual units.

The Configure as generated in the 5.9.x branch leading towards 5.10, is also used exactly as is without changes in the 5.8.x and 5.6.x branches, so do not remove support for features that are available in those branches, but are removed from devel (e.g. perl5005threads).

2. Future support of better random number generators should probably start with the randfunc.U unit included here. It's currently broken, but well commented and probably a good place to start.

Descriptions:

The units and other related files have been broken up into the following directories:

#### acl/

This is an old patch to begin to detect and use ACL (access control list) file protection schemes.

#### compline/

These are similar to the standard units, but I have modified them to have a more uniform compile command line, usually using the new Compile.U unit. I have submitted these for inclusion into the regular dist distribution. (The ccflags.U unit is actually perl-specific since it mentions -DDEBUGGING and -DPOSIX\_SOURCE, but that's the only place it is perl-specific.)

#### dist\_patches/

These are patches to dist that must be applied before it is built and installed. I have submitted these for inclusion in the regular dist distribution.

#### modified/

These are modified versions of the standard units. Also included in this directory are new units that are clearly derived from existing units. I have submitted these for inclusion in the regular dist distribution.

#### perl/

These are specific to perl. Some are heavily derived from original dist units, and are marked as such. Others are original.

#### perl\_patches/

These are patches to the perl source. This directory should ordinarily be empty, but there may have been drift between the standard version of perl and the one associated with these units.

#### protos/

These are units modified to use the new Hasproto.U or Protochk.U units to check for prototypes. I have submitted these for inclusion into the regular dist distribution.

#### target/

This is the very, very beginning of cross-compiler support. It doesn't work yet, and many standard units will need modification.

#### typedefs/

These are standard units modified to use the modified Typedef.U unit to check for typedefs. (The modified Typdef.U includes a function to avoid unnecessary prompts if the typedef being searched

for exists.) I have submitted these for inclusion into the regular dist distribution.

threads/

These are specific to threading perl.

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- b) the "Artistic License" which comes with dist, or
- c) the GNU General Public License as published by the Free Software Foundation; either version 1, or (at your option) any later version (see the file "Copying" that comes with the Perl distribution).

Which

one to use is your choice.

The units in the "modified" directory have been derived from units associated with the metaconfig program of Raphael Manfredi's "dist" distribution. These units list Raphael Manfredi as the Copyright holder. dist is distributed under a modified version of the Perl Artistic License. Clause 7 of this modified license as contained in dist-3.0-pl60 provides:

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context of your package.

In accordance with this clause, the versions of these units contained here are made available under the same terms as the rest of the units.

If you have any questions about the use of these units or about the differences between these units and the standard versions, please feel free to ask.

Andy Dougherty [doughera@lafayette.edu](mailto:doughera@lafayette.edu)  
Dept. of Physics  
Lafayette College  
Easton, PA 18042-1782

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/README.dist
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Setvar.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Setvar.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 15:58:28 ram

?RCS: patch36: call ./whoa explicitly instead of relying on PATH

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:16 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit produces a variable that is intended to be eval'ed in

?X: order to define/undefine a symbol. A consistency check is made

?X: regarding any previous value and a warning is issued if there

?X: is any discrepancy.

?X:

?X:

To use it, say:

?X: val=<value>

?X: set d\_variable

?X: eval \$setvar

```

?X:
?MAKE:Setvar: Whoa
?MAKE: -pick add $@ %<
?LINT:define setvar
?S:setvar:
?S: This shell variable is used internally by Configure to set a value
?S: to a given symbol that is defined or not. A typical use is:
?S: val=<value computed>
?S: set d_variable
?S: eval $setvar
?S: That will print a message in case the $val value is not the same
?S: as the previous value of $d_variable.
?S:.
?V:setvar:val
?T:var was td tu
: function used to set '$1' to '$val'
setvar='var=$1; eval "was=\$$1"; td=$define; tu=$undef;
case "valwas" in
$define$undef) . ./whoa; eval "$var=\$td";;
$undef$define) . ./whoa; eval "$var=\$tu";;
*) eval "$var=$val";;
esac'

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/Setvar.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: Mkdirp.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: Extract.U,v $
?RCS: Revision 3.0.1.2 1997/02/28 14:58:52 ram
?RCS: patch61: added support for src.U
?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 15:51:46 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:04:52 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:

```

?X:

?X: This unit produces a shell script which can be launched to create a

?X: directory path like "mkdir -p" would do.

?X:

?MAKE:Mkdirp:

eunicefix startsh

?MAKE: -pick add \$@ %<

?F:./mkdirp

?T:name create file

: script used to emulate mkdir -p

cat >mkdirp <<EOS

\$startsh

EOS

cat >>mkdirp <<'EOS'

name=\$1;

create="";

while test \$name; do

if test ! -d "\$name"; then

create="\$name \$create"

name=`echo \$name | sed -e "s|^[^/]\*\$||"``

name=`echo \$name | sed -e "s|(.\*).\*/.\*|1|"``

else

name=""

fi

done

for file in \$create; do

mkdir \$file

done

EOS

chmod +x mkdirp

\$eunicefix mkdirp

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Mkdirp.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_gconvert.U,v 3.0.1.3 1997/02/28 15:33:38 ram Exp \$

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:  
?RCS: \$Log: d\_gconvert.U,v \$  
?RCS: Revision 3.0.1.3 1997/02/28 15:33:38 ram  
?RCS: patch61: integrated new unit from perl5  
?RCS:  
?RCS: Revision 3.0.1.2 1995/07/25 13:55:59 ram  
?RCS: patch56: improved comments about the Gconvert macro (ADO)  
?RCS: patch56: force compile-link test since it may exist but be unusable (ADO)  
?RCS:  
?RCS: Revision 3.0.1.1 1994/10/29 16:12:51 ram  
?RCS: patch36:  
created by ADO  
?RCS:  
?MAKE:d\_Gconvert: \  
Compile cat Inlibc rm \_o rm\_try i\_stdlib d\_qgcvt run \  
uselongdouble d\_longdbl d\_PRIgldbl sPRIgldbl  
?MAKE: -pick add \$@ %<  
?S:d\_Gconvert:  
?S: This variable holds what Gconvert is defined as to convert  
?S: floating point numbers into strings. By default, Configure  
?S: sets this macro to use the first of gconvert, gcvt, or sprintf  
?S: that pass sprintf-%g-like behavior tests. If perl is using  
?S: long doubles, the macro uses the first of the following  
?S: functions that pass Configure's tests: qgcvt, sprintf (if  
?S: Configure knows how to make sprintf format long doubles--see  
?S: sPRIgldbl), gconvert, gcvt, and sprintf (casting to double).  
?S: The gconvert\_preference and gconvert\_ld\_preference variables  
?S: can be used to alter Configure's preferences, for doubles and  
?S: long doubles, respectively. If present, they contain a  
?S: space-separated list of one or more of the above function  
?S: names in the order they should be tried.  
?S:  
?S: d\_Gconvert  
may be set to override Configure with a platform-  
?S: specific function. If this function expects a double, a  
?S: different value may need to be set by the uselongdouble.cbu  
?S: call-back unit so that long doubles can be formatted without  
?S: loss of precision.  
?S:.  
?C:Gconvert:  
?C: This preprocessor macro is defined to convert a floating point  
?C: number to a string without a trailing decimal point. This  
?C: emulates the behavior of sprintf("%g"), but is sometimes much more  
?C: efficient. If gconvert() is not available, but gcvt() drops the  
?C: trailing decimal point, then gcvt() is used. If all else fails,  
?C: a macro using sprintf("%g") is used. Arguments for the Gconvert  
?C: macro are: value, number of digits, whether trailing zeros should  
?C: be retained, and the output buffer.

```

?C: The usual values are:
?C: d_Gconvert='gconvert((x),(n),(t),(b))'
?C: d_Gconvert='gcvt((x),(n),(b))'
?C: d_Gconvert='sprintf((b),"%.*g",(n),(x))'
?C: The last two assume trailing zeros should
not be kept.
?C:.
?H:#define Gconvert(x,n,t,b) $d_Gconvert
?H:.
?T: xxx_list xxx_convert xxx_ld_list
?F:!try
?LINT:extern gconvert_preference
?LINT:extern gconvert_ld_preference
: Check how to convert floats to strings.

if test "X$d_Gconvert" = X; then

echo " "
echo "Checking for an efficient way to convert floats to strings."
echo " " > try.c
case "$uselongdouble" in
"$define") echo "#define USE_LONG_DOUBLE" >>try.c ;;
esac
case "$d_longdbl" in
"$define") echo "#define HAS_LONG_DOUBLE" >>try.c ;;
esac
case "$d_PRIgdbl" in
"$define") echo "#define HAS_PRIgdbl" >>try.c ;;
esac
$cat >>try.c <<EOP
#ifdef TRY_gconvert
#define Gconvert(x,n,t,b) gconvert((x),(n),(t),(b))
char *myname = "gconvert";
#endif
#ifdef TRY_gcvt
#define Gconvert(x,n,t,b) gcvt((x),(n),(b))
char *myname = "gcvt";
#endif
#ifdef TRY_qcvt
#define Gconvert(x,n,t,b) qcvt((x),(n),(b))
char *myname = "qcvt";
#define DOUBLETYPENAME long double
#endif
#ifdef TRY_sprintf
#if defined(USE_LONG_DOUBLE) && defined(HAS_LONG_DOUBLE)
#ifdef
HAS_PRIgdbl
#define Gconvert(x,n,t,b) sprintf((b),"%.*"$sPRIgdbl,(n),(x))

```

```

#else
#define Gconvert(x,n,t,b) sprintf((b),"%.*g",n),(double)(x))
#endif
#else
#define Gconvert(x,n,t,b) sprintf((b),"%.*g",n),(x))
#endif
char *myname = "sprintf";
#endif

#ifndef DOUBLETYPED
#if defined(USE_LONG_DOUBLE) && defined(HAS_LONG_DOUBLE)
#define DOUBLETYPED long double
#else
#define DOUBLETYPED double
#endif
#endif

#include <stdio.h>

#ifdef I_STDLIB
#include <stdlib.h>
#endif
#include <string.h>

int checkit(char *expect, char *got)
{
 if (strcmp(expect, got)) {
 printf("%s oddity: Expected %s, got %s\n",
 myname, expect, got);
 exit(1);
 }
}

int main()
{
 char buf[64];
 buf[63] = '\0';

 /* This must be 1st test on (which?) platform */
 /* Alan Burlison <AlanBurlison@unn.unisys.com> */
 Gconvert((DOUBLETYPED)0.1, 8, 0, buf);
 checkit("0.1", buf);

 Gconvert((DOUBLETYPED)0.01, 8, 0, buf);
 checkit("0.01", buf);

 Gconvert((DOUBLETYPED)0.001, 8, 0, buf);

```

```

checkit("0.001",
buf);

Gconvert((DOUBLETYP)0.0001, 8, 0, buf);
checkit("0.0001", buf);

Gconvert((DOUBLETYP)0.00009, 8, 0, buf);
if (strlen(buf) > 5)
 checkit("9e-005", buf); /* for Microsoft ?? */
else
 checkit("9e-05", buf);

Gconvert((DOUBLETYP)1.0, 8, 0, buf);
checkit("1", buf);

Gconvert((DOUBLETYP)1.1, 8, 0, buf);
checkit("1.1", buf);

Gconvert((DOUBLETYP)1.01, 8, 0, buf);
checkit("1.01", buf);

Gconvert((DOUBLETYP)1.001, 8, 0, buf);
checkit("1.001", buf);

Gconvert((DOUBLETYP)1.0001, 8, 0, buf);
checkit("1.0001", buf);

Gconvert((DOUBLETYP)1.00001, 8, 0, buf);
checkit("1.00001", buf);

Gconvert((DOUBLETYP)1.000001, 8, 0, buf);
checkit("1.000001", buf);

Gconvert((DOUBLETYP)0.0, 8, 0, buf);
checkit("0", buf);

Gconvert((DOUBLETYP)-1.0, 8, 0, buf);
checkit("-1", buf);

/* Some Linux gcvt's give 1.e+5 here. */
Gconvert((DOUBLETYP)100000.0, 8, 0, buf);
checkit("100000", buf);

/* Some Linux gcvt's give -1.e+5 here. */
Gconvert((DOUBLETYP)-100000.0,
8, 0, buf);
checkit("-100000", buf);

```

```

Gconvert((DOUBLETYP)123.456, 8, 0, buf);
checkit("123.456", buf);

/* Testing of 1e+129 in bigintpm.t must not get extra '.' here. */
Gconvert((DOUBLETYP)1e34, 8, 0, buf);
/* 34 should be enough to scare even long double
* places into using the e notation. */
if (strlen(buf) > 5)
 checkit("1e+034", buf); /* for Microsoft */
else
 checkit("1e+34", buf);

/* For Perl, if you add additional tests here, also add them to
* t/base/num.t for benefit of platforms not using Configure or
* overriding d_Gconvert */

exit(0);
}
EOP
?X: List of order in which to search for functions.
?X: Usual order of efficiency is gconvert gcvt sprintf
?X: If a hint file sets a d_Gconvert="gconvert" or "gcvt" or "sprintf",
?X: then that is taken as a hint for which function to try first.
?X: (e.g. that function may be in a problematic /usr/ucblib library, and
?X: the user may or may not choose to use -lucb stuff.)
?X: Any other hint file
(or previous config.sh) setting is left intact.
: first add preferred functions to our list
xxx_list=""
for xxx_convert in $gconvert_preference; do
 case $xxx_convert in
 gcvt|gconvert|sprintf) xxx_list="$xxx_list $xxx_convert" ;;
 *) echo "Discarding unrecognized gconvert_preference $xxx_convert" >&4 ;;
 esac
done
: then add any others
for xxx_convert in gconvert gcvt sprintf; do
 case "$xxx_list" in
 $xxx_convert) ;;
 *) xxx_list="$xxx_list $xxx_convert" ;;
 esac
done

case "$d_longdbl$uselongdouble" in
"$define$define")
 : again, add preferred functions to our list first
 xxx_ld_list=""
 for xxx_convert in $gconvert_ld_preference; do

```



```

 case $xxx_convert in
 qgcvt|gcv|gconvert|sprintf) xxx_ld_list="$xxx_ld_list $xxx_convert" ;;
 *) echo "Discarding unrecognized gconvert_ld_preference $xxx_convert" ;;
 esac
done
: then add qgcvt, sprintf--then, in xxx_list order, gconvert and gcv
for xxx_convert in qgcvt sprintf
$xxx_list; do
 case "$xxx_ld_list" in
 $xxx_convert*|*" $xxx_convert"*) ;;
 *) xxx_ld_list="$xxx_ld_list $xxx_convert" ;;
 esac
done
: if sprintf cannot do long doubles, move it to the end
if test "$d_PRIGldbl" != "$define"; then
 xxx_ld_list=`echo $xxx_ld_list|sed s/sprintf/^ sprintf`
fi
: if no qgcvt, remove it
if test "$d_qgcvt" != "$define"; then
 xxx_ld_list=`echo $xxx_ld_list|sed s/qgcvt/^`
fi
: use the ld_list
xxx_list="$xxx_ld_list"
;;
esac

for xxx_convert in $xxx_list; do
echo "Trying $xxx_convert..."
?X: Do NOT use $rm_try here, as we need to keep try.c
$rm -f try try$o core
set try -DTRY_$xxx_convert
if eval $compile; then
echo "$xxx_convert() found." >&4
if $run ./try; then
echo "I'll use $xxx_convert to convert floats into a string." >&4
break;
else
echo "...But $xxx_convert didn't work as I expected."
xxx_convert=""
fi
else
echo "$xxx_convert NOT found."
>&4
fi
done

if test X$xxx_convert = X; then
echo "*** WHOA THERE!!! ***" >&4

```

```

 echo "None of ($xxx_list) seemed to work properly. I'll use sprintf." >&4
 xxx_convert=sprintf
fi

case "$xxx_convert" in
gconvert) d_Gconvert='gconvert((x),(n),(t),(b))' ;;
gcvt) d_Gconvert='gcvt((x),(n),(b))' ;;
qgcvt) d_Gconvert='qgcvt((x),(n),(b))' ;;
*) case "$uselongdouble$d_longdbl$d_PRIgldbl" in
"$define$define$define")
 d_Gconvert="sprintf((b),\"%. *\"$sPRIgldbl,(n),(x))" ;;
"$define$define$undef")
 d_Gconvert='sprintf((b),\"%. *g\",(n),(double)(x))' ;;
*) d_Gconvert='sprintf((b),\"%. *g\",(n),(x))' ;;
esac
;;
esac

```

```

fi
$rm_try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_gconvert.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_sgndchr.U,v 3.0.1.2 1997/02/28 15:44:25 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
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?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: d_sgndchr.U,v $
?RCS: Revision 3.0.1.2 1997/02/28 15:44:25 ram
?RCS: patch61: added a ?F: metalint hint
?RCS:
?RCS: Revision 3.0.1.1 1995/07/25 14:00:24 ram
?RCS: patch56: made cc and ccflags optional dependencies
?RCS:
?RCS: Revision 3.0 1993/08/18 12:07:16 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_sgndchr: cat rm Compile Setvar run
?MAKE: -pick add $@ %<

```

?S:d\_sgnchr:

?S: This variable conditionally defines the SIGNEDCHAR symbol, which

?S: indicates to the C program that signed characters are available.

?S:.

?C:SIGNEDCHAR:

?C: This symbol, if defined, indicates that characters are a signed type.

?C: If not defined, things declared as signed characters (and that make

?C: use of negative values) should probably be declared as shorts instead.

?C:.

?H:#\$d\_sgnchr SIGNEDCHAR /\*\*/

?H:.

?F:!try

?LINT:set d\_sgnchr

: check for signed chars

echo " "

echo "Checking to see if your C compiler can do signed chars..." >&4

\$cat >try.c <<'EOCP'

int main()

{

char c = 0;

c--;

exit(c >= 0);

}

EOCP

set try

if eval \$compile && \$run ./try; then

if \$run ./try; then

val="\$define"

echo "It certainly can."

else

val="\$undef"

echo "It can't. I'll have to make some things type short."

fi

set d\_sgnchr

eval \$setvar

\$rm -f try\*

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d\_sgnchr.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_casti32.U,v 3.0.1.3 1995/05/12 12:10:45 ram Exp \$

?RCS:

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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>  
?RCS:  
?RCS: \$Log: d\_casti32.U,v \$  
?RCS: Revision 3.0.1.3 1995/05/12 12:10:45 ram  
?RCS: patch54: made sure cc and cflags are conditional dependencies  
?RCS:  
?RCS: Revision 3.0.1.2 1994/10/29 16:09:37 ram  
?RCS: patch36: declare signal handler correctly (ADO)  
?RCS:  
?RCS: Revision 3.0.1.1 1994/08/29 16:07:06 ram  
?RCS: patch32: created by ADO  
?RCS:  
?X:  
?X: Can the compiler cast large floats to  
32-bit integers?  
?X:  
?MAKE:d\_casti32: cat Compile rm\_try intsize Setvar test signal\_t run i\_stdlib  
?MAKE: -pick add \$@ %<  
?S:d\_casti32:  
?S: This variable conditionally defines CASTI32, which indicates  
?S: whether the C compiler can cast large floats to 32-bit ints.  
?S:.  
?C:CASTI32:  
?C: This symbol is defined if the C compiler can cast negative  
?C: or large floating point numbers to 32-bit ints.  
?C:.  
?H:#\$d\_casti32 CASTI32 /\*\*/  
?H:.  
?T:xxx yyy  
?F:!try  
?LINT:set d\_casti32  
: check for ability to cast large floats to 32-bit ints.  
echo " "  
echo 'Checking whether your C compiler can cast large floats to int32.'>&4  
if \$test "\$intsize" -ge 4; then  
xxx=int  
else  
xxx=long  
fi  
\$cat >try.c <<EOCP  
#include <stdio.h>  
#\$i\_stdlib I\_STDLIB

```

#ifndef I_STDLIB
#include <stdlib.h>
#endif
#include <sys/types.h>
#include <signal.h>
$signal_t blech(int s) { exit(3); }
int main()
{
 $xxx i32;
 double f, g;
 int result = 0;
 char str[16];
 signal(SIGFPE, blech);

 /* Don't let compiler optimize the test away.
 Store the number
 in a writable string for gcc to pass to sscanf under HP-UX.
 */
 sprintf(str, "2147483647");
 sscanf(str, "%lf", &f); /* f = (double) 0x7ffffff; */
 g = 10 * f;
 i32 = ($xxx) g;

 /* x86 processors will probably give 0x8000 0000, which is a
 sign change. We don't want that. We want to mimic SPARC
 behavior here, which is to preserve the sign and give
 back 0x7ff ffff.
 */
 if (i32 != ($xxx) f)
 result |= 1;
 exit(result);
}
EOCP
set try
if eval $compile_ok; then
 $run ./try 2>/dev/null
 yyy=$?
else
 echo "(I can't seem to compile the test program--assuming it can't)"
 yyy=1
fi
case "$yyy" in
0) val="$define"
 echo "Yup, it can."
 ;;
*) val="$undef"
 echo "Nope, it can't."
 ;;

```

```
esac
set d_casti32
eval $setvar
$rm_try
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_casti32.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: orgname.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: orgname.U,v $
```

```
?RCS: Revision 3.0.1.1 1993/09/13 16:10:25 ram
```

```
?RCS: patch10: added support for /local/src to the search (WAD)
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:09:27 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:orgname: sed cat Myread Loc Oldconfig
```

```
?MAKE: -pick add $@ %<
```

```
?S:orgname:
```

```
?S: This variable contains the eventual value of the ORGNAME symbol,
```

```
?S: which contains either the organization name or the full pathname
```

```
?S: of
```

```
 a file containing the organization name.
```

```
?S:.
```

```
?C:ORGNAME:
```

```
?C: This symbol contains either the organization name or the full pathname
```

```
?C: of a file containing the organization name, which the program must
```

```
?C: be prepared to open and substitute the contents of.
```

```
?C:.
```

```
?H:#define ORGNAME "$orgname" /**/
```

```
?H:.
```

```
?T:longshots xxx
```

```
: get organization name
```

```
longshots=/local/src /usr/src/new /usr/src/local /usr/local/src'
```

```
case "$orgname" in
```

```
 ") if xxx=`./loc news/src/defs.h x $longshots`; then
```

```
 dflt=`$sed -n 's/^.*MYORG[]*"(.*)".*$/1/p' $xxx`
```

```
else
 dflt=""
fi
;;
*) dflt="$orgname";;
esac
$cat << 'EOH'
```

Please type the name of your organization as you want it to appear on the Organization line of outgoing articles. (It's nice if this also specifies your location. Your city name is probably sufficient if well known.)  
For example:

University of Southern North Dakota, Hoople

You may also put the name of a file, as long as it begins with a slash.  
For example:

/etc/organization

```
EOH
orgname=""
while
 test "X$orgname" = "X"; do
 rp='Organization:'
 . ./myread
 orgname="$ans"
done
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/orgname.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_syssselct.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: i_syssselct.U,v $
?RCS: Revision 3.0.1.1 1993/08/25 14:01:33 ram
?RCS: patch6: added default for i_syssselct
?RCS:
```

?RCS: Revision 3.0 1993/08/18 12:08:35 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: Look wether <sys/select.h> exists  
?X:  
?MAKE:i\_syssselct: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_syssselct:  
?S: This variable conditionally defines I\_SYS\_SELECT, which indicates  
?S: to the C program that it should include <sys/select.h> in  
order to  
?S: get the definition of struct timeval.  
?S:.  
?C:I\_SYS\_SELECT (I\_SYSSELECT):  
?C: This symbol, if defined, indicates to the C program that it should  
?C: include <sys/select.h> in order to get definition of struct timeval.  
?C:.  
?H:#\$i\_syssselct I\_SYS\_SELECT /\*\*/  
?H:.  
?D:i\_syssselct="  
?LINT:set i\_syssselct  
: see if sys/select.h has to be included  
set sys/select.h i\_syssselct  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_syssselct.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: i\_varhdr.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 15:54:42 ram

?RCS: patch61: varargs script now starts with leading "startsh"

?RCS:

?RCS: Revision 3.0.1.2 1994/10/29 16:21:02 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:



?RCS: Revision 3.0.1.1 1994/05/13 15:26:05 ram

?RCS: patch27: this unit now supersedes old i\_stdarg.U and i\_varargs.U

?RCS: patch27: modified to avoid spurious Whoa warnings (ADO)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:08:49 ram

?RCS: Baseline for  
dist 3.0 netwide release.

?RCS:

?MAKE:i\_stdarg i\_varargs i\_varhdr: cat +cc +ccflags rm test Setvar \  
Findhdr Warn startsh \_o

?MAKE: -pick add \$@ %<

?S:i\_stdarg:

?S: This variable conditionally defines the I\_STDARG symbol, which  
?S: indicates to the C program that <stdarg.h> exists and should  
?S: be included.

?S:.

?S:i\_varargs:

?S: This variable conditionally defines I\_VARARGS, which indicates  
?S: to the C program that it should include <varargs.h>.

?S:.

?S:i\_varhdr:

?S: Contains the name of the header to be included to get va\_dcl definition.  
?S: Typically one of varargs.h or stdarg.h.

?S:.

?C:I\_STDARG:

?C: This symbol, if defined, indicates that <stdarg.h> exists and should  
?C: be included.

?C:.

?C:I\_VARARGS:

?C: This symbol, if defined, indicates to the C program that it should  
?C: include <varargs.h>.

?C:.

?H:#\$i\_stdarg I\_STDARG /\*\*/  
?H:#\$i\_varargs I\_VARARGS /\*\*/  
?H:.

?W:%<:va\_dcl

?F:!varargs

?T:valstd

?LINT:set i\_stdarg i\_varargs

?X:

?X: Don't use setvar because the varargs test  
below might override these.

?X: Actually, the messages here are just informative. We don't wish to set  
?X: i\_varargs or i\_stdarg to their final value before knowing which of the  
?X: two we'll include.

?X:

: see if stdarg is available  
echo " "

```
if $test `./findhdr stdarg.h`; then
 echo "<stdarg.h> found." >&4
 valstd="$define"
else
 echo "<stdarg.h> NOT found." >&4
 valstd="$undef"
fi
```

```
: see if varargs is available
echo " "
if $test `./findhdr varargs.h`; then
 echo "<varargs.h> found." >&4
else
 echo "<varargs.h> NOT found, but that's ok (I hope)." >&4
fi
```

?X:  
?X: if you have stdarg.h, you need to support prototypes to actually use it;  
?X: but if stdarg.h exists and the compiler doesn't support prototypes (for some  
?X: bizarre reason), we'll fall back to varargs.h anyway so it's not so bad.  
?X:

: set up the varargs testing programs

```
$cat > varargs.c <<EOP
```

```
#ifdef I_STDARG
#include <stdarg.h>
#endif
#ifdef I_VARARGS
#include <varargs.h>
#endif
```

```
#ifdef I_STDARG
int f(char *p, ...)
#else
int
f(va_alist)
va_dcl
#endif
{
 va_list ap;
#ifdef I_STDARG
 char *p;
#endif
#ifdef I_STDARG
 va_start(ap,p);
#else
 va_start(ap);
 p = va_arg(ap, char *);
#endif
}
```

```

va_end(ap);
}
EOP
$cat > varargs <<EOP
$startsh
if $cc -c $ccflags -D\${1} varargs.c >/dev/null 2>&1; then
 echo "true"
else
 echo "false"
fi
$rm -f varargs$_o
EOP
chmod +x varargs

: now check which varargs header should be included
echo " "
i_varhdr="
case "$valstd" in
"$define")
if `./varargs I_STDARG`; then
 val='stdarg.h'
elif `./varargs I_VARARGS`; then
 val='varargs.h'
fi
;;
*)
if `./varargs I_VARARGS`; then
 val='varargs.h'
fi
;;
esac
case "$val" in
")
./warn "I could not find the definition for va_dcl... You have problems..."
val="$undef"; set i_stdarg; eval $setvar
val="$undef"; set i_varargs; eval $setvar
;;
*)
set i_varhdr
eval $setvar
case "$i_varhdr" in
stdarg.h)
val="$define"; set i_stdarg; eval $setvar
val="$undef"; set i_varargs; eval $setvar
;;
varargs.h)
val="$undef"; set i_stdarg;

```

```
eval $setvar
 val="$define"; set i_varargs; eval $setvar
;;
esac
echo "We'll include <$i_varhdr> to get va_dcl definition." >&4;;
esac
$rm -f varargs*
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_varhdr.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_endnent.U,v 3.0 1993/08/18 12:06:09 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: d_endnent.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:09 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_endnent: Inlibc
?MAKE: -pick add $@ %<
?S:d_endnent:
?S: This variable conditionally defines HAS_ENDNETENT if endnent() is
?S: available to close whatever was being used for network queries.
?S:.
?C:HAS_ENDNETENT:
?C: This symbol, if defined, indicates that the endnent() routine is
?C: available to close whatever was being used for network
queries.
?C:.
?H:#$d_endnent HAS_ENDNETENT /**/
?H:.
?LINT:set d_endnent
: see if endnentent exists
set endnentent d_endnent
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_endnent.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: contains.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: contains.U,v $
?RCS: Revision 3.0 1993/08/18 12:05:35 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:contains: Nothing
?MAKE: -pick add $@ %<
?S:contains:
?S: This variable holds the command to do a grep with a proper return
?S: status. On most sane systems it is simply "grep". On insane systems
?S: it is a grep followed by a cat followed by a test. This variable
?S: is primarily for the use of other Configure units.
?S:.
: Some
 greps do not return status, grrr.
 echo "grimblepritz" >grimble
 if grep blurfldyick grimble >/dev/null 2>&1 ; then
 contains=contains
 elif grep grimblepritz grimble >/dev/null 2>&1 ; then
 contains=grep
 else
 contains=contains
 fi
 rm -f grimble
: the following should work in any shell
case "$contains" in
contains*)
 echo " "
 echo "AGH! Grep doesn't return a status. Attempting remedial action."
 cat >contains <<'EOSS'
 grep "$1" "$2" >.greptmp && cat .greptmp && test -s .greptmp
EOSS
 chmod +x contains
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
```

5.30.0/dist/U/contains.U

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_setpgrp2.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_setpgrp2.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:10 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_setpgrp2: Inlibc
?MAKE: -pick add $@ %<
?S:d_setpgrp2:
?S: This variable conditionally defines the HAS_SETPGRP2 symbol, which
?S: indicates to the C program that the setpgrp2() (as in DG/UX) routine
?S: is available to set the current process group.
?S:.
?C:HAS_SETPGRP2 (SETPGRP2):
?C: This symbol, if defined, indicates that the
?C: setpgrp2() (as in DG/UX)
?C: routine is available to set the current process group.
?C:.
?H:#$d_setpgrp2 HAS_SETPGRP2 /**/
?H:.
?LINT:set d_setpgrp2
: see if setpgrp2 exists
set setpgrp2 d_setpgrp2
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/d_setpgrp2.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
```

```

?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: charorder.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:07:08 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:33 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:chorder_int chorder_short chorder_long: Myread cat +cc +ccflags rm
?MAKE: -pick add $@ %<
?S:chorder_short (d_cos d_bos):
?S: Holds the value describing the byte ordering of characters in a short.
?S: On a Big-Endian machine, that would be "c0c1".
?S:.
?S:chorder_int
(charoder):
?S: Holds the value describing the byte ordering of characters in an int.
?S: For instance, on a Big-Endian machine, this would be: "c0c1c2c3".
?S:.
?S:chorder_long (d_col d_bol):
?S: Holds the value describing the byte ordering of characters in a long.
?S: On a 64 bits Big-Endian machine, that would yield: "c0c1c2c3c4c5c6c7".
?S:.
?C:CHAR_ORDER_SHORT:
?C: Holds the byte ordering of characters in a short. It's a string
?C: value like "c0c1" on a Big-Endian machine.
?C:.
?C:CHAR_ORDER_INT:
?C: Holds the byte ordering of characters in an int. It's a string
?C: value like "c0c1c2c3" on a Big-Endian machine.
?C:.
?C:CHAR_ORDER_LONG:
?C: Holds the byte ordering of characters in a long. It's a string
?C: value like "c0c1c2c3c4c5c6c7" on a 64 bits Big-Endian machine.
?C:.
?H:#define CHAR_ORDER_SHORT "$chorder_short" /* byte order in a short */
?H:#define CHAR_ORDER_INT "$chorder_int" /* byte order in an int */
?H:#define CHAR_ORDER_LONG "$chorder_long" /* byte order in a long */
?H:.
?F:!byteorder
:
check for character ordering
echo " "
echo "Checking out byte order..." >&4
$cat >byteorder.c <<'EOCP'
#include <stdio.h>

```

```

main(argc, argv)
int argc;
char *argv[]; {
int i;
int max;
union {
short u_s;
int u_i;
long u_l;
char u_c[sizeof(long)];
} u;
switch (argv[1][0]) {
case 'l':
u.u_l = 0L;
/* HMS: ASSERT: sizeof(long) < 10. */
for(i = 0; i < sizeof(long); ++i) {
u.u_l *= 0x100L;
u.u_l += (0xc0 + i);
}
max = sizeof(long);
break;
case 's':
u.u_s = 0;
/* HMS: ASSERT: sizeof(short) < 10. */
for(i = 0; i < sizeof(short); ++i) {
u.u_s *= 0x100L;
u.u_s += (0xc0 + i);
}
max = sizeof(short);
break;
case 'i':
u.u_i = 0;
/* RAM: ASSERT: sizeof(int) < 10. */
for(i = 0; i < sizeof(int); ++i) {
u.u_l *= 0x100L;
u.u_l += (0xc0 + i);
}
max = sizeof(int);
break;
default:
max = 0;
break;
}
for(i = 0; i < max; i++) {
printf("%x", u.u_c[i] & 0x00FF);
}
printf("\n");

```



```

exit(0);
}
EOCP
if $cc $ccflags -o
byteorder byteorder.c >/dev/null 2>&1 ; then
: null statement
@if chorder_short
chorder_short=`./byteorder s`
@end
@if chorder_int
chorder_int=`./byteorder i`
@end
@if chorder_long
chorder_long=`./byteorder l`
@end
else
$cat <<EOM
(I can't seem to get my test program to work. Guessing 32 bits big-endian.)
EOM
chorder_short="c0c1"
chorder_int="c0c1c2c3"
chorder_long="c0c1c2c3"
fi
@if chorder_short
dflt=$chorder_short
rp="What is the order of characters in a short?"
./myread
chorder_short="$ans"
@end
@if chorder_int
dflt=$chorder_int
rp="What is the order of characters in an int?"
./myread
chorder_int="$ans"
@end
@if chorder_long
dflt=$chorder_long
rp="What is the order of characters in a long?"
./myread
chorder_long="$ans"
@end
$rm -f byteorder* core

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/charorder.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: cpp\_stuff.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: cpp\_stuff.U,v \$  
?RCS: Revision 3.0.1.1 1994/10/29 16:08:24 ram  
?RCS: patch36: now uses cppstdin instead of plain cpp for consistency (ADO)  
?RCS: patch36: remove temporary files when done  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:05:36 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:cpp\_stuff: cat contains cppstdin cppflags cppminus rm  
?MAKE: -pick add \$@ %<  
?S:cpp\_stuff:  
?S: This variable contains an identification of the concatenation  
mechanism  
?S: used by the C preprocessor.  
?S:.  
?C:CAT2:  
?C: This macro concatenates 2 tokens together.  
?C:.  
?C:CAT3:  
?C: This macro concatenates 3 tokens together.  
?C:.  
?C:CAT4:  
?C: This macro concatenates 4 tokens together.  
?C:.  
?C:CAT5:  
?C: This macro concatenates 5 tokens together.  
?C:.  
?C:STRINGIFY:  
?C: This macro surrounds its token with double quotes.  
?C:.  
?C:SCAT2:  
?C: This macro concatenates 2 tokens together and stringifies the result.  
?C: It might not exist, so #ifdef it in your code!  
?C:.  
?C:SCAT3:  
?C: This macro concatenates 3 tokens together and stringifies the result.  
?C: It might not exist, so #ifdef it in your code!  
?C:.

?C:SCAT4:

?C: This macro concatenates 4 tokens together and stringifies the result.

?C: It might not exist, so #ifdef it in your code!

?C:.

?C:SCAT5:

?C: This macro concatenates 5 tokens together and stringifies the result.

?C: It might not exist, so #ifdef it in your code!

?C:.

?X: Dist pl70 included the following, but AIX's xlc compiler

?X: (which

is ANSI-ish and has cpp\_stuff == 42)) rejects

?X: The SQuoTe/EQuoTe stuff because the string literals are on

?X: separate lines. Sigh.

?X: Andy Dougherty 24 Feb 1998

?X: ?H:??<:#if \$cpp\_stuff == 1

?X: ?H:?CAT2:#define CAT2(a,b)a/\*\*/b

?X: ?H:?CAT3:#define CAT3(a,b,c)a/\*\*/b/\*\*/c

?X: ?H:?CAT4:#define CAT4(a,b,c,d)a/\*\*/b/\*\*/c/\*\*/d

?X: ?H:?CAT5:#define CAT5(a,b,c,d,e)a/\*\*/b/\*\*/c/\*\*/d/\*\*/e

?X: ?H:?STRINGIFY:#define STRINGIFY(a)"a"

?X: ?H:??<:#define SQuoTe(a)"a

?X: ?H:??<:#define EQuoTe(a)"a"

?X: ?H:?SCAT2:#define SCAT2(a,b)EQuoTe(SQuoTe(a)b)

?X: ?H:?SCAT3:#define SCAT3(a,b,c)EQuoTe(SQuoTe(a)b/\*\*/c)

?X: ?H:?SCAT4:#define SCAT4(a,b,c,d)EQuoTe(SQuoTe(a)b/\*\*/c/\*\*/d)

?X: ?H:?SCAT5:#define SCAT5(a,b,c,d,e)EQuoTe(SQuoTe(a)b/\*\*/c/\*\*/d/\*\*/e)

?X: ?H:??<:#endif

?H:??<:#if \$cpp\_stuff == 1

?H:?CAT2:#define CAT2(a,b) a/\*\*/b

?H:?CAT3:#define CAT3(a,b,c) a/\*\*/b/\*\*/c

?H:?CAT4:#define CAT4(a,b,c,d) a/\*\*/b/\*\*/c/\*\*/d

?H:?CAT5:#define CAT5(a,b,c,d,e) a/\*\*/b/\*\*/c/\*\*/d/\*\*/e

?H:?STRINGIFY:#define STRINGIFY(a) "a"

?X: If

you can get stringification with catify, tell me how!

?H:??<:#endif

?H:??<:#if \$cpp\_stuff == 42

?H:??<:#define PeRl\_CaTiFy(a, b) a ## b

?H:??<:#define PeRl\_StGiFy(a) #a

?X: The additional level of indirection enables these macros to be

?X: used as arguments to other macros. See K&R 2nd ed., page 231.

?H:?CAT2:#define CAT2(a,b) PeRl\_CaTiFy(a,b)

?H:?CAT3:#define CAT3(a,b,c) CAT2(PeRl\_CaTiFy(a,b),c)

?H:?CAT4:#define CAT4(a,b,c,d) CAT2(CAT3(a,b,c),d)

?H:?CAT5:#define CAT5(a,b,c,d,e) CAT2(CAT4(a,b,c,d),e)

?H:??<:#define StGiFy(a) PeRl\_StGiFy(a)

?H:?STRINGIFY:#define STRINGIFY(a) PeRl\_StGiFy(a)

?H:?SCAT2:#define SCAT2(a,b) PeRl\_StGiFy(a) PeRl\_StGiFy(b)

```

?H:?SCAT3:#define SCAT3(a,b,c) PeRl_StGiFy(a) PeRl_StGiFy(b) PeRl_StGiFy(c)
?H:?SCAT4:#define SCAT4(a,b,c,d) PeRl_StGiFy(a) PeRl_StGiFy(b) PeRl_StGiFy(c) PeRl_StGiFy(d)
?H:?SCAT5:#define SCAT5(a,b,c,d,e) PeRl_StGiFy(a) PeRl_StGiFy(b) PeRl_StGiFy(c) PeRl_StGiFy(d)
PeRl_StGiFy(e)
?H:?%<:#endif
?H:?%<:#if $cpp_stuff != 1 && $cpp_stuff
!= 42
?H:?%<:#include "Bleth: How does this C preprocessor concatenate tokens?"
?H:?%<:#endif
?H:.
?W:%<:CAT2 CAT3 CAT4 CAT5 STRINGIFY SCAT2 SCAT3 SCAT4 SCAT5
?F:!cpp_stuff.c
?LINT:known StGiFy
?LINT:known PeRl_CaTiFy
?LINT:known PeRl_StGiFy
: how do we concatenate cpp tokens here?
echo " "
echo "Checking to see how your cpp does stuff like concatenate tokens..." >&4
$cat >cpp_stuff.c <<'EOCP'
#define RCAT(a,b)a/**/b
#define ACAT(a,b)a ## b
RCAT(Rei,ser)
ACAT(Cir,cus)
EOCP
$cppstdin $cppflags $cppminus <cpp_stuff.c >cpp_stuff.out 2>&1
if $contains 'Circus' cpp_stuff.out >/dev/null 2>&1; then
echo "Oh! Smells like ANSI's been here." >&4
echo "We can catify or stringify, separately or together!"
cpp_stuff=42
elif $contains 'Reiser' cpp_stuff.out >/dev/null 2>&1; then
echo "Ah, yes! The good old days!" >&4
echo "However, in the good old days we don't know how to stringify and"
echo "catify at the same time."
cpp_stuff=1
else
$cat >&4 <<EOM
Hmm, I don't seem to be able to concatenate
tokens with your cpp.
You're going to have to edit the values of CAT[2-5] in config.h...
EOM
?X: It would be nice to have configure remind us at the end that some manual
?X: intervention is needed -- FIXME
cpp_stuff="/* Help! How do we handle cpp_stuff? */*/"
fi
$rm -f cpp_stuff.*

Found in path(s):
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

```

5.30.0/U/modified/cpp\_stuff.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Csym.U,v 3.0.1.4 1995/07/25 13:36:29 ram Exp \$  
?RCS:  
?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: Csym.U,v \$  
?RCS: Revision 3.0.1.4 1995/07/25 13:36:29 ram  
?RCS: patch56: re-arranged compile line to include ldflags before objects  
?RCS: patch56: added quotes for OS/2 support  
?RCS:  
?RCS: Revision 3.0.1.3 1995/05/12 12:00:33 ram  
?RCS: patch54: fixed C test program to bypass gcc builtin type checks (ADO)  
?RCS:  
?RCS: Revision 3.0.1.2 1994/10/31 09:34:13 ram  
?RCS: patch44: added Options to the MAKE line since it's no longer in Init.U  
?RCS:  
?RCS: Revision  
3.0.1.1 1993/08/25 14:00:05 ram  
?RCS: patch6: added ldflags as a conditional dependency and to compile line  
?RCS: patch6: a final double quote was missing in csym variable after eval  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:04:50 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:Csym mistrustnm extern\_C: Options contains libc libs runnm test \  
+cc +optimize +ccflags +ldflags run rm\_try \_exe d\_cplusplus  
?MAKE: -pick add \$@ %<  
?LINT:define csym  
?LINT:use libc  
?LINT:extern mistrustnm  
?LINT:set mistrustnm  
?S:csym:  
?S: This shell variable is used internally by Configure to check  
?S: whether a given C symbol is defined or not. A typical use is:  
?S: set symbol result [-fva] [previous]  
?S: eval \$csym  
?S: That will set result to 'true' if the function [-f], variable [-v]  
?S: or array [-a] is defined, 'false' otherwise. If a previous value is  
?S: given and the -r flag was provided on the command line, that value  
?S: is reused without questioning.

?S:.

?S:extern\_C:

?S: ANSI C

requires 'extern' where C++ requires 'extern "C"'. This

?S: variable can be used in Configure to do the right thing.

?S:.

?S:mistrustnm:

?S: This variable can be used to establish a fallback for the cases

?S: where nm fails to find a symbol. If usenm is false or usenm is true

?S: and mistrustnm is false, this variable has no effect. If usenm is true

?S: and mistrustnm is "compile", a test program will be compiled to try to

?S: find any symbol that can't be located via nm lookup. If mistrustnm is

?S: "run", the test program will be run as well as being compiled.

?S:.

?V:csym

?T:tval tx tlook tf tdc

?F:!try

: is a C symbol defined?

csym='tlook=\$1;

case "\$3" in

-v) tf=libc.tmp; tdc="";;

-a) tf=libc.tmp; tdc="[]";;

\*) tlook="^\$1\\$"; tf=libc.list; tdc="()";;

esac;

case "\$d\_cplusplus" in

\$define) extern\_C="extern \"C\"";;

\*) extern\_C="extern";;

esac;

tx=yes;

case "\$reuseval-\$4" in

true-);;

true-\*) tx=no; eval "tval=\\$\$4"; case "\$tval" in "") tx=yes;; esac;;

esac;

case "\$tx"

in

yes)

?X:

?X: Put symbol inside a printf to fool optimizing compilers...

?X:

?X: We use 'short' instead of 'int' to try to circumvent overzealous

?X: optimizing compilers using built-in prototypes for commonly used

?X: routines to complain when seeing a different external declaration. For

?X: instance, gcc 2.6.3 fails if we use 'int' and we attempt a test against

?X: memcpy() on machines where sizeof(int) == sizeof(char \*) (the usual return

?X: type), the compiler assuming it's a built-in declaration given that the

?X: returned size matches. At least with 'short' we are safe! -- RAM, for ADO

?X:

?X: Let's thank GNU cc for making our lives so easy! :-)

?X: (An alternative for the future would be to use our knowledge about gcc

?X: to force a -fno-builtin option in the compile test, in case the 'short'

?X: trick is obsoleted by future gcc releases). -- RAM

?X:

```
tval=false;
if $test "$runnm" = true; then
 if $contains $tlook $tf >/dev/null 2>&1; then
 tval=true;
 elif $test "$mistrustnm"
= compile -o "$mistrustnm" = run; then
 echo "$extern_C void *$1$tdc; void *(*(p()))$tdc { return &$1; } int main(int argc, char **argv) { if(p() && p() !=
(void *)argv[0]) return(0); else return(1); }"> try.c;
 $cc -o try $optimize $ccflags $ldflags try.c >/dev/null 2>&1 $libs && tval=true;
 $test "$mistrustnm" = run -a -x try && { $run ./try$ _exe >/dev/null 2>&1 || tval=false; };
 $rm_try;
fi;
else
 echo "$extern_C void *$1$tdc; void *(*(p()))$tdc { return &$1; } int main(int argc, char **argv) { if(p() && p() !=
(void *)argv[0]) return(0); else return(1); }"> try.c;
 $cc -o try $optimize $ccflags $ldflags try.c $libs >/dev/null 2>&1 && tval=true;
 $rm_try;
fi;
;;
*)
case "$tval" in
$define) tval=true;;
*) tval=false;;
esac;
;;
esac;
eval "$2=$tval"
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/compline/Csym.U
```

No license file was found, but licenses were detected in source scan.

?RCS: Copyright (c) 2006-2007, H.Merijn Brand

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_snprintf\_1 d\_vsnprintf\_1 : Inlibc d\_snprintf d\_vsnprintf

?MAKE: -pick add \$@ %<

?S:d\_snprintf\_1:

?S: This variable conditionally defines the HAS\_SNPRINTF\_L symbol, which  
?S: indicates to the C program that the snprintf\_1 () library function  
?S: is available.

?S:.

?S:d\_vsnprintf\_l:

?S: This variable conditionally defines the HAS\_VSNPRINTF\_L symbol, which  
?S: indicates to the C program that the vsnprintf\_1 () library function  
?S: is available.

?S:.

?C:HAS\_SNPRINTF\_L:

?C: This symbol, if defined, indicates that the snprintf\_1 () library  
?C: function  
is available for use.

?C:.

?C:HAS\_VSNPRINTF\_L:

?C: This symbol, if defined, indicates that the vsnprintf\_1 () library  
?C: function is available for use.

?C:.

?H:#\$d\_snprintf\_1 HAS\_SNPRINTF\_L /\*\*/

?H:#\$d\_vsnprintf\_1 HAS\_VSNPRINTF\_L /\*\*/

?H:.

: see if snprintf\_1 exists

set snprintf\_1 d\_snprintf\_1

eval \$inlibc

: see if vsnprintf\_1 exists

set vsnprintf\_1 d\_vsnprintf\_1

eval \$inlibc

case "\$d\_snprintf-\$d\_vsnprintf-\$d\_snprintf\_1-\$d\_vsnprintf\_1" in  
"\$define-\$define-\$define-\$define")

;;

\*) echo "(These require the basic snprintf and vsnprintf to also be available, which they aren't"

d\_snprintf\_1="\$undef"

d\_vsnprintf\_1="\$undef"

;;

esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-  
5.30.0/U/threads/d\_snprintf\_1.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Head.U 6 2006-08-25 22:21:46Z rmanfredi \$

?RCS:

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?RCS:

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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: Head.U,v \$  
?RCS: Revision 3.0.1.9 1997/02/28 15:02:09 ram  
?RCS: patch61: make sure we unset CDPATH for shells that support this  
?RCS: patch61: improved Korn shell detection and handling  
?RCS:  
?RCS: Revision 3.0.1.8 1995/07/25 13:40:02 ram  
?RCS: patch56: added SVR4-ish /opt directories to path list (ADO)  
?RCS: patch56: OS/2 platforms are using another path separator  
?RCS:  
?RCS: Revision 3.0.1.7 1995/03/21 08:46:15 ram  
?RCS: patch52: definition of  
paths wrongly added spurious '.' chars  
?RCS:  
?RCS: Revision 3.0.1.6 1994/10/29 15:54:19 ram  
?RCS: patch36: make sure ENV is unset before calling /bin/ksh  
?RCS:  
?RCS: Revision 3.0.1.5 1994/08/29 16:03:44 ram  
?RCS: patch32: now sets PATH only using existing directories  
?RCS:  
?RCS: Revision 3.0.1.4 1994/06/20 06:54:28 ram  
?RCS: patch30: now computes its invocation name into 'me'  
?RCS: patch30: symbol me is made visible to all units read-only  
?RCS:  
?RCS: Revision 3.0.1.3 1993/12/15 08:15:07 ram  
?RCS: patch15: added /sbin:/usr/sbin:/usr/libexec in PATH for BSD/386  
?RCS:  
?RCS: Revision 3.0.1.2 1993/11/10 17:32:35 ram  
?RCS: patch14: ensure PATH is reset to '.' before testing for alias  
?RCS:  
?RCS: Revision 3.0.1.1 1993/08/27 14:38:07 ram  
?RCS: patch7: not all 'test' programs support the -x option  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:04:58 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: This is the very first unit in the Configure script. It is mostly just  
?X:  
things to keep people from getting into a tizzy right off the bat.  
?X:  
?MAKE:Head:  
?MAKE: -pick wipe \$@ %<  
?V:PATH p\_ \_exe me newsh

```

?T:argv p paths OS2_SHELL DJGPP
?T:inksh needksh avoidksh newsh changesh reason
?F:!*
?LINT:extern ENV CDPATH SHELL MACHTYPE _exe is_os2
?LINT:change ENV CDPATH is_os2
?LINT:nocomment
#!/bin/sh
#
If these # comments don't work, trim them. Don't worry about any other
shell scripts, Configure will trim # comments from them for you.
#
(If you are trying to port this package to a machine without sh,
I would suggest you have a look at the prototypical config_h.SH file
and edit it to reflect your system. Some packages may include samples
of config.h for certain machines, so you might look for one of those.)
#
?X:
?X: NOTE THAT A CONFIGURE SCRIPT IS IN THE PUBLIC DOMAIN (whether or not
?X: the software which uses it is in the public domain).
?X:
Yes, you may rip this off to use in other distribution packages. This
script belongs to the public
domain and cannot be copyrighted.
#
?X:
?X: WE ASK YOU NOT TO REMOVE OR ALTER THE FOLLOWING PARAGRAPH, PLEASE:
?X:
Note: this Configure script was generated automatically by the tool
called "metaconfig". Rather than working with this copy of Configure,
you should use metaconfig. Perl uses a modified version of this
tool, and this, together with the metaconfig units, are available
in the git repository:
$ git clone https://github.com/perl5-metaconfig/metaconfig metaconfig
The original dist package (including metaconfig) is available on github:
$ git clone https://github.com/rmanfredi/dist.git dist-git
#
?X: OK, I'll not alter, but I'll add to it then ...
Though this script was generated by metaconfig from metaunits, it is
OK to send patches against Configure itself (but not to commit them
to bleed). It's up to
the Configure maintainers to backport the patch to the metaunits if it
is accepted. Exceptions to this rule, and more information, is in
Porting/pumpkin.pod.
?X:
?X:
NOTA BENE:
?X: If you develop you own version of metaconfig based on this work,
?X: you have to add some comments telling that the script was generated

```

?X: by your version, not mine: It credits your work.

?X:

```
Generated using [metaconfig <VERSION> PL<PATCHLEVEL>]
(with additional metaconfig patches by <MAINTLOC>)
```

```
cat >c1$$ <<EOF
ARGGGHHHH!!!!
```

SCO csh still thinks true is false. Write to SCO today and tell them that next year Configure ought to "rm /bin/csh" unless they fix their blasted shell. :-)

(Actually, Configure ought to just patch csh in place. Hmm. Hmmmmm. All we'd have to do is go in and swap the && and || tokens, wherever they are.)

[End of diatribe. We now return you to your regularly scheduled programming...]

EOF

```
cat >c2$$ <<EOF
```

OOPS! You naughty creature! You didn't run Configure with sh!

I will attempt to remedy the situation by running sh for you...

EOF

```
true || cat c1$$ c2$$
true || exec sh $0 $argv:q
```

```
(exit $?0) || cat c2$$
(exit
 $?0) || exec sh $0 $argv:q
rm -f c1$$ c2$$
```

```
if test -f /dev/cputype -a -f /dev/drivers -a -f /dev/osversion; then
```

```
cat <<EOF
```

```

```

```
*** I'm sorry but this system looks like Plan 9 and Plan 9 doesn't do
```

```
*** Configure that well. (Plan 9 is close to UNIX but not close enough.)
```

```
*** Please read the README.plan9 for further instructions.
```

```
*** Cannot continue, aborting.
```

```

```

```
EOF
```

```
exit 1
```

```
fi
```

```
if test -f /sys/utilities/MultiView ; then
```

```
AmigaOS, test -c for /dev/null is not useful
```

```
:
```

```
elif test ! -c /dev/null ; then
```

```
cat <<EOF
```

```

*** I'm sorry, but /dev/null appears to be a file rather than a device.
*** Please consult your operating system's notes for making a device
*** in /dev.
*** Cannot continue, aborting.

```

```
EOF
```

```
exit 1
```

```
fi
```

```
: compute my invocation name
```

```
me=$0
```

```
case "$0" in
```

```
/)
```

```
me=`echo $0 | sed -e 's!.*\!(.*)!\1!' 2>/dev/null`
```

```
test "$me" || me=$0
```

```
::
```

```
esac
```

```
?X:
```

```
?X: To be able to run under OS/2, we must detect that early enough to use
```

```
?X: the proper path separator, stored in $p_. It is : on
```

```
UNIX and ; on
```

```
?X: DOS-ish systems such as OS/2.
```

```
?X:
```

```
: Proper separator for the PATH environment variable
```

```
p_=:
```

```
: On OS/2 this directory should exist if this is not floppy only system ":-]"
```

```
if test -d c:/ || (uname -a | grep -i 'os\(\(\|\)\)2' 2>&1) 2>&1 >/dev/null ; then
```

```
if test -n "$OS2_SHELL"; then
```

```
 p_=\;
```

```
 PATH=`cmd /c "echo %PATH%" | tr '\\\|' /`
```

```
?X: That's a bug in ksh5.22
```

```
 OS2_SHELL=`cmd /c "echo %OS2_SHELL%" | tr '\\\|' / | tr '[A-Z]' '[a-z]`
```

```
 is_os2=yes
```

```
elif test -n "$DJGPP"; then
```

```
 case "X${MACHTYPE:-nonesuchmach}" in
```

```
 *cygwin|*msys) ;;
```

```
 *) p_=\; ;;
```

```
 esac
```

```
fi
```

```
fi
```

```
?X:
```

```
?X: There are two schools of thoughts here. Some people correctly argue that
```

```
?X: the user has a better chance than we do of setting a reasonable PATH and
```

```
?X: others argue that Configure is the best place there is to set up a suitable
```

```
?X: PATH. Well, here we try to compromise by keeping the user's PATH and
```

?X: appending some directories which are known to work on some machine or the

?X: other. The rationale

behind this being that a novice user might not have a

?X: proper environment variable set, and some directories like /etc (where

?X: chown is located on some BSD systems) may be missing--RAM.

?X:

?X: SVR4 adds an /opt directory for optional packages. Some sites use

?X: various permutations on /opt as opposed to /usr or /usr/local.-- ADO

?X:

?X: We only add directories that are not already in the PATH of the

?X: user and the directories must exist also.

?X:

?X: 20040627, Merijn, HP-UX's ANSI compiler is in /opt/ansic/bin if present

?X: and should be before /usr/ccs/bin, where the braindead bundled compiler

?X: can be found. The /usr/ccs/bin compiler cannot be used to build perl.

?X:

: Proper PATH setting

```
paths=/bin /usr/bin /usr/local/bin /usr/ucb /usr/local /usr/lbin'
```

```
paths="$paths /opt/bin /opt/local/bin /opt/local /opt/lbin"
```

```
paths="$paths /usr/5bin /etc /usr/gnu/bin /usr/new /usr/new/bin /usr/nbin"
```

```
paths="$paths /opt/gnu/bin /opt/new /opt/new/bin /opt/nbin"
```

```
paths="$paths /sys5.3/bin
```

```
 /sys5.3/usr/bin /bsd4.3/bin /bsd4.3/usr/ucb"
```

```
paths="$paths /bsd4.3/usr/bin /usr/bsd /bsd43/bin /opt/ansic/bin /usr/ccs/bin"
```

```
paths="$paths /etc /usr/lib /usr/ucblib /lib /usr/ccs/lib"
```

```
paths="$paths /sbin /usr/sbin /usr/libexec"
```

```
paths="$paths /system/gnu_library/bin"
```

```
for p in $paths
```

```
do
```

```
 case "$p_${PATH}$p_" in
```

```
 p_-p-$p_) ;;
```

```
 *) test -d $p && PATH=${PATH}p_-p ;;
```

```
 esac
```

```
done
```

```
PATH=.$p_${PATH}
```

```
export PATH
```

: shall we be using ksh?

```
inksh=""
```

```
needksh=""
```

```
avoidksh=""
```

```
newsh=/bin/ksh
```

```
changesh=""
```

?X: Use (alias -x) and not (alias) since zsh and bash recognize the alias

?X: builtin but not the -x option which is typically ksh...

?X: We need to set up PATH before calling the "alias" built-in since some

```

?X: systems like HP-UX have a binary called /bin/alias.
if (PATH=.; alias -x) >/dev/null 2>&1; then
 inksh=true
fi
?X: On HP-UX, large Configure scripts may exercise a bug in /bin/sh, use ksh
if test -f /hp-ux -a -f /bin/ksh; then
 needksh='to avoid sh bug in "here document" expansion'
fi
?X: On
 AIX4, /bin/sh is really ksh and it causes problems, use sh
if test -d /usr/lpp -a -f /usr/bin/bsh -a -f /usr/bin/uname; then
if test X`/usr/bin/uname -v` = X4; then
 avoidksh="to avoid AIX 4's /bin/sh"
 newsh=/usr/bin/bsh
fi
fi
?X: On Digital UNIX, /bin/sh may start up buggy /bin/ksh, use sh
if test -f /osf_boot -a -f /usr/sbin/setld; then
if test X`/usr/bin/uname -s` = XOSF1; then
 avoidksh="to avoid Digital UNIX' ksh"
 newsh=/bin/sh
?X: if BIN_SH is set to 'xpg4', sh will start up ksh
 unset BIN_SH
fi
fi
?X: If we are not in ksh and need it, then feed us back to it
case "$inksh/$needksh" in
/[a-z]*)
?X: Clear ENV to avoid any ~/.kshrc that could alias cd or whatever...
?X: Don't use "unset ENV", that is not portable enough
 ENV=""
 changesh=true
 reason="$needksh"
 ;;
esac
?X: If we are in ksh and must avoid it, then feed us back to a new shell
case "$inksh/$avoidksh" in
true/[a-z]*)
 changesh=true
 reason="$avoidksh"
 ;;
esac
?X: Warn them if they use ksh on other systems,
 which are those where
?X: we don't need ksh nor want to avoid it explicitly, yet are using it.
case "$inksh/$needksh-$avoidksh-" in
true/--)
 cat <<EOM

```

(I see you are using the Korn shell. Some ksh's blow up on \$me,  
mainly on older exotic systems. If yours does, try the Bourne shell instead.)

EOM

```
;;
esac
case "$changesh" in
true)
export newsh
echo "(Feeding myself to $newsh $reason.)"
?X: Make sure they didn't say sh <Configure by checking whether $0 ends
?X: with Configure or not. If they did say sh <../Configure, then too
?X: bad for them anyway, since we lost that path indication...
?X: Otherwise, execing $0 ensures we keep the full remote source dir
?X: indication for src.U.
case "$0" in
Configure|*/Configure) exec $newsh $0 "$@";;
*) exec $newsh Configure "$@";;
esac
;;
esac
?X: 2004.06.09 rac
?X: having $newsh persist as ksh here is bad news if ksh doesn't really
?X: exist. this causes us to toss away a perfectly good working test in
?X: bash in favor of more exotic
external options. see bug 42665.
test -x "${newsh}" || unset newsh
```

?X: Unset CDPATH to avoid surprises when using cd under some shells  
?X: Can't unset it because that's not portable to very old shells.  
?X: Can't set it to " because then bash 2.02 won't do "cd UU" --AD 6/98.  
?X: Don't want to set it to '.' because then ksh prints out the  
?X: name of the directory every time you cd to it. --AD 6/98  
?X: In order to inflict the least harm, change it only if it's set.  
: if needed, set CDPATH to a harmless value that is not chatty  
: avoid bash 2.02 problems with empty CDPATH.

```
case "$CDPATH" in
") ;;
*) case "$SHELL" in
bash) CDPATH='.' ;;
*) CDPATH="" ;;
esac
;;
esac
```

: Configure runs within the UU subdirectory

```
test -d UU || mkdir UU
```

?X: Use /\* to avoid any confirmation prompts from enhanced shells -- WED

```
cd UU && rm -f /*
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Head.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: vendorlib.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera \$

?RCS:

?RCS: Copyright (c) 1999, Andy Dougherty

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: vendorlib.U,v \$

?RCS: Revision 1.1 1999/07/08 18:32:57 doughera

?RCS: Initial revision

?RCS:

?MAKE:d\_vendorlib vendorlib vendorlibexp installvendorlib vendorlib\_stem: \

Getfile Setprefixvar Oldconfig Prefixit package vendorprefix sed \

installstyle version

?MAKE: -pick add \$@ %<

?Y:TOP

?S:vendorlib:

?S: This variable contains the eventual value of the VENDORLIB symbol,

?S: which is the name of the private library for this package.

?S: The standard

distribution will put nothing in this directory.

?S: Vendors who distribute perl may wish to place their own

?S: modules in this directory with

?S: MakeMaker Makefile.PL INSTALLDIRS=vendor

?S: or equivalent. See INSTALL for details.

?S:.

?S:vendorlibexp:

?S: This variable is the ~name expanded version of vendorlib, so that you

?S: may use it directly in Makefiles or shell scripts.

?S:.

?D:installvendorlib="

?S:installvendorlib:

?S: This variable is really the same as vendorlibexp but may differ on

?S: those systems using AFS. For extra portability, only this variable

?S: should be used in makefiles.

?S:.

?S:d\_vendorlib:

?S: This variable conditionally defines PERL\_VENDORLIB.

?S:.



?S:vendorlib\_stem:  
 ?S: This variable is \$vendorlibexp with any trailing version-specific component  
 ?S: removed. The elements in inc\_version\_list (inc\_version\_list.U) can  
 ?S: be tacked onto this variable to generate a list of directories to search.  
 ?S:.  
 ?C:PERL\_VENDORLIB:  
 ?C: If defined, this symbol contains  
 the name of a private library.  
 ?C: The library is private in the sense that it needn't be in anyone's  
 ?C: execution path, but it should be accessible by the world. The program  
 ?C: should be prepared to do ~ expansion.  
 ?C: The standard distribution will put nothing in this directory.  
 ?C: Vendors who distribute perl may wish to place their own  
 ?C: modules in this directory with  
 ?C: MakeMaker Makefile.PL INSTALLDIRS=vendor  
 ?C: or equivalent. See INSTALL for details.  
 ?C:.  
 ?C:PERL\_VENDORLIB\_EXP:  
 ?C: This symbol contains the ~name expanded version of VENDORLIB, to be used  
 ?C: in programs that are not prepared to deal with ~ expansion at run-time.  
 ?C:.  
 ?C:PERL\_VENDORLIB\_STEM:  
 ?C: This define is PERL\_VENDORLIB\_EXP with any trailing version-specific component  
 ?C: removed. The elements in inc\_version\_list (inc\_version\_list.U) can  
 ?C: be tacked onto this variable to generate a list of directories to search.  
 ?C:.  
 ?H:#\$d\_vendorlib PERL\_VENDORLIB "\$vendorlib" /\*\*/  
 ?H:#\$d\_vendorlib PERL\_VENDORLIB\_EXP  
 "\$vendorlibexp" /\*\*/  
 ?H:#\$d\_vendorlib PERL\_VENDORLIB\_STEM "\$vendorlib\_stem" /\*\*/  
 ?H:.  
 ?T:prog  
 ?LINT:change prefixvar  
 ?LINT:set installvendorlib  
 : Set the vendorlib variables  
 case "\$vendorprefix" in  
 ") d\_vendorlib="\$Sundef"  
 vendorlib="  
 vendorlibexp="  
 ;;  
 \*) d\_vendorlib="\$Sdefine"  
 : determine where vendor-supplied modules go.  
 : Usual default is /usr/local/lib/perl5/vendor\_perl/\$version  
 case "\$vendorlib" in  
 ")  
 ?X: remove any trailing -3.0 or other version identification  
 prog=`echo \$package | \$sed 's/-[0-9.]\*\$//'  
 case "\$installstyle" in

```

)lib/perl5) dflt=$vendorprefix/lib/$package/vendor_$prog/$version ;;
*) dflt=$vendorprefix/lib/vendor_$prog/$version ;;
esac
;;
*) dflt="$vendorlib"
;;
esac
fn=d~+
rp='Pathname for the vendor-supplied library files?'
./getfile
vendorlib="$ans"
vendorlibexp="$ansexp"
;;
esac
vendorlib_stem=`echo "$vendorlibexp" | sed "s,/$version$, "`
prefixvar=vendorlib
./installprefix

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/vendorlib.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: baserev.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: baserev.U,v \$

?RCS: Revision 3.0 1993/08/18 12:05:24 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:baserev: Null

?MAKE: -pick wipe \$@ %<

?S:baserev:

?S: The base revision level of this package, from the .package file.

?S:.

: set the base revision

baserev=<BASEREV>

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/baserev.U

```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: libyacc.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: libyacc.U,v $
?RCS: Revision 3.0.1.4 1997/02/28 16:09:19 ram
?RCS: patch61: replaced .a with $_a all over the place
?RCS:
?RCS: Revision 3.0.1.3 1994/05/13 15:27:12 ram
?RCS: patch27: added yacc case (ADO)
?RCS:
?RCS: Revision 3.0.1.2 1994/05/06 15:09:01 ram
?RCS: patch23: now uses full library path instead of -l notation
?RCS:
?RCS: Revision 3.0.1.1 1994/01/24 14:13:49 ram
?RCS: patch16: un-obsolete this unit for smooth yacc compilations
?RCS:
?RCS:
Revision 3.0 1993/08/18 12:09:04 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:libyacc: Loc yacc libpth _a
?MAKE: -pick add $@ %<
?S:libyacc:
?S: This variable contains the argument to pass to the loader in order
?S: to get the yacc library routines. If there is no yacc or yacc
?S: library, it is null.
?S:.
?T:xxx
: see if we should include -ly
echo " "
case "$yacc" in
byacc)
echo "You are using byacc, so I won't look for a yacc library." >&4
libyacc="
;;
*yacc)
xxx=`./loc liby$_a x $libpth`
case "$xxx" in
x)
```

```

echo "No yacc library found." >&4
libyacc="
;;
*)
echo "yacc library found in $xxx." >&4
libyacc="$xxx"
;;
esac
;;
bison)
echo "You are using bison, so I won't look for a yacc library." >&4
libyacc="
;;
*)
echo "You don't seem to have yacc, so I won't look for the yacc library." >&4
libyacc="
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/libyacc.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: cf\_email.U,v \$

?RCS: Revision 3.0.1.1 1994/01/24 14:05:06 ram

?RCS: patch16: created

?RCS:

?RCS:

?MAKE:cf\_email: cat cf\_by test myhostname mydomain Oldconfig Myread

?MAKE: -pick add \$@ %<

?S:cf\_email:

?S: Electronic mail address of the person who ran Configure. This can be

?S: used by units that require the user's e-mail, like MailList.U.

?S:.

?T:cont maildomain

?LINT:extern MAILDOMAIN

: determine the e-mail address of the user who is running us

\$cat <<EOM

I need to get your e-mail address  
in Internet format if possible, i.e.  
something like user@host.domain. Please answer accurately since I have  
no easy means to double check it. The default value provided below  
is most probably close to reality but may not be valid from outside  
your organization...

EOM

```
cont=x
while test "$cont"; do
case "$MAILDOMAIN" in
")
if $test -s /etc/mailname; then
maildomain=`$cat /etc/mailname`
else
maildomain="$myhostname$mydomain"
fi
;;
*) maildomain="$MAILDOMAIN";;
esac
case "$cf_email" in
") dflt="$cf_by@$maildomain";;
*) dflt="$cf_email";;
esac
rp='What is your e-mail address?'
./myread
cf_email="$ans"
case "$cf_email" in
@.**) cont="";;
*)
rp='Address does not look like an Internet one. Use it anyway?'
case "$fastread" in
yes) dflt=y ;;
*) dflt=n ;;
esac
./myread
case "$ans" in
y*) cont="";;
*) echo " " ;;
esac
;;
esac
done
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/dist/U/cf\_email.U

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_strerror_r.U,v 0RCS:
?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.
?RCS:
?MAKE:d_strerror_r strerror_r_proto: Inlibc Protochk Hasproto i_systypes \
 usethreads extern_C
?MAKE: -pick add $@ %<
?S:d_strerror_r:
?S: This variable conditionally defines the HAS_STRERROR_R symbol,
?S: which indicates to the C program that the strerror_r()
?S: routine is available.
?S:.
?S:strerror_r_proto:
?S: This variable encodes the prototype of strerror_r.
?S: It is zero if d_strerror_r is undef, and one of the
?S: REENTRANT_PROTO_T_ABC macros of reentr.h if d_strerror_r
?S: is defined.
?S:.
?C:HAS_STRERROR_R:
?C: This symbol, if defined, indicates that the strerror_r routine
?C: is available to strerror
 re-entrantly.
?C:.
?C:STRERROR_R_PROTO:
?C: This symbol encodes the prototype of strerror_r.
?C: It is zero if d_strerror_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_strerror_r
?C: is defined.
?C:.
?H:#$d_strerror_r HAS_STRERROR_R /**/
?H:#define STRERROR_R_PROTO $strerror_r_proto /**/
?H:.
?T:try hdrs d_strerror_r_proto
: see if strerror_r exists
set strerror_r d_strerror_r
eval $inlibc
case "$d_strerror_r" in
"$define")
 hdrs="$i_systypes sys/types.h define stdio.h define string.h"
 case "$d_strerror_r_proto:$usethreads" in
 ":define") d_strerror_r_proto=define
```

```

set d_strerror_r_proto strerror_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_strerror_r_proto" in
define)
case "$strerror_r_proto" in
"|0) try='int strerror_r(int, char*, size_t);'
./protochk "$extern_C $try" $hdrs && strerror_r_proto=I_IBW ;;
esac
case "$strerror_r_proto" in
"|0) try='int strerror_r(int, char*, int);'
./protochk "$extern_C $try" $hdrs && strerror_r_proto=I_IBI
;;
esac
case "$strerror_r_proto" in
"|0) try='char* strerror_r(int, char*, size_t);'
./protochk "$extern_C $try" $hdrs && strerror_r_proto=B_IBW ;;
esac
case "$strerror_r_proto" in
"|0) d_strerror_r=undef
strerror_r_proto=0
echo "Disabling strerror_r, cannot determine prototype." >&4 ;;
*) case "$strerror_r_proto" in
REENTRANT_PROTO*) ;;
*) strerror_r_proto="REENTRANT_PROTO_${strerror_r_proto}" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "strerror_r has no prototype, not using it." >&4 ;;
esac
d_strerror_r=undef
strerror_r_proto=0
;;
esac
;;
*) strerror_r_proto=0
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_strerror_r.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:  
?RCS: Copyright (c) 1998 Jarkko Hietaniemi  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_atoll: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_atoll:  
?S: This variable conditionally defines the HAS\_ATOLL symbol, which  
?S: indicates to the C program that the atoll() routine is available.  
?S:.  
?C:HAS\_ATOLL:  
?C: This symbol, if defined, indicates that the atoll routine is  
?C: available to convert strings into long longs.  
?C:.  
?H:#\$d\_atoll HAS\_ATOLL /\*\*/  
?H:.  
?LINT:set d\_atoll  
: see if atoll exists  
set atoll d\_atoll  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/atoll.U

No license file was found, but licenses were detected in source scan.

?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS:  
?MAKE:i\_stdint: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_stdint:  
?S: This variable conditionally defines the I\_STDINT symbol, which  
?S: indicates to the C program that <stdint.h> exists and should  
?S: be included.  
?S:.  
?C:I\_STDINT:  
?C: This symbol, if defined, indicates that <stdint.h> exists and  
?C: should be included.  
?C:.  
?H:#\$i\_stdint I\_STDINT /\*\*/  
?H:.  
?LINT:set i\_stdint  
: see if stdint is available  
set stdint.h i\_stdint  
eval \$inhdr



Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_stdint.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: as specified in the README file that comes with the distribution.

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?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: libc.U,v \$

?RCS: Revision 3.0.1.10 1997/02/28 15:56:48 ram

?RCS: patch61: replaced .a with \$\_a all over the place

?RCS: patch61: added support for HPUX-10 nm output

?RCS:

?RCS: Revision 3.0.1.9 1995/07/25 14:11:56 ram

?RCS: patch56: now knows about OS/2 platforms

?RCS:

?RCS: Revision 3.0.1.8 1995/05/12 12:20:47 ram

?RCS: patch54: made sure only most recent version of shared lib is picked

?RCS: patch54: final "nm -p" check now uses xscan and xrun like everybody

?RCS: patch54: can now grok

linux nm output with lead \_\_IO (ADO)

?RCS: patch54: added support for linux ELF output, using 'W' for alias (ADO)

?RCS:

?RCS: Revision 3.0.1.7 1994/10/29 16:23:40 ram

?RCS: patch36: now looks for shared libraries before anything else (ADO)

?RCS: patch36: added new nm output format (ADO)

?RCS:

?RCS: Revision 3.0.1.6 1994/08/29 16:28:10 ram

?RCS: patch32: added I-type symbols for nm output parsing on Linux

?RCS:

?RCS: Revision 3.0.1.5 1994/06/20 07:03:24 ram

?RCS: patch30: checks are now presented by succession of if/elif

?RCS: patch30: uniformized checks for shared objects with new so symbol

?RCS:

?RCS: Revision 3.0.1.4 1994/05/06 15:06:33 ram

?RCS: patch23: added shared library knowledge (ADO and WED)

?RCS:

?RCS: Revision 3.0.1.3 1994/01/24 14:12:17 ram

?RCS: patch16: can now export nm\_extract as an internal-use only variable

?RCS:

```

?RCS: Revision 3.0.1.2 1993/09/13 16:09:03 ram
?RCS: patch10: added special handling for Apollo systems (WAD)
?RCS:
?RCS: Revision 3.0.1.1
 1993/08/27 14:40:03 ram
?RCS: patch7: added entry for /usr/shlib/libc.so (OSF/1 machines)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:57 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:libc libnames +nm_extract: echo n c rm test grep Getfile Myread \
Oldconfig Loc sed libs incpath libpth ar runnm nm nm_opt nm_so_opt \
contains xlibpth so osname trnl tr sort uniq _o _a
?MAKE: -pick add $@ %<
?S:libc:
?S: This variable contains the location of the C library.
?S:.
?S:libnames:
?S: The constructed list of library names. Normally empty, but hint files
?S: may set this for later perusal by Configure.
?S:.
?S:nm_extract:
?S: This variable holds the name of the extraction command used to process
?S: the output of nm and yield the list of defined symbols. It is used
?S: internally by Configure.
?S:.
?T:thislib try libnames xxx xscan xrun thisname com tans file
?F:!libnames !libc.tmp !tmp.imp
?LINT:change nm_opt runnm
?INIT:libnames=""
: Figure out where the libc is located
case
"$runnm" in
true)
?X: indentation is wrong on purpose--RAM
: get list of predefined functions in a handy place
echo " "
case "$libc" in
") libc=unknown
case "$libs" in
-lc_s) libc=`./loc libc_s$_a $libc $libpth`
esac
;;
esac
case "$libs" in
") ;;
*) for thislib in $libs; do
case "$thislib" in

```

```

-|c|-|c_s)
: Handle C library specially below.
;;
-|*)
thislib=`echo $thislib | $sed -e 's/^-|//'^
if try=`./loc lib$thislib.$so.'*' X $libpth`; $test -f "$try"; then
:
elif try=`./loc lib$thislib.$so X $libpth`; $test -f "$try"; then
:
elif try=`./loc lib$thislib$_a X $libpth`; $test -f "$try"; then
:
elif try=`./loc $thislib$_a X $libpth`; $test -f "$try"; then
:
elif try=`./loc lib$thislib X $libpth`; $test -f "$try"; then
:
elif try=`./loc $thislib X $libpth`; $test -f "$try"; then
:
elif try=`./loc libthislib$_a X $xlibpth`; $test -f "$try"; then
:
else
try=""
fi
libnames="$libnames $try"
;;
*) libnames="$libnames $thislib"
;;
esac
done
;;
esac
?X:
?X: Some systems (e.g. DG/UX) use "environmental" links, which make the test
?X: -f fail. Ditto for symbolic links. So in order to reliably check the
?X: existence of a file, we use test -r. It will still fail with DG/UX links
?X: though, but at least it will detect symbolic links. At some strategic
?X: points, we make use of (test -h), using a sub-shell in case builtin test
?X: does not implement the -h check for symbolic links. This makes it
?X: possible to preset libc in a hint file for instance and have it show up
?X: as-is in the question.
?X:
xxx=normal
case "$libc" in
unknown)
?X:
?X: The sed below transforms .so.9 .so.12 into something like .so.0009 .so.0012,
?X: then sorts on it to allow keeping .so.12 instead of .so.9 as the latest
?X: up-to-date library. The initial filename (before sed munging, saved in hold
?X: space via 'h') is appended via 'G' before sorting, then the leading munged

```

?X: part is removed after sorting. Nice efficient work from Tye McQueen.  
 ?X: The initial blurfl is here to prevent the trailing pipe from producing an  
 ?X: empty string, causing Configure to output all its set variables!  
 ?X:

```
set /lib/libc.$so
for xxx in $libpth; do
 $test -r $1 || set $xxx/libc.$so
 : The messy sed command sorts on library version numbers.
 $test -r $1 || \
 set `echo blurfl; echo $xxx/libc.$so.[0-9]* | \
 tr ' ' $trnl | egrep -v \.[A-Za-z]*$' | $sed -e '
 h
 s/[0-9][0-9]*0000&/g
 s/0*\([0-9][0-9][0-9][0-9]\)\^1/g
 G
 s/\n/ / | \
 $sort | $sed -e 's/^\.* //'^
eval set \$$#
done
$test -r $1 || set /usr/ccs/lib/libc.$so
$test -r $1 || set /lib/libsys_s$_a
;;
*)
```

?X: ensure the test below for the (shared) C library will fail

```
set blurfl
;;
esac
if $test -r "$1"; then
 echo "Your (shared) C library seems to be in $1."
 libc="$1"
elif $test -r /lib/libc && $test -r /lib/clib; then
 ?X:
 ?X: Apollo has its C library in /lib/clib AND /lib/libc
 ?X: not to mention its math library in /lib/syslib...
 ?X:
 echo
 "Your C library seems to be in both /lib/clib and /lib/libc."
 xxx=apollo
 libc='/lib/clib /lib/libc'
 if $test -r /lib/syslib; then
 echo "(Your math library is in /lib/syslib.)"
 ?X: Put syslib in libc -- not quite right, but won't hurt
 libc="$libc /lib/syslib"
 fi
elif $test -r "$libc" || (test -h "$libc") >/dev/null 2>&1; then
 echo "Your C library seems to be in $libc, as you said before."
 ?X: For mips, and...
```

```

elif $test -r $incpath/usr/lib/libc$_a; then
 libc=$incpath/usr/lib/libc$_a;
 echo "Your C library seems to be in $libc. That's fine."
elif $test -r /lib/libc$_a; then
 libc=/lib/libc$_a;
 echo "Your C library seems to be in $libc. You're normal."
else
 if tans=`./loc libc$_a blurfl/dyick $libpth`; $test -r "$stans"; then
 :
 elif tans=`./loc libc blurfl/dyick $libpth`; $test -r "$stans"; then
 libnames="$libnames "`./loc clib blurfl/dyick $libpth`
 elif tans=`./loc clib blurfl/dyick $libpth`; $test -r "$stans"; then
 :
 elif tans=`./loc Slibc$_a blurfl/dyick
 $xlibpth`; $test -r "$stans"; then
 :
 elif tans=`./loc Mlibc$_a blurfl/dyick $xlibpth`; $test -r "$stans"; then
 :
 else
 tans=`./loc Llibc$_a blurfl/dyick $xlibpth`
 fi
 if $test -r "$stans"; then
 echo "Your C library seems to be in $stans, of all places."
 libc=$stans
 else
 libc='blurfl'
 fi
fi
if $test $xxx = apollo -o -r "$libc" || (test -h "$libc") >/dev/null 2>&1; then
 dflt="$libc"
cat <<EOM

```

If the guess above is wrong (which it might be if you're using a strange compiler, or your machine supports multiple models), you can override it here.

```

EOM
else
 dflt=""
 echo $libpth | $tr ' ' $trnl | $sort | $uniq > libpath
 cat >&4 <<EOM

```

I can't seem to find your C library. I've looked in the following places:

```

EOM
$sed 's/^/' libpath
cat <<EOM

```

None of these seems to contain your C library. I need to get its name...

```

EOM
fi
fn=f
rp="Where is your C library?"
./getfile
libc="$ans"

echo " "
echo $libc $libnames | $tr ' ' $trnl | $sort | $uniq > libnames
set X `cat libnames`
shift
xxx=files
case
 $# in 1) xxx=file; esac
echo "Extracting names from the following $xxx for later perusal:" >&4
echo " "
$sed 's/^/ /' libnames >&4
echo " "
$echo $n "This may take a while...$c" >&4

?X:
?X: Linux may need the special Dynamic option to nm for shared libraries.
?X: In general, this is stored in the nm_so_opt variable.
?X: Unfortunately, that option may be fatal on non-shared libraries.
?X:
for file in $*; do
 case $file in
 $so) $nm $nm_so_opt $nm_opt $file 2>/dev/null;;
 *) $nm $nm_opt $file 2>/dev/null;;
 esac
done >libc.tmp

$echo $n ".$c"
?X:
?X: To accelerate processing, we look at the correct 'sed' command
?X: by using a small subset of libc.tmp, i.e. fprintf function.
?X: When we know which sed command to use, do the name extraction
?X:
$grep fprintf libc.tmp > libc.ptf
?X:
?X: In order to enhance readability and save some space, we define
?X: some variables that will be "eval"ed.
?X:
xscan='eval "<libc.ptf $com >libc.list"; $echo $n ".$c" >&4'
xrun='eval
"<libc.tmp $com >libc.list"; echo "done." >&4'
?X: BSD-like output, I and W types added for Linux
?X: Some versions of Linux include a leading __IO in the symbol name.

```

```

?X: HPUX10 reportedly has trailing spaces, though I'm surprised it has
?X: BSD-like output. (AD).
xxx='[ADTSIW]'
if com="$sed -n -e 's/___IO//' -e 's/^. * $xxx * _[_.]*/p' -e 's/^. * $xxx */p'";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
?X: SYSV-like output
elif com="$sed -n -e 's/^__*/' -e 's/^\([a-zA-Z_0-9$]*\).*xtern.*\1/p'";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e '/|UNDEF/d' -e '/FUNC..GL/s/^. *|__*/p'";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e 's/^. * D __*/p' -e 's/^. * D //p'";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e 's/^_/ ' -e 's/^\([a-zA-Z_0-9$]*\).*xtern.*text.*\1/p'";\
eval
 $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e 's/^. *|FUNC |GLOB .*/p'";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$grep '|' | $sed -n -e '/|COMMON/d' -e '/|DATA/d' \
 -e '/ file/d' -e 's/^\([]*\).*\1/p'";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e 's/^. *|FUNC |GLOB .*/p' -e 's/^. *|FUNC |WEAK .*/p'";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
?X: mips nm output (sysV)
elif com="$sed -n -e 's/^___/' -e '/|Undef/d' -e '/|Proc/s/ .*/p'";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e 's/^. *|Proc . *|Text *| */p'";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e '/Def. Text/s/. * \([]*\)\$/\1/p'";\

```

```

eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null
2>&1; then
 eval $xrun
?X: OS/2 nm output
elif com="$sed -n -e 's/^[0-9a-f]*_\(.*)=.*\1/p";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e 's/.*\text n\ \ \ \./p";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
?X: AIX nm output
elif com="sed -n -e 's/^_.*// -e 's/[\]*D[\]*[0-9]*.*//p";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
else
$nm -p $* 2>/dev/null >libc.tmp
$grep fprintf libc.tmp > libc.ptf
if com="$sed -n -e 's/^_.* [ADTSIW] *_[_.]*/p' -e 's/^_.* [ADTSIW] //p";\
eval $xscan; $contains '^fprintf$' libc.list >/dev/null 2>&1
then
 nm_opt='-p'
 eval $xrun
else
 echo " "
 echo "$nm didn't seem to work right. Trying $ar instead..." >&4
 com="
if $ar t $libc > libc.tmp && \
 $contains '^fprintf$' libc.tmp >/dev/null 2>&1
then
 for thisname in $libnames $libc; do
 $ar t $thisname >>libc.tmp
 done
 $sed
-e "s/^_o\$/" < libc.tmp > libc.list
 echo "Ok." >&4
 elif test "X$osname" = "Xos2" && $ar tv $libc > libc.tmp; then
?X: Repeat libc to extract forwarders to DLL entries too
 for thisname in $libnames $libc; do
 $ar tv $thisname >>libc.tmp
?X: Revision 50 of EMX has bug in ar: it will not extract forwarders
?X: to DLL entries. Use emximp which will extract exactly them.
 emximp -o tmp.imp $thisname \
 2>/dev/null && \
 $sed -e 's/^\([_a-zA-Z0-9]*\) .*$/\1/p' \

```



```

 < tmp.imp >>libc.tmp
 $rm -f tmp.imp
done
$sed -e "s\\\$_o\$/\\" -e 's/^ \+/' < libc.tmp > libc.list
echo "Ok." >&4
else
echo "$ar didn't seem to work right." >&4
echo "Maybe this is a Cray...trying bld instead..." >&4
if
bld t $libc | \
$sed -e 's/.*\///' -e "s\\\$_o:.*\$/\\" > libc.list &&
$test -s libc.list
then
for thisname in $libnames; do
bld t $libnames | \
$sed -e 's/.*\///' -e "s\\\$_o:.*\$/\\" >>libc.list
$ar t $thisname >>libc.tmp
done
echo
"Ok." >&4
else
echo "That didn't work either." >&4
echo "No problem, I'll be compiling test programs then..." >&4
runnm=false
fi
fi
fi
fi
nm_extract="$com"
if $test -f /lib/syscalls.exp; then
echo " "
echo "Also extracting names from /lib/syscalls.exp for good ole AIX..." >&4
$sed -n 's/^\([^]*\)[]*syscall[0-9]*[]*$/\1/p' \
/lib/syscalls.exp >>libc.list
fi
?X: remember, indentation is wrong on purpose--RAM
;;
esac
$rm -f libnames libpath

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/libc.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getprotobynumber\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.  
?RCS:  
?MAKE:d\_getprotobynumber\_r getprotobynumber\_r\_proto: Inlibc Protochk \  
Hasproto i\_systypes usethreads i\_netdb extern\_C  
?MAKE: -pick add \$@ %<  
?S:d\_getprotobynumber\_r:  
?S: This variable conditionally defines the HAS\_GETPROTOBYNUMBER\_R symbol,  
?S: which indicates to the C program that the getprotobynumber\_r()  
?S: routine is available.  
?S:.  
?S:getprotobynumber\_r\_proto:  
?S: This variable encodes the prototype of getprotobynumber\_r.  
?S: It is zero if d\_getprotobynumber\_r is undef, and one of the  
?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getprotobynumber\_r  
?S: is defined.  
?S:.  
?C:HAS\_GETPROTOBYNUMBER\_R:  
?C: This  
symbol, if defined, indicates that the getprotobynumber\_r routine  
?C: is available to getprotobynumber re-entrantly.  
?C:.  
?C:GETPROTOBYNUMBER\_R\_PROTO:  
?C: This symbol encodes the prototype of getprotobynumber\_r.  
?C: It is zero if d\_getprotobynumber\_r is undef, and one of the  
?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getprotobynumber\_r  
?C: is defined.  
?C:.  
?H:#\$d\_getprotobynumber\_r HAS\_GETPROTOBYNUMBER\_R /\*\*/  
?H:#define GETPROTOBYNUMBER\_R\_PROTO \$getprotobynumber\_r\_proto /\*\*/  
?H:.  
?T:try hdrs d\_getprotobynumber\_r\_proto  
: see if getprotobynumber\_r exists  
set getprotobynumber\_r d\_getprotobynumber\_r  
eval \$inlibc  
case "\$d\_getprotobynumber\_r" in  
"\$define")  
hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_netdb netdb.h"  
case "\$d\_getprotobynumber\_r\_proto:\$usethreads" in  
":define") d\_getprotobynumber\_r\_proto=define  
set d\_getprotobynumber\_r\_proto getprotobynumber\_r \$hdrs  
eval \$hasproto ;;  
\*) ;;  
esac  
case "\$d\_getprotobynumber\_r\_proto" in  
define)

```

case "$getprotobynumber_r_proto"
in
"|0) try='int getprotobynumber_r(int, struct protoent*, char*, size_t, struct protoent**);'
./protochk "$extern_C $try" $hdrs && getprotobynumber_r_proto=I_ISBWR ;;
esac
case "$getprotobynumber_r_proto" in
"|0) try='struct protoent* getprotobynumber_r(int, struct protoent*, char*, int);'
./protochk "$extern_C $try" $hdrs && getprotobynumber_r_proto=S_ISBI ;;
esac
case "$getprotobynumber_r_proto" in
"|0) try='int getprotobynumber_r(int, struct protoent*, struct protoent_data*);'
./protochk "$extern_C $try" $hdrs && getprotobynumber_r_proto=I_ISD ;;
esac
case "$getprotobynumber_r_proto" in
"|0) d_getprotobynumber_r=undef
getprotobynumber_r_proto=0
echo "Disabling getprotobynumber_r, cannot determine prototype." >&4 ;;
*) case "$getprotobynumber_r_proto" in
REENTRANT_PROTO*) ;;
*) getprotobynumber_r_proto="REENTRANT_PROTO_${getprotobynumber_r_proto}" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "getprotobynumber_r
has no prototype, not using it." >&4 ;;
esac
d_getprotobynumber_r=undef
getprotobynumber_r_proto=0
;;
esac
;;
*) getprotobynumber_r_proto=0
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_getprotobynumber_r.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_gethname.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:13:00 ram

?RCS: patch36: call ./xenix explicitly instead of relying on PATH

?RCS:

?RCS: Revision 3.0 1993/08/18 12:06:11 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_gethname d\_uname d\_phostname aphostname: phostname cat \  
myhostname package d\_portable Loc echo n c +i\_whoami +usrinc \  
Myread Guess Oldconfig Csym

?MAKE: -pick add \$@ %<

?S:d\_gethname:

?S: This variable conditionally defines the HAS\_GETHOSTNAME symbol,  
which

?S: indicates to the C program that the gethostname() routine may be

?S: used to derive the host name.

?S:.

?S:d\_uname:

?S: This variable conditionally defines the HAS\_UNAME symbol, which

?S: indicates to the C program that the uname() routine may be

?S: used to derive the host name.

?S:.

?S:d\_phostname:

?S: This variable conditionally defines the PHOSTNAME symbol, which

?S: contains the shell command which, when fed to popen(), may be

?S: used to derive the host name.

?S:.

?S:aphostname:

?S: This variable contains the command which can be used to compute the

?S: host name. The command is fully qualified by its absolute path, to make

?S: it safe when used by a process with super-user privileges.

?S:.

?C:HAS\_GETHOSTNAME (GETHOSTNAME):

?C: This symbol, if defined, indicates that the C program may use the

?C: gethostname() routine to derive the host name. See also HAS\_UNAME

?C: and PHOSTNAME.

?C:.

?C:HAS\_UNAME (UNAME):

?C: This symbol, if defined, indicates that the C program may

use the

?C: uname() routine to derive the host name. See also HAS\_GETHOSTNAME

?C: and PHOSTNAME.

?C:.

?C:PHOSTNAME:

?C: This symbol, if defined, indicates that the C program may use the  
?C: contents of PHOSTNAME as a command to feed to the popen() routine  
?C: to derive the host name. See also HAS\_GETHOSTNAME and HAS\_UNAME.  
?C: Note that the command uses a fully qualified path, so that it is safe  
?C: even if used by a process with super-user privileges.

?C:.

?H:#\$d\_gethname HAS\_GETHOSTNAME /\*\*/

?H:#\$d\_uname HAS\_UNAME /\*\*/

?H:#\$d\_phostname PHOSTNAME "\$aphostname" /\* How to get the host name \*/

?H:.

?T:file val call

?LINT:change i\_whoami

: see how we will look up host name

echo " "

if false; then

: dummy stub to allow use of elif

@if HAS\_GETHOSTNAME

elif set gethostname val -f d\_gethname; eval \$csym; \$val; then

echo 'gethostname() found.' >&4

d\_gethname="\$define"

call=gethostname

@end

@if HAS\_UNAME

elif set uname val -f d\_uname; eval \$csym; \$val; then

if ./xenix; then

\$cat <<'EOM'

uname()

was found, but you're running xenix, and older versions of xenix  
have a broken uname(). If you don't really know whether your xenix is old  
enough to have a broken system call, use the default answer.

EOM

dflt=y

case "\$d\_uname" in

"\$define") dflt=n;;

esac

rp='Is your uname() broken?'

./myread

case "\$ans" in

n\*) d\_uname="\$define"; call=uname;;

esac

else

echo 'uname() found.' >&4

d\_uname="\$define"

call=uname

fi

@end

fi

```

case "$d_gethname" in
") d_gethname="$undef";;
esac
case "$d_uname" in
") d_uname="$undef";;
esac
@if PHOSTNAME || MYHOSTNAME
case "d_unamed_gethname" in
define)
dflt=n
cat <<EOM

```

Every now and then someone has a \$call() that lies about the hostname but can't be fixed for political or economic reasons. If you wish, I can

```

@if MYHOSTNAME && PHOSTNAME
pretend $call() isn't there and maybe compile in the hostname or
compute it from the '$phostname' command at run-time.
@elsif MYHOSTNAME
pretend $call() isn't there and maybe compile
in the hostname.
@elsif PHOSTNAME
pretend $call() isn't there and maybe compute hostname at run-time
thanks to the '$phostname' command.
@elsif WHOAMI
get the hostname from whomai.h (provided you have one).
@else
simply ignore your host name and use something like "noname" instead.
@end

```

```

EOM
rp="Shall I ignore $call() from now on?"
./myread
case "$ans" in
y*) d_uname="$undef" d_gethname="$undef"; $echo $n "Okay...$c";;
esac;;
esac
@end
@if PHOSTNAME || aphostname
?X: Compute the full path name for the command
case "$phostname" in
") aphostname="";;
*) case "$aphostname" in
/*) ;;
*) set X $phostname
shift
file=$1
shift
file=`./loc $file $file $pth`

```

```

aphostname=`echo $file $*`
;;
esac
;;
esac
@end
@if PHOSTNAME && MYHOSTNAME
case "d_unamed_gethname" in
define) ;;
*)
case "$phostname" in
") ;;
*)
$cat <<EOT

```

There is no gethostname() or uname() on this system. You have two possibilities at this point:

- 1) You can have your host name (\$myhostname) compiled into \$package, which lets \$package start up faster, but makes your binaries non-portable, or
- 2) you can have \$package use a

```
popen("$aphostname","r")
```

which will start slower but be more portable.

```
@ if WHOAMI
```

Option 1 will give you the option of using whoami.h if you have one.

```
@ end
```

If you want option 2 but with a different command, you can edit config.sh at the end of this shell script.

```
EOT
```

```

case "$d_phostname" in
"$define") dflt=n;;
"$undef") dflt=y;;
")
case "$d_portable" in
"$define") dflt=n ;;
*) dflt=y ;;
esac;;
esac
rp="Do you want your host name compiled in?"
./myread
case "$ans" in
n*) d_phostname="$define" ;;
*) aphostname=""; d_phostname="$undef";;

```

```

esac;;
esac
case "$phostname" in
")
@ if WHOAMI
case "$i_whoami" in
"$define")
dflt=y
$cat <<EOM

```

No hostname function--you can either use the whoami.h file, which has this line:

```
`grep sysname $usrinc/whoami.h`
```

or you can have the name we came up with earlier  
(\$myhostname) hardwired in.

```

EOM
rp="Use whoami.h to get hostname?"
./myread
case "$ans" in
n*) i_whoami="$undef";;
esac
;;
"$undef")
$cat <<EOM

```

No hostname function and no whoami.h -- hardwiring "\$myhostname".

```

EOM
;;
esac;;
@ else
echo 'No hostname function -- hardwiring "$myhostname".' >&4;;
@ end
esac;;
esac
@elsif PHOSTNAME
case "d_unamed_gethname" in
define);;
*)
case "$phostname" in
")
@ if WHOAMI
case "$i_whoami" in
"$define")
$cat <<EOM

```

No hostname function--we'll use the whoami.h file, which has this line:

```
`grep sysname $usrinc/whoami.h`
```



```

EOM
;;
*) echo "There will be no way for $package to get your hostname." >&4;;
esac;;
@ else
echo "There will be no way for $package to get your hostname." >&4;;
@ end
*)
echo "I'll use 'popen('"'$aphostname"', "r")' to get your hostname." >&4
;;
esac;;
esac
@elsif MYHOSTNAME
case "d_unamed_gethname" in
define) ;;
*)
@ if WHOAMI
case "$i_whoami" in
"$define")
dflt=y
$cat
<<EOM

```

No hostname function--you can either use the whoami.h file, which has this line:

```
`grep sysname $usrinc/whoami.h`
```

or you can have the name we came up with earlier (\$myhostname) hardwired in.

```

EOM
rp="Use whoami.h to get hostname?"
. ./myread
case "$ans" in
n*) i_whoami="$undef";;
esac
;;
"$undef")
echo 'No whoami.h--hardwiring "$myhostname".' >&4;;
esac;;
@ else
echo 'Hardwiring "$myhostname".' >&4;;
@ end
esac
@end
case "$d_phostname" in
") d_phostname="$undef";;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_gethname.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_strdup.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_strdup.U,v \$

?RCS: Revision 3.0.1.1 1993/12/15 08:21:41 ram

?RCS: patch15: created

?RCS:

?MAKE:d\_strdup: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_strdup:

?S: This variable conditionally defines HAS\_STRDUP if strdup() is

?S: available to duplicate strings in memory.

?S:.

?C:HAS\_STRDUP:

?C: This symbol, if defined, indicates that the strdup routine is

?C: available to duplicate strings in memory. Otherwise, roll up

?C: your own...

?C:.

?H:#\$d\_strdup HAS\_STRDUP /\*\*/

?H:.

?LINT:set

d\_strdup

: see if strdup exists

set strdup d\_strdup

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_strdup.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Config\_sh.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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```

?RCS: as specified in the README file that comes with the distribution.
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?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: Config_sh.U,v $
?RCS: Revision 3.0.1.3 1997/02/28 14:57:53 ram
?RCS: patch61: added support for src.U
?RCS:
?RCS: Revision 3.0.1.2 1995/01/11 14:53:31 ram
?RCS: patch45: moved path stripping from d_portable.U to end of Configure
?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 15:50:37 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:04:48 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X:
This unit ends up producing the config.sh script, which contains all the
?X: definitions figured out by Configure. The add.Config_sh command knows
?X: which variables need to be remembered. It also adds the EOT (ends the
?X: here document redirection with variable substitution).
?X:
?MAKE:Config_sh: cf_time cf_by test spitshell startsh myuname Myread \
End Obsol_sh Loc +d_portable package src cat
?MAKE: -pick add.Config_sh $@ %<
?MAKE: -pick add $@ ./Obsol_sh
?MAKE: -pick close.Config_sh $@ %<
?F:!config.over !config.arch
?T:file temp
?LINT:unclosed EOT
: back to where it started
if test -d ../UU; then
cd ..
fi

: configuration may be unconditionally patched via a 'config.arch' file
if $test -f config.arch; then
echo "I see a config.arch file, loading it." >&4
. ./config.arch
fi

: configuration may be patched via a 'config.over' file
if $test -f config.over; then
echo " "
dflt=y

```

```

rp='I see a config.over file. Do you wish to load it?'
. UU/myread
case "$ans" in
n*) echo
"OK, I'll ignore it.";;
*) ./config.over
echo "Configuration override changes have been loaded."
;;
esac
fi

@if d_portable
: in case they want portability, strip down executable paths
?X:
?X: Strip down paths in located executables. For each file, e.g. vi, there
?X: is a $vi variable whose value is for instance '/usr/bin/vi'. By resetting
?X: $vi to 'vi', we rely on the PATH variable to locate the executable...
?X:
case "$d_portable" in
"$define")
echo " "
echo "Stripping down executable paths..." >&4
?X:
?X: Previously, we used to do eval $file="\$file" but in order
?X: to handle things like sh Configure -Dmake=gmake, we can't do
?X: that. What we *really* want is to strip away the absolute path
?X: and rely on the end user's $PATH to correctly find the executable.
?X: This method assumes there is a "basename" command available. If
?X: not, replace it with the following expr-based command:
?X: expr $temp : '.*^(.*)' \| $temp
?X: Since this preserves the actual
command name, we can now drop the
?X: OS/2 specific code.
?X: --Andy Dougherty August 1999
?X:
?X: On OS/2, a special $ar command not even named 'ar' is required,
?X: so we don't strip that name.
?X: Also, on DOS-ish systems, there might not be a ln command, but we
?X: might have ln='cp'.
?X: However, we can't set d_portable=undef on such systems since
?X: Unix-ish tools don't have standard locations there. Thus we
?X: MUST rely on the user's $PATH.
?X: --Andy Dougherty 4/1998
?X:
for file in $loclist $trylist; do
eval temp=\$file
eval $file=`basename $temp`
done

```

```

;;
esac

@end
: create config.sh file
echo " "
echo "Creating config.sh...">&4
$spitshell <<EOT >config.sh
$startsh
#
This file was produced by running the Configure script. It holds all the
definitions figured out by Configure. Should you modify one of these values,
do not forget to propagate your changes by running "Configure -der". You may
instead choose to run each of the .SH files by yourself, or "Configure
-S".
#

Package name : $package
Source directory : $src
Configuration time: $cf_time
Configured by : $cf_by
Target system : $myuname

EOT
?X: Command line options are saved by the Options.U unit in the
?X: temporary file UU/cmdline.opt
: Add in command line options if available
$stest -f UU/cmdline.opt && $cat UU/cmdline.opt >> config.sh

$spitshell <<EOT >>config.sh

Found in path(s):
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/modified/Config_sh.U
No license file was found, but licenses were detected in source scan.

?RCS: Id
?RCS:
?RCS: Copyright (c) 2000 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_fp_class!: Inlibc
?MAKE:-pick add $@ %<
?S:d_fp_class!:
?S: This variable conditionally defines the HAS_FP_CLASSL symbol, which
?S: indicates to the C program that the fp_classl() routine is available.

```

?S:  
 ?C:HAS\_FP\_CLASSL:  
 ?C: This symbol, if defined, indicates that the fp\_classl routine is  
 ?C: available to classify long doubles. Available for example in  
 ?C: Digital UNIX. See for possible values HAS\_FP\_CLASS.  
 ?C:.  
 ?H:#\$d\_fp\_classl HAS\_FP\_CLASSL /\*\*/  
 ?H:.  
 ?LINT:set d\_fp\_classl  
 : see if fp\_classl exists  
 set fp\_classl d\_fp\_classl  
 eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fp\_classl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_readdir\_r.U,v 0RCS:  
 ?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi  
 ?RCS:  
 ?RCS: You may distribute under the terms of either the GNU General Public  
 ?RCS: License or the Artistic License, as specified in the README file.  
 ?RCS:  
 ?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.  
 ?RCS:  
 ?MAKE:d\_readdir\_r readdir\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
 usethreads i\_dirent extern\_C  
 ?MAKE: -pick add \$@ %<  
 ?S:d\_readdir\_r:  
 ?S: This variable conditionally defines the HAS\_READDIR\_R symbol,  
 ?S: which indicates to the C program that the readdir\_r()  
 ?S: routine is available.  
 ?S:.  
 ?S:readdir\_r\_proto:  
 ?S: This variable encodes the prototype of readdir\_r.  
 ?S: It is zero if d\_readdir\_r is undef, and one of the  
 ?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_readdir\_r  
 ?S: is defined.  
 ?S:.  
 ?C:HAS\_READDIR\_R:  
 ?C: This symbol, if defined, indicates that the readdir\_r routine  
 ?C: is available to readdir re-entrantly.  
 ?C:.  
 ?C:READDIR\_R\_PROTO:  
 ?C: This  
 symbol encodes the prototype of readdir\_r.  
 ?C: It is zero if d\_readdir\_r is undef, and one of the

```

?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_readdir_r
?C: is defined.
?C:.
?H:#$d_readdir_r HAS_READDIR_R /**/
?H:#define READDIR_R_PROTO $readdir_r_proto /**/
?H:.
?T:try hdrs d_readdir_r_proto
: see if readdir_r exists
set readdir_r d_readdir_r
eval $inlibc
case "$d_readdir_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_dirent dirent.h"
case "$d_readdir_r_proto:$usethreads" in
":define") d_readdir_r_proto=define
set d_readdir_r_proto readdir_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_readdir_r_proto" in
define)
case "$readdir_r_proto" in
"|0) try='int readdir_r(DIR*, struct dirent*, struct dirent**);'
./protochk "$extern_C $try" $hdrs && readdir_r_proto=I_TSR ;;
esac
case "$readdir_r_proto" in
"|0) try='int readdir_r(DIR*, struct dirent*);'
./protochk "$extern_C $try" $hdrs && readdir_r_proto=I_TS
;;
esac
case "$readdir_r_proto" in
"|0) d_readdir_r=undef
readdir_r_proto=0
echo "Disabling readdir_r, cannot determine prototype." >&4 ;;
*) case "$readdir_r_proto" in
REENTRANT_PROTO*) ;;
*) readdir_r_proto="REENTRANT_PROTO_$readdir_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "readdir_r has no prototype, not using it." >&4 ;;
esac
d_readdir_r=undef
readdir_r_proto=0
;;
esac

```

```
::
*) readdir_r_proto=0
::
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_readdir_r.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_msgrcv.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_msgrcv.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:40 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_msgrcv: Inlibc
?MAKE: -pick add $@ %<
?S:d_msgrcv:
?S: This variable conditionally defines the HAS_MSGRCV symbol, which
?S: indicates to the C program that the msgrcv() routine is available.
?S:.
?C:HAS_MSGRCV:
?C: This symbol, if defined, indicates that the msgrcv() routine is
?C: available to extract a message from the message queue.
?C:.
?H:#$d_msgrcv
HAS_MSGRCV /**/
?H:.
?LINT:set d_msgrcv
: see if msgrcv exists
set msgrcv d_msgrcv
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_msgrcv.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Findhdr.U,v 3.0.1.2 1994/10/29 15:53:08 ram Exp $
```



?RCS:  
?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
?RCS:  
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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: Original Author: Thomas Neumann <tom@smart.bo.open.de>  
?RCS:  
?RCS: \$Log: Findhdr.U,v \$  
?RCS: Revision 3.0.1.2 1994/10/29 15:53:08 ram  
?RCS: patch36: added ?F: line for metalint file checking  
?RCS:  
?RCS: Revision 3.0.1.1 1994/05/06 14:03:56 ram  
?RCS: patch23: cppminus must be after other cppflags, not before  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:04:54 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: This unit produces a findhdr script which  
is used to locate the header  
?X: files in \$usrinc or other stranger places using cpp capabilities. The  
?X: script is given an include file base name, like 'stdio.h' or 'sys/file.h'  
?X: and it returns the full path of the include file and a zero status or an  
?X: empty string with an error status if the file could not be located.  
?X:  
?MAKE:Findhdr: grep test tr rm incpth awk cat startsh \  
cppstdin cppminus +cppflags osname  
?MAKE: -pick add \$@ %<  
?LINT:extern cppfilter  
?LINT:define fieldn  
?S:fieldn:  
?S: This variable is used internally by Configure. It contains the position  
?S: of the included file name in cpp output. That is to say, when cpp  
?S: pre-processes a #include <file> line, it replaces it by a # line which  
?S: contains the original position in the input file and the full name of  
?S: included file, between "quotes".  
?S:.  
?V:fieldn  
?F:./findhdr !fieldn  
?T:cline pos wanted name awkprg usrincdir status testaccess  
: determine filename position in cpp output  
echo " "  
echo "Computing

```

filename position in cpp output for #include directives..." >&4
case "$osname" in
amigaos) fieldn=3 ;; # Workaround for a bug in abc (pdksh).
esac
case "$fieldn" in
")
case "$osname" in
vos) testaccess=-e ;;
*) testaccess=-r ;;
esac
echo '#include <stdio.h>' > foo.c
$cat >fieldn <<EOF
$startsh
$cpptest $cpptest $cpptest <foo.c 2>/dev/null | \
$grep '^[]*#.*stdio.h' | \
while read cline; do
pos=1
set \ $cline
while $test $# -gt 0; do
if $test $testaccess \ `echo \ $1 | $tr -d ""`; then
echo "\ $pos"
exit 0
fi
shift
pos=\ `expr \ $pos + 1`
done
done
EOF
chmod +x fieldn
fieldn=`./fieldn`
$rm -f foo.c fieldn
;;
esac
case $fieldn in
") pos='???';;
1) pos=first;;
2) pos=second;;
3) pos=third;;
*) pos="{fieldn}th";;
esac
echo "Your cpp writes the filename in the $pos field of the line."

```

?X: To locate a header file, we cannot simply check for \$usrinc/file.h, since  
?X: some machine have the headers in weird places and our only hope is that  
?X: the C pre-processor  
will know how to find those headers. Thank you Next!  
: locate header file  
\$cat >findhdr <<EOF

```

$startsh
wanted=\$1
name=""
for usrinmdir in $incpth
do
if test -f \$usrinmdir/\$wanted; then
echo "\$usrinmdir/\$wanted"
exit 0
fi
done
awkprg='{ print \$$fieldn }'
echo "#include < \$wanted >" > foo\$\$.c
$cpptest $cpptestminus $cpptestflags < foo\$\$.c 2>/dev/null | \
$cpptestfilter $grep "^[]*#.*\$wanted" | \
while read cline; do
name=\`echo \$cline | $awk "\$awkprg" | $str -d ""`\
case "\$name" in
*[\$wanted]) echo "\$name"; exit 1;;
*[\$wanted]) echo "\$name"; exit 1;;
*) exit 2;;
esac;
done;
#
status = 0: grep returned 0 lines, case statement not executed
status = 1: headerfile found
status = 2: while loop executed, no headerfile found
#
status=\$?
$rm -f foo\$\$.c;
if test \$status -eq 1; then
exit 0;
fi
exit 1
EOF
chmod +x findhdr

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Findhdr.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_systwgcf.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: i\_systwgc.f.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:08:39 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:i\_systwgc.f: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_systwgc.f:  
?S: This variable conditionally defines the I\_SYS\_TWG\_CF symbol, and  
?S: indicates whether a C program should include sys/twg\_config.h.  
?S:.  
?C:I\_SYS\_TWG\_CF:  
?C: This symbol, if defined, indicates to the C program that it should  
?C: include sys/twg\_config.h.  
?C:.  
?H:#\$i\_systwgc.f  
I\_SYS\_TWG\_CF /\*\*/  
?H:.  
?LINT:set i\_systwgc.f  
: see if this is a sys/twg\_config.h system  
set sys/twg\_config.h i\_systwgc.f  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_systwgc.f.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 2000 Jarkko Hietaniemi  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_finite: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_finite:  
?S: This variable conditionally defines the HAS\_FINITE symbol, which  
?S: indicates to the C program that the finite() routine is available.  
?S:.  
?C:HAS\_FINITE:  
?C: This symbol, if defined, indicates that the finite routine is  
?C: available to check whether a double is finite (non-infinity non-NaN).  
?C:.  
?H:#\$d\_finite HAS\_FINITE /\*\*/

```
?H:
?LINT:set d_finite
: see if finite exists
set finite d_finite
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_finite.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1996, Cygnus Support
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

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?RCS: You may redistribute only under the terms of the Artistic License,
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```
?RCS: as specified in the README file that comes with the distribution.
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?RCS: You may reuse parts of this distribution only within the terms of
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?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: Original Author: Tom Tromeey <tromeey@cygnus.com>
```

```
?RCS:
```

```
?RCS: $Log: src.U,v $
```

```
?RCS: Revision 3.0.1.1 1997/02/28 16:23:54 ram
```

```
?RCS: patch61: created
```

```
?RCS:
```

```
?MAKE:src +rsrc: Options package contains
```

```
?MAKE: -pick add $@ %<
```

```
?Y:TOP
```

```
?S:src (srcdir):
```

```
?S: This variable holds the (possibly relative) path of the package source.
```

```
?S: It is up to the Makefile to use this variable and set VPATH accordingly
```

```
?S: to find the sources remotely. Use $pkgsrc to have an absolute path.
```

```
?S:.
```

```
?S:rsrc
```

```
(relsrcdir):
```

```
?S: This variable holds a potentially relative path to the package
```

```
?S: source. The contents are correct for the configuration environment,
```

```
?S: i.e. there might be an extra .. prepended to get out of the UU dir.
```

```
?S: Configure units should use this, not the src variable.
```

```
?S:.
```

```
: Find the path to the source tree
```

```
case "$src" in
```

```
) case "$0" in
```

```
/) src=`echo $0 | sed -e 's%/[^/][^/]*$% %`
```

```
case "$src" in
```

```

/*) ;;
.) ;;
*) src=`cd ../$src && pwd` ;;
esac
;;
*) src='.';;
esac;;
esac
case "$src" in
") src=/
rsrc=/
;;
/*) rsrc="$src";;
*) rsrc="../$src";;
esac
?X:
?X: Now check whether we have found the right source tree (i.e. the one for the
?X: package we're about to configure). The original unit from Tom Tromeu forced
?X: the user to pick a unique file from his distribution, and we were merely
?X: checking the existence of that file. I prefer to rely on Configure (which
?X: we know *is* present since this unit is
?X: part of it!) and look for the
?X: definition of the package variable, making sure it's the same as ours.
?X: If it matches, we know we found the right source tree. -- RAM, 15/03/96
?X:
if test -f $rsrc/Configure && \
$contains "^package='$package'" $rsrc/Configure >/dev/null 2>&1
then
: found it, so we are ok.
else
?X: Otherwise try "." and up to 4 parent directories...
?X: Note that we prepend a ".." to get out of the configuration environment.
rsrc="
for src in/.. ../../.. ../../../..; do
if test -f ../$src/Configure && \
$contains "^package=$package" ../$src/Configure >/dev/null 2>&1
then
rsrc=../$src
break
fi
done
fi
case "$rsrc" in
")
cat <<EOM >&4

```

Sorry, I can't seem to locate the source dir for \$package. Please start Configure with an explicit path -- i.e. /some/path/Configure.

```

EOM
exit 1
;;
?X: Don't echo anything if the sources are in . -- they should know already ;-)
?X: In that case, rsrc is ../. since we lookup from within UU
../.) rsrc='.';
*)
echo
" "
echo "Sources for $package found in \"${src}\"." >&4
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/src.U
```

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?RCS: Copyright (c) 2006-2007, H.Merijn Brand

?RCS:

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?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_builtin\_choose\_expr d\_builtin\_expect : Compile Setvar cat run rm\_try

?MAKE: -pick add \$@ %<

?S:d\_builtin\_choose\_expr:

?S: This conditionally defines HAS\_BUILTIN\_CHOOSE\_EXPR, which

?S: indicates that the compiler supports \_\_builtin\_choose\_expr(x,y,z).

?S: This built-in function is analogous to the "x?y:z" operator in C,

?S: except that the expression returned has its type unaltered by

?S: promotion rules. Also, the built-in function does not evaluate

?S: the expression that was not chosen.

?S:.

?S:d\_builtin\_expect:

?S: This conditionally

defines HAS\_BUILTIN\_EXPECT, which indicates

?S: that the compiler supports \_\_builtin\_expect(exp,c). You may use

?S: \_\_builtin\_expect to provide the compiler with branch prediction

?S: information.

?S:.

?C:HAS\_BUILTIN\_CHOOSE\_EXPR:

?C: Can we handle GCC builtin for compile-time ternary-like expressions

?C:.

?C:HAS\_BUILTIN\_EXPECT:

```

?C: Can we handle GCC builtin for telling that certain values are more
?C: likely
?C:.
?H:#$d_builtin_expect HAS_BUILTIN_EXPECT /**/
?H:#$d_builtin_choose_expr HAS_BUILTIN_CHOOSE_EXPR /**/
?H:.
?F:!try
?LINT:set d_builtin_expect d_builtin_choose_expr
: Look for GCC-style __builtin_choose_expr
case "$d_builtin_choose_expr" in
")
 echo " "
 echo "Checking whether your compiler can handle __builtin_choose_expr ..." >&4
 $cat >try.c <<'EOCP'
#include <assert.h>
#include <stdlib.h>
#include <stdio.h>

#define SYRINX(x) __builtin_choose_expr(x, (1056*2), (103*50))

int main(void) {
 assert(SYRINX(1) == 2112);
 assert(SYRINX(1) != 5150);
 assert(SYRINX(0) == 5150);
 assert(SYRINX(0) != 2112);
 puts("All good!");
 exit(0);
}

EOCP
 set try
 if eval $compile && $run ./try; then
echo "Your C compiler supports __builtin_choose_expr."
val="$define"
 else
echo "Your C compiler doesn't seem to understand __builtin_choose_expr."
val="$undef"
 fi
;;
*) val="$d_builtin_choose_expr" ;;
esac

set d_builtin_choose_expr
eval $setvar
$rm_try

: Look for GCC-style __builtin_expect
case "$d_builtin_expect" in

```



```

")
 echo " "
 echo "Checking whether your compiler can handle __builtin_expect ..." >&4
 $cat >try.c <<'EOCP'
int main(void) {
 int n = 50;
 if (__builtin_expect(n, 0)) n = 1;
 /* Remember shell exit code truth is 0, C truth is non-zero */
 return !(n == 1);
}
EOCP
 set try
 if eval $compile && $run ./try; then
 echo "Your C compiler supports __builtin_expect."
 val="$define"
 else
 echo "Your C compiler doesn't seem to understand __builtin_expect."
 val="$undef"
 fi
 ;;
*) val="$d_builtin_expect" ;;
esac

set d_builtin_expect
eval $setvar
$rm_try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_builtin.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_rusage.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_rusage.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:57 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X: We may need to include <sys/resource.h> and <sys/time.h> FIXME
?X:INC: i_sysresrc i_systime

```

?MAKE:d\_rusage: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_rusage (d\_getrusg):  
?S: This variable conditionally defines the HAS\_GETRUSAGE symbol, which  
?S: indicates that the getrusage() routine exists. The getrusage() routine  
?S: supports sub-second accuracy  
for process cpu accounting. You may need  
?S: to include <sys/resource.h> and <sys/time.h>.  
?S:.  
?C:HAS\_GETRUSAGE (RUSAGE\_GETRUSAGE):  
?C: This symbol, if defined, indicates that the getrusage() routine is  
?C: available to get process statistics with a sub-second accuracy.  
?C: Inclusion of <sys/resource.h> and <sys/time.h> may be necessary.  
?C:.  
?H:#\$d\_rusage HAS\_GETRUSAGE /\*\*/  
?H:.  
?LINT:set d\_rusage  
: see if getrusage exists  
set getrusage d\_rusage  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_rusage.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_pwrite.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_pwrite.U,v \$  
?RCS:  
?MAKE:d\_pwrite: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_pwrite:  
?S: This variable conditionally defines the HAS\_PWRITE symbol, which  
?S: indicates to the C program that the pwrite() routine is available.  
?S:.  
?C:HAS\_PWRITE :  
?C: This symbol, if defined, indicates that the pwrite routine is  
?C: available to perform writes on a file descriptor at a given offset.  
?C:.

?H:#\$d\_pwrite HAS\_PWRITE /\*\*/

?H:.

?LINT:set d\_pwrite

: see if pwrite

exists

set pwrite d\_pwrite

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_pwrite.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Extractall.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:00:43 ram

?RCS: patch61: created

?RCS:

?X:

?X: If extraction has been requested, load the configuration file, perform

?X: the extraction and exit.

?X:

?X: This unit was originally a part of Options.U. It had to be removed from

?X: it to prevent a dependency cycle: Extract -> src -> Options -> Extract

?X: The Begin.U unit now requires us before beginning to do anything

?X: interesting, to ensure proper semantics. -- RAM, 15/03/96

?X:

?MAKE:Extractall:

Extract Options

?MAKE: -pick wipe \$@ %<

: extract files and exit if asked to do so

case "\$extractsh" in

true)

?X: Undo the forced silent=true when -S was supplied, by probing realsilent

?X: which was set iff -s was also given. See Options.U for details.

case "\$realsilent" in

true) ;;

\*) exec 1>&4;;

esac

```

case "$config_sh" in
") config_sh='config.sh';;
esac
echo " "
echo "Fetching answers from $config_sh..."
cd ..
. $config_sh
test "$override" && . /optdef.sh
echo " "
?X: extract has to be run from the top directory, not within UU.
. UU/extract
rm -rf UU
echo "Extraction done."
exit 0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Extractall.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: i_sysioctl.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: i_sysioctl.U,v $
?RCS: Revision 3.0.1.2 1994/05/06 15:04:57 ram
?RCS: patch23: added knowledge for <sys/filio.h> (WED)
?RCS: patch23: optimized amount of findhdr calls
?RCS:
?RCS: Revision 3.0.1.1 1993/11/10 17:36:09 ram
?RCS: patch14: now use a compiler check for TIOCNOTTY because of HP-UX 9.x
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:32 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:i_sysioctl i_bsdioclt i_sysfilio i_syssockio
d_voidtty: test contains \
cat i_termio i_termios i_sgtty Setvar Findhdr +cc rm Inhdr
?MAKE: -pick add $@ %<
?S:i_sysioctl:

```

?S: This variable conditionally defines the I\_SYS\_IOCTL symbol, which indicates to the C program that <sys/ioctl.h> exists and should be included.

?S:.

?S:i\_sysfilio:

?S: This variable conditionally defines the I\_SYS\_FILIO symbol, which indicates to the C program that <sys/filio.h> exists and should be included in preference to <sys/ioctl.h>.

?S:.

?S:i\_bsdioclt:

?S: This variable conditionally defines the I\_SYS\_BSDIOCTL symbol, which indicates to the C program that <sys/bsdioclt.h> exists and should be included.

?S:.

?S:i\_syssockio:

?S: This variable conditionally defines I\_SYS\_SOCKIO to indicate to the C program that socket ioctl codes may be found in <sys/sockio.h> instead of <sys/ioctl.h>.

?S:.

?S:d\_voidtty:

?S: This variable conditionally defines USE\_IOCTLTY to indicate that the ioctl() call with TIOCNOTTY should be used to void tty association.

?S: Otherwise (on USG probably), it is enough to close the standard file descriptors and do a setpgrp().

?S:.

?C:I\_SYS\_IOCTL (I\_SYS\_IOCTL):

?C: This symbol, if defined, indicates that <sys/ioctl.h> exists and should be included. Otherwise, include <sgtty.h> or <termio.h>.

?C:.

?C:I\_SYS\_FILIO:

?C: This symbol, if defined, indicates that <sys/filio.h> exists and should be included instead of <sys/ioctl.h>.

?C:.

?C:I\_SYS\_BSDIOCTL (I\_BSDIOCTL):

?C: This symbol, if defined, indicates that <sys/bsdioclt.h> exists and should be included. Otherwise, try <sys/ioctl.h>. This is primarily intended for definitions of sockets options, like SIOCATMARK.

?C:.

?C:I\_SYS\_SOCKIO (I\_SYSSOCKIO):

?C: This symbol, if defined, indicates the <sys/sockio.h> should be included to get socket ioctl options, like SIOCATMARK.

?C:.

?C:USE\_IOCTLTY (VOIDTTY):

?C: This symbol, if defined indicate to the C program that the ioctl() call with TIOCNOTTY should be used to void tty association.

?C: Otherwise (on USG probably), it is enough to close the standard file

```

?C: descriptors and do a setpgrp().
?C:.
?H:#$i_sysioctl I_SYS_IOCTL /**/
?H:#$i_sysfilio I_SYS_FILIO /**/
?H:#$i_bsdiocntl I_SYS_BSDIOCTL /**/
?H:#$i_syssockio I_SYS_SOCKETIO /**/
?H:#$d_voidtty USE_TIOCNOTTY /**/
?H:.
?T:xxx
: see if ioctl defs are in sgty, termio, sys/filio or sys/ioctl
?LINT:set i_sysfilio
set sys/filio.h i_sysfilio
eval $inhdr
echo " "
if $test `./findhdr sys/ioctl.h`; then
 val="$define"
 echo '<sys/ioctl.h> found.' >&4
else
 val="$undef"
 if $test $i_sysfilio = "$define"; then
 echo '<sys/ioctl.h> NOT found.' >&4
 else
 $test $i_sgty = "$define" && xxx="sgty.h"
 $test $i_termio = "$define" && xxx="termio.h"
 $test $i_termios = "$define" && xxx="termios.h"
 echo "No <sys/ioctl.h> found, assuming ioctl args are defined in <$xxx>." >&4
 fi
fi
?LINT:set i_sysioctl
set i_sysioctl
eval $setvar

@if I_BSDIOCTL || i_bsdiocntl
?X:
?X: The only machine I know where this
inclusion was necessary is a
?X: BULL DPX 5000 (a French machine).
?X:
: see if socket ioctl defs are in sys/bsdiocntl or sys/ioctl
echo " "
xxx=`./findhdr sys/bsdiocntl.h`
if $test "$xxx"; then
 if $contains SIOCATMARK $xxx >/dev/null 2>&1; then
 val="$define"
 echo "You have socket ioctls defined in <sys/bsdiocntl.h>." >&4
 else
 val="$undef"
 echo "No socket ioctls found in <sys/bsdiocntl.h>." >&4
 fi
fi

```

```

fi
else
val="$undef"
echo "<sys/bsdioc1.h> not found, but that's ok." >&4
fi
?LINT:set i_bsdioc1
set i_bsdioc1
eval $setvar

@end
@if I_SYSSOCKIO || i_syssockio
: see if socket ioc1 defs are in sys/sockio.h
echo " "
xxx=`./findhdr sys/sockio.h`
if $test "$xxx"; then
if $contains SIOCATMARK $xxx >/dev/null 2>&1; then
val="$define"
echo "You have socket ioc1s defined in <sys/sockio.h>." >&4
else
val="$undef"
echo "No socket ioc1s found in <sys/sockio.h>." >&4
fi
else
val="$undef"
@if I_BSDIOCTL
case "$i_bsdioc1" in
"$define") $cat <<EOM
<sys/sockio.h> not found, using
ioc1s from <sys/bsdioc1.h>.
EOM
;;
*) $cat <<EOM
<sys/sockio.h> not found, assuming socket ioc1s are in <sys/ioc1.h>.
EOM
;;
esac
@else
$cat <<EOM
<sys/sockio.h> not found, assuming socket ioc1s are in <sys/ioc1.h>.
EOM
@end
fi
?LINT:set i_syssockio
set i_syssockio
eval $setvar

@end
@if VOIDTTY || d_voidtty

```

```

: check how to void tty association
echo " "
case "$i_sysioctl" in
"$define") xxx='sys/ioctl.h';
?X: otherwise $xxx was set during the determination of i_sysioctl, above.
esac
?X:
?X: Can't use $contains here since HP-UX 9.x has TIOCNOTTY between a pair
?X: of #ifdef/#endif and is never actually defined. Oh well...
?X:
$cat > tcio.c <<EOM
#include <sys/types.h> /* Just in case */
#include <$xxx>

```

```

int main()
{
#ifdef TIOCNOTTY
exit(0);
#else
exit(1);
#endif
}
EOM
if ($cc -o tcio tcio.c && ./tcio) >/dev/null 2>&1; then
val="$define"
echo "TIOCNOTTY found in <$xxx>." >&4
echo "Using ioctl() call on /dev/tty to void tty association." >&4
else
val="$undef"
echo "Closing
standard file descriptors should void tty association." >&4
fi
?LINT:set d_voidtty
set d_voidtty
eval $setvar
$rm -f tcio tcio.? core

@end

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_sysioctl.U

```

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?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:



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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: yacc.U,v \$  
?RCS: Revision 3.0.1.1 1994/05/13 15:28:48 ram  
?RCS: patch27: added byacc as another alternative (ADO)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:10:03 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:yacc yaccflags: Guess Myread Loc Oldconfig byacc bison cat test  
?MAKE: -pick add \$@ %<  
?S:yacc:  
?S: This variable holds the name of the compiler compiler we  
?S: want to use in the Makefile. It can be yacc, byacc, or bison -y.  
?S:.  
?S:yaccflags:  
?S: This variable contains any  
additional yacc flags desired by the  
?S: user. It is up to the Makefile to use this.  
?S:.  
?T:comp  
: determine compiler compiler  
echo " "  
comp='yacc'  
if \$test -f "\$byacc\$\_exe"; then  
comp="byacc or \$comp"  
fi  
if \$test -f "\$bison\$\_exe"; then  
comp="\$comp or bison -y"  
fi  
case "\$yacc" in  
")  
yacc=`./loc yacc yacc \$pth`  
if \$test -f "\$yacc\$\_exe"; then  
dflt='yacc'  
elif \$test -f "\$byacc\$\_exe"; then  
dflt='byacc'  
elif \$test -f "\$bison\$\_exe"; then  
dflt='bison'  
else  
dflt=""  
fi  
;;  
\*) dflt="\$yacc";;

```

esac
rp="Which compiler compiler ($comp) shall I use?"
./myread
yacc="$ans"
case "$yacc" in
bis)
case "$yacc" in
_y) ;;
*)
yacc="$yacc -y"
echo "(Adding -y option to bison to get yacc-compatible behaviour.)"
;;
esac
;;
esac

```

```

@if yaccflags
: see if we need extra yacc flags
dflt="$yaccflags"
case "$dflt" in
") dflt=none;;
esac
$cat <<EOH

```

Your yacc program may need extra flags to normally process the parser sources. Do NOT specify any -d or -v flags here, since those are explicitly known by the various Makefiles. However, if your machine has strange/undocumented options (like -Sr# on SCO to specify the maximum number of grammar rules), then please add them here. To use no flags, specify the word "none".

```

EOH
rp="Any additional yacc flags?"
./myread
case "$ans" in
none) yaccflags="";;
*) yaccflags="$ans";;
esac

```

@end

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/yacc.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_longlong.U,v \$

?RCS:

```

?RCS: Copyright (c) 1998 Andy Dougherty
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: $Log: d_longlong.U,v $
?RCS:
?MAKE:d_longlong longlongsize: Compile Setvar Myread run \
cat rm_try test longsize
?MAKE: -pick add $@ %<
?S:d_longlong:
?S: This variable conditionally defines HAS_LONG_LONG if
?S: the long long type is supported.
?S:.
?S:longlongsize:
?S: This variable contains the value of the LONGLONGSIZE symbol, which
?S: indicates to the C program how many bytes there are in a long long,
?S: if this system supports long long.
?S:.
?C:HAS_LONG_LONG:
?C: This symbol will be defined if the C compiler supports long long.
?C:.
?C:LONGLONGSIZE:
?C: This symbol contains the size of a long long, so that the
?C: C preprocessor can make decisions based on it. It is only
?C: defined
?C: if the system supports long long.
?C:.
?H:#$d_longlong HAS_LONG_LONG /**/
?H:?LONGLONGSIZE:#ifdef HAS_LONG_LONG
?H:?LONGLONGSIZE:#define LONGLONGSIZE $longlongsize /**/
?H:?LONGLONGSIZE:#endif
?H:.
?F:!try
?LINT:set d_longlong
: check for long long
echo " "
echo "Checking to see if you have long long..." >&4
echo 'int main() { long long x = 7; return 0; }' > try.c
set try
if eval $compile; then
val="$define"
echo "You have long long."
else
val="$undef"
echo "You do not have long long."
fi
$rm_try

```

```

set d_longlong
eval $setvar

@if LONGLONGSIZE || longlongsize
: check for length of long long
?X: Check only if d_longlong and if longlongsize is not already set.
case "${d_longlong}${longlongsize}" in
$define)
echo " "
echo "Checking to see how big your long longs are..." >&4
$cat >try.c <<'EOCP'
#include <stdio.h>
int main()
{
printf("%d\n", (int)sizeof(long long));
return(0);
}
EOCP
set try
if eval $compile_ok; then
longlongsize=`$run ./try`
echo "Your long
longs are $longlongsize bytes long."
else
dflt='8'
echo " "
echo "(I can't seem to compile the test program. Guessing...)"
rp="What is the size of a long long (in bytes)?"
./myread
longlongsize="$ans"
fi
if $test "X$longsize" = "X$longlongsize"; then
echo "(That isn't any different from an ordinary long.)"
fi
;;
esac
$rm_try
@end

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_longlong.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2008 H.Merijn Brand

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_timegm: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_timegm:

?S: This variable conditionally defines the HAS\_TIMEGM symbol, which

?S: indicates to the C program that the timegm () routine is available.

?S:.

?C:HAS\_TIMEGM:

?C: This symbol, if defined, indicates that the timegm routine is

?C: available to do the opposite of gmtime ()

?C:.

?H:#\$d\_timegm HAS\_TIMEGM /\*\*/

?H:.

?LINT:set d\_timegm

: see if timegm exists

set timegm d\_timegm

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_timegm.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_setgrent\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

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?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_setgrent\_r setgrent\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
usethreads i\_grp extern\_C

?MAKE: -pick add \$@ %<

?S:d\_setgrent\_r:

?S: This variable conditionally defines the HAS\_SETGRENT\_R symbol,

?S: which indicates to the C program that the setgrent\_r()

?S: routine is available.

?S:.

?S:setgrent\_r\_proto:

?S: This variable encodes the prototype of setgrent\_r.

?S: It is zero if d\_setgrent\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_setgrent\_r

?S: is defined.

?S:.

?C:HAS\_SETGRENT\_R:

```

?C: This symbol, if defined, indicates that the setgrent_r routine
?C: is available to
setgrent re-entrantly.
?C:.
?C:SETGRENT_R_PROTO:
?C: This symbol encodes the prototype of setgrent_r.
?C: It is zero if d_setgrent_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_setgrent_r
?C: is defined.
?C:.
?H:#$d_setgrent_r HAS_SETGRENT_R /**/
?H:#define SETGRENT_R_PROTO $setgrent_r_proto /**/
?H:.
?T:try hdrs d_setgrent_r_proto
: see if setgrent_r exists
set setgrent_r d_setgrent_r
eval $inlibc
case "$d_setgrent_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_grp grp.h"
case "$d_setgrent_r_proto:$usethreads" in
":define") d_setgrent_r_proto=define
set d_setgrent_r_proto setgrent_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_setgrent_r_proto" in
define)
case "$setgrent_r_proto" in
"|0) try='int setgrent_r(FILE**);'
./protochk "$$extern_C $try" $hdrs && setgrent_r_proto=I_H ;;
esac
case "$setgrent_r_proto" in
"|0) try='void setgrent_r(FILE**);'
./protochk "$$extern_C $try" $hdrs && setgrent_r_proto=V_H ;;
esac
case "$setgrent_r_proto"
in
"|0) d_setgrent_r=undef
setgrent_r_proto=0
echo "Disabling setgrent_r, cannot determine prototype." >&4 ;;
*) case "$setgrent_r_proto" in
REENTRANT_PROTO*) ;;
*) setgrent_r_proto="REENTRANT_PROTO_$$setgrent_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;

```

```

*) case "$usetthreads" in
define) echo "setgrent_r has no prototype, not using it." >&4 ;;
esac
d_setgrent_r=undef
setgrent_r_proto=0
;;
esac
;;
*) setgrent_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_setgrent_r.U

```

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?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:uidformat: uidsize uidsign ivsize uvsize longsize intsize shortsize \  
ivdformat uvuformat test echo

?MAKE: -pick add \$@ %<

?S:uidformat:

?S: This variable contains the format string used for printing a Uid\_t.

?S:.

?C:Uid\_t\_f:

?C: This symbol defines the format string used for printing a Uid\_t.

?C:.

?H:#define Uid\_t\_f \$uidformat /\*\*/

?H:.

: Check format string for UID

echo " "

\$echo "Checking the format string to be used for uids..." >&4

```

case "$uidsign" in

```

```

-1) if $test X"$uidsize" = X"$ivsize"; then

```

```

uidformat="$ivdformat"

```

```

else

```

```

if $test X"$uidsize" = X"$longsize"; then

```

```

uidformat="ld"

```

```

else

```

```

if $test X"$uidsize" = X"$intsize"; then

```

```

uidformat="d"

```

```

else
 if $test X"$uidsiz"
= X"$shortsize"; then
 uidformat="hd"
 fi
 fi
 fi
 fi
;;
*) if $test X"$uidsiz" = X"$vsize"; then
 uidformat="$vformat"
else
 if $test X"$uidsiz" = X"$longsize"; then
 uidformat="lu"
else
 if $test X"$uidsiz" = X"$sintsize"; then
 uidformat="u"
else
 if $test X"$uidsiz" = X"$shortsize"; then
 uidformat="hu"
 fi
 fi
 fi
 fi
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/uidf.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_ffs.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_ffs.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:03 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_ffs: Inlibc
?MAKE: -pick add $@ %<

```



?S:d\_ffs:  
?S: This variable conditionally defines the HAS\_FFS symbol, which  
?S: indicates to the C program that the ffs() routine is available  
?S: to find the first bit which is set in its integer argument.  
?S:.  
?C:HAS\_FFS:  
?C: This symbol, if defined, indicates that the ffs routine is available  
?C: to  
find the first bit set in its argument. If it's not available,  
?C: roll your own.  
?C:.  
?H:#\$d\_ffs HAS\_FFS /\*\*/  
?H:.  
?LINT:set d\_ffs  
: see if ffs exists  
set ffs d\_ffs  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_ffs.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: libpth.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
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?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: libpth.U,v \$  
?RCS: Revision 3.0.1.6 1997/02/28 16:08:49 ram  
?RCS: patch61: new loclibpth variable  
?RCS:  
?RCS: Revision 3.0.1.5 1995/01/11 15:31:30 ram  
?RCS: patch45: call ./mips instead of just mips (WED)  
?RCS:  
?RCS: Revision 3.0.1.4 1994/08/29 16:29:15 ram  
?RCS: patch32: added /lib/pa1.1 for HP-UX specially tuned PA-RISC libs (ADO)  
?RCS: patch32: fixed information message, making it clearer (ADO)  
?RCS:  
?RCS: Revision 3.0.1.3 1994/06/20 07:03:54  
ram  
?RCS: patch30: added /usr/shlib to glibpth for shared-only libraries  
?RCS:

?RCS: Revision 3.0.1.2 1994/05/13 15:26:57 ram  
?RCS: patch27: fixed a typo (libpth -> glibpth)  
?RCS:  
?RCS: Revision 3.0.1.1 1994/05/06 15:07:53 ram  
?RCS: patch23: now asks for library directories to be searched (ADO)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:02 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: This unit initializes the path for C library lookup.  
?X:  
?MAKE:libpth glibpth xlibpth plibpth loclibpth incpth: \  
usrinc incpth test cat Myread Oldconfig sysroot osname \  
ccname echo cppstdin awk grep sed rm usecrosscompile  
?MAKE: -pick add \$@ %<  
?S:libpth:  
?S: This variable holds the general path (space-separated) used to find  
?S: libraries. It is intended to be used by other units.  
?S:.  
?S:glibpth:  
?S: This variable holds the general path (space-separated) used to  
?S: find libraries. It may contain directories that do not exist on  
?S: this platform, libpth is the cleaned-up  
version.  
?S:.  
?S:xlibpth:  
?S: This variable holds extra path (space-separated) used to find  
?S: libraries on this platform, for example CPU-specific libraries  
?S: (on multi-CPU platforms) may be listed here.  
?S:.  
?S:loclibpth:  
?S: This variable holds the paths (space-separated) used to find local  
?S: libraries. It is prepended to libpth, and is intended to be easily  
?S: set from the command line.  
?S:.  
?S:plibpth:  
?S: Holds the private path used by Configure to find out the libraries.  
?S: Its value is prepend to libpth. This variable takes care of special  
?S: machines, like the mips. Usually, it should be empty.  
?S:.  
?S:incpth:  
?S: This variable must precede the normal include path to get the  
?S: right one, as in "\$incpath/usr/include" or "\$incpath/usr/lib".  
?S: Value can be "" or "/bsd43" on mips.  
?S:.  
?T: xxx dlist i j croak  
?LINT:extern incpth



```

fi
done
libpth="$echo $libpth|sed 's/^ //' "
for xxx in $libpth $loclibpth $plibpth $glibpth; do
if $test -d $xxx; then
case "$libpth" in
" $xxx ") ;;
*) libpth="$libpth $xxx";;
esac
fi

done
fi
$rm -f try.c
case "$usrinc" in
") for i in $incpth; do
if $test -f $i/errno.h -a -f $i/stdio.h -a -f $i/time.h; then
usrinc="$i"
break
fi
done
;;
esac

case "$usecrosscompile" in
$define|true|[yY]*)
case "$incpth" in
") echo "Incpth not defined." >&4; croak=y ;;
*) echo "Using incpth '$incpth'." >&4 ;;
esac
case "$libpth" in
") echo "Libpth not defined." >&4; croak=y ;;
*) echo "Using libpth '$libpth'." >&4 ;;
esac
case "$usrinc" in
") echo "Usrinc not defined." >&4; croak=y ;;
*) echo "Using usrinc $usrinc." >&4 ;;
esac
case "$croak" in
y)
if test "X$sysroot" = X; then
echo "Cannot continue, aborting." >&4; exit 1
else
echo "Cross-compiling using sysroot $sysroot, failing to guess inc/lib paths is not fatal" >&4
fi
;;
esac
;;

```

```
esac
;;
esac
```

```
: Default value for incpth is just usrinc
case "$incpth" in
") incpth="$usrinc";;
esac
```

```
: Set private lib path
case
"$plibpth" in
") if ./mips; then
?X: on mips, we DO NOT want /lib, and we want $incpath/usr/lib
plibpth="$incpath/usr/lib $sysroot/usr/local/lib $sysroot/usr/ccs/lib"
fi;;
esac
case "$libpth" in
' ') dlist="";;
") dlist="$loclibpth $plibpth $glibpth";;
*) dlist="$libpth";;
esac
```

```
: Now check and see which directories actually exist, avoiding duplicates
for xxx in $dlist
do
if $test -d $xxx; then
case " $libpth " in
" $xxx ") ;;
*) libpth="$libpth $xxx";;
esac
fi
done
$cat <<'EOM'
```

Some systems have incompatible or broken versions of libraries. Among the directories listed in the question below, please remove any you know not to be holding relevant libraries, and add any that are needed. Say "none" for none.

EOM

```
if test "X$sysroot" != X; then
$cat <<EOM
```

You have set sysroot to \$sysroot, please supply the directories excluding sysroot

EOM

```
fi
```

```

case "$libpth" in
") dflt='none';;
*)
?X: strip leading space
set X $libpth
shift
dflt=${1+"$@"}
;;
esac
rp="Directories
to use for library searches?"
./myread
case "$sans" in
none) libpth=' ';;
*) libpth="$sans";;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/libpth.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getgrps.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS:

?RCS: \$Log: d\_getgrps.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:08 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_getgrps: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_getgrps:

?S: This variable conditionally defines the HAS\_GETGROUPS symbol, which

?S: indicates to the C program that the getgroups() routine is available

?S: to get the list of process groups.

?S:.

?C:HAS\_GETGROUPS (GETGROUPS):

?C: This symbol, if defined, indicates that the getgroups()

routine is

?C: available to get the list of process groups. If unavailable, multiple

?C: groups are probably not supported.

?C:.

?H:#\$d\_getgrps HAS\_GETGROUPS /\*\*/

?H:.

?LINT:set d\_getgrps

: see if getgroups exists

set getgroups d\_getgrps

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_getgrps.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_havetlib.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_havetlib.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:36:31 ram

?RCS: patch61: replaced .a with \$\_a all over the place

?RCS: patch61: likewise for .o replaced by \$\_o

?RCS:

?RCS: Revision 3.0.1.1 1994/05/06 14:44:06 ram

?RCS: patch23: added AIX support to accept shared lib stub as termlib (WED)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:06:19 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_havetlib termlib: cat contains Myread Loc

Filexp Oldconfig libpth \

test uname \_a \_o

?MAKE: -pick add \$@ %<

?S:d\_havetlib:

?S: This variable conditionally defines the HAS\_TERMLIB symbol, which

?S: indicates to the C program that termlib-style routines are available.

?S:.

?S:termlib:

?S: This variable contains the argument to pass to the loader to get

?S: termlib-style routines. It is up to the Makefile.SH to make sure

?S: the value gets to the right command. Note that on many systems the

?S: termlib routines are emulated by the curses or terminfo library.

```

?S:.
?C:HAS_TERMLIB (HAVETERMLIB):
?C: This symbol, when defined, indicates that termlib-style routines
?C: are available. There is nothing to include.
?C:.
?H:#$d_havetlib HAS_TERMLIB /**/
?H:.
?T:xxx
: where do we get termlib routines from
echo " "
xxx=`./loc libcurses$_a x $libpth`
case "$xxx" in
/*)
ar t $xxx >grimble
if $contains tputs$_o grimble >/dev/null 2>&1; then
termlib='-lcurses'
d_havetlib="$define"
echo "Terminfo library found." >&4
elif $test "x`$uname
2>/dev/null" = xAIX; then
Ok, do the AIX shr.o fun thing
/usr/ccs/bin/nm -en $xxx 2>/dev/null >grimble
if $contains '^tputs.*|extern|' grimble >/dev/null 2>&1; then
termlib='-lcurses'
d_havetlib="$define"
echo "AIX Terminfo library found." >&4
else
xxx=x
fi
else
xxx=x
fi
rm -f grimble
;;
esac
case "$xxx" in
x)
xxx=`./loc libtermlib$_a x $libpth`
case "$xxx" in
/usr/lib*/lib*)
termlib='-ltermlib'
d_havetlib="$define"
echo "Termlib library found." >&4
;;
/*)
termlib="$xxx"
d_havetlib="$define"
echo "Termlib library found." >&4

```



```

;;
*)
xxx=`./loc libtermcap$_a x $libpth`
case "$xxx" in
/usr/lib*|/lib*)
termlib='-ltermcap'
d_havetlib="$define"
echo "Termcap library found." >&4
;;
/*)
termlib="$xxx"
d_havetlib="$define"
echo "Termcap library found." >&4
;;
*)
case "$termlib" in
")
dflt=y
rp="Your system appears to NOT have termlib-style routines. Is this true?"
./myread
case "$ans"
in
n*|f*) d_havetlib="$define"
$cat <<'EOM'

```

Then where are the termlib-style routines kept? Specify either -llibname or a full pathname (~name ok).

EOM

```

dflt="
rp='Specify termlib path:'
./myread
termlib=`./filexp $ans`
;;
*)
d_havetlib="$undef"
termlib="
echo "You will have to play around with term.c then." >&4
;;
esac
echo " ";;
*) echo "You said termlib was $termlib before." >&4;;
esac;;
esac;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/dist/U/d\_havetlib.U

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: scriptdir.U,v \$

?RCS: Revision 3.0.1.3 1995/09/25 09:17:15 ram

?RCS: patch59: unit is now forced to the top of Configure, if possible

?RCS:

?RCS: Revision 3.0.1.2 1995/01/30 14:46:13 ram

?RCS: patch49: can now handle installation prefix changes (from WED)

?RCS:

?RCS: Revision 3.0.1.1 1994/08/29 16:32:04 ram

?RCS: patch32: now uses installation prefix

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:45 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:scriptdir scriptdirexp installscript:

afs cat test Getfile Loc \

Oldconfig +bin Prefixit prefixexp Prefixup

?MAKE: -pick add \$@ %<

?Y:TOP

?S:scriptdir:

?S: This variable holds the name of the directory in which the user wants

?S: to put publicly scripts for the package in question. It is either

?S: the same directory as for binaries, or a special one that can be

?S: mounted across different architectures, like /usr/share. Programs

?S: must be prepared to deal with ~name expansion.

?S:.

?S:scriptdirexp:

?S: This variable is the same as scriptdir, but is filename expanded

?S: at configuration time, for programs not wanting to bother with it.

?S:.

?S:installscript:

?S: This variable is usually the same as scriptdirexp, unless you are on

?S: a system running AFS, in which case they may differ slightly. You

?S: should always use this variable within your makefiles for portability.

?S:.

?C:SCRIPTDIR:

?C: This symbol holds the name of the directory in which the user wants

?C: to put publicly executable scripts for the package in question. It

?C: is often a directory that is mounted across diverse architectures.

?C: Programs must be prepared to deal with ~name expansion.

?C:.

?C:SCRIPTDIR\_EXP:

?C: This is the same as SCRIPTDIR, but is filename expanded at

?C: configuration time, for use in programs not prepared to do

?C: ~name substitutions at run-time.

?C:.

```
?H:#define SCRIPTDIR "$scriptdir" /**/
```

```
?H:#define SCRIPTDIR_EXP "$scriptdirexp" /**/
```

?H:.

: determine where public executable scripts go

```
set scriptdir scriptdir
```

```
eval $prefixit
```

```
case "$scriptdir" in
```

```
)
```

```
 dflt="$bin"
```

```
 : guess some guesses
```

```
 $test -d /usr/share/scripts && dflt=/usr/share/scripts
```

```
 $test -d /usr/share/bin && dflt=/usr/share/bin
```

```
 $test -d /usr/local/script && dflt=/usr/local/script
```

```
 $test -d $prefixexp/script && dflt=$prefixexp/script
```

```
 set dflt
```

```
 eval $prefixup
```

```
 ;;
```

```
*) dflt="$scriptdir"
```

```
 ;;
```

```
esac
```

```
$cat <<EOM
```

Some installations have a separate directory just for executable scripts so

that they can mount it across multiple architectures but

keep the scripts in

one spot. You might, for example, have a subdirectory of /usr/share for this.

Or you might just lump your scripts in with all your other executables.

EOM

```
fn=d~
```

```
rp='Where do you keep publicly executable scripts?'
```

```
./getfile
```

```
if $test "X$ansexp" != "X$scriptdirexp"; then
```

```
 installscript="
```

```
fi
```

```
scriptdir="$ans"
```

```
scriptdirexp="$ansexp"
```

```
if $afs; then
$cat <<EOM
```

Since you are running AFS, I need to distinguish the directory in which scripts reside from the directory in which they are installed (and from which they are presumably copied to the former directory by occult means).

```
EOM
case "$installscript" in
") dflt=`echo $scriptdirexp | sed 's#^/afs/#/afs/.#`;;
*) dflt="$installscript";;
esac
fn=de~
rp='Where will public scripts be installed?'
./getfile
installscript="$ans"
else
installscript="$scriptdirexp"
fi
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/scriptdir.U
```

No license file was found, but licenses were detected in source scan.

?RCS: Copyright (c) 2018-2018, H.Merijn Brand

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?MAKE:d\_pipe2: Inlibc

?MAKE:-pick add \$@ %<

?S:d\_pipe2:

?S: This variable conditionally defines the HAS\_PIPE2 symbol, which

?S: indicates to the C program that the pipe2() routine is available

?S: to create an inter-process channel.

?S:.

?C:HAS\_PIPE2:

?C: This symbol, if defined, indicates that the pipe2 routine is

?C: available to create an inter-process channel.

?C:.

?H:#\$d\_pipe2 HAS\_PIPE2 /\*\*/

?H:.

?LINT:set d\_pipe2

: see if pipe2 exists

```
set pipe2 d_pipe2
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_pipe2.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2001 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_strftime: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_strftime:

?S: This variable conditionally defines the HAS\_STRFTIME symbol, which

?S: indicates to the C program that the strftime() routine is available.

?S:.

?C:HAS\_STRFTIME:

?C: This symbol, if defined, indicates that the strftime routine is

?C: available to do time formatting.

?C:.

?H:#\$d\_strftime HAS\_STRFTIME /\*\*/

?H:.

?LINT:set d\_strftime

: see if strftime exists

set strftime d\_strftime

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_strftime.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_shm.U,v 3.0 1993/08/18 12:07:17 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: d\_shm.U,v \$

```

?RCS: Revision 3.0 1993/08/18 12:07:17 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_shm: test d_shmctl d_shmget d_shmat d_shmdt Setvar Findhdr osname
?MAKE: -pick add $@ %<
?S:d_shm:
?S: This variable conditionally defines the HAS_SHM symbol, which
?S: indicates that the entire shm*(2) library is present.
?S:.
?C:HAS_SHM:
?C: This symbol, if defined, indicates that the entire shm*(2) library is
?C: supported.
?C:.
?H:#$d_shm HAS_SHM /**/
?H:.
?T:h_shm
?LINT:set
d_shm
: see how much of the 'shm*(2)' library is present.
h_shm=true
echo " "
case "d_shmctld_shmgetd_shmatd_shmdt" in
"$undef") h_shm=false;;
esac
case "$osname" in
freebsd)
case "`ipcs 2>&1`" in
"SVID shared memory"*"not configured"*)
echo "Your $osname does not have the shm*(2) configured." >&4
h_shm=false
val="$undef"
set shmctl d_shmctl
eval $setvar
set shmget d_shmget
eval $setvar
set shmat d_shmat
eval $setvar
set shmdt d_shmdt
eval $setvar
;;
esac
;;
esac
: we could also check for sys/ipc.h ...
if $h_shm && $test `./findhdr sys/shm.h`; then
echo "You have the full shm*(2) library." >&4
val="$define"
else

```

```
echo "You don't have the full shm*(2) library." >&4
val="$undef"
fi
set d_shm
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_shm.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_euc2jis.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
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```
?RCS: as specified in the README file that comes with the distribution.
```

```
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```
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_euc2jis.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:05:58 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_euc2jis: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_euc2jis:
```

```
?S: This variable conditionally defines the HAS_EUC2JIS symbol, which
```

```
?S: indicates to the C program that the euc2jis() routine is available
```

```
?S: to convert EUC to JIS.
```

```
?S:.
```

```
?C:HAS_EUC2JIS:
```

```
?C: This symbol, if defined, indicates that the euc2jis routine is
```

```
?C: available to convert
```

```
EUC to JIS.
```

```
?C:.
```

```
?H:#$d_euc2jis HAS_EUC2JIS /**/
```

```
?H:.
```

```
?LINT:set d_euc2jis
```

```
: see if euc2jis exists
```

```
set euc2jis d_euc2jis
```

```
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_euc2jis.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_speedopt.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_speedopt.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:15:51 ram
?RCS: patch36: call ./Cpplib explicitly instead of relying on PATH
?RCS:
?RCS: Revision 3.0 1993/08/18 12:07:27 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_speedopt: Myread Cpplib Oldconfig cat models Setvar
?MAKE: -pick add $@ %<
?S:d_speedopt:
?S: This variable conditionally defines the SPEED_OVER_MEM symbol, which
?S: indicates to the C program that it can
?S: burn memory in order to save
?S: CPU time.
?S:.
?C:SPEED_OVER_MEM (SPEEDOVERMEM):
?C: This symbol, if defined, indicates that the program can use more
?C: memory in order to reduce CPU time. The symbol doesn't say whether
?C: we are more interested in saving text space or data space.
?C:.
?H:#$d_speedopt SPEED_OVER_MEM /**/
?H:.
?LINT:set d_speedopt
: do we want speed at the expense of memory
$cat <<'EOM'
```

I can try to optimize this package for either speed or memory. If you have limited address space you may wish to optimize for memory. Otherwise you should probably optimize for speed.

```
EOM
case "$d_speedopt" in
") if ./Cpplib $smallmach; then
case "$models" in
large|*huge*) dflt=speed;;
*) dflt=memory;;
```



```

esac
else
 dflt=speed
fi
;;
define) dflt=speed;;
*) dflt=memory;;
esac
rp="What to optimize for?"
./myread
case "$ans" in
mem*) val="$undef";;
*) val="$define";;
esac
set d_speedopt
eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_speedopt.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: libnm.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: libnm.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 16:08:26 ram

?RCS: patch61: replaced .a with \$\_a all over the place

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:01 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:libnm: test Loc libpth \_a

?MAKE: -pick add \$@ %<

?S:libnm:

?S: This variable contains the argument to pass to the loader in order

?S: to get the new math library routines. If there is no new math

?S: library, it is null.

?S:.

?T:ans

?O:

```

use libswanted='-lnm' instead (see libs.U).
: see if we should include -lnm
echo " "
if $test -r /usr/lib/libnm$_a || $test -r /usr/local/lib/libnm$_a ; then
echo "New math library found." >&4
libnm='-lnm'
else
ans=`./loc libnm$_a x $libpth`
case "$ans" in
x)
echo "No nm library found--the normal math library will have to do." >&4
libnm=""
;;
*)
echo "New math library found in $ans." >&4
libnm="$ans"
;;
esac
fi

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/libnm.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998 Jarkko Hietaniemi

?RCS:

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?RCS:

?MAKE:d\_ftello: Inlibc longsize

?MAKE: -pick add \$@ %<

?S:d\_ftello:

?S: This variable conditionally defines the HAS\_FTELLO symbol, which

?S: indicates to the C program that the ftello() routine is available.

?S:.

?C:HAS\_FTELLO:

?C: This symbol, if defined, indicates that the ftello routine is

?C: available to ftell beyond 32 bits (useful for ILP32 hosts).

?C:.

?H:#\$d\_ftello HAS\_FTELLO /\*\*/

?H:.

?LINT:set d\_ftello

: see if ftello exists

set ftello d\_ftello

eval \$inlibc

```
case "$longsize" in
8) echo "(Your long is 64 bits, so you could use ftell.)" ;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_ftello.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_wcstombs.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_wcstombs.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:08:03 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_wcstombs: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_wcstombs:
```

```
?S: This variable conditionally defines the HAS_WCSTOMBS symbol, which
```

```
?S: indicates to the C program that the wcstombs() routine is available
```

```
?S: to convert wide character strings to multibyte strings.
```

```
?S:.
```

```
?C:HAS_WCSTOMBS:
```

```
?C: This symbol, if defined, indicates that the wcstombs
routine is
```

```
?C: available to convert wide character strings to multibyte strings.
```

```
?C:.
```

```
?H:#$d_wcstombs HAS_WCSTOMBS /**/
```

```
?H:.
```

```
?LINT:set d_wcstombs
```

```
: see if wcstombs exists
```

```
set wcstombs d_wcstombs
```

```
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_wcstombs.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_wait4.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```

?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_wait4.U,v $
?RCS: Revision 3.0 1993/08/18 12:08:01 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_wait4: Inlibc
?MAKE: -pick add $@ %<
?S:d_wait4:
?S: This variable conditionally defines the HAS_WAIT4 symbol, which
?S: indicates the wait4() routine is available.
?S:.
?C:HAS_WAIT4 (WAIT4):
?C: This symbol, if defined, indicates that wait4() exists.
?C:.
?H:#$d_wait4 HAS_WAIT4 /**/
?H:.
?LINT:set d_wait4
: see if there is a wait4
set
wait4 d_wait4
eval $inlibc

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_wait4.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: i_stdlib.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: i_stdlib.U,v $
?RCS: Revision 3.0 1993/08/18 12:08:27 ram
?RCS: Baseline for dist 3.0 netwide release.

```

?RCS:  
?MAKE:i\_stdlib: Nothing  
?MAKE: -pick add \$@ %<  
?S:i\_stdlib:  
?S: This variable unconditionally defines the I\_STDLIB symbol.  
?S:.  
?C:I\_STDLIB:  
?C: This symbol is always defined, indicating that <stdlib.h> exists  
?C: and should be included.  
?C:.  
?H:#define I\_STDLIB /\*\*/  
?H:.  
: stub, used only to satisfy other units  
i\_stdlib='define'

Found in

path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i\_stdlib.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_ulimit.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_ulimit.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:07:51 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_ulimit: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_ulimit:  
?S: This variable conditionally defines HAS\_ULIMIT if ulimit() is  
?S: available to get the user limits.  
?S:.  
?C:HAS\_ULIMIT (ULIMIT):  
?C: This symbol, if defined, indicates that the ulimit system call is  
?C: available to get the user limits.  
?C:.  
?H:#\$d\_ulimit HAS\_ULIMIT /\*\*/  
?H:.  
?LINT:set

```
d_ulimit
: see if ulimit exists
set ulimit d_ulimit
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_ulimit.U
```

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?RCS:

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:fpostype: Myread Typedef fpostype Compile longsize run i\_stdlib

?MAKE: -pick add \$@ %<

?S:fpostype:

?S: This variable contains the size of a fpostype in bytes.

?S:.

?C:Fpos\_t\_size:

?C: This symbol holds the size of a Fpos\_t in bytes.

?C:.

?H:#define Fpos\_t\_size \$fpostype /\* FPOS size \*/

?H:.

?T:yyy zzz

?F:!try

: Check size for Fpos\_t

echo " "

case "\$fpostype" in

\*\_t) zzz="\$fpostype" ;;

\*) zzz="fpos\_t" ;;

esac

echo "Checking the size of \$zzz..." >&4

cat > try.c <<EOCP

#include <sys/types.h>

#include <stdio.h>

#\$i\_stdlib I\_STDLIB

#ifdef

I\_STDLIB

#include <stdlib.h>

#endif

int main() {

printf("%d\n", (int)sizeof(\$fpostype));

```

 exit(0);
}
EOCP
set try
if eval $compile_ok; then
 yyy=`$run ./try`
 case "$yyy" in
 *) fposszie=4
 echo "(I can't execute the test program--guessing $fposszie.)" >&4
 ;;
 *) fposszie=$yyy
 echo "Your $zzz is $fposszie bytes long."
 ;;
 esac
else
 dflt="$longsize"
 echo " " >&4
 echo "(I can't compile the test program. Guessing...)" >&4
 rp="What is the size of your file positions (in bytes)?"
 . ./myread
 fposszie="$ans"
fi

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/fposszie.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_hidnet.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS:

?RCS: \$Log: d\_hidnet.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:20 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_hidnet hiddennet: cat sed myhostname mydomain Myread Oldconfig

?MAKE: -pick add \$@ %<

?S:d\_hidnet:

?S: This variable conditionally defines the symbol `HIDDEN_NET`, which

?S: tells the C program that it should pretend it is on a different

?S: host for purposes of advertising a mailing address.

```

?S:.
?S:hidddenet:
?S: This variable contains
 the value eventually given to the symbol
?S: HIDDEN_NET, if d_hidnet defines it. If defined, it's the name
?S: of the host which serves as the mail server for a network that
?S: is invisible to the outside world.
?S:.
?C:HIDDEN_NET (HIDDENNET):
?C: This symbol, if defined, contains the host name that you want to
?C: advertise to the outside world. This name can be different from
?C: your actual host name, as long as the machine you specify knows
?C: how to forward mail to you.
?C:.
?H:#$d_hidnet HIDDEN_NET "$hidddenet" /**/
?H:.
: now get the host name to advertise as our mailing address
case "$hidddenet" in
") dflt=n;;
*) dflt=y;;
esac
$cat <<EOM

```

Some sites are on "hidden" networks, in the sense that the network appears to the outside world as a single machine. The advertised name of any host on this hidden network is the name of one machine on the local network which knows how to forward mail to any other host on the hidden network.

Do you wish to advertise a different hostname to the world than the one your own host (\$myhostname\$mydomain) has?

```

EOM
rp="Use "hidden" network?"
./myread
case "$ans" in
n*) d_hidnet="$undef" hidddenet="";
*)
d_hidnet="$define"
echo " "
case "$hidddenet" in
") dflt=`echo $mydomain | $sed -e 's/^\./'`;
*) dflt="$hidddenet";
esac
rp='What hostname do you wish to advertise?'
./myread
hidddenet="$ans"
;;

```



esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_hidnet.U

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?RCS:

?RCS: \$Log: alignbytes.U,v \$

?RCS: Revision 3.0.1.2 1994/10/29 16:02:28 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:

?RCS: Revision 3.0.1.1 1994/05/06 14:25:20 ram

?RCS: patch23: avoid ALIGNBYTES, since it conflicts on NetBSD

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:23 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:alignbytes: Assert Myread Trylink cat i\_inttypes i\_limits i\_math

?MAKE: -pick add \$@ %<

?S:alignbytes:

?S: This variable holds the number of bytes required  
to align an

?S: arbitrary standard type. Usual values are 2, 4 and 8.

?S:.

?X: This used to be called ALIGNBYTES, but that conflicts with

?X: <machines/param.h> in NetBSD.

?C:MEM\_ALIGNBYTES (ALIGNBYTES):

?C: This symbol contains the number of bytes required to align a

?C: double. Usual values are 2, 4 and 8.

?C:.

?H:#define MEM\_ALIGNBYTES \$alignbytes /\*\*/

?H:.

?T:alignment result

: check for alignment requirements

echo " "

case "\$alignbytes" in

")

echo "Checking alignment constraints..." >&4

```

for alignment in 8 4 2 1 16 32 error
do
 $cat >try.c <<EOCP
#$i_inttypes I_INTTYPES
#ifdef I_INTTYPES
#include <inttypes.h>
#endif
#$i_limits I_LIMITS
#ifdef I_LIMITS
#include <limits.h>
#endif
#$i_math I_MATH
#ifdef I_MATH
#include <math.h>
#endif

union u {
void *void_ptr;
void (*func_ptr)(void);
char c;
short s;
int i;
long l;
float f;
double d;
#ifdef LLONG_MAX
long long ll;
#else
#warning "LLONG_MAX undefined"
#endif
#if defined(HUGE_VALL)
long double ld;
#else
#warning
"HUGE_VALL undefined"
#endif
#ifdef UINT32_MAX
uint32_t u32;
#else
#warning "UINT32_MAX undefined"
#endif
#ifdef UINT16_MAX
uint16_t u16;
#else
#warning "UINT32_MAX undefined"
#endif
#ifdef UINT64_MAX

```

```

uint64_t u64;
#else
#warning "UINT64_MAX undefined"
#endif
#ifdef UINTMAX_MAX
uintmax_t m;
#else
#warning "UINTMAX_MAX undefined"
#endif
#ifdef UINTPTR_MAX
uintptr_t up;
#else
#warning "UINTPTR_MAX undefined"
#endif
};

struct s {
char a;
union u b;
};

#include "static_assert.h"

int
main(void)
{
 STATIC_ASSERT($alignment == ((sizeof (struct s) - (sizeof (union u)))));
 return 0;
}
EOCP

result="
set result
eval $trylink
case "$result" in
"$define") break;;
esac
done

case "$alignment" in
error) dflt='8'
echo "(I can't seem to compile the test program...)" >&4
;;
*) dflt=$alignment
;;
esac
;;
*) dflt="$alignbytes"

```

```
;;
esac
rp="What is the maximum alignment in bytes required for a standard type?"
./myread
alignbytes="$ans"
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/alignbytes.U
```

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```
?RCS: $Id: i_crypt.U,v $
```

```
?RCS:
```

```
?RCS: Copyright (c) 2002 Jarkko Hietaniemi
```

```
?RCS:
```

```
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```

```
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```

```
?RCS:
```

```
?MAKE:i_crypt: Inhdr Hasfield
```

```
?MAKE: -pick add $@ %<
```

```
?S:i_crypt:
```

```
?S: This variable conditionally defines the I_CRYPT symbol, and indicates
```

```
?S: whether a C program should include <crypt.h>.
```

```
?S:.
```

```
?C:I_CRYPT:
```

```
?C: This symbol, if defined, indicates that <crypt.h> exists and
```

```
?C: should be included.
```

```
?C:.
```

```
?H:#$i_crypt I_CRYPT /**/
```

```
?H:.
```

```
?LINT:set i_crypt
```

```
: see if this is a crypt.h system
```

```
set crypt.h i_crypt
```

```
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_crypt.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Null.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
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```

?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: Null.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:05:10 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: This unit ends up producing shell code to set all variables to ". This  
?X: probably isn't necessary, but I'm paranoid. About certain things.  
?X:  
?MAKE:Null: Head  
?MAKE: -pick add.Null \$@ %<

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Null.U

No license file was found, but licenses were detected in source scan.

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?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_atolf: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_atolf:  
?S: This variable conditionally defines the HAS\_ATOLF symbol, which  
?S: indicates to the C program that the atolf() routine is available.  
?S:  
?C:HAS\_ATOLF:  
?C: This symbol, if defined, indicates that the atolf routine is  
?C: available to convert strings into long doubles.  
?C:  
?H:#\$d\_atolf HAS\_ATOLF /\*\*/  
?H:  
?LINT:set d\_atolf  
: see if atolf exists  
set atolf d\_atolf  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/atolf.U

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?RCS: of the source tree for dist 3.0.  
?RCS:  
?MAKE:sitehtml1dir sitehtml1direxp installsitehtml1dir: Getfile \  
Setprefixvar prefix siteprefix html1dir sed  
?MAKE: -pick add \$@ %<  
?Y:TOP  
?D:sitehtml1dir="  
?S:sitehtml1dir:  
?S: This variable contains the name of the directory in which site-specific  
?S: html source pages are to be put. It is the responsibility of the  
?S: Makefile.SH to get the value of this into the proper command.  
?S: You must be prepared to do the ~name expansion yourself.  
?S: The standard distribution will put nothing in this directory.  
?S: After perl  
has been installed, users may install their own local  
?S: html pages in this directory with  
?S: MakeMaker Makefile.PL  
?S: or equivalent. See INSTALL for details.  
?S:.  
?D:sitehtml1direxp="  
?S:sitehtml1direxp:  
?S: This variable is the same as the sitehtml1dir variable, but is filename  
?S: expanded at configuration time, for convenient use in makefiles.  
?S:.  
?D:installsitehtml1dir="  
?S:installsitehtml1dir:  
?S: This variable is really the same as sitehtml1direxp, unless you are using  
?S: AFS in which case it points to the read/write location whereas  
?S: html1direxp only points to the read-only access location. For extra  
?S: portability, you should only use this variable within your makefiles.  
?S:.  
?LINT:change prefixvar  
?LINT:set installsitehtml1dir  
?LINT:set sitehtml1dir  
?LINT:set sitehtml1direxp  
: determine where add-on html pages go  
: There is no standard location, so try to copy the previously-selected  
: directory structure for the core html pages.  
case "\$sitehtml1dir" in  
")

```

dflt=`echo "$html1dir" | $sed "s#^$prefix#$siteprefix#"` ;;
*) dflt=$sitehtml1dir ;;
esac
case "$dflt" in
'| ') dflt=none ;;
esac
fn=dn+~
rp='Pathname where the site-specific html pages should be installed?'
./getfile
prefixvar=sitehtml1dir
./setprefixvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/sitehtml1dir.U

```

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?RCS:

?MAKE:d\_lgamma: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_lgamma:

?S: This variable conditionally defines the HAS\_LGAMMA symbol, which

?S: indicates to the C program that the lgamma() routine is available

?S: for the log gamma function. See also d\_tgamma and d\_lgamma\_r.

?S:.

?C:HAS\_LGAMMA:

?C: This symbol, if defined, indicates that the lgamma routine is

?C: available to do the log gamma function. See also HAS\_TGAMMA and

?C: HAS\_LGAMMA\_R.

?C:.

?H:#\$d\_lgamma HAS\_LGAMMA /\*\*/

?H:.

?LINT:set d\_lgamma

: see if lgamma exists

set lgamma d\_lgamma

eval \$inlibc

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_lgamma.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_gnulibc.U,v 3.0.1.1 1997/02/28 15:34:33 ram Exp \$

?RCS:

?RCS: Copyright (c) 1996,1998 Andy Dougherty

?RCS: Copyright (c) 1996, Sven Verdoolaege

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?RCS:

?RCS: \$Log: d\_gnulibc.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:34:33 ram

?RCS: patch61: created

?RCS:

?MAKE:d\_gnulibc gnulibc\_version: Myread Oldconfig Setvar rm\_try \  
cat Compile run

?MAKE:-pick add \$@ %<

?S:d\_gnulibc:

?S: Defined if we're dealing with the GNU C Library.

?S:.

?S:gnulibc\_version:

?S: This variable contains the version number of the GNU C library.

?S: It is  
usually something like '2.2.5'. It is a plain " if this  
?S: is not the GNU C library, or if the version is unknown.

?S:.

?C:HAS\_GNULIBC:

?C: This symbol, if defined, indicates to the C program that  
?C: the GNU C library is being used. A better check is to use  
?C: the \_\_GLIBC\_\_ and \_\_GLIBC\_MINOR\_\_ symbols supplied with glibc.

?C:.

?H:#\$d\_gnulibc HAS\_GNULIBC /\*\*/  
?H:?%<:#if defined(HAS\_GNULIBC) && !defined(\_GNU\_SOURCE)  
?H:?%<:# define \_GNU\_SOURCE  
?H:?%<:#endif

?H:.

?F:!glibc.ver !try

?LINT: set d\_gnulibc

?X: gnulibc can be executed by calling \_\_libc\_main().  
?X: Ulrich Drepper doesn't think any other libc does that,  
?X: but we check if it says 'GNU C Library' to be sure.

?X:

?X: Alas, as of 3/1998 glibc 2.0.7 reportedly isn't going to  
?X: have \_\_libc\_main() anymore. :-(. Fortunately, all released  
?X: versions of glibc 2.x.x \_do\_ have CPP variables. For 2.0.6,  
?X: they are:  
?X: #define \_\_GLIBC\_\_ 2  
?X: #define \_\_GLIBC\_MINOR\_\_ 0.  
?X: (The '6' isn't available :-(.  
?X: glibc2.1 will also



```

have
?X: extern const char * __gnu_get_libc_release(void);
?X: extern const char * __gnu_get_libc_version(void);
?X: functions. --thanks to Andreas Jaeger. --AD 6/1998.
?X: Although the exact format isn't documented, __gnu_get_libc_version()
?X: returns a simple string '2.1.3' in glibc 2.1.3.
?X:
: Check if we are using the GNU C library
echo " "
echo "Checking for GNU C Library..." >&4
cat >try.c <<'EOCP'
/* Find out version of GNU C library. __GLIBC__ and __GLIBC_MINOR__
 alone are insufficient to distinguish different versions, such as
 2.0.6 and 2.0.7. The function gnu_get_libc_version() appeared in
 libc version 2.1.0. A. Dougherty, June 3, 2002.
*/
#include <stdio.h>
int main(void)
{
#ifdef __GLIBC__
ifdef __GLIBC_MINOR__
if __GLIBC__ >= 2 && __GLIBC_MINOR__ >= 1 && !defined(__cplusplus)
include <gnu/libc-version.h>
 printf("%s\n", gnu_get_libc_version());
else
 printf("%d.%d\n", __GLIBC__, __GLIBC_MINOR__);
endif
else
 printf("%d\n", __GLIBC__);
endif
 return 0;
#else
 return 1;
#endif
}
EOCP
set try
if eval $compile_ok && $run ./try > glibc.ver; then
val="$define"
gnulibc_version=`$cat glibc.ver`
echo "You are using the GNU C Library version $gnulibc_version"
else
val="$undef"
gnulibc_version=""
echo "You are not using the GNU C Library"
fi
$rm_try glibc.ver

```

```
set d_gnulibc
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_gnulibc.U
```

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?RCS:

?MAKE:usequadmath: Setvar cat uselongdouble

?MAKE: -pick add \$@ %<

?S:usequadmath:

?S: This variable conditionally defines the USE\_QUADMATH symbol,

?S: and indicates that the quadmath library \_\_float128 long doubles

?S: should be used when available.

?S:.

?C:USE\_QUADMATH:

?C: This symbol, if defined, indicates that the quadmath library should

?C: be used when available.

?C:.

```
?H:%<:#ifndef USE_QUADMATH
```

```
?H:%<:#$usequadmath USE_QUADMATH /**/
```

```
?H:%<:#endif
```

```
?H:.
```

```
: Check if quadmath is requested
```

```
case "$usequadmath" in
```

```
"$define"|true|[yY]*) usequadmath="$define" ;;
```

```
*) usequadmath="$undef" ;;
```

```
esac
```

```
: Fail if both uselongdouble and usequadmath are requested
```

```
case "$usequadmath:$uselongdouble" in
```

```
define:define)
```

```
$cat <<EOM >&4
```

```
*** You requested the use of
```

```
the quadmath library and use
```

```
*** of long doubles.
```

```

```

```
*** Please select one or the other.
```

```
EOM
```

```
exit 1
```

```
::
```

```
esac
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/usequadmath.U

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?RCS:

?MAKE:d\_scalbn: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_scalbn:

?S: This variable conditionally defines the HAS\_SCALBN symbol, which

?S: indicates to the C program that the scalbn() routine is available.

?S:.

?C:HAS\_SCALBN:

?C: This symbol, if defined, indicates that the scalbn routine is

?C: available to multiply floating-point number by integral power

?C: of radix.

?C:.

?H:#\$d\_scalbn HAS\_SCALBN /\*\*/

?H:.

?LINT:set d\_scalbn

: see if scalbn exists

set scalbn d\_scalbn

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_scalbn.U

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: cppstdin.U,v \$

?RCS: Revision 3.0.1.4 1994/10/29 16:08:34 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:

?RCS: Revision 3.0.1.3 1994/01/24 14:05:38 ram

?RCS: patch16: comment for CPPLAST was missing

?RCS:

?RCS: Revision 3.0.1.2 1993/12/15 08:18:58 ram

?RCS: patch15: new variables cpprun and cpplast, guaranteed wrapper-free

?RCS: patch15: cppstd in now tries to use cc, even at the cost of a wrapper

?RCS:

?RCS: Revision 3.0.1.1 1993/08/25 14:00:53 ram

?RCS: patch6:

remove wrapper when not actually used

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:38 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:cppstd in cppminus cpprun cpplast: contains test Myread Oldconfig Loc \  
 cpp +cc rm hint osname gccversion startsh eunicefix

?MAKE: -pick add \$@ %<

?S:cppstd in:

?S: This variable contains the command which will invoke the C  
 ?S: preprocessor on standard input and put the output to stdout.  
 ?S: It is primarily used by other Configure units that ask about  
 ?S: preprocessor symbols.

?S:.

?S:cppminus:

?S: This variable contains the second part of the string which will invoke  
 ?S: the C preprocessor on the standard input and produce to standard  
 ?S: output. This variable will have the value "-" if cppstd in needs  
 ?S: a minus to specify standard input, otherwise the value is "".

?S:.

?S:cpprun:

?S: This variable contains the command which will invoke a C preprocessor  
 ?S: on standard input and put the output to stdout. It is guaranteed not  
 ?S: to be a wrapper  
 and may be a null string if no preprocessor can be  
 ?S: made directly available. This preprocessor might be different from the  
 ?S: one used by the C compiler. Don't forget to append cpplast after the  
 ?S: preprocessor options.

?S:.

?S:cpplast:

?S: This variable has the same functionality as cppminus, only it applies to  
 ?S: cpprun and not cppstd in.

?S:.

?C:CPPSTDIN:

?C: This symbol contains the first part of the string which will invoke  
 ?C: the C preprocessor on the standard input and produce to standard  
 ?C: output. Typical value of "cc -E" or "/lib/cpp", but it can also  
 ?C: call a wrapper. See CPPRUN.

?C:.

?C:CPPMINUS:

?C: This symbol contains the second part of the string which will invoke  
 ?C: the C preprocessor on the standard input and produce to standard  
 ?C: output. This symbol will have the value "-" if CPPSTDIN needs a minus

?C: to specify standard input, otherwise the value is "".

?C:.

?C:CPPRUN:

?C: This symbol contains the string which will invoke a C preprocessor on

?C: the

standard input and produce to standard output. It needs to end

?C: with CPPLAST, after all other preprocessor flags have been specified.

?C: The main difference with CPPSTDIN is that this program will never be a

?C: pointer to a shell wrapper, i.e. it will be empty if no preprocessor is

?C: available directly to the user. Note that it may well be different from

?C: the preprocessor used to compile the C program.

?C:.

?C:CPPLAST:

?C: This symbol is intended to be used along with CPPRUN in the same manner

?C: symbol CPPMINUS is used with CPPSTDIN. It contains either "-" or "".

?C:.

```
?H:#define CPPSTDIN "$cppstdin"
?H:#define CPPMINUS "$cppminus"
?H:#define CPPRUN "$cpprun"
?H:#define CPPLAST "$cpplast"
?H:.
```

```
?F:cppstdin !testcpp.out !testcpp.c
?T:wrapper x_cpp x_minus ok
: see how we invoke the C preprocessor
echo " "
echo "Now, how can we feed standard input to your C preprocessor..." >&4
cat <<'EOT' >testcpp.c
#define ABC abc
#define XYZ xyz
ABC.XYZ
EOT
cd ..
if $test ! -f cppstdin;
then
echo "$startsh" >cppstdin
if $test "X$osname" = "Xaix" -a "X$gccversion" = X; then
?X: AIX cc -E doesn't show the absolute headerfile
?X: locations but we'll cheat by using the -M flag.
echo 'cat >.$$.c; rm -f .$$.u; ""$cc"" ${1+"$@"} -M -c .$$.c 2>/dev/null; \
test -s .$$.u && \
awk """"$2 ~ /\.h$/ { print "# 0 \\""$2"\\""" }"""" .$$.u; \
rm -f .$$.o .$$.u; ""$cc"" -E ${1+"$@"} .$$.c; rm .$$.c' >> cppstdin
else
echo 'cat >.$$.c; ""$cc"" -E ${1+"$@"} .$$.c; rm .$$.c' >>cppstdin
fi; else
echo "Keeping your $hint cppstdin wrapper."
fi
chmod 755 cppstdin
```

```
$eunicefix cppstdin
wrapper=`pwd`/cppstdin
ok='false'
cd UU
```

?X:

?X: We'll run the cpp tests again if we don't have any valid C preprocessor

?X: yet or don't know how to proceed without a wrapper (in which case cprun

?X: is empty and that's really annoying...)

?X:

```
if $test "X$cppstdin" != "X" && \
 $cppstdin $cppminus <testcpp.c >testcpp.out 2>&1 && \
 $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1
then
 echo "You used to use
 $cppstdin $cppminus so we'll use that again."
 case "$cprun" in
 *) echo "But let's see if we can live without a wrapper..." ;;
 *)
 if $cprun $cpplast <testcpp.c >testcpp.out 2>&1 && \
 $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1
 then
 echo "(And we'll use $cprun $cpplast to preprocess directly.)"
 ok='true'
 else
 echo "(However, $cprun $cpplast does not work, let's see...)"
 fi
 ;;
esac
else
 case "$cppstdin" in
 *) ;;
 *)
 echo "Good old $cppstdin $cppminus does not seem to be of any help..."
 ;;
 esac
fi
```

if \$ok; then

: nothing

elif echo 'Maybe ""\$cc" -E" will work...'; \

\$cc -E <testcpp.c >testcpp.out 2>&1; \

\$contains 'abc.\*xyz' testcpp.out >/dev/null 2>&1 ; then

echo "Yup, it does."

x\_cpp="\$cc -E"

x\_minus="";

elif echo 'Nope...maybe ""\$cc" -E -" will work...'; \

\$cc -E - <testcpp.c >testcpp.out 2>&1; \

```

$contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
echo "Yup, it does."
x_cpp="$cc -E"
x_minus='-';
elif echo 'Nope...maybe ""$cc"'
-P" will work...'; \
$cc -P <testcpp.c >testcpp.out 2>&1; \
$contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
echo "Yipee, that works!"
x_cpp="$cc -P"
x_minus="";
elif echo 'Nope...maybe ""$cc"' -P -" will work...'; \
$cc -P - <testcpp.c >testcpp.out 2>&1; \
$contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
echo "At long last!"
x_cpp="$cc -P"
x_minus='-';
elif echo 'No such luck, maybe ""$cpp"' will work...'; \
$cpp <testcpp.c >testcpp.out 2>&1; \
$contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
echo "It works!"
x_cpp="$cpp"
x_minus="";
elif echo 'Nixed again...maybe ""$cpp' -" will work...'; \
$cpp - <testcpp.c >testcpp.out 2>&1; \
$contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
echo "Hooray, it works! I was beginning to wonder."
x_cpp="$cpp"
x_minus='-';
elif echo 'Uh-uh. Time to get fancy. Trying a wrapper...'; \
$wrapper <testcpp.c >testcpp.out 2>&1; \
$contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
x_cpp="$wrapper"
x_minus="
echo
"Eureka!"
else
dflt="
rp="No dice. I can't find a C preprocessor. Name one:"
./myread
x_cpp="$ans"
x_minus="
$x_cpp <testcpp.c >testcpp.out 2>&1
if $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 ; then
echo "OK, that will do." >&4
else
echo "Sorry, I can't get that to work. Go find one and rerun Configure." >&4
exit 1

```

fi

fi

case "\$ok" in

false)

cppstdin="\$x\_cpp"

cppminus="\$x\_minus"

cpprun="\$x\_cpp"

cpplast="\$x\_minus"

?X:

?X: If /lib/cpp is used, try using a wrapper to increase our chances to have

?X: the C compiler and our \$cppstdin agree on the same symbols... However,

?X: since cpprun is guaranteed not to be a wrapper, we must clear it if the

?X: only preprocessor we found was a wrapper, with all our luck...

?X:

set X \$x\_cpp

shift

case "\$1" in

"\$cpp")

echo "Perhaps can we force \$cc -E using a wrapper..."

if \$wrapper <testcpp.c >testcpp.out 2>&1; \

\$contains 'abc.\*xyz' testcpp.out >/dev/null 2>&1

then

echo "Yup, we can."

cppstdin="\$wrapper"

cppminus="";

else

echo

"Nope, we'll have to live without it..."

fi

::

esac

case "\$cpprun" in

"\$wrapper")

cpprun="

cpplast="

::

esac

::

esac

case "\$cppstdin" in

"\$wrapper"|"cppstdin") ;;

\*) \$rm -f \$wrapper;;

esac

\$rm -f testcpp.c testcpp.out

Found in path(s):



\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/cppstdin.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_NeWS.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
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?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_NeWS.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:05:39 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_news d\_news0 d\_newshome d\_textcan: test rm Myread Getfile  
?MAKE: -pick add \$@ %<  
?S:d\_news:  
?S: Set if running NeWS 1.1  
?S:.  
?S:d\_news0:  
?S: Set if running NeWS 1.0  
?S:.  
?S:d\_newshome:  
?S: Path to the top directory of the NeWS structure.  
?S:.  
?S:d\_textcan:  
?S: Path to where the textcan.ps stuff is...  
?S:.  
?C:HAS\_NEWS1\_1 (NEWS1\_1):  
?C: This  
symbol defined if running NeWS 1.1.  
?C:.  
?C:HAS\_NEWS1\_0 (NEWS1\_0):  
?C: This symbol defined if running NeWS 1.0.  
?C:.  
?C:TEXTCAN:  
?C: Tells path to where the textcan.ps stuff is...  
?C:.  
?H:#\$d\_news HAS\_NEWS1\_1 /\*\*/  
?H:#\$d\_news0 HAS\_NEWS1\_0 /\*\*/  
?H:#define TEXTCAN \$d\_textcan /\*\*/  
?H:.  
?INIT:: default path for NeWS  
?INIT:d\_newshome="/usr/NeWS"

```

?INIT:
: Check to see what version of NeWS is being run?
cd ..
echo " "
echo "Now for the interesting stuff... Lets see what kind of NeWS"
echo "they grow round here...."
echo " "
dflt='y'
if $test -d $d_newshome; then
 d_newshome=`(cd $d_newshome ; /bin/pwd)`
 echo "Ah...found myself a NeWS in $d_newshome..."
 dflt='y'
 rp="Is this the NeWS you want your children to grow up with?"
 . UU/myread
fi
while $test $ans = "n"; do
 dflt=$d_newshome
 fn=d
 rp="Path to NeWS you want:"
 . UU/getfile
 d_newshome=$ans

echo " "
if $test ! -d $d_newshome/lib; then
 echo "ARG! No lib directory in $d_newshome!!!"
 : heavy medicine. I wonder what the disease
 is...
 $rm -f kit*isdone
 $rm -rf UU
 : bye bye
 set -t; echo "Sorry... no NeWS is bad news..."
fi

if $test -r $d_newshome/lib/NeWS/colors.ps ; then
 echo 'Ahh... your running NeWS 1.1! Boy... that makes stuff easy....'
 echo " "
 d_news="$define"
 d_news0="$undef"
 if $test -r $d_newshome/lib/NeWS/textcan.ps; then
 d_textcan=$d_newshome/lib/NeWS
 echo "The textcan.ps stuff seems to be in : $d_textcan"
 else
 d_textcan=$d_newshome/clientsrc/client/nterm
 if $test ! -r $d_textcan/textcan.ps; then
 d_news="$undef"
 d_news0="$define"
 echo 'Hmm... must have been fooled... gotta be NeWS 1.1 beta!'
 else

```

```

 echo "The textcan.ps stuff seems to be in : $d_textcan"
 fi
fi
else
echo 'snif... sniff... I smell the dilapidated smell of NeWS 1.0..'
echo 'Some things will not work under NeWS 1.0...'
d_news="$undef"
d_news0="$define"
fi
cd UU

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_NeWS.U
```

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```

?RCS: $Id: d_nice.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_nice.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:09:48 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_nice: Inlibc
?MAKE: -pick add $@ %<
?S:d_nice:
?S: This variable conditionally defines the HAS_NICE symbol, which
?S: indicates to the C program that the nice() routine is available.
?S:.
?C:HAS_NICE :
?C: This symbol, if defined, indicates that the nice routine is
?C: available.
?C:.
?H:#$d_nice
HAS_NICE /**/
?H:.
?LINT:set d_nice
: see if nice exists
set nice d_nice

```

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_nice.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_fcntl.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_fcntl.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:01 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_fcntl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fcntl:

?S: This variable conditionally defines the HAS\_FCNTL symbol, and indicates

?S: whether the fcntl() function exists

?S:.

?C:HAS\_FCNTL:

?C: This symbol, if defined, indicates to the C program that

?C: the fcntl() function exists.

?C:.

?H:#\$d\_fcntl HAS\_FCNTL /\*\*/

?H:.

?LINT:set d\_fcntl

:

see if this is an fcntl system

set fcntl d\_fcntl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_fcntl.U

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?RCS: \$Id\$

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?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_strtouq: Inlibc cat Compile run

?MAKE: -pick add \$@ %<

?S:d\_strtouq:

?S: This variable conditionally defines the HAS\_STRTOUQ symbol, which

?S: indicates to the C program that the strtouq() routine is available.

?S:.

?C:HAS\_STRTOUQ:

?C: This symbol, if defined, indicates that the strtouq routine is

?C: available to convert strings to unsigned long longs (quads).

?C:.

?H:#\$d\_strtouq HAS\_STRTOUQ /\*\*/

?H:.

?F:!try

: see if strtouq exists

set strtouq d\_strtouq

eval \$inlibc

case "\$d\_strtouq" in

"\$define")

\$cat <<EOM

Checking whether your strtouq() works okay...

EOM

\$cat >try.c <<'EOCP'

#include <errno.h>

#include <stdio.h>

extern unsigned long long int strtouq(char \*s, char \*\*, int);

static int bad

= 0;

void check(char \*s, unsigned long long eull, int een) {

unsigned long long gull;

errno = 0;

gull = strtouq(s, 0, 10);

if (!(gull == eull) && (errno == een))

bad++;

}

int main() {

check(" 1", 1LL, 0);

check(" 0", 0LL, 0);

check("18446744073709551615", 18446744073709551615ULL, 0);

check("18446744073709551616", 18446744073709551615ULL, ERANGE);

#if 0 /\* strtouq() for /^-/ strings is undefined. \*/

check("-1", 18446744073709551615ULL, 0);

check("-18446744073709551614", 2LL, 0);

check("-18446744073709551615", 1LL, 0);

check("-18446744073709551616", 18446744073709551615ULL, ERANGE);

```

check("-18446744073709551617", 18446744073709551615ULL, ERANGE);
#endif
if (!bad)
 printf("ok\n");
return 0;
}
EOCP
set try
if eval $compile; then
 case "`$run ./try`" in
 ok) echo "Your strtouq() seems to be working okay." ;;
 *) cat <<EOM >&4
Your
strtouq() doesn't seem to be working okay.
EOM
 d_strtouq="$undef"
 ;;
 esac
else
 echo "(I can't seem to compile the test program--assuming it doesn't)"
 d_strtouq="$undef"
fi
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_strtouq.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: i_malloc.U,v 3.1 2003/01/21 18:51:51 merijn Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
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?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: i_malloc.U,v $
?RCS: Revision 3.1 2003/01/21 18:51:51 merijn
?RCS: Moved to modified: lhdr replaced with Compile
?RCS:
?RCS: $Log: i_malloc.U,v $
?RCS: Revision 3.0 1993/08/18 12:08:21 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:

```

?MAKE:i\_malloc: cat rm\_try Compile Setvar i\_mallocmalloc  
?MAKE: -pick add \$@ %<  
?S:i\_malloc:  
?S: This variable conditionally defines the I\_MALLOC symbol, and indicates  
?S: whether a C program should include <malloc.h>.

?S:.

?C:I\_MALLOC:

?C: This  
symbol, if defined, indicates to the C program that it should

?C: include <malloc.h>.

?C:.

?H:#\$i\_malloc I\_MALLOC /\*\*/

?H:.

?LINT:set i\_malloc

: see if this is a malloc.h system

: we want a real compile instead of Inhdr because some systems have a

: malloc.h that just gives a compile error saying to use stdlib.h instead

echo " "

\$cat >try.c <<EOCP

#include <stdlib.h>

#include <malloc.h>

#\$i\_mallocmalloc I\_MALLOCMALLOC

#ifdef I\_MALLOCMALLOC

# include <malloc/malloc.h>

#endif

int main () { return 0; }

EOCP

set try

if eval \$compile; then

echo "<malloc.h> found." >&4

val="\$define"

else

echo "<malloc.h> NOT found." >&4

val="\$undef"

fi

\$rm\_try

set i\_malloc

eval \$setvar

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i\_malloc.U

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?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, 2012 Raphael Manfredi

```

?RCS:
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?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?MAKE:intsize longsize shortsize: Assert Myread cat rm_try +cc +ccflags echo n c
?MAKE: -pick add $@ %<
?S:intsize:
?S: This variable contains the value of the INTSIZE symbol, which
?S: indicates to the C program how many bytes there are in an int.
?S:.
?S:longsize:
?S: This variable contains the value of the LONGSIZE symbol, which
?S: indicates to the C program how many bytes there are in a long.
?S:.
?S:shortsize:
?S: This variable contains the value of the SHORTSIZE symbol which
?S: indicates to the
C program how many bytes there are in a short.
?S:.
?C:INTSIZE:
?C: This symbol contains the value of sizeof(int) so that the C
?C: preprocessor can make decisions based on it.
?C:.
?C:LONGSIZE:
?C: This symbol contains the value of sizeof(long) so that the C
?C: preprocessor can make decisions based on it.
?C:.
?C:SHORTSIZE:
?C: This symbol contains the value of sizeof(short) so that the C
?C: preprocessor can make decisions based on it.
?C:.
?H:#define INTSIZE $intsize
?H:#define LONGSIZE $longsize
?H:#define SHORTSIZE $shortsize
?H:.
?T:types t size var
?LINT: set shortsize intsize longsize
: check for lengths of integral types
echo " "
types="
@if SHORTSIZE || shortsize
types="$types short"
@end
@if INTSIZE || intsize
types="$types int"

```



```

@end
@if LONGSIZE || longsize
types="$types long"
@end
for t in $types; do
 $echo $n "Checking to see how big your ${t}s are...$c" >&4
 for size in 2 4 8 16 error; do
 $cat >try.c <<EOCP
#include "static_assert.h"
$t foo;
int main()
{
 STATIC_ASSERT($size
 == sizeof(foo));
 return 0;
}
EOCP
 if $cc -c $ccflags try.c >/dev/null 2>&1; then break; fi
 done
 var=${t}size
 case "$size" in
 error)
 echo " cannot compute it." >&4
 case $t in
 short) dflt=2;;
 int) dflt=4;;
 long) dflt=4;;
 esac
 rp="What is the size of the \"${t}\" type (in bytes)?"
 ./myread
 eval $var="$ans"
 ;;
 *)
 echo " $size bytes." >&4
 eval $var=$size
 ;;
 esac
done
$rm_try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/intsize.U

```

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?RCS: \$Id: i\_varhdr.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: i\_varhdr.U,v \$  
?RCS: Revision 3.0.1.3 1997/02/28 15:54:42 ram  
?RCS: patch61: varargs script now starts with leading "startsh"  
?RCS:  
?RCS: Revision 3.0.1.2 1994/10/29 16:21:02 ram  
?RCS: patch36: added ?F: line for metalint file checking  
?RCS:  
?RCS: Revision 3.0.1.1 1994/05/13 15:26:05 ram  
?RCS: patch27: this unit now supersedes old i\_stdarg.U and i\_varargs.U  
?RCS: patch27: modified to avoid spurious Whoa warnings (ADO)  
?RCS:  
?RCS: Revision 3.0  
1993/08/18 12:08:49 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:i\_stdarg i\_varargs i\_varhdr: cat +cc +ccflags rm test Setvar \  
Findhdr startsh \_o  
?MAKE: -pick add \$@ %<  
?S:i\_stdarg:  
?S: This variable conditionally defines the I\_STDARG symbol, which  
?S: indicates to the C program that <stdarg.h> exists and should  
?S: be included.  
?S:.  
?S:i\_varargs:  
?S: This variable conditionally defines I\_VARARGS, which indicates  
?S: to the C program that it should include <varargs.h>.  
?S:.  
?S:i\_varhdr:  
?S: Contains the name of the header to be included to get va\_dcl definition.  
?S: Typically one of varargs.h or stdarg.h.  
?S:.  
?C:I\_STDARG:  
?C: This symbol, if defined, indicates that <stdarg.h> exists and should  
?C: be included.  
?C:.  
?C:I\_VARARGS:  
?C: This symbol, if defined, indicates to the C program that it should  
?C: include <varargs.h>.  
?C:.  
?H:#\$i\_stdarg I\_STDARG /\*\*/  
?H:#\$i\_varargs I\_VARARGS /\*\*/

?H:

?W:%<:va\_dcl

?F:!varargs

?T:valstd

?LINT:set i\_stdarg i\_varargs

?X:

?X:

Don't use setvar because the varargs test below might override these.

?X: Actually, the messages here are just informative. We don't wish to set

?X: i\_varargs or i\_stdarg to their final value before knowing which of the

?X: two we'll include.

?X:

: see if stdarg is available

echo " "

if \$test `./findhdr stdarg.h`; then

echo "<stdarg.h> found." >&4

valstd="\$define"

else

echo "<stdarg.h> NOT found." >&4

valstd="\$undef"

fi

: see if varargs is available

echo " "

if \$test `./findhdr varargs.h`; then

echo "<varargs.h> found." >&4

else

echo "<varargs.h> NOT found, but that's ok (I hope)." >&4

fi

?X:

?X: if you have stdarg.h, you need to support prototypes to actually use it;

?X: but if stdarg.h exists and the compiler doesn't support prototypes (for some

?X: bizarre reason), we'll fall back to varargs.h anyway so it's not so bad.

?X:

: set up the varargs testing programs

\$cat > varargs.c <<EOP

#ifdef I\_STDARG

#include <stdarg.h>

#endif

#ifdef I\_VARARGS

#include <varargs.h>

#endif

#ifdef

I\_STDARG

int f(char \*p, ...)

#else

```

int f(va_alist)
va_dcl
#endif
{
va_list ap;
#ifndef I_STDARG
char *p;
#endif
#ifdef I_STDARG
va_start(ap,p);
#else
va_start(ap);
p = va_arg(ap, char *);
#endif
va_end(ap);
return 0;
}
EOP
$cat > varargs <<EOP
$startsh
if $cc -c $ccflags -D\${1} varargs.c >/dev/null 2>&1; then
echo "true"
else
echo "false"
fi
$rm -f varargs$_o
EOP
chmod +x varargs

```

: now check which varargs header should be included

```

echo " "
i_varhdr="
val="
case "$valstd" in
"$define")
if `./varargs I_STDARG`; then
val='stdarg.h'
elif `./varargs I_VARARGS`; then
val='varargs.h'
fi
;;
*)
if `./varargs I_VARARGS`; then
val='varargs.h'
fi
;;
esac
case "$val" in

```

```

")
echo " "
echo "*** WHOA THERE!!! ***" >&4
echo " Your C compiler \"\$cc\" doesn't seem to support stdarg or varargs!" >&4
case "$knowitall" in
")
echo " I'm giving up; maybe you can try again with a different compiler?" >&4
exit 1
;;
esac
echo "I could not find the definition for va_dcl...
You have problems..." >&4
val="$undef"; set i_stdarg; eval $setvar
val="$undef"; set i_varargs; eval $setvar
;;
*)
set i_varhdr
eval $setvar
case "$i_varhdr" in
stdarg.h)
val="$define"; set i_stdarg; eval $setvar
val="$undef"; set i_varargs; eval $setvar
;;
varargs.h)
val="$undef"; set i_stdarg; eval $setvar
val="$define"; set i_varargs; eval $setvar
;;
esac
echo "We'll include <$i_varhdr> to get va_dcl definition." >&4;;
esac
$rm -f varargs*

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i_varhdr.U
```

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```
?RCS: $Id: d_setpgid.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_setpgid.U,v $
```

?RCS: Revision 3.0.1.2 1997/02/28 15:41:49 ram  
?RCS: patch61: reworded symbol comments  
?RCS:  
?RCS: Revision 3.0.1.1 1994/01/24 14:06:40 ram  
?RCS: patch16: created  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:05:56 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_setpgid: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_setpgid:  
?S: This variable conditionally defines the HAS\_SETPGID symbol if the  
?S: setpgid(pid, gpid) function is  
available to set process group ID.  
?S:.  
?C:HAS\_SETPGID:  
?C: This symbol, if defined, indicates that the setpgid(pid, gpid)  
?C: routine is available to set process group ID.  
?C:.  
?H:#\$d\_setpgid HAS\_SETPGID /\*\*/  
?H:.  
?LINT:set d\_setpgid  
: see if setpgid exists  
set setpgid d\_setpgid  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_setpgid.U

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\* Feel free to modify any of this as the need arises.&nbsp;&nbsp; Note, however,

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/metaconfig.html

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?RCS: \$Id: Tr.U,v 3.0.1.2 1994/10/29 18:00:54 ram Exp \$

?RCS:

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?RCS: of the source tree for dist 3.0.

```

?RCS:
?RCS: $Log: Tr.U,v $
?RCS: Revision 3.0.1.2 1994/10/29 18:00:54 ram
?RCS: patch43: forgot to quote $@ to protect against "evil" characters
?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 15:58:35 ram
?RCS: patch36: created
?RCS:
?X:
?X: This unit produces a bit of shell code that must be dotted in in order
?X: to do a character translation. It catches translations to uppercase or
?X: to lowercase, and then invokes the real tr to perform the job.
?X:
?X: This unit is necessary
 on HP machines (HP strikes again!) with non-ascii
?X: ROMAN8-charset, where normal letters are not arranged in a row, so a-z
?X: covers not the whole alphabet but lots of special chars. This was reported
?X: by Andreas Sahlbach <a.sahlbach@tu-bs.de>.
?X:
?X: Units performing a tr '[A-Z]' '[a-z]' or the other way round should include
?X: us in their dependency and use ./tr instead.
?X:
?MAKE:Tr: startsh tr eunicefix
?MAKE: -pick add $@ %<
?F:./tr
?T:up low
: see whether [:lower:] and [:upper:] are supported character classes
echo " "
case "`echo AbyZ | $tr '[:lower:]' '[:upper:]' 2>/dev/null`"-`echo AbyZ | $tr '[:upper:]' '[:lower:]' 2>/dev/null`" in
ABYZ-abyz)
echo "Good, your tr supports [:lower:] and [:upper:] to convert case." >&4
up='[:upper:]'
low='[:lower:]'
;;
*) # There is a discontinuity in EBCDIC between 'R' and 'S'
(0xd9 and 0xe2), therefore that is a nice testing point.
if test "X$up" = X -o "X$low" = X; then
 case "`echo RS | $tr '[R-S]' '[r-s]' 2>/dev/null`"
in
 rs) up='[A-Z]'
 low='[a-z]'
 ;;
 esac
fi
if test "X$up" = X -o "X$low" = X; then
 case "`echo RS | $tr R-S r-s 2>/dev/null`" in
 rs) up='A-Z'
 low='a-z'

```

```

;;
 esac
fi
if test "X$Sup" = X -o "X$low" = X; then
 case "`echo RS | od -x 2>/dev/null`" in
 D9E2|*d9e2*)
 echo "Hey, this might be EBCDIC." >&4
 if test "X$Sup" = X -o "X$low" = X; then
 case "`echo RS | $tr '[A-IJ-RS-Z]' '[a-ij-rs-z]' 2>/dev/null`" in
 rs) up='[A-IJ-RS-Z]'
 low='[a-ij-rs-z]'
 ;;
 esac
 fi
 if test "X$Sup" = X -o "X$low" = X; then
 case "`echo RS | $tr A-IJ-RS-Z a-ij-rs-z 2>/dev/null`" in
 rs) up='A-IJ-RS-Z'
 low='a-ij-rs-z'
 ;;
 esac
 fi
 ;;
 esac
fi
esac
case "`echo RS | $tr \"\$up\" \"\$low\" 2>/dev/null`" in
rs)
 echo "Using $up and $low to convert case." >&4
 ;;
*)
 echo "I don't know how to translate letters from upper to lower case." >&4
 echo "Your tr is not acting any way I know of." >&4
 exit 1
 ;;
esac
:
set up the translation script tr, must be called with ./tr of course
cat >tr <<EOSC
$startsh
case "\$1\$2" in
[A-Z][a-z]) exec $tr '$up' '$low';;
[a-z][A-Z]) exec $tr '$low' '$up';;
esac
exec $tr "\$@"
EOSC
chmod +x tr
$unicefix tr

```



Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Tr.U
```

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```
?RCS: $Id: mailfile.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: mailfile.U,v $
?RCS: Revision 3.0.1.2 1994/10/29 16:24:57 ram
?RCS: patch36: the Loc unit was missing from the dependency line
?RCS:
?RCS: Revision 3.0.1.1 1993/12/15 08:22:08 ram
?RCS: patch15: now also looks under /var/mail for BSD/386
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:11 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:mailfile: Myread Oldconfig Filexp Loc
?MAKE: -pick add $@ %<
?S:mailfile:
?S: This variable contains
the eventual value of the MAILFILE symbol,
?S: which contains an interpretable name of the mail spool file for the
?S: current user.
?S:.
?C:MAILFILE:
?C: This symbol contains the interpretable name of the mail spool file
?C: for the current user. The program must be prepared to substitute
?C: the HOME directory for %~, and the login id for %L.
?C:.
?H:#define MAILFILE "$mailfile" /**/
?H:.
: determine where mail is spooled
case "$mailfile" in
")
dflt=`./loc . XXX /usr/spool/mail /usr/mail /var/mail`
case "$dflt" in
XXX) dflt=%~/mailbox';;
*) dflt="$dflt/%L";;
esac
```

```
;;
*) dflt="$mailfile"
;;
esac
cat <<'EOM'
```

In the following question, you may use %~ to represent the user's home directory, and %L to represent a users name.

```
EOM
rp='In which file is yet-to-be-read mail spooled? (~name ok)'
. ./myread
mailfile=`./filexp "$ans"`
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/mailfile.U
```

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```
?RCS: $Id: i_sysfile.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
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?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: i_sysfile.U,v $
?RCS: Revision 3.0.1.2 1995/07/25 14:11:36 ram
?RCS: patch56: removed <> characters from comment, per metalint suggestion
?RCS:
?RCS: Revision 3.0.1.1 1993/08/25 14:01:23 ram
?RCS: patch6: added default for i_sysfile
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:31 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:i_sysfile: h_sysfile Inhdr Setvar
?MAKE: -pick add $@ %<
?S:i_sysfile:
?S: This variable conditionally defines
the I_SYS_FILE symbol, and indicates
?S: whether a C program should include <sys/file.h> to get R_OK and friends.
?S:.
?C:I_SYS_FILE (I_SYSFILE):
?C: This symbol, if defined, indicates to the C program that it should
```

?C: include <sys/file.h> to get definition of R\_OK and friends.

?C:.

?H:#\$i\_sysfile I\_SYS\_FILE /\*\*/

?H:.

?T:val

?D:i\_sysfile="

?LINT:change h\_sysfile

?LINT:set i\_sysfile

: see if this is a sys/file.h system

val="

set sys/file.h val

eval \$inhdr

: do we need to include sys/file.h ?

case "\$val" in

"\$define")

echo " "

if \$h\_sysfile; then

val="\$define"

echo "We'll be including <sys/file.h>." >&4

else

val="\$undef"

echo "We won't be including <sys/file.h>." >&4

fi

::

\*)

h\_sysfile=false

::

esac

set i\_sysfile

eval \$setvar

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_sysfile.U

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?RCS:

?MAKE:d\_siginfo\_si\_errno d\_siginfo\_si\_pid d\_siginfo\_si\_uid d\_siginfo\_si\_addr d\_siginfo\_si\_status

d\_siginfo\_si\_band d\_siginfo\_si\_value d\_siginfo\_si\_fd: d\_sigaction pidtype uidtype Hasfield\_t

?MAKE: -pick add \$@ %<

?S:d\_siginfo\_si\_errno:

?S: This variable conditionally defines the HAS\_SIGINFO\_SI\_ERRNO symbol,

?S: which indicates that the siginfo\_t struct has the si\_errno member.

?S:.

?S:d\_siginfo\_si\_pid:

?S: This variable conditionally defines the HAS\_SIGINFO\_SI\_PID symbol,

?S: which indicates that the siginfo\_t struct has the si\_pid member.

?S:.

?S:d\_siginfo\_si\_uid:

?S: This variable conditionally defines the HAS\_SIGINFO\_SI\_UID symbol,

?S: which indicates that the siginfo\_t struct has the si\_uid member.

?S:.

?S:d\_siginfo\_si\_addr:

?S: This

variable conditionally defines the HAS\_SIGINFO\_SI\_ADDR symbol,

?S: which indicates that the siginfo\_t struct has the si\_addr member.

?S:.

?S:d\_siginfo\_si\_status:

?S: This variable conditionally defines the HAS\_SIGINFO\_SI\_STATUS symbol,

?S: which indicates that the siginfo\_t struct has the si\_status member.

?S:.

?S:d\_siginfo\_si\_band:

?S: This variable conditionally defines the HAS\_SIGINFO\_SI\_BAND symbol,

?S: which indicates that the siginfo\_t struct has the si\_band member.

?S:.

?S:d\_siginfo\_si\_value:

?S: This variable conditionally defines the HAS\_SIGINFO\_SI\_VALUE symbol,

?S: which indicates that the siginfo\_t struct has the si\_value member.

?S:.

?S:d\_siginfo\_si\_fd:

?S: This variable conditionally defines the HAS\_SIGINFO\_SI\_FD symbol,

?S: which indicates that the siginfo\_t struct has the si\_fd member.

?S:.

?C:HAS\_SIGINFO\_SI\_ERRNO:

?C: This symbol, if defined, indicates that siginfo\_t has the

?C: si\_errno member

?C:.

?C:HAS\_SIGINFO\_SI\_PID:

?C: This

symbol, if defined, indicates that siginfo\_t has the

?C: si\_pid member

?C:.

?C:HAS\_SIGINFO\_SI\_UID:

?C: This symbol, if defined, indicates that siginfo\_t has the

?C: si\_uid member

?C:.

?C:HAS\_SIGINFO\_SI\_ADDR:

?C: This symbol, if defined, indicates that siginfo\_t has the

?C: si\_addr member

?C:.

?C:HAS\_SIGINFO\_SI\_STATUS:

?C: This symbol, if defined, indicates that siginfo\_t has the

?C: si\_status member

?C:.

?C:HAS\_SIGINFO\_SI\_BAND:

?C: This symbol, if defined, indicates that siginfo\_t has the

?C: si\_band member

?C:.

?C:HAS\_SIGINFO\_SI\_VALUE:

?C: This symbol, if defined, indicates that siginfo\_t has the

?C: si\_value member

?C:.

?C:HAS\_SIGINFO\_SI\_FD:

?C: This symbol, if defined, indicates that siginfo\_t has the

?C: si\_fd member

?C:.

?H:#\$d\_siginfo\_si\_errno HAS\_SIGINFO\_SI\_ERRNO /\*\*/

?H:#\$d\_siginfo\_si\_pid HAS\_SIGINFO\_SI\_PID /\*\*/

?H:#\$d\_siginfo\_si\_uid HAS\_SIGINFO\_SI\_UID /\*\*/

?H:#\$d\_siginfo\_si\_addr HAS\_SIGINFO\_SI\_ADDR /\*\*/

?H:#\$d\_siginfo\_si\_status HAS\_SIGINFO\_SI\_STATUS /\*\*/

?H:#\$d\_siginfo\_si\_band HAS\_SIGINFO\_SI\_BAND /\*\*/

?H:#\$d\_siginfo\_si\_value HAS\_SIGINFO\_SI\_VALUE /\*\*/

?H:#\$d\_siginfo\_si\_fd HAS\_SIGINFO\_SI\_FD /\*\*/

?H:.

:

see what siginfo fields we have

case "\$d\_sigaction" in

"\$define")

echo "Checking if your siginfo\_t has si\_errno field...">&4

set d\_siginfo\_si\_errno siginfo\_t int si\_errno \$d\_sigaction signal.h

eval \$hasfield\_t;

echo "Checking if your siginfo\_t has si\_pid field...">&4

set d\_siginfo\_si\_pid siginfo\_t \$pidtype si\_pid \$d\_sigaction signal.h

eval \$hasfield\_t;

echo "Checking if your siginfo\_t has si\_uid field...">&4

set d\_siginfo\_si\_uid siginfo\_t \$uidtype si\_uid \$d\_sigaction signal.h

eval \$hasfield\_t;

echo "Checking if your siginfo\_t has si\_addr field...">&4

set d\_siginfo\_si\_addr siginfo\_t "void \*" si\_addr \$d\_sigaction signal.h

eval \$hasfield\_t;

echo "Checking if your siginfo\_t has si\_status field...">&4

set d\_siginfo\_si\_status siginfo\_t int si\_status \$d\_sigaction signal.h

eval \$hasfield\_t;

```

echo "Checking if your siginfo_t has si_band field...">&4
set
d_siginfo_si_band siginfo_t long si_band $d_sigaction signal.h
eval $hasfield_t;

echo "Checking if your siginfo_t has si_value field...">&4
set d_siginfo_si_value siginfo_t "union sigval" si_value $d_sigaction signal.h
eval $hasfield_t;

echo "Checking if your siginfo_t has si_fd field...">&4
set d_siginfo_si_fd siginfo_t int si_fd $d_sigaction signal.h
eval $hasfield_t;

;;
*)
d_siginfo_si_errno="$undef"
d_siginfo_si_pid="$undef"
d_siginfo_si_uid="$undef"
d_siginfo_si_addr="$undef"
d_siginfo_si_status="$undef"
d_siginfo_si_band="$undef"
d_siginfo_si_value="$undef"
d_siginfo_si_fd="$undef"
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_siginfo_si.U

```

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?RCS:

?MAKE:d\_openat d\_unlinkat d\_renameat d\_linkat d\_fchmodat: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fchmodat:

?S: This variable conditionally defines the HAS\_FCHMODAT symbol, which

?S: indicates the POSIX fchmodat() function is available.

?S:.

?S:d\_linkat:

?S: This variable conditionally defines the HAS\_LINKAT symbol, which

?S: indicates the POSIX linkat() function is available.

?S:.

?S:d\_openat:

?S: This variable conditionally defines the HAS\_OPENAT symbol, which

?S: indicates the POSIX openat() function is available.

?S:.

?S:d\_renameat:

?S: This variable conditionally defines the HAS\_RENAMEAT symbol, which

?S: indicates the POSIX renameat() function is available.

?S:.

?S:d\_unlinkat:

?S: This variable conditionally defines the HAS\_UNLINKAT symbol, which

?S: indicates the POSIX unlinkat() function is available.

?S:.

?C:HAS\_FCHMODAT:

?C: This symbol is defined if the fchmodat() routine is available.

?C:.

?C:HAS\_LINKAT:

?C: This symbol is defined if the linkat() routine is available.

?C:.

?C:HAS\_OPENAT:

?C: This symbol is defined if the openat() routine is available.

?C:.

?C:HAS\_RENAMEAT:

?C: This symbol is defined if the renameat() routine is available.

?C:.

?C:HAS\_UNLINKAT:

?C: This symbol is defined if the unlinkat() routine is available.

?C:.

?H:#\$d\_fchmodat HAS\_FCHMODAT /\*\*/  
 ?H:#\$d\_linkat HAS\_LINKAT /\*\*/  
 ?H:#\$d\_openat HAS\_OPENAT /\*\*/  
 ?H:#\$d\_renameat HAS\_RENAMEAT /\*\*/  
 ?H:#\$d\_unlinkat HAS\_UNLINKAT /\*\*/  
 ?H:.

?LINT:set d\_openat d\_unlinkat d\_renameat d\_linkat d\_fchmodat  
 : check for openat, unlinkat, renameat, linkat, fchmodat  
 set openat d\_openat  
 eval \$inlibc

set unlinkat d\_unlinkat  
 eval \$inlibc

set renameat d\_renameat  
 eval \$inlibc

set linkat d\_linkat  
 eval \$inlibc

set fchmodat d\_fchmodat  
 eval

\$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fsat.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_sysuio.U,v \$

?RCS:

?RCS: Copyright (c) 1998 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:i\_sysuio: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_sysuio:

?S: This variable conditionally defines the I\_SYSUIO symbol, and indicates

?S: whether a C program should include <sys/uio.h>.

?S:.

?C:I\_SYSUIO:

?C: This symbol, if defined, indicates that <sys/uio.h> exists and

?C: should be included.

?C:.

?H:#\$i\_sysuio I\_SYSUIO /\*\*/

?H:.

?LINT:set i\_sysuio

: see if this is a sys/uio.h system

set sys/uio.h i\_sysuio

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i\_sysuio.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: pager.U,v \$

?RCS: Revision 3.0.1.2 1995/01/30 14:41:26 ram



?RCS: patch49: ensure dflt gets initialized in case no pagers are found (WED)

?RCS:

?RCS: Revision 3.0.1.1 1994/10/29 16:27:45 ram

?RCS: patch36: replaced Myread by Getfile in the dependency line

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:30 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:pager: pg more less Getfile Oldconfig

?MAKE: -pick add \$@ %<

?S:pager:

?S: This variable contains the name of the preferred pager  
on the system.

?S: Usual values are (the full pathnames of) more, less, pg, or cat.

?S:.

: locate the preferred pager for this system

fn=f/

case "\$pager" in

")

dflt="

case "\$pg" in

/\*) dflt=\$pg;;

[a-zA-Z]:/\*) dflt=\$pg;;

esac

case "\$more" in

/\*) dflt=\$more;;

[a-zA-Z]:/\*) dflt=\$more;;

esac

case "\$less" in

/\*) dflt=\$less;;

[a-zA-Z]:/\*) dflt=\$less;;

esac

case "\$dflt" in

") dflt=/usr/ucb/more;;

esac

::

\*) dflt="\$pager"

::

esac

?X: Instruct ./getfile to trust the default pager value,

?X: even if it does not begin with a slash. For example, on os2,

?X: pager might be cmd /c more. Also, it might include some options,

?X: such as '/usr/bin/less -R'. ./getfile would report that

?X: "/usr/bin/less -R" doesn't exist.

?X: See comments in Getfile.U.

fn="f/(\$dflt)"

echo " "

rp='What pager is used on your system?'

```
./getfile
pager="$ans"
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/pager.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Getfile.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: Getfile.U,v $
```

```
?RCS: Revision 3.0.1.7 1997/02/28 15:01:06 ram
```

```
?RCS: patch61: getfile script now begins with "startsh"
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.6 1995/02/15 14:11:00 ram
```

```
?RCS: patch51: was not working if ~'s allowed with d_portable on (WED)
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.5 1995/01/11 15:11:25 ram
```

```
?RCS: patch45: added support for escaping answers to skip various checks
```

```
?RCS: patch45: modified message issued after file expansion
```

```
?RCS:
```

```
?RCS: Revision
```

```
3.0.1.4 1994/10/29 15:53:19 ram
```

```
?RCS: patch36: added ?F: line for metalint file checking
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.3 1994/05/06 14:23:36 ram
```

```
?RCS: patch23: getfile could be confused by file name in "locate" requests
```

```
?RCS: patch23: new 'p' directive to assume file is in people's path (WED)
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.2 1994/01/24 14:01:31 ram
```

```
?RCS: patch16: added metalint hint on changed 'ans' variable
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.1 1993/09/13 15:46:27 ram
```

```
?RCS: patch10: minor format problems and misspellings fixed
```

```
?RCS: patch10: now performs from package dir and not from UU subdir
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:04:56 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?X:
```

?X: This unit produces a bit of shell code that must be dotted in in order  
 ?X: to get a file name and make some sanity checks. Optionally, a ~name  
 ?X: expansion is performed.  
 ?X:  
 ?X: To use this unit, \$rp and \$dflt must hold the question and the  
 ?X: default answer, which will be passed as-is  
 to the myread script.  
 ?X: The \$fn variable must hold the file type (f or d, for file/directory).  
 ?X: If \$gfpth is set to a list of space-separated list of directories,  
 ?X: those are prefixes for the filename. Unless \$gfpthkeep is set to 'y',  
 ?X: gfpth is cleared on return from Getfile.  
 ?X:  
 ?X: If is is followed by a ~, then ~name substitution will occur. Upon return,  
 ?X: \$ans is set with the filename value. If a / is specified, then only a full  
 ?X: path name is accepted (but ~ substitution occurs before, if needed). The  
 ?X: expanded path name is returned in that case.  
 ?X:  
 ?X: If a + is specified, the existence checks are skipped. This usually means  
 ?X: the file/directory is under the full control of the program.  
 ?X:  
 ?X: If the 'n' (none) type is used, then the user may answer none.  
 ?X: The 'e' (expand) switch may be used to bypass d\_portable, expanding ~name.  
 ?X:  
 ?X: If the 'l' (locate) type is used, then it must end with a ':' and then a  
 ?X: file name. If the answer is a directory,  
 the file name will be appended  
 ?X: before testing for file existence. This is useful in locate-style  
 ?X: questions like "where is the active file?". In that case, one should  
 ?X: use:  
 ?X:  
 ?X: dflt='~news/lib'  
 ?X: fn='l~:active'  
 ?X: rp='Where is the active file?'  
 ?X: ./getfile  
 ?X: active="\$ans"  
 ?X:  
 ?X: If the 'p' (path) letter is specified along with 'l', then an answer  
 ?X: without a leading / will be expected to be found in everyone's path.  
 ?X:  
 ?X: It is also possible to include a comma-separated list of items within  
 ?X: parentheses to specify which items should be accepted as-is with no  
 ?X: further checks. This is useful when for instance a full path is expected  
 ?X: but the user may escape out via "magical" answers.  
 ?X:  
 ?X: If the answer to the question is 'none', then the existence checks are  
 ?X: skipped and the empty string is returned.  
 ?X:  
 ?MAKE: Getfile: d\_portable contains startsh Myread Filexp tr trnl

```

?MAKE: -pick add $@ %<
?V:ansexp:fn gfpth gfpthkeep
?F:./getfile
?T:tilde
type what orig_rp orig_dflt fullpath already redo skip none_ok \
value exp_file nopath_ok loc_file fp pf dir direxp
?LINT:change ans
?LINT:change gfpth
: now set up to get a file name
cat <<EOS >getfile
$startsh
EOS
cat <<'EOSC' >>getfile
tilde=""
fullpath=""
already=""
skip=""
none_ok=""
exp_file=""
nopath_ok=""
orig_rp="$rp"
orig_dflt="$dflt"
case "$gfpth" in
") gfpth='.' ;;
esac

```

?X: Begin by stripping out any (...) grouping.

```

case "$fn" in
\()
: getfile will accept an answer from the comma-separated list
: enclosed in parentheses even if it does not meet other criteria.
expr "$fn" : '.*(\(.*\)).*' | $tr ' ' $trnl >getfile.ok
fn=`echo $fn | sed 's/(.*)/^'`
;;
esac

```

?X: Catch up 'locate' requests early, so that we may strip the file name

?X: before looking at the one-letter commands, in case the file name contains

?X: one of them. Reported by Wayne Davison <davison@borland.com>.

```

case "$fn" in
.)
loc_file=`expr $fn : '.*:(.*)^'`
fn=`expr $fn : '\(.*\):.*'`
;;
esac

```

case

```

"$fn" in
~) tilde=true;;
esac
case "$fn" in
/) fullpath=true;;
esac
case "$fn" in
+) skip=true;;
esac
case "$fn" in
n) none_ok=true;;
esac
case "$fn" in
e) exp_file=true;;
esac
case "$fn" in
p) nopath_ok=true;;
esac

case "$fn" in
f) type='File';;
d) type='Directory';;
l) type='Locate';;
esac

what="$type"
case "$what" in
Locate) what='File';;
esac

case "$exp_file" in
")
case "$d_portable" in
"$define") ;;
*) exp_file=true;;
esac
;;
esac

cd ..
while test "$type"; do
redo="
rp="$orig_rp"
dflt="$orig_dflt"
case "$tilde" in
true) rp="$rp (~name ok)";;
esac
. UU/myread

```

?X: check for allowed escape sequence which may be accepted verbatim.

```
if test -f UU/getfile.ok && \
 $contains "^$ans\$" UU/getfile.ok >/dev/null 2>&1
then
 value="$ans"
 ansexp="$ans"
 break
fi
case "$ans" in
 none)
 value="
 ansexp="
 case "$none_ok" in
 true) type="";;
 esac
 ;;
*)
 case "$tilde" in
 ") value="$ans"
 ansexp="$ans";;
 *)
 value=`UU/filexp $ans`
 case
$? in
 0)
 if test "$ans" != "$value"; then
 echo "(That expands to $value on this system.)"
 fi
 ;;
 *) value="$ans";;
 esac
 ansexp="$value"
 case "$exp_file" in
 ") value="$ans";;
 esac
 ;;
 esac
 case "$fullpath" in
 true)
?X: Perform all the checks on ansexp and not value since when d_portable
?X: is defined, the original un-expanded answer which is stored in value
?X: would lead to "non-existent" error messages whilst ansexp has been
?X: properly expanded. -- Fixed by Jan.Djarv@sa.erisoft.se (Jan Djarv)
?X: Always expand ~user if '/' was requested
 case "$ansexp" in
 /*) value="$ansexp" ;;
?X: Allow for c:/some/path
 [a-zA-Z]:/*) value="$ansexp" ;;
```

```

*)
redo=true
case "$already" in
true)
echo "I shall only accept a full path name, as in /bin/lis." >&4
echo "Use a ! shell escape if you wish to check pathnames." >&4
;;
*)
echo "Please give a full path name, starting with slash." >&4
case "$stilde"
in
true)
echo "Note that using ~name is ok provided it expands well." >&4
already=true
;;
esac
esac
;;
esac
;;
esac
;;
esac
case "$redo" in
")
case "$stipe" in
File)
for fp in $gfpth; do
if test "X$fp" = X.; then
pf="$sansexp"
else
pf="$fp/$sansexp"
fi
if test -f "$pf"; then
type="
elif test -r "$pf" || (test -h "$pf") >/dev/null 2>&1
then
echo "($value is not a plain file, but that's ok.)"
type="
fi
if test X"$stipe" = X; then
value="$pf"
break
fi
done
;;
Directory)
for fp in $gfpth; do
if test "X$fp" = X.; then
dir="$sans"

```

```

 direxp="$sansexp"
else
 dir="$fp/$sansexp"
 direxp="$fp/$sansexp"
fi
if test -d "$direxp"; then
 type="
 value="$dir"
 break
fi
done
;;
Locate)
if test -d "$sansexp"; then
 echo "(Looking for $loc_file in directory
$value.)"
 value="$value/$loc_file"
 ansexp="$sansexp/$loc_file"
fi
if test -f "$sansexp"; then
 type="
fi
case "$nopath_ok" in
true) case "$value" in
/) ;;
*) echo "Assuming $value will be in people's path."
 type="
 ;;
esac
;;
esac
;;
esac
;;
esac

case "$skip" in
true) type=";
esac

case "$type" in
") ;;
*)
if test "$fastread" = yes; then
 dflt=y
else
 dflt=n
fi
rp="$what $value doesn't exist. Use that name anyway?"
. UU/myread

```



```

dflt="
case "$ans" in
y*) type="";;
*) echo " ";;
esac
;;
esac
;;
esac
;;
esac
done
cd UU
ans="$value"
rp="$orig_rp"
dflt="$orig_dflt"
rm -f getfile.ok
test "X$gfpthkeep" != Xy && gfpth=""
EOSC

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Getfile.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Typedef.U,v \$

?RCS: Revision 3.0.1.3 1995/07/25 13:42:07 ram

?RCS: patch56: added backslash escapes within evals to prevent space problems

?RCS:

?RCS: Revision 3.0.1.2 1994/10/29 16:01:16 ram

?RCS: patch36: don't clobber visible 'val' variable, use 'varval' instead

?RCS:

?RCS: Revision 3.0.1.1 1994/08/29 16:05:14 ram

?RCS: patch32: created

?RCS:

?X:

?X: This unit checks for the definition of a given typedef.

?X:

?X: To use it, say:  
 ?X: set typedef val\_t default [includes]  
 ?X: eval \$typedef  
 ?X:  
 ?MAKE:Typedef:  
 cppstdin cppminus cppflags rm contains Oldconfig  
 ?MAKE: -pick add \$@ %<  
 ?F:!temp.c  
 ?LINT:define typedef  
 ?V:typedef  
 ?S:typedef:  
 ?S: This shell variable is used internally by Configure to check  
 ?S: whether a given typedef is defined or not. A typical use is:  
 ?S: set typedef val\_t default [includes]  
 ?S: eval \$typedef  
 ?S: That will return val\_t set to default if the typedef was not found,  
 ?S: to typedef otherwise. If no includes are specified, look in sys/types.h.  
 ?S:.  
 ?T:type var def inclist varval inc  
 : define an is-a-typedef? function  
 typedef='type=\$1; var=\$2; def=\$3; shift; shift; shift; inclist=\$@;  
 case "\$inclist" in  
 "" ) inclist="sys/types.h";;  
 esac;  
 eval "varval=\\${\$var}";  
 case "\$varval" in  
 "" )  
 \$rm -f temp.c;  
 for inc in \$inclist; do  
 echo "#include <\$inc>" >>temp.c;  
 done;  
 \$cppstdin \$cppflags \$cppminus < temp.c >temp.E 2>/dev/null;  
 if \$contains \$type temp.E >/dev/null 2>&1; then  
 eval "\$var=\\${\$type}";  
 else  
 eval "\$var=\\${\$def}";  
 fi;  
 \$rm -f temp.?;;  
 \*) eval  
 "\$var=\\${\$varval}";;  
 esac'

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Typedef.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

```

?RCS:
?RCS: Copyright (c) 2000 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_frexp! Inlibc
?MAKE: -pick add $@ %<
?S:d_frexp!
?S: This variable conditionally defines the HAS_FREXP symbol, which
?S: indicates to the C program that the frexp() routine is available.
?S:.
?C:HAS_FREXP!:
?C: This symbol, if defined, indicates that the frexp routine is
?C: available to break a long double floating-point number into
?C: a normalized fraction and an integral power of 2.
?C:.
?H:#$d_frexp! HAS_FREXP! /**/
?H:.
?LINT:set d_frexp!
: see if frexp! exists
set frexp! d_frexp!
eval $inlibc

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/perl/d_frexp!.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_strchr.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_strchr.U,v $
?RCS: Revision 3.0.1.2 1993/10/16 13:49:20 ram
?RCS: patch12: added support for HAS_INDEX
?RCS: patch12: added magic for index() and rindex()
?RCS:
?RCS: Revision 3.0.1.1 1993/09/13 16:05:26 ram
?RCS: patch10: now only defines HAS_STRCHR, no macro remap of index (WAD)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:07:32 ram

```

```

?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_strchr d_index: contains strings Setvar Myread Oldconfig
Csym
?MAKE: -pick add $@ %<
?S:d_strchr:
?S: This variable conditionally defines HAS_STRCHR if strchr() and
?S: strchr() are available for string searching.
?S:.
?S:d_index:
?S: This variable conditionally defines HAS_INDEX if index() and
?S: rindex() are available for string searching.
?S:.
?C:HAS_STRCHR:
?C: This symbol is defined to indicate that the strchr()/strchr()
?C: functions are available for string searching. If not, try the
?C: index()/rindex() pair.
?C:.
?C:HAS_INDEX:
?C: This symbol is defined to indicate that the index()/rindex()
?C: functions are available for string searching.
?C:.
?H:#$d_strchr HAS_STRCHR /**/
?H:#$d_index HAS_INDEX /**/
?H:.
?M:index: HAS_INDEX
?M:#ifndef HAS_INDEX
?M:#ifndef index
?M:#define index strchr
?M:#endif
?M:#endif
?M:.
?M:rindex: HAS_INDEX
?M:#ifndef HAS_INDEX
?M:#ifndef rindex
?M:#define rindex strchr
?M:#endif
?M:#endif
?M:.
?T:vali
?LINT:set d_strchr d_index
: index or strchr
echo " "
if set index val -f; eval $csym; $val; then
if
set strchr val -f d_strchr; eval $csym; $val; then
if $contains strchr "$strings" >/dev/null 2>&1 ; then
?X: has index, strchr, and strchr in string header

```

```

val="$define"
vali="$undef"
echo "strchr() found." >&4
else
?X: has index, strchr, and no strchr in string header
val="$undef"
vali="$define"
echo "index() found." >&4
fi
else
?X: has only index, no strchr, string header is a moot point
val="$undef"
vali="$define"
echo "index() found." >&4
fi
else
if set strchr val -f d_strchr; eval $csym; $val; then
val="$define"
vali="$undef"
echo "strchr() found." >&4
else
echo "No index() or strchr() found!" >&4
val="$undef"
vali="$undef"
fi
fi
set d_strchr; eval $setvar
val="$vali"
set d_index; eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_strchr.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

?RCS: \$Log: Whoa.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:21:21 ram

?RCS: patch61: whoa script now starts with leading "startsh"

```

?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 16:02:01 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:19 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit produces a bit of shell code that must be dotted in in order
?X: to warn the user in case a change into a variable is noticed.
?X:
?X: To use this
 unit, $was must hold the old value that has changed. Upon
?X: exit, the two variables $td and $tu are set to the correct value for
?X: respectively defining or undefining a variable. For instance, if $was was
?X: $undef, but now $var is $define, after calling . whoa, you should use
?X: eval "$var=\$tu" to finally set $var to the correct value. See unit Inlibc.
?X:
?MAKE:Whoa: Myread startsh hint
?MAKE: -pick add $@ %<
?F:./whoa
?T:var was
?LINT:change td tu
: set up the script used to warn in case of inconsistency
cat <<EOS >whoa
$startsh
EOS
cat <<'EOESC' >>whoa
dflt=y
echo " "
echo "*** WHOA THERE!!! ***" >&4
echo " The $hint value for \$$var on this machine was \"\$was\!" >&4
rp=" Keep the $hint value?"
./myread
case "$ans" in
y) td=$was; tu=$was;;
esac
EOESC

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Whoa.U

```

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```

?RCS: Id
?RCS:
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?RCS:

```

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?RCS: of the source tree for dist 3.0.  
?RCS:  
?MAKE:d\_getspnam: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_getspnam:  
?S: This variable conditionally defines HAS\_GETSPNAM if getspnam() is  
?S: available to retrieve SysV shadow password entries by name.  
?S:.  
?C:HAS\_GETSPNAM:  
?C: This symbol, if defined, indicates that the getspnam system call is  
?C: available to retrieve SysV shadow password entries by name.  
?C:.  
?H:#\$d\_getspnam HAS\_GETSPNAM /\*\*/  
?H:.  
?LINT:set d\_getspnam  
: see if getspnam exists  
set getspnam d\_getspnam  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_getspnam.U

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?RCS:  
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?RCS:  
?RCS: Copyright (c) 2000, Jarkko Hietaniemi  
?RCS:  
?X:  
?X: This unit produces a bit of shell code that must be dotted in order  
?X: to make quick check on whether the current C compiler is working.  
?X:  
?MAKE:Checkcc ccname ccversion: Myread Warn startsh cat contains test  
?MAKE: -pick add \$@ %<  
?S:ccname:  
?S: This can set either by hints files or by Configure. If using

?S: gcc, this is gcc, and if not, usually equal to cc, unimpressive, no?

?S: Some platforms, however, make good use of this by storing the

?S: flavor

of the C compiler being used here. For example if using

?S: the Sun WorkShop suite, ccname will be 'workshop'.

?S:.

?S:ccversion:

?S: This can set either by hints files or by Configure. If using

?S: a (non-gcc) vendor cc, this variable may contain a version for

?S: the compiler.

?S:.

?F:./checkcc ./trygcc !checktmp

?V:despair

?T:trygcc

?LINT:extern cc rm ccflags ldflags

?LINT:change cc ccflags

?LINT:usefile checktmp

?INIT:ccname="

?INIT:ccversion="

: generate the trygcc script for later perusal

cat <<EOS >trygcc

\$startsh

EOS

cat <<'EOOSC' >>trygcc

case "\$cc" in

") ;;

\*) \$rm -f try try.\*

  \$cat >try.c <<EOM

int main(int argc, char \*argv[]) {

  (void) argc;

  (void) argv;

  return 0;

}

EOM

  if \$cc -o try \$ccflags \$ldflags try.c; then

    :

  else

    echo "Uh-oh, the C compiler '\$cc' doesn't seem to be working." >&4

    despair=yes

    trygcc=yes

    case "\$cc" in

      \*gcc\*) trygcc=no ;;

    esac

    case "`\$cc -v -c try.c 2>&1`" in

      \*gcc\*) trygcc=no ;;

    esac

    if \$test X"\$trygcc" = Xyes; then



```

if gcc -o try -c try.c; then
 echo " "
 echo "You seem to have a working gcc, though." >&4
 rp="Would you like to use it?"
 dflt=y
 if $test -f myread; then
 . ./myread
 else
 if $test -f UU/myread; then
 . ./UU/myread
 else
 echo "Cannot find myread, sorry. Aborting." >&2
 exit 1
 fi
 fi
 case "$ans" in
 [yY]*) cc=gcc; ccname=gcc; ccflags=""; despair=no;
?X: Look whether we have 'call-back units' generated by hints that would
?X: seemingly affect the compiling environment.
 $cat *.cbu >checktmp 2>/dev/null
 if $contains ccflags checktmp >/dev/null; then

```

```
./warn <<EOM
```

Any previous setting of the C compiler flags has been lost.  
It may be necessary to pass -Dcc=gcc to Configure right away.  
EOM

```

 fi;;
 esac
fi
fi
fi
$rm -f try try.*
;;
esac
EOSC

```

: generate the checkcc script for later perusal

```

cat <<EOS >checkcc
$startsh
EOS
cat <<'EOSC' >>checkcc
case "$cc" in
 ") ;;
) $rm -f try try.
 $cat >try.c <<EOM
int main(int argc, char *argv[]) {
 (void) argc;
 (void) argv;

```

```

return 0;
}
EOM
if $cc -o try $ccflags $ldflags try.c; then
:
else
if $test X"$despair" = Xyes; then
echo "Uh-oh, the C compiler '$cc' doesn't seem to be working." >&4
fi
$cat >&4 <<EOM

```

You need to find a working C compiler.

Either (purchase and) install the C compiler supplied by your OS vendor,  
or for a free C compiler try <http://gcc.gnu.org/>

I cannot continue any further, aborting.

EOM

```

exit 1
fi

```

```
$rm -f try try.*
```

```
;;
esac
```

EOSC

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Checkcc.U
```

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?RCS:

?MAKE:d\_strtod\_1: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_strtod\_1:

?S: This variable conditionally defines the HAS\_STRTOD\_L symbol, which

?S: indicates to the C program that the strtod\_l() routine is available.

?S:.

?C:HAS\_STRTOD\_L:

?C: This symbol, if defined, indicates that the strtod\_l routine is

?C: available to convert strings to long doubles.

?C:.

?H:#\$d\_strtod\_1 HAS\_STRTOD\_L /\*\*/

?H:.

?LINT:set d\_strtod\_1

```
: see if strtod_1 exists
set strtod_1 d_strtod_1
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_strtod_1.U
```

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?RCS:

?RCS: \$Log: abortsig.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:02:19 ram

?RCS: patch36: call ./usg explicitly instead of relying on PATH

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:20 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:abortsig: Myread Oldconfig Guess cat +cc ccflags rm

?MAKE: -pick add \$@ %<

?S:abortsig:

?S: This variable holds the name of the signal used by the abort() call.

?S:.

?C:ABORTSIG:

?C: This symbol holds the signal number (symbol) used by the abort() call. To

?C: actually

define the signal symbol, <signal.h> should be included.

?C:.

?H:#define ABORTSIG \$abortsig /\*\*/

?H:.

?T:signal

: which signal is sent by abort ?

```
echo " "
```

```
case "$abortsig" in
```

```
)
```

```
echo "Checking to see which signal is sent to the process by abort()..." >&4
```

```
echo "abort" > abort.sh
```

```
chmod +x abort.sh
```

?X: SIGABRT should replace SIGIOT on USG machines in a near future (1991).

for signal in SIGIOT SIGILL SIGABRT; do

```

case "$abortsig" in
") $cat >abort.c <<EOP
/* FIXME: Missing #include <stdlib.h>*/
#include <signal.h>
caught() { exit(0); } /* FIXME: Use _exit() or _Exit() in signal handler */
int main()
{
#ifdef $signal
signal($signal, caught);
#endif
if (-1 == abort())
exit(1);
exit(1);
}
EOP

```

?X: We have to use the abort.sh script otherwise sh behaves strangely on AIX.

```

if $cc $ccflags -o abort abort.c >/dev/null 2>&1; then
(./abort.sh) >/dev/null 2>&1
case $? in
0) abortsig="$signal";
esac
fi
;;
esac
done
;;
esac
case "$abortsig" in
") echo
"(I wasn't able to compute the signal name--guessing)"
if ./usg; then
dflt="SIGIOT"
else
dflt="SIGILL"
fi;;
*) dflt="$abortsig"
;;
esac
rp="Which signal does abort() send to the process (signal name)?"
./myread
abortsig="$ans"
$rm -f core abort.sh abort abort.c

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/abortsig.U

```

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```

?RCS: $Id: d_readlink.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_readlink.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:11:52 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_readlink: Inlibc
?MAKE: -pick add $@ %<
?S:d_readlink:
?S: This variable conditionally defines the HAS_READLINK symbol, which
?S: indicates to the C program that the readlink() routine is available
?S: to read the value of a symbolic link.
?S:.
?C:HAS_READLINK :
?C: This
symbol, if defined, indicates that the readlink routine is
?C: available to read the value of a symbolic link.
?C:.
?H:#$d_readlink HAS_READLINK /**/
?H:.
?LINT:set d_readlink
: see if readlink exists
set readlink d_readlink
eval $inlibc

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/d_readlink.U

```

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```

?RCS: $Id: d_msync.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
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```

?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_msync.U,v \$  
?RCS: Revision 3.0.1.1 1993/12/15 08:19:17 ram  
?RCS: patch15: created  
?RCS:  
?MAKE:d\_msync: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_msync:  
?S: This variable conditionally defines HAS\_MSYNCR if msync() is  
?S: available to synchronize a mapped file.  
?S:.  
?C:HAS\_MSYNCR:  
?C: This symbol, if defined, indicates that the msync system call is  
?C: available to synchronize a mapped file.  
?C:.  
?H:#\$d\_msync HAS\_MSYNCR /\*\*/  
?H:.  
?LINT:set d\_msync  
: see if  
msync exists  
set msync d\_msync  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_msync.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_killpg.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_killpg.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:06:27 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_killpg: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_killpg:  
?S: This variable conditionally defines the HAS\_KILLPG symbol, which  
?S: indicates to the C program that the killpg() routine is available

?S: to kill process groups.  
?S:.  
?C:HAS\_KILLPG (KILLPG):  
?C: This symbol, if defined, indicates that the killpg routine is available  
?C: to kill  
process groups. If unavailable, you probably should use kill  
?C: with a negative process number.  
?C:.  
?H:#\$d\_killpg HAS\_KILLPG /\*\*/  
?H:.  
?LINT:set d\_killpg  
: see if killpg exists  
set killpg d\_killpg  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_killpg.U

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?RCS: of the source tree for dist 3.0.  
?RCS:  
?MAKE:d\_u32align: Compile cat rm\_try Oldconfig run i\_stdlib \  
byteorder u32type Myread Setvar u8type signal\_t  
?MAKE: -pick add \$@ %<  
?S:d\_u32align:  
?S: This variable tells whether you must access character data  
?S: through U32-aligned pointers.  
?S:.  
?C:U32\_ALIGNMENT\_REQUIRED:  
?C: This symbol, if defined, indicates that you must access  
?C: character data through U32-aligned pointers.  
?C:.  
?H:%<:#ifndef U32\_ALIGNMENT\_REQUIRED  
?H:%<:#\$d\_u32align U32\_ALIGNMENT\_REQUIRED /\*\*/  
?H:%<:#endif  
?H:.  
?F:!try  
: Checking 32bit alignedness  
\$cat

<<EOM

Checking to see whether you can access character data unalignedly...

EOM

```
case "$d_u32align" in
") $cat >try.c <<EOCP
#include <stdio.h>
#$i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#define U32 $u32type
#define BYTEORDER 0x$byteorder
#define U8 $u8type
#include <signal.h>
#ifdef SIGBUS
$signal_t blech(int s) { exit(4); }
#endif
int main() {
#if BYTEORDER == 0x1234 || BYTEORDER == 0x4321
 volatile U8 buf[8];
 volatile U32 *up;
 int i;

 if (sizeof(U32) != 4) {
 printf("sizeof(U32) is not 4, but %d\n", sizeof(U32));
 exit(1);
 }

 fflush(stdout);

#ifdef SIGBUS
 signal(SIGBUS, blech);
#endif

 buf[0] = 0;
 buf[1] = 0;
 buf[2] = 0;
 buf[3] = 1;
 buf[4] = 0;
 buf[5] = 0;
 buf[6] = 0;
 buf[7] = 1;

 for (i = 0; i < 4; i++) {
 up = (U32*)(buf + i);
 if (!((*up == 1 << (8*i)) || /* big-endian */
 (*up == 1 << (8*(3-i))) /* little-endian */
```



```

)
)
 {
 printf("read failed (%x)\n", *up);

 exit(2);
 }
}

/* write test */
for (i = 0; i < 4; i++) {
up = (U32*)(buf + i);
*up = 0xBeef;
if (*up != 0xBeef) {
 printf("write failed (%x)\n", *up);
 exit(3);
}
}

 exit(0);
#else
 printf("1\n");
 exit(1);
#endif
 return 0;
}
EOCP
set try
if eval $compile_ok; then
echo "(Testing for character data alignment may crash the test. That's okay.)" >&4
$run ./try 2>&1 >/dev/null
case "$?" in
0) cat >&4 <<EOM
You can access character data pretty unalignedly.
EOM
 d_u32align="$undef"
 ;;
*) cat >&4 <<EOM
It seems that you must access character data in an aligned manner.
EOM
 d_u32align="$define"
 ;;
esac
else
rp='Can you access character data at unaligned addresses?'
dflt='n'
. ./myread
case "$ans" in

```

```
[yY]*) d_u32align="$undef" ;;
*) d_u32align="$define" ;;
esac
fi
$rm_try
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_u32align.U
```

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?RCS:

?MAKE:d\_fma: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fma:

?S: This variable conditionally defines the HAS\_FMA symbol, which

?S: indicates to the C program that the fma() routine is available.

?S:.

?C:HAS\_FMA:

?C: This symbol, if defined, indicates that the fma routine is

?C: available to do the multiply-add function.

?C:.

?H:#\$d\_fma HAS\_FMA /\*\*/

?H:.

?LINT:set d\_fma

: see if fma exists

set fma d\_fma

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_fma.U
```

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?RCS:

```

?MAKE:siteman1dir siteman1direxp installsiteman1dir: Getfile \
Setprefixvar prefix siteprefix man1dir sed
?MAKE: -pick add $@ %<
?Y:TOP
?D:siteman1dir="
?S:siteman1dir:
?S: This variable contains the name of the directory in which site-specific
?S: manual source pages are to be put. It is the responsibility of the
?S: Makefile.SH to get the value of this into the proper command.
?S: You must be prepared to do the ~name expansion yourself.
?S: The standard distribution will put nothing in this directory.
?S: After perl
has been installed, users may install their own local
?S: man1 pages in this directory with
?S: MakeMaker Makefile.PL
?S: or equivalent. See INSTALL for details.
?S:.
?D:siteman1direxp="
?S:siteman1direxp:
?S: This variable is the same as the siteman1dir variable, but is filename
?S: expanded at configuration time, for convenient use in makefiles.
?S:.
?D:installsiteman1dir="
?S:installsiteman1dir:
?S: This variable is really the same as siteman1direxp, unless you are using
?S: AFS in which case it points to the read/write location whereas
?S: man1direxp only points to the read-only access location. For extra
?S: portability, you should only use this variable within your makefiles.
?S:.
?LINT:change prefixvar
?LINT:set installsiteman1dir
?LINT:set siteman1dir
?LINT:set siteman1direxp
: determine where add-on manual pages go
case "$siteman1dir" in
") dflt=`echo $man1dir | $sed "s#^$prefix#$siteprefix#"` ;;
*) dflt=$siteman1dir ;;
esac
case "$dflt" in
"|" ") dflt=none ;;
esac
fn=dn+~
rp='Pathname
where the site-specific manual pages should be installed?'
./getfile
prefixvar=siteman1dir
./setprefixvar

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/siteman1dir.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: models.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: models.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 16:13:17 ram

?RCS: patch61: added ?F: metalint hint

?RCS:

?RCS: Revision 3.0.1.1 1993/08/25 14:02:39 ram

?RCS: patch6: added default for large

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:17 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:models split small medium large huge: test cat Myread sysman Oldconfig \

Loc contains rm

?MAKE: -pick add \$@ %<

?S:models:

?S: This variable contains

the list of memory models supported by this

?S: system. Possible component values are none, split, unsplit, small,

?S: medium, large, and huge. The component values are space separated.

?S:.

?S:split:

?S: This variable contains a flag which will tell the C compiler and loader

?S: to produce a program that will run in separate I and D space, for those

?S: machines that support separation of instruction and data space. It is

?S: up to the Makefile to use this.

?S:.

?S:small:

?S: This variable contains a flag which will tell the C compiler and loader

?S: to produce a program running with a small memory model. It is up to

?S: the Makefile to use this.

?S:.

?S:medium:

?S: This variable contains a flag which will tell the C compiler and loader

?S: to produce a program running with a medium memory model. If the

?S: medium model is not supported, contains the flag to produce large

?S: model programs. It is up to the Makefile to use this.

?S:.

?S:large:

?S: This variable contains a flag

which will tell the C compiler and loader

?S: to produce a program running with a large memory model. It is up to

?S: the Makefile to use this.

?S:.

?S:huge:

?S: This variable contains a flag which will tell the C compiler and loader

?S: to produce a program running with a huge memory model. If the

?S: huge model is not supported, contains the flag to produce large

?S: model programs. It is up to the Makefile to use this.

?S:.

?T:unsplit tans modelcc

?F:!pdp11

?D:large=""

?LINT:extern cc

: see what memory models we can support

case "\$models" in

")

?X: We may not use Cppsym or we get a circular dependency through cc.

?X: But this should work regardless of which cc we eventually use.

```
$cat >pdp11.c <<'EOP'
```

```
int main() {
```

```
#ifdef pdp11
```

```
exit(0);
```

```
#else
```

```
exit(1);
```

```
#endif
```

```
}
```

```
EOP
```

?X: Run cc in a subshell in case they don't have a 'cc' command.

?X: Presumably they do have gcc or something.

```
case "$cc" in
```

```
") modelcc="$cc" ;;
```

```
*) modelcc="cc" ;;
```

```
esac
```

```
($modelcc -o pdp11 pdp11.c) >/dev/null 2>&1
```

```
if
```

```
$test -f pdp11 && ./pdp11 2>/dev/null; then
```

```
dflt='unsplit split'
```

```
else
```

```
tans=`./loc . X /lib/small /lib/large /usr/lib/small /usr/lib/large /lib/medium /usr/lib/medium /lib/huge`
```

```
case "$tans" in
```

```
X) dflt='none';;
```

```
*) if $test -d /lib/small || $test -d /usr/lib/small; then
```

```

 dflt='small'
else
 dflt=""
fi
if $test -d /lib/medium || $test -d /usr/lib/medium; then
 dflt="$dflt medium"
fi
if $test -d /lib/large || $test -d /usr/lib/large; then
 dflt="$dflt large"
fi
if $test -d /lib/huge || $test -d /usr/lib/huge; then
 dflt="$dflt huge"
fi
esac
fi;;
*) dflt="$models";;
esac
$cat <<EOM

```

Some systems have different model sizes. On most systems they are called small, medium, large, and huge. On the PDP11 they are called unsplit and split. If your system doesn't support different memory models, say "none". If you wish to force everything to one memory model, say "none" here and put the appropriate flags later when it asks you for other cc and ld flags.

Venix systems may wish to put "none" and let the compiler figure things out. (In the following question multiple model names should be space separated.)

The default for most systems is "none".

```

EOM
rp="Which memory models are supported?"
./myread
models="$ans"

case "$models" in
none)
small=""
medium=""
large=""
huge=""
unsplit=""
split=""
;;
*split)
case "$split" in
") if $contains \-i' $sysman/ld.1 >/dev/null 2>&1 || \
 $contains \-i' $sysman/cc.1 >/dev/null 2>&1; then

```

```

 dflt='-i'
else
 dflt='none'
fi;;
*) dflt="$split";;
esac
rp="What flag indicates separate I and D space?"
./myread
tans="$ans"
case "$tans" in
none) tans="";;
esac
split="$tans"
unsplit="";;
large|*small*|*medium*|*huge*)
case "$models" in
large)
case "$large" in
") dflt='-Ml';;
*) dflt="$large";;
esac
rp="What flag indicates large model?"
./myread
tans="$ans"
case "$tans" in
none) tans="";;
esac
large="$tans";;
*) large="";;
esac
case "$models"
in
huge) case "$huge" in
") dflt='-Mh';;
*) dflt="$huge";;
esac
rp="What flag indicates huge model?"
./myread
tans="$ans"
case "$tans" in
none) tans="";;
esac
huge="$tans";;
*) huge="$large";;
esac
case "$models" in
medium) case "$medium" in
") dflt='-Mm';;

```

```

*) dflt="$medium";;
esac
rp="What flag indicates medium model?"
./myread
tans="$sans"
case "$tans" in
none) tans="";
esac
medium="$tans";;
*) medium="$large";;
esac
case "$models" in
small) case "$small" in
") dflt='none';;
*) dflt="$small";;
esac
rp="What flag indicates small model?"
./myread
tans="$sans"
case "$tans" in
none) tans="";
esac
small="$tans";;
*) small="";;
esac
;;
*)
echo "Unrecognized memory models--you may have to edit Makefile.SH" >&4
;;
esac
$rm -f pdp11.* pdp11

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/models.U

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_atanh: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_atanh:

?S: This variable conditionally defines the HAS\_ATANH symbol, which

?S: indicates to the C program that the atanh() routine is available.

?S:.

?C:HAS\_ATANH:

?C: This symbol, if defined, indicates that the atanh routine is



?C: available to do the inverse hyperbolic tangent function.

?C:.

?H:#\$d\_atanh HAS\_ATANH /\*\*/

?H:.

?LINT:set d\_atanh

: see if atanh exists

set atanh d\_atanh

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_atanh.U

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_llroundl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_llroundl:

?S: This variable conditionally defines the HAS\_LLROUNDL symbol, which

?S: indicates to the C program that the llroundl() routine is available

?S: to return the long long value nearest to x away from zero.

?S:.

?C:HAS\_LLROUNDL:

?C: This symbol, if defined, indicates that the llroundl routine is

?C: available to return the nearest long long value away from zero of

?C: the long double argument value.

?C:.

?H:#\$d\_llroundl HAS\_LLROUNDL /\*\*/

?H:.

?LINT:set d\_llroundl

: see if llroundl exists

set llroundl d\_llroundl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_llroundl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_setsent.U,v 3.0 1993/08/18 12:06:09 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: d\_setsent.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:06:09 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_setsent: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_setsent:  
?S: This variable conditionally defines HAS\_SETSERVENT if setservernt() is  
?S: available.  
?S:.  
?C:HAS\_SETSERVENT:  
?C: This symbol, if defined, indicates that the setservernt() routine is  
?C: available.  
?C:.  
?H:#\$d\_setsent HAS\_SETSERVENT /\*\*/  
?H:.  
?LINT:set d\_setsent  
: see if setservernt exists  
set  
setservernt d\_setsent  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_setsent.U

No license file was found, but licenses were detected in source scan.

/\*

\* \$Id: getopt.C,v 3.0.1.1 1994/01/24 13:58:40 ram Exp ram \$

\*

\* Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

\*

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\* as specified in the README file that comes with the distribution.

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\* that same Artistic Licence; a copy of which may be found at the root

\* of the source tree for dist 4.0.

\*

\* Original Author: unknown, got this off net.sources

\*

\* \$Log: getopt.C,v \$

\* Revision 3.0.1.1 1994/01/24 13:58:40 ram

\* patch16: created

\*

\*/

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/lib/C/fake/getopt.C

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998, Jarkko Hietaniemi

?RCS:

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?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:i\_syssecre: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_syssecre:

?S: This variable conditionally defines the I\_SYS\_SECURITY symbol,

?S: and indicates whether a C program should include <sys/security.h>.

?S:.

?C:I\_SYS\_SECURITY:

?C: This symbol, if defined, indicates to the C program that it should

?C: include <sys/security.h>.

?C:.

?H:#\$i\_syssecre I\_SYS\_SECURITY /\*\*/

?H:.

?LINT:set i\_syssecre

: see if sys/security.h is available

set sys/security.h i\_syssecre

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/acl/i\_syssecre.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

```

?RCS: $Log: d_keepsig.U,v $
?RCS: Revision 3.0.1.4 1995/07/25 13:57:56 ram
?RCS: patch56: made cc and ccflags optional dependencies
?RCS:
?RCS: Revision 3.0.1.3 1995/01/11 15:26:25 ram
?RCS: patch45: protected "sh -c" within backquotes for Linux and SGI
?RCS:
?RCS: Revision 3.0.1.2 1994/10/29 16:13:59 ram
?RCS: patch36: call ./bsd explicitly instead of relying on PATH
?RCS:
?RCS: Revision 3.0.1.1 1993/10/16 13:48:47 ram
?RCS: patch12: comment for SIGNALS_KEPT was the other way round
?RCS:
?RCS:
Revision 3.0 1993/08/18 12:06:26 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_keepsig: cat Compile rm Guess contains echo n c Setvar run
?MAKE: -pick add $@ %<
?S:d_keepsig:
?S: This variable contains the eventual value of the SIGNALS_KEPT symbol,
?S: which indicates to the C program if signal handlers need not reinstated
?S: after receipt of a signal.
?S:.
?C:SIGNALS_KEPT (PERSISTENT_SIGNAL):
?C: This symbol is defined if signal handlers needn't be reinstated after
?C: receipt of a signal.
?C:.
?H:#$d_keepsig SIGNALS_KEPT /**/
?H:.
?F:!try !try.out
?LINT:set d_keepsig
: see if signals are kept
val="$undef";
echo " "
echo "Checking to see if signal handlers stick around..." >&4
$cat >try.c <<'EOCP'
foo() {}

int main()
{
 signal(2, foo);
 kill(getpid(), 2);
 kill(getpid(), 2);
 printf("abc\n");
}
EOCP
set try

```

```

if eval $compile; then
?X: On AIX a single ./try will not work (with ksh)
?X: Backquotes required on Linux and SGI (prevents "ambiguous output redirect")
?X:
(reported by Xavier LeVourch <xavierl@eiffel.com>)
echo `sh -c $run ./try >try.out 2>/dev/null` >/dev/null
if $contains abc try.out >/dev/null 2>&1; then
 echo "Yes, they do."
 val="$define";
else
 echo "No, they don't."
fi
else
$echo $n "(I can't seem to compile the test program. Assuming $c"
if ./bsd; then
 echo "they do.)"
 val="$define"
else
 echo "they don't.)"
fi
fi
set d_keepsig
eval $setvar
$rm -f try*

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_keepsig.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: randbits.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 16:19:29 ram

?RCS: patch61: added <unistd.h> and <stdlib.h> to the C program test

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:38 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit has been somewhat made obsolete with creation of the  
?X: randfunc function (which finds out how to generate random  
?X: numbers between 0 and 1.  
?X:  
?MAKE:randbits: cat rm Myread cc i\_unistd i\_stdlib  
?MAKE: -pick add \$@ %<  
?S:randbits:  
?S: This  
variable contains the eventual value of the RANDBITS symbol,  
?S: which indicates to the C program how many bits of random number  
?S: the rand() function produces.  
?S:.  
?C:RANDBITS:  
?C: This symbol contains the number of bits of random number the rand()  
?C: function produces. Usual values are 15, 16, and 31.  
?C:.  
?H:#define RANDBITS \$randbits /\*\*/  
?H:.  
: check for size of random number generator  
echo " "  
case "\$randbits" in  
")  
echo "Checking to see how many bits your rand function produces..." >&4  
\$cat >try.c <<EOCP  
#\$i\_unistd I\_UNISTD  
#\$i\_stdlib I\_STDLIB  
#include <stdio.h>  
#ifdef I\_UNISTD  
# include <unistd.h>  
#endif  
#ifdef I\_STDLIB  
# include <stdlib.h>  
#endif  
EOCP  
\$cat >>try.c <<'EOCP'  
int main()  
{  
register int i;  
register unsigned long tmp;  
register unsigned long max = 0L;  
  
for (i = 1000; i; i--) {  
tmp = (unsigned long)rand();  
if (tmp > max) max = tmp;  
}  
for (i = 0; max; i++)  
max /= 2;  
printf("%d\n",i);

```

}
EOCP
if $cc -o try try.c >/dev/null 2>&1 ; then
 dflt=`try`
else
 dflt='?'
 echo
 "(I can't seem to compile the test program...)"
fi
;;
*)
 dflt="$randbits"
 ;;
esac
rp='How many bits does your rand() function produce?'
./myread
randbits="$ans"
$rm -f try.c try

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/randbits.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_drand48\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_drand48\_r drand48\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
 usethreads i\_stdlib extern\_C

?MAKE: -pick add \$@ %<

?S:d\_drand48\_r:

?S: This variable conditionally defines the HAS\_DRAND48\_R symbol,

?S: which indicates to the C program that the drand48\_r()

?S: routine is available.

?S:.

?S:drand48\_r\_proto:

?S: This variable encodes the prototype of drand48\_r.

?S: It is zero if d\_drand48\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_drand48\_r

?S: is defined.

?S:.

?C:HAS\_DRAND48\_R:

?C: This symbol, if defined, indicates that the drand48\_r routine

```

?C: is available to drand48 re-entrantly.
?C:.
?C:DRAND48_R_PROTO:
?C: This
symbol encodes the prototype of drand48_r.
?C: It is zero if d_drand48_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_drand48_r
?C: is defined.
?C:.
?H:#$d_drand48_r HAS_DRAND48_R /**/
?H:#define DRAND48_R_PROTO $drand48_r_proto /**/
?H:.
?T:try hdrs d_drand48_r_proto
: see if drand48_r exists
set drand48_r d_drand48_r
eval $inlibc
case "$d_drand48_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_stdlib stdlib.h"
case "$d_drand48_r_proto:$usethreads" in
":define") d_drand48_r_proto=define
set d_drand48_r_proto drand48_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_drand48_r_proto" in
define)
case "$drand48_r_proto" in
"|0) try='int drand48_r(struct drand48_data*, double*);'
./protochk "$extern_C $try" $hdrs && drand48_r_proto=I_ST ;;
esac
case "$drand48_r_proto" in
"|0) d_drand48_r=undef
drand48_r_proto=0
echo "Disabling drand48_r, cannot determine prototype." >&4 ;;
*) case
"$drand48_r_proto" in
REENTRANT_PROTO*) ;;
*) drand48_r_proto="REENTRANT_PROTO_$drand48_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "drand48_r has no prototype, not using it." >&4 ;;
esac
d_drand48_r=undef
drand48_r_proto=0

```



```
;;
esac
;;
*) drand48_r_proto=0
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_drand48_r.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_setprior.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_setprior.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:11 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_setprior: Inlibc
?MAKE: -pick add $@ %<
?S:d_setprior:
?S: This variable conditionally defines HAS_SETPRIORITY if setpriority()
?S: is available to set a process's priority.
?S:.
?C:HAS_SETPRIORITY (SETPRIORITY):
?C: This symbol, if defined, indicates that the setpriority routine is
?C: available to set a process's priority.
?C:.
?H:#$d_setprior
HAS_SETPRIORITY /**/
?H:.
?LINT:set d_setprior
: see if setpriority exists
set setpriority d_setprior
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_setprior.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_setruid.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_setruid.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:15 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_setruid: Inlibc
?MAKE: -pick add $@ %<
?S:d_setruid:
?S: This variable conditionally defines the HAS_SETRUID symbol, which
?S: indicates to the C program that the setruid() routine is available
?S: to change the real uid of the current program.
?S:.
?C:HAS_SETRUID (SETRUID):
?C: This symbol, if defined, indicates that the setruid
routine is available
?C: to change the real uid of the current program.
?C:.
?H:#$d_setruid HAS_SETRUID /**/
?H:.
?LINT:set d_setruid
: see if setruid exists
set setruid d_setruid
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_setruid.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
```

```

?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_sigaction.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 15:44:29 ram
?RCS: patch61: created
?RCS:
?RCS:
?MAKE:d_sigaction: Csym Setvar cat cc ccflags ldflags libs rm _o
?MAKE: -pick add $@ %<
?S:d_sigaction:
?S: This variable conditionally defines the HAS_SIGACTION symbol, which
?S: indicates that the Vr4 sigaction() routine is available.
?S:.
?C:HAS_SIGACTION:
?C: This symbol, if defined, indicates that Vr4's sigaction() routine
?C: is available.
?C:.
?H:#$d_sigaction HAS_SIGACTION /**/
?H:.
?T:val
?LINT:set
d_sigaction
: see if we have sigaction
echo " "
if set sigaction val -f d_sigaction; eval $csym; $val; then
echo 'sigaction() found.'>&4
val="$define"
else
echo 'sigaction NOT found.'>&4
val="$undef"
fi
?X:
?X: Solaris 2.5_x86 with SunWorks Pro C 3.0.1 doesn't have a complete
?X: sigaction structure if compiled with cc -Xc. This compile test
?X: will fail then. <doughera@lafcol.lafayette.edu>
?X:
$cat > set.c <<'EOP'
#include <stdio.h>
#include <sys/types.h>
#include <signal.h>
int main()
{
 struct sigaction act, oact;
}
EOP
if $cc $ccflags $ldflags -o set set.c $libs >/dev/null 2>&1; then
:
else

```

```
echo "But you don't seem to have a useable struct sigaction." >&4
val="$undef"
fi
set d_sigaction; eval $setvar
$rm -f set set$_o set.c
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_sigaction.U
```

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?RCS:

?MAKE:longdblmanbits doublemanbits nvmanbits: Inlibc cat Compile run \  
rm\_try Setvar echo i\_sunmath usequadmath \  
d\_longdbl longdblkind nvsiz double size longdblsize

?MAKE: -pick add \$@ %<

?S:doublemanbits:

?S: This symbol, if defined, tells how many mantissa bits

?S: there are in double precision floating point format.

?S: Note that this is usually DBL\_MANT\_DIG minus one, since

?S: with the standard IEEE 754 formats DBL\_MANT\_DIG includes

?S: the implicit bit which doesn't really exist.

?S:.

?S:longdblmanbits:

?S: This symbol, if defined, tells how many mantissa bits

?S: there are in long double precision floating point format.

?S: Note that this can be LDBL\_MANT\_DIG minus one,

?S: since

LDBL\_MANT\_DIG can include the IEEE 754 implicit bit.

?S: The common x86-style 80-bit long double does not have

?S: an implicit bit.

?S:.

?S:nvmanbits:

?S: This variable tells how many bits the mantissa of a Perl NV has,

?S: not including the possible implicit bit.

?S:.

?C:DOUBLEMANTBITS:

?C: This symbol, if defined, tells how many mantissa bits

?C: there are in double precision floating point format.

?C: Note that this is usually DBL\_MANT\_DIG minus one, since

?C: with the standard IEEE 754 formats DBL\_MANT\_DIG includes

?C: the implicit bit, which doesn't really exist.

?C:.

?C:LONGDBLMANTBITS:

?C: This symbol, if defined, tells how many mantissa bits

?C: there are in long double precision floating point format.

?C: Note that this can be LDBL\_MANT\_DIG minus one,

?C: since LDBL\_MANT\_DIG can include the IEEE 754 implicit bit.

?C: The common x86-style 80-bit long double does not have

?C: an implicit bit.

?C:.

?C:NVMANTBITS:

?C: This symbol, if defined, tells how many mantissa bits

?C: (not

including implicit bit) there are in a Perl NV.

?C: This depends on which floating point type was chosen.

?C:.

```
?H:#define DOUBLEMANTBITS $doublemantbits
```

```
?H:#define LONGDBLMANTBITS $longdblmanbits
```

```
?H:#define NVMANTBITS $nvmantbits
```

?H:.

?F:!try

: Check the length of the double mantissa

```
$echo "Checking how many mantissa bits your doubles have..." >&4
```

```
$cat >try.c <<EOP
```

```
#$i_sunmath I_SUNMATH
```

```
#include <float.h>
```

```
#ifdef I_SUNMATH
```

```
include <sunmath.h>
```

```
#endif
```

```
#ifdef DBL_MANT_DIG
```

```
define BITS (DBL_MANT_DIG - 1) /* the implicit bit does not count */
```

```
#endif
```

```
#include <stdio.h>
```

```
int main(int argc, char *argv[]) {
```

```
#ifdef BITS
```

```
 printf("%d\n", BITS);
```

```
#endif
```

```
 return 0;
```

```
}
```

```
EOP
```

```
set try
```

```
if eval $compile; then
```

```
 doublemantbits=`$run ./try`
```

```
else
```

```
 doublemantbits="$undef"
```

```
fi
```

```
$rm_try
```

: Check the length of the longdouble mantissa

```

$echo "Checking how many mantissa bits your long doubles have..." >&4
$cat >try.c <<EOP
#$i_sunmath I_SUNMATH
#include <float.h>
#ifdef I_SUNMATH
include <sunmath.h>
#endif
#$d_longdbl
HAS_LONG_DOUBLE
#if defined(HAS_LONG_DOUBLE) && defined(LDBL_MANT_DIG)
if ($longdblkind == 3) || ($longdblkind == 4) /* 80-bit extended precision */
/* This format has no implicit bit. Beware, however, that for
* this format the bare LDBL_MANT_DIG is misleading for inf/nan:
* the top three bits are used for inf (100) / qnan (11x) / snan (101),
* and the top bit must have been one since 387, zero is plain invalid.
* For normal fp values, the LDBL_MANT_DIG is fine, though. */
define BITS LDBL_MANT_DIG
elif ($longdblkind == 5 || $longdblkind == 6 || $longdblkind == 7 || $longdblkind == 8) /* double double */
/* LDBL_MANT_DIG of 106 (twice 53) would be logical, but for some
* reason e.g. Irix thinks 107. But in any case, we want only
* the number of real bits, the implicit bits are of no interest. */
define BITS 2 * (DBL_MANT_DIG - 1)
else
define BITS (LDBL_MANT_DIG - 1) /* the implicit bit does not count */
endif
#endif
#include <stdio.h>
int
main(int argc, char *argv[]) {
#ifdef BITS
printf("%d\n", BITS);
#endif
return 0;
}
EOP
set try
if eval $compile; then
longdblmantbits=`$run ./try`
else
longdblmantbits="$undef"
fi
$rm_try

: Check the length of the NV mantissa
$echo "Checking how many mantissa bits your NVs have..." >&4
if test "X$susequadmath" = "X$define"; then
nvmantbits=112 # 128-1-15
else

```

```

if test "X$nvsize" = "X$doublesize"; then
 nvmantbits="$doublemantbits"
else
 if test "X$nvsize" = "X$longdblsize"; then
 nvmantbits="$longdblmantbits"
 else
 nvmantbits="$undef"
 fi
fi
fi

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/mantbits.U
```

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?RCS:

?MAKE:d\_strtoll: Inlibc d\_longlong Compile cat run

?MAKE: -pick add \$@ %<

?S:d\_strtoll:

?S: This variable conditionally defines the HAS\_STRTOLL symbol, which

?S: indicates to the C program that the strtoll() routine is available.

?S:.

?C:HAS\_STRTOLL:

?C: This symbol, if defined, indicates that the strtoll routine is

?C: available to convert strings to long longs.

?C:.

?H:#\$d\_strtoll HAS\_STRTOLL /\*\*/

?H:.

?T:yyy

?F:!try

: see if strtoll exists

set strtoll d\_strtoll

eval \$inlibc

case "\$d\_longlong-\$d\_strtoll" in

"\$define-\$define")

\$cat <<EOM

Checking whether your strtoll() works okay...

EOM

\$cat >try.c <<'EOCP'

#include <errno.h>

```

#ifdef __hpux
#define strtoll __strtoll
#endif
#ifdef __EMX__
#define strtoll
__strtoll
#endif
#include <stdio.h>
extern long long int strtoll(char *s, char **, int);
static int bad = 0;
int check(char *s, long long ell, int een) {
 long long gll;
 errno = 0;
 gll = strtoll(s, 0, 10);
 if (!(gll == ell) && (errno == een))
 bad++;
}
int main() {
 check(" 1", 1LL, 0);
 check(" 0", 0LL, 0);
 check("-1", -1LL, 0);
 check("-9223372036854775808", -9223372036854775808LL, 0);
 check("-9223372036854775808", -9223372036854775808LL, 0);
 check(" 9223372036854775807", 9223372036854775807LL, 0);
 check("-9223372036854775808", -9223372036854775808LL, 0);
 check(" 9223372036854775808", 9223372036854775807LL, ERANGE);
 check("-9223372036854775809", -9223372036854775808LL, ERANGE);
 if (!bad)
 printf("ok\n");
}
EOCP
set try
if eval $compile; then
 yyy=`$run ./try`
 case "$yyy" in
 ok) echo "Your strtoll() seems to be working okay." ;;
 *) cat <<EOM >&4
Your
 strtoll() doesn't seem to be working okay.
EOM
 d_strtoll="$undef"
 ;;
 esac
 else
 echo "(I can't seem to compile the test program--assuming it doesn't)"
 d_strtoll="$undef"
 fi
 ;;

```



esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_strtoll.U

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_syscallproto: Hasproto i\_unistd

?MAKE: -pick add \$@ %<

?S:d\_syscallproto:

?S: This variable conditionally defines the HAS\_SYSCALL\_PROTO symbol,

?S: which indicates to the C program that the system provides

?S: a prototype for the syscall() function. Otherwise, it is

?S: up to the program to supply one.

?S:.

?C:HAS\_SYSCALL\_PROTO:

?C: This symbol, if defined, indicates that the system provides

?C: a prototype for the syscall() function. Otherwise, it is up

?C: to the program to supply one. Good guesses are

?C: extern

int syscall(int, ...);

?C: extern int syscall(long, ...);

?C:.

?H:#\$d\_syscallproto HAS\_SYSCALL\_PROTO /\*\*/

?H:.

?LINT:set d\_syscallproto

: see if prototype for syscall is available

echo " "

set d\_syscallproto syscall \$i\_unistd unistd.h

eval \$hasproto

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_syscallproto.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: spitshell.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: spitshell.U,v \$  
?RCS: Revision 3.0.1.4 1997/02/28 16:22:12 ram  
?RCS: patch61: removed useless chatter as this is now done very early  
?RCS:  
?RCS: Revision 3.0.1.3 1995/01/11 15:37:01 ram  
?RCS: patch45: use 'test -f' instead of 'test -r' for exec-only cat progs (WED)  
?RCS: patch45: protected "sh -c" within backquotes for Linux and SGI  
?RCS:  
?RCS: Revision 3.0.1.2 1994/08/29 16:33:00 ram  
?RCS: patch32: don't create spitshell under the UU directory  
?RCS:  
patch32: allow for cat in /bin or /usr/bin  
?RCS:  
?RCS: Revision 3.0.1.1 1993/09/13 16:12:58 ram  
?RCS: patch10: made #-failure message more friendly (WAD)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:49 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:spitshell shsharp sharpbang: eunicefix sh Head  
?MAKE: -pick add \$@ %<  
?S:spitshell:  
?S: This variable contains the command necessary to spit out a runnable  
?S: shell on this system. It is either cat or a grep -v for # comments.  
?S:.  
?S:shsharp:  
?S: This variable tells further Configure units whether your sh can  
?S: handle # comments.  
?S:.  
?S:sharpbang:  
?S: This variable contains the string #! if this system supports that  
?S: construct.  
?S:.  
?F:!sharp  
?T:xcat p  
?X: "paths" comes from Head  
?LINT:extern paths \_exe  
: see if sh knows # comments  
?X: This is loaded up early, so avoid being chatty.  
?X: echo " "

```

?X: echo "Checking your $sh to see if it knows about # comments..." >&2
if ` $sh -c '#' >/dev/null 2>&1 `; then
?X: echo
"Your $sh handles # comments correctly."
shsharp=true
spitshell=cat
?X: echo " "
?X: echo "Okay, let's see if #! works on this system..."
xcat=/bin/cat
test -f $xcat$_exe || xcat=/usr/bin/cat
if test ! -f $xcat$_exe; then
for p in `echo $PATH | sed -e "s/$p_/ /g"` $paths; do
if test -f p/cat_exe; then
xcat=$p/cat
break
fi
done
if test ! -f $xcat$_exe; then
echo "Can't find cat anywhere!"
exit 1
fi
fi
echo "#!$xcat" >sharp
$unicefix sharp
chmod +x sharp
./sharp > today 2>/dev/null
if test -s today; then
?X: echo "It does."
sharpbang='#!'
else
echo "#! $xcat" > sharp
$unicefix sharp
chmod +x sharp
./sharp > today 2>/dev/null
if test -s today; then
?X: echo "It does."
sharpbang='#!'
else
?X: echo "Okay, let's see if #! works on this system..."
?X: echo "It's just a comment."
sharpbang=': use '
fi
fi
else
echo " "
echo "Your $sh doesn't grok # comments--I will strip them later on."
shsharp=false
?X: The

```

```

spitshell script will be perused, so leave it out the UU directory
cd ..
echo "exec grep -v '^[]*#" >spitshell
chmod +x spitshell
$unicefix spitshell
spitshell=`pwd`/spitshell
cd UU
echo "I presume that if # doesn't work, #! won't work either!"
sharpbang=: use '
fi
rm -f sharp today

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/spitshell.U

```

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?RCS:

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?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?X: This unit generates a \$hasstruct string that is used internally

?X: by Configure to check if this system has a field for a

?X: particular struct (of if this system has a particular struct!)

?X:

?X: To use it, say something like:

?X: set d\_statblocks stat i\_sysstat sys/stat.h

?X: eval \$hasstruct

?X: Or, for more complicated sets of headers, do something like

?X: hdrs="\$define sys/foo.h

?X: \$i\_sysbar sys/bar.h

?X: \$i\_syszot sys/zot.h

?X: \$i\_zappa zappa.h"

?X: set d\_statblocks stat \$hdrs

?X: eval \$hasstruct

?X:

?MAKE:Hasstruct: Setvar rm\_try test Compile

?MAKE: -pick add \$@ %<

?T:varname struct

?V:hasstruct

: Define hasstruct macro for Configure internal use

hasstruct='varname=\$1; struct=\$2; shift;

shift;

while \$test \$# -ge 2; do

case "\$1" in

```

$define) echo "#include <$2>";;
esac ;
 shift 2;
done > try.c;
echo "int main () { struct $struct foo; }" >> try.c;
set try;
if eval $compile; then
 val="$define";
else
 val="$undef";
fi;
set $varname;
eval $setvar;
$rm_try'

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/protos/Hasstruct.U

```

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_sigprocmask: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_sigprocmask:

?S: This variable conditionally defines HAS\_SIGPROCMASK

?S: if sigprocmask() is available to examine or change the signal mask

?S: of the calling process.

?S:.

?C:HAS\_SIGPROCMASK:

?C: This symbol, if defined, indicates that the sigprocmask

?C: system call is available to examine or change the signal mask

?C: of the calling process.

?C:.

?H:#\$d\_sigprocmask HAS\_SIGPROCMASK /\*\*/

?H:.

?LINT:set d\_sigprocmask

: see if sigprocmask exists

set sigprocmask d\_sigprocmask

eval

\$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_sigprocmask.U

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_setpgrp.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 15:44:16 ram

?RCS: patch61: obsoleted USE\_BSDGRP in favor of USE\_BSD\_SETPGRP

?RCS: patch61: another unit now also defines a USE\_BSD\_GETPGRP

?RCS: patch61: fallback for test program failure improved

?RCS:

?RCS: Revision 3.0.1.2 1995/07/25 13:59:30 ram

?RCS: patch56: re-arranged compile line to include ldflags before objects

?RCS:

?RCS: Revision 3.0.1.1 1994/10/29 16:15:37 ram

?RCS: patch36: added 'ldflags' to the test compile line (ADO)

?RCS:

patch36: call ./usg explicitly instead of relying on PATH

?RCS:

?RCS: Revision 3.0 1993/08/18 12:07:09 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_setpgrp d\_bsdsetpgrp: cat rm +cc +libs +ccflags \  
+ldflags Inlibc Guess Setvar i\_unistd

?MAKE: -pick add \$@ %<

?S:d\_setpgrp:

?S: This variable conditionally defines HAS\_SETPGRP if setpgrp() is

?S: available to set the current process group.

?S:.

?S:d\_bsdsetpgrp (d\_bsdpgp):

?S: This variable conditionally defines USE\_BSD\_SETPGRP if

?S: setpgrp needs two arguments whereas USG one needs none.

?S: See also d\_setpgid for a POSIX interface.

?S:.

?C:HAS\_SETPGRP (SETPGRP):

?C: This symbol, if defined, indicates that the setpgrp routine is

?C: available to set the current process group.  
 ?C:.  
 ?C:USE\_BSD\_SETPGRP (USE\_BSDPGRP BSDPGRP):  
 ?C: This symbol, if defined, indicates that setpgrp needs two  
 ?C: arguments whereas USG one needs none. See also HAS\_SETPGID  
 ?C: for a POSIX interface.  
 ?C:.  
 ?H:#\$d\_setpgrp HAS\_SETPGRP /\*\*/  
 ?H:#\$d\_bsdsetpgrp  
 USE\_BSD\_SETPGRP /\*\*/  
 ?H:.  
 ?F:!set.c !set  
 ?T:xxx  
 ?LINT:set d\_setpgrp d\_bsdsetpgrp  
 : see if setpgrp exists  
 set setpgrp d\_setpgrp  
 eval \$inlibc

```
@if USE_BSD_SETPGRP || d_bsdsetpgrp
case "$d_setpgrp" in
"$define")
echo " "
echo "Checking to see which flavor of setpgrp is in use..."
$cat >set.c <<EOP
#$i_unistd I_UNISTD
#include <sys/types.h>
#ifdef I_UNISTD
include <unistd.h>
#endif
int main()
{
if (getuid() == 0) {
printf("(I see you are running Configure as super-user...)\n");
setuid(1);
}
#ifdef TRY_BSD_PGRP
if (-1 == setpgrp(1, 1))
exit(0);
#else
if (setpgrp() != -1)
exit(0);
#endif
exit(1);
}
EOP
if $cc -DTRY_BSD_PGRP $ccflags $ldflags -o set set.c $libs >/dev/null 2>&1 && ./set; then
echo 'You have to use setpgrp(pid,pgrp) instead of setpgrp().' >&4
val="$define"
```

```

elif $cc $ccflags $ldflags -o set set.c $libs >/dev/null 2>&1 && ./set; then
echo 'You have to use setpgrp() instead of setpgrp(pid,pgrp).' >&4
val="$undef"
else
echo "(I can't
seem to compile and run the test program.)"
if ./usg; then
xxx="a USG one, i.e. you use setpgrp()."
else
SVR4 systems can appear rather BSD-ish.
case "$i_unistd" in
$undef)
xxx="a BSD one, i.e. you use setpgrp(pid,pgrp)."
val="$define"
;;
$define)
xxx="probably a USG one, i.e. you use setpgrp()."
val="$undef"
;;
esac
fi
echo "Assuming your setpgrp is $xxx" >&4
fi
;;
*) val="$undef";;
esac
set d_bsdsetpgrp
eval $setvar
$rm -f set set.c
@end

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_setpgrp.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: libnlist.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: libnlist.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 16:08:02 ram



```

?RCS: patch61: added usrinc and mips on the dependency line
?RCS: patch61: make sure we call ./mips
?RCS: patch61: added a ?LINT: hint
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:00 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:libnlist: Loc libpth Guess usrinc _a
?MAKE: -pick add $@ %<
?S:libnlist (libmld):
?S: This variable contains the name of the library required to
get the
?S: definition of the nlist() function. On a MIPS RISC/OS box, it is -lml.
?S: Under Sys Vr4, it is -lelf. Otherwise, its value is empty.
?S:.
?T:xxx
?LINT:use usrinc
: see if we need a special library for 'nlist()'
echo " "
: How about doing this if nlist is not in libc...
if ./mips ; then
libnlist='-lml'
else
xxx=`./loc libelf$_a x $libpth`
case "$xxx" in
x) ;;
*)
libnlist="$xxx"
;;
esac
fi
case "$libnlist" in
") echo "No special library for nlist() seems necessary." >&4
;;
*) echo "nlist() can be found in $libnlist." >&4
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/libnlist.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_arpainet.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
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 ?RCS: of the source tree for dist 4.0.  
 ?RCS:  
 ?RCS: \$Log: i\_arpainet.U,v \$  
 ?RCS: Revision 3.0 1993/08/18 12:08:15 ram  
 ?RCS: Baseline for dist 3.0 netwide release.  
 ?RCS:  
 ?MAKE:i\_arpainet: Inhdr  
 ?MAKE: -pick add \$@ %<  
 ?S:i\_arpainet:  
 ?S: This variable conditionally defines the I\_ARPA\_INET symbol,  
 ?S: and indicates whether a C program should include <arpa/inet.h>.  
 ?S:.  
 ?C:I\_ARPA\_INET:  
 ?C: This symbol, if defined, indicates to the C program that it should  
 ?C: include <arpa/inet.h> to get inet\_addr and friends  
 declarations.  
 ?C:.  
 ?H:#\$i\_arpainet I\_ARPA\_INET /\*\*/  
 ?H:.  
 ?LINT:set i\_arpainet  
 : see if arpa/inet.h has to be included  
 set arpa/inet.h i\_arpainet  
 eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_arpainet.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_xdrs.U 1 2006-08-24 12:32:52Z rmanfredi \$  
 ?RCS:  
 ?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
 ?RCS:  
 ?RCS: You may redistribute only under the terms of the Artistic Licence,  
 ?RCS: as specified in the README file that comes with the distribution.  
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 ?RCS: that same Artistic Licence; a copy of which may be found at the root  
 ?RCS: of the source tree for dist 4.0.  
 ?RCS:  
 ?RCS: \$Log: d\_xdrs.U,v \$  
 ?RCS: Revision 3.0 1993/08/18 12:08:04 ram  
 ?RCS: Baseline for dist 3.0 netwide release.  
 ?RCS:  
 ?MAKE:d\_xdrs: cat Csym Setvar  
 ?MAKE: -pick add \$@ %<

```

?S:d_xdrs:
?S: This symbol conditionally defines HAS_XDRS which indicates to the C
?S: program that XDR serialization routines are available.
?S:.
?C:HAS_XDRS (XDRS):
?C: This symbol if defined indicates to the C program that the XDR
?C: serialization routines are available to transfer data
across
?C: various architectures.
?C:.
?H:#$d_xdrs HAS_XDRS /**/
?H:.
?LINT:set d_xdrs
: see if XDR is available
echo " "
if set xdr_int val -f d_xdrs; eval $csym; $val; then
echo "Ahh! You have XDR routines for network communications." >&4
val="$define"
else
$cat >&4 <<EOM
Sigh! You do not have XDR routines -- Network communications may be hazardous.
EOM
val="$undef"
fi
set d_xdrs
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/d_xdrs.U

```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_rint: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_rint:

?S: This variable conditionally defines the HAS\_RINT symbol, which

?S: indicates to the C program that the rint() routine is available.

?S:.

?C:HAS\_RINT:

?C: This symbol, if defined, indicates that the rint routine is

?C: available to return the nearest integral value to x as double

?C: using the current rounding mode.

?C:.

?H:#\$d\_rint HAS\_RINT /\*\*/

?H:.

```
?LINT:set d_rint
: see if rint exists
set rint d_rint
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_rint.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_getprotby.U,v $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1998 Andy Dougherty
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:d_getpbyname d_getpbynumber: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_getpbyname:
```

```
?S: This variable conditionally defines the HAS_GETPROTOBYNAME
```

```
?S: symbol, which indicates to the C program that the
```

```
?S: getprotobyname() routine is available to look up protocols
```

```
?S: by their name.
```

```
?S:.
```

```
?S:d_getpbynumber:
```

```
?S: This variable conditionally defines the HAS_GETPROTOBYNUMBER
```

```
?S: symbol, which indicates to the C program that the
```

```
?S: getprotobynumber() routine is available to look up protocols
```

```
?S: by their number.
```

```
?S:.
```

```
?C:HAS_GETPROTOBYNAME:
```

```
?C: This symbol, if defined, indicates that the getprotobyname()
```

```
?C: routine is available to look up protocols by their name.
```

```
?C:.
```

```
?C:HAS_GETPROTOBYNUMBER:
```

```
?C: This
```

```
symbol, if defined, indicates that the getprotobynumber()
```

```
?C: routine is available to look up protocols by their number.
```

```
?C:.
```

```
?H:#$d_getpbyname HAS_GETPROTOBYNAME /**/
```

```
?H:#$d_getpbynumber HAS_GETPROTOBYNUMBER /**/
```

```
?H:.
```

```
?LINT:set d_getpbyname d_getpbynumber
```

```
: Optional checks for getprotobyname and getprotobynumber
```

```
@if d_getpbyname || HAS_GETPROTOBYNAME
```

```
: see if getprotobyname exists
```

```
set getprotobyname d_getpbyname
eval $inlibc
@end
```

```
@if d_getpbynumber || HAS_GETPROTOBYNUMBER
: see if getprotobynumber exists
set getprotobynumber d_getpbynumber
eval $inlibc
@end
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_getprotby.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_msgctl.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_msgctl.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:06:38 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_msgctl: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_msgctl:
```

```
?S: This variable conditionally defines the HAS_MSGCTL symbol, which
```

```
?S: indicates to the C program that the msgctl() routine is available.
```

```
?S:.
```

```
?C:HAS_MSGCTL:
```

```
?C: This symbol, if defined, indicates that the msgctl() routine is
```

```
?C: available to perform message control operations.
```

```
?C:.
```

```
?H:#$d_msgctl
```

```
HAS_MSGCTL /**/
```

```
?H:.
```

```
?LINT:set d_msgctl
```

```
: see if msgctl exists
```

```
set msgctl d_msgctl
```

```
eval $inlibc
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_msgctl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getpagsz.U,v 3.0.1.1 1994/10/29 16:13:10 ram Exp \$

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: d\_getpagsz.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:13:10 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:

?RCS: Revision 3.0 1993/08/18 12:06:14 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_getpagsz: Compile Oldconfig Myread Inlibc Findhdr

?MAKE:-pick add \$@ %<

?S:d\_getpagsz:

?S: This variable conditionally defines HAS\_GETPAGESIZE if getpagesize()

?S: is available to get the system page size.

?S:.

?C:HAS\_GETPAGESIZE

(GETPAGESIZE):

?C: This symbol, if defined, indicates that the getpagesize system call

?C: is available to get system page size, which is the granularity of

?C: many memory management calls.

?C:.

?H:#\$d\_getpagsz HAS\_GETPAGESIZE /\*\*/

?H:.

?LINT:set d\_getpagsz

: see if getpagesize exists

set getpagesize d\_getpagsz

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d\_getpagsz.U

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?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_lrintl: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_lrintl:  
?S: This variable conditionally defines the HAS\_LRINTL symbol, which  
?S: indicates to the C program that the lrintl() routine is available  
?S: to return the integral value closest to a long double (according  
?S: to the current rounding mode).  
?S:.  
?C:HAS\_LRINTL:  
?C: This symbol, if defined, indicates that the lrintl routine is  
?C: available to return the integral value closest to a long double  
?C: (according to the current rounding mode).  
?C:.  
?H:#\$d\_lrintl HAS\_LRINTL /\*\*/  
?H:.  
?LINT:set d\_lrintl  
: see if lrintl exists  
set lrintl d\_lrintl  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_lrintl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_popen.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_popen.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:06:47 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_popen: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_popen:  
?S: This variable conditionally defines HAS\_POPEN if popen() is  
?S: available to open a pipe from a process.  
?S:.  
?C:HAS\_POPEN (POPEN):  
?C: This symbol, if defined, indicates that the popen routine is  
?C: available to open a pipe from a process.

```
?C:.
?H:#$d_popen HAS_POOPEN /**/
?H:.
?LINT:set
d_popen
: see if popen exists
set popen d_popen
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_popen.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Copyright (c) 2016 Dagfinn Ilmari Mannsker & H.Merijn Brand
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?X:
```

```
?X: This unit produces a variable that is intended to be eval'ed in
```

```
?X: order to define/undefine a symbol. A consistency check is made
```

```
?X: regarding any previous value and a warning is issued if there
```

```
?X: is any discrepancy.
```

```
?X:
```

```
?X: To use it, say:
```

```
?X: set d_siginfo_si_errno siginfo_t int si_errno $d_sigaction signal.h
```

```
?X: eval $hasfield_t;
```

```
?X:
```

```
?MAKE:Hasfield_t: test Compile rm_try Setvar
```

```
?MAKE: -pick add $@ %<
```

```
?LINT:define hasfield_t
```

```
?S:hasfield_t:
```

```
?S: Internal macro for Configure
```

```
?S:.
```

```
?V:hasfield_t:
```

```
?T:varname struct type field
```

```
: Define hasfield_t macro for Configure internal use
```

```
hasfield_t='varname=$1; struct=$2; type=$3; field=$4; shift; shift; shift; shift;
```

```
while $stest $# -ge 2; do
```

```
case
```

```
"$1" in
```

```
$define) echo "#include <$2>";;
```

```
esac ;
```

```
shift 2;
```

```
done > try.c;
```

```
echo "int main () { $struct foo; $type bar = foo.$field; }" >> try.c;
```

```
set try;
```



```
if eval $compile; then
 val="$define";
else
 val="$undef";
fi;
set $varname;
eval $setvar;
$rm_try'
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/Hasfield_t.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Loc_sed.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1996, Andy Dougherty
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: as specified in the README file that comes with the distribution.
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?RCS: You may reuse parts of this distribution only within the terms of
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?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?X: This is used in perl.c.
```

```
?MAKE:full_sed: sed
```

```
?MAKE: -pick add $@ %<
```

```
?S:full_sed:
```

```
?S: This variable contains the full pathname to 'sed', whether or
```

```
?S: not the user has specified 'portability'. This is only used
```

```
?S: in the compiled C program, and we assume that all systems which
```

```
?S: can share this executable will have the same full pathname to
```

```
?S: 'sed.'
```

```
?S:.
```

```
?X: Yes, I know about the C symbol PORTABLE, but I think sed
```

```
?X: is
```

```
unlikely to move, and I'm too lazy to add all the
```

```
?X: #ifdef PORTABLE sections to the perl source.
```

```
?X:
```

```
?C:LOC_SED:
```

```
?C: This symbol holds the complete pathname to the sed program.
```

```
?C:.
```

```
?H:#define LOC_SED "$full_sed" /**/
```

```
?H:.
```

```
: Store the full pathname to the sed program for use in the C program
```

```
full_sed=$sed
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Loc\_sed.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_readv: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_readv:

?S: This variable conditionally defines the HAS\_READV symbol, which

?S: indicates to the C program that the readv() routine is available.

?S:.

?C:HAS\_READV:

?C: This symbol, if defined, indicates that the readv routine is

?C: available to do gather reads. You will also need <sys/uio.h>

?C: and there I\_SYSUIO.

?C:.

?H:#\$d\_readv HAS\_READV /\*\*/

?H:.

?LINT:set d\_readv

: see if readv exists

set readv d\_readv

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_readv.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_mkdir.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_mkdir.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:37 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:  
?MAKE:d\_mkdir: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_mkdir:  
?S: This variable conditionally defines the HAS\_MKDIR symbol, which  
?S: indicates to the C program that the mkdir() routine is available  
?S: to create directories..  
?S:.  
?C:HAS\_MKDIR (MKDIR):  
?C: This symbol, if defined, indicates that the mkdir routine is available  
?C: to create directories.  
Otherwise you should fork off a new process to  
?C: exec /bin/mkdir.  
?C:.  
?H:#\$d\_mkdir HAS\_MKDIR /\*\*/  
?H:.  
?LINT:set d\_mkdir  
: see if mkdir exists  
set mkdir d\_mkdir  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_mkdir.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: nblock\_io.U,v \$  
?RCS: Revision 3.0.1.2 1997/02/28 16:17:14 ram  
?RCS: patch61: simplify here document for shells that can't handle them well  
?RCS: patch61: force use of "startsh" at the head of the generated script  
?RCS: patch61: added new files to the ?F: metalint hint  
?RCS:  
?RCS: Revision 3.0.1.1 1995/07/25 14:13:22 ram  
?RCS: patch56: created  
?RCS:  
?X:  
?X: Simplify here document for shells that can't handle them well.  
?X: (Problem reported on FreeBSD; it's unclear if this helps.) --AD

?X:

?MAKE:o\_nonblock

eagain rd\_nodata d\_eofnblk: cat rm\_try +cc +ccflags +ldflags \  
d\_open3 h\_sysfile h\_fcntl signal\_t hint Oldconfig Setvar startsh Warn

?MAKE: -pick add \$@ %<

?S:o\_nonblock:

?S: This variable bears the symbol value to be used during open() or fcntl()

?S: to turn on non-blocking I/O for a file descriptor. If you wish to switch

?S: between blocking and non-blocking, you may try ioctl(FIOSNBIO) instead,

?S: but that is only supported by some devices.

?S:.

?S:eagain:

?S: This variable bears the symbolic errno code set by read() when no

?S: data is present on the file and non-blocking I/O was enabled (otherwise,

?S: read() blocks naturally).

?S:.

?S:rd\_nodata:

?S: This variable holds the return code from read() when no data is

?S: present. It should be -1, but some systems return 0 when O\_NDELAY is

?S: used, which is a shame because you cannot make the difference between

?S: no data and an EOF.. Sigh!

?S:.

?S:d\_eofnblk:

?S: This variable conditionally defines EOF\_NONBLOCK

if EOF can be seen

?S: when reading from a non-blocking I/O source.

?S:.

?C:VAL\_O\_NONBLOCK:

?C: This symbol is to be used during open() or fcntl(F\_SETFL) to turn on

?C: non-blocking I/O for the file descriptor. Note that there is no way

?C: back, i.e. you cannot turn it blocking again this way. If you wish to

?C: alternatively switch between blocking and non-blocking, use the

?C: ioctl(FIOSNBIO) call instead, but that is not supported by all devices.

?C:.

?C:VAL\_EAGAIN:

?C: This symbol holds the errno error code set by read() when no data was

?C: present on the non-blocking file descriptor.

?C:.

?C:RD\_NODATA:

?C: This symbol holds the return code from read() when no data is present

?C: on the non-blocking file descriptor. Be careful! If EOF\_NONBLOCK is

?C: not defined, then you can't distinguish between no data and EOF by

?C: issuing a read(). You'll have to find another way to tell for sure!

?C:.

?C:EOF\_NONBLOCK:

?C: This symbol, if defined, indicates to the C program that a read() on

?C: a

```

non-blocking file descriptor will return 0 on EOF, and not the value
?C: held in RD_NODATA (-1 usually, in that case!).
?C:.
?H:#define VAL_O_NONBLOCK $o_nonblock
?H:#define VAL_EAGAIN $eagain
?H:#define RD_NODATA $rd_nodata
?H:#$d_eofnblk EOF_NONBLOCK
?H:.
?F:!try !try.out !try.ret !try.err !mtry
?T:status
?LINT:use d_open3
: check for non-blocking I/O stuff
case "$h_sysfile" in
true) echo "#include <sys/file.h>" > head.c;;
*)
case "$h_fcntl" in
true) echo "#include <fcntl.h>" > head.c;;
*) echo "#include <sys/fcntl.h>" > head.c;;
esac
;;
esac
echo " "
echo "Figuring out the flag used by open() for non-blocking I/O..." >&4
case "$o_nonblock" in
")
$cat head.c > try.c
$cat >>try.c <<'EOCP'
int main() {
#ifdef O_NONBLOCK
printf("O_NONBLOCK\n");
exit(0);
#endif
#ifdef O_NDELAY
printf("O_NDELAY\n");
exit(0);
#endif
?X: Stevens "Advanced Programming in the UNIX Environment" page 364 mentions
?X: the FNDELAY symbol, used in 4.3BSD (source: Paul Marquess).
#ifdef FNDELAY
printf("FNDELAY\n");
exit(0);
#endif
exit(0);
}
EOCP
if
$cc $ccflags $ldflags -o try try.c >/dev/null 2>&1; then
o_nonblock=`./try`

```

```

case "$o_nonblock" in
") echo "I can't figure it out, assuming O_NONBLOCK will do.";;
*) echo "Seems like we can use $o_nonblock.";;
esac
else
echo "(I can't compile the test program; pray O_NONBLOCK is right!)"
fi
;;
*) echo "Using $hint value $o_nonblock.";;
esac
$rm_try

echo " "
echo "Let's see what value errno gets from read() on a $o_nonblock file..." >&4
case "$eagain" in
")
$cat head.c > try.c
$cat >>try.c <<EOCP
#include <errno.h>
#include <sys/types.h>
#include <signal.h>
#define MY_O_NONBLOCK $o_nonblock
extern int errno;
$signal_t blech(x) int x; { exit(3); }
EOCP
$cat >> try.c <<'EOCP'
int main()
{
int pd[2];
int pu[2];
char buf[1];
char string[100];

pipe(pd); /* Down: child -> parent */
pipe(pu); /* Up: parent -> child */
if (0 != fork()) {
int ret;
close(pd[1]); /* Parent reads from pd[0] */
close(pu[0]); /*
Parent writes (blocking) to pu[1] */
if (-1 == fcntl(pd[0], F_SETFL, MY_O_NONBLOCK))
exit(1);
signal(SIGALRM, blech);
alarm(5);
if ((ret = read(pd[0], buf, 1)) > 0) /* Nothing to read! */
exit(2);
sprintf(string, "%d\n", ret);
write(2, string, strlen(string));

```

```

alarm(0);
#ifdef EAGAIN
if (errno == EAGAIN) {
 printf("EAGAIN\n");
 goto ok;
}
#endif
#ifdef EWOULDBLOCK
if (errno == EWOULDBLOCK)
 printf("EWOULDBLOCK\n");
#endif
ok:
write(pu[1], buf, 1); /* Unblocks child, tell it to close our pipe */
sleep(2); /* Give it time to close our pipe */
alarm(5);
ret = read(pd[0], buf, 1); /* Should read EOF */
alarm(0);
sprintf(string, "%d\n", ret);
write(3, string, strlen(string));
exit(0);
}

close(pd[0]); /* We write to pd[1] */
close(pu[1]); /* We read from pu[0] */
read(pu[0], buf, 1); /* Wait for parent to signal us we may continue */
close(pd[1]); /* Pipe pd is now fully closed! */
exit(0); /* Bye bye, thank you for playing!
*/
}
EOCP
if $cc $ccflags $ldflags -o try try.c >/dev/null 2>&1; then
?X: Use script to avoid the possible 'alarm call' message
echo "$startsh" >mtry
echo "./try >try.out 2>try.ret 3>try.err || exit 4" >>mtry
chmod +x mtry
./mtry >/dev/null 2>&1
case $? in
0) eagain=`$cat try.out`;
1) echo "Could not perform non-blocking setting!";;
2) echo "I did a successful read() for something that was not there!";;
3) echo "Hmm... non-blocking I/O does not seem to be working!";;
*) echo "Something terribly wrong happened during testing.";;
esac
rd_nodata=`$cat try.ret`
echo "A read() system call with no data present returns $rd_nodata."
case "$rd_nodata" in
0|-1) ;;
*)

```

```

echo "(That's peculiar, fixing that to be -1.)"
rd_nodata=-1
;;
esac
case "$eagain" in
")
echo "Forcing errno EAGAIN on read() with no data available."
eagain=EAGAIN
;;
*)
echo "Your read() sets errno to $eagain when no data is available."
;;
esac
status=`$cat
try.err`
case "$status" in
0) echo "And it correctly returns 0 to signal EOF.";;
-1) echo "But it also returns -1 to signal EOF, so be careful!";;
*) echo "However, your read() returns '$status' on EOF??";;
esac
val="$define"
if test "$status" = "$rd_nodata"; then
./warn "your read() can't distinguish between EOF and no data!"
val="$undef"
fi
else
echo "I can't compile the test program--assuming errno EAGAIN will do."
eagain=EAGAIN
fi
set d_eofnblk
eval $setvar
;;
*)
echo "Using $hint value $eagain."
echo "Your read() returns $rd_nodata when no data is present."
case "$d_eofnblk" in
"$define") echo "And you can see EOF because read() returns 0.";;
"$undef") echo "But you can't see EOF status from read() returned value.";;
*)
?X: Should not happen, but if it does, assume the worst!
echo "(Assuming you can't see EOF status from read anyway.)"
d_eofnblk=$undef
;;
esac
;;
esac
$rm_try head.c mtry

```



Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/nblock\_io.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the WRITEME file.

?RCS:

?MAKE:d\_writev: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_writev:

?S: This variable conditionally defines the HAS\_WRITEV symbol, which

?S: indicates to the C program that the writev() routine is available.

?S:.

?C:HAS\_WRITEV:

?C: This symbol, if defined, indicates that the writev routine is

?C: available to do scatter writes.

?C:.

?H:#\$d\_writev HAS\_WRITEV /\*\*/

?H:.

?LINT:set d\_writev

: see if writev exists

set writev d\_writev

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_writev.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

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?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Options.U,v \$

?RCS: Revision 3.0.1.7 1997/02/28 15:08:15 ram

?RCS: patch61: optdef.sh now starts with a "startsh"

?RCS: patch61: moved some code from Head.U

?RCS:  
?RCS: Revision 3.0.1.6 1995/09/25 09:14:46 ram  
?RCS: patch59: protected option parsing code against 'echo -\*' option failure  
?RCS:  
?RCS: Revision 3.0.1.5 1995/05/12 12:04:52 ram  
?RCS: patch54: added -K option for experts  
?RCS:  
?RCS: Revision 3.0.1.4 1995/01/30 14:27:52 ram  
?RCS: patch49: this unit now exports file optdef.sh,  
not a variable  
?RCS:  
?RCS: Revision 3.0.1.3 1995/01/11 15:19:00 ram  
?RCS: patch45: new -O option allowing -D and -U to override config.sh settings  
?RCS: patch45: file optdef.sh is no longer removed after sourcing  
?RCS:  
?RCS: Revision 3.0.1.2 1994/10/29 15:58:06 ram  
?RCS: patch36: ensure option definition file is removed before appending  
?RCS: patch36: protect variable definitions with spaces in them  
?RCS:  
?RCS: Revision 3.0.1.1 1994/06/20 06:55:44 ram  
?RCS: patch30: now uses new me symbol to tag error messages  
?RCS: patch30: new -D and -U options to define/undef symbols (JHI)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:05:14 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: Command line parsing. It is really important that the variables used here  
?X: be not listed in the MAKE line, or they will be saved in config.sh and  
?X: loading this file to fetch default answers would clobber the values set  
?X: herein.  
?X:  
?MAKE:Options: startsh  
?MAKE: -pick wipe \$@ %<  
?V:reuseval  
alldone error realsilent silent extractsh fastread \  
override knowitall: config\_sh  
?T:arg argn symbol config\_arg0 config\_args config\_argc xxx yyy zzz uuu  
?T:args\_exp args\_sep arg\_exp  
?F:!Configure  
?F:./optdef.sh ./cmdline.opt ./posthint.sh ./cmdl.opt  
: Save command line options in file UU/cmdline.opt for later use in  
: generating config.sh.  
?X: This temporary file will be read by Oldsym.U. I used a temporary  
?X: file to preserve all sorts of potential command line quotes and  
?X: also because we don't know in advance how many variables we'll  
?X: need, so I can't actually declare them on the MAKE line.  
?X: The config\_args variable won't be quite correct if Configure is

?X: fed something like `./Configure -Dcc="gcc -B/usr/ccs/bin/"`

?X: since the quotes are gone by the time we see them. You'd have to

?X: reconstruct the command line from the `config_arg?` lines, but since

?X: I don't imagine anyone actually having to do that, I'm not going

?X: to worry too much.

```
cat > cmdline.opt
<<EOSH
: Configure command line arguments.
config_arg0='$0'
config_args='$*'
config_argc=$#
EOSH
argn=1
args_exp=""
args_sep=""
for arg in "$@"; do
 cat >>cmdline.opt <<EOSH
 config_arg$argn='$arg'
EOSH
?X: Extreme backslashitis: replace each ' by """"
cat <<EOC | sed -e "s/'/''''/g" > cmdl.opt
$arg
EOC
arg_exp=`cat cmdl.opt`
args_exp="$args_exp$args_sep'$arg_exp'"
argn=`expr $argn + 1`
args_sep=' '
done
?X: args_exp is good for restarting self: eval "set X $args_exp"; shift; $0 "$@"
?X: used by hints/os2.sh in Perl, for instance
rm -f cmdl.opt
```

```
: produce awk script to parse command line options
cat >options.awk <<'EOF'
BEGIN {
 optstr = "A:dD:eEf:hKOrsSU:V"; # getopt-style specification
```

```

 len = length(optstr);
 for (i = 1; i <= len; i++) {
 c = substr(optstr, i, 1);
?X: some older awk's do not have the C ?: construct
 if (i < len) a = substr(optstr, i + 1, 1); else a = "";
 if (a == ":") {
 arg[c] = 1;
 i++;
 }
 opt[c] = 1;
 }
}
```

```

}
{
expect = 0;
str = $0;
if (substr(str,
1, 1) != "-") {
printf("%s\n", str);
next;
}
len = length($0);
for (i = 2; i <= len; i++) {
c = substr(str, i, 1);
if (!opt[c]) {
printf("-%s\n", substr(str, i));
next;
}
printf("%s\n", c);
if (arg[c]) {
if (i < len)
printf("%s\n", substr(str, i + 1));
else
expect = 1;
next;
}
}
}
END {
if (expect)
print "?";
}
EOF

```

: process the command line options

?X: Use "\$@" to keep arguments with spaces in them from being split apart.

?X: For the same reason, awk will output quoted arguments and the final eval

?X: removes them and sets a proper \$\* array. An 'X' is prepended to each

?X: argument before being fed to echo to guard against 'echo -x', where -x

?X: would be understood as an echo option! It is removed before feeding awk.

set X `for arg in "\$@"; do echo "X\$arg"; done |

sed -e s/X// | awk -f options.awk`

eval "set \$\*"

shift

rm -f options.awk

: set up default values

fastread=""

reuseval=false

config\_sh=""

```
alldone=""
error=""
silent=""
extractsh=""
override=""
knowitall=""
rm
-f optdef.sh posthint.sh
cat >optdef.sh <<EOS
$startsh
EOS
```

?X:

?X: Given that we now have the possibility to execute Configure remotely

?X: thanks to the new src.U support, we have to face the possibility

?X: of having to ask where the source lie, which means we need the Myread.U

?X: stuff and possibly other things that might echo something on the

?X: screen...

?X:

?X: That's not pretty, and might be confusing in 99% of the time. So...

?X: We introduce a new realsilent variable which is set when -s is given,

?X: and we force silent=true if -S is supplied. The Extractall.U unit

?X: will then undo the >&4 redirection based on the value of the

?X: realsilent variable... -- RAM, 18/93/96

?X:

: option parsing

```
while test $# -gt 0; do
case "$1" in
-d) shift; fastread=yes;;
-e) shift; alldone=cont;;
-f)
shift
cd ..
if test -r "$1"; then
config_sh="$1"
else
echo "$me: cannot read config file $1." >&2
error=true
fi
cd UU
shift;;
-h)
shift; error=true;;
-r) shift; reuseval=true;;
-s) shift; silent=true; realsilent=true;;
-E) shift; alldone=exit;;
-K) shift; knowitall=true;;
```

```

-O) shift; override=true;;
-S) shift; silent=true; extractsh=true;;
-D)
 shift
 case "$1" in
 *)
 echo "$me: use '-U symbol=', not '-D symbol='." >&2
 echo "$me: ignoring -D $1" >&2
 ;;
 =) echo "$1" | \
 sed -e "s/'^\"'/g" -e "s/=(.*)/=\\1/" >> optdef.sh;;
 *) echo "$1='define'" >> optdef.sh;;
 esac
 shift
 ;;
-U)
 shift
 case "$1" in
 *) echo "$1" >> optdef.sh;;
 =)
 echo "$me: use '-D symbol=val', not '-U symbol=val'." >&2
 echo "$me: ignoring -U $1" >&2
 ;;
 *) echo "$1='undef'" >> optdef.sh;;
 esac
 shift
 ;;
-A)
 shift
 xxx=""
 yyy="$1"
 zzz=""
 uuu=undef
 case "$yyy" in
 =) zzz=`echo "$yyy"|sed 's!=.*!!'^
 case "$zzz" in
 .) zzz="" ;;
 *) xxx=append
 zzz=" "`echo
"$yyy"|sed 's!^[^=]*!!'^
 yyy=`echo "$yyy"|sed 's!=.*!!'^ ;;
 esac
 ;;
 esac
 case "$xxx" in
 ") case "$yyy" in
 .) xxx=`echo "$yyy"|sed 's!:.*!!'^
 yyy=`echo "$yyy"|sed 's!^[^:]*!!'^

```

```

 zzz=`echo "$yyy"|sed 's!^[^=]*=!!'^
 yyy=`echo "$yyy"|sed 's!=.*!!'^ ;;
) xxx=`echo "$yyy"|sed 's!:..!!'^
 yyy=`echo "$yyy"|sed 's!^[^:]*:!!'^ ;;
 esac
 ;;
 esac
 case "$xxx" in
 append)
 echo "$yyy=\("${$yyy}$zzz\"") >> posthint.sh ;;
 clear)
 echo "$yyy="" >> posthint.sh ;;
 define)
 case "$zzz" in
 ") zzz=define ;;
 esac
 echo "$yyy=$zzz" >> posthint.sh ;;
 eval \("${yyy=$zzz\"") >> posthint.sh ;;
 prepend)
 echo "$yyy=\("${zzz}${yyy}\"") >> posthint.sh ;;
 undef)
 case "$zzz" in
 ")
 zzz="$uuu" ;;
 esac
 echo "$yyy=$zzz" >> posthint.sh ;;
 *) echo "$me: unknown -A command '$xxx', ignoring -A $1" >&2 ;;
 esac
 shift
 ;;
-V) echo "$me generated by metaconfig <VERSION> PL<PATCHLEVEL>." >&2
 exit 0;;
--) break;;
-*) echo "$me: unknown option $1" >&2; shift; error=true;;
*) break;;
 esac
done

case "$error" in
true)
cat >&2 <<EOM
Usage: $me [-dehrsEKOSV] [-f config.sh] [-D symbol] [-D symbol=value]
 [-U symbol] [-U symbol=] [-A command:symbol...]
-d : use defaults for all answers.
-e : go on without questioning past the production of config.sh.
-f : specify an alternate default configuration file.
-h : print this help message and exit (with an error status).

```

-r : reuse C symbols value if possible (skips costly nm extraction).  
-s : silent mode, only echoes questions and essential information.  
-D : define symbol to have some value:  
    -D symbol      symbol gets the value 'define'  
    -D symbol=value  
    symbol gets the value 'value'  
-E : stop at the end of questions, after having produced config.sh.  
-K : do not use unless you know what you are doing.  
-O : let -D and -U override definitions from loaded configuration file.  
-S : perform variable substitutions on all .SH files (can mix with -f)  
-U : undefine symbol:  
    -U symbol   symbol gets the value 'undef'  
    -U symbol=   symbol gets completely empty  
-A : manipulate symbol after the platform specific hints have been applied:  
-A symbol=value append " "value to symbol  
-A append:symbol=value append value to symbol  
-A define:symbol=value define symbol to have value  
    -A clear:symbol define symbol to be "  
-A define:symbol define symbol to be 'define'  
-A eval:symbol=value define symbol to be eval of value  
-A prepend:symbol=value prepend value to symbol  
-A undef:symbol define symbol to be 'undef'  
-A undef:symbol= define symbol to be "  
-V : print version number and exit (with  
a zero status).

EOM

exit 1

::

esac

?X:

?X: Unless they specified either -S or both -d and -e/E, make sure we're

?X: running interactively, i.e. attached to a terminal. Moved from Head.U to

?X: be able to handle batch configurations...

?X:

?X: We have to hardwire the Configure name and cannot use \$me, since if they

?X: said 'sh <Configure', then \$me is 'sh'...

?X:

: Sanity checks

case "\$fastread\$alldone" in

yescont|yesexit) ;;

\*)

case "\$extractsh" in

true) ;;

\*)

if test ! -t 0; then

echo "Say 'sh Configure', not 'sh <Configure'"

exit 1



```
fi
;;
esac
;;
esac
```

```
?X: In silent mode, the standard output is closed. Questions are asked by
?X: outputting on file descriptor #4, which is the original stdout descriptor.
?X: This filters out all the "junk", since all the needed information is written
?X: on #4. Note that ksh will not let us redirect output if the file descriptor
?X: has not be defined yet, unlike sh, hence the following line...--RAM.
exec 4>&1
case "$silent" in
true)
exec 1>/dev/null;;
esac
```

```
: run the defines and the undefines, if any, but leave the file out there...
touch optdef.sh
. ./optdef.sh
: create the posthint manipulation script and leave the file out there...
?X: this file will be perused by Oldconfig.U
touch posthint.sh
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/Options.U
No license file was found, but licenses were detected in source scan.
```

```
?RCS: $Id: lib.U,v 3.0.1.3 1995/09/25 09:16:47 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: lib.U,v $
?RCS: Revision 3.0.1.3 1995/09/25 09:16:47 ram
?RCS: patch59: unit is now forced to the top of Configure, if possible
?RCS:
?RCS: Revision 3.0.1.2 1995/01/30 14:38:08 ram
?RCS: patch49: can now handle installation prefix changes (from WED)
?RCS:
?RCS: Revision 3.0.1.1 1994/08/29 16:27:40 ram
?RCS: patch32: now uses installation prefix to set the default
```

```

?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:56 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?LINT:
empty
?X:?MAKE:lib libexp: Getfile Loc Oldconfig Prefixit Prefixup prefixexp
?X:?MAKE: -pick add $@ %<
?X:?Y:TOP
?X:?S:lib:
?X:?S: This variable holds the name of the directory in which the user wants
?X:?S: to put public library files for the package in question. It is most
?X:?S: often a local directory such as /usr/local/lib. Programs using this
?X:?S: variable must be prepared to deal with filename expansion.
?X:?S:.
?X:?S:libexp:
?X:?S: This variable is the same as the lib variable, but is filename expanded
?X:?S: at configuration time, for convenient use in your makefiles.
?X:?S:.
?X:: determine where public libraries go
?X:set lib lib
?X:eval $prefixit
?X:case "$lib" in
?X:")
?X: dflt=`./loc . ." $prefixexp/lib /usr/local/lib /usr/lib /lib`
?X: set dflt
?X: eval $prefixup
?X: ;;
?X:*) dflt="$lib";;
?X:esac
?X:echo " "
?X:fn=d~
?X:rp='Where do you want to put the public libraries?'
?X:. /getfile
?X:lib="$ans"
?X:libexp="$ansexp"

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/nullified/lib.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_fgetpos.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.

```

?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_fgetpos.U,v \$

?RCS: Revision 3.0.1.1 1994/06/20 06:57:33 ram

?RCS: patch30: created

?RCS:

?MAKE:d\_fgetpos: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fgetpos:

?S: This variable conditionally defines HAS\_FGETPOS if fgetpos() is

?S: available to get the file position indicator.

?S:.

?C:HAS\_FGETPOS:

?C: This symbol, if defined, indicates that the fgetpos routine is

?C: available to get the file position indicator, similar to ftell().

?C:.

?H:#\$d\_fgetpos

HAS\_FGETPOS /\*\*/

?H:.

?LINT:set d\_fgetpos

: see if fgetpos exists

set fgetpos d\_fgetpos

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_fgetpos.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_isinfl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_isinfl:

?S: This variable conditionally defines the HAS\_ISINFL symbol, which

?S: indicates to the C program that the isinfl() routine is available.

?S:.

?C:HAS\_ISINFL:

?C: This symbol, if defined, indicates that the isinfl routine is

?C: available to check whether a long double is an infinity.

?C:.

?H:#\$d\_isinfl HAS\_ISINFL /\*\*/

?H:.

?LINT:set d\_isinfl

: see if isinfl exists

set isinfl d\_isinfl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_isinfl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: End.U,v 3.0 1993/08/18 12:04:51 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: End.U,v \$

?RCS: Revision 3.0 1993/08/18 12:04:51 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit serves as the goal which forces make to choose all the units that

?X: ask questions. The \$W on the ?MAKE: line is the list of all symbols wanted.

?X: To force any unit to be included, copy this unit to your private U directory

?X: and add the name of the unit desired to the ?MAKE: dependency line.

?X:

?MAKE:End perllibs: \$W cppstdin gzip zip

libs usedl osname osvers

?MAKE: -pick add \$@ %<

?S:perllibs:

?S: The list of libraries needed by Perl only (any libraries needed

?S: by extensions only will be dropped, if using dynamic loading).

?S:.

?INIT:perllibs="

?LINT:use \$W

?LINT:use gzip zip

?LINT:change cppstdin

: Remove libraries needed only for extensions

: The appropriate ext/Foo/Makefile.PL will add them back in, if necessary.

: The exception is SunOS 4.x, which needs them.

case "\${osname}X\${osvers}" in

sunos\*X4\*)

```

 perllibs="$libs"
 ;;
*) case "$usedl" in
 $define|true|[yY]*)
 set X `echo " $libs " | sed -e 's@ -lndbm @ @' -e 's@ -lgdbm @ @' -e 's@ -lgdbm_compat @ @' -e 's@ -ldb @ @' -e 's@ -ldb @ @'`
 shift
 perllibs="$*"
 ;;
*) perllibs="$libs"
 ;;
esac
;;
esac

```

?X: If the user has the cppstd in wrapper, perl.c will try to call  
 ?X: CPPSTDIN, but that will point to a location in the build  
 ?X: directory, not the installed version!. Here, we'll just strip the  
 ?X: name down to 'cppstd in',  
 and rely on the fact that perl.c will  
 ?X: then call SCRIPTDIR/cppstd in, but local things like 'make depend'  
 ?X: will continue to work.

: Remove build directory name from cppstd in so it can be used from  
 : either the present location or the final installed location.

echo " "

: Get out of the UU directory to get correct path name.

cd ..

case "\$cppstd in" in

`pwd`/cppstd in)

echo "Stripping down cppstd in path name"

cppstd in=cppstd in

;;

esac

cd UU

: end of configuration questions

echo " "

echo "End of configuration questions."

echo " "

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/End.U

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_ilogb: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_ilogb:  
?S: This variable conditionally defines the HAS\_ILOGB symbol, which  
?S: indicates to the C program that the ilogb() routine is available  
?S: for extracting the exponent of double x as a signed integer.  
?S:.  
?C:HAS\_ILOGB:  
?C: This symbol, if defined, indicates that the ilogb routine is  
?C: available to get integer exponent of a floating-point value.  
?C:.  
?H:#\$d\_ilogb HAS\_ILOGB /\*\*/  
?H:.  
?LINT:set d\_ilogb  
: see if ilogb exists  
set ilogb d\_ilogb  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_ilogb.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Cppsym.U,v 3.0.1.5 1995/05/12 11:59:11 ram Exp \$  
?RCS:  
?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
?RCS:  
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?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: Cppsym.U,v \$  
?RCS: Revision 3.0.1.5 1995/05/12 11:59:11 ram  
?RCS: patch54: split awk command onto two lines for older awk's (ADO)  
?RCS:  
?RCS: Revision 3.0.1.4 1995/01/11 14:55:57 ram  
?RCS: patch45: new cc vs. cpp symbol checking suggested by JHI  
?RCS: patch45: added more cpp symbols (JHI)  
?RCS:  
?RCS: Revision 3.0.1.3 1994/10/29 15:51:32 ram  
?RCS: patch36: added ?F: line for metalint file checking  
?RCS: patch36: new symbols ardent and titan (ADO)  
?RCS:  
?RCS:  
Revision 3.0.1.2 1994/06/20 06:53:32 ram  
?RCS: patch30: extended cpp symbol lookup list (JHI)

?RCS: patch30: renamed attrlist symbol into al for brevity

?RCS:

?RCS: Revision 3.0.1.1 1993/12/15 08:14:14 ram

?RCS: patch15: added new cpp symbols \_\_bsdi\_\_ and BSD\_NET2

?RCS:

?RCS: Revision 3.0 1993/08/18 12:04:50 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X: This unit produces a shell script called Cppsym, which can be used to

?X: determine whether any in a list of symbols is defined by the C compilation

?X: chain (C preprocessor symbols plus C compiler native ones).

?X: It can determine the status of any symbol, though the symbols in \$al

?X: are more easily determined. If you want to add to \$al you can do

?X: it in Myinit.U.

?MAKE:Cppsym ccsymbols cppsymbols cppccsymbols: run \  
eunicefix Guess awk cat tr sed sort rm rm\_try startsh osname \  
+cc +gccversion test comm uniq echo Options trnl \  
optimize cflags ldflags libs cpp\_stuff cpp

?MAKE: -pick add \$@ %<

?T:also

symbols i postprocess\_cc\_v tHdrH

?X:

?X: The symbol list is in alpha order for ease of maintenance...

?X:

?X: Lots of new symbols (mostly rummaged from gcc), courtesy of

?X: Jarkko Hietaniemi <jhi@snakemail.hut.fi> -- RAM, 06/06/94

?X:

?S:ccsymbols:

?S: The variable contains the symbols defined by the C compiler alone.

?S: The symbols defined by cpp or by cc when it calls cpp are not in

?S: this list, see cppsymbols and cppccsymbols.

?S: The list is a space-separated list of symbol=value tokens.

?S:.

?S:cppsymbols:

?S: The variable contains the symbols defined by the C preprocessor

?S: alone. The symbols defined by cc or by cc when it calls cpp are

?S: not in this list, see ccsymbols and cppccsymbols.

?S: The list is a space-separated list of symbol=value tokens.

?S:.

?S:cppccsymbols:

?S: The variable contains the symbols defined by the C compiler

?S: when it calls cpp. The symbols defined by the cc alone or cpp

?S: alone are not in this list, see ccsymbols and cppsymbols.

?S: The

list is a space-separated list of symbol=value tokens.

?S:.

?F:./Cppsym

?F:./Cppsym.know

```

?F:!Cppsym.true
?F:!ccsym.com
?F:!ccsym.cpp
?F:!ccsym.own
?X: fake LINT hints
?LINT:change ccflags
?LINT:extern s
?LINT:extern s__
: Preprocessor symbols
echo " "
$echo "Guessing which symbols your C compiler and preprocessor define..." >&4
?X: If your symbol is mixed case, just add it as-is.
?X: All symbols will be transformed to both all-lower and all-upper.
?X: Also drop any leading/trailing underscores, the scan will try all those.
$cat <<'EOSH' > Cppsym.know
a29k aarch64 ABI64 aegis AES_SOURCE AIX AIX32 AIX370 AIX41 AIX42
AIX43 aixpc AIX_SOURCE alliant ALL_SOURCE alpha AM29000 am29000
AMD64 amd64 amiga AMIGAOS AMIX ansi ANSI_C_SOURCE apollo arch_ppc
arch_pwr ardent ARM ARM32 atarist att386 att3b
BeOS BIG_ENDIAN BIT_MSF BSD bsd bsd43 bsd4_2 BSD4_3 bsd4_3 bsd4_4
BSDCOMPAT bsdi BSD_4_3 BSD_4_4 BSD_NET2 BSD_TIME BSD_TYPES bull
byteorder byte_order
c cadmus clang clipper CMU COFF COMPILER_VERSION
concurrent
convex cpu CRAY cray CRAYMPP ctix CX_UX CYGWIN
DECC DGUX DGUX_SOURCE DJGPP dmert DOLPHIN DPX2 DSO Dynix DynixPTX
ELF encore EPI EXTENSIONS
FAVOR_BSD FILE_OFFSET_BITS FORTIFY_SOURCE FreeBSD
GCC_NEW_VARARGS gcos gcx gimpel GLIBC GLIBC_MINOR GNUC GNUC_MINOR
GNU_LIBRARY GNU_SOURCE GO32 gould GOULD_PN
H3050R H3050RX hbullx20 hcx host_mips hp200 hp300 HP700 hp700
hp800 hp9000 hp9000s200 hp9000s300 hp9000s400
hp9000s700 hp9000s800 hp9k8 hppa hpux HPUX_SOURCE hp_osf
i186 i286 i386 i486 i586 i686 i8086 i80960 i860 I960 IA32 IA64
iAPX286 ibm ibm032 ibmesa IBMR2 ibmrt ILP32 ILP64
INLINE_INTRINSICS INT64 INTEL interdata INTRINSICS is68k titanium
ksr1
LANGUAGE_C LARGEFILE64_SOURCE LARGEFILE_SOURCE LARGE_FILE_API
LFS64_LARGEFILE LFS_LARGEFILE LIBCATAMOUNT Linux LITTLE_ENDIAN
LONG64 LONGDOUBLE LONGLONG LONG_DOUBLE LONG_LONG LP64 luna
luna88k Lynx
M68000 m68k m88100 m88k M88KBCS_TARGET MACH machine MachTen
MATH_HAS_NO_SIDE_EFFECTS mc300 mc500 mc68000 mc68010 mc68020
mc68030 mc68040 mc68060
mc68k mc68k32 mc700 mc88000 mc88100
merlin mert MiNT mips MIPSEB MIPSEL MIPS_FPSET MIPS_ISA MIPS_SIM
MIPS_SZINT MIPS_SZLONG MIPS_SZPTR MODERN_C motorola mpeix MSDOS
MTXINU MULTIMAX MVS mvs M_AMD64 M_ARM M_ARMT M_COFF M_I186 M_I286

```



M\_I386 M\_I8086 M\_I86 M\_I86SM M\_IA64 M\_IX86 M\_PPC M\_SYS3 M\_SYS5  
M\_SYSIII M\_SYSV M\_UNIX M\_X86 M\_XENIX  
n16 ncl\_el ncl\_mr NetBSD news1500 news1700 news1800 news1900  
news3700 news700 news800 news900 NeXT NLS nonstopux ns16000  
ns32000 ns32016 ns32332 ns32k nsc32000  
OCS88 OEMVS OpenBSD os OS2 OS390 osf OSF1 OSF\_SOURCE  
PARAGON parisc pa\_risc PA\_RISC1\_1 PA\_RISC2\_0 pc532 pdp11 PGC PIC  
plexus PORTAR posix POSIX1B\_SOURCE POSIX2\_SOURCE POSIX4\_SOURCE  
POSIX\_C\_SOURCE POSIX\_SOURCE POWER powerpc ppc PROTOTYPES PWB pyr  
QK\_USER QNX  
R3000 REENTRANT RES Rhapsody RISC6000 riscix riscos RT  
S390 S390x SA110 SCO scs sequent sgi SGI\_SOURCE SH SH3 sinix  
SIZE\_INT SIZE\_LONG SIZE\_PTR SOCKETS\_SOURCE SOCKET\_SOURCE sony  
sonyrisec sony\_news sparc sparclite sparcv8 sparcv9 spectrum  
stardent  
stdc STDC\_EXT stratos sun sun3 sun386 Sun386i svr3 svr4  
SVR4\_2 SVR4\_SOURCE svr5 SX system SYSTYPE\_BSD SYSTYPE\_BSD43  
SYSTYPE\_BSD44 SYSTYPE\_SVR4 SYSTYPE\_SVR5 SYSTYPE\_SYSV SYSV SYSV3  
SYSV4 SYSV5 sysV68 sysV88  
Tek4132 Tek4300 thumb thw\_370 thw\_intel thw\_rs6000 titan TM3200  
TM5400 TM5600 tower tower32 tower32\_200 tower32\_600 tower32\_700  
tower32\_800 tower32\_850 tss  
u370 u3b u3b2 u3b20 u3b200 u3b20d u3b5 ultrix UMAXV UnicomPBB  
UnicomPBD UNICOS UNICOSMK unix UNIX95 UNIX99 unixpc unos USE\_BSD  
USE\_FILE\_OFFSET64 USE\_GNU USE\_ISOC9X USE\_LARGEFILE  
USE\_LARGEFILE64 USE\_MISC USE\_POSIX USE\_POSIX199309  
USE\_POSIX199506 USE\_POSIX2 USE\_REENTRANT USE\_SVID USE\_UNIX98  
USE\_XOPEN USE\_XOPEN\_EXTENDED USGr4 USGr4\_2 UTek Utek UTS UWIN  
uxpm uxps  
vax venix VMESA vms  
x86\_64 xenix Xenix286 XOPEN\_SOURCE XOPEN\_SOURCE\_EXTENDED XPG2  
XPG2\_EXTENDED XPG3 XPG3\_EXTENDED XPG4 XPG4\_EXTENDED  
z8000 zarch  
EOSH  
# Maybe put other stuff here too.  
?X:Some OS's will have a dash in their \$osname  
?X:e.g. Android is known as linux-android  
?X:The  
preprocessor will interpret the dash as a minus  
./tr '-' '\_' <<EOSH >>Cppsym.know  
\$osname  
EOSH  
./tr '[a-z]' '[A-Z]' < Cppsym.know > Cppsym.a  
./tr '[A-Z]' '[a-z]' < Cppsym.know > Cppsym.b  
\$cat Cppsym.know > Cppsym.c  
\$cat Cppsym.a Cppsym.b Cppsym.c | \$tr ' ' \$trnl | \$sort | \$uniq > Cppsym.know  
\$rm -f Cppsym.a Cppsym.b Cppsym.c  
cat <<EOSH > Cppsym

```

$startsh
if $test $# -gt 0; then
 echo \${*} | $tr " " "$trnl" | ./Cppsym.try > Cppsym.got
 if $test -s Cppsym.got; then
 $rm -f Cppsym.got
 exit 0
 fi
 $rm -f Cppsym.got
 exit 1
else
 $tr " " "$trnl" | ./Cppsym.try
 exit 0
fi
EOSH
chmod +x Cppsym
$unicefix Cppsym
?X: The below awk script will die a horrible death if
?X: some of the tested symbols are not long ints.
?X: Also, we do not make difference between just defined and defined zero.
cat <<EOSH > Cppsym.try
$startsh
cat <<'EOCP' > try.c
#include <stdio.h>
#if cpp_stuff == 1
#define STRINGIFY(a) "a"
#endif
#if cpp_stuff == 42
#define StGiFy(a) #a
#define STRINGIFY(a)
 StGiFy(a)
#endif
#if $cpp_stuff != 1 && $cpp_stuff != 42
include "Bleth: How does this C preprocessor stringify macros?"
#endif
int main() {
EOCP
?X: The length($1) command guards against possible empty entries.
?X: The awk snippet is know to give heartburn to UNICOS/mk awk.
$awk \
EOSH
cat <<'EOSH' >> Cppsym.try
'length($1) > 0 {
 printf "#ifdef %s\nprintf(\"%s=%s\n\", STRINGIFY(%s));\n#endif\n", $1, $1, $1
 printf "#ifdef _%s\nprintf(\"_%s=%s\n\", STRINGIFY(_%s));\n#endif\n", $1, $1, $1
 printf "#ifdef __%s\nprintf(\"__%s=%s\n\", STRINGIFY(__%s));\n#endif\n", $1, $1, $1
 printf "#ifdef __%s_\nprintf(\"__%s_=%s\n\", STRINGIFY(__%s_));\n#endif\n", $1, $1, $1
}' >> try.c
echo 'return 0;}' >> try.c

```

```

EOSH
cat <<EOSH >> Cppsym.try
ccflags="$ccflags"
case "$osname-$gccversion" in
irix-) ccflags="\$ccflags -woff 1178" ;;
os2-*) ccflags="\$ccflags -Zlinker /PM:VIO" ;;
esac
$cc -o try -Dcpp_stuff=$cpp_stuff $optimize \$ccflags $ldflags try.c $libs 2>/dev/null
&& $run ./try | $sed 's/ ^\\\\/g'
EOSH
chmod +x Cppsym.try
$unicefix Cppsym.try
./Cppsym < Cppsym.know | $sort | $uniq > Cppsym.true
: Add in any Linux cpp "predefined macros":
case "$osname::$gccversion" in
linux:*.*|*gnu*:*.*|*gnu*:*.*|*gnu*:*.*)
 tHdrH=_tmpHdr
 rm -f $tHdrH.h' $tHdrH
 touch $tHdrH.h'
 # Filter out macro arguments, such as Linux's __INT8_C(c)
 if $cpp -dM $tHdrH.h' > $tHdrH_cppsym.h' && [-s $tHdrH_cppsym.h']; then
 sed -e 's/#define[\\]*//;s/[\\]*$/' -e 's/(.*) <$tHdrH_cppsym.h' >$tHdrH_cppsym.real'
 if [-s $tHdrH_cppsym.real']; then
 cat $tHdrH_cppsym.real' Cppsym.know | sort | uniq | ./Cppsym | sort | uniq > Cppsym.true
 fi
 fi
 rm -f $tHdrH.h' $tHdrH_cppsym.h' $tHdrH_cppsym.real'
;;
esac
: now check the C compiler for additional symbols
?X: suggested by Jarkko Hietaniemi <jhi@snakemail.hut.fi>, thanks!
postprocess_cc_v="
case "$osname" in
aix) postprocess_cc_v="|str , ' "' ;;
esac
$cat
>ccsym <<EOS
$startsh
$cat >tmp.c <<EOF
extern int foo;
EOF
for i in ` $cc -v -c tmp.c 2>&1 $postprocess_cc_v `
do
 case "$i" in
-D*) echo "$i" | $sed 's/^-D//';;
-A*) $test "$gccversion" && echo "$i" | $sed 's/^-A//' | $sed 's/^(.*)((.*))\^1=|2//';;
esac
done

```

```

$rm_try
EOS
postprocess_cc_v="
chmod +x ccSYM
$unicefix ccSYM
./ccSYM > ccSYM1.raw
?X: AIX complains if $uniq is passed an empty file. ($sort apparently
?X: doesn't care.) --AD 14 July 1998
if $test -s ccSYM1.raw; then
 $sort ccSYM1.raw | $uniq >ccSYM.raw
else
 mv ccSYM1.raw ccSYM.raw
fi

?X: canonicalize symbols for easier sort/uniq/comm usage: append =1 if no = sign
?X: the awk script must be on two lines for older awk programs, sigh! -- ADO
$awk '/^=/ { print $0; next }
{ print $0"=1" }' ccSYM.raw >ccSYM.list
$comm -13 CppSYM.true ccSYM.list >ccSYM.own
$comm -12 CppSYM.true ccSYM.list >ccSYM.com
$comm -23 CppSYM.true ccSYM.list >ccSYM.cpp
also="
if $test -z ccSYM.raw; then
 echo "Your C compiler doesn't
 seem to define any symbols!" >&4
 echo " "
 echo "However, your C preprocessor defines the following symbols:"
 $cat CppSYM.true
 ccSYMBOLS="
 cppSYMBOLS=`$cat CppSYM.true`
 cppSYMBOLS=`echo $cppSYMBOLS`
 cppCCSYMBOLS="$cppSYMBOLS"
else
 if $test -s ccSYM.com; then
 echo "Your C compiler and pre-processor define these symbols:"
 $sed -e 's/^(.*)=.*^1/' ccSYM.com
 also='also '
 SYMBOLS='ones'
 cppCCSYMBOLS=`$cat ccSYM.com`
 cppCCSYMBOLS=`echo $cppCCSYMBOLS`
 $test "$SILENT" || sleep 1
 fi
 if $test -s ccSYM.cpp; then
 $test "$SALSO" && echo " "
 echo "Your C pre-processor ${also}defines the following symbols:"
 $sed -e 's/^(.*)=.*^1/' ccSYM.cpp
 also='further '
 cppSYMBOLS=`$cat ccSYM.cpp`

```

```

cppsymbols=`echo $cppsymbols`
$test "$$silent" || sleep 1
fi
if $test -s ccsym.own; then
$test "$also" && echo " "
echo "Your C compiler ${also} defines the following cpp symbols:"
$sed -e 's/(.*\)=1\1/' ccsym.own
$sed -e 's/(.*\)=.*\1/' ccsym.own | $uniq >>Cppsym.true
ccsymbols=`$cat
ccsym.own`
ccsymbols=`echo $ccsymbols`
$test "$$silent" || sleep 1
fi
fi

: add -D_FORTIFY_SOURCE if feasible and not already there
case "$gccversion" in
[456789].*) case "$optimize$ccflags" in
-O) case "$ccflags$cppsymbols" in
_FORTIFY_SOURCE=) # Don't add it again.
echo "You seem to have -D_FORTIFY_SOURCE already, not adding it." >&4
;;
*) echo "Adding -D_FORTIFY_SOURCE=2 to ccflags..." >&4
ccflags="$ccflags -D_FORTIFY_SOURCE=2"
;;
esac
;;
) echo "You have gcc 4. or later but not optimizing, not adding -D_FORTIFY_SOURCE." >&4
;;
esac
;;
) echo "You seem not to have gcc 4. or later, not adding -D_FORTIFY_SOURCE." >&4
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Cppsym.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_syspoll.U 15 2006-08-30 18:21:51Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.  
?RCS:  
?MAKE:i\_syspoll: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_syspoll:  
?S: This variable conditionally defines the I\_SYS\_POLL symbol, which  
?S: indicates to the C program that it should include <sys/poll.h>.  
?S:.  
?C:I\_SYS\_POLL:  
?C: This symbol, if defined, indicates that the program may include  
?C: <sys/poll.h>. When I\_POLL is also defined, it's probably safest  
?C: to only include <poll.h>.  
?C:.  
?H:#\$i\_syspoll I\_SYS\_POLL /\*\*/  
?H:.  
?LINT:set i\_syspoll  
: see if there is  
a sys/poll.h file  
set sys/poll.h i\_syspoll  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_syspoll.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getsent.U,v 3.0 1993/08/18 12:06:09 ram Exp \$  
?RCS:  
?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
?RCS:  
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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: d\_getsent.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:06:09 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_getsent: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_getsent:  
?S: This variable conditionally defines HAS\_GETSERVENT if getservernt() is  
?S: available to look up network services in some data base or another.  
?S:.  
?C:HAS\_GETSERVENT:  
?C: This symbol, if defined, indicates that the getservernt() routine is

?C: available to look up network services in some data base or another.

?C:.

?H:#\$d\_getsent HAS\_GETSERVENT /\*\*/

?H:.

?LINT:set d\_getsent

: see if getservent exists

set getservent d\_getsent

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_getsent.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_strstr.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS:

?RCS: \$Log: d\_strstr.U,v \$

?RCS: Revision 3.0 1993/08/18 12:07:37 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_strstr: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_strstr:

?S: This variable conditionally defines HAS\_STRSTR if strstr() is

?S: available to find substrings.

?S:.

?C:HAS\_STRSTR (STRSTR):

?C: This symbol, if defined, indicates that the strstr routine is

?C: available to find substrings.

?C:.

?H:#\$d\_strstr HAS\_STRSTR /\*\*/

?H:.

?LINT:set d\_strstr

:

see if strstr exists

set strstr d\_strstr

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_strstr.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: sockopt.U,v 3.0.1.1 1995/07/25 14:16:14 ram Exp $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
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```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: sockopt.U,v $
```

```
?RCS: Revision 3.0.1.1 1995/07/25 14:16:14 ram
```

```
?RCS: patch56: obsoleted KEEPALIVE in favor of CAN_KEEPALIVE for consistency
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:09:48 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_keepalive: cat rm contains +cc +ccflags +ldflags socketlib sockethdr \
d_oldsock libs Oldconfig Setvar Findhdr
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_keepalive:
```

```
?S: This symbol conditionally defines CAN_KEEPALIVE which
indicates to the C
```

```
?S: program that setsockopt SO_KEEPALIVE will work properly.
```

```
?S:.
```

```
?C:CAN_KEEPALIVE (KEEPALIVE):
```

```
?C: This symbol if defined indicates to the C program that the SO_KEEPALIVE
```

```
?C: option of setsockopt() will work as advertised in the manual.
```

```
?C:.
```

```
?H:#$d_keepalive CAN_KEEPALIVE /**/
```

```
?H:.
```

```
?F:!socket
```

```
?LINT:set d_keepalive
```

```
: see if setsockopt with SO_KEEPALIVE works as advertised
```

```
echo " "
```

```
case "$d_oldsock" in
```

```
"$undef")
```

```
if $contains SO_KEEPALIVE `./findhdr sys/socket.h` \
/dev/null >/dev/null 2>&1
```

```
then
```

```
echo "OK, let's see if SO_KEEPALIVE works as advertised..." >&4
$cat > socket.c <<EOP
```

```
#include <sys/types.h>
#include <sys/socket.h>
```



```

#include <netinet/in.h>
#include <netdb.h>

int main()
{
int s = socket(AF_INET, SOCK_STREAM, 0);
if (s == -1)
 exit(1);
if (-1 == setsockopt(s, SOL_SOCKET, SO_KEEPALIVE, 0, 0))
 exit(2);
exit(0);
}
EOP
if $cc $cflags $sockethdr $ldflags -o socket socket.c $libs \
 $socketlib >/dev/null 2>&1; then
 ./socket >/dev/null 2>&1
 case
$? in
 0) echo "Yes, it does!"
 val="$define";;
 1) $cat <<EOM
(Something went wrong -- Assuming SO_KEEPALIVE is broken)
EOM
 val="$undef";;
 2) echo "No, it doesn't. Don't trust your manuals!!"
 val="$undef";;
 esac
 else
 cat <<EOM
(I can't compile the test program -- Assuming SO_KEEPALIVE is broken)
EOM
 val="$undef"
 fi
 else
 echo "Strange!! You have BSD 4.2 sockets but no SO_KEEPALIVE option."
 val="$undef"
 fi;;
*) cat <<EOM
As you have an old socket interface, you can't have heard of SO_KEEPALIVE.
EOM
 val="$undef";;
 esac
 set d_keepalive
 eval $setvar
 $rm -f socket socket.c

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/compline/sockopt.U

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?RCS: \$Id: vaproto.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS:

?RCS: Original Author: Graham Stoney <greyham@research.canon.oz.au>

?RCS:

?RCS: \$Log: vaproto.U,v \$

?RCS: Revision 3.0.1.1 1994/01/24 14:17:16 ram

?RCS: patch16: definition of \_V now appears only when needed

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:59 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:vaproto: prototype i\_stdarg Setvar

?MAKE: -pick add \$@ %<

?S:vaproto:

?S: This variable conditionally defines CAN\_VAPROTO on systems supporting

?S: prototype

declaration of functions with a variable number of

?S: arguments. See also prototype.

?S:.

?C:CAN\_VAPROTO ~ %<:

?C: This variable is defined on systems supporting prototype declaration

?C: of functions with a variable number of arguments.

?C:.

?C:\_V:

?C: This macro is used to declare function parameters in prototypes for

?C: functions with a variable number of parameters. Use double parentheses.

?C: For example:

?C:

?C: int printf \_V((char \*fmt, ...));

?C:

?C: Remember to use the plain simple \_() macro when declaring a function

?C: with no variable number of arguments, since it might be possible to

?C: have a non-effect \_V() macro and still get prototypes via \_().

?C:.

?H:%<:#\$vaproto CAN\_VAPROTO /\*\*/

?H:?\_V:#ifdef CAN\_VAPROTO

?H:?\_V:#define \_V(args) args

```

?H:?_V:#else
?H:?_V:#define _V(args) ()
?H:?_V:#endif
?H:.
?W:%<:_V
?LINT:set vaproto
: see if prototypes support variable argument declarations
echo " "
case "$prototype$i_stdarg" in
$define$define)
echo "It appears we'll
be able to prototype varargs functions." >&4
val="$define"
;;
*)
echo "Too bad... We won't be using prototyped varargs functions..." >&4
val="$undef"
;;
esac
set vaproto
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/vaproto.U

```

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```

?RCS: $Id: Warn_v7ND.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
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?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: Warn_v7ND.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:01:46 ram
?RCS: patch36: call ./v7 explicitly instead of relying on PATH
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:18 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit warns V7 sites that they may not have a non-blocking read.
?X: This unit needs to be mentioned in End.U to get included.
?X:

```

```
?MAKE:Warn_v7ND: package Guess
?MAKE: -pick add $@ %<
: Warnings
if ./v7; then
cat
<<EOM
```

NOTE: many V7 systems do not have a way to do a non-blocking read. If you don't have any of FIONREAD, O\_NDELAY, or rdchk(), the \$package package may not work as well as it might. It might not work at all.

```
EOM
fi
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Warn_v7ND.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: h_fcntl.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: h_fcntl.U,v $
?RCS: Revision 3.0 1993/08/18 12:08:12 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:h_fcntl: Nothing
?MAKE: -pick add $@ %<
?S:h_fcntl:
?S: This is variable gets set in various places to tell i_fcntl that
?S: <fcntl.h> should be included.
?S:.
: Initialize h_fcntl
h_fcntl=false
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/h_fcntl.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: gidtype.U,v 3.0.1.3 1994/08/29 16:21:44 ram Exp $
?RCS:
```

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: gidtype.U,v \$

?RCS: Revision 3.0.1.3 1994/08/29 16:21:44 ram

?RCS: patch32: now uses new Typedef unit to compute type information

?RCS: patch32: removed useless usage of Setvar (for now)

?RCS:

?RCS: Revision 3.0.1.2 1994/05/13 15:21:07 ram

?RCS: patch27: added lint hint

?RCS:

?RCS: Revision 3.0.1.1 1994/05/06 15:01:51 ram

?RCS: patch23: protected gidtype setting via setvar (ADO)

?RCS: patch23: made Gid\_t comment more explicit (ADO)

?RCS:

?RCS: Revision  
3.0 1993/08/18 12:08:11 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:gidtype: Myread Typedef Findhdr

?MAKE: -pick add \$@ %<

?S:gidtype:

?S: This variable defines Gid\_t to be something like gid\_t, int,  
?S: ushort, or whatever type is used to declare the return type  
?S: of getgid(). Typically, it is the type of group ids in the kernel.

?S:.

?C:Gid\_t (GIDTYPE):

?C: This symbol holds the return type of getgid() and the type of  
?C: argument to setrgid() and related functions. Typically,  
?C: it is the type of group ids in the kernel. It can be int, ushort,  
?C: gid\_t, etc... It may be necessary to include <sys/types.h> to get  
?C: any typedef'ed information.

?C:.

?H:#define Gid\_t \$gidtype /\* Type for getgid(), etc... \*/

?H:.

?T:xxx

: see what type gids are declared as in the kernel

echo " "

echo "Looking for the type for group ids returned by getgid()."

set gid\_t gidtype xxx stdio.h sys/types.h

eval \$typedef

case "\$gidtype" in

xxx)

```

xxx=`./findhdr sys/user.h`
set `grep
'groups\[NGROUPS\];' "$xxx" 2>/dev/null` unsigned short
case $1 in
unsigned) dflt="$1 $2" ;;
*) dflt="$1" ;;
esac
;;
*) dflt="$gidtype";;
esac
case "$gidtype" in
gid_t) echo "gid_t found." ;;
*) rp="What is the type for group ids returned by getgid()"
./myread
gidtype="$ans"
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/gidtype.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_fpclass: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fpclass:

?S: This variable conditionally defines the HAS\_FPCLASS symbol, which

?S: indicates to the C program that the fpclass() routine is available.

?S:.

?C:HAS\_FPCLASS:

?C: This symbol, if defined, indicates that the fpclass routine is

?C: available to classify doubles. Available for example in Solaris/SVR4.

?C: The returned values are defined in <ieeefp.h> and are:

?C:

?C: FP\_SNAN signaling NaN

?C: FP\_QNAN quiet NaN

?C: FP\_NINF negative infinity

?C: FP\_PINF positive infinity

?C: FP\_NDENORM negative denormalized non-zero

?C: FP\_PDENORM positive denormalized non-zero

?C: FP\_NZERO negative zero

?C: FP\_PZERO positive zero  
?C: FP\_NNORM negative normalized  
non-zero  
?C: FP\_PNORM positive normalized non-zero  
?C:.  
?H:#\$d\_fpclass HAS\_FPCLASS /\*\*/  
?H:.  
?LINT:set d\_fpclass  
: see if fpclass exists  
set fpclass d\_fpclass  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fpclass.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 2009 H.Merijn Brand  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_getaddrinfo: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_getaddrinfo:  
?S: This variable conditionally defines the HAS\_GETADDRINFO symbol,  
?S: which indicates to the C program that the getaddrinfo() function  
?S: is available.  
?S:.  
?C:HAS\_GETADDRINFO:  
?C: This symbol, if defined, indicates that the getaddrinfo() function  
?C: is available for use.  
?C:.  
?H:#\$d\_getaddrinfo HAS\_GETADDRINFO /\*\*/  
?H:.  
?LINT:set d\_getaddrinfo  
: see if getaddrinfo exists  
set getaddrinfo d\_getaddrinfo  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_getaddrinfo.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_mbtowc.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:  
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 ?RCS: of the source tree for dist 4.0.  
 ?RCS:  
 ?RCS: \$Log: d\_mbtowc.U,v \$  
 ?RCS: Revision 3.0 1993/08/18 12:06:30 ram  
 ?RCS: Baseline for dist 3.0 netwide release.  
 ?RCS:  
 ?MAKE:d\_mbtowc: Inlibc  
 ?MAKE: -pick add \$@ %<  
 ?S:d\_mbtowc:  
 ?S: This variable conditionally defines the HAS\_MBTOWC symbol, which  
 ?S: indicates to the C program that the mbtowc() routine is available  
 ?S: to convert multibyte to a wide character.  
 ?S:.  
 ?C:HAS\_MBTOWC (MBTOWC):  
 ?C: This symbol, if defined, indicates that the mbtowc routine is available  
 ?C: to  
 convert a multibyte to a wide character.  
 ?C:.  
 ?H:#\$d\_mbtowc HAS\_MBTOWC /\*\*/  
 ?H:.  
 ?LINT:set d\_mbtowc  
 : see if mbtowc exists  
 set mbtowc d\_mbtowc  
 eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_mbtowc.U

No license file was found, but licenses were detected in source scan.

\* You may redistribute only under the terms of the Artistic Licence,

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/files/Jmake.tmpl

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_lround: Inlibc



?MAKE: -pick add \$@ %<  
?S:d\_around:  
?S: This variable conditionally defines the HAS\_LROUND symbol, which  
?S: indicates to the C program that the lround() routine is available  
?S: to return the integral value nearest to x.  
?S:.  
?C:HAS\_LROUND:  
?C: This symbol, if defined, indicates that the lround routine is  
?C: available to return the nearest integral value.  
?C:.  
?H:#\$d\_around HAS\_LROUND /\*\*/  
?H:.  
?LINT:set d\_around  
: see if lround exists  
set lround d\_around  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_around.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_sysutsname.U,v \$  
?RCS:  
?RCS: Copyright (c) 2000 Jarkko Hietaniemi  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:i\_sysutsname: Inhdr Hasfield  
?MAKE: -pick add \$@ %<  
?S:i\_sysutsname:  
?S: This variable conditionally defines the I\_SYSUTSNAME symbol,  
?S: and indicates whether a C program should include <sys/utsname.h>.  
?S:.  
?C:I\_SYSUTSNAME:  
?C: This symbol, if defined, indicates that <sys/utsname.h> exists and  
?C: should be included.  
?C:.  
?H:#\$i\_sysutsname I\_SYSUTSNAME /\*\*/  
?H:.  
?LINT:set i\_sysutsname  
: see if this is a sys/utsname.h system  
set sys/utsname.h i\_sysutsname  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/perl/i\_sysutsname.U

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_systable.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: i_systable.U,v $
?RCS: Revision 3.0.1.1 1993/10/16 13:50:20 ram
?RCS: patch12: created
?RCS:
?RCS:
?MAKE:i_systable: Inhdr
?MAKE: -pick add $@ %<
?S:i_systable:
?S: This variable conditionally defines the I_SYS_TABLE symbol, and
?S: indicates whether a C program should include <sys/table.h>.
?S:.
?C:I_SYS_TABLE:
?C: This symbol, if defined, indicates to the C program that it should
?C: include <sys/table.h> for the OSF/1 table() system call.
?C:.
?H:#$i_systable
I_SYS_TABLE /**/
?H:.
?LINT:set i_systable
: see if this is an OSF sys/table system
set sys/table.h i_systable
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/i_systable.U
No license file was found, but licenses were detected in source scan.
```

```
#####
;# Jmake rules for building libraries, programs, scripts, and data files
;# $Id: Jmake.rules 18 2006-12-27 10:35:09Z rmanfredi $

/*
* MACHINE-INDEPENDENT RULES -- DO NOT MODIFY
*/
```

```
/* $Id: Jmake.rules 18 2006-12-27 10:35:09Z rmanfredi $
*
* Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
*
* You may redistribute only under the terms of the Artistic Licence,
* as specified in the README file that comes with the distribution.
* You may reuse parts of this distribution only within the terms of
* that same Artistic Licence; a copy of which may be found at the root
* of the source tree for dist 4.0.
*
* $Log: Jmake.rules,v $
* Revision 3.0.1.7 2004/08/22 08:28:58 ram
* patch71: random cleanup
*
* Revision 3.0.1.6 1997/02/28 14:56:01 ram
* patch61: now handles USRINC for dependencies
* patch61: smarter about dependencies
computation
*
* Revision 3.0.1.5 1995/09/25 09:07:19 ram
* patch59: smarter sed command to strip /usr/include dependencies
*
* Revision 3.0.1.4 1995/07/25 13:33:59 ram
* patch56: install of script man pages can now cope with missing files
* patch56: the clobber target now removes the .config directory as well
*
* Revision 3.0.1.3 1995/03/21 08:35:28 ram
* patch52: suppressed extra argument to NormalProgramTarget call
*
* Revision 3.0.1.2 1995/01/11 14:49:55 ram
* patch45: new macros ShellScriptTargetExt and SimpleShellScriptTargetExt
* patch45: directory installation is now made via INSTALLDIR (Configure)
*
* Revision 3.0.1.1 1994/10/29 15:46:30 ram
* patch36: added RemoteDependency rule
*
* Revision 3.0 1993/08/18 12:04:14 ram
* Baseline for dist 3.0 netwide release.
*
*/

/* Please, edit only with tabstops = 4 (":set ts=4" under vi) */

/*
* AddedByConfigure:
* Gives name of the files generated by Configure that can safely
* be removed
```

```

when a "make clobber" is issued. Not that it is useless
* to name config.h or config.sh because these are already taken care
* of by jmake.
*/
#define AddedByConfigure(files) @!\
local_clobber:: @@\
$(RM) files

/*
* AddSuffix:
* Adds a suffix to the .SUFFIXES: list.
*/
#define AddSuffix(ext) @!\
|suffix ext

/*
* AllTarget:
* Generate rules to build necessary things during make all.
*/
#define AllTarget(depends) @!\
all:: depends @!\
 @!\
local_realclean:: @@\
$(RM) depends

/*
* RemoveTargetProgram:
* This is used in some other macros in order to remove the target
* before starting its building (saves disk space). There should be
* no '@!' at the end of the '#define' line, because this macro is
* used *inside* building rules.
*/
#define RemoveTargetProgram(program) \
$(RM) program @@\
if test -f program^^^$_EXE; then \ @@\
$(MV) program^^^$_EXE program^^~^^^$_EXE; fi

/*
* NormalProgramTarget:
* Generate rules to compile and link the
indicated program; since
* it does not use any default object files, it may be used for
* multiple programs in the same Jmakefile.
*/
#define NormalProgramTarget(program,sources,objects) @!\
++OBJECTS objects @!\
++SOURCES sources @!\

```

```

NormalObjectRule() @!\
AllTarget(program) @!\
 @!\
program: objects @@\
RemoveTargetProgram($@) @@\
$(CC) -o $@ objects $(JLDFLAGS) $(LIBS) @!\

/*
* SingleProgramTarget:
* Obsolete version of NormalProgramTarget that doesn't have
* deplibs.
*/
#define SingleProgramTarget(program,objects,libs) \
NormalProgramTarget(program,objects,libs)

/*
* SimpleProgramTarget:
* Generate rules for compiling and linking programs that only have
* one C source file. It should only be used in Jmakefiles that
* describe a single program.
*/
#define SimpleProgramTarget(program) @!\
NormalProgramTarget(program,program.c,program.o)

/*
* ComplexProgramTarget:
* Generate rules for compiling and linking the program specified by
* $(OBJS) and
* $(SRCS), installing the program and its man page, and
* generating dependencies. It should only be used in Jmakefiles
* that describe a single program.
*/
#define ComplexProgramTarget(program) @!\
++OBJECTS $(OBJS) @!\
++SOURCES $(SRCS) @!\
NormalObjectRule() @!\
AllTarget(program) @!\
 @!\
program: $(OBJS) @@\
RemoveTargetProgram($@) @@\
$(CC) -o $@ $(OBJS) $(JLDFLAGS) $(LIBS) @!\
 @!\
InstallProgram(program,$(BINDIR)) @!\
InstallManPage(program,$(MANSRC)) @!\
DependTarget() @!\

```

LintTarget()

```
/*
 * ComplexProgramTarget_1:
 * Generate rules for compiling and linking the program specified by
 * $(OBJS1) and $(SRCS1), installing the program and its man page,
 * and generating dependencies for it and any programs described by
 * $(SRCS2) and $(SRCS3). It should be used to build the primary
 * program in Jmakefiles that describe multiple programs.
 */
#define ComplexProgramTarget_1(program) @!\
++OBJECTS $(OBJS1) @!\
++SOURCES $(SRCS1) @!\
NormalObjectRule() @!\
AllTarget(program) @!\
 @!\
program:
$(OBJS1) @@\
RemoveTargetProgram($@) @@\
$(CC) -o $@ $(OBJS1) $(JLDFLAGS) $(LIBS) @!\
 @!\
InstallProgram(program,$(BINDIR)) @!\
InstallManPage(program,$(MANSRC)) @!\
 @!\
DependTarget() @!\
LintTarget()
```

```
/*
 * ComplexProgramTarget_2:
 * Generate rules for compiling and linking the program specified by
 * $(OBJS2) and $(SRCS2) and installing the program and man page.
 * It should be used to build the second program in Jmakefiles
 * describing more than one program.
 */
#define ComplexProgramTarget_2(program) @!\
++OBJECTS $(OBJS2) @!\
++SOURCES $(SRCS2) @!\
NormalObjectRule() @!\
AllTarget(program) @!\
 @!\
program: $(OBJS2) @@\
RemoveTargetProgram($@) @@\
$(CC) -o $@ $(OBJS2) $(JLDFLAGS) $(LIBS) @!\
 @!\
InstallProgram(program,$(BINDIR)) @!\
InstallManPage(program,$(MANSRC))
```

```

/*
* ComplexProgramTarget_3:
* Generate rules for compiling and linking the
 program specified by
* $(OBJS3) and $(SRCS3) and installing the program and man page. It
* should be used to build the third program in Jmakefiles describing
* more than one program.
*/

```

```

#define ComplexProgramTarget_3(program) @!\
++OBJECTS $(OBJS3) @!\
++SOURCES $(SRCS3) @!\
NormalObjectRule() @!\
AllTarget(program) @!\
 @!\
program: $(OBJS3) @@\
RemoveTargetProgram($@) @@\
$(CC) -o $@ $(OBJS3) $(JLDFLAGS) $(LIBS) @!\
 @!\
InstallProgram(program,$(BINDIR)) @!\
InstallManPage(program,$(MANSRC))

```

```

/*
* ComplexShellManualTarget:
* Builds manual pages that are to be extracted from .SH files into
* $.manext files.
*/

```

```

#define ComplexShellManualTarget(manpages) @!\
++MANPAGE manpages @!\
|once _ShellManualRule_ @!\
|rule:.SH.$manext: @!\
|rule: /bin/sh $< @!\
|rule: @!\
-once @!\
AddSuffix(.SH) @!\
AddSuffix($.manext) @!\
AllTarget(manpages) @!\
 @!\
local_install.man:: @@\
 _MakeInstallDirIgnore($(MANSRC)) \ @@\
for
file in manpages; do \ @@\
(set -x; $(INSTALL) -c -m 444 $$file \ @@\
$(INSTALL_PREFIX)$(MANSRC)) || exit 1; \ @@\
done @!\
 @!\

```

```

local_deinstall.man:: @@\
 @case '${MFLAGS}' in *[i]*) set +e;; esac; \ @@\
 for file in manpages; do \ @@\
 (set -x; $(RM) $(INSTALL_PREFIX)$(MANSRC)/$$file); \ @@\
 done

/*
* Initialize:
* Puts the line symbol = value in the initialization section of
* Makefile.SH (the one that is subject to parameter substitutions).
*/
#define Initialize(symbol,value) @!\
+symbol = value

/*
* InstallLibrary:
* Generate rules to install the indicated library.
*/
#define InstallLibrary(libname,dest) @!\
local_install:: lib^^libname.a @@\
 _MakeInstallDirIgnore(dest) \ @@\
 $(INSTALL) -c -m 644 lib^^libname.a $(INSTALL_PREFIX)^^dest @@\
 $(RANLIB) dest/lib^^libname.a @@\
 chmod 444 dest/lib^^libname.a @!\
 @!\
local_deinstall:: @@\
 $(RM) $(INSTALL_PREFIX)^^dest/lib^^libname.a

/*
* InstallSharedLibrary:
* Generate rules to install
 the shared library.
*/
#define InstallSharedLibrary(libname,rev,dest) @!\
local_install:: lib^^libname.so.rev @@\
 _MakeInstallDirIgnore(dest) \ @@\
 $(INSTALL) -c -m 444 lib^^libname.so.rev $(INSTALL_PREFIX)^^dest @!\
 @!\
local_deinstall:: @@\
 $(RM) $(INSTALL_PREFIX)^^dest/lib^^libname.so.rev

/*
* InstallSharedLibraryData:
* Generate rules to install the shared library data

```



```

*/
#define InstallSharedLibraryData(libname,rev,dest) @!\
local_install:: lib^^libname.sa.rev @@\
 _MakeInstallDirIgnore(dest) \ @@\
$(INSTALL) -c -m 444 lib^^libname.sa.rev $(INSTALL_PREFIX)^^dest @!\
 @!\
local_deinstall:: @@\
$(RM) $(INSTALL_PREFIX)^^dest/lib^^libname.sa.rev

/*
* InstallLibraryAlias:
* Generate rules to create a link from one library name to another
* for the purposes of aliasing.
*/
#define InstallLibraryAlias(libname,alias,dest) @!\
local_install:: lib^^libname.a @@\
$(RM) lib^^alias.a @@\
-(cd dest; $(LN) lib^^libname.a lib^^alias.a)
@!\
 @!\
local_deinstall:: @@\
$(RM) dest/lib^^alias.a

/*
* InstallLintLibrary:
* Generate rules to install the indicated lint library.
*/
#define InstallLintLibrary(libname,dest) @!\
install.ln:: llib-I^^libname.ln @@\
 _MakeInstallDirIgnore(dest) \ @@\
$(INSTALL) -c -m 444 llib-I^^libname.ln $(INSTALL_PREFIX)^^dest @!\
 @!\
deinstall.ln:: @@\
$(RM) $(INSTALL_PREFIX)^^dest/llib-I^^libname.ln

/*
* InstallManPageLong:
* Generate rules to install the indicated manual page, giving it an
* alternate name. This is used for installing man pages whose base
* name without the .man suffix would normally be longer than 8
* characters (the limit for using source code control systems on
* files systems with short file names).
*/
#define InstallManPageLong(file,destdir,dest) @!\
local_install.man:: file.man @@\

```

```

_MakeInstallDirIgnore(destdir) \ @@\
$(INSTALL) -c -m 444 file.man $(INSTALL_PREFIX)^^^destdir/dest.$(L) @!\
 @!\
local_deinstall.man:: @@\
$(RM)
$(INSTALL_PREFIX)^^^destdir/dest.$(L) @!\

/*
* InstallManPage:
* Generate rules to install the indicated manual page.
*/
#define InstallManPage(file,dest) @!\
InstallManPageLong(file,dest,file)

/*
* InstallNonExec:
* Generate rules to install a data file using any special
* install flags.
*/
#define InstallNonExec(file,dest) @!\
local_install:: file @@\
 _MakeInstallDirIgnore(dest) \ @@\
 $(INSTALL) -c -m 444 file $(INSTALL_PREFIX)^^^dest @!\
 @!\
local_deinstall:: @@\
$(RM) $(INSTALL_PREFIX)^^^dest/file

/*
* InstallProgramWithFlags:
* Generate rules to install an executable program using given
* install flags.
*/
#define InstallProgramWithFlags(program,dest,flags) @!\
local_install:: program @@\
 _MakeInstallDirIgnore(dest) \ @@\
 $(INSTALL) -c -s -m 555 flags program^^^$_EXE $(INSTALL_PREFIX)^^^dest @!\
 @!\
local_deinstall:: @@\
$(RM) $(INSTALL_PREFIX)^^^dest/program^^^$_EXE

/*
* InstallProgramNoStripWithFlags:
* Generate rules to install an executable program using given
* install flags.

```

```

*/
#define InstallProgramNoStripWithFlags(program,dest,flags) @!\
local_install:: program @@\
 _MakeInstallDirIgnore(dest) \ @@\
 $(INSTALL) -c -m 555 flags program^^^$_EXE $(INSTALL_PREFIX)^^^dest @!\
 @!\
local_deinstall:: @@\
 $(RM) $(INSTALL_PREFIX)^^^dest/program^^^$_EXE

/*
* InstallProgram:
* Generate rules to install an executable program using any special
* install flags set in $(INSTALLFLAGS).
*/
#define InstallProgram(program,dest) @!\
InstallProgramWithFlags(program,dest,^^)

/*
* InstallProgramNoStrip:
* Generate rules to install an executable program using any special
* install flags set in $(INSTALLFLAGS), but without stripping the
* executable from debugging symbols.
*/
#define InstallProgramNoStrip(program,dest) @!\
InstallProgramNoStripWithFlags(program,dest,^^)

/*
* InstallScriptWithFlags:
* Generate rules to install an executable script using given
* install
* flags.
*/
#define InstallScriptWithFlags(script,dest,flags) @!\
local_install:: script @@\
 _MakeInstallDirIgnore(dest) \ @@\
 $(INSTALL) -c -m 555 flags script $(INSTALL_PREFIX)^^^dest @!\
 @!\
local_deinstall:: @@\
 $(RM) $(INSTALL_PREFIX)^^^dest/script

/*
* InstallScript:
* Generate rules to install an executable script using any special
* install flags set in $(INSTALLFLAGS).

```

```

*/
#define InstallScript(script,dest) @!\
InstallScriptWithFlags(script,dest,^^)

/*
* InstallScripts:
* Generate rules to install all the scripts listed in the generated
* $(SCRIPTS) and $(LSCRIPTS) macros.
*/
#define InstallScripts() @!\
|once _InstallScripts_ @!\
local_install:: $(SCRIPTS) $(LSCRIPTS) @@\
_MakeInstallDirIgnore($(SCRIPTDIR)) \ @@\
for file in $(SCRIPTS) $(LSCRIPTS); do \ @@\
(set -x; \ @@\
$(INSTALL) -c -m 555 $$file $(INSTALL_PREFIX)$(SCRIPTDIR) || \ @@\
exit 1; \ @@\
done @!\
@!\
local_deinstall:: @@\
@for file in $(SCRIPTS)
$(LSCRIPTS); do \ @@\
case '${MFLAGS}' in *[i]*) set +e;; esac; \ @@\
(set -x; $(RM) $(INSTALL_PREFIX)$(SCRIPTDIR)/$$file); \ @@\
done @!\
-once

/*
* InstallManScripts:
* Generate rule to install/deinstall manual pages for scripts listed
* in the automatically generated $(SCRIPTS) macro.
*/
#define InstallManScripts() @!\
|once _InstallManScripts_ @!\
?NOMAN:|skip @!\
local_install.man:: @@\
_MakeInstallDirIgnore($(MANSRC)) \ @@\
for file in $(SCRIPTS); do \ @@\
if test -f $$file.man; then \ @@\
(set -x; \ @@\
$(INSTALL) -c -m 444 $$file.man \ @@\
$(INSTALL_PREFIX)$(MANSRC)/$$file.$(L) || \ @@\
exit 1; \ @@\
fi; \ @@\
done @!\
@!\
local_deinstall.man:: @@\

```

```

case '${MFLAGS}' in *[i]*) set +e;; esac; \ @@\
for file in $(SCRIPTS); do \ @@\
 (set -x; $(RM) $(INSTALL_PREFIX)$(MANSRC)/$$file.$(L)); \ @@\
done @!\
 @!\
-skip @!\
-once

```

```

/*
* LinkFileList:
* Link a list of list of files from one place to another
*/
#define LinkFileList(step,list,dir,sub) @!\
step:: list @@\
 @case '${MFLAGS}' in *[i]*) set +e;; esac; \ @@\
 echo " cd" dir; cd dir; for i in list; do (set -x; $(LN) sub/$$i.); done

```

```

/*
* InstallMultipleDestFlags:
* Generate rules to install multiple files at once during a particular
* step in the build using a specific set of install flags.
*/
#define InstallMultipleDestFlags(step,list,dest,flags) @!\
step:: list @@\
 _MakeInstallDirIgnore(dest) \ @@\
 for i in list; do \ @@\
 (set -x; $(INSTALL) -c flags \ @@\
 $$i $(INSTALL_PREFIX)^^^dest) || exit 1; \ @@\
 done

```

```

/*
* DeinstallMultipleDest:
* Generate rules to deinstall multiple files at once during a particular
* step in the build.
*/
#define DeinstallMultipleDest(step,list,dest) @!\
step:: @@\
 @case '${MFLAGS}' in *[i]*) set +e;; esac; \ @@\
 for i in list; do \ @@\
 (set -x; $(RM) $(INSTALL_PREFIX)^^^dest/$$i); \ @@\
 done

```

```

/*
* InstallMultiple:
* Generate rules to install multiple

```

```

files at once during the install
* step of the build using any install flags set in $(INSTALLFLAGS)
* and deinstall them.
*/
#define InstallMultiple(list,dest) @!\
InstallMultipleDestFlags(local_install,list,dest,$(INSTALLFLAGS)) @!\
DeinstallMultipleDest(local_deinstall,list,dest)

/*
* InstallMultipleFlags:
* Generate rules to install multiple files at once during the
* install step of the build using the given install flags.
*/
#define InstallMultipleFlags(list,dest,flags) @!\
InstallMultipleDestFlags(local_install,list,dest,flags) @!\
DeinstallMultipleDest(local_deinstall,list,dest)

/*
* InstallMultipleMan:
* Generate rules to install a variety of manual pages
* during the install.man step of the build.
*/
#define InstallMultipleMan(list,dest) @!\
InstallMultipleDestFlags(local_install.man,list,dest,$(INSTALLFLAGS)) @!\
DeinstallMultipleDest(local_deinstall.man,list,dest)

/*
* DependDependency:
* Generate rules to build the makedepend program.
*/
#define DependDependency()
 @!\
depend:: TOPDIR/mkdep @!\
 @!\
TOPDIR/mkdep: @!\
?TOP: @echo "You have to run Configure first."; exit 1 @!\
%TOP: @echo "You have to run Configure in $(TOP) first."; exit 1

/*
* DependTarget:
* Generate rules to compute dependencies for all files listed
* in $(SOURCES) (automatically generated macro).
*/
#define DependTarget() @!\

```

```

+USRINC = $usrinc @!\
|once _DependTarget_ @!\
DependDependency() @!\
 @!\
depend:: @@\
$(SED) /^# DO NOT DELETE/q' Makefile && \ @@\
$(MKDEP) $(SOURCES) | \ @@\
$(SED) -e 's:/usr/lib[^]*::g; s:${USRINC}[^]*::g;' \ @@\
-e '/: / b print' -e '$$ b print' -e 'H; d; n; : print' \ @@\
-e 'x; s/\$\$/; s/\n//g; s/ ^ ^ */ /g; s/ :/:;' -e '/: *$$/d' \ @@\
) > Makefile.new @@\
cp Makefile Makefile.bak @@\
cp Makefile.new Makefile @@\
$(RM) Makefile.new @!\
 @!\
-once

```

```

/*
* CleanTarget:
* Generate rules to remove any garbage files.
*/
#define CleanTarget() @!\
?SUBDIRS:clean:
sub_clean local_clean @!\
%SUBDIRS:clean: local_clean @!\
?SUBDIRS:realclean: sub_realclean local_realclean @!\
%SUBDIRS:realclean: local_realclean @!\
?SUBDIRS:clobber: sub_clobber local_clobber @!\
%SUBDIRS:clobber: local_clobber @!\
 @!\
local_clean:: @@\
if test -f core; then $(RM) core; fi @@\
$(RM) *~ *.o @!\
 @!\
local_realclean:: local_clean @!\
?TOP: $(RM) -r UU @!\
 @!\
local_clobber:: local_realclean @!\
%TOP: $(RM) Makefile config.sh @!\
?TOP: $(RM) config.sh config.h @!\
?TOP: $(RM) -r .config @!\
?TOP: $(RM) Makefile @!\

```

```

/*
* InstallTarget:
* Generate rules to recursively install files

```

```

*/
#define InstallTarget() @!\
?SUBDIRS:install:: local_install sub_install @!\
%SUBDIRS:install:: local_install @!\
?SUBDIRS:install.man:: maybe_install.man sub_install.man @!\
%SUBDIRS:install.man:: maybe_install.man @!\
?SUBDIRS:deinstall:: sub_deinstall local_deinstall @!\
%SUBDIRS:deinstall::
 local_deinstall @!\
?SUBDIRS:deinstall.man:: sub_deinstall.man maybe_deinstall.man @!\
%SUBDIRS:deinstall.man:: maybe_deinstall.man @!\
 @!\
?MANSRC:install.man-yes: local_install.man @!\
install.man-no: @!\
?MANSRC:deinstall.man-yes: local_deinstall.man @!\
deinstall.man-no: @!\

/*
* TagsTarget:
* Generate rules to compute tags files for C source code.
*/
#define TagsTarget() @!\
tags:: @@\
$(CTAGS) -w *.ch @@\
$(CTAGS) -xw *.ch > tags @!\
 @!\
local_clobber:: @@\
$(RM) tags

/*
* BuildMakefileSH:
* Generate rules to build a Makefile.SH from an Jmakefile and any
* special jmake flags. This is generally done automatically by the
* template or by any special Jmakefiles.
* This function will simply touch Makefile.SH if no $(TOP)/.package
* exists, assuming the Jmakefile is not in a production environment.
*/
#define BuildMakefileSH(jmakeflags) @!\
Makefile.SH:
Jmakefile @@\
-@if test -f $(TOP)/.package; then \ @@\
if test -f Makefile.SH; then \ @@\
 echo " $(RM) Makefile.SH~; $(MV) Makefile.SH Makefile.SH~"; \ @@\
 $(RM) Makefile.SH~; $(MV) Makefile.SH Makefile.SH~; \ @@\
fi; \ @@\

```



```
echo " $(JMAKE) -DTOPDIR=$(TOP) -DCURDIR=$(CURRENT)" jmakeflags; \ @@\
$(JMAKE) -DTOPDIR=$(TOP) -DCURDIR=$(CURRENT) jmakeflags; \ @@\
else touch $@; fi
```

```
/*
```

```
* BuildMakefile:
```

```
* Generate rules to build a Makefile from a Makefile.SH.
```

```
*/
```

```
#define BuildMakefile() @!
Makefile: Makefile.SH @@\
/bin/sh Makefile.SH
```

```
/*
```

```
* MakefileTarget:
```

```
* Generate rules to build a normal Makefile.
```

```
*/
```

```
#define MakefileTarget() @!
BuildMakefileSH^^ @!
BuildMakefile()
```

```
/*
```

```
* NormalObjectRule:
```

```
* Generate make rule to build usual object files.
```

```
*/
```

```
#define NormalObjectRule() @!
|once _ObjectRule_ @!
|rule:.c.o: @!
|rule: $(CC) -c $(JCFLAGS) $< @!
|rule: @!
-once
```

```
/*
```

```
* NormalLibraryObjectRule:
```

```
* Generate make rules to build
```

```
"normal" objects.
```

```
*/
```

```
#define NormalLibraryObjectRule() @!
|once _ObjectRule_ @!
|rule:.c.o: @!
|rule: $(RM) $@ @!
|rule: $(CC) -c $(JCFLAGS) $< @!
|rule: @!
-once
```

```
/*
```

```

* ProfiledLibraryObjectRule:
* Generate make rules to build both profiled and "normal" objects.
*/
#define ProfiledLibraryObjectRule() @!\
all:: @@\
 @if [! -d profiled]; then mkdir profiled; fi @!\
 @!\
|rule:.c.o: @!\
|rule: $(RM) $@ profiled/$@ @!\
|rule: $(CC) -pg -c $(JCFLAGS) $*.c @!\
|rule: $(MV) $*.o profiled/$*.o @!\
|rule: $(CC) -c $(JCFLAGS) $*.c @!\
|rule: @!\
local_clean:: @@\
-@if [-d profiled]; then echo " $(RM) profiled/*.*"; \ @@\
$(RM) profiled/*.*; fi

/*
* DebuggedLibraryObjectRule:
* Generate make rules to build both debuggable and "normal"
* objects.
*/
#define DebuggedLibraryObjectRule() @!\
all:: @@\
 @if [! -d debugger]; then mkdir debugger; fi @!\
 @!\
|rule:.c.o: @!\
|rule: $(RM) $@
debugger/$@ @!\
|rule: $(CC) -g -c $(JCFLAGS) $*.c @!\
|rule: $(MV) $*.o debugger/$*.o @!\
|rule: $(CC) -c $(JCFLAGS) $*.c @!\
|rule: @!\
local_clean:: @@\
-@if [-d debugger]; then echo " $(RM) debugger/*.*"; \ @@\
$(RM) debugger/*.*; fi

/*
* DebuggedAndProfiledLibraryObjectRule:
* Generate make rules to build debuggable, profiled, and "normal"
* objects.
*/
#define DebuggedAndProfiledLibraryObjectRule() @!\
all:: @@\
 @if [! -d profiled]; then mkdir profiled; fi @@\
 @if [! -d debugger]; then mkdir debugger; fi @!\

```

```

 @!\
|rule:.c.o: @!\
|rule: $(RM) $@ profiled/$@ debugger/$@ @!\
|rule: $(CC) -pg -c $(JCFLAGS) $*.c @!\
|rule: $(MV) $*.o profiled/$*.o @!\
|rule: $(CC) -g -c $(JCFLAGS) $*.c @!\
|rule: $(MV) $*.o debugger/$*.o @!\
|rule: $(CC) -c $(JCFLAGS) $*.c @!\
|rule: @!\
local_clean:: @@\
-@if [-d profiled]; then echo " $(RM) profiled/?*.o"; \ @@\
$(RM) profiled/?*.o; fi @@\
-@if [-d debugger];
then echo " $(RM) debugger/?*.o"; \ @@\
$(RM) debugger/?*.o; fi

/*
* SharedLibraryObjectRule:
* Generate make rules to build shared and "normal" object files.
*/
#define SharedLibraryObjectRule() @!\
all:: @@\
 @if [! -d shared]; then mkdir shared; fi @!\
 @!\
|rule:.c.o: @!\
|rule: $(RM) $@ shared/$@ @!\
|rule: $(CC) -pic -c $(SHARED_CODEDEF) $(SHLIBDEF) $(JCFLAGS) $*.c @!\
|rule: $(MV) $*.o shared/$*.o @!\
|rule: $(CC) -c $(SHLIBDEF) $(JCFLAGS) $*.c @!\
|rule: @!\
local_clean:: @@\
-@if [-d shared]; then echo " $(RM) shared/?*.o"; \ @@\
$(RM) shared/?*.o; fi

/*
* SharedAndDebuggedLibraryObjectRule:
* Generate make rules to build shared, debuggable, and "normal"
* object files.
*/
#define SharedAndDebuggedLibraryObjectRule() @!\
all:: @@\
 @if [! -d shared]; then mkdir shared; fi @@\
 @if [! -d debugger]; then mkdir debugger; fi @!\
 @!\
|rule:.c.o: @!\
|rule: $(RM) $@ shared/$@ debugger/$@ @!\
|rule:

```

```

$(CC) -pic -c $(SHARED_CODEDEF) $(SHLIBDEF) $(JCFLAGS) $*.c @!\
|rule: $(MV) $*.o shared/$*.o @!\
|rule: $(CC) -g -c $(SHLIBDEF) $(JCFLAGS) $*.c @!\
|rule: $(MV) $*.o debugger/$*.o @!\
|rule: $(CC) -c $(SHLIBDEF) $(JCFLAGS) $*.c @!\
|rule: @!\
local_clean:: @@\
-@if [-d shared]; then echo " $(RM) shared/?*.o"; \ @@\
$(RM) shared/?*.o; fi @@\
-@if [-d debugger]; then echo " $(RM) debugger/?*.o"; \ @@\
$(RM) debugger/?*.o; fi

/*
* SpecialSharedAndDebuggedObjectRule:
* Generate rules to compile a file with special flags and to make
* shared and debuggable versions.
*/
#define SpecialSharedAndDebuggedObjectRule(objs,depends,options) @!\
all:: @@\
@if [! -d shared]; then mkdir shared; fi @@\
@if [! -d debugger]; then mkdir debugger; fi @!\
@!\
objs: depends @@\
$(RM) $@ shared/$@ debugger/$@ @@\
$(CC) -pic -c $(SHARED_CODEDEF) $(SHLIBDEF) $(JCFLAGS) options $*.c @@\
$(MV) $*.o shared/$*.o @@\
$(CC)
-g -c $(SHLIBDEF) $(JCFLAGS) options $*.c @@\
$(MV) $*.o debugger/$*.o @@\
$(CC) -c $(SHLIBDEF) $(JCFLAGS) options $*.c

/*
* SpecialSharedObjectRule:
* Generate rules to compile a file with special flags and to make
* shared and debuggable versions.
*/
#define SpecialSharedObjectRule(objs,depends,options) @!\
all:: @@\
@if [! -d shared]; then mkdir shared; fi @!\
@!\
objs: depends @@\
$(RM) $@ shared/$@ @@\
$(CC) -pic -c $(SHARED_CODEDEF) $(SHLIBDEF) $(JCFLAGS) options $*.c @@\
$(MV) $*.o shared/$*.o @@\
$(CC) -c $(SHLIBDEF) $(JCFLAGS) options $*.c

/*

```

```

* SpecialObjectRule:
* Generate rules to compile a file with special flags.
*/
#define SpecialObjectRule(objs,depends,options) @!\
objs: depends @@\
$(RM) $@ @@\
$(CC) -c $(JCFLAGS) options $*.c

/*
* SpecialProfiledObjectRule:
* Generate rules to compile a file with special flags and to make a
* profiled version.
*/
#define SpecialProfiledObjectRule(objs,depends,options) @!\
all:: @@\
@if
[! -d profiled]; then mkdir profiled; fi @!\
 @!\
objs: depends @@\
$(RM) $@ profiled/$@ @@\
$(CC) -pg -c $(JCFLAGS) options $*.c @@\
$(MV) $*.o profiled/$*.o @@\
$(CC) -c $(JCFLAGS) options $*.c

/*
* SpecialDebuggedObjectRule:
* Generate rules to compile a file with special flags and to make a
* debuggable version.
*/
#define SpecialDebuggedObjectRule(objs,depends,options) @!\
all:: @@\
@if [! -d debugger]; then mkdir debugger; fi @!\
 @!\
objs: depends @@\
$(RM) $@ debugger/$@ @@\
$(CC) -g -c $(JCFLAGS) options $*.c @@\
$(MV) $*.o debugger/$*.o @@\
$(CC) -c $(JCFLAGS) options $*.c

/*
* SpecialDebuggedAndProfiledObjectRule:
* Generate rules to compile a file with special flags and to make
* debuggable and profiled versions.
*/
#define SpecialDebuggedAndProfiledObjectRule(objs,depends,options) @!\

```

```

all:: @@\
@if [! -d profiled]; then mkdir profiled; fi @@\
@if [! -d
debugger]; then mkdir debugger; fi @!\
 @!\
objs: depends @@\
$(RM) $@ profiled/$@ debugger/$@ @@\
$(CC) -pg -c $(JCFLAGS) options $*.c @@\
$(MV) $*.o profiled/$*.o @@\
$(CC) -g -c $(JCFLAGS) options $*.c @@\
$(MV) $*.o debugger/$*.o @@\
$(CC) -c $(JCFLAGS) options $*.c

/*
* NormalLibraryTarget:
* Generate rules to create a library. The 'srclist' and 'objlist'
* parameters are added to SOURCES and OBJECTS macros. The 'srclist'
* is not otherwise used by this rule, but is necessary for make depend.
*/
#define NormalLibraryTarget(libname,srclist,objlist) @!\
++OBJECTS objlist @!\
++SOURCES srclist @!\
NormalLibraryObjectRule() @!\
AllTarget(lib^^libname.a) @!\
 @!\
lib^^libname.a: objlist @@\
$(RM) $@ @@\
$(AR) $@ objlist @@\
$(RANLIB) $@

/*
* NormalSharedLibraryTarget:
* Generate rules to create a shared library; build it into a
* different name so that the we don't hose people by having the
* library gone for long periods.
*/
#define
NormalSharedLibraryTarget(libname,rev,solist) @!\
AllTarget(lib^^libname.so.rev) @!\
 @!\
lib^^libname.so.rev: solist @@\
$(RM) $@~ @@\
(cd shared; $(LD) -o ../$@~ -assert pure-text solist) @@\
$(RM) $@ @@\
$(MV) $@~ $@

```

```

/*
* NormalSharedLibraryDataTarget:
* Generate rules to create shlib data file; build it into a
* different name so that the we don't hose people by having the
* library gone for long periods.
*/
#define NormalSharedLibraryDataTarget(libname,rev,salist) @!\
AllTarget(lib^^libname.sa.rev) @!\
 @!\
lib^^libname.sa.rev: salist @@\
$(RM) $@ @@\
$(AR) $@ salist @@\
$(RANLIB) $@

/*
* NormalLibraryTarget2:
* Generate rules to create a library in two steps. This is used to
* create libraries with large numbers of files.
*/
#define NormalLibraryTarget2(libname,srclist,objlist1,objlist2) @!\
++SOURCES srclist @!\
++OBJECTS objlist1 @!\
++OBJECTS objlist2 @!\
NormalLibraryObjectRule() @!\
AllTarget(lib^^libname.a) @!\
 @!\
lib^^libname.a:
objlist1 objlist2 @@\
$(RM) $@ @@\
$(AR) $@ objlist1 @@\
$(AR) $@ objlist2 @@\
$(RANLIB) $@

/*
* ProfiledLibraryTarget:
* Generate rules to create a profiled library.
*/
#define ProfiledLibraryTarget(libname,srclist,objlist) @!\
++SOURCES srclist @!\
++OBJECTS objlist @!\
AllTarget(lib^^libname^^_p.a) @!\
 @!\
lib^^libname^^_p.a: objlist @@\
$(RM) $@ @@\
cd profiled; $(AR) ../$@ objlist @@\
$(RANLIB) $@

```

```

/*
* DebuggedLibraryTarget:
* Generate rules to create a debuggable library.
*/
#define DebuggedLibraryTarget(libname,srclist,objlist) @!\
++SOURCES srclist @!\
++OBJECTS objlist @!\
AllTarget(lib^^libname^^_d.a) @!\
 @!\
lib^^libname^^_d.a: objlist @@\
$(RM) $@ @@\
cd debugger; $(AR) ../$@ objlist @@\
$(RANLIB) $@

/*
* AliasedLibraryTarget:
* Generate rules to link one library to another.
*/
#define AliasedLibraryTarget(libname,alias) @!\
AllTarget(lib^^alias.a) @!\
 @!\
lib^^alias.a:
lib^^libname.a @@\
$(RM) $@ @@\
$(LN) lib^^libname.a $@

/*
* PrelinkedRelocatableTarget:
* Generate rules to produce a relocatable object file instead of a
* library.
*/
#define PrelinkedRelocatableTarget(objname,objlist,libs) @!\
AllTarget(objname.o) @!\
 @!\
objname.o: objlist @@\
$(RM) $@ @@\
$(LD) $(JLDFLAGS) -r objlist -o $@ libs

/*
* NormalObjectTarget:
* Generate rules to produce a single object file.o from a file.c.
*/
#define NormalObjectTarget(file) @!\

```



```

++SOURCES file^.c @!\
AllTarget(file^.o) @!\
NormalObjectRule()

/*
* NormalRelocatableTarget:
* Generate rules to produce a relocatable object file instead of a
* library.
*/
#define NormalRelocatableTarget(objname,objlist) @!\
AllTarget(objname.o) @!\
 @!\
objname.o: objlist @@\
$(RM) $@ @@\
$(LD) $(JLDFLAGS) -r objlist -o $@

/*
* ProfiledRelocatableTarget:
* Generate rules to produce a profiled relocatable object file
* instead
* of a library.
*/
#define ProfiledRelocatableTarget(objname,objlist) @!\
AllTarget(objname^_p.o) @!\
 @!\
objname^_p.o: objlist @@\
$(RM) $@ @@\
$(LD) -X -r objlist -o $@

/*
* DebuggedRelocatableTarget:
* Generate rules to produce a debuggable relocatable object file
* instead of a library.
*/
#define DebuggedRelocatableTarget(objname,objlist) @!\
AllTarget(objname^_d.o) @!\
 @!\
objname^_d.o: objlist @@\
$(RM) $@ @@\
$(LD) -X -r objlist -o $@

/*
* LintLibraryTarget:
* Generate rules to create a lint library. Note that the lint
* library is always forced to be newer than the library itself.
*/

```

```

#define LintLibraryTarget(libname,srclist) @!\
lintlib:: llib-I^^libname.ln @!\
 @!\
llib-I^^libname.ln: srclist @@\
$(RM) $@ @@\
$(LINT) $(LINTLIBFLAG)^^libname $(LINTFLAGS) srclist

```

```
/*
```

```

* NormalLintTarget:
* Generate rules to lint a set of sources.
*/

```

```

#define NormalLintTarget(srclist) @!\
lint: @@\
$(LINT) $(LINTFLAGS) srclist
$(LINTLIBS)

```

```
/*
```

```

* LintTarget:
* Generate rules to lint $(SOURCES) (automatically generated)
*/

```

```

#define LintTarget() @!\
|once _LintTarget_ @!\
NormalLintTarget($(SOURCES)) @!\
-once

```

```
/*
```

```

* LinkSourceFile:
* Snag source file from some other directory
*/

```

```

#define LinkSourceFile(src,dir) @!\
src: dir/src @@\
$(RM) $@ @@\
$(LN) $? $@ @!\

```

```
/*
```

```

* MakeSubincludesForBuild:
* Make includes in sub directories.
*/

```

```

#define MakeSubincludesForBuild(step,dir,srclist) @!\
step:: dir srclist @@\
@-(list=`echo srclist | sed -e 's/[^]*//g`; \ @@\
set -x; cd dir; $(RM) $$list) @@\
@for i in srclist; do \ @@\
(set -x; cd dir; $(LN) ../$${i} .) || exit 1; \ @@\

```

```

done @!\
 @!\
MakeDirectories(dir,dir) @!\
 @!\
local_realclean:: @@\
@-(if [-d dir]; then \ @@\
list=`echo srclist | sed -e 's/[^]*///g`; \ @@\
set -x; cd dir; $(RM) $$list; fi)

/*
* CommonSubdirsRule:
* Rule for making $(TARGET) in
every subdirectory, with $(VERB) as
* verbose message and $(FLAGS) as additional flags.
*/
#define CommonSubdirsRule(dirs) @!\
subdirs: @@\
@case '${MFLAGS}' in *[ik]*) set +e;; esac; \ @@\
for i in dirs ;\ @@\
do \ @@\
(cd $$i ; echo $(VERB) "in $(DIR)$$i..."; \ @@\
$(MAKE) $(MFLAGS) $(FLAGS) $(TARGET)) || exit 1; \ @@\
done

/*
* NamedTargetSubdirsRule:
* Recursively make a series of steps in the specified directories.
*/
#define NamedTargetSubdirsRule(dirs,name,verb,flags) @!\
name:: @@\
@case '${MFLAGS}' in *[ik]*) set +e;; esac; \ @@\
for i in dirs ;\ @@\
do \ @@\
(cd $$i ; echo verb "in $(DIR)$$i..."; \ @@\
$(MAKE) $(MFLAGS) flags name) || exit 1; \ @@\
done

/*
* NamedTargetSubdirs:
* Recursively make a series of steps.
*/
#define NamedTargetSubdirs(name,verb,flags) @!\
name:: @@\
@$(MAKE) subdirs TARGET=name VERB=verb FLAGS=flags

```

```

/*
* NamedSubTargetSubdirs:
* Recursively make a series of steps,
 like NamedTargetSubdirs.
* However, the supplied "name" has "sub_" prefixed to it.
*/
#define NamedSubTargetSubdirs(name,verb,flags) @!\
sub_^^name:: @@\
 @$(MAKE) subdirs TARGET=name VERB=verb FLAGS=flags

/*
* NamedDepthTargetSubdirs:
* Recursively make a series of steps. We first enter the
* subdirectories, then perform the local entries.
* The supplied "name" has "sub_" prefixed to it.
*/
#define NamedDepthTargetSubdirs(name,verb,flags) @!\
sub_^^name:: @@\
 @$(MAKE) subdirs TARGET=name VERB=verb FLAGS=flags @@\
 @echo "Back to $(CURRENT) for "name^^...

/*
* MakeSubdirs:
* Generate rules to do makes in the given subdirectories.
*/
#define MakeSubdirs() \
NamedTargetSubdirs(all,"Making all",^^)

/*
* DependDirs:
* Generate rules to recursively compute dependencies as part of the
* make depend step.
*/
#define DependDirs(dirs) \
NamedTargetSubdirsRule(dirs,depend,"Depending",^^)

/*
* DependSubdirs:
* Generate rules to recursively compute dependencies
 as part of the
* make depend step.
*/
#define DependSubdirs() \
DependDirs($(SUBDIRS))

```

```

/*
* InstallSubdirs:
* Generate rules to recursively install and deinstall programs and
* files.
*/
#define InstallSubdirs() \
NamedSubTargetSubdirs(install,"Installing",^^) @!\
NamedDepthTargetSubdirs(deinstall,"Deinstalling",^^)

/*
* InstallManSubdirs:
* Generate rules to recursively install and deinstall manual pages.
*/
#define InstallManSubdirs() \
NamedSubTargetSubdirs(install.man,"Installing man pages",^^) @!\
NamedDepthTargetSubdirs(deinstall.man,"Deinstalling man pages",^^)

/*
* IncludesSubdirs:
* Generate rules to recursively put include files in build
*/
#define IncludesSubdirs() \
NamedTargetSubdirs(includes,including,^^)

/*
* CleanSubdirs:
* Generate rules to recursively clean out garbage files.
*/
#define CleanSubdirs() \
NamedDepthTargetSubdirs(clean,"Cleaning",^^) @!\
NamedDepthTargetSubdirs(realclean,"Real cleaning",^^) @!\
NamedDepthTargetSubdirs(clobber,"Clobbering",^^)

/*
* TagSubdirs:
* Generate rules to recursively create tags files.
*/
#define TagSubdirs(dirs) \
NamedTargetSubdirsRule(dirs,tag,"Tagging",^^)

/*
* MakeLintSubdirs:

```

```

* Generate rules to recursively lint directories as part of the
* named step.
*/
#define MakeLintSubdirs(dirs,target) \
NamedTargetSubdirsRule(dirs,target,"Linting",^^)

/*
* LintDirs:
* Generate rules to recursively lint directories as part of the
* make lint step.
*/
#define LintDirs(dirs) \
MakeLintSubdirs(dirs,lint)

/*
* LintSubdirs:
* Generate rules to recursively lint directories as part of the
* make lint step.
*/
#define LintSubdirs() \
LintDirs($(SUBDIRS))

/*
* MakeDirs:
* Creates a set of directories, even if some directories in the path
* do not already exist. There should be no '@!' at the end of the
* '#define' line, because this macro is used *inside* building rules.
*/
#define MakeDirs(dirs) \
@case '${MFLAGS}' in *[i]*) set +e;; esac; \ @@\
for dir in dirs;
do \ @@\
(set -x; test -d $$dir || $(INSTALLDIR) $$dir) || \ @@\
exit 1; \ @@\
done

/*
* _MakeInstallDirs:
* Creates a set of intall directories, even if some directories in the path
* do not already exist. There should be no '@!' at the end of the
* '#define' line, because this macro is used *inside* building rules.
*/
#define _MakeInstallDirs(dirs) \
@case '${MFLAGS}' in *[i]*) set +e;; esac; \ @@\
for dir in dirs; do \ @@\

```

```

_MakeInstallDir($$dir) \ @@\
done

/*
*_MakeInstallDir:
* Internal macro to create a missing install directory.
*/
#define _MakeInstallDir(dir) \
(set -x; test -d $(INSTALL_PREFIX)^^^dir || \ @@\
$(INSTALLDIR) $(INSTALL_PREFIX)^^^dir);

/*
*_MakeInstallDirIgnore:
* Same as _MakeInstallDir but handles "make -i" as well.
*/
#define _MakeInstallDirIgnore(dir) \
@case '${MFLAGS}' in *[i]*) set +e;; esac; \ @@\
_MakeInstallDir(dir)

/*
*_RmInstallDirs:
* Removes a set of intall directories.
* There should be no '@!'
at the end of the '#define' line, because this
* macro is used *inside* building rules.
*/
#define _RmInstallDirs(dirs) \
@case '${MFLAGS}' in *[i]*) set +e;; esac; \ @@\
for dir in dirs; do \ @@\
(set -x; test -d $$dir && $(RM) -r $(INSTALL_PREFIX)$$dir); \ @@\
done

/*
*_MakeDirectories:
* Generate rules to create a hierarchy of directories.
*/
#define MakeDirectories(step,dirs) @!\
step:: @@\
MakeDirs(dirs)

/*
*_MakeInstallDirectories:
* Generate a rule to create a set of directories at installation
* time (removed by deinstall).
*/
#define MakeInstallDirectories(dirs) @!\
local_install:: @@\

```

```

_MakeInstallDirs(dirs) @!\
 @!\
local_deinstall:: @@\
_RmInstallDirs(dirs)

/*
* MakeLintLibSubdirs:
* Generate rules to recursively create lint libraries.
*/
#define MakeLintLibSubdirs(dirs) @!\
MakeLintSubdirs(dirs,lintlib)

/*
* MakeMakeSubdirs:
* Generate rules to recursively recreate target as part of the
* specified step in the build.
* This assumes Makefile.SH has
* already been built (which is the case for a delivery), but does
* not rely on the existence of a Makefile.
*/
#define MakeMakeSubdirs(target) @!\
target:: @@\
 @case '${MFLAGS}' in *[ik]*) set +e;; esac; \ @@\
 for i in $(SUBDIRS); \ @@\
 do \ @@\
 echo "Making "target" in $(DIR)$$i..."; \ @@\
 (cd $$i || exit 1; \ @@\
 if test ! -f Makefile; then /bin/sh Makefile.SH; fi; \ @@\
 $(MAKE) $(MFLAGS) target) || exit 1; \ @@\
 done

/*
* MakeMakefilesSH:
* Generate rules to recursively recreate target as part of the
* specified step in the build. If $(TOP) is set to an absolute
* path, don't prepend the ../ prefix. This makes running things
* outside of the source tree to be much easier.
*/
#define MakeMakefilesSH() @!\
Makefiles.SH:: Makefile.SH @@\
 @case '${MFLAGS}' in *[ik]*) set +e;; esac; \ @@\
 for i in $(SUBDIRS); \ @@\
 do \ @@\
 case "$(DIR)$$i/" in \ @@\
 ^^*^^/^^*^^/^^*^^/^^*^^) newtop=../../..;;

```



```

\ @@\
^^*^^/^^*^^/^^*^^) newtop=../..;; \ @@\
^^*^^/^^*^^) newtop=../..;; \ @@\
*^^) newtop=..;; \ @@\
esac; \ @@\
case "$(TOP)" in \ @@\
/^^*) newtop="$(TOP)" ;; \ @@\
esac; \ @@\
echo "Making Makefiles.SH in (DIR)Si..."; \ @@\
(cd $Si || exit 1; \ @@\
if test -f Jmakefile; then \ @@\
$(MAKE) $(MFLAGS) -f ../Makefile \ @@\
Makefile TOP=$$newtop CURRENT=(DIR)Si && \ @@\
$(MAKE) $(MFLAGS) Makefiles.SH; \ @@\
fi; \ @@\
) || exit 1; \ @@\
done

```

```

/*
* MakefileSubdirs:
* Generate rules to create Makefiles.
*/
#define MakefileSubdirs() @!\
MakeMakeSubdirs(Makefiles) @!\
MakeMakefilesSH()

```

```

/*
* CppScriptTarget:
* Generate rules to create a shell script by running the input
* through cpp.
*/
#define CppScriptTarget(dst,src,defs,deplist) @!\
dst:: src deplist \ @@\
$(RM) $@ \ @@\
$(CPP) defs <src | \ @@\
sed -e '/^# *[0-9][0-9]* *.*$$/d' >$@ \ @@\
chmod a+x $@

```

```

/*
* MakeScriptFromCpp:
* Generate rules to create a script from a file with a
* .cpp suffix.
*/
#define MakeScriptFromCpp(name,defs) @!\
CppScriptTarget(name,name.cpp,defs,^^)

```

```

/*
* ShellScriptTargetExt:
* Generate rules to create and install a set of scripts from
* ext files (.sh and .SH are the most common examples). Man pages
* derived from the name of the scripts are also installed unless
* NoManPages() is specified.
*/
#define ShellScriptTargetExt(scripts,ext) @!\
++SCRIPTS scripts @!\
SimpleShellScriptTargetExt(scripts,ext) @!\
InstallScripts() @!\
InstallManScripts()

```

```

/*
* ShellScriptTarget:
* Generate rules to create and install a set of scripts from
* .SH files. Man pages derived from the name of the scripts are
* also installed unless NoManPages() is specified.
*/
#define ShellScriptTarget(scripts) @!\
ShellScriptTargetExt(scripts,.SH)

```

```

/*
* SimpleShellScriptTargetExt:
* Generate rules to create a set of scripts from ext files where
* ext is usually
* something like .sh or .SH, or whatever file
* extension you like..
*/
#define SimpleShellScriptTargetExt(scripts,ext) @!\
AllTarget(scripts) @!\
 @!\
|expand s!scripts! @!\
!s: !s^^ext @@\
/bin/sh !s^^ext @!\
 @!\
-expand

```

```

/*
* SimpleShellScriptTarget:
* Generate rules to create a set of scripts from .SH files.
*/
#define SimpleShellScriptTarget(scripts) @!\

```

SimpleShellScriptTargetExt(scripts,.SH)

```
/*
* ShellScriptLongTarget:
* Generate rules to create a set of scripts from .SH files where
* the name of the generated file is different from the basename of
* the .SH file (when, for instance, the total length with the .SH
* extension would not leave enough space for RCS ,v extension).
*/
#define ShellScriptLongTarget(basename,scriptname) @!\
++LSCRIPTS scriptname @!\
AllTarget(scriptname) @!\
 @!\
scriptname: basename^^.SH @ @\
/bin/sh basename^^.SH @!\
 @!\
InstallScripts() @!\
?NOMAN:|skip @!\
InstallManPageLong(basename,$(MANSRC),scriptname) @!\
-skip

/*
* ForceTarget:
* The force target will force reconstruction of all the other
* targets which include .FORCE in their own dependencies.
*/
#define ForceTarget() @!\
|once _force_ @!\
.FORCE: @!\
 @!\
-once

/*
* RemoteTargetDependency:
* A local target may rely on a remote dependency (e.g. a library)
* made in a separate directory. This rule explicits the dependency
* and forces a make of that dependency in the remote directory.
*/
#define RemoteTargetDependency(target,directory,dependency) @!\
RemoteDependency(directory,dependency) @!\
target: directory/^^^dependency @!\

/*
* RemoteDependency:
```

```

* Specify rules for making a remote dependency.
*/
#define RemoteDependency(directory,dependency) @!\
ForceTarget() @!\
|once =directory/^^^dependency= @!\
directory/^^^dependency: .FORCE @@\
@echo "Checking "^^^dependency" in "^^^directory"..." @@\
cd ^^directory; $(MAKE) ^^dependency @@\
@echo "Continuing in $(CURRENT)..." @!\
 @!\
-once

/*
* SetSubdirs:
* Actually forces the definition of SUBDIRS, and lets the user
* specify what the sub-directories are. This will be added to the
* customization part.
*/
#define SetSubdirs(subdirs) @!\
>SUBDIRS @!\
+SUBDIRS = subdirs

/*
* NoManPages:
* Actually forces the definition of NOMAN, which tells the jmake
* program to not generate rules for installing manual pages.
*/
#define NoManPages() @!\
>NOMAN

/*
* Expand:
* This powerful macro expands the `rule' given a `pattern'. It
* relies on a built-in command in jmake. The expansion is
* documented in the short notes file that comes with jmake and
* gives some insights on the internal syntax.
*/
#define Expand(rule, pattern) @!\
|expand pattern @!\
rule @!\
-expand

/*
* Lex and yacc stuff.
*/

```

```

/*
* YaccRule:
* This is the rule which is used to build a .c file from a .y file.
*/
#define YaccRule() @!\
AddSuffix(.y) @!\
|once _YaccRule_ @!\
|rule:.y.c: @!\
|rule: $(YACC) $(JYFLAGS)
$< @!\
|rule: $(MV) y.tab.c $@ @!\
|rule: @!\
-once

/*
* SimpleYaccTarget:
* Declare a yacc base.y file to be used in the building of the
* specified target program. The source file must be given without
* its final .y extension. The name of the .c and .o will be
* derived from the source file basename provided.
*/
#define SimpleYaccTarget(program,base) @!\
++SOURCES base.y @!\
++OBJECTS base.o @!\
YaccRule() @!\
program: base.c @!\
 @!\
local_realclean:: @@\
$(RM) base.c @!\

/*
* ComplexYaccTarget:
* Declare a yacc base.y file to be used in the building of the
* specified target program. The source file must be given without
* its final .y extension. The name of the .c and .o will be
* derived from the source file basename provided.
* The difference with SimpleYaccTarget is the identifying process
* where all the 'yy' are replaced by the specified prefix.
*/
#define ComplexYaccTarget(program,base,prefix) @!\
++SOURCES base.y @!\
++OBJECTS base.o
 @!\
program: base.c @!\
 @!\
base.c: base.y @@\

```

```

$(YACC) $(JYFLAGS) base.y @@\
$(SED) -e 's/yy\(\.\)/prefix\1/g' < y.tab.c > base.c @@\
$(SED) -e 's/yy\(\.\)/prefix\1/g' < y.tab.h > base.h @@\
$(RM) y.tab.c y.tab.h @!\
 @!\
local_realclean:: @@\
$(RM) base.c @!\

```

```
/*
```

```
* SimpleYaccInclude:
```

```
* Declare that program will need an include file produced by
* the output of yacc on base.y, which typically produces a file
* named y.tab.h, which will be renamed as base.h.
* The only problem is that the dependencies towards base.h have
* to be manually given in the Jmakefile.
```

```
*/
```

```
#define SimpleYaccInclude(base) @!\
```

```
base.h: base.c @@\
@if test -f y.tab.h; then \ @@\
echo " $(MV) y.tab.h $@"; \ @@\
$(MV) y.tab.h $@; \ @@\
fi @!\
 @!\
```

```
local_realclean:: @@\
```

```
$(RM) base.h
```

```
/*
```

```
* ComplexYaccInclude:
```

```
* Declare that program will need an include file produced by
* the output of yacc on base.y, which typically produces a file
* named y.tab.h, which will
* be renamed as base.h.
* The difference with SimpleYaccInclude is the identifying process
* of the y.tab.h file where all 'yy' are renamed to prefix.
* The only problem is that the dependencies towards base.h have
* to be manually given in the Jmakefile.
```

```
*/
```

```
#define ComplexYaccInclude(base,prefix) @!\
```

```
base.h: base.c @@\
@if test -f y.tab.h; then \ @@\
echo " $(SED) -e 's/yy\(\.\)/prefix\1/g' < y.tab.h > base.h"; \ @@\
$(SED) -e 's/yy\(\.\)/prefix\1/g' < y.tab.h > base.h; \ @@\
echo " $(RM) y.tab.h"; \ @@\
$(RM) y.tab.h; \ @@\
elif test -f base.h; then \ @@\
echo " $(CP) base.h base.ht"; \ @@\
$(CP) base.h base.ht; \ @@\

```

```

echo " $(SED) -e 's/yy\(.)/prefix\1/g' < base.ht > base.h"; \ @@\
$(SED) -e 's/yy\(.)/prefix\1/g' < base.ht > base.h; \ @@\
echo " $(RM) base.ht"; \ @@\
$(RM) base.ht; \ @@\
fi @!\
 @!\
local_realclean:: @@\
$(RM) base.h

```

```

/*
* NormalYaccTarget:
* Declare a yacc base.y file which should produce a base.c and
* base.h file
* as derived from the output of yacc, to be used by
* the specified program.
*/
#define NormalYaccTarget(program,base) @!\
SimpleYaccTarget(program,base) @!\
SimpleYaccInclude(base)

```

```

/*
* IdentifiedYaccTarget:
* Declare a yacc base.y file which should produce a base.c and
* base.h file as derived from the output of yacc, to be used by
* the specified program. The specified prefix is used to replace
* all the 'yy' in the generated file, for use when more than a
* single parser is needed in one executable.
*/
#define IdentifiedYaccTarget(program,base,prefix) @!\
ComplexYaccTarget(program,base,prefix) @!\
ComplexYaccInclude(base,prefix)

```

```

/*
* SimpleLexTarget:
* This declares a lex base.l file which is to be ran through
* lex to produce a base.c file.
*/
#define SimpleLexTarget(program,base) @!\
++SOURCES base.l @!\
++OBJECTS base.o @!\
|once _LexRule_ @!\
|rule:.l.c: @!\
|rule: $(LEX) $(JLFLAGS) $< @!\
|rule: $(MV) lex.yy.c $@ @!\
|rule: @!\

```

```
-once @!\
AddSuffix(.l) @!\
program:
base.c @!\
 @!\
local_realclean:: @@\
$(RM) base.c @!\
```

```
/*
* IdentifiedLexTarget:
* This declares a lex base.l file which is to be ran through
* lex to produce a base.c file. The prefix is used to replace
* the 'yy', so that the lexical analyzer may be identified.
*/
#define IdentifiedLexTarget(program,base,prefix) @!\
++SOURCES base.l @!\
++OBJECTS base.o @!\
program: base.c @!\
 @!\
base.c: base.l @@\
$(LEX) $(JLFLAGS) base.l @@\
$(SED) -e 's/yy\(.)/prefix\1/g' < lex.yy.c > base.c @@\
$(RM) lex.yy.c @!\
 @!\
local_realclean:: @@\
$(RM) base.c @!\
```

```
/*
* NormalLexDependTarget:
* Declare that program will need an include file produced by
* the output of lex on base.l, which typically produces a file
* named lex.yy.c which will be renamed as base.c. Besides, the
* lexical analyzer needs the file parser.h produced by running
* parser.y through yacc and renaming y.tab.h as parser.h.
*/
#define NormalLexDependTarget(program,base,parser)
@!\
base.o: parser.h @!\
 @!\
SimpleLexTarget(program,base)
```

```
/*
* IdentifiedLexDependTarget:
* Declare that program will need an include file produced by
* the output of lex on base.l, which typically produces a file
```



```

* named lex.yy.c which will be renamed as base.c. Besides, the
* lexical analyzer needs the file parser.h produced by running
* parser.y through yacc and renaming y.tab.h as parser.h.
* The lexical analyzer is identified with the supplied prefix,
* which replaces the regular 'yy' prefix in the symbol names.
*/
#define IdentifiedLexDependTarget(program,base,parser,prefix) @!\
base.o: parser.h @!\
 @!\
IdentifiedLexTarget(program,base,prefix)

```

```

/*
* NormalParserTarget:
* Specify that program is using the lex/yacc combination to
* produce a parser. The lexic and parser parameters are the
* base name of the .l and .y file, respectively.
*/
#define NormalParserTarget(program,lexic,parser) @!\
NormalLexDependTarget(program,lexic,parser)
 @!\
NormalYaccTarget(program,parser)

```

```

/*
* IdentifiedParserTarget:
* Specify that program is using the lex/yacc combination to
* produce a parser. The lexic and parser parameters are the
* base name of the .l and .y file, respectively. The parser
* produced is identified via its prefix, which replaces all
* the normally supplied 'yy' prefix, hence making it possible
* to have multiple parsers in a single executable.
*/
#define IdentifiedParserTarget(program,lexic,parser,prefix) @!\
IdentifiedLexDependTarget(program,lexic,parser,prefix) @!\
IdentifiedYaccTarget(program,parser,prefix)

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/files/Jmake.rules

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_alarm.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_alarm.U,v \$

?RCS: Revision 3.0.1.1 1994/08/29 16:06:58 ram

?RCS: patch32: created by ADO

?RCS:

?MAKE:d\_alarm: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_alarm:

?S: This variable conditionally defines the HAS\_ALARM symbol, which

?S: indicates to the C program that the alarm() routine is available.

?S:.

?C:HAS\_ALARM :

?C: This symbol, if defined, indicates that the alarm routine is

?C: available.

?C:.

?H:#\$d\_alarm

HAS\_ALARM /\*\*/

?H:.

?LINT:set d\_alarm

: see if alarm exists

set alarm d\_alarm

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-  
5.30.0/dist/U/d\_alarm.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getspnam\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_getspnam\_r getspnam\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
usethreads i\_shadow extern\_C

?MAKE: -pick add \$@ %<

?S:d\_getspnam\_r:

?S: This variable conditionally defines the HAS\_GETSPNAM\_R symbol,

?S: which indicates to the C program that the getspnam\_r()

?S: routine is available.

?S:  
?S:getspnam\_r\_proto:  
?S: This variable encodes the prototype of getspnam\_r.  
?S: It is zero if d\_getspnam\_r is undef, and one of the  
?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getspnam\_r  
?S: is defined.  
?S:  
?C:HAS\_GETSPNAM\_R:  
?C: This symbol, if defined, indicates that the getspnam\_r routine  
?C: is available  
to getspnam re-entrantly.  
?C:  
?C:GETSPNAM\_R\_PROTO:  
?C: This symbol encodes the prototype of getspnam\_r.  
?C: It is zero if d\_getspnam\_r is undef, and one of the  
?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getspnam\_r  
?C: is defined.  
?C:  
?H:#\$d\_getspnam\_r HAS\_GETSPNAM\_R /\*\*/  
?H:#define GETSPNAM\_R\_PROTO \$getspnam\_r\_proto /\*\*/  
?H:  
?T:try hdrs d\_getspnam\_r\_proto  
: see if getspnam\_r exists  
set getspnam\_r d\_getspnam\_r  
eval \$inlibc  
case "\$d\_getspnam\_r" in  
"\$define")  
hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_shadow shadow.h"  
case "\$d\_getspnam\_r\_proto:\$usetreads" in  
":define") d\_getspnam\_r\_proto=define  
set d\_getspnam\_r\_proto getspnam\_r \$hdrs  
eval \$hasproto ;;  
\*) ;;  
esac  
case "\$d\_getspnam\_r\_proto" in  
define)  
case "\$getspnam\_r\_proto" in  
"|0) try='int getspnam\_r(const char\*, struct spwd\*, char\*, size\_t, struct spwd\*\*);'  
./protochk "\$extern\_C \$try" \$hdrs && getspnam\_r\_proto=I\_CSBWR ;;  
esac  
case "\$getspnam\_r\_proto" in  
"|0) try='struct spwd\* getspnam\_r(const char\*, struct  
spwd\*, char\*, int);'  
./protochk "\$extern\_C \$try" \$hdrs && getspnam\_r\_proto=S\_CSBI ;;  
esac  
case "\$getspnam\_r\_proto" in  
"|0) d\_getspnam\_r=undef  
getspnam\_r\_proto=0

```

echo "Disabling getsppam_r, cannot determine prototype." >&4 ;;
*) case "$getsppam_r_proto" in
REENTRANT_PROTO*) ;;
*) getsppam_r_proto="REENTRANT_PROTO_${getsppam_r_proto}" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetreads" in
define) echo "getsppam_r has no prototype, not using it." >&4 ;;
esac
d_getsppam_r=undef
getsppam_r_proto=0
;;
esac
;;
*) getsppam_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_getsppam_r.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: filexp.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

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?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: filexp.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:08 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:filexp: privlib

?MAKE: -pick add \$@ %<

?S:filexp:

?S: This symbol contains the full pathname of the filexp script, in case we

?S: are saving the script for posterity.

?S:.

: must not allow self reference

case "\$privlib" in

/\*)

```
filexp=$privlib/filexp
;;
*)
filexp=`pwd`/filexp
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/filexp_path.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_sysparam.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: i_sysparam.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:22:43 ram
?RCS: patch32: created
?RCS:
?MAKE:i_sysparam: Inhdr
?MAKE: -pick add $@ %<
?S:i_sysparam:
?S: This variable conditionally defines the I_SYS_PARAM symbol, and indicates
?S: whether a C program should include <sys/param.h>.
?S:.
?C:I_SYS_PARAM:
?C: This symbol, if defined, indicates to the C program that it should
?C: include <sys/param.h>.
?C:.
?H:#$i_sysparam I_SYS_PARAM /**/
?H:.
?LINT:set
i_sysparam
: see if this is a sys/param system
set sys/param.h i_sysparam
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_sysparam.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: archname.U,v 3.0.1.3 1997/02/28 15:24:32 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: archname.U,v $
?RCS: Revision 3.0.1.3 1997/02/28 15:24:32 ram
?RCS: patch61: changed the way the archname is mangled from unname
?RCS:
?RCS: Revision 3.0.1.2 1995/05/12 12:05:24 ram
?RCS: patch54: protect against spaces in "uname -m" output (ADO)
?RCS:
?RCS: Revision 3.0.1.1 1995/02/15 14:14:21 ram
?RCS: patch51: created
?RCS:
?MAKE:archname myarchname useversionedarchname: sed Loc Myread Oldconfig \
osname test rm usethreads usemultiplicity use64bitint
use64bitall \
archname64 uselongdouble longdblsize doublesize targetarch Setvar \
api_versionstring usequadmath
?MAKE: -pick add $@ %<
?S:archname:
?S: This variable is a short name to characterize the current
?S: architecture. It is used mainly to construct the default archlib.
?S:.
?S:myarchname:
?S: This variable holds the architecture name computed by Configure in
?S: a previous run. It is not intended to be perused by any user and
?S: should never be set in a hint file.
?S:.
?S:useversionedarchname:
?S: This variable indicates whether to include the $api_versionstring
?S: as a component of the $archname.
?S:.
?C:ARCHNAME:
?C: This symbol holds a string representing the architecture name.
?C: It may be used to construct an architecture-dependant pathname
?C: where library files may be held under a private library, for
?C: instance.
?C:.
?H:#define ARCHNAME "$archname" /**/
```

```

?H:
?T:xxx tarch
?F:!archname.cbu
?INIT:archname=""
: determine the architecture name
echo " "
?X:
We always recompute archname in case osname changes. However, we need
?X: to be careful since, as ADO rightfully pointed out, some systems pick
?X: silly architecture names (0001307135000-aix on AIX or 9000/715-ux under
?X: HP-UX). Therefore, we allow hint files to supersede our guess and ask
?X: the user for confirmation.
if xxx=`./loc arch blurfl $pth`; $test -f "$xxx"; then
 tarch=`arch`-"-$osname"
elif xxx=`./loc uname blurfl $pth`; $test -f "$xxx" ; then
 if uname -m > tmparch 2>&1 ; then
 tarch=`$sed -e 's/ *$//' -e 's/ /_/g' \
 -e 's/$/"-$osname/"' tmparch`
 else
 tarch="$osname"
 fi
 $rm -f tmparch
else
 tarch="$osname"
fi
case "$myarchname" in
|"|$tarch") ;;
*)
 echo "(Your architecture name used to be $myarchname.)"
 archname=""
 ;;
esac
case "$targetarch" in
") ;;
?X: Very GCCian.
) archname=`echo $targetarch|sed 's,^[^]-,` ;;
esac
myarchname="$tarch"
case "$sarchname" in
") dflt="$tarch";;
*) dflt="$sarchname";;
esac
rp='What is your architecture name'
./myread
archname="$ans"

:

```

```

optionally add API version to the architecture for versioned archlibs
case "$useversionedarchname" in
$define|true|[yY]*) dflt='y';
*) dflt='n';;
esac
rp='Add the Perl API version to your archname?'
./myread
case "$ans" in
y|Y) useversionedarchname="$define" ;;
*) useversionedarchname="$undef" ;;
esac
case "$useversionedarchname" in
$define)
case "$archname" in
*-$api_versionstring)
echo "...and architecture name already has -$api_versionstring" >&4
;;
*)
archname="$archname-$api_versionstring"
echo "...setting architecture name to $archname." >&4
;;
esac
;;
esac

@if usethreads
case "$usethreads" in
$define)
echo "Threads selected." >&4
case "$archname" in
-$thread) echo "...and architecture name already has -$thread." >&4
;;
*) archname="$archname-$thread"
echo "...setting architecture name to $archname." >&4
;;
esac
;;
esac
@end
@if usemultiplicity
case "$usemultiplicity" in
$define)
echo "Multiplicity selected."
>&4
case "$archname" in
-$multi) echo "...and architecture name already has -$multi." >&4
;;
*) archname="$archname-$multi"

```



```

echo "...setting architecture name to $archname." >&4
;;
esac
;;
esac
@end
@if use64bitint
case "$use64bitint$use64bitall" in
$define)
case "$archname64" in
")
echo "This architecture is naturally 64-bit, not changing architecture name." >&4
;;
*)
case "$use64bitint" in
"$define") echo "64 bit integers selected." >&4 ;;
esac
case "$use64bitall" in
"$define") echo "Maximal 64 bitness selected." >&4 ;;
esac
case "$archname" in
-$archname64) echo "...and architecture name already has $archname64." >&4
;;
*) archname="$archname-$archname64"
echo "...setting architecture name to $archname." >&4
;;
esac
;;
esac
esac
esac
@end
@if uselongdouble
case "$uselongdouble" in
$define)
echo "Long doubles selected." >&4
case "$longdblsize" in
$doublesize)
echo "...but long doubles are equal to doubles, not
changing architecture name." >&4
;;
*)
case "$archname" in
-ld) echo "...and architecture name already has -ld." >&4
;;
*) archname="$archname-ld"
echo "...setting architecture name to $archname." >&4
;;
esac

```

```

;;
esac
;;
esac
@end
@if usequadmath
case "$usequadmath" in
$define)
echo "quadmath selected." >&4
case "$archname" in
-quadmath) echo "...and architecture name already has -quadmath." >&4
;;
*) archname="$archname-quadmath"
echo "...setting architecture name to $archname." >&4
;;
esac
;;
esac
@end
if $test -f archname.cbu; then
echo "Your platform has some specific hints for architecture name, using them..."
. ./archname.cbu
fi

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/archname.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_values.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1996, Andy Dougherty

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: i\_values.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:48:34 ram

?RCS: patch61: created

?RCS:

?MAKE:i\_values: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_values:

?S: This variable conditionally defines the I\_VALUES symbol, and indicates

?S: whether a C program may include <values.h> to get symbols like MAXLONG

?S: and friends.

?S:.

?C:I\_VALUES:

?C: This symbol, if defined, indicates to the C program that it should

?C: include

<values.h> to get definition of symbols like MINFLOAT or

?C: MAXLONG, i.e. machine dependant limitations. Probably, you

?C: should use <limits.h> instead, if it is available.

?C:.

?H:#\$i\_values I\_VALUES /\*\*/

?H:.

?LINT:set i\_values

: see if this is a values.h system

set values.h i\_values

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_values.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_memalign.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_memalign.U,v \$

?RCS:

?MAKE:d\_memalign: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_memalign:

?S: This variable conditionally defines the HAS\_MEMALIGN symbol, which

?S: indicates to the C program that the memalign() routine is available.

?S:.

?C:HAS\_MEMALIGN :

?C: This symbol, if defined, indicates that the memalign routine is

?C: available to allocate aligned memory.

?C:.

?H:#\$d\_memalign HAS\_MEMALIGN /\*\*/

?H:.

?LINT:set d\_memalign

: see if memalign exists

```
set
memalign d_memalign
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_memalign.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998, Jarkko Hietaniemi

?RCS:

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:i\_sysaccess: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_sysaccess:

?S: This variable conditionally defines the I\_SYS\_ACCESS symbol,

?S: and indicates whether a C program should include <sys/access.h>.

?S:.

?C:I\_SYS\_ACCESS:

?C: This symbol, if defined, indicates to the C program that it should

?C: include <sys/access.h>.

?C:.

?H:#\$i\_sysaccess I\_SYS\_ACCESS /\*\*/

?H:.

?LINT:set i\_sysaccess

: see if sys/access.h is available

set sys/access.h i\_sysaccess

eval \$inhdr

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/acl/i_sysaccess.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999, Jarkko Hietaniemi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_ldbl\_dig: Myread contains cat rm Setvar \

cppstdin cppflags cppminus

?MAKE: -pick add \$@ %<

?S:d\_ldbl\_dig:

?S: This variable conditionally defines d\_ldbl\_dig if this system's

?S: header files provide LDBL\_DIG, which is the number of significant

?S: digits in a long double precision number.

?S:.

?C:HAS\_LDBL\_DIG:

?C: This symbol, if defined, indicates that this system's <float.h>

?C: or <limits.h> defines the symbol LDBL\_DIG, which is the number

?C: of significant digits in a long double precision number. Unlike

?C: for

DBL\_DIG, there's no good guess for LDBL\_DIG if it is undefined.

?C:.

?H:#\$d\_ldbl\_dig HAS\_LDBL\_DIG /\* \*/

?H:.

?F:!ldbl\_dig.c

?LINT:set d\_ldbl\_dig

: See if number of significant digits in a double precision number is known

echo " "

\$cat >ldbl\_dig.c <<EOM

#include <limits.h>

#include <float.h>

#ifdef LDBL\_DIG

printf("Contains LDBL\_DIG");

#endif

EOM

\$cppstdin \$cppflags \$cppminus < ldbl\_dig.c >ldbl\_dig.E 2>/dev/null

if \$contains 'LDBL\_DIG' ldbl\_dig.E >/dev/null 2>&1; then

echo "LDBL\_DIG found." >&4

val="\$define"

else

echo "LDBL\_DIG NOT found." >&4

val="\$undef"

fi

\$rm -f ldbl\_dig.?

set d\_ldbl\_dig

eval \$setvar

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_ldbl\_dig.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Nothing.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: Nothing.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:05:09 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: The purpose of this file is to supply an empty target for the private  
?X: Makefile built by metaconfig to order the units.  
?X:  
?MAKE:Nothing: Head

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Nothing.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 2014 Jarkko Hietaniemi & H.Merijn Brand  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_copysign: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_copysign:  
?S: This variable conditionally defines the HAS\_COPYSIGN symbol, which  
?S: indicates to the C program that the copysign() routine is available.  
?S:.  
?C:HAS\_COPYSIGN:  
?C: This symbol, if defined, indicates that the copysign routine is  
?C: available to do the copysign function.  
?C:.  
?H:#\$d\_copysign HAS\_COPYSIGN /\*\*/  
?H:.  
?LINT:set d\_copysign  
: see if copysign exists  
set copysign d\_copysign  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_copysign.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_pathconf.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_pathconf.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:14:54 ram

?RCS: patch36: created by ADO

?RCS:

?MAKE:d\_pathconf d\_fpathconf: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_pathconf:

?S: This variable conditionally defines the HAS\_PATHCONF symbol, which

?S: indicates to the C program that the pathconf() routine is available

?S: to determine file-system related limits and options

associated

?S: with a given filename.

?S:.

?S:d\_fpathconf:

?S: This variable conditionally defines the HAS\_FPATHCONF symbol, which

?S: indicates to the C program that the pathconf() routine is available

?S: to determine file-system related limits and options associated

?S: with a given open file descriptor.

?S:.

?C:HAS\_PATHCONF:

?C: This symbol, if defined, indicates that pathconf() is available

?C: to determine file-system related limits and options associated

?C: with a given filename.

?C:.

?C:HAS\_FPATHCONF:

?C: This symbol, if defined, indicates that pathconf() is available

?C: to determine file-system related limits and options associated

?C: with a given open file descriptor.

?C:.

?H:#\$d\_pathconf HAS\_PATHCONF /\*\*/

```
?H:#$d_fpathconf HAS_FPATHCONF /**/
```

```
?H:.
```

```
?LINT:set d_pathconf
```

```
?LINT:set d_fpathconf
```

```
: see if pathconf exists
```

```
set pathconf d_pathconf
```

```
eval $inlibc
```

```
@if d_fpathconf || HAS_FPATHCONF
```

```
: see if fpathconf exists
```

```
set fpathconf d_fpathconf
```

```
eval $inlibc
```

```
@end
```

```
Found in path(s):
```

```
*
```

```
/opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_pathconf.U
```

```
No license file was found, but licenses were detected in source scan.
```

```
?RCS:
```

```
?RCS: Copyright (c) 1999, Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?MAKE:uidsize: Myread Typedef uidtype Compile run i_stdlib
```

```
?MAKE: -pick add $@ %<
```

```
?S:uidsize:
```

```
?S: This variable contains the size of a uidtype in bytes.
```

```
?S:.
```

```
?C:Uid_t_size:
```

```
?C: This symbol holds the size of a Uid_t in bytes.
```

```
?C:.
```

```
?H:#define Uid_t_size $uidsize /* UID size */
```

```
?H:.
```

```
?T:yyy zzz
```

```
?F:!try
```

```
: Check size of UID
```

```
echo " "
```

```
case "$uidtype" in
```

```
*_t) zzz="$uidtype" ;;
```

```
*) zzz="uid" ;;
```

```
esac
```



```

echo "Checking the size of $zzz..." >&4
cat > try.c <<EOCP
#include <sys/types.h>
#include <stdio.h>
#ifdef _STDLIB
#include
<stdlib.h>
#endif
int main() {
 printf("%d\n", (int)sizeof($uidtype));
 exit(0);
}
EOCP
set try
if eval $compile_ok; then
yyy=`$run ./try`
case "$yyy" in
") uidsize=4
 echo "(I can't execute the test program--guessing $uidsize.)" >&4
 ;;
*) uidsize=$yyy
 echo "Your $zzz is $uidsize bytes long."
 ;;
esac
else
uidsize=4
echo "(I can't compile the test program--guessing $uidsize.)" >&4
fi

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/uidsize.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: usedtrace.U,v \$

?RCS:

?RCS: Copyright (c) 2008 H.Merijn Brand

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: usedtrace.U,v \$

?RCS:

?MAKE:usedtrace dtrace: Myread Oldconfig Setvar Getfile test

?MAKE: -pick add \$@ %<

?Y:TOP

?S:usedtrace:

?S: This variable indicates whether we are compiling with dtrace

?S: support. See also dtrace.

?S:.

?S:dtrace:

?S: This variable holds the location of the dtrace executable.

?S:.

?C:USE\_DTRACE:

?C: This symbol, if defined, indicates that Perl should

?C: be built with support for DTrace.

?C:.

?H:#\$usedtrace USE\_DTRACE /\*\*/

?H:.

?T:dflt\_dtrace

?LINT:set usedtrace

?LINT:set dtrace

: DTrace support

dflt\_dtrace='/usr/sbin/dtrace'

\$test -x /usr/bin/dtrace && dflt\_dtrace='/usr/bin/dtrace'

cat <<EOM

Perl can be built to support DTrace on platforms that support it.

DTrace is a diagnosis and performance analysis tool from Sun.

If this doesn't make any sense to you, just accept the default.

EOM

```
while $test 1 ; do
 case "$usedtrace" in
 $define|true|[yY]*)
 dflt='y'
 ;;
 ?*)
 dflt='y'
 dflt_dtrace=$usedtrace
 ;;
 *)
 dflt='n'
 ;;
 esac
```

```
rp='Support DTrace if available?'
. ./myread
case "$ans" in
 y|Y) val="$define" ;;
 *) val="$undef" ;;
esac
```

```

set usedtrace
eval $setvar

test "X$usedtrace" != "X$define" && break

echo " "
rp='Where is the dtrace executable?'
dflt=$dflt_dtrace
./getfile
val="$ans"
set dtrace
eval $setvar

if $test -f $dtrace
then
if $dtrace -h -s ../perldtrace.d \
-o perldtrace.tmp >/dev/null 2>&1 \
&& rm -f perldtrace.tmp
then
echo " "
echo "Good: your $dtrace knows about the -h flag."
else
cat >&2 <<EOM

*** $me: Fatal Error: $dtrace doesn't support -h flag

*** Your installed dtrace doesn't support the -h switch to compile a D
*** program into a C header. Can't continue.

EOM
exit
1
fi
break;
fi

case "$fastread" in
yes)
cat >&2 <<EOM

*** $me: Fatal Error: $dtrace not found.
*** Can't continue.

EOM
exit 1
;;
*)
echo "*** $dtrace was not found."

```

```
echo " "
;;
esac
done
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/usedtrace.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: startsh.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: startsh.U,v $
```

```
?RCS: Revision 3.0.1.1 1997/02/28 16:25:31 ram
```

```
?RCS: patch61: avoid needless chatter since this is now done very early
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:09:51 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:startsh: sh sharpbang eunicefix
```

```
?MAKE: -pick add @$@ %<
```

```
?S:startsh:
```

```
?S: This variable contains the string to put on the front of a shell
```

```
?S: script to make sure (hopefully) that it runs with sh and not some
```

```
?S: other
```

```
shell.
```

```
?S:.
```

```
?F:!sharp
```

```
: figure out how to guarantee sh startup
```

```
?X: Avoid needless chatter since this is now done very early.
```

```
?X: echo " "
```

```
?X: echo "Checking out how to guarantee sh startup..." >&2
```

```
case "$startsh" in
```

```
*) startsh=${sharpbang}${sh} ;;
```

```
*)
```

```
?X: echo "Let's see if '$startsh' works..." ;;
```

```
esac
```

```
cat >sharp <<EOSS
```

```
$startsh
```

```
set abc
```

```
test "$?abc" != 1
```

```
EOSS
```

```
chmod +x sharp
```

```
$eunicefix sharp
```

```
if ./sharp; then
```

```
 : echo "Yup, it does."
```

```
else
```

```
 echo "Hmm... '$startsh' does not guarantee sh startup..."
```

```
 echo "You may have to fix up the shell scripts to make sure $sh runs them."
```

```
fi
```

```
rm -f sharp
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/startsh.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_linuxstd.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
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```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
```

```
?RCS:
```

```
?RCS: $Log: d_linuxstd.U,v $
```

```
?RCS: Revision 3.0.1.1 1994/10/29 16:14:05 ram
```

```
?RCS: patch36: created by ADO
```

```
?RCS:
```

```
?MAKE:d_linuxstd: d_stdstdio cppstdin cppflags cppminus \
```

```
contains rm Setvar Findhdr
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_linuxstd:
```

```
?S: This variable conditionally defines USE_LINUX_STDIO if this system
```

```
?S: has a FILE structure declaring _IO_read_base, _IO_read_ptr,
```

```
?S: and _IO_read_end
```

```
in stdio.h.
```

```
?S:.
```

```
?C:USE_LINUX_STDIO:
```

```
?C: This symbol is defined if this system has a FILE structure declaring
```

```
?C: _IO_read_base, _IO_read_ptr, and _IO_read_end in stdio.h.
```

```
?C:.
```

```
?H:#$d_linuxstd USE_LINUX_STDIO /**/
```

```

?H:
?T:xxx
?LINT:set d_linuxstd
: see if stdio is like that in linux
case "$d_stdstdio" in
"$undef")
echo " "
xxx=`./findhdr stdio.h`
$cppstdin $cppflags $cppminus < "$xxx" > stdio.E
if $contains 'char.*_IO_read_base' stdio.E >/dev/null 2>&1 && \
$contains '_IO_read_ptr' stdio.E >/dev/null 2>&1 && \
$contains '_IO_read_end' stdio.E >/dev/null 2>&1 ; then
echo "Your stdio looks like linux." >&4
val="$define"
else
echo "You don't have linux stdio, either." >&4
val="$undef"
fi
$rm -f stdio.E
;;
*) val="$undef" ;;
esac

```

```

set d_linuxstd
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_linuxstd.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_readdir64\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_readdir64\_r readdir64\_r\_proto: Inlibc Protochk Hasproto i\_systypes \
usethreads i\_dirent extern\_C

?MAKE: -pick add \$@ %<

?S:d\_readdir64\_r:

?S: This variable conditionally defines the HAS\_READDIR64\_R symbol,

?S: which indicates to the C program that the readdir64\_r()

?S: routine is available.

?S:.

?S:readdir64\_r\_proto:

?S: This variable encodes the prototype of readdir64\_r.

?S: It is zero if d\_readdir64\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_readdir64\_r

?S: is defined.

?S:.

?C:HAS\_READDIR64\_R:

?C: This symbol, if defined, indicates that the readdir64\_r routine

?C: is

available to readdir64 re-entrantly.

?C:.

?C:READDIR64\_R\_PROTO:

?C: This symbol encodes the prototype of readdir64\_r.

?C: It is zero if d\_readdir64\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_readdir64\_r

?C: is defined.

?C:.

?H:#\$d\_readdir64\_r HAS\_READDIR64\_R /\*\*/

?H:#define READDIR64\_R\_PROTO \$readdir64\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_readdir64\_r\_proto

: see if readdir64\_r exists

set readdir64\_r d\_readdir64\_r

eval \$inlibc

case "\$d\_readdir64\_r" in

"\$define")

hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_dirent dirent.h"

case "\$d\_readdir64\_r\_proto:\$usetthreads" in

":define") d\_readdir64\_r\_proto=define

set d\_readdir64\_r\_proto readdir64\_r \$hdrs

eval \$hasproto ;;

\*) ;;

esac

case "\$d\_readdir64\_r\_proto" in

define)

case "\$readdir64\_r\_proto" in

"|0) try='int readdir64\_r(DIR\*, struct dirent64\*, struct dirent64\*\*);'

./protochk "\$extern\_C \$try" \$hdrs && readdir64\_r\_proto=I\_TSR ;;

esac

case "\$readdir64\_r\_proto" in

"|0) try='int readdir64\_r(DIR\*,

struct dirent64\*);'

./protochk "\$extern\_C \$try" \$hdrs && readdir64\_r\_proto=I\_TS ;;

esac

case "\$readdir64\_r\_proto" in

"|0) d\_readdir64\_r=undef

readdir64\_r\_proto=0

echo "Disabling readdir64\_r, cannot determine prototype." >&4 ;;

\* ) case "\$readdir64\_r\_proto" in

```

REENTRANT_PROTO*) ;;
*) readdir64_r_proto="REENTRANT_PROTO_${readdir64_r_proto}" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "readdir64_r has no prototype, not using it." >&4 ;;
esac
d_readdir64_r=undef
readdir64_r_proto=0
;;
esac
;;
*) readdir64_r_proto=0
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_readdir64_r.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: dlsrc.U,v\$

?RCS:

?RCS: Copyright (c) 1996-1998, Andy Dougherty

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: dlex.t.U,v \$

?RCS:

?X: hpux support thanks to Jeff Okamoto <okamoto@hpcc101.corp.hp.com>

?X:

?X: To create a shared library, you must compile ALL source files in the

?X: library with +z (or possibly +Z if the library is whopping huge),

?X: then link the library with -b. Example:

?X: cc -c +z module\_a.c

?X: cc -c +z module\_b.c

?X: ld -b module\_a.o module\_b.o -o module.sl

?X:

?MAKE:dlex.t: \

Getfile Myread cat usedl so

?MAKE: -pick add \$@ %<

?Y:BOTTOM

?S:dlex.t:

?S: This variable contains the extension that is to be used for the

?S: dynamically loaded modules that perl generates.



```
?S:
: Check what extension to use for shared libs
case "$usedl" in
$define|y|true)
$cat <<
EOM
```

On a few systems, the dynamically loaded modules that perl generates and uses will need a different extension than shared libs. The default will probably be appropriate.

```
EOM
case "$dlextr" in
") dflt="$so" ;;
*) dflt="$dlextr" ;;
esac
rp='What is the extension of dynamically loaded modules'
./myread
dlextr="$ans"
;;
*)
dlextr="none"
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/dlextr.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_csh.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 15:32:18 ram
?RCS: patch61: added full_csh to preserve the full path even when portable
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:53 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_csh full_csh: csh Setvar
```

?MAKE: -pick add \$@ %<

?S:d\_csh:

?S: This variable conditionally defines the CSH symbol, which

?S: indicates to the C program that the C-shell exists.

?S:.

?S:full\_csh:

?S: This variable contains the full pathname to 'csh', whether  
or

?S: not the user has specified 'portability'. This is only used

?S: in the compiled C program, and we assume that all systems which

?S: can share this executable will have the same full pathname to

?S: 'csh.'

?S:.

?C:HAS\_CSH:

?C: This symbol, if defined, indicates that the C-shell exists.

?C:.

?C:CSH:

?C: This symbol, if defined, contains the full pathname of csh.

?C:.

?X: Previously, I just did \$d\_csh CSH "\$full\_csh", but that caused

?X: problems on VMS where the config.sh extraction program changes

?X: \$undef to a real cpp undef, and they then had #undef CSH ""

?X: which the compiler didn't like. It's easy to work around this,

?X: so I did. --AD 3/1998.

?X: And we don't want to define CSH if !HAS\_CSH, but we don't want

?X: those lines in config.h if they don't need CSH, so protect with ?CSH

?X: and not ?%<. --RAM, 15/02/2004

?H:?%<:#\$d\_csh HAS\_CSH /\*\*/

?H:?CSH:#ifdef HAS\_CSH

?H:?CSH:#define CSH "\$full\_csh" /\*\*/

?H:?CSH:#endif

?H:.

?LINT:set d\_csh

: get csh whereabouts

case

"\$csh" in

'csh') val="\$undef" ;;

\*) val="\$define" ;;

esac

set d\_csh

eval \$setvar

: Respect a hint or command line value for full\_csh.

case "\$full\_csh" in

") full\_csh=\$csh ;;

esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/dist/U/d\_csh.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: scriptdir.U,v 3.1 1999/07/09 18:20:13 doughera Exp doughera \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: scriptdir.U,v \$

?RCS: Revision 3.1 1999/07/09 18:20:13 doughera

?RCS: Updated for installprefix

?RCS:

?RCS: Revision 3.0.1.3 1995/09/25 09:17:15 ram

?RCS: patch59: unit is now forced to the top of Configure, if possible

?RCS:

?RCS: Revision 3.0.1.2 1995/01/30 14:46:13 ram

?RCS: patch49: can now handle installation prefix changes (from WED)

?RCS:

?RCS: Revision 3.0.1.1 1994/08/29 16:32:04 ram

?RCS: patch32: now uses installation prefix

?RCS:

?RCS:

Revision 3.0 1993/08/18 12:09:45 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:scriptdir scriptdirexp installscript: cat test Getfile Loc \

Oldconfig +bin Prefixit Setprefixvar prefixexp Prefixup

?MAKE: -pick add \$@ %<

?Y:TOP

?D:scriptdir="

?S:scriptdir:

?S: This variable holds the name of the directory in which the user wants

?S: to put publicly scripts for the package in question. It is either

?S: the same directory as for binaries, or a special one that can be

?S: mounted across different architectures, like /usr/share. Programs

?S: must be prepared to deal with ~name expansion.

?S:.

?D:scriptdirexp="

?S:scriptdirexp:

?S: This variable is the same as scriptdir, but is filename expanded

?S: at configuration time, for programs not wanting to bother with it.

?S:.

?S:installscript:

?S: This variable is usually the same as scriptdirexp, unless you are on  
?S: a system running AFS, in which case they may differ slightly. You  
?S: should always use this variable  
within your makefiles for portability.

?S:.

?C:SCRIPTDIR:

?C: This symbol holds the name of the directory in which the user wants

?C: to put publicly executable scripts for the package in question. It

?C: is often a directory that is mounted across diverse architectures.

?C: Programs must be prepared to deal with ~name expansion.

?C:.

?C:SCRIPTDIR\_EXP:

?C: This is the same as SCRIPTDIR, but is filename expanded at

?C: configuration time, for use in programs not prepared to do

?C: ~name substitutions at run-time.

?C:.

?H:#define SCRIPTDIR "\$scriptdir" /\*\*/

?H:#define SCRIPTDIR\_EXP "\$scriptdirexp" /\*\*/

?H:.

?T:installscriptdir

?LINT:change prefixvar

?LINT:set scriptdir

?LINT:set scriptdirexp

: determine where public executable scripts go

set scriptdir scriptdir

eval \$prefixit

case "\$scriptdir" in

"

dflt="\$bin"

: guess some guesses

\$test -d /usr/share/scripts && dflt=/usr/share/scripts

\$test -d /usr/share/bin && dflt=/usr/share/bin

\$test -d /usr/local/script && dflt=/usr/local/script

\$test

-d /usr/local/scripts && dflt=/usr/local/scripts

\$test -d \$prefixexp/script && dflt=\$prefixexp/script

set dflt

eval \$prefixup

::

\*) dflt="\$scriptdir"

::

esac

\$cat <<EOM

Some installations have a separate directory just for executable scripts so  
that they can mount it across multiple architectures but keep the scripts in  
one spot. You might, for example, have a subdirectory of /usr/share for this.  
Or you might just lump your scripts in with all your other executables.

```

EOM
fn=d~
rp="Where do you keep publicly executable scripts?"
./getfile
if $test "X$ansexp" != "X$scriptdirexp"; then
installscript="
fi
installscriptdir="
prefixvar=scriptdir
./setprefixvar
: A little fix up for an irregularly named variable.
installscript="$installscriptdir"

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/scriptdir.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_inetd.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_inetd.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:23 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_inetd: cat test package Myread Setvar
?MAKE: -pick add $@ %<
?S:d_inetd:
?S: This symbol conditionally defines USE_INETD which indicates to the C
?S: program that the initial socket connection will be done via inetd.
?S:.
?C:USE_INETD (INETD):
?C: This symbol if defined indicates to the C program that inetd will be
?C: in charge of the
initial socket connection. The file descriptors 0 and
?C: 1 have been dup()ed from the original connected socket descriptor and
?C: are ready for send() and recv().
?C:.
?H:#$d_inetd USE_INETD /**/
?H:.

```

```
?LINT:set d_inetd
: ask whether initial socket connection is to be done via inetd
echo " "
dflt=n
case "$d_inetd" in
") if $test -f /etc/inetd.conf; then
 $cat <<EOM
```

Your system provides a so called "Internet super-server", the inetd daemon. Network services like ftp or rlogin are usually handled via ftpd and rlogind daemons. Without inetd, these daemons must always be running for the service to be on. On the contrary, inetd listens to specific ports defined in file /etc/inetd.conf and will run the appropriate daemon upon request. This scheme avoids eating up the process table and memory with useless daemons.

I can set up things so that internet connections for \$package will be done using inetd, in which case you will have to edit /etc/inetd.conf to add some specific informations.

```
EOM
 dflt=y
else
 $cat
<<EOM
```

I do not see any trace of a configuration file for inetd, hence I assume your system does not support the so called "Internet super-server". This means \$package will need to have a daemon process running on this machine to allow network connections.

```
EOM
fi;;
*) case "$d_inetd" in
"$define") dflt=y;;
esac;;
esac
rp='Do you wish to use inetd for network connections?'
./myread
val="$undef"
case "$ans" in
y*|Y*) val="$define";;
esac
set d_inetd
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_inetd.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: archlib.U,v \$

?RCS: Revision 3.0.1.5 1997/02/28 15:23:38 ram

?RCS: patch61: skip existence checks for archlib

?RCS:

?RCS: Revision 3.0.1.4 1995/09/25 09:15:18 ram

?RCS: patch59: unit is now forced to the top of Configure, if possible

?RCS:

?RCS: Revision 3.0.1.3 1995/02/15 14:14:14 ram

?RCS: patch51: architecture name is now computed by a separate unit

?RCS:

?RCS: Revision 3.0.1.2 1995/01/30 14:32:22 ram

?RCS:

patch49: archname is now systematically recomputed

?RCS: patch49: can now handle installation prefix changes (from WED)

?RCS:

?RCS: Revision 3.0.1.1 1994/10/29 16:02:36 ram

?RCS: patch36: created by ADO

?RCS:

?MAKE:d\_archlib archlib archlibexp installarchlib: archname afs spackage \  
cat Getfile Loc Oldconfig prefixexp privlib test Prefixit Prefixup

?MAKE: -pick add \$@ %<

?Y:TOP

?S:d\_archlib:

?S: This variable conditionally defines ARCHLIB to hold the pathname  
?S: of architecture-dependent library files for \$package. If  
?S: \$archlib is the same as \$privlib, then this is set to undef.

?S:.

?S:archlib:

?S: This variable holds the name of the directory in which the user wants  
?S: to put architecture-dependent public library files for \$package.  
?S: It is most often a local directory such as /usr/local/lib.  
?S: Programs using this variable must be prepared to deal  
?S: with filename expansion.

?S:.

?S:archlibexp:

?S: This variable is the same as the archlib variable, but is

?S: filename

expanded at configuration time, for convenient use.

?S:.

?S:installarchlib:

?S: This variable is really the same as archlibexp but may differ on

?S: those systems using AFS. For extra portability, only this variable

?S: should be used in makefiles.

?S:.

?C:ARCHLIB:

?C: This variable, if defined, holds the name of the directory in

?C: which the user wants to put architecture-dependent public

?C: library files for \$package. It is most often a local directory

?C: such as /usr/local/lib. Programs using this variable must be

?C: prepared to deal with filename expansion. If ARCHLIB is the

?C: same as PRIVLIB, it is not defined, since presumably the

?C: program already searches PRIVLIB.

?C:.

?C:ARCHLIB\_EXP:

?C: This symbol contains the ~name expanded version of ARCHLIB, to be used

?C: in programs that are not prepared to deal with ~ expansion at run-time.

?C:.

?H:#\$d\_archlib ARCHLIB "\$sarchlib" /\*\*/

?H:#\$d\_archlib ARCHLIB\_EXP "\$sarchlibexp" /\*\*/

?H:.

: determine where public architecture

dependent libraries go

set archlib archlib

eval \$prefixit

case "\$sarchlib" in

")

case "\$sprivlib" in

")

dflt=`./loc . ." \$prefixexp/lib /usr/local/lib /usr/lib /lib`

set dflt

eval \$prefixup

::

\*) dflt="\$sprivlib/\$sarchname";;

esac

::

\*) dflt="\$sarchlib";;

esac

cat <<EOM

\$spackage contains architecture-dependent library files. If you are sharing libraries in a heterogeneous environment, you might store these files in a separate location. Otherwise, you can just include them with the rest of the public library files.



```

EOM
fn=d+~
rp='Where do you want to put the public architecture-dependent libraries?'
./getfile
archlib="$sans"
archlibexp="$sansexp"

if $afs; then
$cat <<EOM

```

Since you are running AFS, I need to distinguish the directory in which private files reside from the directory in which they are installed (and from which they are presumably copied to the former directory by occult means).

```

EOM
case "$installarchlib" in
") dflt=`echo $archlibexp | sed 's#^/afs/#/afs/#'`;
*)
dflt="$installarchlib";
esac
fn=de~
rp='Where will architecture-dependent library files be installed?'
./getfile
installarchlib="$sans"
else
installarchlib="$sarchlibexp"
fi
if $test X"$sarchlib" = X"$privlib"; then
d_archlib="$undef"
else
d_archlib="$define"
fi

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/archlib.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: nblock_io.U,v 3.0.1.2 1997/02/28 16:17:14 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:

```

?RCS: \$Log: nblock\_io.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 16:17:14 ram

?RCS: patch61: simplify here document for shells that can't handle them well

?RCS: patch61: force use of "startsh" at the head of the generated script

?RCS: patch61: added new files to the ?F: metalint hint

?RCS:

?RCS: Revision 3.0.1.1 1995/07/25 14:13:22 ram

?RCS: patch56: created

?RCS:

?X:

?X: Simplify here document for shells that can't handle them well.

?X: (Problem reported on FreeBSD;  
it's unclear if this helps.) --AD

?X:

?MAKE:o\_nonblock eagain rd\_nodata d\_eofnblk: cat rm\_try Compile run \  
d\_open3 h\_sysfile h\_fcntl signal\_t hint Oldconfig Setvar \  
startsh i\_unistd i\_fcntl i\_stdlib d\_fork d\_pipe d\_alarm

?MAKE: -pick add \$@ %<

?S:o\_nonblock:

?S: This variable bears the symbol value to be used during open() or fcntl()  
?S: to turn on non-blocking I/O for a file descriptor. If you wish to switch  
?S: between blocking and non-blocking, you may try ioctl(FIOSNBIO) instead,  
?S: but that is only supported by some devices.

?S:.

?S:eagain:

?S: This variable bears the symbolic errno code set by read() when no  
?S: data is present on the file and non-blocking I/O was enabled (otherwise,  
?S: read() blocks naturally).

?S:.

?S:rd\_nodata:

?S: This variable holds the return code from read() when no data is  
?S: present. It should be -1, but some systems return 0 when O\_NDELAY is  
?S: used, which is a shame because you cannot make the difference between  
?S: no data and an EOF.. Sigh!

?S:.

?S:d\_eofnblk:

?S: This  
variable conditionally defines EOF\_NONBLOCK if EOF can be seen  
?S: when reading from a non-blocking I/O source.

?S:.

?C:VAL\_O\_NONBLOCK:

?C: This symbol is to be used during open() or fcntl(F\_SETFL) to turn on  
?C: non-blocking I/O for the file descriptor. Note that there is no way  
?C: back, i.e. you cannot turn it blocking again this way. If you wish to  
?C: alternatively switch between blocking and non-blocking, use the  
?C: ioctl(FIOSNBIO) call instead, but that is not supported by all devices.

?C:.

?C:VAL\_EAGAIN:

?C: This symbol holds the errno error code set by read() when no data was

?C: present on the non-blocking file descriptor.

?C:.

?C:RD\_NODATA:

?C: This symbol holds the return code from read() when no data is present

?C: on the non-blocking file descriptor. Be careful! If EOF\_NONBLOCK is

?C: not defined, then you can't distinguish between no data and EOF by

?C: issuing a read(). You'll have to find another way to tell for sure!

?C:.

?C:EOF\_NONBLOCK:

?C: This

symbol, if defined, indicates to the C program that a read() on

?C: a non-blocking file descriptor will return 0 on EOF, and not the value

?C: held in RD\_NODATA (-1 usually, in that case!).

?C:.

?H:#define VAL\_O\_NONBLOCK \$o\_nonblock

?H:#define VAL\_EAGAIN \$eagain

?H:#define RD\_NODATA \$rd\_nodata

?H:#\$d\_eofnblk EOF\_NONBLOCK

?H:.

?T:status

?F:!try.out !try.ret !try.err !try !mtry

?LINT:use d\_open3

: check for non-blocking I/O stuff

case "\$h\_sysfile" in

true) echo "#include <sys/file.h>" > head.c;;

\*)

case "\$h\_fcntl" in

true) echo "#include <fcntl.h>" > head.c;;

\*) echo "#include <sys/fcntl.h>" > head.c;;

esac

::

esac

echo " "

echo "Figuring out the flag used by open() for non-blocking I/O..." >&4

case "\$o\_nonblock" in

")

\$cat head.c > try.c

\$cat >>try.c <<EOCP

#include <stdio.h>

#\$i\_stdlib I\_STDLIB

#ifdef I\_STDLIB

#include <stdlib.h>

#endif

#\$i\_fcntl I\_FCNTL

#ifdef I\_FCNTL

#include <fcntl.h>

#endif

```

int main() {
#ifdef O_NONBLOCK
printf("O_NONBLOCK\n");
exit(0);
#endif
#ifdef
O_NDELAY
printf("O_NDELAY\n");
exit(0);
#endif
?X: Stevens "Advanced Programming in the UNIX Environment" page 364 mentions
?X: the FNDELAY symbol, used in 4.3BSD (source: Paul Marquess).
#ifdef FNDELAY
printf("FNDELAY\n");
exit(0);
#endif
exit(0);
}
EOCP
set try
if eval $compile_ok; then
o_nonblock=`$run ./try`
case "$o_nonblock" in
") echo "I can't figure it out, assuming O_NONBLOCK will do.";;
*) echo "Seems like we can use $o_nonblock.";;
esac
else
echo "(I can't compile the test program; pray O_NONBLOCK is right!)"
fi
;;
*) echo "Using $hint value $o_nonblock.";;
esac
$rm_try

echo " "
echo "Let's see what value errno gets from read() on a $o_nonblock file..." >&4
case "$$again" in
")
case "$d_fork:$d_pipe:$d_alarm" in
define:define:define)
$cat head.c > try.c
$cat >>try.c <<EOCP
#include <errno.h>
#include <sys/types.h>
#include <signal.h>
#include <stdio.h>
#$i_stdlib I_STDLIB
#endif I_STDLIB

```

```

#include <stdlib.h>
#endif
#$i_fcntl
I_FCNTL
#ifdef I_FCNTL
#include <fcntl.h>
#endif
#define MY_O_NONBLOCK $o_nonblock
#ifndef errno /* XXX need better Configure test */
extern int errno;
#endif
#$i_unistd I_UNISTD
#ifdef I_UNISTD
#include <unistd.h>
#endif
#include <string.h>
$signal_t blech(int x) { exit(3); }
EOCP
$cat >> try.c <<'EOCP'
int main()
{
int pd[2];
int pu[2];
char buf[1];
char string[100];
int ret;

ret = pipe(pd); /* Down: child -> parent */
if (ret != 0)
exit(3);
ret = pipe(pu); /* Up: parent -> child */
if (ret != 0)
exit(3);
if (0 != fork()) {
close(pd[1]); /* Parent reads from pd[0] */
close(pu[0]); /* Parent writes (blocking) to pu[1] */
#ifdef F_SETFL
if (-1 == fcntl(pd[0], F_SETFL, MY_O_NONBLOCK))
exit(1);
#else
exit(4);
#endif
signal(SIGALRM, blech);
alarm(5);
if ((ret = read(pd[0], buf, 1)) > 0) /* Nothing to read! */
exit(2);
sprintf(string, "%d\n", ret);
ret = write(2, string, strlen(string));

```

```

if (ret != strlen(string))
 exit(3);
alarm(0);
#ifdef
EAGAIN
if (errno == EAGAIN) {
 printf("EAGAIN\n");
 goto ok;
}
#endif
#ifdef EWOULDBLOCK
if (errno == EWOULDBLOCK)
 printf("EWOULDBLOCK\n");
#endif
ok:
ret = write(pu[1], buf, 1); /* Unblocks child, tell it to close our pipe */
if (ret != 1)
 exit(3);
sleep(2); /* Give it time to close our pipe */
alarm(5);
ret = read(pd[0], buf, 1); /* Should read EOF */
alarm(0);
sprintf(string, "%d\n", ret);
ret = write(4, string, strlen(string));
if (ret != strlen(string))
 exit(3);
exit(0);
}

close(pd[0]); /* We write to pd[1] */
close(pu[1]); /* We read from pu[0] */
ret = read(pu[0], buf, 1); /* Wait for parent to signal us we may continue */
if (ret != 1)
 exit(3);
close(pd[1]); /* Pipe pd is now fully closed! */
exit(0); /* Bye bye, thank you for playing! */
}
EOCP
set try
if eval $compile_ok; then
?X: Use script to avoid the possible 'alarm call' message
echo "$startsh" >mtry
echo "$run ./try >try.out 2>try.ret 4>try.err
|| exit 4" >>mtry
chmod +x mtry
$run ./mtry >/dev/null 2>&1
case $? in
0) eagain=`$cat try.out`;

```

```

1) echo "Could not perform non-blocking setting!";;
2) echo "I did a successful read() for something that was not there!";;
3) echo "Hmm... non-blocking I/O does not seem to be working!";;
4) echo "Could not find F_SETFL!";;
*) echo "Something terribly wrong happened during testing.";;
esac
rd_nodata=`$cat try.ret`
echo "A read() system call with no data present returns $rd_nodata."
case "$rd_nodata" in
0|-1) ;;
*)
echo "(That's peculiar, fixing that to be -1.)"
rd_nodata=-1
;;
esac
case "$eagain" in
")
echo "Forcing errno EAGAIN on read() with no data available."
eagain=EAGAIN
;;
*)
echo "Your read() sets errno to $eagain when no data is available."
;;
esac
status=`$cat try.err`
case "$status" in
0) echo "And it correctly returns 0 to signal EOF.";;
-1) echo "But it also returns -1 to signal EOF, so be careful!";;
*)
echo "However, your read() returns '$status' on EOF??";;
esac
val="$define"
if test "$status" = "$rd_nodata"; then
echo "WARNING: you can't distinguish between EOF and no data!"
val="$undef"
fi
else
echo "I can't compile the test program--assuming errno EAGAIN will do."
eagain=EAGAIN
fi
;;
*) echo "Can't figure out how to test this--assuming errno EAGAIN will do."
eagain=EAGAIN
val="$define"
;;
esac
set d_eofnblk
eval $setvar

```

```

;;
*)
echo "Using $hint value $again."
echo "Your read() returns $rd_nodata when no data is present."
case "$d_eofnblk" in
"$define") echo "And you can see EOF because read() returns 0.";;
"$undef") echo "But you can't see EOF status from read() returned value.";;
*)
?X: Should not happen, but if it does, assume the worst!
echo "(Assuming you can't see EOF status from read anyway.)"
d_eofnblk=$undef
;;
esac
;;
esac
$rm_try head.c mtry

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/nblock_io.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: lintlib.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: lintlib.U,v $
?RCS: Revision 3.0 1993/08/18 12:09:05 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:lintlib lintlibexp: Getfile Loc Oldconfig
?MAKE: -pick add $@ %<
?S:lintlib:
?S: This variable holds the name of the directory in which the user wants
?S: to put public lint-library files for the package in question. It is
?S: most often a local directory such as /usr/local/lib/lint. Programs using
?S: this variable must be prepared to
?S: deal with ~name expansion.
?S:.
?S:lintlibexp:
?S: This variable is the same as the lintlib variable, but is filename
?S: expanded at configuration time, for convenient use in your makefiles.

```



```
?S:
: determine where public lint libraries go
case "$lintlib" in
") dflt=`./loc . ." /usr/local/lib/lint /usr/lib/lint /usr/lib`;;
*) dflt="$lintlib" ;;
esac
echo " "
fn=d~
rp='Where do you want to put the public lint libraries?'
./getfile
lintlib="$ans"
lintlibexp="$ansexp"
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/lintlib.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: orderlib.U,v 3.0.1.4 1997/02/28 16:18:18 ram Exp $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: orderlib.U,v $
```

```
?RCS: Revision 3.0.1.4 1997/02/28 16:18:18 ram
```

```
?RCS: patch61: replaced .a with $_a all over the place
```

```
?RCS: patch61: likewise for .o replaced by $_o
```

```
?RCS: patch61: now uses the ar located by Loc.U
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.3 1995/01/11 15:33:04 ram
```

```
?RCS: patch45: allows hint files to specify their own value for 'ranlib'
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.2 1994/10/29 16:26:48 ram
```

```
?RCS: patch36: now performs a real small compile for accurate
checks (ADO)
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.1 1994/08/29 16:31:17 ram
```

```
?RCS: patch32: use cc variable instead of hardwired 'cc' in 1st compile
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:09:26 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:orderlib ranlib: Loc ar cat test rm +cc +ccflags +ldflags +libs i_stdlib _a _o run
```

```

?MAKE: -pick add $@ %<
?S:orderlib:
?S: This variable is "true" if the components of libraries must be ordered
?S: (with `lorder $* | tsort`) before placing them in an archive. Set to
?S: "false" if ranlib or ar can generate random libraries.
?S:.
?S:ranlib:
?S: This variable is set to the pathname of the ranlib program, if it is
?S: needed to generate random libraries. Set to ":" if ar can generate
?S: random libraries or if random libraries are not supported
?S:.
?F:!foobar
: see if ar generates random libraries by itself
echo " "
echo "Checking how to generate random libraries on your machine..." >&4
?X: Some systems (like MIPS) complain when running
ar... Others like Ultrix
?X: need an explicit 'ar ts' to add the table of contents.
?X: Still others like Linux run ar ts successfully, but still need ranlib.
?X: This set of tests seems the minimum necessary to check out Linux.
?X: We need to explicitly put the entries in out-of-order so that Sun's ld
?X: will fail. (Otherwise it complains, but gives an exit status of 0.)
echo 'int bar1() { return bar2(); }' > bar1.c
echo 'int bar2() { return 2; }' > bar2.c
$cat > foo.c <<EOP
#i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
int main() { printf("%d\n", bar1()); exit(0); }
EOP
$cc $ccflags -c bar1.c >/dev/null 2>&1
$cc $ccflags -c bar2.c >/dev/null 2>&1
$cc $ccflags -c foo.c >/dev/null 2>&1
$ar rc bar$_a bar2$_o bar1$_o >/dev/null 2>&1
if $cc -o foobar $ccflags $ldflags foo$_o bar$_a $libs > /dev/null 2>&1 &&
$run ./foobar >/dev/null 2>&1; then
echo "$ar appears to generate random libraries itself."
orderlib=false
if ["X$ranlib" = "X"]; then
 ranlib=":"
fi
elif
$ar s bar$_a >/dev/null 2>&1 &&
$cc -o foobar $ccflags $ldflags foo$_o bar$_a $libs > /dev/null 2>&1 &&
$run ./foobar >/dev/null 2>&1; then
echo "a table of contents needs to be added with '$ar s'."
orderlib=false

```

```

 ranlib="$ar s"
elif $ar ts bar$_a >/dev/null 2>&1 &&
$cc -o foobar $ccflags $ldflags foo$_o bar$_a $libs >/dev/null 2>&1 &&
$run ./foobar >/dev/null 2>&1; then
 echo "a table of contents needs to be added with '$ar ts'."
 orderlib=false
 ranlib="$ar ts"
else
?X: Allow hints to specify their own ranlib "script". For instance, on
?X: some NeXT machines, the timestamp put by ranlib is not correct, and this
?X: may raise tedious recompiles for nothing. Therefore, NeXT may add the
?X: ranlib='sleep 5; /bin/ranlib' line in their hints to "fix" that.
?X: (reported by Andreas Koenig <k@franz.ww.tu-berlin.de>)
case "$ranlib" in
:) ranlib=";;
")
 ranlib=`./loc ranlib X /usr/bin /bin /usr/local/bin`
 $test -f $ranlib || ranlib="
;;
esac
if $test -n "$ranlib";
then
 echo "your system has '$ranlib'; we'll use that."
 orderlib=false
else
 echo "your system doesn't seem to support random libraries"
 echo "so we'll use lorder and tsort to order the libraries."
 orderlib=true
 ranlib=":"
fi
fi
$rm -f foo* bar*

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/orderlib.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: fpu.U,v 3.0 1993/08/18 12:08:10 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

```

?RCS: $Log: fpu.U,v $
?RCS: Revision 3.0 1993/08/18 12:08:10 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?LINT: empty
?X:?MAKE:fpu: test cat cc Myread
?X:?MAKE: -pick add $@ %<
?X:?S:fpu (fpunit):
?X:?S: Set to be the compile flag for the local floating point unit.
?X:?S:.
?X:?C:FPU (FPUNIT):
?X:?C: String containing the flags for the local floating point unit.
?X:?C:.
?X:?H:#define FPU "$fpu" /**/
?X:?H:.
?X:: see what floating point compile flags should be used.
?X:fpu="
?X:if
 $test -r /dev/fpa; then
?X: $cat>fpa.c << GOOP
?X: main(){return(1);}
?X:GOOP
?X: $cc -ffpa -o fpa fpa.c
?X: fpa > fpa.out 2>&1
?X: if $test ! -s fpa.out; then
?X: dflt='y'
?X: $cat <<'EOM'
?X:
?X:You seem to have a sun fpa... I can compile the code to use the fpa but it will
?X:mean that the code can ONLY run on a machine with a fpa...
?X:
?X:EOM
?X: rp="Should I compile for fpa?"
?X: . ./myread
?X: if $test $ans = "n"; then
?X: fpu="
?X: else
?X: fpu='-ffpa'
?X: fi
?X: else
?X: $cat <<'EOM'
?X:
?X:You have the fpa device but I can't seem to use it. Maybe you should talk to
?X:your sysadmin about this. For now, I am not going to compile it in.
?X:
?X:EOM
?X: fi
?X:fi

```

```
?X:if $test "$fpu" = ""; then
?X: if $test -r /usr/etc/mc68881version; then
?X: dflt='y'
?X: $cat <<'EOM'
?X:
?X:There also seems to be the pieces for a 68881. If I compile this in, it will
?X:work on almost all Sun 3's except for a few Sun-3/50s without a 68881...
?X:
?X:EOM
?X: rp="Should
I compile for a 68881?"
?X: . ./myread
?X: if $test $ans = "y"; then
?X: fpu='-f68881'
?X: fi
?X: fi
?X:fi
?X:
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/nullified/fpu.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_portable.U,v 3.0.1.2 1995/01/11 15:28:52 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: This file is included with or a derivative work of a file included
?RCS: with the metaconfig program of Raphael Manfredi's "dist" distribution.
?RCS: In accordance with clause 7 of dist's modified Artistic License:
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: $Log: d_portable.U,v $
?RCS: Revision 3.0.1.2 1995/01/11 15:28:52 ram
?RCS: patch45: executable path stripping moved to the end in Config_sh.U
?RCS:
?RCS: Revision 3.0.1.1 1993/12/15 08:21:17 ram
?RCS: patch15: did not strip variables properly when needed
?RCS: patch15: now also strips down variables from trylist
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:48 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
```

This is the same as the dist version, except I don't bother

?X: prompting people since it makes no difference for perl5,  
 ?X: and only confuses people.  
 ?X:  
 ?X: The Loc unit is wanted to get the definition of all the locating variables.  
 ?X:  
 ?MAKE:d\_portable: Loc Oldconfig  
 ?MAKE: -pick add \$@ %<  
 ?S:d\_portable:  
 ?S: This variable conditionally defines the PORTABLE symbol, which  
 ?S: indicates to the C program that it should not assume that it is  
 ?S: running on the machine it was compiled on.  
 ?S:.  
 ?C:PORTABLE:  
 ?C: This symbol, if defined, indicates to the C program that it should  
 ?C: not assume that it is running on the machine it was compiled on.  
 ?C: The program should be prepared to look up the host name, translate  
 ?C: generic filenames, use PATH, etc.  
 ?C:.  
 ?H:#\$d\_portable PORTABLE /\*\*/  
 ?H:.  
 ?D:d\_portable="  
 : decide how portable to be. Allow command line overrides.  
 case "\$d\_portable" in  
 "\$undef") ;;  
 \*) d\_portable="\$define" ;;  
 esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_portable.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
 ?RCS:  
 ?RCS: Copyright (c) 1999 Jarkko Hietaniemi  
 ?RCS:  
 ?RCS: You may redistribute only under the terms of the Artistic License,  
 ?RCS: as specified in the README file that comes with the distribution.  
 ?RCS: You may reuse parts of this distribution only within the terms of  
 ?RCS: that same Artistic License; a copy of which may be found at the root  
 ?RCS: of the source tree for dist 3.0.  
 ?RCS:  
 ?MAKE:d\_mprotect: Inlibc  
 ?MAKE: -pick add \$@ %<  
 ?S:d\_mprotect:  
 ?S: This variable conditionally defines HAS\_MPROTECT if mprotect() is  
 ?S: available to modify the access protection of a memory mapped file.

?S:  
?C:HAS\_MPROTECT:  
?C: This symbol, if defined, indicates that the mprotect system call is  
?C: available to modify the access protection of a memory mapped file.  
?C:.

?H:#\$d\_mprotect HAS\_MPROTECT /\*\*/

?H:.

?LINT:set d\_mprotect  
: see if mprotect exists  
set mprotect d\_mprotect  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_mprotect.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_prctl d\_prctl\_set\_name: Inlibc cat Compile run rm\_try

?MAKE: -pick add \$@ %<

?S:d\_prctl:

?S: This variable conditionally defines the HAS\_PRCTL symbol, which

?S: indicates to the C program that the prctl() routine is available.

?S: Note that there are at least two prctl variants: Linux and Irix.

?S: While they are somewhat similar, they are incompatible.

?S:.

?S:d\_prctl\_set\_name:

?S: This variable conditionally defines the HAS\_PRCTL\_SET\_NAME symbol,

?S: which indicates to the C program that the prctl() routine supports

?S: the PR\_SET\_NAME option.

?S:.

?C:HAS\_PRCTL:

?C: This symbol, if defined, indicates that the prctl routine is

?C: available to set process title.

?C: Note that there are at least two

prctl variants: Linux and Irix.

?C: While they are somewhat similar, they are incompatible.

?C:.

?C:HAS\_PRCTL\_SET\_NAME:

?C: This symbol, if defined, indicates that the prctl routine is

?C: available to set process title and supports PR\_SET\_NAME.

?C:.

```
?H:#$d_prctl HAS_PRCTL /**/
?H:#$d_prctl_set_name HAS_PRCTL_SET_NAME /**/
?H:.
?F:!try
?LINT:set d_prctl
: see if prctl exists
set prctl d_prctl
eval $inlibc
```

```
: see if prctl supports PR_SET_NAME
```

```
d_prctl_set_name=$undef
```

```
case $d_prctl in
```

```
 $define)
```

```
 $cat >try.c <<EOM
```

```
 #ifdef __ANDROID__
```

```
 #include <unistd.h>
```

```
 #endif
```

```
 #include <sys/prctl.h>
```

```
int main (int argc, char *argv[])
```

```
{
```

```
 return (prctl (PR_SET_NAME, "Test"));
```

```
 } /* main */
```

```
EOM
```

```
set try
```

```
if eval $compile_ok && $run ./try; then
```

```
 echo "Your prctl (PR_SET_NAME, ...) works"
```

```
 d_prctl_set_name=$define
```

```
 fi
```

```
$rm_try
```

```
::
```

```
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_prctl.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_random_r.U,v 0RCS:
```

```
?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.
```

```
?RCS:
```

```
?MAKE:d_random_r random_r_proto: Inlibc Protochk Hasproto i_systypes \
```

```
 usethreads i_stdlib extern_C
```



?MAKE: -pick add \$@ %<

?S:d\_random\_r:

?S: This variable conditionally defines the HAS\_RANDOM\_R symbol,  
 ?S: which indicates to the C program that the random\_r()  
 ?S: routine is available.

?S:.

?S:random\_r\_proto:

?S: This variable encodes the prototype of random\_r.  
 ?S: It is zero if d\_random\_r is undef, and one of the  
 ?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_random\_r  
 ?S: is defined.

?S:.

?C:HAS\_RANDOM\_R:

?C: This symbol, if defined, indicates that the random\_r routine  
 ?C: is available to random re-entrantly.

?C:.

?C:RANDOM\_R\_PROTO:

?C: This  
 symbol encodes the prototype of random\_r.  
 ?C: It is zero if d\_random\_r is undef, and one of the  
 ?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_random\_r  
 ?C: is defined.

?C:.

?H:#\$d\_random\_r HAS\_RANDOM\_R /\*\*/  
 ?H:#define RANDOM\_R\_PROTO \$random\_r\_proto /\*\*/  
 ?H:.

?T:try hdrs d\_random\_r\_proto  
 : see if random\_r exists  
 set random\_r d\_random\_r  
 eval \$inlibc  
 case "\$d\_random\_r" in  
 "\$define")  
 hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_stdlib stdlib.h"  
 case "\$d\_random\_r\_proto:\$usethreads" in  
 ":define") d\_random\_r\_proto=define  
 set d\_random\_r\_proto random\_r \$hdrs  
 eval \$hasproto ;;  
 \*) ;;  
 esac  
 case "\$d\_random\_r\_proto" in  
 define)  
 case "\$random\_r\_proto" in  
 "|0) try='int random\_r(int\*, struct random\_data\*);'  
 ./protochk "\$extern\_C \$try" \$hdrs && random\_r\_proto=I\_iS ;;  
 esac  
 case "\$random\_r\_proto" in  
 "|0) try='int random\_r(long\*, struct random\_data\*);'  
 ./protochk "\$extern\_C \$try" \$hdrs && random\_r\_proto=I\_lS ;;

```

esac
case "$random_r_proto" in
"|0)
try='int random_r(struct random_data*, int32_t*);'
./prothck "$extern_C $try" $hdrs && random_r_proto=I_St ;;
esac
case "$random_r_proto" in
"|0) d_random_r=undef
random_r_proto=0
echo "Disabling random_r, cannot determine prototype." >&4 ;;
*) case "$random_r_proto" in
REENTRANT_PROTO*) ;;
*) random_r_proto="REENTRANT_PROTO_$random_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "random_r has no prototype, not using it." >&4 ;;
esac
d_random_r=undef
random_r_proto=0
;;
esac
;;
*) random_r_proto=0
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_random_r.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_htonl.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_htonl.U,v $
?RCS: Revision 3.0.1.2 1994/08/29 16:09:25 ram
?RCS: patch32: now properly handles htonl() and friends when macros (ADO)
?RCS:

```

```

?RCS: Revision 3.0.1.1 1994/05/06 14:45:00 ram
?RCS: patch23: now also check for htonl() macro (ADO)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:22 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_htonl: Inlibc Setvar i_niin i_sysin i_arpainet cat rm contains \
cppstdin cppflags cppminus
?MAKE: -pick
add $@ %<
?S:d_htonl:
?S: This variable conditionally defines HAS_HTONL if htonl() and its
?S: friends are available to do network order byte swapping.
?S:.
?C:HAS_HTONL (HTONL):
?C: This symbol, if defined, indicates that the htonl() routine (and
?C: friends htons() ntohl() ntohs()) are available to do network
?C: order byte swapping.
?C:.
?C:HAS_HTONS (HTONS):
?C: This symbol, if defined, indicates that the htons() routine (and
?C: friends htonl() ntohl() ntohs()) are available to do network
?C: order byte swapping.
?C:.
?C:HAS_NTOHL (NTOHL):
?C: This symbol, if defined, indicates that the ntohl() routine (and
?C: friends htonl() htons() ntohs()) are available to do network
?C: order byte swapping.
?C:.
?C:HAS_NTOHS (NTOHS):
?C: This symbol, if defined, indicates that the ntohs() routine (and
?C: friends htonl() htons() ntohl()) are available to do network
?C: order byte swapping.
?C:.
?H:#$d_htonl HAS_HTONL /**/
?H:#$d_htonl HAS_HTONS /**/
?H:#$d_htonl HAS_NTOHL /**/
?H:#$d_htonl
HAS_NTOHS /**/
?H:.
?F:!htonl.c
?LINT:set d_htonl
: see if htonl --and friends-- exists
val="
set htonl val
eval $inlibc

: Maybe they are macros.

```

```

case "$val" in
$undef)
$cat >htonl.c <<EOM
#include <stdio.h>
#include <sys/types.h>
#if !defined I_NETINET_IN
#define I_NETINET_IN
#endif
#if !defined I_SYS_IN
#define I_SYS_IN
#endif
#if !defined I_ARPA_INET
#define I_ARPA_INET
#endif
#include <netinet/in.h>
#endif
#include <sys/in.h>
#endif
#include <arpa/inet.h>
#endif
#ifdef htonl
printf("Defined as a macro.");
#endif
EOM
$cpptest $cpptest $cpptest < htonl.c >htonl.E 2>/dev/null
if $contains 'Defined as a macro' htonl.E >/dev/null 2>&1; then
val="$define"
echo "But it seems to be defined as a macro." >&4
fi
$rm -f htonl.?
;;
esac
set d_htonl
eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_htonl.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: mansrc.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

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?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: mansrc.U,v \$

?RCS: Revision 3.0.1.9 1997/02/28 16:12:03 ram  
?RCS: patch61: don't ask for AFS when they choose to not install pages  
?RCS:  
?RCS: Revision 3.0.1.8 1995/09/25 09:16:58 ram  
?RCS: patch59: unit is now forced to the top of Configure, if possible  
?RCS:  
?RCS: Revision 3.0.1.7 1995/02/15 14:15:31 ram  
?RCS: patch51: was mistakenly duplicating /usr/local/man/man1 (ADO)  
?RCS: patch51: added /opt/man/man1 to the lookpath (ADO)  
?RCS:  
?RCS: Revision  
3.0.1.6 1995/01/30 14:39:34 ram  
?RCS: patch49: can now handle installation prefix changes (from WED)  
?RCS:  
?RCS: Revision 3.0.1.5 1995/01/11 15:32:25 ram  
?RCS: patch45: can now use Loc variables since path stripping is deferred  
?RCS:  
?RCS: Revision 3.0.1.4 1994/08/29 16:30:38 ram  
?RCS: patch32: now uses installation prefix for default setting  
?RCS:  
?RCS: Revision 3.0.1.3 1994/05/06 15:11:10 ram  
?RCS: patch23: added lint hint, assuring that nroff is used  
?RCS:  
?RCS: Revision 3.0.1.2 1994/01/24 14:14:39 ram  
?RCS: patch16: now uses \_nroff in case user asked for portability  
?RCS:  
?RCS: Revision 3.0.1.1 1993/09/13 16:09:31 ram  
?RCS: patch10: allows for L1 man page extension (WAD)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:14 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:mansrc mansrcexp manext installmansrc: afs cat nroff Loc Oldconfig \  
sysman spackage test Getfile Prefixit prefixexp Prefixup  
?MAKE: -pick add \$@ %<  
?Y:TOP  
?S:mansrc:  
?S: This variable  
contains the name of the directory in which manual  
?S: source pages are to be put. It is the responsibility of the  
?S: Makefile.SH to get the value of this into the proper command.  
?S: You must be prepared to do the ~name expansion yourself.  
?S:.  
?S:mansrcexp:  
?S: This variable is the same as the mansrc variable, but is filename  
?S: expanded at configuration time, for convenient use in makefiles.  
?S:.  
?S:installmansrc:

?S: This variable is really the same as mansrcexp, unless you are using  
?S: AFS in which case it points to the read/write location whereas  
?S: mansrcexp only points to the read-only access location. For extra  
?S: portability, you should only use this variable within your makefiles.

?S:.

?S:manext:

?S: This variable contains the extension that the manual page should

?S: have: one of 'n', 'l', or 'L'. The Makefile must supply the '.'.

?S: See mansrc.

?S:.

?T:lookpath

: determine where manual pages go

```
set mansrc mansrc none
```

```
eval $prefixit
```

```
$cat <<EOM
```

```
$spackage has manual
```

```
pages available in source form.
```

```
EOM
```

```
case "$nroff" in
```

```
nroff)
```

```
echo "However, you don't have nroff, so they're probably useless to you."
```

```
case "$mansrc" in
```

```
*) mansrc="none";;
```

```
esac;;
```

```
esac
```

```
echo "If you don't want the manual sources installed, answer 'none'."
```

```
case "$mansrc" in
```

```
*)
```

```
lookpath="$prefixexp/share/man/man1 $prefixexp/man/man1"
```

```
lookpath="$lookpath $prefixexp/man/u_man/man1 $prefixexp/man/l_man/man1"
```

```
lookpath="$lookpath /usr/local/man/man1 /opt/man/man1 /usr/man/man1"
```

```
lookpath="$lookpath /usr/share/man/man1 /usr/local/share/man/man1"
```

```
lookpath="$lookpath /usr/man/local/man1 /usr/man/l_man/man1"
```

```
lookpath="$lookpath /usr/local/man/u_man/man1 /usr/local/man/l_man/man1"
```

```
lookpath="$lookpath /usr/man/man.L"
```

```
mansrc=`./loc . $prefixexp/man/man1 $lookpath`
```

```
if $test -d "$mansrc"; then
```

```
 dflt="$mansrc"
```

```
else
```

```
 dflt="$sysman"
```

```
fi
```

```
set dflt
```

```
eval $prefixup
```

```
;;
```

```
'*) dflt=none;;
```

```
*) dflt="$mansrc"
```

```
;;
```

```

esac
echo " "
fn=dn~
rp='Where do the manual pages (source) go?'
./getfile
if test
"X$mansrcexp" != "X$ansexp"; then
installmansrc="
fi
mansrc="$ans"
mansrcexp="$ansexp"
case "$mansrc" in
") mansrc=' '
installmansrc="";;
esac
if $afs && $test "$mansrc"; then
$cat <<EOM

```

Since you are running AFS, I need to distinguish the directory in which manual pages reside from the directory in which they are installed (and from which they are presumably copied to the former directory by occult means).

```

EOM
case "$installmansrc" in
") dflt=`echo $mansrcexp | sed 's#^/afs/#/afs/.#`;;
*) dflt="$installmansrc";;
esac
fn=de~
rp='Where will man pages be installed?'
./getfile
installmansrc="$ans"
else
installmansrc="$mansrcexp"
fi

case "$mansrc" in
' ') manext='0';;
*l) manext=l;;
*n) manext=n;;
*o) manext=l;;
*p) manext=n;;
*C) manext=C;;
*L) manext=L;;
*L1) manext=L1;;
*) manext=1;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/mansrc.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999, Jarkko Hietaniemi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:fflushNULL fflushall: Compile cat rm rm\_try test osname run to from \

Oldconfig Myread Setvar echo targethost \

d\_sysconf i\_unistd d\_stdio\_stream\_array stdio\_stream\_array i\_stdlib

?MAKE: -pick add \$@ %<

?S:fflushNULL:

?S: This symbol, if defined, tells that fflush(NULL) correctly

?S: flushes all pending stdio output without side effects. In

?S: particular, on some platforms calling fflush(NULL) \*still\*

?S: corrupts STDIN if it is a pipe.

?S:.

?S:fflushall:

?S: This symbol, if defined, tells that to flush

?S: all

pending stdio output one must loop through all

?S: the stdio file handles stored in an array and fflush them.

?S: Note that if fflushNULL is defined, fflushall will not

?S: even be probed for and will be left undefined.

?S:.

?C:FFLUSH\_NULL:

?C: This symbol, if defined, tells that fflush(NULL) correctly

?C: flushes all pending stdio output without side effects. In

?C: particular, on some platforms calling fflush(NULL) \*still\*

?C: corrupts STDIN if it is a pipe.

?C:.

?C:FFLUSH\_ALL:

?C: This symbol, if defined, tells that to flush

?C: all pending stdio output one must loop through all

?C: the stdio file handles stored in an array and fflush them.

?C: Note that if fflushNULL is defined, fflushall will not

?C: even be probed for and will be left undefined.

?C:.

?H:#\$fflushNULL FFLUSH\_NULL /\*\*/

?H:#\$fflushall FFLUSH\_ALL /\*\*/

?H:.



```

?T:output code
?F:!try.out !try !tryp
: Check how to flush
echo " "
$cat >&4 <<EOM
Checking how to flush all pending stdio output...
EOM
I only know how to find
 the first 32 possibly open files on SunOS.
See also hints/sunos_4_1.sh and util.c --AD
case "$osname" in
sunos) $echo '#define PERL_FFLUSH_ALL_FOPEN_MAX 32' > try.c ;;
esac
$cat >>try.c <<EOCP
#include <stdio.h>
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#ifdef I_UNISTD
#include <unistd.h>
#endif
#ifdef HAS_SYSCONF
#define HAS_STDIO_STREAM_ARRAY
#endif
int main() {
FILE* p;
unlink("try.out");
p = fopen("try.out", "w");
#ifdef TRY_FPUTC
fputc('x', p);
#else
#ifdef TRY_FPRINTF
fprintf(p, "x");
#endif
#endif
#ifdef TRY_FFLUSH_NULL
fflush(NULL);
#endif
#ifdef TRY_FFLUSH_ALL
{
long open_max = -1;
#ifdef PERL_FFLUSH_ALL_FOPEN_MAX
open_max = PERL_FFLUSH_ALL_FOPEN_MAX;
#else

```

```

if defined(HAS_SYSCONF) && defined(_SC_OPEN_MAX)
 open_max = sysconf(_SC_OPEN_MAX);
else
ifdef FOPEN_MAX
 open_max = FOPEN_MAX;
else
#
 ifdef OPEN_MAX
 open_max = OPEN_MAX;
else
ifdef _NFILE
 open_max = _NFILE;
endif
endif
endif
endif
ifdef HAS_STDIO_STREAM_ARRAY
 if (open_max > 0) {
 long i;
 for (i = 0; i < open_max; i++)
 if (STDIO_STREAM_ARRAY[i]._file >= 0 &&
 STDIO_STREAM_ARRAY[i]._file < open_max &&
 STDIO_STREAM_ARRAY[i]._flag)
 fflush(&STDIO_STREAM_ARRAY[i]);
 }
}
endif
#endif
_exit(42);
}
EOCP
: first we have to find out how _not_ to flush
$to try.c
if $test "X$fflushNULL" = X -o "X$fflushall" = X; then
 output="
 set try -DTRY_FPUTC
 if eval $compile; then
 $run ./try 2>/dev/null
 code="$?"
 $from try.out
 if $test ! -s try.out -a "X$code" = X42; then
output=-DTRY_FPUTC
 fi
 fi
 case "$output" in
 ")
 set try -DTRY_FPRINTF

```

```

if eval $compile; then
 $run ./try 2>/dev/null
 code="$?"
 $from try.out
 if $test ! -s try.out -a "X$code" = X42; then
output=-DTRY_FPRINTF

 fi
 fi
;;
esac
fi
: check for fflush NULL behavior
case "$fflushNULL" in
") set try -DTRY_FFLUSH_NULL $output
if eval $compile; then
 $run ./try 2>/dev/null
 code="$?"
 $from try.out
 if $test -s try.out -a "X$code" = X42; then
 fflushNULL=""$cat try.out`"
 else
 if $test "X$code" != X42; then
 $cat >&4 <<EOM
(If this test failed, don't worry, we'll try another method shortly.)
EOM
 fi
 fi
 fi
 $rm -f core try.core core.try.*
 case "$fflushNULL" in
 x) $cat >&4 <<EOM
Your fflush(NULL) works okay for output streams.
Let's see if it clobbers input pipes...
EOM
As of mid-March 2000 all versions of Solaris appear to have a stdio
bug that improperly flushes the input end of pipes. So we avoid the
autoflush on fork/system/exec support for now. :(
$cat >tryp.c <<EOCP
#include <stdio.h>
int
main(int argc, char **argv)
{
 char buf[1024];
 int i;
 char *bp = buf;
 while (1) {
while ((i = getc(stdin)) != -1

```

```
&& (*bp++ = i) != '\n'
```

```
&& bp < &buf[1024])
/* DO NOTHING */;
*bp = '\0';
fprintf(stdout, "%s", buf);
fflush(NULL);
if (i == -1)
 return 0;
bp = buf;
}
}
```

EOCP

```
fflushNULL="$define"
set tryp
if eval $compile; then
 $rm -f tryp.out
 # Copy the .c file to the remote host ($to is an ssh-alike if targethost is set)
 if $test "X$targethost" != X; then
$to tryp.c
$to tryp
$run "cat tryp.c | ./tryp " 2>/dev/null > tryp.out
 else
$cat tryp.c | $run ./tryp 2>/dev/null > tryp.out
 fi
 if cmp tryp.c tryp.out >/dev/null 2>&1; then
 $cat >&4 <<EOM
```

fflush(NULL) seems to behave okay with input streams.

EOM

```
fflushNULL="$define"
else
$cat >&4 <<EOM
```

Ouch, fflush(NULL) clobbers input pipes! We will not use it.

EOM

```
fflushNULL="$undef"
fi
fi
$rm -f core tryp.c tryp.core core.tryp.*
;;
) $cat >&4 <<EOM
```

Your fflush(NULL) isn't working (contrary to ANSI C).

EOM

```
fflushNULL="$undef"
;;
) $cat >&4 <<EOM
```

Cannot figure out whether

your fflush(NULL) works or not.

I'm assuming it doesn't (contrary to ANSI C).

```

EOM
fflushNULL="$undef"
;;
esac
;;
$define|true|[yY]*)
fflushNULL="$define"
;;
*)
fflushNULL="$undef"
;;
esac
: check explicit looping only if NULL did not work, and if the pipe
: bug does not show up on an explicit flush too
case "$fflushNULL" in
"$undef")
$cat >tryp.c <<EOCP
#include <stdio.h>
int
main(int argc, char **argv)
{
 char buf[1024];
 int i;
 char *bp = buf;
 while (1) {
while ((i = getc(stdin)) != -1
 && (*bp++ = i) != '\n'
 && bp < &buf[1024])
/* DO NOTHING */ ;
 *bp = '\0';
 fprintf(stdout, "%s", buf);
 fflush(stdin);
 if (i == -1)
 return 0;
 bp = buf;
 }
}
EOCP
set tryp
if eval $compile; then
 $rm -f tryp.out
 if $test "X$targethost" != X; then
 $to tryp.c
 $to tryp
 $run "cat tryp.c | ./tryp " 2>/dev/null > tryp.out
 else
 $cat tryp.c | $run ./tryp 2>/dev/null > tryp.out
 fi

```

```
if cmp try.p.c try.p.out >/dev/null 2>&1;
then
 $cat >&4 <<EOM
Good, at least fflush(stdin) seems to behave okay when stdin is a pipe.
EOM
```

```
: now check for fflushall behaviour
case "$fflushall" in
") set try -DTRY_FFLUSH_ALL $output
if eval $compile; then
 $cat >&4 <<EOM
(Now testing the other method--but note that this also may fail.)
EOM
```

```
$run ./try 2>/dev/null
code=$?
$from try.out
if $stest -s try.out -a "X$code" = X42; then
 fflushall="`$cat try.out`"
fi
fi
$rm_try
case "$fflushall" in
x) $cat >&4 <<EOM
Whew. Flushing explicitly all the stdio streams works.
EOM
```

```
fflushall="$define"
;;
") $cat >&4 <<EOM
Sigh. Flushing explicitly all the stdio streams doesn't work.
EOM
```

```
fflushall="$undef"
;;
*) $cat >&4 <<EOM
Cannot figure out whether flushing stdio streams explicitly works or not.
I'm assuming it doesn't.
EOM
```

```
fflushall="$undef"
;;
esac
;;
"$define"|true|[yY]*)
fflushall="$define"
;;
*)
fflushall="$undef"
;;
esac
```

```

else
$cat >&4 <<EOM
All is futile. Even fflush(stdin) clobbers input pipes!
EOM
fflushall="$undef"
fi
else
fflushall="$undef"
fi
$rm -f core tryp.c tryp.core core.tryp.*
;;
*) fflushall="$undef"
;;
esac

case "$fflushNULL$fflushall" in
undefundef)
$cat <<EOM
OK, I give up. I cannot figure out how to flush pending stdio output.
We won't be flushing handles at all before fork/exec/popen.
EOM
;;
esac
$rm_try tryp

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/fflushall.U
```

No license file was found, but licenses were detected in source scan.

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?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_lc\_monetary\_2008: cat Compile rm\_try d\_loconv

?MAKE: -pick add \$@ %<

?S:d\_lc\_monetary\_2008:

?S: This variable conditionally defines HAS\_LC\_MONETARY\_2008 if libc

?S: has the international currency locale rules from POSIX

?S: 1003.1-2008.

?S:.

?C:HAS\_LC\_MONETARY\_2008:

?C: This symbol, if defined, indicates that the localeconv routine is

?C: available and has the additional members added in POSIX 1003.1-2008.

?C:.

?H:#\$d\_lc\_monetary\_2008 HAS\_LC\_MONETARY\_2008 /\*\*/

```

?H.:
: see if libc has the POSIX.1-2008 currency locale rules
case "$d_loconv:$d_lc_monetary_2008" in
$define:)
$cat
>try.c <<EOCP
#include <locale.h>
int main() {
struct lconv *lc = localeconv();
char int_p_cs_precedes = lc->int_p_cs_precedes;
return 0;
}
EOCP
set try
if eval $compile; then
d_lc_monetary_2008="$define"
else
d_lc_monetary_2008="$undef"
fi;
$rm_try
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_lc_monetary_2008.U

```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_isnormal: cat Compile Setvar rm\_try

?MAKE: -pick add \$@ %<

?S:d\_isnormal:

?S: This variable conditionally defines the HAS\_ISNORMAL symbol, which

?S: indicates to the C program that the isnormal() routine is available.

?S:.

?C:HAS\_ISNORMAL:

?C: This symbol, if defined, indicates that the isnormal routine is

?C: available to check whether a double is normal (non-zero normalized).

?C:.

?H:#\$d\_isnormal HAS\_ISNORMAL /\*\*/

?H:.

?LINT:set d\_isnormal

: check for isnormal

echo "Checking to see if you have isnormal..." >&4

\$cat >try.c <<EOCP

#include <math.h>



```

int main() { return isnormal(0.0); }
EOCP
set try
if eval $compile; then
 val="$define"
 echo "You have isnormal."
else
 val="$undef"
 echo "You do not have isnormal."
fi
$rm_try
set d_isnormal
eval $setvar

```

Found

in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/perl/d_isnormal.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_sighold.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_sighold.U,v \$

?RCS: Revision 3.0 1993/08/18 12:07:21 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_sighold: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_sighold:

?S: This variable conditionally defines HAS\_SIGHOLD if sighold() is

?S: available to hold signals.

?S:.

?C:HAS\_SIGHOLD:

?C: This symbol, if defined, indicates that the sighold routine is

?C: available to hold signals.

?C:.

?H:#\$d\_sighold HAS\_SIGHOLD /\*\*/

?H:.

?LINT:set d\_sighold

:

see if sighold exists  
set sighold d\_sighold  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_sighold.U

No license file was found, but licenses were detected in source scan.

/\*

\* \$Id: dup2.C,v 3.0.1.1 1994/01/24 13:58:37 ram Exp ram \$

\*

\* Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

\*

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\* You may reuse parts of this distribution only within the terms of

\* that same Artistic Licence; a copy of which may be found at the root

\* of the source tree for dist 4.0.

\*

\* Original Author: Larry Wall <lwall@netlabs.com>

\*

\* \$Log: dup2.C,v \$

\* Revision 3.0.1.1 1994/01/24 13:58:37 ram

\* patch16: created

\*

\*/

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/lib/C/fake/dup2.C

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: AAAAA.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: AAAAA.U,v \$

?RCS: Revision 3.0.1.4 1994/06/20 06:50:26 ram

?RCS: patch30: changes from Jarkko Hietaniemi are tagged with JHI

?RCS:

?RCS: Revision 3.0.1.3 1994/05/06 14:01:39 ram

?RCS: patch23: initials for Wayne Davison are now WED  
?RCS: patch23: added initials for new unit contributor Andy Dougherty  
?RCS:  
?RCS: Revision 3.0.1.2 1994/01/24 14:01:09 ram  
?RCS: patch16: make metalint shut up on special unit definition for All target  
?RCS:  
?RCS: Revision  
3.0.1.1 1993/09/13 15:43:57 ram  
?RCS: patch10: documents initials used for Wayne Davison's contributions  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:04:44 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: The purpose of this file is to supply the head of the Makefile created  
?X: by metaconfig. For this reason it must be first in alphabetical order.  
?X: The leading '+' in front of the unit name is a hint for metalint, since  
?X: the use of that special unit name as a "made" unit is legitimate here.  
?X:  
?MAKE:+All: Finish  
?X:  
?X: Throughout the units, the following initials are used to identify comments:  
?X:  
?X: HMS: Harlan Stenn  
?X: RAM: Raphael Manfredi  
?X: WED: Wayne Davison (was WAD by mistake--RAM)  
?X: ADO: Andy Dougherty  
?X: JHI: Jarkko Hietaniemi  
?X:  
?X: Agreed, this is a weird place to document it, but I couldn't find a better  
?X: place to do so. I've bet on the curiosity of users, who would probably  
?X: want to know what's in this strangely-named file--RAM.

Found

in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/AAAAA.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getprior.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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```

?RCS:
?RCS: $Log: d_getprior.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:16 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_getprior: Inlibc
?MAKE: -pick add $@ %<
?S:d_getprior:
?S: This variable conditionally defines HAS_GETPRIORITY if getpriority()
?S: is available to get a process's priority.
?S:.
?C:HAS_GETPRIORITY (GETPRIORITY):
?C: This symbol, if defined, indicates that the getpriority routine is
?C: available to get a process's priority.
?C:.
?H:#$d_getprior
HAS_GETPRIORITY /**/
?H.:
: see if getpriority exists
?LINT:set d_getprior
set getpriority d_getprior
eval $inlibc

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_getprior.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: Rcs.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: Rcs.U,v $
?RCS: Revision 3.0 1993/08/18 12:05:15 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This is a unit that helps people who write SH scripts and keep them under
?X: RCS, but don't think to protect the $Log and other $Id keywords from
?X: variable substitution (or people like me who do not like to).
?X:
?MAKE:Author Date Header Id Locker Log RCSfile Revision Source State: Oldconfig

```

?MAKE: -pick weed \$@ %<  
?LINT:describe Author  
Date Header Id Locker Log RCSfile Revision Source State  
: preserve RCS keywords in files with variable substitution, grrr  
?Author:Author='\$Author'  
?Date:Date='\$Date'  
?Header:Header='\$Header'  
?Id:Id='\$Id'  
?\$Locker'  
?Log:Log='\$Log'  
?RCSfile:RCSfile='\$RCSfile'  
?Revision:Revision='\$Revision'  
?Source:Source='\$Source'  
?State:State='\$State'

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Rcs.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_sitecustomize.U,v \$  
?RCS:  
?RCS: Copyright (c) 2005-2006 H.Merijn Brand  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?RCS: \$Log: d\_sitecustomize.U,v \$  
?RCS:  
?MAKE:usesitecustomize: Oldconfig Setvar  
?MAKE: -pick add \$@ %<  
?S:usesitecustomize:  
?S: This variable is set to true when the user requires a mechanism that  
?S: allows the sysadmin to add entries to @INC at runtime. This variable  
?S: being set, makes perl run '\$sitelib/sitecustomize.pl' at startup.  
?S:.  
?C:USE\_SITECUSTOMIZE:  
?C: This symbol, if defined, indicates that sitecustomize should  
?C: be used.  
?C:.  
?H:?%<:@if USE\_SITECUSTOMIZE  
?H:?%<:#ifndef USE\_SITECUSTOMIZE  
?H:?%<:#\$usesitecustomize USE\_SITECUSTOMIZE /\*\*/  
?H:?%<:#endif  
?H:?%<:@end  
?H:.  
: Check if site customization support was requested  
case "\$usesitecustomize" in

```
$define|true|[Yy]*)
usesitecustomize="$define"
;;
*)
usesitecustomize="$undef"
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_sitecustomize.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: i\_malloc.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:21 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:i\_malloc: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_malloc:

?S: This variable conditionally defines the I\_MALLOC symbol, and indicates

?S: whether a C program should include <malloc.h>.

?S:.

?C:I\_MALLOC:

?C: This symbol, if defined, indicates to the C program that it should

?C: include <malloc.h>.

?C:.

?H:#\$i\_malloc I\_MALLOC /\*\*/

?H:.

?LINT:set i\_malloc

: see if this is a malloc.h system

set

malloc.h i\_malloc

eval \$inhdr

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_malloc.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_shmdt.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_shmdt.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:19 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_shmdt: Inlibc
?MAKE: -pick add $@ %<
?S:d_shmdt:
?S: This variable conditionally defines the HAS_SHMDT symbol, which
?S: indicates to the C program that the shmdt() routine is available.
?S:.
?C:HAS_SHMDT:
?C: This symbol, if defined, indicates that the shmdt() routine is
?C: available to detach a shared memory segment from the process
?C: space.
?C:.
?H:#$d_shmdt HAS_SHMDT /**/
?H:.
?LINT:set d_shmdt
: see if shmdt exists
set shmdt d_shmdt
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_shmdt.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_volatile.U,v 3.0.1.2 1995/07/25 14:08:49 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
```

```

?RCS:
?RCS: $Log: d_volatile.U,v $
?RCS: Revision 3.0.1.2 1995/07/25 14:08:49 ram
?RCS: patch56: made cc and ccflags optional dependencies
?RCS:
?RCS: Revision 3.0.1.1 1993/09/09 11:49:51 ram
?RCS: patch9: volatile definition was swapped over with undef
?RCS:
?RCS: Revision 3.0 1993/08/18 12:07:57 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_volatile: cat +cc +ccflags rm_try Setvar
?MAKE: -pick add $@ %<
?S:d_volatile:
?S: This variable conditionally
 defines the HASVOLATILE symbol, which
?S: indicates to the C program that this C compiler knows about the
?S: volatile declaration.
?S:.
?C:HASVOLATILE ~ %<:
?C: This symbol, if defined, indicates that this C compiler knows about
?C: the volatile declaration.
?C:.
?H:%<:#$d_volatile HASVOLATILE /**/
?H:%<:#ifndef HASVOLATILE
?H:%<:#define volatile
?H:%<:#endif
?H:.
?LINT:set d_volatile
?LINT:known volatile
: check for volatile keyword
echo " "
echo 'Checking to see if your C compiler knows about "volatile"...' >&4
$cat >try.c <<'EOCP'
int main()
{
?X:
?X: The following seven lines added by Bill Campbell <billc@sierra.com>
?X: detect that MIPS compilers do not handle volatile in all situations.
?X:
typedef struct _goo_struct goo_struct;
goo_struct * volatile goo = ((goo_struct *)0);
struct _goo_struct {
 long long_int;
 int reg_int;
 char char_var;
};
typedef unsigned short foo_t;

```



```

char *volatile foo;
volatile int bar;
volatile foo_t blech;
foo = foo;
}
EOCP
if $cc
-c $ccflags try.c >/dev/null 2>&1 ; then
val="$define"
echo "Yup, it does."
else
val="$undef"
echo "Nope, it doesn't."
fi
set d_volatile
eval $setvar
$rm_try

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_volatile.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: byteorder.U,v 3.0.1.2 1997/02/28 15:24:55 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: byteorder.U,v $
?RCS: Revision 3.0.1.2 1997/02/28 15:24:55 ram
?RCS: patch61: no longer ask the user if the test runs ok
?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 16:02:58 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:28 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:byteorder: cat Myread Oldconfig Loc Compile rm_try run \
multiarch uvtype uvsize i_stdlib
?MAKE: -pick add $@ %<
?S:byteorder:
?S: This

```

variable holds the byte order in a UV. In the following,

?S: larger digits indicate more significance. The variable byteorder

?S: is either 4321 on a big-endian machine, or 1234 on a little-endian,

?S: or 87654321 on a Cray ... or 3412 with weird order !

?S:.

?C:BYTEORDER:

?C: This symbol holds the hexadecimal constant defined in byteorder,

?C: in a UV, i.e. 0x1234 or 0x4321 or 0x12345678, etc...

?C: If the compiler supports cross-compiling or multiple-architecture

?C: binaries, use compiler-defined macros to

?C: determine the byte order.

?C:.

```
?H:%<:#if defined(MULTIARCH)
?H:%<:# ifdef __LITTLE_ENDIAN__
?H:%<:# if LONGSIZE == 4
?H:%<:# define BYTEORDER 0x1234
?H:%<:# else
?H:%<:# if LONGSIZE == 8
?H:%<:# define BYTEORDER 0x12345678
?H:%<:# endif
?H:%<:# endif
?H:%<:# else
?H:%<:# ifdef __BIG_ENDIAN__
?H:%<:# if LONGSIZE == 4
?H:%<:# define BYTEORDER 0x4321
?H:%<:# else
?H:%<:# if LONGSIZE
== 8
?H:%<:# define BYTEORDER 0x87654321
?H:%<:# endif
?H:%<:# endif
?H:%<:# endif
?H:%<:# endif
?H:%<:#endif
?H:.
```

?T:xxx\_prompt

?F:!try

: check for ordering of bytes in a UV

echo " "

case "\$multiarch" in

\*\$define\*)

\$cat <<EOM

You seem to be doing a multiarchitecture build,

skipping the byteorder check.

EOM

```

byteorder='ffff'
;;
*)
case "$byteorder" in
")
$cat <<'EOM'

```

In the following, larger digits indicate more significance. A big-endian machine like a Pyramid or a Motorola 680?0 chip will come out to 4321. A little-endian machine like a Vax or an Intel 80?86 chip would be 1234. Other machines may have weird orders like 3412. A Cray will report 87654321, an Alpha will report 12345678. If the test program works the default is probably right.

I'm now running the test program...

EOM

```

$cat >try.c <<EOCP
#include <stdio.h>
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#include
<sys/types.h>
typedef $uvtype UV;
int main()
{
int i;
union {
UV l;
char c[$uvsize];
} u;

if ($uvsize > 4)
u.l = (((UV)0x08070605) << 32) | (UV)0x04030201;
else
u.l = (UV)0x04030201;
for (i = 0; i < $uvsize; i++)
printf("%c", u.c[i]+'0');
printf("\n");
exit(0);
}

```

EOCP

```

xxx_prompt=y
set try
if eval $compile && $run ./try > /dev/null; then
dflt=`$run ./try`
case "$dflt" in
[1-4][1-4][1-4][1-4]|12345678|87654321)
echo "(The test program ran ok.)"

```

```

echo "byteorder=$dflt"
xxx_prompt=n
;;
|????|?????) echo "(The test program ran ok.)" ;;
*) echo "(The test program didn't run right for some reason.)" ;;
esac
else
dflt='4321'
cat <<'EOM'

```

(I can't seem to compile the test program. Guessing big-endian...)

EOM

```

fi
case "$xxx_prompt" in
y)
rp="What is the order of bytes in $svtype?"
./myread
byteorder="$ans"
;;
*) byteorder=$dflt
;;
esac
;;
esac
$rm_try
;;
esac

```

Found in path(s):

\*

/opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/byteorder.U

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?RCS:

?MAKE:usefaststdio: Myread Oldconfig Setvar rsrc

?MAKE: -pick add \$@ %<

?Y:TOP

?S:usefaststdio:

?S: This variable conditionally defines the USE\_FAST\_STDIO symbol,

?S: and indicates that Perl should be built to use 'fast stdio'.

?S: Defaults to define in Perls 5.8 and earlier, to undef later.

?S:.

?C:USE\_FAST\_STDIO:  
 ?C: This symbol, if defined, indicates that Perl should  
 ?C: be built to use 'fast stdio'.  
 ?C: Defaults to define in Perls 5.8 and earlier, to undef later.  
 ?C:.

```
?H:?%<:#ifndef USE_FAST_STDIO
?H:?%<:#$usefaststdio USE_FAST_STDIO /**/
?H:?%<:#endif
?H:.
?T:xversion
?LINT:set usefaststdio
: Check if faststdio is requested and available
case "$usefaststdio" in
$define|true|[yY]*|")
 xversion=`awk
 '/define[]+PERL_VERSION/ {print $3}' $src/patchlevel.h`
case "$xversion" in
[68]) dflt='y' ;;
*) dflt='n' ;;
esac
;;
*) dflt='n';;
esac
cat <<EOM
```

Perl can be built to use 'fast stdio', which means using the stdio library but also directly manipulating the stdio buffers to enable faster I/O. Using stdio is better for backward compatibility (especially for Perl extensions), but on the other hand since Perl 5.8 the 'perlio' interface has been preferred instead of stdio.

If this doesn't make any sense to you, just accept the default '\$dflt'.

```
EOM
rp="Use the "fast stdio" if available?"
. ./myread
case "$ans" in
y|Y) val="$define" ;;
*) val="$undef" ;;
esac
set usefaststdio
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/usefaststdio.U
```

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?RCS: \$Id\$

```

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?RCS: of the source tree for dist 3.0.
?RCS:
?MAKE:d_malloc_size d_malloc_good_size: Inlibc
?MAKE: -pick add $@ %<
?S:d_malloc_size:
?S: This symbol, if defined, indicates that the malloc_size
?S: routine is available for use.
?S:.
?S:d_malloc_good_size:
?S: This symbol, if defined, indicates that the malloc_good_size
?S: routine is available for use.
?S:.
?C:HAS_MALLOC_SIZE:
?C: This symbol, if defined, indicates that the malloc_size
?C: routine is available for use.
?C:.
?H:#$d_malloc_size HAS_MALLOC_SIZE /**/
?H:.
?C:HAS_MALLOC_GOOD_SIZE:
?C: This symbol, if defined,
?C: indicates that the malloc_good_size
?C: routine is available for use.
?C:.
?H:#$d_malloc_good_size HAS_MALLOC_GOOD_SIZE /**/
?H:.
?LINT:set d_malloc_size
?LINT:set d_malloc_good_size
: see if malloc_size exists
set malloc_size d_malloc_size
eval $inlibc

: see if malloc_size_good exists
set malloc_good_size d_malloc_good_size
eval $inlibc

Found in path(s):
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/perl/d_malloc_size.U
No license file was found, but licenses were detected in source scan.

?RCS: $Id: d_rename.U 1 2006-08-24 12:32:52Z rmanfredi $

```

```

?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_rename.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:54 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_rename: Inlibc
?MAKE:-pick add $@ %<
?S:d_rename:
?S: This variable conditionally defines the HAS_RENAME symbol, which
?S: indicates to the C program that the rename() routine is available
?S: to rename files.
?S:.
?C:HAS_RENAME (RENAME):
?C: This symbol, if defined, indicates that the rename routine is available
?C: to rename files.
 Otherwise you should do the unlink(), link(), unlink()
?C: trick.
?C:.
?H:#$d_rename HAS_RENAME /**/
?H:.
?LINT:set d_rename
: see if rename exists
set rename d_rename
eval $inlibc

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_rename.U

```

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```

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?RCS:

```

```

?RCS: $Log: perlpath.U,v $
?RCS: Revision 3.0.1.2 1995/09/25 09:17:04 ram
?RCS: patch59: unit is now forced to the top of Configure, if possible
?RCS:
?RCS: Revision 3.0.1.1 1995/01/11 15:33:53 ram
?RCS: patch45: can now use Loc variables since path stripping is deferred
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:32 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: The purpose of this unit is to locate perl good enough to construct a #!
?X:
?MAKE:perlpath: Getfile Oldconfig Loc perl
?MAKE: -pick
add $@ %<
?Y:TOP
?S:perlpath:
?S: This variable contains the eventual value of the PERLPATH symbol,
?S: which contains the absolute location of the perl interpreter.
?S:.
?C:PERLPATH:
?C: This symbol contains the absolute location of the perl interpreter.
?C:.
?H:#define PERLPATH "$perlpath" /**/
?H:.
: determine perl absolute location
case "$perlpath" in
")
if test -f /usr/bin/perl; then
dflt=/usr/bin/perl
else
case "$perl" in
/) dflt="$perl";;
*) dflt=/usr/bin/perl;;
esac
fi
;;
*) dflt="$perlpath"
;;
esac
echo " "
fn=f~/
rp="Where is perl located on your system?"
./getfile
perlpath="$ans"

```

Found in path(s):



\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/perlpath.U

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?RCS: \$Id: i\_systimes.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS:

?RCS: \$Log: i\_systimes.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:39 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:i\_systimes: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_systimes:

?S: This variable conditionally defines the I\_SYS\_TIMES symbol, and indicates

?S: whether a C program should include <sys/times.h>.

?S:.

?C:I\_SYS\_TIMES (I\_SYSTIMES):

?C: This symbol, if defined, indicates to the C program that it should

?C: include <sys/times.h>.

?C:.

?H:#\$i\_systimes I\_SYS\_TIMES /\*\*/

?H:.

?LINT:set

i\_systimes

: see if this is a sys/times.h system

set sys/times.h i\_systimes

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_systimes.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getprotobyname\_r.U,v 0RCS:

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?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

```

?RCS:
?MAKE:d_getprotobyname_r getprotobyname_r_proto: Inlibc Protochk Hasproto \
i_systypes usethreads i_netdb extern_C
?MAKE: -pick add $@ %<
?S:d_getprotobyname_r:
?S: This variable conditionally defines the HAS_GETPROTOBYNAME_R symbol,
?S: which indicates to the C program that the getprotobyname_r()
?S: routine is available.
?S:.
?S:getprotobyname_r_proto:
?S: This variable encodes the prototype of getprotobyname_r.
?S: It is zero if d_getprotobyname_r is undef, and one of the
?S: REENTRANT_PROTO_T_ABC macros of reentr.h if d_getprotobyname_r
?S: is defined.
?S:.
?C:HAS_GETPROTOBYNAME_R:
?C: This symbol, if
defined, indicates that the getprotobyname_r routine
?C: is available to getprotobyname re-entrantly.
?C:.
?C:GETPROTOBYNAME_R_PROTO:
?C: This symbol encodes the prototype of getprotobyname_r.
?C: It is zero if d_getprotobyname_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_getprotobyname_r
?C: is defined.
?C:.
?H:#$d_getprotobyname_r HAS_GETPROTOBYNAME_R /**/
?H:#define GETPROTOBYNAME_R_PROTO $getprotobyname_r_proto /**/
?H:.
?T:try hdrs d_getprotobyname_r_proto
: see if getprotobyname_r exists
set getprotobyname_r d_getprotobyname_r
eval $inlibc
case "$d_getprotobyname_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_netdb netdb.h"
case "$d_getprotobyname_r_proto:$usethreads" in
":define") d_getprotobyname_r_proto=define
set d_getprotobyname_r_proto getprotobyname_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_getprotobyname_r_proto" in
define)
case "$getprotobyname_r_proto" in
"|0) try='int getprotobyname_r(const char*, struct
protoent*, char*, size_t, struct protoent**);'
./protochk "$extern_C $try" $hdrs && getprotobyname_r_proto=I_CSBWR ;;

```

```

esac
case "$getprotobyname_r_proto" in
"|0) try='struct protoent* getprotobyname_r(const char*, struct protoent*, char*, int);'
./protochk "$extern_C $try" $hdrs && getprotobyname_r_proto=S_CSBI ;;
esac
case "$getprotobyname_r_proto" in
"|0) try='int getprotobyname_r(const char*, struct protoent*, struct protoent_data*);'
./protochk "$extern_C $try" $hdrs && getprotobyname_r_proto=I_CSD ;;
esac
case "$getprotobyname_r_proto" in
"|0) d_getprotobyname_r=undef
getprotobyname_r_proto=0
echo "Disabling getprotobyname_r, cannot determine prototype." >&4 ;;
*) case "$getprotobyname_r_proto" in
REENTRANT_PROTO*) ;;
*) getprotobyname_r_proto="REENTRANT_PROTO_$getprotobyname_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetreads" in
define) echo "getprotobyname_r has no prototype, not using it." >&4 ;;
esac
d_getprotobyname_r=undef
getprotobyname_r_proto=0
;;
esac
;;
*) getprotobyname_r_proto=0
;;
esac

```

Found

in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_getprotobyname\_r.U

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?RCS: of the source tree for dist 4.0.

?RCS:

```

?RCS: $Log: d_flexfnam.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:04 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_flexfnam: cat rm test Setvar
?MAKE: -pick add $@ %<
?S:d_flexfnam:
?S: This variable conditionally defines the FLEXFILENAMES symbol, which
?S: indicates that the system supports filenames longer than 14 characters.
?S:.
?C:FLEXFILENAMES:
?C: This symbol, if defined, indicates that the system supports filenames
?C: longer than 14 characters.
?C:.
?H:#$d_flexfnam FLEXFILENAMES /**/
?H:.
?T:first
 second
?LINT:set d_flexfnam
: see if we can have long filenames
echo " "
?X:
?X: We have to test in both /tmp and . because of NFS (remote server may allow
?X: long filenames while the local filesystem cannot support them). If at least
?X: one of those file systems cannot support long filenames, then we assume the
?X: whole system can't.
?X:
rmlist="$rmlist /tmp/cf$$"
$test -d /tmp/cf$$ || mkdir /tmp/cf$$
first=123456789abcdef
second=/tmp/cf$$/$first
$rm -f $first $second
if (echo hi >$first) 2>/dev/null; then
if $test -f 123456789abcde; then
 echo 'You cannot have filenames longer than 14 characters. Sigh.' >&4
 val="$undef"
else
if (echo hi >$second) 2>/dev/null; then
if $test -f /tmp/cf$$/123456789abcde; then
 $cat <<'EOM'
That's peculiar... You can have filenames longer than 14 characters, but only
on some of the filesystems. Maybe you are using NFS. Anyway, to avoid problems
I shall consider your system cannot support long filenames at all.
EOM
 val="$undef"
else
echo

```

'You can have filenames longer than 14 characters.' >&4

```
val="$define"
fi
else
$cat <<'EOM'
```

How confusing! Some of your filesystems are sane enough to allow filenames longer than 14 characters but some others like /tmp can't even think about them. So, for now on, I shall assume your kernel does not allow them at all.

EOM

```
val="$undef"
fi
fi
else
$cat <<'EOM'
```

You can't have filenames longer than 14 chars. You can't even think about them!

EOM

```
val="$undef"
fi
set d_flexfnam
eval $setvar
$rm -rf /tmp/cf$$ 123456789abcde*
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_flexfnam.U

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?RCS: \$Id: i\_sysstatfs.U,v \$

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:i\_sysstatfs: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_sysstatfs:

?S: This variable conditionally defines the I\_SYSSTATFS symbol,

?S: and indicates whether a C program should include <sys/statfs.h>.

?S:.

?C:I\_SYS\_STATFS:

?C: This symbol, if defined, indicates that <sys/statfs.h> exists.

?C:.

?H:#\$i\_sysstatfs I\_SYS\_STATFS /\*\*/

?H:.

?LINT:set i\_sysstatfs

: see if this is a sys/statfs.h system

set sys/statfs.h i\_sysstatfs

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_sysstatfs.U

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?RCS:

?MAKE:d\_cplusplus: Compile Setvar run cat rm\_try

?MAKE: -pick add \$@ %<

?S:d\_cplusplus (d\_cplusplus.U):

?S: This variable conditionally defines the USE\_CPLUSPLUS symbol, which

?S: indicates that a C++ compiler was used to compiled Perl and will be

?S: used to compile extensions.

?S:.

?C:USE\_CPLUSPLUS:

?C: This symbol, if defined, indicates that a C++ compiler was

?C: used to compiled Perl and will be used to compile extensions.

?C:.

?H:#\$d\_cplusplus USE\_CPLUSPLUS /\*\*/

?H:.

?F:!try

?LINT:set d\_cplusplus

: Check if we are using C++

echo " "

echo "Checking for C++..." >&4

\$cat >try.c <<'EOCP'

#include <stdio.h>

int main(void)

{

#ifdef \_\_cplusplus

return 0;

#else

return 1;

#endif

}

EOCP

set try

if eval \$compile\_ok

&& \$run ./try; then

val="\$define"

echo "You are using a C++ compiler."

else

val="\$undef"

```
echo "You are not using a C++ compiler."
fi
$rm_try cplusplus$$
set d_cplusplus
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_cplusplus.U
```

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?RCS: \$Id: d\_setpwent\_r.U,v 0RCS:

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?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_setpwent\_r setpwent\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
 usethreads i\_pwd extern\_C

?MAKE: -pick add \$@ %<

?S:d\_setpwent\_r:

?S: This variable conditionally defines the HAS\_SETPWENT\_R symbol,

?S: which indicates to the C program that the setpwent\_r()

?S: routine is available.

?S:.

?S:setpwent\_r\_proto:

?S: This variable encodes the prototype of setpwent\_r.

?S: It is zero if d\_setpwent\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_setpwent\_r

?S: is defined.

?S:.

?C:HAS\_SETPWENT\_R:

?C: This symbol, if defined, indicates that the setpwent\_r routine

?C: is available to

setpwent re-entrantly.

?C:.

?C:SETPWENT\_R\_PROTO:

?C: This symbol encodes the prototype of setpwent\_r.

?C: It is zero if d\_setpwent\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_setpwent\_r

?C: is defined.

?C:.

?H:#\$d\_setpwent\_r HAS\_SETPWENT\_R /\*\*/

?H:#define SETPWENT\_R\_PROTO \$setpwent\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_setpwent\_r\_proto

```

: see if setpwent_r exists
set setpwent_r d_setpwent_r
eval $inlibc
case "$d_setpwent_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_pwd pwd.h"
case "$d_setpwent_r_proto:$usethreads" in
":define") d_setpwent_r_proto=define
set d_setpwent_r_proto setpwent_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_setpwent_r_proto" in
define)
case "$setpwent_r_proto" in
"|0) try='int setpwent_r(FILE**);'
./prochck "$extern_C $try" $hdrs && setpwent_r_proto=I_H ;;
esac
case "$setpwent_r_proto" in
"|0) try='void setpwent_r(FILE**);'
./prochck "$extern_C $try" $hdrs && setpwent_r_proto=V_H ;;
esac
case "$setpwent_r_proto"
in
"|0) d_setpwent_r=undef
setpwent_r_proto=0
echo "Disabling setpwent_r, cannot determine prototype." >&4 ;;
*) case "$setpwent_r_proto" in
REENTRANT_PROTO*) ;;
*) setpwent_r_proto="REENTRANT_PROTO_$setpwent_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "setpwent_r has no prototype, not using it." >&4 ;;
esac
d_setpwent_r=undef
setpwent_r_proto=0
;;
esac
;;
*) setpwent_r_proto=0
;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-



5.30.0/U/threads/d\_setpwent\_r.U

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?RCS:

?RCS: \$Log: d\_fd\_set.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 15:33:16 ram

?RCS: patch61: added ?F: metalint hint

?RCS:

?RCS: Revision 3.0.1.2 1994/06/20 06:57:23 ram

?RCS: patch30: extended scope for fd\_set checks (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/01/24 14:06:27 ram

?RCS: patch16: comments for HAS\_FD\_\* symbols were not consistent

?RCS:

?RCS: Revision 3.0 1993/08/18 12:06:02 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_fd\_set d\_fd\_macros d\_fds\_bits: cat +cc +ccflags rm Oldconfig

\

d\_socket i\_systime i\_sysselect i\_syssock

?MAKE: -pick add \$@ %<

?S:d\_fd\_set:

?S: This variable contains the eventual value of the HAS\_FD\_SET symbol,

?S: which indicates if your C compiler knows about the fd\_set typedef.

?S:.

?S:d\_fd\_macros:

?S: This variable contains the eventual value of the HAS\_FD\_MACROS symbol,

?S: which indicates if your C compiler knows about the macros which

?S: manipulate an fd\_set.

?S:.

?S:d\_fds\_bits:

?S: This variable contains the eventual value of the HAS\_FDS\_BITS symbol,

?S: which indicates if your fd\_set typedef contains the fds\_bits member.

?S: If you have an fd\_set typedef, but the dweebs who installed it did

?S: a half-fast job and neglected to provide the macros to manipulate

?S: an fd\_set, HAS\_FDS\_BITS will let us know how to fix the gaffe.

?S:.

?C:HAS\_FD\_SET:

?C: This symbol, when defined, indicates presence of the fd\_set typedef

```

?C: in <sys/types.h>
?C:.
?C:HAS_FD_MACROS:
?C: This symbol, when defined, indicates presence of the macros used
to
?C: manipulate an fd_set.
?C:.
?C:HAS_FDS_BITS:
?C: This symbol, when defined, indicates presence of the fds_bits member in
?C: fd_set. This knowledge is useful if fd_set is available but the macros
?C: aren't.
?C:.
?H:#$d_fd_set HAS_FD_SET /**/
?H:#$d_fd_macros HAS_FD_MACROS /**/
?H:#$d_fds_bits HAS_FDS_BITS /**/
?H:.
?F:!fd_set
: check for fd_set items
$cat <<EOM

```

Checking to see how well your C compiler handles fd\_set and friends ...

EOM

?X: The FD\_SET macros can be in strange places. On some SysV-based

?X: systems, they are in <sys/bsdtypes.h>, which is included (perhaps)

?X: by <sys/socket.h>. We won't force people to include

?X: <sys/bsdtypes.h> because it might introduce other

?X: incompatibilities.

```
$cat >fd_set.c <<EOCP
```

```
#$i_systime I_SYS_TIME
```

```
#$i_sysselect I_SYS_SELECT
```

```
#$d_socket HAS_SOCKET
```

```
#$i_syssock I_SYS_SOCKET
```

```
#include <sys/types.h>
```

```
#ifdef HAS_SOCKET
```

```
#ifdef I_SYS_SOCKET
```

```
#include <sys/socket.h> /* Might include <sys/bsdtypes.h> */
```

```
#endif
```

```
#endif
```

```
#ifdef I_SYS_TIME
```

```
#include
```

```
<sys/time.h>
```

```
#endif
```

```
#ifdef I_SYS_SELECT
```

```
#include <sys/select.h>
```

```
#endif
```

```
int main() {
```

```
fd_set fds;
```

```

#ifdef TRYBITS
if(fds.fds_bits);
#endif

#if defined(FD_SET) && defined(FD_CLR) && defined(FD_ISSET) && defined(FD_ZERO)
exit(0);
#else
exit(1);
#endif
}
EOCP
if $cc $ccflags -DTRYBITS -o fd_set fd_set.c >fd_set.out 2>&1 ; then
d_fds_bits="$define"
d_fd_set="$define"
echo "Well, your system knows about the normal fd_set typedef..." >&4
if ./fd_set; then
echo "and you have the normal fd_set macros (just as I'd expect)." >&4
d_fd_macros="$define"
else
$cat >&4 <<'EOM'
but not the normal fd_set macros! Gaaack! I'll have to cover for you.
EOM
d_fd_macros="$undef"
fi
else
$cat <<'EOM'
Hmm, your compiler has some difficulty with fd_set. Checking further...
EOM
if $cc $ccflags -o fd_set fd_set.c >fd_set.out 2>&1 ; then
d_fds_bits="$undef"
d_fd_set="$define"
echo "Well, your system has some sort of fd_set available..." >&4
if ./fd_set; then
echo "and you have the
normal fd_set macros." >&4
d_fd_macros="$define"
else
$cat <<'EOM'
but not the normal fd_set macros! Gross! More work for me...
EOM
d_fd_macros="$undef"
fi
else
echo "Well, you got zip. That's OK, I can roll my own fd_set stuff." >&4
d_fd_set="$undef"
d_fds_bits="$undef"
d_fd_macros="$undef"
fi

```

fi

\$rm -f fd\_set\*

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_fd\_set.U

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?RCS:

?RCS: \$Log: d\_strftime.U,v \$

?RCS: Revision 3.0 1993/08/18 12:07:36 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_strftime: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_strftime:

?S: This variable conditionally defines HAS\_STRFTIME if strftime() is

?S: available to format locale-specific times.

?S:.

?C:HAS\_STRFTIME:

?C: This symbol, if defined, indicates that the strftime routine is

?C: available to format locale-specific times.

?C:.

?H:#\$d\_strftime HAS\_STRFTIME /\*\*/

?H:.

?LINT:set d\_strftime

: see

if strftime exists

set strftime d\_strftime

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_strftime.U

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?RCS:

?MAKE:d\_int64\_t: Inhdr cat rm\_try Setvar Compile i\_inttypes

?MAKE: -pick add \$@ %<

?S:d\_int64\_t:

?S: This symbol will be defined if the C compiler supports int64\_t.

?S:.

?C:HAS\_INT64\_T:

?C: This symbol will defined if the C compiler supports int64\_t.

?C: Usually the <inttypes.h> needs to be included, but sometimes

?C: <sys/types.h> is enough.

?C:.

?H:#\$d\_int64\_t HAS\_INT64\_T /\*\*/

?H:.

?LINT:set d\_int64\_t

: check for int64\_t

echo " "

echo "Checking to see if you have int64\_t..." >&4

\$cat >try.c <<EOCP

#include

<sys/types.h>

#\$i\_inttypes I\_INTTYPES

#ifdef I\_INTTYPES

#include <inttypes.h>

#endif

int main() { int64\_t x = 7; }

EOCP

set try

if eval \$compile; then

val="\$define"

echo "You have int64\_t."

else

val="\$undef"

echo "You do not have int64\_t."

fi

\$rm\_try

set d\_int64\_t

eval \$setvar

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_int64\_t.U

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?RCS:

?MAKE:d\_lrint: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_lrint:

?S: This variable conditionally defines the HAS\_LRINT symbol, which

?S: indicates to the C program that the lrint() routine is available

?S: to return the integral value closest to a double (according

?S: to the current rounding mode).

?S:.

?C:HAS\_LRINT:

?C: This symbol, if defined, indicates that the lrint routine is

?C: available to return the integral value closest to a double

?C: (according to the current rounding mode).

?C:.

?H:#\$d\_lrint HAS\_LRINT /\*\*/

?H:.

?LINT:set d\_lrint

: see if lrint exists

set lrint d\_lrint

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_lrint.U

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?RCS:

?MAKE:d\_wscmp: Compile cat rm\_try run Oldconfig Setvar

?MAKE: -pick add \$@ %<

?S:d\_wscmp:

?S: This variable conditionally defines the HAS\_WCSCMP symbol if the

?S: wscmp() routine is available and can be used to compare wide

?S: character strings.

?S:.

?C:HAS\_WCSCMP:

?C: This symbol, if defined, indicates that the wscmp routine is

?C: available to compare two wide character strings.

```

?C:.
?H:##$d_wscmp HAS_WCSCMP /**/
?H:.
?F:!try
?LINT: set d_wscmp
: look for wscmp
echo " "
$cat >try.c <<'EOCP'
#include <stdio.h>
#include
<wchar.h>
int main ()
{
 wchar_t *s = L" ";
 return (wscmp (s, s) ? 1 : 0);
}
EOCP
set try
?X: if $cc $ccflags $ldflags -o try try.c $libs >/dev/null 2>&1 ; then
val="$undef"
if eval $compile; then
 `$run ./try`
 case "$?" in
0) echo "A working wscmp() found." >&4
 val="$define" ;;
*) echo "wscmp() found, but it doesn't work" >&4
 ;;
esac
else
 echo "wscmp() NOT found." >&4
fi
set d_wscmp
eval $setvar
$rm_try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_wscmp.U

```

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?RCS:

?MAKE:sGMTIME\_max sGMTIME\_min sLOCALTIME\_max sLOCALTIME\_min: cat rm\_try \

```

Setvar Compile run
?MAKE: -pick add $@ %<
?S:sGMTIME_max:
?S: This variable defines the maximum value of the time_t offset that
?S: the system function gmtime () accepts
?S:.
?S:sGMTIME_min:
?S: This variable defines the minimum value of the time_t offset that
?S: the system function gmtime () accepts
?S:.
?S:sLOCALTIME_max:
?S: This variable defines the maximum value of the time_t offset that
?S: the system function localtime () accepts
?S:.
?S:sLOCALTIME_min:
?S: This variable defines the minimum value of the time_t offset that
?S: the system function localtime () accepts
?S:.
?C:GMTIME_MAX:
?C: This symbol contains the maximum value
for the time_t offset that
?C: the system function gmtime () accepts, and defaults to 0
?C:.
?C:GMTIME_MIN:
?C: This symbol contains the minimum value for the time_t offset that
?C: the system function gmtime () accepts, and defaults to 0
?C:.
?C:LOCALTIME_MAX:
?C: This symbol contains the maximum value for the time_t offset that
?C: the system function localtime () accepts, and defaults to 0
?C:.
?C:LOCALTIME_MIN:
?C: This symbol contains the minimum value for the time_t offset that
?C: the system function localtime () accepts, and defaults to 0
?C:.
?H:#define GMTIME_MAX $sGMTIME_max /**/
?H:#define GMTIME_MIN $sGMTIME_min /**/
?H:#define LOCALTIME_MAX $sLOCALTIME_max /**/
?H:#define LOCALTIME_MIN $sLOCALTIME_min /**/
?H:.
?D:sGMTIME_max=0
?D:sGMTIME_min=0
?D:sLOCALTIME_max=0
?D:sLOCALTIME_min=0
?F:!try
: Check the max offset that gmtime and localtime accept
echo "Checking max offsets that gmtime () accepts"

```



```

case "$sGMTIME_min/$sGMTIME_max" in
 0/0/)
 $cat >try.c <<EOCP
#include
<sys/types.h>
#include <stdio.h>
#include <time.h>

int i;
struct tm *tmp;
time_t pt;

void gm_check (time_t t, int min_year, int max_year)
{
 tmp = gmtime (&t);
 if (tmp == NULL ||
/* Check tm_year overflow */
 tmp->tm_year < min_year || tmp->tm_year > max_year)
 tmp = NULL;
 else
 pt = t;
 } /* gm_check */

int check_max ()
{
 tmp = NULL;
 pt = 0;
#ifdef MAXLONG
 gm_check (MAXLONG, 69, 0x7fffffff);
#endif
 if (tmp == NULL || tmp->tm_year < 0) {
 for (i = 63; i >= 0; i--) {
 time_t x = pt | ((time_t)1 << i);
 if (x < 0 || x < pt) continue;
 gm_check (x, 69, 0x7fffffff);
 }
 }
 printf ("sGMTIME_max=%ld\n", pt);
 return (0);
 } /* check_max */

int check_min ()
{
 tmp = NULL;
 pt = 0;
#ifdef MINLONG
 gm_check (MINLONG, -1900, 70);
#endif
}

```

```

 if (tmp == NULL) {
for (i = 36; i >= 0; i--) {
 time_t x = pt - ((time_t)1 << i);
 if (x > 0) continue;
 gm_check (x, -1900, 70);
 }
}
 printf ("sGMTIME_min=%ld\n",
pt);
 return (0);
} /* check_min */

int main (int argc, char *argv[])
{
 /* fprintf (stderr, "Sizeof time_t = %ld\n", sizeof (time_t)); */
 check_max ();
 check_min ();
 return (0);
} /* main */

EOCP
set try
if eval $compile; then
 eval `$run ./try 2>/dev/null`
else
 echo "Cannot determine sGMTIME_max and sGMTIME_min." >&4
 fi
$rm_try
;;
esac

echo "Checking max offsets that localtime () accepts"

case "$sLOCALTIME_min/$sLOCALTIME_max" in
 0/0/)
 $cat >try.c <<EOCP
#include <sys/types.h>
#include <stdio.h>
#include <time.h>

int i;
struct tm *tmp;
time_t pt;

void local_check (time_t t, int min_year, int max_year)
{
 if (sizeof (time_t) > 4 && t > 0x7fffffffff000LL)
 tmp = NULL;
 else

```

```

tmp = localtime (&t);
if (tmp == NULL ||
/* Check tm_year overflow */
tmp->tm_year < min_year || tmp->tm_year > max_year)
tmp = NULL;
else
pt = t;
} /* local_check */

```

```

int check_max ()
{
tmp = NULL;
pt = 0;
#ifdef
MAXLONG
local_check (MAXLONG, 69, 0x7fffffff);
#endif
if (tmp == NULL || tmp->tm_year < 0) {
for (i = 63; i >= 0; i--) {
time_t x = pt | ((time_t)1 << i);
if (x < 0 || x < pt) continue;
local_check (x, 69, 0x7fffffff);
}
}
printf ("sLOCALTIME_max=%ld\n", pt);
return (0);
} /* check_max */

```

```

int check_min ()
{
tmp = NULL;
pt = 0;
#ifdef MINLONG
local_check (MINLONG, -1900, 70);
#endif
if (tmp == NULL) {
for (i = 36; i >= 0; i--) {
time_t x = pt - ((time_t)1 << i);
if (x > 0) continue;
local_check (x, -1900, 70);
}
}
printf ("sLOCALTIME_min=%ld\n", pt);
return (0);
} /* check_min */

```

```

int main (int argc, char *argv[])
{

```

```

 check_max ();
 check_min ();
 return (0);
} /* main */
EOCP
set try
if eval $compile; then
 eval `$run ./try 2>/dev/null`
else
 echo "Cannot determine sLOCALTIME_max and sLOCALTIME_min." >&4
 fi
$rm_try
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/time_size.U
```

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```

?RCS: $Id: d_semget.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_semget.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:05 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_semget: Inlibc
?MAKE: -pick add $@ %<
?S:d_semget:
?S: This variable conditionally defines the HAS_SEMGET symbol, which
?S: indicates to the C program that the semget() routine is available.
?S:.
?C:HAS_SEMGET:
?C: This symbol, if defined, indicates that the semget() routine is
?C: available to get a set of semaphores.
?C:.
?H:#$d_semget
HAS_SEMGET /**/
?H:.
?LINT:set d_semget

```

```
: see if semget exists
set semget d_semget
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_semget.U
```

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?RCS:

?MAKE:Devel usedevel: Myread rsrc package

?MAKE: -pick wipe \$@ %<

?T:xversion

?X: waiver of rights

?S:usedevel:

?S: This variable indicates that Perl was configured with development

?S: features enabled. This should not be done for production builds.

?S:.

?C:PERL\_USE\_DEVEL:

?C: This symbol, if defined, indicates that Perl was configured with

?C: -Dusedevel, to enable development features. This should not be

?C: done for production builds.

?C:.

?H:#\$usedevel PERL\_USE\_DEVEL /\*\*/

?H:.

?LINT:extern versiononly

?LINT:extern

installusrbinperl

?LINT:change versiononly

?LINT:change installusrbinperl

: See if we are using a devel version and want that

```
xversion=`awk '/define[]+PERL_VERSION/ {print $3}' $src/patchlevel.h`
```

```
case "$usedevel" in
```

```
$define|true|[yY]*)
```

```
 usedevel="$define" ;;
```

```
*) case "$xversion" in
```

```
 *[13579])
```

```
cat >&4 <<EOH
```

```
*** WHOA THERE!!! ***
```

This is an UNSTABLE DEVELOPMENT release.

The version of this \$package distribution is \$xversion, that is, odd,  
(as opposed to even) and that signifies a development release.

If you want a maintenance release, you want an even-numbered version.

Do **\*\*\*NOT\*\*\*** install this into production use.

Data corruption and crashes are possible.

It is most seriously suggested that you do not continue any further  
unless you want to help in developing and debugging Perl.

If you *\*still\** want to build perl, you can answer 'y' now,  
or pass -Dusedevel to Configure.

EOH

```
rp='Do you really want to continue?'
dflt='n'
. ./myread
case
"$ans" in
[yY]) echo >&4 "Okay, continuing."
 usedevel="$define" ;;
*) echo >&4 "Okay, bye."
 exit 1
 ;;
esac
;;
esac
usedevel="$undef"
;;
esac
case "$usedevel" in
$define|true|[yY]*)
case "$versiononly" in
") versiononly="$define" ;;
esac
case "$installusrbinperl" in
") installusrbinperl="$undef" ;;
esac
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/Devel.U
```

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?RCS: \$Id: d\_getnetent\_r.U,v 0RCS:  
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?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.  
?RCS:  
?MAKE:d\_getnetent\_r getnetent\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
usethreads i\_netdb extern\_C  
?MAKE: -pick add \$@ %<  
?S:d\_getnetent\_r:  
?S: This variable conditionally defines the HAS\_GETNETENT\_R symbol,  
?S: which indicates to the C program that the getnetent\_r()  
?S: routine is available.  
?S:.  
?S:getnetent\_r\_proto:  
?S: This variable encodes the prototype of getnetent\_r.  
?S: It is zero if d\_getnetent\_r is undef, and one of the  
?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getnetent\_r  
?S: is defined.  
?S:.  
?C:HAS\_GETNETENT\_R:  
?C: This symbol, if defined, indicates that the getnetent\_r routine  
?C: is  
available to getnetent re-entrantly.  
?C:.  
?C:GETNETENT\_R\_PROTO:  
?C: This symbol encodes the prototype of getnetent\_r.  
?C: It is zero if d\_getnetent\_r is undef, and one of the  
?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getnetent\_r  
?C: is defined.  
?C:.  
?H:#\$d\_getnetent\_r HAS\_GETNETENT\_R /\*\*/  
?H:#define GETNETENT\_R\_PROTO \$getnetent\_r\_proto /\*\*/  
?H:.  
?T:try hdrs d\_getnetent\_r\_proto  
: see if getnetent\_r exists  
set getnetent\_r d\_getnetent\_r  
eval \$inlibc  
case "\$d\_getnetent\_r" in  
"\$define")  
hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_netdb netdb.h"  
case "\$d\_getnetent\_r\_proto:\$usethreads" in  
":define") d\_getnetent\_r\_proto=define  
set d\_getnetent\_r\_proto getnetent\_r \$hdrs  
eval \$hasproto ;;  
\*) ;;

```

esac
case "$d_getnetent_r_proto" in
define)
case "$getnetent_r_proto" in
"|0) try='int getnetent_r(struct netent*, char*, size_t, struct netent**, int*);'
./protochk "$extern_C $try" $hdrs && getnetent_r_proto=I_SBWRE ;;
esac
case "$getnetent_r_proto" in
"|0) try='int getnetent_r(struct
netent*, char*, int, int*);'
./protochk "$extern_C $try" $hdrs && getnetent_r_proto=I_SBIE ;;
esac
case "$getnetent_r_proto" in
"|0) try='struct netent* getnetent_r(struct netent*, char*, int, int*);'
./protochk "$extern_C $try" $hdrs && getnetent_r_proto=S_SBIE ;;
esac
case "$getnetent_r_proto" in
"|0) try='struct netent* getnetent_r(struct netent*, char*, int);'
./protochk "$extern_C $try" $hdrs && getnetent_r_proto=S_SBI ;;
esac
case "$getnetent_r_proto" in
"|0) try='int getnetent_r(struct netent*, char*, int);'
./protochk "$extern_C $try" $hdrs && getnetent_r_proto=I_SBI ;;
esac
case "$getnetent_r_proto" in
"|0) try='int getnetent_r(struct netent*, struct netent_data*);'
./protochk "$extern_C $try" $hdrs && getnetent_r_proto=I_SD ;;
esac
case "$getnetent_r_proto" in
"|0) d_getnetent_r=undef
getnetent_r_proto=0
echo "Disabling getnetent_r, cannot determine prototype." >&4 ;;
*) case "$getnetent_r_proto" in
REENTRANT_PROTO*) ;;
*) getnetent_r_proto="REENTRANT_PROTO_$getnetent_r_proto"
;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "getnetent_r has no prototype, not using it." >&4 ;;
esac
d_getnetent_r=undef
getnetent_r_proto=0
;;
esac
;;

```



```
*) getnetent_r_proto=0
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_getnetent_r.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_csh.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:32:18 ram

?RCS: patch61: added full\_csh to preserve the full path even when portable

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:53 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_csh full\_csh: csh Setvar

?MAKE: -pick add \$@ %<

?S:d\_csh:

?S: This variable conditionally defines the CSH symbol, which

?S: indicates to the C program that the C-shell exists.

?S:.

?S:full\_csh:

?S: This variable contains the full pathname to 'csh', whether

or

?S: not the user has specified 'portability'. This is only used

?S: in the compiled C program, and we assume that all systems which

?S: can share this executable will have the same full pathname to

?S: 'csh.'

?S:.

?X: Yes, I know about the C symbol PORTABLE, but I think csh

?X: is unlikely to move, and I'm too lazy to add all the

?X: #ifdef PORTABLE sections to the perl source.

?X:

?C:HAS\_CSH:

?C: This symbol, if defined, indicates that the C-shell exists.

?C:.

?C:CSH:

?C: This symbol, if defined, contains the full pathname of csh.  
?C:.  
?X: Previously, I just did \$d\_csh CSH "\$full\_csh", but that caused  
?X: problems on VMS where the config.sh extraction program changes  
?X: \$undef to a real cpp undef, and they then had #undef CSH ""  
?X: which the compiler didn't like. It's easy to work around this,  
?X: so I did. --AD 3/1998.  
?X: And we don't want to define CSH if !HAS\_CSH, but we don't want  
?X: those lines in config.h if they don't need CSH, so protect with ?CSH  
?X: and not

?%<. --RAM, 15/02/2004

?H:?!%<:#\$d\_csh HAS\_CSH /\*\*/

?H:?!CSH:#ifdef HAS\_CSH

?H:?!CSH:#define CSH "\$full\_csh" /\*\*/

?H:?!CSH:#endif

?H:.

?LINT:set d\_csh

: get csh whereabouts

case "\$csh" in

'csh') val="\$undef" ;;

\*) val="\$define" ;;

esac

set d\_csh

eval \$setvar

: Respect a hint or command line value for full\_csh.

case "\$full\_csh" in

") full\_csh=\$csh ;;

esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_csh.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: libs.U,v 3.0.1.6 1997/02/28 16:09:11 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: libs.U,v \$

?RCS: Revision 3.0.1.6 1997/02/28 16:09:11 ram

?RCS: patch61: replaced .a with \$\_a all over the place

?RCS:

?RCS: Revision 3.0.1.5 1995/07/25 14:12:05 ram  
?RCS: patch56: now knows about OS/2 platforms  
?RCS:  
?RCS: Revision 3.0.1.4 1994/10/29 16:24:22 ram  
?RCS: patch36: removed old broken thislib/thatlib processing (ADO)  
?RCS:  
?RCS: Revision 3.0.1.3 1994/06/20 07:05:44 ram  
?RCS: patch30: code cleanup with if/elif by ADO and RAM  
?RCS: patch30:  
undone patch23 for libswanted default setting  
?RCS:  
?RCS: Revision 3.0.1.2 1994/05/06 15:08:45 ram  
?RCS: patch23: now includes ordered default libswanted variable (ADO)  
?RCS: patch23: major cleanup for library lookups (ADO)  
?RCS:  
?RCS: Revision 3.0.1.1 1993/08/25 14:02:31 ram  
?RCS: patch6: added default for libs  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:03 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:libs ignore\_versioned\_solibs libsfound libsfiles libsdirs libspath: \  
test cat Myread Oldconfig Loc libpth package xlibpth so \_a \  
usesocks sed uselongdouble usequadmath  
?MAKE: -pick add \$@ %<  
?S:libs:  
?S: This variable holds the additional libraries we want to use.  
?S: It is up to the Makefile to deal with it. The list can be empty.  
?S:.  
?S:libsfound:  
?S: This variable holds the full pathnames of the libraries  
?S: we found and accepted.  
?S:.  
?S:libsfiles:  
?S: This variable holds the filenames aka basenames of the libraries  
?S: we found and accepted.  
?S:.  
?S:libsdirs:  
?S: This  
variable holds the directory names aka dirnames of the libraries  
?S: we found and accepted, duplicates are removed.  
?S:.  
?S:libspath:  
?S: This variable holds the directory names probed for libraries.  
?S:.  
?S:ignore\_versioned\_solibs:  
?S: This variable should be non-empty if non-versioned shared  
?S: libraries (libfoo.so.x.y) are to be ignored (because they

?S: cannot be linked against).

?S:.

?T:xxx yyy thislib thisdir libswanted libstyle

?D:libs="

?X:

?X: This order is chosen so that libraries -lndir, -ldir, -lucb, -lbsd,

?X: -lBSD, -lPW, and -lx only get used if there are unresolved

?X: routines at link time. Usually, these are backwards compatibility

?X: libraries, and may not be as reliable as the standard c library.

?X:

?X: The -lsocket -linet -lnsl order has been reported to be necessary

?X: for at least one SVR4 implementation.

?X: -lc must proceed -lucb or -lbsd for most Solaris applications.

?X: -lc\_s proceeds -lc so we pick up the shared library version,

if

?X: it is available.

?X:

?X: The ordering of c, posix, and cposix is a guess and almost

?X: certainly wrong on about half of all systems.

?X:

?X: Set proper libswanted in your private Myinit.U if needed.

?X:

?X:: default ordered library list

?X:libswanted='net socket inet bind nsl nm sdbm gdbm ndbm dbm malloc dl'

?X:libswanted="\$libswanted dld sun m c\_s c posix cposix ndir dir ucb"

?X:libswanted="\$libswanted bsd BSD PW x"

?X:

?INIT:: default library list

?INIT:libswanted="

?INIT:: some systems want to use only the non-versioned libso:s

?INIT:ignore\_versioned\_solibs="

?LINT:extern usecbacktrace

?LINT:extern libscheck

?LINT:extern p

?LINT:use uselongdouble

: Looking for optional libraries

echo " "

echo "Checking for optional libraries..." >&4

case "\$libs" in

'|') dflt="";;

\*) dflt="\$libs";;

esac

case "\$libswanted" in

") libswanted='c\_s';;

esac

?X: libsocks has nasty naming scheme.

?X: This does not work if somebody wants SOCKS 4.

case "\$usesocks" in

```

"$define") libswanted="$libswanted
socks5 socks5_sh" ;;
esac
case "$usecbacktrace" in
"$define") libswanted="$libswanted bfd" ;;
esac
case "$usequadmath" in
"$define") libswanted="$libswanted quadmath" ;;
esac
libsfound=""
libsfiles=""
libsdirs=""
libspath=""
for thisdir in $libpth $xlibpth; do
test -d $thisdir && libspath="$libspath $thisdir"
done
for thislib in $libswanted; do
for thisdir in $libspath; do
xxx=""
if test ! -f "$xxx" -a "X$ignore_versioned_solibs" = "X"; then
xxx=`ls $thisdir/lib$thislib.$so.[0-9] 2>/dev/null|sed -n 'p`
test -f "$xxx" && eval $libscheck
$test -f "$xxx" && libstyle=shared
xxx=`ls $thisdir/lib$thislib.[0-9].$so 2>/dev/null|sed -n 'p`
test -f "$xxx" && eval $libscheck
$test -f "$xxx" && libstyle=shared
fi
if test ! -f "$xxx"; then
xxx=$thisdir/lib$thislib.$so
test -f "$xxx" && eval $libscheck
$test -f "$xxx" && libstyle=shared
fi
if test ! -f "$xxx"; then
xxx=$thisdir/lib$thislib$_a
test -f "$xxx"
&& eval $libscheck
$test -f "$xxx" && libstyle=static
fi
if test ! -f "$xxx"; then
xxx=$thisdir/$thislib$_a
test -f "$xxx" && eval $libscheck
$test -f "$xxx" && libstyle=static
fi
if test ! -f "$xxx"; then
xxx=$thisdir/lib${thislib}_s$_a
test -f "$xxx" && eval $libscheck
$test -f "$xxx" && libstyle=static
$test -f "$xxx" && thislib=${thislib}_s

```

```

fi
if test ! -f "$xxx"; then
xxx=$thisdir/Slib$thislib$_a
 $test -f "$xxx" && eval $libscheck
$test -f "$xxx" && libstyle=static
fi
if $test -f "$xxx"; then
case "$libstyle" in
shared) echo "Found -l$thislib (shared)." ;;
static) echo "Found -l$thislib." ;;
*) echo "Found -l$thislib ($libstyle)." ;;
esac
case " $dflt " in
"-l$thislib ");;
*) dflt="$dflt -l$thislib"
 libsfound="$libsfound $xxx"
 yyy=`basename $xxx`
 libsfiles="$libsfiles $yyy"
 yyy=`echo $xxx|sed -e
"s%/$yyy\\\$%%"`
 case " $libdirs " in
 " $yyy ") ;;
 *) libdirs="$libdirs $yyy" ;;
 esac
;;
esac
break
fi
done
if $test ! -f "$xxx"; then
 echo "No -l$thislib."
fi
done
set X $dflt
shift
dflt="$*"
case "$libs" in
") dflt="$dflt";;
*) dflt="$libs";;
esac
case "$dflt" in
'|') dflt='none';;
esac

$cat <<EOM

```

In order to compile \$package on your machine, a number of libraries are usually needed. Include any other special libraries here as well.

Say "none" for none. The default list is almost always right.

EOM

```
echo " "
rp="What libraries to use?"
./myread
case "$ans" in
none) libs=' ';;
*) libs="$ans";;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/libs.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Warn_v7EXT.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: Warn_v7EXT.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:01:42 ram
?RCS: patch36: call ./v7 explicitly instead of relying on PATH
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:17 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit issues warnings to V7 sites that they are living dangerously.
?X: This unit needs to get mentioned in End.U to get included.
?X:
?MAKE:Warn_v7EXT: package Guess
?MAKE: -pick add $@ %<
: Warnings
if ./v7;
then
cat <<EOM
```

NOTE: the V7 compiler may ignore some #undefs that \$package uses. If so, you may get messages about redefining EXT. Some V7 compilers also have difficulties with #defines near buffer boundaries, so beware. You may have to play with the spacing in some .h files, believe it or not.

EOM

fi

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Warn_v7EXT.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_scorfl.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_scorfl.U,v \$

?RCS: Revision 3.0 1993/08/18 12:07:01 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_scorfl: cat Myread Oldconfig nametype Setvar

?MAKE: -pick add \$@ %<

?S:d\_scorfl:

?S: This variable conditionally defines the SCOREFULL symbol, which

?S: indicates to the C program that any scoreboard kept by the program

?S: should be kept on the basis of the user's full name as opposed to

?S: the user's login name.

?S:.

?C:SCOREFULL:

?C: This

symbol, if defined, indicates that any scoreboard kept by the

?C: program should be kept on the basis of the user's full name as opposed

?C: to the user's login name. If the user can change his full name he

?C: can enter multiple scores if this is defined.

?C:.

?H:#\$d\_scorfl SCOREFULL /\*\*/

?H:.

?LINT:set d\_scorfl

: see how they want the scoreboard kept

case "\$d\_scorfl" in

"\$define") dflt=y ;;

\*) dflt=n ;;

esac

case "\$nametype" in

other) val="\$undef" ;;

\*)



\$cat <<'EOM'

The scoreboard can be kept with one score per login name, or one score per full name. If users can change their full name, or if there is more than one person on your system with the same full name, you should keep the score by login name (the full name is still printed).

EOM

```
rp='Do you want the scoreboard kept by full name?'
. ./myread
case "$ans" in
y*) val="$define" ;;
*) val="$undef" ;;
esac
;;
esac
set d_scorfl
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_scorfl.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2001 Jarkko Hietaniemi

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_sresgproto: Hasproto i\_unistd

?MAKE: -pick add \$@ %<

?S:d\_sresgproto:

?S: This variable conditionally defines the HAS\_SETRESGID\_PROTO symbol,

?S: which indicates to the C program that the system provides

?S: a prototype for the setresgid() function. Otherwise, it is

?S: up to the program to supply one.

?S:.

?C:HAS\_SETRESGID\_PROTO:

?C: This symbol, if defined, indicates that the system provides

?C: a prototype for the setresgid() function. Otherwise, it is up

?C: to the program to supply one. Good guesses are

?C: extern

```
int setresgid(uid_t ruid, uid_t euid, uid_t suid);
?C:.
?H:#$d_sresgproto HAS_SETRESGID_PROTO /**/
?H:.
?LINT:set d_sresgproto
: see if prototype for setresgid is available
echo " "
set d_sresgproto setresgid $i_unistd unistd.h
eval $hasproto
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_sresgproto.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_sigsetmk.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_sigsetmk.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:23 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_sigsetmk: Csym Setvar
?MAKE: -pick add $@ %<
?S:d_sigsetmk:
?S: This variable conditionally defines the HAS_SIGSETMASK symbol, which
?S: indicates to the C program that the sigsetmask() routine is available
?S: to set current signal mask.
?S:.
?C:HAS_SIGSETMASK (SIGSETMASK):
?C: This symbol, if defined, indicates that the sigsetmask()
routine is
?C: available to set current signal mask. Otherwise, you should probably
?C: emulate this by using signal(), but fear race conditions...
?C:.
?H:#$d_sigsetmk HAS_SIGSETMASK /**/
?H:.
?LINT:set d_sigsetmk
: see if sigsetmask exists
echo " "
if set sigsetmask val -f d_sigsetmk; eval $csym; $val; then
```

```

echo 'sigsetmask() found.' >&4
val="$define"
else
echo "sigsetmask() not found -- We'll use signal()." >&4
val="$undef"
fi
set d_sigsetmk
eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_sigsetmk.U
```

No license file was found, but licenses were detected in source scan.

```
You may redistribute only under the terms of the Artistic Licence,
```

```
#
```

```
Beyond this point lie functions we may never compile.
```

```
#
```

```
#
```

```
DO NOT CHANGE A IOTA BEYOND THIS COMMENT!
```

```
The following table lists offsets of functions within the data section.
```

```
Should modifications be needed, change original code and rerun perload
```

```
with the -o option to regenerate a proper offset table.
```

```
#
```

```

 locate'dump_list 2938
locate'private_units 3071
locate'public_units 3858
 locate'units_path 5351
 main'build_extfun 16719
 main'build_filext 16368
 main'build_xref 25627
 main'complete_line 22216
 main'dump_obsolete 23859
 main'end_extraction 7714
main'extract_dependencies 19358
main'extract_filenames 15511
 main'gensym 29705
 main'init 1308
 main'init_depend
18208
 main'init_except 1534
main'init_extraction 6862
 main'locate_units 2321
 main'manifake 29793
 main'ofound 29321
 main'p_c 10283

```

```

 main'p_config 11589
 main'p_magic 13345
 main'p_make 8066
main'p_obsolete 9676
 main'p_shell 9830
 main'p_wanted 14245
 main'profile 30974
 main'q 17825
main'record_obsolete 22806
 main'tilda_expand 30619
 main'usage 1832

#
End of offset table and beginning of dataloading section.
#

General initializations
sub main'load_init {
 package main;
 &init_except; # Token which have upper-cased letters
 &init_depend; # The %Depend array records control line handling
}

Record the exceptions -- all symbols but these are lower case
sub main'load_init_except
{
 package main;
 $Except{'Author'}++;
 $Except{'Date'}++;
 $Except{'Header'}++;
 $Except{'Id'}++;
 $Except{'Locker'}++;
 $Except{'Log'}++;
 $Except{'RCSfile'}++;
 $Except{'Revision'}++;
 $Except{'Source'}++;
 $Except{'State'}++;
}

Print out metaxref's usage and exits
sub main'load_usage {
 package main;
 print STDERR <<EOM;
Usage: metaxref [-dhkmsV] [-f manifest] [-L dir]
-d : debug mode.
-f : use that file as manifest instead of MANIFEST.new.
-h : print this help message and exits.
-k : keep temporary directory.

```

```

-m : assume lots of memory and swap space.
-s : silent mode.
-L : specify main units repository.
-V : print version number and exits.
EOM
exit 1;
}

Locate the units and push their path in @ARGV (sorted alphabetically)
sub main'load_locate_units {
 package locate;
 print "Locating units...\n" unless $main'opt_s;
 local(*WD) = *main'WD; # Current working directory
 local(*MC) = *main'MC; # Public metaconfig library
 undef %myUlist; #
 Records private units paths
 undef %myUseen; # Records private/public conflicts
 &private_units; # Locate private units in @myUlist
 &public_units; # Locate public units in @ARGV
 @ARGV = sort @ARGV; # Sort it alphabetically
 push(@ARGV, sort @myUlist); # Append user's units sorted
 &dump_list if $main'opt_v; # Dump the list of units
}

Dump the list of units on stdout
sub locate'load_dump_list {
 package locate;
 print "\t";
 $, = "\n\t";
 print @ARGV;
 $, = ";";
 print "\n";
}

Scan private units
sub locate'load_private_units {
 package locate;
 return unless -d 'U'; # Nothing to be done if no 'U' entry
 local(*ARGV) = *myUlist; # Really fill in @myUlist
 local($MC) = $WD; # We are really in the working directory
 &units_path("U"); # Locate units in the U directory
 local($unit_name); # Unit's name (without .U)
 local(@kept); # Array of kept units
 # Loop over the units and remove duplicates (the first one seen is the one
 # we keep). Also set the
 %myUseen H table to record private units seen.
 foreach (@ARGV) {
 ($unit_name) = m|^.*(.*).U$|; # Get unit's name from path
 }
}

```

```

next if $myUseen{$unit_name}; # Already recorded
$myUseen{$unit_name} = 1; # Record private unit
push(@kept, $_); # Keep this unit
}
@ARGV = @kept;
}

Scan public units
sub locate'load_public_units {
package locate;
chdir($MC) || die "Can't find directory $MC.\n";
&units_path("U"); # Locate units in public U directory
chdir($WD) || die "Can't go back to directory $WD.\n";
local($path); # Relative path from $WD
local($unit_name); # Unit's name (without .U)
local(*Unit) = *main'Unit; # Unit is a global from main package
local(@kept); # Units kept
local(%warned); # Units which have already issued a message
Loop over all the units and keep only the ones that were not found in
the user's U directory. As it is possible two or more units with the same
name be found in
foreach (@ARGV) {
($unit_name) = m|^.*\/(.*)\.U$; #
Get unit's name from path
next if $warned{$unit_name}; # We have already seen this unit
$warned{$unit_name} = 1; # Remember we have warned the user
if ($myUseen{$unit_name}) { # User already has a private unit
$path = $Unit{$unit_name}; # Extract user's unit path
next if $path eq $_; # Same path, we must be in mcon/
$path =~ s|^$WD\/||o; # Weed out leading working dir path
print " Your private $path overrides the public one.\n"
unless $main'opt_s;
} else {
push(@kept, $_); # We may keep this one
}
}
@ARGV = @kept;
}

Recursively locate units in the directory. Each file ending with .U has to be
a unit. Others are stat()'ed, and if they are a directory, they are also
scanned through. The $MC and @ARGV variable are dynamically set by the caller.
sub locate'load_units_path {
package locate;
local($dir) = @_; # Directory where units are to be found
local(@contents); # Contents of the directory
local($unit_name); # Unit's name,

```

```

without final .U
local($path); # Full path of a unit
local(*Unit) = *mainUnit; # Unit is a global from main package
unless (opendir(DIR, $dir)) {
 warn("Cannot open directory $dir.\n");
 return;
}
print "Locating in $MC/$dir...\n" if $main'opt_v;
@contents = readdir DIR; # Slurp the whole thing
closedir DIR; # And close dir, ready for recursion
foreach (@contents) {
 next if $_ eq '.' || $_ eq '..';
 if (/\.U$/) { # A unit, definitely
 ($unit_name) = /^(.*)\.U$/;
 $path = "$MC/$dir/$_"; # Full path of unit
 push(@ARGV, $path); # Record its path
 if (defined $Unit{$unit_name}) { # Already seen this unit
 if ($main'opt_v) {
 ($path) = $Unit{$unit_name} =~ m/^(.*)/.*|;
 print " We've already seen $unit_name.U in $path.\n";
 }
 } else {
 $Unit{$unit_name} = $path; # Map name to path
 }
 }
 next;
}
We have found a file which does not look like a unit. If it is a
directory, then scan it. Otherwise skip the file.
unless
(-d "$dir/$_") {
 print " Skipping file $_ in $dir.\n" if $main'opt_v;
 next;
}
&units_path("$dir/$_");
print "Back to $MC/$dir...\n" if $main'opt_v;
}
}

Initialize the extraction process by setting some variables.
We return a string to be eval to do more customized initializations.
sub main'load_init_extraction {
 package main;
 open(INIT, ">$WD/.MT/Init.U") ||
 die "Can't create .MT/Init.U\n";
 open(CONF_H, ">$WD/.MT/Config_h.U") ||
 die "Can't create .MT/Config_h.U\n";
 open(EXTERN, ">$WD/.MT/Extern.U") ||
 die "Can't create .MT/Extern.U\n";
}

```

```

open(MAGIC_H, ">$WD/.MT/Magic_h.U") ||
die "Can't create .MT/Magic_h.U\n";

$C_symbol = "; # Current symbol seen in ?C: lines
$S_symbol = "; # Current symbol seen in ?S: lines
$M_symbol = "; # Current symbol seen in ?M: lines
$heredoc = "; # Last "here" document symbol seen
$heredoc_nosubst = 0; # True for <<'EOM' here docs
$condlist = "; # List of conditional symbols
$defined =
"; # List of defined symbols in the unit
$body = "; # No procedure to handle body
$ending = "; # No procedure to clean-up
}

End the extraction process
sub main'load_end_extraction {
package main;
close EXTERN; # External dependencies (libraries, includes...)
close CONF_H; # C symbol definition template
close INIT; # Required initializations
close MAGIC; # Magic C symbol redefinition templates

print $dependencies if $opt_v; # Print extracted dependencies
}

Process the ?MAKE: line
sub main'load_p_make {
package main;
local($_) = @_;
local(@ary); # Locally defined symbols
local(@dep); # Dependencies
if (/^\[w+]*:/) { # Main dependency rule
s/^\s*//; # Remove leading spaces
chop;
s/:(.*)//;
@dep = split(' ', $1); # Dependencies
@ary = split(' '); # Locally defined symbols
foreach $sym (@ary) {
Symbols starting with a '+' are meant for internal use only.
next if $sym =~ s/^\+//;
Only symbols starting with
a lowercase letter are to
appear in config.sh, excepted the ones listed in Except.
if ($sym =~ /^[_a-z]/ || $Except{$sym}) {
$shmaster{"\$$sym"} = undef;
push(@Master, "?$unit:$sym=\n"); # Initializations
}
}
}

```



```

}
$condlist = ""; # List of conditional symbols
local($sym); # Symbol copy, avoid @dep alteration
foreach $dep (@dep) {
 if ($dep =~ /\^[A-Za-z]/) {
 ($sym = $dep) =~ s/^\+||;
 $condlist .= "$sym ";
 push(@Cond, $sym) unless $condseen{$sym};
 $condseen{$sym}++; # Conditionally wanted
 }
}
Append to already existing dependencies. The 'defined' variable
is set for &write_out, used to implement ?L: and ?I: canvas. It is
reset each time a new unit is parsed.
NB: leading '+' for defined symbols (internal use only) have been
removed at this point, but conditional dependencies still bear it.
$defined = join(' ', @ary); # Symbols defined by this unit
$dependencies .= $defined . ' ' . join(' ', @dep) . "\n";
$dependencies
.= "-cond $condlist\n" if $condlist;
} else {
 $dependencies .= $_; # Building rules
}
}

Process the ?O: line
sub main'load_p_obsolete {
 package main;
 local($_) = @_;
 $Obsolete{"$unit.U"} .= $_; # Message(s) to print if unit is used
}

Process the ?S: lines
sub main'load_p_shell {
 package main;
 local($_) = @_;
 unless ($s_symbol) {
 if (/^\(w+).*:/) {
 $s_symbol = $1;
 print " ?S: $s_symbol\n" if $opt_d;
 } else {
 warn "\"$file\", line $.: syntax error in ?S: construct.\n";
 $s_symbol = $unit;
 return;
 }
 }
 # Deal with obsolete symbol list (enclosed between parenthesis)
 &record_obsolete("\$$s_symbol") if /\(/;
}

```

```

m|^\.\s*$| && ($s_symbol = ""); # End of comment
}

Process the ?C: lines
sub main'load_p_c {
 package main;
 local($_) = @_;
 unless ($c_symbol) {
 if (s/^(w+)\s*~\s*(S+)\s*(.*)/$1 $3:/) {
 # The ~ operator aliases the main C symbol to another symbol which
 # is to be used instead for definition in config.h. That is to say,
 #
 the line '?C:SYM ~ other:' would look for symbol 'other' instead,
 # and the documentation for symbol SYM would only be included in
 # config.h if 'other' were actually wanted.
 $c_symbol = $2; # Alias for definition in config.h
 print " ?C: $1 ~ $c_symbol\n" if $opt_d;
 } elsif (/^(w+)\s*(.*)/) {
 # Default behaviour. Include in config.h if symbol is needed.
 $c_symbol = $1;
 print " ?C: $c_symbol\n" if $opt_d;
 } else {
 warn "\"$file\"", line $.: syntax error in ?C: construct.\n";
 $c_symbol = $unit;
 return;
 }
 # Deal with obsolete symbol list (enclosed between parenthesis) and
 # make sure that list do not appear in config.h.SH by removing it.
 &record_obsolete("$_") if /(/;
 s/\s*(.*)//; # Get rid of obsolete symbol list
 }
 s/^(w+)\s*|?$c_symbol:/* $1| || # Start of comment
 (s/^\.\s*$|?$c_symbol: *\n| && ($c_symbol = ", 1)) || # End of comment
 s/^(.*)|?$c_symbol: *$1|; # Middle of comment
 &p_config("$_"); # Add comments
 to config.h.SH
}

```

```

Process the ?H: lines
sub main'load_p_config {
 package main;
 local($_) = @_;
 local($constraint); # Constraint to be used for inclusion
 ++$old_version if s/^\?%1//; # Old version
 if (s/^(w+)\s*//) { # Remove leading '?var:'
 $constraint = $1; # Constraint is leading '?var'
 } else {
 $constraint = ""; # No constraint
 }
}

```

```

}
if (/^#.*$/) { # Look only for cpp lines
if (m|^#\$(\w+)\s+(\w+).*\$(\w+)|) {
Case: #d_var VAR "$var"
$constraint = $2 unless $constraint;
print " ?H: ($constraint) #$$$1 $2 \\"$3\"\\n" if $opt_d;
$cmaster{$2} = undef;
$swanted{$2} = "$1\\n$3";
} elsif (m|^#define\s+(\w+)\s*((.*)\s+(\w+)|) {
Case: #define VAR(x) $var
$constraint = $1 unless $constraint;
print " ?H: ($constraint) #define $1($2) \\"$3\"\\n" if $opt_d;
$cmaster{$1} = undef;
$swanted{$1} = $3;
} elsif (m|^#\sdefine\s+(\w+)|) {
Case: #define VAR
$constraint = $1 unless $constraint;
print " ?H: ($constraint)
#define $1\\n" if $opt_d;
$cmaster{$1} = undef;
$swanted{$1} = "define\\n$unit";
} elsif (m|^#\$(\w+)\s+(\w+)|) {
Case: #d_var VAR
$constraint = $2 unless $constraint;
print " ?H: ($constraint) #$$$1 $2\\n" if $opt_d;
$cmaster{$2} = undef;
$swanted{$2} = $1;
} elsif (m|^#define\s+(\w+).*\$(\w+)|) {
Case: #define VAR "$var"
$constraint = $1 unless $constraint;
print " ?H: ($constraint) #define $1 \\"$2\"\\n" if $opt_d;
$cmaster{$1} = undef;
$swanted{$1} = $2;
} else {
$constraint = $unit unless $constraint;
print " ?H: ($constraint) $_" if $opt_d;
}
} else {
print " ?H: ($constraint) $_" if $opt_d;
}
}
If not a single ?H:. line, add the leading constraint
s/^\.// || s/^/?$constraint:/;
print CONF_H;
}

```

```

Process the ?M: lines
sub main'load_p_magic {
package main;

```

```

local($_) = @_;
unless ($m_symbol) {
 if (/^(w+):s*([\w\s]*)\n$/) {
 # A '?M:sym:' line implies a '?W:%<:sym' since we'll need to know
 # about the wantedness
 of sym later on when building confmagic.h.
 # Buf is sym is wanted, then the C symbol dependencies have to
 # be triggered. That is done by introducing sym in the mwanted
 # array, known by the Wanted file construction process...
 $m_symbol = $1;
 print " ?M: $m_symbol\n" if $opt_d;
 $mwanted{$m_symbol} = $2; # Record C dependencies
 &p_wanted("$unit:$m_symbol"); # Build fake ?W: line
 } else {
 warn "\"$file\", line $.: syntax error in ?M: construct.\n";
 }
 return;
}
(s/^\s*$/?$m_symbol:\n/ && ($m_symbol = ", 1)) || # End of block
s/^\s*$/?:
print MAGIC_H; # Definition goes to confmagic.h
print " ?M: $_" if $opt_d;
}

Process the ?W: lines
sub main'load_p_wanted {
 package main;
 # Syntax is ?W:<shell symbols>:<C symbols>
 local($active) = $_[0] =~ /^([:]*):/; # Symbols to activate
 local($look_symbols) = $_[0] =~ /:(.*)/; # When those are used
 local(@syms) = split(/ /, $look_symbols); # Keep original spacing info
 $active =~ s/\s+/\n/g; #
 One symbol per line

 # Concatenate quoted strings, so saying something like 'two words' will
 # be introduced as one single symbol "two words".
 local(@symbols); # Concatenated symbols to look for
 local($concat) = ""; # Concatenation buffer
 foreach (@syms) {
 if (s/^\//) {
 $concat = $_;
 } elsif (s/\'$//) {
 push(@symbols, $concat . '\'' . $_);
 $concat = "";
 } else {
 push(@symbols, $_) unless $concat;
 $concat .= '\'' . $_ if $concat;
 }
 }
}

```

```

}

local($fake); # Fake unique shell symbol to reparent C symbol

Now record symbols in master and wanted tables
foreach (@symbols) {
 $cmaster{$_} = undef; # Asks for look-up in C files
 # Make a fake C symbol and associate that with the wanted symbol
 # so that later we know where it comes from
 $fake = &gensym;
 $swanted{$_} = "$fake"; # Attached to this symbol
 push(@Master, "?$unit:$fake="); # Fake initialization
}
}

Extract filenames from manifest
sub main'load_extract_filenames {
 package
 main;
 &build_filext; # Construct &is_cfile and &is_shfile
 print "Extracting filenames (C and SH files) from $NEWMANI...\n"
 unless $opt_s;
 open(NEWMANI,$NEWMANI) || die "Can't open $NEWMANI.\n";
 local($file);
 while (<NEWMANI>) {
 ($file) = split(' ');
 next if $file eq 'config_h.SH'; # skip config_h.SH
 next if $file eq 'Configure'; # also skip Configure
 next if $file eq 'confmagic.h' && $opt_M;
 push(@SHlist, $file) if &is_shfile($file);
 push(@clist, $file) if &is_cfile($file);
 }
}

Construct two file identifiers based on the file suffix: one for C files,
and one for SH files (using the $cext and $shext variables) defined in
the .package file.
The &is_cfile and &is_shfile routine may then be called to know whether
a given file is a candidate for holding C or SH symbols.
sub main'load_build_filext {
 package main;
 &build_extfun('is_cfile', $cext, '.c .h .y .l');
 &build_extfun('is_shfile', $shext, '.SH');
}

Build routine $name to identify extensions
listed in $exts, ensuring
that $minimum is at least matched (both to be backward compatible with

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```

older .package and because it is really the minimum required).
sub main'load_build_extfun {
 package main;
 local($name, $exts, $minimum) = @_ ;
 local(@single); # Single letter dot extensions (may be grouped)
 local(@others); # Other extensions
 local(%seen); # Avoid duplicate extensions
 foreach $ext (split(' ', "$exts $minimum")) {
 next if $seen{$ext}++;
 if ($ext =~ s/^\.(\\w)$/$1/) {
 push(@single, $ext);
 } else {
 # Convert into perl's regexp
 $ext =~ s/\./\./g; # Escape .
 $ext =~ s/\?/\./g; # ? turns into .
 $ext =~ s/*/\./g; # * turns into .*
 push(@others, $ext);
 }
 }
 local($fn) = &q(<<EOF); # Function being built
:sub $name {
: local(\$_) = \@_ ;
EOF
 local($single); # Single regexp: .c .h grouped into .[ch]
 $single = \[' . join(" ", @single) . '] if @single;
 $fn .= &q(<<EOL) if @single;
: return 1 if /$single$/;
EOL
 foreach $ext (@others)
 {
 $fn .= &q(<<EOL);
: return 1 if /ext/;
EOL
 }
 $fn .= &q(<<EOF);
: 0; # None of the extensions may be applied to file name
:}
EOF
 print $fn if $opt_d;
 eval $fn;
 chop($@) && die "Can't compile '$name':\n$fn\n$@\n";
}

Remove ':' quotations in front of the lines
sub main'load_q {
 package main;
 local($_) = @_ ;
 local($*) = 1;

```

```

s/^://g;
$_;
}

The %Depend array records the functions we use to process the configuration
lines in the unit, with a special meaning. It is important that all the
known control symbols be listed below, so that metalint does not complain.
The %Lcmp array contains valid layouts and their comparison value.
sub main'load_init_depend {
 package main;
 %Depend = (
 'MAKE', 'p_make', # The ?MAKE: line records dependencies
 'INIT', 'p_init', # Initializations printed verbatim
 'LINT', 'p_lint', # Hints for metalint
 'RCS', 'p_ignore', # RCS comments are ignored
 'C', 'p_c', # C symbols
 'D', 'p_default', # Default value
 for conditional symbols
 'E', 'p_example', # Example of usage
 'F', 'p_file', # Produced files
 'H', 'p_config', # Process the config.h lines
 'I', 'p_include', # Added includes
 'L', 'p_library', # Added libraries
 'M', 'p_magic', # Process the confmagic.h lines
 'O', 'p_obsolete', # Unit obsolescence
 'P', 'p_public', # Location of PD implementation file
 'S', 'p_shell', # Shell variables
 'T', 'p_temp', # Shell temporaries used
 'V', 'p_visible', # Visible symbols like 'rp', 'dflt'
 'W', 'p_wanted', # Wanted value for interpreter
 'X', 'p_ignore', # User comment is ignored
 'Y', 'p_layout', # User-defined layout preference
);
 %Lcmp = (
 'top', -1,
 'default', 0,
 'bottom', 1,
);
}

Extract dependencies from units held in @ARGV
sub main'load_extract_dependencies {
 package main;
 local($proc); # Procedure used to handle a ctrl line
 local($file); # Current file scanned
 local($dir, $unit); # Directory
 and unit's name
 local($old_version) = 0; # True when old-version unit detected

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local($mc) = "$MC/U"; # Public metaconfig directory
local($line); # Last processed line for metalint

printf "Extracting dependency lists from %d units...\n", $#ARGV+1
unless $opt_s;

chdir $WD; # Back to working directory
&init_extraction; # Initialize extraction files
$dependencies = ' ' x (50 * @ARGV); # Pre-extend
$dependencies = "";

We do not want to use the <> construct here, because we need the
name of the opened files (to get the unit's name) and we want to
reset the line number for each files, and do some pre-processing.

file: while ($file = shift(@ARGV)) {
close FILE; # Reset line number
$old_version = 0; # True if unit is an old version
if (open(FILE, $file)) {
($dir, $unit) = ("", $file)
unless ($dir, $unit) = ($file =~ m|(.*)/(.*)|);
$unit =~ s|\.U$||; # Remove extension
} else {
warn("Can't open $file.\n");
}
If
unit is in the standard public directory, keep only the unit name
$file = "$unit.U" if $dir eq $mc;
print "$dir/$unit.U:\n" if $opt_d;
line: while (<FILE>) {
$line = $_; # Save last processed unit line
if (s/^\?([\w\~]+)//) { # We may have found a control line
$proc = $Depend{$1}; # Look for a procedure to handle it
unless ($proc) { # Unknown control line
$proc = $1; # p_unknown expects symbol in '$proc'
eval '&p_unknown'; # Signal error (metalint only)
next line; # And go on next line
}
Long lines may be escaped with a final backslash
$_ .= &complete_line(FILE) if s/\\s*$//;
Run macros substitutions
s/%</$unit/g; # %< expands into the unit's name
if (s/%*/$unit/) {
%* expanded into the entire set of defined symbols
in the old version. Now it is only the unit's name.
++$old_version;
}
eval { &$proc($_) }; # Process the line

```



```

 } else {
 next file unless $body; # No procedure to
handle body
 do {
 $line = $_; # Save last processed unit line
 eval { &$body($_) }; # From now on, it's the unit body
 } while (defined ($_ = <FILE>));
 next file;
 }
} continue {
 warn(" Warning: $file is a pre-3.0 version.\n") if $old_version;
 &$Sending($line) if $Sending; # Post-processing for metalint
}

&end_extraction; # End the extraction process
}

The first line was escaped with a final \ character. Every following line
is to be appended to it (until we found a real \n not escaped). Note that
the leading spaces of the continuation line are removed, so any space should
be added before the former \ if needed.
sub main'load_complete_line {
 package main;
 local($file) = @_; # File where lines come from
 local($_);
 local($read) = ""; # Concatenation of all the continuation lines found
 while (<$file>) {
 s/^\s+//; # Remove leading spaces
 if (s/\\s*$//) { # Still followed by a continuation line
 $read .= $_;
 } else { #
 We've reached the end of the continuation
 return $read . $_;
 }
 }
}

Record obsolete symbols association (new versus old), that is to say for a
given old symbol, $Obsolete{'old'} = new symbol to be used. A '$' is prepended
for all shell variables
sub main'load_record_obsolete {
 package main;
 local($_) = @_;
 local(@obsoleted); # List of obsolete symbols
 local($symbol); # New symbol which must be used
 local($dollar) = s/^\$/ ? '$:.'; # The '$' or a null string
 # Syntax for obsolete symbols specification is

```



```

local(%seen);
foreach $key (sort keys %ofound) {
($file, $old, $new) = ($key =~ /^(S+)\s+(\S+)\s+(\S+)/);
write(OBSOLETE) unless $file eq 'XXX';
next unless $opt_o; # Obsolete mapping done only with -o
next if $seen{$old}++; # Already remapped, thank you
if ($new =~ s/^\$//) { # We found an obsolete shell symbol
$old =~ s/^\$//;
print OBSOL_SH "$old=\"$$new\"";
} else { # We found an obsolete C symbol
print OBSOL_H "#ifdef $new";
print OBSOL_H "#define $old $new";
print OBSOL_H "#endif";
}
}
close OBSOLETE;
close OBSOL_H;
close OBSOL_SH;
if (-s 'Obsolete') {
print "*** Obsolete symbols found -- see file 'Obsolete' for a list.";
} else {
unlink 'Obsolete';
}
undef
%ofound; # Not needed any more
}

Parse files and build cross references
sub main'load_build_xref {
package main;
print "Building cross-reference files...\n" unless $opt_s;
unless (-f $NEWMANI) {
&manifake;
die "No $NEWMANI--don't know who to scan.\n" unless -f $NEWMANI;
}

open(FUI, "|sort | uniq >I.fui") || die "Can't create I.fui.\n";
open(UIF, "|sort | uniq >I.uif") || die "Can't create I.uif.\n";

local($search); # Where to-be-eval'd script is held
local($_) = '' x 50000 if $opt_m; # Pre-extend pattern search space
local(%visited); # Records visited files
local(%lastfound); # Where last occurrence of key was

Map shell symbol names to units by reverse engineering the @Master array
which records all the known shell symbols and the units where they
are defined.

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```

foreach $init (@Master) {
 $init =~ /\^(?(*):(*)=/' && ($shwanted{"\$$2"} = $1);
}

Now we are a little clever, and build a loop to eval so that we don't
have to recompile
our patterns on every file. We also use "study" since
we are searching the same string for many different things. Hauls!

if (@clist) {
 print " Scanning .[chyl] files for symbols...\n" unless $opt_s;
 $search = ' ' x (40 * (@cmaster + @ocmaster)); # Pre-extend
 $search = "while (<>) {study;\n"; # Init loop over ARGV
 foreach $key (keys(cmaster)) {
 $search .= "\$cmaster{'$key'} .= \"\$ARGV#\" if /\b$key\b/;\n";
 }
 foreach $key (grep(!/\$/ , keys %Obsolete)) {
 $search .= "&ofound('$key') if /\b$key\b/;\n";
 }
 $search .= "}\n"; # terminate loop
 print $search if $opt_d;
 @ARGV = @clist;
 # Swallow each file as a whole, if memory is available
 undef $/ if $opt_m;
 eval $search;
 eval "";
 $/ = "\n";
 while (($key,$value) = each(cmaster)) {
 next if $value eq "";
 foreach $file (sort(split(/#/ , $value))) {
 next if $file eq "";
 # %cwanted may contain value separated by \n -- take last one
 @sym = split(/\n/ , $cwanted{$key});
 $sym
 = pop(@sym);
 $shell = "\$$sym";
 print FUI
 pack("A35", $file),
 pack("A20", "$shwanted{$shell}.U"),
 $key, "\n";
 print UIF
 pack("A20", "$shwanted{$shell}.U"),
 pack("A25", $key),
 $file, "\n";
 }
 }
}

```

```

undef @clist;
undef %cwanted;
undef %cmaster; # We're not building Configure, we may delete this
%visited = ();
%lastfound = ();

if (@SHlist) {
 print " Scanning .SH files for symbols...\n" unless $opt_s;
 $search = ' ' x (40 * (@shmaster + @oshmaster)); # Pre-extend
 $search = "while (<>) {study;\n";
 # All the keys already have a leading '$'
 foreach $key (keys(shmaster)) {
 $search .= "\$shmaster{'$key'} .= \"\$ARGV#\" if /\$key\b/;\n";
 }
 foreach $key (grep (/^\$/ , keys %Obsolete)) {
 $search .= "&ofound('$key') if /\$key\b/;\n";
 }
 $search .= "}\n";
 print $search if $opt_d;
 @ARGV = @SHlist;
 # Swallow each file as a whole, if memory is available
 undef $/ if $opt_m;
 eval $search;
 eval "";
 $/ =
 "\n";
 while (($key,$value) = each(shmaster)) {
 next if $value eq "";
 foreach $file (sort(split(/#/ , $value))) {
 next if $file eq "";
 print FUI
 pack("A35", $file),
 pack("A20", "$shwanted{$key}.U"),
 $key, "\n";
 print UIF
 pack("A20", "$shwanted{$key}.U"),
 pack("A25", $key),
 $file, "\n";
 }
 }

 close FUI;
 close UIF;

 # If obsolete symbols were found, write an Obsolete file which lists where
 # each of them appear and the new symbol to be used. Also write Obsol_h.U
 # and Obsol_sh.U in .MT for later perusal.

```

```

&dump_obsolete; # Dump obsolete symbols if any

Clean-up memory by freeing useless data structures
undef @SHlist;
undef %shmaster;
}

This routine records matches of obsolete keys (C or shell)
sub main'load_ofound {
 package main;
 local($key) = @_ ;
 local($_) = $Obsolete{$key}; # Value of new symbol
 $ofound{"$ARGV $key $_"}++; # Record obsolete match
 $cmaster{$_} .= "$ARGV#" unless /^$/; # A C hit
 $shmaster{$_}
 .= "$ARGV#" if /^$/; # Or a shell one
}

Create a new symbol name each time it is invoked. That name is suitable for
usage as a perl variable name.
sub main'load_gensym {
 package main;
 $Gensym = 'AAAAA' unless $Gensym;
 $Gensym++;
}

sub main'load_manifake {
 package main;
 # make MANIFEST and MANIFEST.new say the same thing
 if (! -f $NEWMANI) {
 if (-f $MANI) {
 open(IN,$MANI) || die "Can't open $MANI";
 open(OUT,">$NEWMANI") || die "Can't create $NEWMANI";
 while (<IN>) {
 if (/---/) {
 # Everything until now was a header...
 close OUT;
 open(OUT,">$NEWMANI") ||
 die "Can't recreate $NEWMANI";
 next;
 }
 s/^\s*(\S+\s+)[0-9]*\s*(.*)/$1$2/;
 }
 print OUT;
 print OUT "\n" unless /\n$/; # If no description
 }
 close IN;
 }
 close OUT;
}

```

```

 }
 else {
die "You need to make a $NEWMANI file, with names and descriptions.\n";
 }
}
}
}

#
Perform ~name expansion ala ksh...
(banish csh from your vocabulary ;-)
sub main'load_tilda_expand {
package main;
local($path) = @_ ;
return $path unless $path =~ /^~/;
$path =~ s:^(^/|+):(getpwnam($1))[$+7]:e; # ~name
$path =~ s:^~:$ENV{'HOME'} || (getpwuid($<))[$+7]:e; # ~
$path;
}

Set up profile components into %Profile, add any profile-supplied options
into @ARGV and return the command invocation name.
sub main'load_profile {
package main;
local($profile) = &tilda_expand($ENV{'DIST'} || '~/dist_profile');
local($me) = $0; # Command name
$me =~ s|.|(.*)$1|; # Keep only base name
return $me unless -s $profile;
local(*PROFILE); # Local file descriptor
local($options) = ""; # Options we get back from profile
unless (open(PROFILE, $profile)) {
warn "$me: cannot open $profile: $!\n";
return;
}
local($_);
local($component);
while (<PROFILE>) {
next if /^s*#/; # Skip comments
next unless /^$me/o;
if (s/^$me://o) { # progname: options
chop;
$options
.= $_; # Merge options if more than one line
}
elsif (s/^$me-([^\s]+)//o) { # progname-component: value
$component = $1;
chop;
s/^\s+//; # Trim leading and trailing spaces
s/\s+$//;

```

```
$Profile{$component} = $_;
}
}
close PROFILE;
return unless $options;
require 'shellwords.pl';
local(@opts);
eval '@opts = &shellwords($options)'; # Protect against mismatched quotes
unshift(@ARGV, @opts);
return $me; # Return our invocation name
}
```

```
#
End of dataloading section.
#
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/metaxref
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998, Jarkko Hietaniemi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?X:

?X: Useless unit dropped. Use randfunc instead.

?X:

?LINT:empty

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/randbits.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root



```

?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: Config_sh.U,v $
?RCS: Revision 3.0.1.3 1997/02/28 14:57:53 ram
?RCS: patch61: added support for src.U
?RCS:
?RCS: Revision 3.0.1.2 1995/01/11 14:53:31 ram
?RCS: patch45: moved path stripping from d_portable.U to end of Configure
?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 15:50:37 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:04:48 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit ends up producing the config.sh
 script, which contains all the
?X: definitions figured out by Configure. The add.Config_sh command knows
?X: which variables need to be remembered. It also adds the EOT (ends the
?X: here document redirection with variable substitution).
?X:
?MAKE:Config_sh: cf_time cf_by test spitshell startsh myuname Myread \
 End Obsol_sh Loc +d_portable package src cat sed
?MAKE: -pick add.Config_sh $@ %<
?MAKE: -pick add $@ ./Obsol_sh
?MAKE: -pick close.Config_sh $@ %<
?F:!config.over !config.arch
?T:file sfile xsed
?LINT:unclosed EOT
: back to where it started
if test -d ../UU; then
 cd ..
fi

: configuration may be unconditionally patched via a 'config.arch' file
if $test -f config.arch; then
 echo "I see a config.arch file, loading it." >&4
 . ./config.arch
fi

: configuration may be patched via a 'config.over' file
if $test -f config.over; then
 echo " "
 dflt=y
 rp='I see a config.over file. Do you wish to load it?'
 . UU/myread
 case "$ans" in

```

```

n*) echo "OK, I'll ignore it.>";
*) ./config.over
echo
"Configuration override changes have been loaded."
;;
esac
fi

```

```
@if d_portable
```

```
: in case they want portability, strip down executable paths
```

```
?X:
```

```
?X: Strip down paths in located executables. For each file, e.g. vi, there
```

```
?X: is a $vi variable whose value is for instance '/usr/bin/vi'. By resetting
```

```
?X: $vi to 'vi', we rely on the PATH variable to locate the executable...
```

```
?X: In order to allow vi='/usr/bin/nvi' which will strip down to vi='nvi',
```

```
?X: we can't just say 'eval $file="\$file"', we have to recourse to sed.
```

```
?X: We don't use basename since it is less portable than sed.
```

```
?X:
```

```
case "$d_portable" in
```

```
"$define")
```

```
echo " "
```

```
echo "Stripping down executable paths..." >&4
```

```
xsed=$sed
```

```
for file in $loclist $trylist; do
```

```
eval sfile="\$file"
```

```
sfile=`echo $sfile | $xsed -e 's,.*^(.*)\,1,'`
```

```
eval $file="$sfile"
```

```
done
```

```
;;
```

```
esac
```

```
@end
```

```
: create config.sh file
```

```
echo " "
```

```
echo "Creating config.sh..." >&4
```

```
$spitshell <<EOT >config.sh
```

```
$startsh
```

```
#
```

```
This file was produced by running the
```

```
Configure script. It holds all the
```

```
definitions figured out by Configure. Should you modify one of these values,
```

```
do not forget to propagate your changes by running "Configure -der". You may
```

```
instead choose to run each of the .SH files by yourself, or "Configure -S".
```

```
#
```

```
Package name : $package
```

```
Source directory : $src
```

```
Configuration time: $cf_time
```

```
Configured by : $cf_by
Target system : $myuname
```

EOT

```
?X: Command line options are saved by the Options.U unit in the
?X: temporary file UU/cmdline.opt
$stest -f UU/cmdline.opt && $cat UU/cmdline.opt >> config.sh
$spitshell <<EOT >>config.sh
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Config_sh.U
```

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?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_llround: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_llround:

?S: This variable conditionally defines the HAS\_LLROUND symbol, which

?S: indicates to the C program that the llround() routine is available

?S: to return the long long value nearest to x.

?S:.

?C:HAS\_LLROUND:

?C: This symbol, if defined, indicates that the llround routine is

?C: available to return the nearest long long value.

?C:.

?H:#\$d\_llround HAS\_LLROUND /\*\*/

?H:.

?LINT:set d\_llround

: see if llround exists

set llround d\_llround

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_llround.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_tmpnam\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

```

?MAKE:d_tmpnam_r tmpnam_r_proto: Inlibc Protochk Hasproto i_systypes \
 usethreads extern_C
?MAKE: -pick add $@ %<
?S:d_tmpnam_r:
?S: This variable conditionally defines the HAS_TMPNAM_R symbol,
?S: which indicates to the C program that the tmpnam_r()
?S: routine is available.
?S:.
?S:tmpnam_r_proto:
?S: This variable encodes the prototype of tmpnam_r.
?S: It is zero if d_tmpnam_r is undef, and one of the
?S: REENTRANT_PROTO_T_ABC macros of reentr.h if d_tmpnam_r
?S: is defined.
?S:.
?C:HAS_TMPNAM_R:
?C: This symbol, if defined, indicates that the tmpnam_r routine
?C: is available to tmpnam re-entrantly.
?C:.
?C:TMPNAM_R_PROTO:
?C: This
 symbol encodes the prototype of tmpnam_r.
?C: It is zero if d_tmpnam_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_tmpnam_r
?C: is defined.
?C:.
?H:#$d_tmpnam_r HAS_TMPNAM_R /**/
?H:#define TMPNAM_R_PROTO $tmpnam_r_proto /**/
?H:.
?T:try hdrs d_tmpnam_r_proto
: see if tmpnam_r exists
set tmpnam_r d_tmpnam_r
eval $inlibc
case "$d_tmpnam_r" in
"$define")
 hdrs="$i_systypes sys/types.h define stdio.h "
 case "$d_tmpnam_r_proto:$usethreads" in
":define") d_tmpnam_r_proto=define
 set d_tmpnam_r_proto tmpnam_r $hdrs
 eval $hasproto ;;
*) ;;
esac
case "$d_tmpnam_r_proto" in
define)
 case "$tmpnam_r_proto" in
"|0) try='char* tmpnam_r(char*);'
./protochk "$extern_C $try" $hdrs && tmpnam_r_proto=B_B ;;
esac
case "$tmpnam_r_proto" in

```

```

"|0) d_tmpnam_r=undef
tmpnam_r_proto=0
echo "Disabling tmpnam_r, cannot determine prototype." >&4 ;;
*) case "$tmpnam_r_proto" in
REENTRANT_PROTO*) ;;
*) tmpnam_r_proto="REENTRANT_PROTO_$tmpnam_r_proto"
;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "tmpnam_r has no prototype, not using it." >&4 ;;
esac
d_tmpnam_r=undef
tmpnam_r_proto=0
;;
esac
;;
*) tmpnam_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_tmpnam_r.U

```

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_fpgetround: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fpgetround:

?S: This variable conditionally defines HAS\_FPGETROUND if fpgetround()

?S: is available to get the floating point rounding mode.

?S:.

?C:HAS\_FPGETROUND:

?C: This symbol, if defined, indicates that the fpgetround routine is

?C: available to get the floating point rounding mode.

?C:.

?H:#\$d\_fpgetround HAS\_FPGETROUND /\*\*/

?H:.

?LINT:set d\_fpgetround

: see if fpgetround exists

set fpgetround d\_fpgetround

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fpgetround.U

No license file was found, but licenses were detected in source scan.

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?RCS:

?MAKE:d\_lroundl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_lroundl:

?S: This variable conditionally defines the HAS\_LROUNDL symbol, which

?S: indicates to the C program that the lroundl() routine is available

?S: to return the integral value nearest to x away from zero.

?S:.

?C:HAS\_LROUNDL:

?C: This symbol, if defined, indicates that the lroundl routine is

?C: available to return the nearest integral value away from zero of

?C: the long double argument value.

?C:.

?H:#\$d\_lroundl HAS\_LROUNDL /\*\*/

?H:.

?LINT:set d\_lroundl

: see if lroundl exists

set lroundl d\_lroundl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_lroundl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_pthread\_y.U,v \$

?RCS:

?RCS: Copyright (c) 1998 Andy Dougherty

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_pthread\_yield sched\_yield d\_sched\_yield: \

Compile Setvar cat rm\_try usethreads

?MAKE: -pick add \$@ %<

?S:d\_pthread\_yield:

?S: This variable conditionally defines the HAS\_PTHREAD\_YIELD

?S: symbol if the pthread\_yield routine is available to yield

?S: the execution of the current thread.

?S:.

?S:sched\_yield:

?S: This variable defines the way to yield the execution  
of the current thread.

?S:.

?S:d\_sched\_yield:

?S: This variable conditionally defines the HAS\_SCHED\_YIELD  
symbol if the sched\_yield routine is available to yield  
the execution of the current thread.

?S:.

?C:HAS\_PTHREAD\_YIELD:

?C: This symbol, if defined, indicates that the pthread\_yield  
routine is available  
to yield the execution of the current  
thread. sched\_yield is preferable to pthread\_yield.

?C:.

?C:SCHED\_YIELD:

?C: This symbol defines the way to yield the execution of  
the current thread. Known ways are sched\_yield,  
pthread\_yield, and pthread\_yield with NULL.

?C:.

?C:HAS\_SCHED\_YIELD:

?C: This symbol, if defined, indicates that the sched\_yield  
routine is available to yield the execution of the current  
thread. sched\_yield is preferable to pthread\_yield.

?C:.

?H:#\$d\_pthread\_yield HAS\_PTHREAD\_YIELD /\*\*/  
?H:#define SCHED\_YIELD \$sched\_yield /\*\*/  
?H:#\$d\_sched\_yield HAS\_SCHED\_YIELD /\*\*/  
?H:.

?LINT: set d\_pthread\_yield d\_sched\_yield  
: see whether the various POSIXish \_yields exist

```
$cat >try.c <<EOP
#include <pthread.h>
#include <stdio.h>
int main() {
#ifdef SCHED_YIELD
 sched_yield();
#else
#ifdef PTHREAD_YIELD
 pthread_yield();
#else
#ifdef PTHREAD_YIELD_NULL
 pthread_yield(NULL);
#endif
#endif
#endif
}
EOP
: see if sched_yield exists
```

```

set try -DSCHED_YIELD
if eval $compile;
then
 val="$define"
 sched_yield='sched_yield()'
else
 val="$undef"
fi
case "$usetthreads" in
$define)
 case "$val" in
$define) echo 'sched_yield() found.' >&4 ;;
*) echo 'sched_yield() NOT found.' >&4 ;;
 esac
esac
set d_sched_yield
eval $setvar

: see if pthread_yield exists
set try -DPTHREAD_YIELD
if eval $compile; then
 val="$define"
 case "$sched_yield" in
 ") sched_yield='pthread_yield()' ;;
 esac
else
 set try -DPTHREAD_YIELD_NULL
 if eval $compile; then
 val="$define"
 case "$sched_yield" in
 ") sched_yield='pthread_yield(NULL)' ;;
 esac
 else
 val="$undef"
 fi
fi
case "$usetthreads" in
$define)
 case "$val" in
$define) echo 'pthread_yield() found.' >&4 ;;
*) echo 'pthread_yield() NOT found.' >&4 ;;
 esac
;;
esac
set d_pthread_yield
eval $setvar
case "$sched_yield" in
") sched_yield=undef ;;

```



esac  
\$rm\_try

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_pthread\_y.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_truncate.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
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?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_truncate.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:07:48 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_truncate: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_truncate:  
?S: This variable conditionally defines HAS\_TRUNCATE if truncate() is  
?S: available to truncate files.  
?S:.  
?C:HAS\_TRUNCATE (TRUNCATE):  
?C: This symbol, if defined, indicates that the truncate routine is  
?C: available to truncate files.  
?C:.  
?H:#\$d\_truncate HAS\_TRUNCATE /\*\*/  
?H:.  
?LINT:set  
d\_truncate  
: see if truncate exists  
set truncate d\_truncate  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_truncate.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_ftrncate.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

```

?RCS:
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?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_ftrncate.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:07 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_ftrncate: Inlibc
?MAKE: -pick add $@ %<
?S:d_ftrncate (d_ftruncate):
?S: This variable conditionally defines the HAS_FTRUNCATE symbol, which
?S: indicates to the C program that the ftruncate() subroutine exists.
?S:.
?C:HAS_FTRUNCATE:
?C: This symbol, if defined, indicates that the ftruncate() subroutine
?C: exists.
?C:.
?H:#$d_ftrncate
HAS_FTRUNCATE /**/
?H:.
?LINT:set d_ftrncate
: see if ftruncate exists
set ftruncate d_ftrncate
eval $inlibc

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/d_ftrncate.U

```

No license file was found, but licenses were detected in source scan.

```

/*
* $Id: scandir.C,v 3.0.1.1 1994/01/24 13:58:45 ram Exp ram $
*
* Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
*
* You may redistribute only under the terms of the Artistic Licence,
* as specified in the README file that comes with the distribution.
* You may reuse parts of this distribution only within the terms of
* that same Artistic Licence; a copy of which may be found at the root
* of the source tree for dist 4.0.
*
* $Log: scandir.C,v $
* Revision 3.0.1.1 1994/01/24 13:58:45 ram
* patch16: created

```

\*  
\*/

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/lib/C/fake/scandir.C

No license file was found, but licenses were detected in source scan.

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, 2012 Raphael Manfredi

?RCS:

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?MAKE:byteorder: cat Myread Oldconfig Loc +cc +ccflags rm\_try

?MAKE: -pick add \$@ %<

?S:byteorder:

?S: This variable holds the byte order. In the following, larger digits

?S: indicate more significance. The variable byteorder is either 4321

?S: on a big-endian machine, or 1234 on a little-endian, or 87654321

?S: on a Cray ... or 3412 with weird order !

?S:.

?C:BYTEORDER:

?C: This symbol hold the hexadecimal constant defined in byteorder,

?C: i.e. 0x1234 or 0x4321, etc...

?C:.

?H:#define BYTEORDER 0x\$byteorder /\*

large digits for MSB \*/

?H:.

?T:xxx\_prompt

?F:!try

: check for ordering of bytes in a long

case "\$byteorder" in

")

\$cat <<'EOM'

In the following, larger digits indicate more significance. A big-endian machine like a Pyramid or a Motorola 680?0 chip will come out to 4321. A little-endian machine like a Vax or an Intel 80?86 chip would be 1234. Other machines may have weird orders like 3412. A Cray will report 87654321. If the test program works the default is probably right.

I'm now running the test program...

EOM

\$cat >try.c <<'EOCP'

#include <stdio.h>

```

int main()
{
 int i;
 union {
 unsigned long l;
 char c[sizeof(long)];
 } u;

 if (sizeof(long) > 4)
 u.l = (0x08070605L << 32) | 0x04030201L;
 else
 u.l = 0x04030201L;
 for (i = 0; i < sizeof(long); i++)
 printf("%c", u.c[i]+'0');
 printf("\n");
 exit(0);
}
EOCP
xxx_prompt=y
if $cc $cflags -o try try.c >/dev/null 2>&1 && ./try > /dev/null; then
 dflt=`./try`
 case "$dflt" in
 [1-4][1-4][1-4][1-4]|12345678|87654321)
 echo
 "(The test program ran ok.)"
 echo "byteorder=$dflt"
 xxx_prompt=n
 ;;
 ???|?????) echo "(The test program ran ok.)" ;;
 *) echo "(The test program didn't run right for some reason.)" ;;
 esac
else
 dflt='4321'
 cat <<'EOM'
(I can't seem to compile the test program. Guessing big-endian...)
EOM
fi
case "$xxx_prompt" in
y)
 rp="What is the order of bytes in a long?"
 ./myread
 byteorder="$ans"
 ;;
*) byteorder=$dflt
 ;;
esac
;;
esac

```

\$rm\_try

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/byteorder.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getopt.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_getopt.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:13 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_getopt: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_getopt:

?S: This variable conditionally defines the HAS\_GETOPT symbol, which

?S: indicates that the getopt() routine exists. The getopt() routine

?S: parses command line options in a standard fashion.

?S:.

?C:HAS\_GETOPT (GETOPT):

?C: This symbol, if defined, indicates that the getopt() routine exists.

?C:.

?H:#\$d\_getopt HAS\_GETOPT /\*\*/

?H:.

?LINT:set d\_getopt

: see if getopt exists

set getopt d\_getopt

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_getopt.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1996, Andy Dougherty

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: sitelib.U,v \$  
?RCS: Revision 3.0.1.1 1997/02/28 16:21:35 ram  
?RCS: patch61: created  
?RCS:  
?MAKE:sitelib sitelibexp installsitelib: afs cat Getfile \  
Oldconfig Prefixit test privlib package sed  
?MAKE: -pick add \$@ %<  
?Y:TOP  
?S:sitelib:  
?S: This variable contains the eventual value of the SITELIB symbol,  
?S: which is the name of the private library for this package. It may  
?S: have a ~ on the front. It is up to the makefile to eventually create  
?S: this  
directory while performing installation (with ~ substitution).  
?S:.  
?S:sitelibexp:  
?S: This variable is the ~name expanded version of sitelib, so that you  
?S: may use it directly in Makefiles or shell scripts.  
?S:.  
?S:installsitelib:  
?S: This variable is really the same as sitelibexp but may differ on  
?S: those systems using AFS. For extra portability, only this variable  
?S: should be used in makefiles.  
?S:.  
?C:SITELIB:  
?C: This symbol contains the name of the private library for this package.  
?C: The library is private in the sense that it needn't be in anyone's  
?C: execution path, but it should be accessible by the world. The program  
?C: should be prepared to do ~ expansion.  
?C: The standard distribution will put nothing in this directory.  
?C: Individual sites may place their own extensions and modules in  
?C: this directory.  
?C:.  
?C:SITELIB\_EXP:  
?C: This symbol contains the ~name expanded version of SITELIB, to be used  
?C: in programs that are not prepared to deal with ~ expansion  
at run-time.  
?C:.  
?H:#define SITELIB "\$sitelib" /\*\*/  
?H:#define SITELIB\_EXP "\$sitelibexp" /\*\*/  
?H:.

```

?T:prog
: determine where site specific libraries go.
set sitelib sitelib
eval $prefixit
case "$sitelib" in
")
?X: remove any trailing -3.0 or other version identification
prog=`echo $package | $sed 's/-*[0-9.]*$//`
dflt="$privlib/site_${prog}" ;;
*) dflt="$sitelib" ;;
esac
$cat <<EOM

```

The installation process will also create a directory for site-specific extensions and modules. Some users find it convenient to place all local files in this directory rather than in the main distribution directory.

```

EOM
fn=d~+
rp='Pathname for the site-specific library files?'
./getfile
if $test "X$sitelibexp" != "X$sansexp"; then
installsitelib="
fi
sitelib="$ans"
sitelibexp="$sansexp"
if $afs; then
$cat <<EOM

```

Since you are running AFS, I need to distinguish the directory in which private files reside from the directory in which they are installed (and from which they are presumably copied to the former directory by occult means).

```

EOM
case "$installsitelib" in
") dflt=`echo $sitelibexp | sed 's#^/afs/#/afs/.#`";
*) dflt="$installsitelib";
esac
fn=de~
rp='Where will private files be installed?'
./getfile
installsitelib="$ans"
else
installsitelib="$sitelibexp"
fi

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/sitelib.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: MailAuthor.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Graham Stoney <greyham@research.canon.oz.au>

?RCS:

?RCS: \$Log: MailAuthor.U,v \$

?RCS: Revision 3.0.1.5 1997/02/28 15:04:41 ram

?RCS: patch61: added support for src.U

?RCS:

?RCS: Revision 3.0.1.4 1994/08/29 16:05:09 ram

?RCS: patch32: avoid message sending if they said no previously

?RCS:

?RCS: Revision 3.0.1.3 1993/10/16 13:47:30 ram

?RCS: patch12: now makes sure user-specified address is in Internet format

?RCS:

?RCS: Revision

3.0.1.2 1993/09/13 15:48:49 ram

?RCS: patch10: reverted to original intent by the Author himself

?RCS:

?RCS: Revision 3.0.1.1 1993/08/27 14:38:38 ram

?RCS: patch7: now prompts user for its e-mail address

?RCS: patch7: no longer silent when mail has been sent

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:06 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?RCS:

?X:

?X: This unit asks the user to please send a message to the author.

?X: To force inclusion of this unit, you must add it's name to the

?X: dependancies on the MAKE line in your private copy of End.U.

?X: This allows a smart mailagent program to automatically let users know

?X: when their package is out of date, and to allow users to be notified of

?X: any future patches.

?X:

?MAKE:MailAuthor mailpatches notifypatches usermail: test cat mailer \



```

package Myread patchlevel baserev rm rsrc Oldconfig Configdir
?MAKE: -pick wipe $@ %<
?S:mailpatches:
?S: Indicates whether the user would like future patches to be mailed
?S: directly
to them.
?S:.
?S:notifypatches:
?S: Indicates whether the user would like notification of future patches
?S: mailed to them.
?S:.
?S:usermail:
?S: This variable is used internally by Configure to keep track of the
?S: user e-mail address, where notifications or patches should be sent.
?S: A '-' value means the return address will be extracted by parsing
?S: the mail headers.
?S:.
?T:opt mailpatches notifypatches atsh status
: notify author that his package is used
if $test -f ../config/mailauthor &&
cmp $rsrc/patchlevel.h ../config/mailauthor >/dev/null 2>&1
then
status="say that you're using $package";
case "$mailpatches" in
true) status='have patches mailed to you as they are issued';;
esac
case "$notifypatches" in
true) status='be notified when new patches are issued';;
esac
$cat <<EOM

```

You have already sent the author of \$package (<MAINTLOC>) mail to \$status. If you wish, you may modify your previous request by sending a new mail with different options.

```

EOM
rp='Should
I send a status update to <MAINTLOC>?'
dflt=n
else
$cat <<EOM

```

If you are able to send mail to the Internet, the author of \$package would really appreciate you letting me send off a quick note, just to say that you've tried it. The author is more likely to spend time maintaining \$package if it's known that many people are using it, and you can even ask to get sent new patches automagically this way if you wish. To protect your privacy, all I'll say in the mail is the version of \$package that you're using.

EOM

```
rp='Should I send mail to <MAINTLOC>?'
dflt=y
?X: Ensure default is 'n' if question has been asked already, in case they
?X: run Configure -d next time and answered 'n' the first time. Therefore,
?X: an empty nomail will be created later on even if no mail is sent.
$test -f ../.config/nomail && dflt=n
fi
. ./myread
case "$ans" in
[yY]*)
echo " "
echo "Great! Your cooperation is really appreciated."
$cat <<EOM
```

Some braindead sites do not set a proper return address in the From: header of their outgoing mail, making it impossible to reply to mail they generate. If your site is broken in this way, write to your system administrator and get it fixed!!! In the mean time, you can manually specify the Internet e-mail address by which the author can get back to you, should there be a need to do so. If manually specified, it should be something like "user@domain.top". If your mail system generates addresses correctly, specify "none".

EOM

```
case "$usermail" in
'|') dflt=none;;
*) dflt="$usermail";;
esac
rp='Manually specify a return address to use:'
. ./myread
case "$ans" in
none|*@*.*)
case "$ans" in
none) usermail='-';;
*) usermail="$ans";;
esac
;;
*)
echo "(Address does not look like an Internet one -- ignoring it.)"
?X:
?X: If we can't trust their mailer or their return address, it's highly
?X: suggested that they only register and don't ask to get anything from
?X: the author, since it's likely to bounce in null-land --
RAM.
?X:
usermail='-'
```

```

mailpatches=false
notifypatches=false
;;
esac
echo " "
opt=""
rp='Would you like to have new patches automatically mailed to you?'
case "$mailpatches" in
true) dflt=y;;
*) dflt=n;;
esac
. ./myread
case "$ans" in
[yY]*) opt=' mailpatches'; mailpatches=true;;
*)
mailpatches=false
echo " "
rp='Ok, would you like to simply be notified of new patches?'
case "$notifypatches" in
false) dflt=n;;
*) dflt=y;;
esac
. ./myread
echo " "
case "$ans" in
[yY]*) opt=' notifypatches'; notifypatches=true;;
*)
echo "Fine, I'll simply say that you've tried it then."
notifypatches=false
;;
esac
;;
esac
echo "Sending mail to <MAINTLOC>..." >&4
?X: Bizarre hack here. We can't just put @SH in the hereis lines below, because
?X: metaconfig will interpret it as a command, and there's no quoting mechanism.
?X: Do it via a variable instead.
atsh='@SH'
$mailler <MAINTLOC> <<EOM >/dev/null 2>&1
Subject: Command
Precedence: junk
To: <MAINTLOC>

$atsh
package $usermail $package $baserev $patchlevel$opt
EOM
$rm -f ../config/mailauthor ../config/nomail
cp $src/patchlevel.h ../config/mailauthor

```

```

;;
*)
case "$dflt" in
"y")
echo "Oh well, maybe next time."
cp /dev/null ../config/nomail
;;
esac
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/MailAuthor.U

```

No license file was found, but licenses were detected in source scan.

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_gai\_strerror: Compile cat rm\_try run Oldconfig Setvar

?MAKE: -pick add \$@ %<

?S:d\_gai\_strerror:

?S: This variable conditionally defines the HAS\_GAI\_STRERROR symbol

?S: if the gai\_strerror() routine is available and can be used to

?S: translate error codes returned by getaddrinfo() into human

?S: readable strings.

?S:.

?C:HAS\_GAI\_STRERROR:

?C: This symbol, if defined, indicates that the gai\_strerror routine

?C: is available to translate error codes returned by getaddrinfo()

?C: into human readable strings.

?C:.

?H:#d\_gai\_strerror

HAS\_GAI\_STRERROR /\*\*/

?H:.

?F:!try

?LINT: set d\_gai\_strerror

: look for gai\_strerror

echo " "

\$cat >try.c <<'EOCP'

#include <sys/types.h>

#include <sys/socket.h>

#include <netdb.h>

```

int main ()
{
 return (gai_strerror (0) ? 0 : 1);
}
EOCP
set try
?X: if $cc $ccflags $ldflags -o try try.c $libs >/dev/null 2>&1 ; then
val="$undef"
if eval $compile; then
 `$run ./try`
 case "$?" in
 0) echo "A working gai_strerror() found." >&4
 val="$define" ;;
 *) echo "gai_strerror() found, but it doesn't work" >&4
 ;;
 esac
else
 echo "gai_strerror() NOT found." >&4
fi
set d_gai_strerror
eval $setvar
$rm_try

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_gai_strerror.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_inetntop: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_inetntop:

?S: This variable conditionally defines the HAS\_INETNTOP symbol,

?S: which indicates to the C program that the inet\_ntop() function

?S: is available.

?S:.

?C:HAS\_INETNTOP:

?C: This symbol, if defined, indicates that the inet\_ntop() function

?C: is available to parse IPv4 and IPv6 strings.

?C:.

?H:#\$d\_inetntop HAS\_INETNTOP /\*\*/

?H:.

```
?LINT:set d_inetntop
: see if inet_ntop exists
set inet_ntop d_inetntop
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_inetntop.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_strtoul.U,v 3.0.1.1 1997/02/28 15:46:43 ram Exp $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1996, Andy Dougherty
```

```
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: d_strtoul.U,v $
```

```
?RCS: Revision 3.0.1.1 1997/02/28 15:46:43 ram
```

```
?RCS: patch61: created
```

```
?RCS:
```

```
?RCS:
```

```
?MAKE:d_strtoul: Inlibc cat longsize Compile run
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_strtoul:
```

```
?S: This variable conditionally defines the HAS_STRTOUL symbol, which
```

```
?S: indicates to the C program that the strtoul() routine is available
```

```
?S: to provide conversion of strings to unsigned long.
```

```
?S:.
```

```
?C:HAS_STRTOUL (STRTOUL):
```

```
?C: This
```

```
symbol, if defined, indicates that the strtoul routine is
```

```
?C: available to provide conversion of strings to unsigned long.
```

```
?C:.
```

```
?H:#$d_strtoul HAS_STRTOUL /**/
```

```
?H:.
```

```
?F:!try
```

```
: see if strtoul exists
```

```
set strtoul d_strtoul
```

```
eval $inlibc
```

```
case "$d_strtoul" in
```

```
"$define")
```

```
$cat <<EOM
```

Checking whether your strtoul() works okay...

EOM

```
$cat >try.c <<'EOCP'
#include <errno.h>
#include <stdio.h>
extern unsigned long int strtoul(char *s, char **, int);
static int bad = 0;
void check(char *s, unsigned long eul, int een) {
 unsigned long gul;
 errno = 0;
 gul = strtoul(s, 0, 10);
 if (!(gul == eul) && (errno == een))
 bad++;
}
int main() {
 check(" 1", 1L, 0);
 check(" 0", 0L, 0);
EOCP
 case "$longsize" in
 8)
 $cat >>try.c <<'EOCP'
 check("18446744073709551615", 18446744073709551615UL, 0);
 check("18446744073709551616", 18446744073709551615UL, ERANGE);
 #if 0 /* strtoul() for /^-/ strings is undefined. */
 check("-1", 18446744073709551615UL, 0);
 check("-18446744073709551614", 2, 0);
 check("-18446744073709551615",
 1, 0);
 check("-18446744073709551616", 18446744073709551615UL, ERANGE);
 check("-18446744073709551617", 18446744073709551615UL, ERANGE);
 #endif
EOCP
 ;;
 4)
 $cat >>try.c <<'EOCP'
 check("4294967295", 4294967295UL, 0);
 check("4294967296", 4294967295UL, ERANGE);
 #if 0 /* strtoul() for /^-/ strings is undefined. */
 check("-1", 4294967295UL, 0);
 check("-4294967294", 2, 0);
 check("-4294967295", 1, 0);
 check("-4294967296", 4294967295UL, ERANGE);
 check("-4294967297", 4294967295UL, ERANGE);
 #endif
EOCP
 ;;
 *)
```

: Should we write these tests to be more portable by sprintf-ing

: ~0 and then manipulating that char string as input for strtol?

```
;;
esac
$cat >>try.c <<'EOCP'
if (!bad)
 printf("ok\n");
return 0;
}
EOCP
set try
if eval $compile; then
 case "`$run ./try`" in
 ok) echo "Your strtoul() seems to be working okay." ;;
 *) cat <<EOM >&4
Your strtoul() doesn't seem to be working okay.
```

EOM

```
 d_strtoul="$undef"
 ;;
esac
else
 echo
 "(I can't seem to compile the test program--assuming it doesn't)"
 d_strtoul="$undef"
fi
;;
esac
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_strtoul.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2004 H.Merijn Brand

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_strlcat: Inlibc Hasproto d\_gnulibc

?MAKE: -pick add \$@ %<

?S:d\_strlcat:

?S: This variable conditionally defines the HAS\_STRLCAT symbol, which

?S: indicates to the C program that the strlcat () routine is available.

?S:.

?C:HAS\_STRLCAT:

?C: This symbol, if defined, indicates that the strlcat () routine is

?C: available to do string concatenation.



```

?C:.
?H:#$d_strlcat HAS_STRLCAT /**/
?H:.
?T:d_strlcat_proto xx1 xx2 xx3 xx4
?LINT:set d_strlcat
: see if strlcat exists
: We need both a prototype in string.h and the symbol in libc.
echo " "
d_strlcat_proto="
xx1="#$d_gnulibc HAS_GNULIBC"
xx2='#if defined(HAS_GNULIBC) && !defined(_GNU_SOURCE)'
xx3='# define _GNU_SOURCE'
xx4='#endif'
set d_strlcat_proto
strlcat literal "$xx1" literal "$xx2" literal "$xx3" literal "$xx4" define string.h
eval $hasproto
case "$d_strlcat_proto" in
 define) # see if strlcat exists
set strlcat d_strlcat
eval $inlibc
;;
 *) val=$undef
set d_strlcat
eval $setvar
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_strlcat.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_getservprotos.U,v $

```

```

?RCS:

```

```

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

```

```

?RCS:

```

```

?RCS: You may redistribute only under the terms of the Artistic License,

```

```

?RCS: as specified in the README file that comes with the distribution.

```

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?RCS: that same Artistic License; a copy of which may be found at the root

```

```

?RCS: of the source tree for dist 3.0.

```

```

?RCS:

```

```

?MAKE:d_getservprotos : Hasproto i_netdb

```

```

?MAKE: -pick add $@ %<

```

```

?S:d_getservprotos:

```

```

?S: This variable conditionally defines the HAS_GETSERV_PROTOS symbol,

```

```

?S: which indicates to the C program that <netdb.h> supplies

```

```

?S: prototypes for the various getserv*() functions.

```

?S: See also netdbtype.U for probing for various netdb types.

?S:.

?C:HAS\_GETSERV\_PROTOS:

?C: This symbol, if defined, indicates that <netdb.h> includes

?C: prototypes for getservent(), getservbyname(), and

?C: getservbyaddr(). Otherwise,

it is up to the program to guess

?C: them. See netdbtype.U for probing for various Netdb\_xxx\_t types.

?C:.

?H:#\$d\_getservprotos HAS\_GETSERV\_PROTOS /\*\*/

?H:.

?LINT:set d\_getservprotos

: see if prototypes for various getservxxx netdb.h functions are available

echo " "

set d\_getservprotos getservent \$i\_netdb netdb.h

eval \$hasproto

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/protos/d\_getservprotos.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_fork.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_fork.U,v \$

?RCS: Revision 3.0.1.1 1994/08/29 16:07:38 ram

?RCS: patch32: created by ADO

?RCS:

?MAKE:d\_fork: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fork:

?S: This variable conditionally defines the HAS\_FORK symbol, which

?S: indicates to the C program that the fork() routine is available.

?S:.

?C:HAS\_FORK :

?C: This symbol, if defined, indicates that the fork routine is

?C: available.

?C:.

```
?H:#$d_fork
HAS_FORK /**/
?H:.
?LINT:set d_fork
: see if fork exists
set fork d_fork
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_fork.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_sysndir.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: as specified in the README file that comes with the distribution.
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```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: i_sysndir.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:08:33 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:i_sysndir: Inhdr
```

```
?MAKE: -pick add $@ %<
```

```
?S:i_sysndir:
```

```
?S: This variable conditionally defines the I_SYS_NDIR symbol, and indicates
```

```
?S: whether a C program should include <sys/ndir.h>.
```

```
?S:.
```

```
?C:I_SYS_NDIR (I_SYSNDIR):
```

```
?C: This symbol, if defined, indicates to the C program that it should
```

```
?C: include <sys/ndir.h>.
```

```
?C:.
```

```
?H:#$i_sysndir
```

```
I_SYS_NDIR /**/
```

```
?H:.
```

```
?LINT:set i_sysndir
```

```
: see if this is an sysndir system
```

```
set sys/ndir.h i_sysndir
```

```
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_sysndir.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: Extract.U,v $
?RCS: Revision 3.0.1.2 1997/02/28 14:58:52 ram
?RCS: patch61: added support for src.U
?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 15:51:46 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:04:52 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit produces a shell script which can be doted in order to extract
?X: .SH files with variable substitutions.
?X:
?X: When running Configure from a remote directory ($src
is not '.'),
?X: then the files will be created in that directory, so beware!
?X:
?MAKE:Extract: Mkdirp src
?MAKE: -pick add $@ %<
?F:./extract
?T:CONFIG SRC dir file
: script used to extract .SH files with variable substitutions
cat >extract <<EOS
CONFIG=true
SRC="$src"
EOS
cat >>extract <<'EOS'
echo "Doing variable substitutions on .SH files..."
if test -f "$SRC/MANIFEST"; then
set x `awk '{print $1}' <$SRC/MANIFEST | grep \.SH`
else
echo "(Looking for .SH files under the source directory.)"
set x `(cd "$SRC"; find . -name "*.SH" -print)`
fi
shift
```

```

case $# in
0) set x `(cd "$SRC"; echo *.SH)`; shift;;
esac
if test ! -f "$SRC/$1"; then
 shift
fi
for file in $*; do
 case "$SRC" in
 ".")
 case "$file" in
 /)
 dir=`expr X$file : 'X\(.*)/'`
 file=`expr X$file : 'X.*\^(.*)'`
 (cd $dir && . ./file)
 ;;
 *)
 . ./file
 ;;
 esac
 ;;
 *)
 ?X:
 ?X: When running Configure remotely ($src is not '!'), we cannot source
 ?X: the files directly, since that would wrongly cause
 ?X: the extraction
 ?X: where the source lie instead of withing the current directory. Therefore,
 ?X: we need to 'sh <file' then, which is okay since they will source the
 ?X: existing config.sh file. It's not possible to use:
 ?X: ../src/Configure -S -O -Dsomething
 ?X: unfortunately since no new config.sh with the -Dsomething override
 ?X: will be created before running the .SH files. A minor buglet.
 ?X:
 ?X: Note that we must create the directory hierarchy ourselves if it does
 ?X: not exist already, and that is done through a shell emulation of the
 ?X: 'mkdir -p' command. We don't want to use the $installdir metaconfig
 ?X: symbol here since that would require too much to be configured for
 ?X: this simple extraction task that may happen quickly with 'Configure -S'.
 ?X: -- RAM, 18/03/96
 ?X:
 case "$file" in
 /)
 dir=`expr X$file : 'X\(.*)/'`
 file=`expr X$file : 'X.*\^(.*)'`
 ./mkdirp $dir
 sh <"$SRC/$dir/$file"
 ;;
 *)
 sh <"$SRC/$file"

```

```

;;
esac
;;
esac
done
if
test -f "$SRC/config_h.SH"; then
if test ! -f config.h; then
?X: oops, they left it out of MANIFEST, probably, so do it anyway.
sh <"$SRC/config_h.SH"
fi
fi
EOS

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Extract.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: patchlevel.U,v 3.0.1.1 1997/02/28 16:18:41 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: This file is included with or a derivative work of a file included

?RCS: with the metaconfig program of Raphael Manfredi's "dist" distribution.

?RCS: In accordance with clause 7 of dist's modified Artistic License:

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: patchlevel.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 16:18:41 ram

?RCS: patch61: added support for src.U

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:31 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:patchlevel revision version subversion \

perl\_patchlevel version\_patchlevel\_string \

api\_revision api\_version api\_subversion api\_versionstring: \

package test rsrc echo awk oiname

?MAKE: -pick

add \$@ %<

?S:revision:

?S: The value of revision comes from the patchlevel.h file.

?S: In a version number such as 5.6.1, this is the "5".

?S: In patchlevel.h, this is referred to as "PERL\_REVISION".

?S:.

?S:patchlevel:  
 ?S: The patchlevel level of this package.  
 ?S: The value of patchlevel comes from the patchlevel.h file.  
 ?S: In a version number such as 5.6.1, this is the "6".  
 ?S: In patchlevel.h, this is referred to as "PERL\_VERSION".  
 ?S:.

?S:subversion:  
 ?S: The subversion level of this package.  
 ?S: The value of subversion comes from the patchlevel.h file.  
 ?S: In a version number such as 5.6.1, this is the "1".  
 ?S: In patchlevel.h, this is referred to as "PERL\_SUBVERSION".  
 ?S: This is unique to perl.  
 ?S:.

?S:version:  
 ?S: The full version number of this package, such as 5.6.1 (or 5\_6\_1).  
 ?S: This combines revision, patchlevel, and subversion to get the  
 ?S: full version number, including any possible subversions.  
 ?S: This is suitable for use as a directory name, and hence is  
 ?S: filesystem  
 dependent.  
 ?S:.

?S:api\_revision:  
 ?S: The three variables, api\_revision, api\_version, and  
 ?S: api\_subversion, specify the version of the oldest perl binary  
 ?S: compatible with the present perl. In a full version string  
 ?S: such as '5.6.1', api\_revision is the '5'.  
 ?S: Prior to 5.5.640, the format was a floating point number,  
 ?S: like 5.00563.  
 ?S:  
 ?S: perl.c:incpush() and lib/lib.pm will automatically search in  
 ?S: \$sitelib/.. for older directories back to the limit specified  
 ?S: by these api\_ variables. This is only useful if you have a  
 ?S: perl library directory tree structured like the default one.  
 ?S: See INSTALL for how this works. The versioned site\_perl  
 ?S: directory was introduced in 5.005, so that is the lowest  
 ?S: possible value. The version list appropriate for the current  
 ?S: system is determined in inc\_version\_list.U.  
 ?S:  
 ?S: XXX To do: Since compatibility can depend on compile time  
 ?S: options (such as bincompat, longlong, etc.) it should  
 ?S: (perhaps) be set by  
 Configure, but currently it isn't.  
 ?S: Currently, we read a hard-wired value from patchlevel.h.  
 ?S: Perhaps what we ought to do is take the hard-wired value from  
 ?S: patchlevel.h but then modify it if the current Configure  
 ?S: options warrant. patchlevel.h then would use an #ifdef guard.  
 ?S:.

?S:api\_version:

?S: The three variables, api\_revision, api\_version, and  
 ?S: api\_subversion, specify the version of the oldest perl binary  
 ?S: compatible with the present perl. In a full version string  
 ?S: such as '5.6.1', api\_version is the '6'. See api\_revision for  
 ?S: full details. As a special case, 5.5.0 is rendered in the  
 ?S: old-style as 5.005. (In the 5.005\_0x maintenance series,  
 ?S: this was the only versioned directory in \$sitelib.)  
 ?S:.

?S:api\_subversion:  
 ?S: The three variables, api\_revision, api\_version, and  
 ?S: api\_subversion, specify the version of the oldest perl binary  
 ?S: compatible with the present perl. In a full version string  
 ?S: such as '5.6.1', api\_subversion is the  
 '1'. See api\_revision for  
 ?S: full details.  
 ?S:.

?S:api\_versionstring:  
 ?S: This variable combines api\_revision, api\_version, and  
 ?S: api\_subversion in a format such as 5.6.1 (or 5\_6\_1) suitable  
 ?S: for use as a directory name. This is filesystem dependent.  
 ?S:.

?S:perl\_patchlevel:  
 ?S: This is the Perl patch level, a numeric change identifier,  
 ?S: as defined by whichever source code maintenance system  
 ?S: is used to maintain the patches; currently Perforce.  
 ?S: It does not correlate with the Perl version numbers or  
 ?S: the maintenance versus development dichotomy except  
 ?S: by also being increasing.  
 ?S:.

?S:version\_patchlevel\_string:  
 ?S: This is a string combining version, subversion and  
 ?S: perl\_patchlevel (if perl\_patchlevel is non-zero).  
 ?S: It is typically something like  
 ?S: 'version 7 subversion 1' or  
 ?S: 'version 7 subversion 1 patchlevel 11224'  
 ?S: It is computed here to avoid duplication of code in myconfig.SH  
 ?S: and lib/Config.pm.  
 ?S:.

?LINT:extern LC\_ALL  
 ?LINT:extern LANGUAGE  
 :  
 get the patchlevel  
 echo " "  
 echo "Getting the current patchlevel..." >&4  
 if \$test -r \$src/patchlevel.h;then  
 revision=`awk '/define[ ]+PERL\_REVISION/ {print \$3}' \$src/patchlevel.h`  
 patchlevel=`awk '/define[ ]+PERL\_VERSION/ {print \$3}' \$src/patchlevel.h`  
 subversion=`awk '/define[ ]+PERL\_SUBVERSION/ {print \$3}' \$src/patchlevel.h`



```

api_revision=`awk '/define[]+PERL_API_REVISION/ {print $3}' $rsrc/patchlevel.h`
api_version=`awk '/define[]+PERL_API_VERSION/ {print $3}' $rsrc/patchlevel.h`
api_subversion=`awk '/define[]+PERL_API_SUBVERSION/ {print $3}' $rsrc/patchlevel.h`
perl_patchlevel=`egrep ',(MAINT|SMOKE)[0-9][0-9]*"' $rsrc/patchlevel.h|tail -1|sed 's/[^0-9]//g`
else
revision=0
patchlevel=0
subversion=0
api_revision=0
api_version=0
api_subversion=0
perl_patchlevel=0
$echo "(You do not have patchlevel.h. Eek.)"
fi
: Define a handy string here to avoid duplication in myconfig.SH and configpm.
version_patchlevel_string="version $patchlevel subversion $subversion"
case
"$perl_patchlevel" in
0|") ;;
) perl_patchlevel=`echo $perl_patchlevel | sed 's/. //'`
 version_patchlevel_string="$version_patchlevel_string patch $perl_patchlevel"
 ;;
esac

$echo "(You have $package $version_patchlevel_string.)"

case "$osname" in
dos|vms)
: XXX Should be a Configure test for double-dots in filenames.
version=`echo $revision $patchlevel $subversion | \
 $sawk '{ printf "%d_%d_%d", $1, $2, $3 }`
api_versionstring=`echo $api_revision $api_version $api_subversion | \
 $sawk '{ printf "%d_%d_%d", $1, $2, $3 }`
;;
*)
version=`echo $revision $patchlevel $subversion | \
 $sawk '{ printf "%d.%d.%d", $1, $2, $3 }`
api_versionstring=`echo $api_revision $api_version $api_subversion | \
 $sawk '{ printf "%d.%d.%d", $1, $2, $3 }`
;;
esac
: Special case the 5.005_xx maintenance series, which used 5.005
: without any subversion label as a subdirectory in $sitelib
if test "${api_revision}${api_version}${api_subversion}" = "550"; then
api_versionstring='5.005'
fi

```

Found

in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/patchlevel.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_sfio.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1996, Andy Dougherty
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: i_sfio.U,v $
```

```
?RCS: Revision 3.0.1.1 1997/02/28 15:48:27 ram
```

```
?RCS: patch61: created
```

```
?RCS:
```

```
?MAKE:i_sfio: Inhdr Setvar
```

```
?MAKE: -pick add $@ %<
```

```
?S:i_sfio:
```

```
?S: This variable conditionally defines the I_SFIO symbol,
```

```
?S: and indicates whether a C program should include <sfio.h>.
```

```
?S:.
```

```
?C:I_SFIO:
```

```
?C: This symbol, if defined, indicates to the C program that it should
```

```
?C: include <sfio.h>.
```

```
?C:.
```

```
?H:#$i_sfio I_SFIO /**/
```

```
?H:.
```

```
?LINT:set
```

```
i_sfio
```

```
: see if sfio.h is available
```

```
set sfio.h i_sfio
```

```
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_sfio.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 2000 Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_isnanl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_isnanl:

?S: This variable conditionally defines the HAS\_ISNANL symbol, which

?S: indicates to the C program that the isnanl() routine is available.

?S:.

?C:HAS\_ISNANL:

?C: This symbol, if defined, indicates that the isnanl routine is

?C: available to check whether a long double is a NaN.

?C:.

?H:#\$d\_isnanl HAS\_ISNANL /\*\*/

?H:.

?LINT:set d\_isnanl

: see if isnanl exists

set isnanl d\_isnanl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_isnanl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: vendorman3dir.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera \$

?RCS:

?RCS: Copyright (c) 1999-2000, Andy Dougherty

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: vendorman3dir.U,v \$

?RCS: Revision 1.1 1999/07/08 18:32:57 doughera

?RCS: Initial revision

?RCS:

?MAKE:vendorman3dir vendorman3direxp installvendorman3dir: man3dir Getfile \

Oldconfig Setprefixvar Prefixit test vendorprefix prefix sed

?MAKE: -pick add \$@ %<

?Y:TOP

?S:vendorman3dir:

?S: This variable contains the name of the directory for man3

?S: pages. It may have a ~ on the front.

?S: The standard distribution will put nothing in this directory.

?S: Vendors

who distribute perl may wish to place their own  
 ?S: man3 pages in this directory with  
 ?S: MakeMaker Makefile.PL INSTALLDIRS=vendor  
 ?S: or equivalent. See INSTALL for details.  
 ?S:.  
 ?S:vendorman3direxp:  
 ?S: This variable is the ~name expanded version of vendorman3dir, so that you  
 ?S: may use it directly in Makefiles or shell scripts.  
 ?S:.  
 ?D:installvendorman3dir="  
 ?S:installvendorman3dir:  
 ?S: This variable is really the same as vendorman3direxp but may differ on  
 ?S: those systems using AFS. For extra portability, only this variable  
 ?S: should be used in makefiles.  
 ?S:.  
 ?LINT:change prefixvar  
 ?LINT:set installvendorman3dir  
 : Set the vendorman3dir variables  
 case "\$vendorprefix" in  
 ") vendorman3dir="  
 vendorman3direxp="  
 ;;  
 \*) : determine where vendor-supplied module manual pages go.  
 case "\$vendorman3dir" in  
 ") dflt=`echo "\$man3dir" | \$sed "s#^\$prefix#\$vendorprefix#"` ;;  
 \*) dflt=\$vendorman3dir ;;  
 esac  
 case "\$dflt" in  
 "|") dflt=none ;;  
 esac  
 fn=nd~+  
 rp='Pathname  
 for the vendor-supplied manual section 3 pages?'  
 ./getfile  
 vendorman3dir="\$ans"  
 vendorman3direxp="\$ansexp"  
 ;;  
 esac  
 : Use ' ' for none so value is preserved next time through Configure  
 \$test X"\$vendorman3dir" = "X" && vendorman3dir=' '  
 prefixvar=vendorman3dir  
 ./installprefix

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/vendorman3dir.U

No license file was found, but licenses were detected in source scan.

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?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?MAKE:d\_accept4: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_accept4:  
?S: This variable conditionally defines HAS\_ACCEPT4 if accept4() is  
?S: available to accept socket connections.  
?S:.  
?C:HAS\_ACCEPT4:  
?C: This symbol, if defined, indicates that the accept4 routine is  
?C: available to accept socket connections.  
?C:.  
?H:#\$d\_accept4 HAS\_ACCEPT4 /\*\*/  
?H:.  
?LINT:set d\_accept4  
: see if accept4 exists  
set accept4 d\_accept4  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_accept4.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>  
?RCS:  
?RCS: \$Log: d\_casti32.U,v \$  
?RCS: Revision 3.0.1.3 1995/05/12 12:10:45 ram  
?RCS: patch54: made sure cc and cflags are conditional dependencies  
?RCS:  
?RCS: Revision 3.0.1.2 1994/10/29 16:09:37 ram  
?RCS: patch36: declare signal handler correctly (ADO)

```

?RCS:
?RCS: Revision 3.0.1.1 1994/08/29 16:07:06 ram
?RCS: patch32: created by ADO
?RCS:
?X:
?X: Can the compiler cast large floats to 32-bit integers?
?X:
?MAKE:d_casti32: cat
+cc +ccflags rm_try intsize Setvar test signal_t
?MAKE: -pick add $@ %<
?S:d_casti32:
?S: This variable conditionally defines CASTI32, which indicates
?S: whether the C compiler can cast large floats to 32-bit ints.
?S:.
?C:CASTI32:
?C: This symbol is defined if the C compiler can cast negative
?C: or large floating point numbers to 32-bit ints.
?C:.
?T:xxx yyy
?H:#$d_casti32 CASTI32 /**/
?H:.
?F:!try
?LINT:set d_casti32
: check for ability to cast large floats to 32-bit ints.
echo " "
echo 'Checking whether your C compiler can cast large floats to int32.'>&4
if $test "$intsize" -eq 4; then
xxx=int
else
xxx=long
fi
$cat >try.c <<EOCP
#include <sys/types.h>
#include <signal.h>
$signal_t blech() { exit(3); }
int main()
{
$xxx i32;
double f;
int result = 0;
signal(SIGFPE, blech);

f = (double) 0x7fffffff;
f = 10 * f;
i32 = ($xxx) f;

if (i32 != ($xxx) f)
result |= 1;

```

```

exit(result);
}
EOCP
if $cc $ccflags -o try try.c >/dev/null 2>&1; then
./try
yyy=$?
else
echo "(I can't
seem to compile the test program--assuming it can't)"
yyy=1
fi
case "$yyy" in
0) val="$define"
echo "Yup, it can."
;;
*) val="$undef"
echo "Nope, it can't."
;;
esac
set d_casti32
eval $setvar
$rm_try

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_casti32.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Extractall.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Extractall.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:00:43 ram

?RCS: patch61: created

?RCS:

?X:

?X: If extraction has been requested, load the configuration file, perform

?X: the extraction and exit.

?X:

?X: This unit was originally a part of Options.U. It had to be removed from

?X: it to prevent a dependency cycle: Extract -> src -> Options -> Extract

```

?X: The Begin.U unit now requires us before beginning to do anything
?X: interesting, to ensure
proper semantics. -- RAM, 15/03/96
?X:
?MAKE:Extractall: Extract Options
?MAKE: -pick wipe $@ %<
: extract files and exit if asked to do so
case "$extractsh" in
true)
?X: Undo the forced silent=true when -S was supplied, by probing realsilent
?X: which was set iff -s was also given. See Options.U for details.
case "$realsilent" in
true) ;;
*) exec 1>&4;;
esac
case "$config_sh" in
") config_sh='config.sh';;
esac
echo " "
echo "Fetching answers from $config_sh..."
cd ..
. $config_sh
?X: extract has to be run from the top directory, not within UU.
. UU/optdef.sh
echo " "
?X: extract has to be run from the top directory, not within UU.
. UU/extract
rm -rf UU
echo "Extraction done."
exit 0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Extractall.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_setgrps.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: of the source tree for dist 4.0.
?RCS:

```



?RCS: \$Log: d\_setgrps.U,v \$  
 ?RCS: Revision 3.0 1993/08/18 12:06:08 ram  
 ?RCS: Baseline for dist 3.0 netwide release.  
 ?RCS:  
 ?MAKE:d\_setgrps: Inlibc  
 ?MAKE: -pick add \$@ %<  
 ?S:d\_setgrps:  
 ?S: This variable conditionally defines the HAS\_SETGROUPS symbol, which  
 ?S: indicates to the C program that the setgroups() routine is available  
 ?S: to set the list of process groups.  
 ?S:.  
 ?C:HAS\_SETGROUPS:  
 ?C: This symbol, if defined, indicates that the setgroups() routine is  
 ?C: available  
 to set the list of process groups. If unavailable, multiple  
 ?C: groups are probably not supported.  
 ?C:.  
 ?H:#\$d\_setgrps HAS\_SETGROUPS /\*\*/  
 ?H:.  
 ?LINT:set d\_setgrps  
 : see if setgroups exists  
 set setgroups d\_setgrps  
 eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_setgrps.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_SHM\_MAC.U 1 2006-08-24 12:32:52Z rmanfredi \$  
 ?RCS:  
 ?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
 ?RCS:  
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 ?RCS: of the source tree for dist 4.0.  
 ?RCS:  
 ?RCS: \$Log: d\_SHM\_MAC.U,v \$  
 ?RCS: Revision 3.0 1993/08/18 12:05:41 ram  
 ?RCS: Baseline for dist 3.0 netwide release.  
 ?RCS:  
 ?MAKE:d\_SHM\_MAC d\_SHM\_PRM d\_SHM\_SEG d\_SHM\_IMMU: cat d\_shm test rm +cc +ccflags  
 ?MAKE: -pick add \$@ %<  
 ?S:d\_SHM\_MAC:  
 ?S: Sometimes, the SHMLBA manifest needs sys/sysmacros.h, usually for  
 ?S: the ctob() macro.

?S:  
?S:d\_SHM\_PRM:  
?S: Sometimes, the SHMLBA manifest needs sys/param.h, usually for the  
?S: NBPC constant.  
?S:  
?S:d\_SHM\_SEG:  
?S: Sometimes,  
the SHMLBA manifest needs sys/seg.h, usually for the  
?S: SNUMSHFT constant.  
?S:  
?S:d\_SHM\_IMMU:  
?S: Sometimes, the SHMLBA manifest needs sys/immu.h, usually for the  
?S: stob() macro.  
?S:  
?C:SHMLBA\_WANTS\_SYSMACROS:  
?C: This value tells us to include <sys/sysmacros.h> because SHMLBA  
?C: needs something from there, probably the ctob() macro.  
?C:  
?C:SHMLBA\_WANTS\_PARAM:  
?C: This value tells us to include <sys/param.h> because SHMLBA needs  
?C: something from there, probably the NBPC constant.  
?C:  
?C:SHMLBA\_WANTS\_SEG:  
?C: This value tells us to include <sys/seg.h> because SHMLBA needs  
?C: something from there, probably the SNUMSHFT constant.  
?C:  
?C:SHMLBA\_WANTS\_IMMU:  
?C: This value tells us to include <sys/immu.h> because SHMLBA needs  
?C: something from there, probably the stob() macro. (tower\_600 only?)  
?C:  
?H:#\$d\_SHM\_MAC SHMLBA\_WANTS\_SYSMACROS /\* SHMLBA wants ctob()? \*/  
?H:#\$d\_SHM\_PRM SHMLBA\_WANTS\_PARAM /\* SHMLBA wants NBPC? \*/  
?H:#\$d\_SHM\_SEG SHMLBA\_WANTS\_SEG /\* SHMLBA wants  
SNUMSHFT? \*/  
?H:#\$d\_SHM\_IMMU SHMLBA\_WANTS\_IMMU /\* SHMLBA wants stob()? \*/  
?H:  
?T:flags D\_sys\_immu D\_sys\_seg D\_sys\_sysmacros D\_sys\_param  
: check for SHMLBA braindamage  
d\_SHM\_MAC="\$undef"  
d\_SHM\_PRM="\$undef"  
d\_SHM\_SEG="\$undef"  
d\_SHM\_IMMU="\$undef"  
if \$test "\$d\_shm" = "\$define" ; then  
echo " "  
\$cat >&4 <<EOM  
Checking to see if SHMLBA needs additional headers.  
The headers I'll be checking are:

sys/macros.h (for the ctob() macro)  
sys/param.h (for NBPC)  
sys/seg.h (for SNUMSHFT)  
sys/immu.h (for the stob() macro)

EOM

```
$cat >shm_mac.c <<'EOCP'
#include <sys/types.h>
#include <sys/ipc.h>
#include <sys/shm.h>
#ifdef I_SYS_IMMU
#include <sys/immu.h>
#endif
#ifdef I_SYS_SYSMACROS
#include <sys/sysmacros.h>
#endif
#ifdef I_SYS_PARAM
#include <sys/param.h>
#endif
#ifdef I_SYS_SEG
#include <sys/seg.h>
#endif

int main() {
 int foo = SHMLBA ;
}
EOCP
flags='xxx'
for D_sys_immu in "-DI_SYS_IMMU"; do
 for D_sys_seg in "-DI_SYS_SEG"; do
 for D_sys_sysmacros in "-DI_SYS_SYSMACROS";
 do
 for D_sys_param in "-DI_SYS_PARAM"; do
 case "$flags" in
 'xxx')
 case "D_sys_immuD_sys_param$D_sys_sysmacros$D_sys_seg" in
 *)
 echo "Trying it normally..."
 ;;
 *)
 echo "Trying $D_sys_immu $D_sys_param $D_sys_sysmacros $D_sys_seg"
 ;;
 esac
 if $cc $ccflags \
 $D_sys_immu $D_sys_param $D_sys_sysmacros $D_sys_seg \
 -o shm_mac shm_mac.c >/dev/null 2>&1 ; then
 set X $D_sys_immu $D_sys_param $D_sys_sysmacros $D_sys_seg
 shift
```

```

 flags="$*"
 echo "Succeeded with $flags"
fi
;;
esac
done
done
done
done
case "$flags" in
xxx)
 echo "I don't know how to keep SHMLBA happy. Good luck!"
 ;;
esac
case "$flags" in
I_SYS_PARAM) d_SHM_PRM="$define";;
esac
case "$flags" in
I_SYS_SYSMACROS) d_SHM_MAC="$define";;
esac
case "$flags" in
I_SYS_SEG) d_SHM_SEG="$define";;
esac
case "$flags" in
I_SYS_IMMU) d_SHM_IMMU="$define";;
esac
fi
$rm -f shm_mac*

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_SHM_MAC.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_stdbool.U,v \$

?RCS:

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?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:i\_stdbool: cat Compile rm\_try Setvar

?MAKE: -pick add \$@ %<

?S:i\_stdbool:

?S: This variable conditionally defines the I\_STDBOOL symbol, which

?S: indicates to the C program that <stdbool.h> exists and should

?S: be included.

?S:.

?C:I\_STDBOOL:

?C: This symbol, if defined, indicates that <stdbool.h> exists and

?C: can be included.

?C:.

?H:#\$i\_stdbool I\_STDBOOL /\*\*/

?H:.

?LINT:set i\_stdbool

: see if stdbool is available

: we want a real compile instead of Inhdr because some Solaris systems

: have stdbool.h, but it can only be used if the compiler indicates it

: is sufficiently c99-compliant.

echo " "

\$cat >try.c <<EOCP

#include <stdio.h>

#include <stdbool.h>

int func(bool x)

{

    return

    x ? 1 : 0;

}

int main(int argc, char \*\*argv)

{

    return func(0);

}

EOCP

set try

if eval \$compile; then

    echo "<stdbool.h> found." >&4

    val="\$define"

else

    echo "<stdbool.h> NOT found." >&4

    val="\$undef"

fi

\$rm\_try

set i\_stdbool

eval \$setvar

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_stdbool.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_setgrent.U,v \$

?RCS:

?RCS: Copyright (c) 1998 Andy Dougherty

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:  
?RCS: \$Log: d\_setgrent.U,v \$  
?RCS:  
?MAKE:d\_setgrent: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_setgrent:  
?S: This variable conditionally defines the HAS\_SETGRENT symbol, which  
?S: indicates to the C program that the setgrent() routine is available  
?S: for initializing sequential access to the group database.  
?S:.  
?C:HAS\_SETGRENT:  
?C: This symbol, if defined, indicates that the setgrent routine is  
?C: available for initializing sequential access of the group database.  
?C:.  
?H:#\$d\_setgrent HAS\_SETGRENT /\*\*/  
?H:.  
?LINT:set d\_setgrent  
: see if setgrent exists  
set setgrent d\_setgrent  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_setgrent.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_pwritev.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_pwritev.U,v \$  
?RCS:  
?MAKE:d\_pwritev: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_pwritev:  
?S: This variable conditionally defines the HAS\_PWRITEV symbol, which  
?S: indicates to the C program that the pwritev() routine is available.  
?S:.  
?C:HAS\_PWRITEV :  
?C: This symbol, if defined, indicates that the pwritev routine is  
?C: available to perform vectored writes on a file descriptor at a  
?C: given offset.

```
?C:.
?H:#$d_pwritev HAS_PWRITEV /**/
?H:.
?LINT:set
d_pwritev
: see if pwritev exists
set pwritev d_pwritev
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_pwritev.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
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?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: charsize.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:07:13 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:34 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:charsize: Assert Myread cat rm_try +cc +ccflags echo n c
?MAKE: -pick add $@ %<
?S:charsize:
?S: This variable contains the value of the CHARSIZE symbol, which
?S: indicates to the C program how many bytes there are in a character.
?S:.
?C:CHARSIZE:
?C: This symbol contains
the size of a char, so that the C preprocessor
?C: can make decisions based on it.
?C:.
?H:#define CHARSIZE $charsize
?H:.
?T:size s
: check for length of character
echo " "
$echo $n "Checking to see how big your characters are...$c" >&4
```

```

for size in 1 2 4 8 error; do
 $cat >try.c <<EOCP
#include "static_assert.h"
char foo;
int main()
{
 STATIC_ASSERT($size == sizeof(foo));
 return 0;
}
EOCP
if $cc -c $ccflags try.c >/dev/null 2>&1; then break; fi
done
case "$size" in
error)
 echo " cannot compute it." >&4
 dflt=1
 rp="What is the size of a character (in bytes)?"
 ./myread
 charsize="$ans"
 ;;
*)
 case "$size" in
 1) s="";;
 *) s='s';;
 esac
 echo " $size byte$s." >&4
 charsize=$size
 ;;
esac
$rm_try

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/charsize.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_execinfo.U 34 2010-11-27 11:55:39Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 2011, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
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?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?MAKE:i_execinfo: Inhdr
```

```
?MAKE: -pick add $@ %<
```



?S:i\_execinfo:  
 ?S: This variable conditionally defines the I\_EXECINFO symbol, and indicates  
 ?S: whether a C program may include <execinfo.h>, for backtrace() support.  
 ?S:.  
 ?C:I\_EXECINFO:  
 ?C: This symbol, if defined, indicates to the C program that it should  
 ?C: include <execinfo.h> for backtrace() support.  
 ?C:.  
 ?H:#\$i\_execinfo I\_EXECINFO /\*\*/  
 ?H:.  
 ?LINT:set i\_execinfo  
 : see if this is an execinfo.h system  
 set execinfo.h i\_execinfo  
 eval  
 \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i\_execinfo.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
 ?RCS:  
 ?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
 ?RCS:  
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 ?RCS: that same Artistic License; a copy of which may be found at the root  
 ?RCS: of the source tree for dist 4.0.  
 ?RCS:  
 ?RCS: \$Log: d\_volatile.U,v \$  
 ?RCS: Revision 3.0.1.2 1995/07/25 14:08:49 ram  
 ?RCS: patch56: made cc and ccflags optional dependencies  
 ?RCS:  
 ?RCS: Revision 3.0.1.1 1993/09/09 11:49:51 ram  
 ?RCS: patch9: volatile definition was swapped over with undef  
 ?RCS:  
 ?RCS: Revision 3.0 1993/08/18 12:07:57 ram  
 ?RCS: Baseline for dist 3.0 netwide release.  
 ?RCS:  
 ?MAKE:d\_volatile: cat +cc +ccflags rm\_try Setvar  
 ?MAKE:-pick add \$@ %<  
 ?S:d\_volatile:  
 ?S: This variable conditionally defines the HASVOLATILE symbol, which  
 ?S: indicates  
 to the C program that this C compiler knows about the  
 ?S: volatile declaration.

```

?S:.
?C:HASVOLATILE ~ %<:
?C: This symbol, if defined, indicates that this C compiler knows about
?C: the volatile declaration.
?C:.
?H:?%<:#$d_volatile HASVOLATILE /**/
?H:?%<:#ifndef HASVOLATILE
?H:?%<:#define volatile
?H:?%<:#endif
?H:.
?W:%<:volatile
?LINT:set d_volatile
?LINT:known volatile
: check for volatile keyword
echo " "
echo 'Checking to see if your C compiler knows about "volatile"...' >&4
$cat >try.c <<'EOCP'
int main()
{
?X:
?X: The following seven lines added by Bill Campbell <billc@sierra.com>
?X: detect that MIPS compilers do not handle volatile in all situations.
?X:
typedef struct _goo_struct goo_struct;
goo_struct * volatile goo = ((goo_struct *)0);
struct _goo_struct {
 long long_int;
 int reg_int;
 char char_var;
};
typedef unsigned short foo_t;
char *volatile foo;
volatile int bar;
volatile foo_t blech;
foo = foo;
}
EOCP
if $cc -c $ccflags try.c >/dev/null
2>&1 ; then
val="$define"
echo "Yup, it does."
else
val="$undef"
echo "Nope, it doesn't."
fi
set d_volatile
eval $setvar
$rm_try

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_volatile.U
```

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```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1998 Andy Dougherty
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:uselongdouble: Myread Oldconfig Setvar cat test usemorebits
```

```
?MAKE: -pick add $@ %<
```

```
?Y:TOP
```

```
?S:uselongdouble:
```

```
?S: This variable conditionally defines the USE_LONG_DOUBLE symbol,
```

```
?S: and indicates that long doubles should be used when available.
```

```
?S:.
```

```
?C:USE_LONG_DOUBLE:
```

```
?C: This symbol, if defined, indicates that long doubles should
```

```
?C: be used when available.
```

```
?C:.
```

```
?H:%<:#ifndef USE_LONG_DOUBLE
```

```
?H:%<:#$uselongdouble USE_LONG_DOUBLE /**/
```

```
?H:%<:#endif
```

```
?H:.
```

```
?LINT:extern ccflags
```

```
?LINT:use usemorebits
```

```
?F:!uselongdouble.cbu
```

```
: Check for uselongdouble support
```

```
case "$ccflags" in
```

```
-DUSE_LONG_DOUBLE|*-DUSE_MORE_BITS*) uselongdouble="$define" ;;
```

```
esac
```

```
case "$uselongdouble" in
```

```
$define|true|[yY]*) dflt='y';;
```

```
*)
```

```
 dflt='n';;
```

```
esac
```

```
cat <<EOM
```

Perl can be built to take advantage of long doubles which  
(if available) may give more accuracy and range for floating point numbers.

If this doesn't make any sense to you, just accept the default '\$dflt'.

EOM

```
rp="Try to use long doubles if available?"
```

```
./myread
```

```
case "$ans" in
```

```
y|Y) val="$define" ;;
```

```
*) val="$undef" ;;
```

```
esac
```

```
set uselongdouble
```

```
eval $setvar
```

```
case "$uselongdouble" in
```

```
true|[yY]*) uselongdouble="$define" ;;
```

```
esac
```

```
: Look for a hint-file generated 'call-back-unit'. If the
```

```
: user has specified that long doubles should be used,
```

```
: we may need to set or change some other defaults.
```

```
if $test -f uselongdouble.cbu; then
```

```
 echo "Your platform has some specific hints regarding long doubles, using them..."
```

```
 ./uselongdouble.cbu
```

```
else
```

```
 case "$uselongdouble" in
```

```
 $define)
```

```
 $cat <<EOM
```

```
(Your platform does not have any specific hints for long doubles.)
```

```
EOM
```

```
::
```

```
 esac
```

```
fi
```

```
Found in path(s):
```

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/uselongdbl.U
```

```
No license file was found, but licenses were detected in source scan.
```

```
?RCS: $Id: manfmt.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
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```

```
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: manfmt.U,v $
```

```
?RCS: Revision 3.0.1.5 1997/02/28 16:11:57 ram
```

```
?RCS: patch61: don't ask for AFS when they choose to not install pages
```

```
?RCS:
```

?RCS: Revision 3.0.1.4 1995/09/25 09:16:52 ram  
 ?RCS: patch59: unit is now forced to the top of Configure, if possible  
 ?RCS:  
 ?RCS: Revision 3.0.1.3 1995/01/30 14:39:20 ram  
 ?RCS: patch49: new installmanfmt and AFS-lookup for formatted man pages  
 ?RCS: patch49: can now handle installation prefix changes (from WED)  
 ?RCS:  
 ?RCS:  
 Revision 3.0.1.2 1994/08/29 16:30:31 ram  
 ?RCS: patch32: now uses installation prefix for default setting  
 ?RCS:  
 ?RCS: Revision 3.0.1.1 1993/09/13 16:09:22 ram  
 ?RCS: patch10: allows for L1 man page extension (WAD)  
 ?RCS:  
 ?RCS: Revision 3.0 1993/08/18 12:09:13 ram  
 ?RCS: Baseline for dist 3.0 netwide release.  
 ?RCS:  
 ?MAKE:manfmt manfmtexp installmanfmt: Getfile Loc Oldconfig cat manext \  
 spackage Prefixit prefixexp Prefixup afs test  
 ?MAKE: -pick add \$@ %<  
 ?Y:TOP  
 ?S:manfmt:  
 ?S: This variable contains the name of the directory in which formatted  
 ?S: manual pages are to be put. It is the responsibility of the  
 ?S: Makefile.SH to get the value of this into the proper command. Note  
 ?S: that you may have to do ~name substitution. Use manfmtexp otherwise.  
 ?S:.  
 ?S:manfmtexp:  
 ?S: This is the same as the manfmt variable, but is filename expanded  
 ?S: at configuration time, for programs not willing to deal with it at  
 ?S: run-time.  
 ?S:.  
 ?S:installmanfmt:  
 ?S: This variable is really  
 the same as manfmtexp, unless you are using  
 ?S: AFS in which case it points to the read/write location whereas  
 ?S: mansrcexp only points to the read-only access location. For extra  
 ?S: portability, you should only use this variable within your makefiles.  
 ?S:.  
 ?LINT:change manext  
 ?T:lookpath  
 : determine where manual pages go  
 set manfmt manfmt  
 eval \$prefixit  
 \$cat <<EOM

\$spackage has pre-formatted manual pages. If you don't want these installed,  
 answer 'none' to the next question.

```

EOM
case "$manfmt" in
")
lookpath="$prefixexp/catman/man1 $prefixexp/man/cat1"
lookpath="$lookpath $prefixexp/catman/u_man/man1"
lookpath="$lookpath $prefixexp/catman/l_man/man1"
lookpath="$lookpath $prefixexp/catman/cat1 /usr/catman/local/man1"
lookpath="$lookpath /usr/catman/man1 /usr/man/cat1"
lookpath="$lookpath /usr/catman/man1 /usr/catman/l_man/man1"
lookpath="$lookpath /usr/catman/u_man/man1 /usr/catman/man1"
dflt=`./loc . none $lookpath`
set dflt
eval $prefixup
;;
*) dflt="$manfmt"
;;
esac
fn=dn~
rp='Where
do pre-formatted manual pages go?'
./getfile
if test "X$manfmtexp" != "X$sansexp"; then
installmanfmt="
fi
manfmt="$sans"
manfmtexp="$sansexp"
if $afs && $test "$manfmt"; then
$cat <<EOM

```

Since you are running AFS, I need to distinguish the directory in which manual pages reside from the directory in which they are installed (and from which they are presumably copied to the former directory by occult means).

```

EOM
case "$installmanfmt" in
") dflt=`echo $manfmtexp | sed 's#^/afs/#/afs/.#^`;;
*) dflt="$installmanfmt";;
esac
fn=de~
rp='Where will pre-formatted man pages be installed?'
./getfile
installmanfmt="$sans"
else
installmanfmt="$manfmtexp"
fi

case "$manfmt" in

```

```
) manext='0';
*l) manext=l;;
*n) manext=n;;
*o) manext=l;;
*p) manext=n;;
*C) manext=C;;
*L) manext=L;;
*L1) manext=L1;;
*) manext=l;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/manfmt.U
```

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?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:st\_ino\_size st\_ino\_sign: cat echo i\_stdlib Setvar Compile run rm\_try

?MAKE: -pick add \$@ %<

?S:st\_ino\_sign:

?S: This variable contains the signedness of struct stat's st\_ino.

?S: 1 for unsigned, -1 for signed.

?S:.

?S:st\_ino\_size:

?S: This variable contains the size of struct stat's st\_ino in bytes.

?S:.

?C:ST\_INO\_SIZE:

?C: This variable contains the size of struct stat's st\_ino in bytes.

?C:.

?C:ST\_INO\_SIGN:

?C: This symbol holds the signedness of struct stat's st\_ino.

?C: 1 for unsigned, -1 for signed.

?C:.

?H:#define ST\_INO\_SIGN

\$st\_ino\_sign /\* st\_ino sign \*/

?H:#define ST\_INO\_SIZE \$st\_ino\_size /\* st\_ino size \*/

?H:.

?F:!try

: Check the size of st\_ino

\$echo " "

\$echo "Checking the size of st\_ino..." >&4

```

$cat > try.c <<EOCP
#include <sys/stat.h>
#include <stdio.h>
#ifdef I_STDLIB
#include <stdlib.h>
#endif
int main() {
 struct stat st;
 printf("%d\n", (int)sizeof(st.st_ino));
 exit(0);
}
EOCP
set try
if eval $compile_ok; then
 val=`$run ./try`
 case "$val" in
 *) st_ino_size=4
 $echo "(I can't execute the test program--guessing $st_ino_size.)" >&4
 ;;
 *) st_ino_size=$val
 $echo "Your st_ino is $st_ino_size bytes long."
 ;;
 esac
else
 st_ino_size=4
 $echo "(I can't compile the test program--guessing $st_ino_size.)" >&4
fi
$rm_try

```

```

: Check if st_ino is signed
$echo " "
$echo "Checking the sign of st_ino..." >&4

```

```

$cat > try.c <<EOCP
#include <sys/stat.h>
#include <stdio.h>
int main() {
 struct stat foo;
 foo.st_ino = -1;
 if (foo.st_ino < 0)
 printf("-1\n");
 else
 printf("1\n");
}
EOCP
set
try
if eval $compile; then

```



```

val=`$run ./try`
case "$val" in
") st_ino_sign=1
$echo "(I can't execute the test program--guessing unsigned.)" >&4
;;
*) st_ino_sign=$val
case "$st_ino_sign" in
1) $echo "Your st_ino is unsigned." ;;
-1) $echo "Your st_ino is signed." ;;
esac
;;
esac
else
st_ino_sign=1
$echo "(I can't compile the test program--guessing unsigned.)" >&4
fi
$rm_try

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/st_ino_def.U
```

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?RCS:

?MAKE:d\_nexttoward: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_nexttoward:

?S: This variable conditionally defines HAS\_NEXTTOWARD if nexttoward()

?S: is available to return the next machine representable long double from

?S: x in direction y.

?S:.

?C:HAS\_NEXTTOWARD:

?C: This symbol, if defined, indicates that the nexttoward routine is

?C: available to return the next machine representable long double from

?C: x in direction y.

?C:.

?H:#\$d\_nexttoward HAS\_NEXTTOWARD /\*\*/

?H:.

?LINT:set d\_nexttoward

: see if nexttoward exists

set nexttoward d\_nexttoward

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_nexttoward.U
```

No license file was found, but licenses were detected in source scan.

```
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?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_const.U,v $
?RCS: Revision 3.0.1.1 1993/11/10 17:33:41 ram
?RCS: patch14: stronger const check with added typedef for MIPS cc
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:51 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_const: cat rm cc cflags Setvar
?MAKE: -pick add $@ %<
?S:d_const:
?S: This variable conditionally defines the HASCONST symbol, which
?S: indicates to the C program that this C compiler knows about the
?S: const type.
?S:.
?C:HASCONST ~ %<:
?C: This symbol,
if defined, indicates that this C compiler knows about
?C: the const type. There is no need to actually test for that symbol
?C: within your programs. The mere use of the "const" keyword will
?C: trigger the necessary tests.
?C:.
?H:%<:#$d_const HASCONST /**/
?H:%<:#ifndef HASCONST
?H:%<:#define const
?H:%<:#endif
?H:.
?W:%<:const
?F:const.c const.o
?LINT:set d_const
?LINT:known const
: check for const keyword
echo " "
echo 'Checking to see if your C compiler knows about "const"...' >&4
$cat >const.c <<'EOCP'
?X: mmcg@bruce.cs.monash.edu.au reports that:
?X: The MIPS cc compiler (V2.10) on a dec 5000 running Ultrix 4.2A
```

?X: pretends to understand `const` but doesn't - it'll also fail to  
?X: handle typedefs properly if they're declared const. To guard  
?X: against this, boost up the test by using an explicit typedef...

```
typedef struct spug { int drokk; } spug;
```

```
int main()
```

```
{
 const char *foo;
 const spug y;
}
```

EOCP

```
if $cc -c $ccflags const.c >/dev/null 2>&1 ; then
```

```
 val="$define"
```

```
 echo "Yup,
```

```
 it does."
```

```
else
```

```
 val="$undef"
```

```
 echo "Nope, it doesn't."
```

```
fi
```

```
set d_const
```

```
eval $setvar
```

```
$rm -f const.c const.o
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/d_const.U
```

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?RCS: \$Id: cppfilecom.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Graham Stoney <greyham@research.canon.oz.au>

?RCS:

?RCS: \$Log: cppfilecom.U,v \$

?RCS: Revision 3.0 1993/08/18 12:05:37 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:cppfilecom cppstdinflags d\_cppignhdrs d\_cppcanstdin: \  
contains package test Myread Oldconfig Loc Setvar cpp cc cat rm

?MAKE: -pick add \$@ %<

?MAKE: -pick add \$@ %<

?S:cppfilecom:

?S: This variable contains the first part of the string which will invoke

?S: the C preprocessor a file  
and produce to standard output, preserving  
?S: comments. Typical value of "cc -E -C" or "/lib/cpp -C".  
?S:.  
?S:cppstdinflags:  
?S: This variable contains any flags necessary to get cppfilecom to read  
?S: from the standard input.  
?S:.  
?S:d\_cppignhdrs:  
?S: This symbol conditionally defines CPP\_IGN\_HDRS if CPP\_FILE\_COM ignores  
?S: \*.h files.  
?S:.  
?S:d\_cppcanstdin:  
?S: This symbol conditionally defines CPP\_CAN\_STDIN if CPP\_FILE\_COM can  
?S: read standard input directly.  
?S:.  
?C:CPP\_FILE\_COM (CPPFILECOM):  
?C: This symbol contains the first part of the string which will invoke  
?C: the C preprocessor a file and produce to standard output, preserving  
?C: comments. Typical value of "cc -E -C" or "/lib/cpp -C".  
?C:.  
?C:CPP\_STDIN\_FLAGS (CPPSTDINFLAGS):  
?C: This variable contains any flags necessary to get CPP\_FILE\_COM to  
?C: read from the standard input.  
?C:.  
?C:CPP\_IGN\_HDRS (CPPIGNHDRS):  
?C: This symbol is defined if CPP\_FILE\_COM ignores \*.h files.  
?C:.  
?C:CPP\_CAN\_STDIN (CPPCANSTDIN):  
?C: This  
symbol is defined if CPP\_FILE\_COM can read standard input  
?C: directly.  
?C:.  
?H:#define CPP\_FILE\_COM "\$cppfilecom"  
?H:#define CPP\_STDIN\_FLAGS "\$cppstdinflags"  
?H:#\$d\_cppignhdrs CPP\_IGN\_HDRS /\* does CPP ignore .h files? \*/  
?H:#\$d\_cppcanstdin CPP\_CAN\_STDIN /\* can CPP read stdin directly? \*/  
?H:.  
?T:cont  
?F:!testcpp.c !testcpp.h !testcpp.out  
?LINT:set d\_cppcanstdin d\_cppignhdrs  
?LINT:usefile testcpp.c testcpp.out  
: see how we invoke the C preprocessor  
\$cat <<EOM

\$package needs to be able to preprocess its input files in a mode which  
preserves comments, which is often not the default behaviour. It should run  
the C preprocessor you will use when compiling your own source code, which

should be ISO/ANSI C compliant if you want \$package to handle the latest standard C. I will try to guess, but I might guess wrongly because it is not necessarily the same preprocessor used to build \$package.

EOM

```
$cat <<'EOT' >testcpp.c
#define ABC abc
#define XYZ xyz
ABC.XYZ
/* comment */
EOT
:
if $test "X$cppfilecom"
 != "X" && \
 $cppfilecom testcpp.c </dev/null >testcpp.out 2>/dev/null && \
 $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 && \
 $contains comment testcpp.out >/dev/null 2>&1
then
 echo "You used to use $cppfilecom so we'll use that again."
 elif echo 'Maybe "$cc" -E -C" will work...' && \
 $cc -E -C testcpp.c </dev/null >testcpp.out 2>/dev/null && \
 $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 && \
 $contains comment testcpp.out >/dev/null 2>&1
then
 echo "It works!"
 cppfilecom="$cc -E -C"
 elif echo 'Nope...maybe "$cc" -P -C" will work...' && \
 $cc -P -C testcpp.c </dev/null >testcpp.out 2>/dev/null && \
 $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 && \
 $contains comment testcpp.out >/dev/null 2>&1
then
 echo "Yup, that does."
 cppfilecom="$cc -P -C"
 elif echo 'No such luck, maybe "$cpp" -C" will work...' && \
 $cpp -C testcpp.c </dev/null >testcpp.out 2>/dev/null && \
 $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 && \
 $contains comment testcpp.out
 >/dev/null 2>&1
then
 echo "Yup, it does."
 cppfilecom="$cpp -C"
else
 cppfilecom="
$cat <<'EOM'
```

I can't find a C preprocessor that will preserve comments. Please name one.

EOM

fi

:

```

dflt="$cppfilecom"
cont=true
while $test "$cont" ; do
 echo " "
 rp="How should $package run your preprocessor preserving comments?"
 ./myread
 cppfilecom="$ans"
 $cppfilecom testcpp.c >testcpp.out 2>&1
 if $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 && \
 $contains comment testcpp.out >/dev/null 2>&1
 then
 echo "OK, that will do."
 cont=""
 else
 echo "Sorry, I can't get that to work."
 fi
done

```

```

@if CPP_IGN_HDRS || d_cppignhdrs
: Now see if it ignores header files.
cp testcpp.c testcpp.h
$cppfilecom testcpp.h >testcpp.out 2>&1
if $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 && \
 $contains comment testcpp.out >/dev/null 2>&1
then
 echo "Terrific; it processes .h files passed on the command line too."
 val="$undef"
else
 echo "It ignores .h files on the command line; pity."
 val="$define"
fi
set
d_cppignhdrs
eval $setvar

```

```

@end
@if CPP_STDIN_FLAGS || CPP_CAN_STDIN || cppstdinflags || d_cppcanstdin
: Now see how to send stdin to it.
echo " "
cp testcpp.c testcpp.h
$cppfilecom <testcpp.h >testcpp.out 2>&1
if $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 && \
 $contains comment testcpp.out >/dev/null 2>&1
then
 echo "Great; and it will read stdin if passed no arguments."
 val="$define"
 cppstdinflags=""
else

```

```

$cppfilecom - <testcpp.h >testcpp.out 2>&1
if $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 && \
 $contains comment testcpp.out >/dev/null 2>&1
then
 echo "Great; and it can read stdin by passing it '-!'"
 val="$define"
 cppstdinflags='-!'
else
 $cat <<FOO
Unfortunately, I can't find an easy way to get that preprocessor to read from
standard input. Do you know any flags I can pass it to get it to do so?
If that preprocessor can't read directly form standard input, answer 'none'.

```

```

FOO
val='dunno'
while $test "$val" = "dunno"; do
 rp='Flags to get preprocessor
to read stdin?'
 dflt='none'
 ./myread
 if $test $ans = 'none'; then
 echo "Oh well, if $package wants it done, it will do it for itself."
 val="$undef"
 else
 $cppfilecom $ans <testcpp.h >testcpp.out 2>&1
 if $contains 'abc.*xyz' testcpp.out >/dev/null 2>&1 && \
 $contains comment testcpp.out >/dev/null 2>&1
 then
 echo "Good; that works fine."
 val="$define"
 cppstdinflags="$ans"
 else
 echo "Sorry, I couldn't get that to work."
 fi
 fi
done
fi
set d_cppcanstdin
eval $setvar

@end
: cleanup cpp test files anyway
$rm -f testcpp.*

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/cppfilecom.U

```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_lchown.U,v 3.0.1.1 1994/08/29 16:07:14 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_lchown.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:07:14 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_lchown: Compile Setvar cat echo
?MAKE: -pick add $@ %<
?S:d_lchown:
?S: This variable conditionally defines the HAS_LCHOWN symbol, which
?S: indicates to the C program that the lchown() routine is available
?S: to operate on a symbolic link (instead of following the link).
?S:
?C:HAS_LCHOWN
:
?C: This symbol, if defined, indicates that the lchown routine is
?C: available to operate on a symbolic link (instead of following the
?C: link).
?C:
?H:#$d_lchown HAS_LCHOWN /**/
?H:
?LINT:set d_lchown
: see if lchown exists
echo " "
?X: Some functions (such as lchown()) are present in libc, but are
?X: unimplemented. That is, they always fail and set errno=ENOSYS.
?X:
?X: Thomas Bushnell provided the following sample code and the explanation
?X: that follows.
?X:
?X: The choice of <assert.h> is essentially arbitrary. The GNU libc
?X: macros are found in <gnu/stubs.h>. You can include that file instead
?X: of <assert.h> (which itself includes <gnu/stubs.h>) if you test for
?X: its existence first. <assert.h> is assumed to exist on every system,
?X: which is why it's used here. Any GNU libc header file will include
?X: the stubs macros. If either __stub_NAME or __stub__NAME is defined,
```



?X: then the function doesn't actually exist. Tests using <assert.h>

work

?X: on every system around.

?X:

?X: The declaration of FOO is there to override builtin prototypes for

?X: ANSI C functions.

?X:

?X: I really ought to enhance the inlibc test to check for this, but

?X: I don't have time now. --A.D. 5/1998

?X:

```
$cat > try.c <<'EOCP'
```

```
/* System header to define __stub macros and hopefully few prototypes,
 which can conflict with char lchown(); below. */
```

```
#include <assert.h>
```

```
/* Override any gcc2 internal prototype to avoid an error. */
```

```
/* We use char because int might match the return type of a gcc2
 builtin and then its argument prototype would still apply. */
```

```
char lchown();
```

```
int main() {
```

```
 /* The GNU C library defines this for functions which it implements
 to always fail with ENOSYS. Some functions are actually named
 something starting with __ and the normal name is an alias. */
```

```
#if defined (__stub_lchown) || defined (__stub___lchown)
```

```
choke me
```

```
#else
```

```
lchown();
```

```
#endif
```

```
; return 0; }
```

```
EOCP
```

```
set try
```

```
if eval $compile; then
```

```
 $echo
```

```
"lchown() found." >&4
```

```
 val="$define"
```

```
else
```

```
 $echo "lchown() NOT found." >&4
```

```
 val="$undef"
```

```
fi
```

```
set d_lchown
```

```
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_lchown.U
```

No license file was found, but licenses were detected in source scan.

?RCS: Copyright (c) 2017, Karl Williamson

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_mbrtowc: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_mbrtowc:

?S: This variable conditionally defines the HAS\_MBRTOWC symbol if the

?S: mbrtowc() routine is available to be used to convert a multi-byte

?S: character into a wide character.

?S:.

?C:HAS\_MBRTOWC:

?C: This symbol, if defined, indicates that the mbrtowc routine is

?C: available to convert a multi-byte character into a wide character.

?C:.

?H:#\$d\_mbrtowc HAS\_MBRTOWC /\*\*/

?H:.

?LINT: set d\_mbrtowc

: see if mbrtowc exists

set mbrtowc d\_mbrtowc

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_mbrtowc.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_stdstdio.U,v 3.0.1.3 1997/02/28 15:46:32 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

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?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: Original Author: Tye McQueen <tye@metronet.com>

?RCS:

?RCS: \$Log: d\_stdstdio.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 15:46:32 ram

?RCS: patch61: merged with perl5's unit

?RCS:

?RCS: Revision 3.0.1.2 1995/07/25 14:06:54 ram

?RCS: patch56: typo fix on ?C: line for FILE\_bufsiz

?RCS: patch56: fixed unbalanced parenthesis (ADO)

?RCS: patch56: check whether FILE\_cnt and FILE\_ptr can be assigned to (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1995/05/12 12:12:11 ram

?RCS:

patch54: complete rewrite by Tye McQueen to fit modern systems

?RCS:

?RCS: Revision 3.0 1993/08/18 12:07:31 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_stdstdio d\_stdiobase stdio\_ptr stdio\_cnt \  
d\_stdio\_ptr\_lval\_sets\_cnt d\_stdio\_ptr\_lval\_nochange\_cnt stdio\_base \  
stdio\_bufsiz d\_stdio\_cnt\_lval d\_stdio\_ptr\_lval stdio\_filbuf: cat \  
Compile contains rm\_try d\_gnulibc gnulibc\_version i\_stdlib \  
Setvar Findhdr Oldconfig run to

?MAKE: -pick weed \$@ %<

?S:d\_stdstdio:

?S: This variable conditionally defines USE\_STDIO\_PTR if this system

?S: has a FILE structure declaring usable \_ptr and \_cnt fields (or

?S: equivalent) in stdio.h.

?S:.

?S:stdio\_ptr:

?S: This variable defines how, given a FILE pointer, fp, to access the

?S: \_ptr field (or equivalent) of stdio.h's FILE structure. This will

?S: be used to define the macro FILE\_ptr(fp).

?S:.

?S:d\_stdio\_ptr\_lval:

?S: This variable conditionally defines STDIO\_PTR\_LVALUE if the

?S: FILE\_ptr macro can be used as an lvalue.

?S:.

?S:stdio\_cnt:

?S: This

variable defines how, given a FILE pointer, fp, to access the

?S: \_cnt field (or equivalent) of stdio.h's FILE structure. This will

?S: be used to define the macro FILE\_cnt(fp).

?S:.

?S:d\_stdio\_cnt\_lval:

?S: This variable conditionally defines STDIO\_CNT\_LVALUE if the

?S: FILE\_cnt macro can be used as an lvalue.

?S:.

?S:d\_stdio\_ptr\_lval\_sets\_cnt:

?S: This symbol is defined if using the FILE\_ptr macro as an lvalue

?S: to increase the pointer by n has the side effect of decreasing the

?S: value of File\_cnt(fp) by n.

?S:.

?S:d\_stdio\_ptr\_lval\_nochange\_cnt:

?S: This symbol is defined if using the FILE\_ptr macro as an lvalue

?S: to increase the pointer by n leaves File\_cnt(fp) unchanged.

?S:.

?S:stdio\_filbuf:  
 ?S: This variable defines how, given a FILE pointer, fp, to tell  
 ?S: stdio to refill its internal buffers (?). This will  
 ?S: be used to define the macro FILE\_filbuf(fp).  
 ?S:.

?S:d\_stdiobase:  
 ?S: This variable conditionally defines USE\_STDIO\_BASE if this system  
 ?S: has  
 a FILE structure declaring a usable \_base field (or equivalent)  
 ?S: in stdio.h.  
 ?S:.

?S:stdio\_base:  
 ?S: This variable defines how, given a FILE pointer, fp, to access the  
 ?S: \_base field (or equivalent) of stdio.h's FILE structure. This will  
 ?S: be used to define the macro FILE\_base(fp).  
 ?S:.

?S:stdio\_bufsiz:  
 ?S: This variable defines how, given a FILE pointer, fp, to determine  
 ?S: the number of bytes store in the I/O buffer pointer to by the  
 ?S: \_base field (or equivalent) of stdio.h's FILE structure. This will  
 ?S: be used to define the macro FILE\_bufsiz(fp).  
 ?S:.

?C:USE\_STDIO\_PTR ~ d\_stdstdio (USE\_STD\_STDIO STDSTDIO):  
 ?C: This symbol is defined if the \_ptr and \_cnt fields (or similar)  
 ?C: of the stdio FILE structure can be used to access the stdio buffer  
 ?C: for a file handle. If this is defined, then the FILE\_ptr(fp)  
 ?C: and FILE\_cnt(fp) macros will also be defined and should be used  
 ?C: to access these fields.  
 ?C:.

?C:FILE\_ptr:  
 ?C: This macro is used to access the \_ptr  
 field (or equivalent) of the  
 ?C: FILE structure pointed to by its argument. This macro will always be  
 ?C: defined if USE\_STDIO\_PTR is defined.  
 ?C:.

?C:STDIO\_PTR\_LVALUE:  
 ?C: This symbol is defined if the FILE\_ptr macro can be used as an  
 ?C: lvalue.  
 ?C:.

?C:FILE\_cnt:  
 ?C: This macro is used to access the \_cnt field (or equivalent) of the  
 ?C: FILE structure pointed to by its argument. This macro will always be  
 ?C: defined if USE\_STDIO\_PTR is defined.  
 ?C:.

?C:STDIO\_CNT\_LVALUE:  
 ?C: This symbol is defined if the FILE\_cnt macro can be used as an  
 ?C: lvalue.  
 ?C:.

?C:STDIO\_PTR\_LVAL\_SETS\_CNT:  
?C: This symbol is defined if using the FILE\_ptr macro as an lvalue  
?C: to increase the pointer by n has the side effect of decreasing the  
?C: value of File\_cnt(fp) by n.  
?C:.

?C:STDIO\_PTR\_LVAL\_NOCHANGE\_CNT:  
?C: This symbol is defined if using the FILE\_ptr macro as an lvalue  
?C: to increase the pointer by n leaves File\_cnt(fp) unchanged.  
?C:.

?C:FILE\_filbuf:  
?C: This macro is used to access the internal stdio  
\_filbuf function  
?C: (or equivalent), if STDIO\_CNT\_LVALUE and STDIO\_PTR\_LVALUE  
?C: are defined. It is typically either \_filbuf or \_\_filbuf.  
?C: This macro will only be defined if both STDIO\_CNT\_LVALUE and  
?C: STDIO\_PTR\_LVALUE are defined.  
?C:.

```
?H:?d_stdstdio:#$d_stdstdio USE_STDIO_PTR /**/
?H:?d_stdstdio:#ifdef USE_STDIO_PTR
?H:#define FILE_ptr(fp) $stdio_ptr
?H:#$d_stdstdio_ptr_lval STDIO_PTR_LVALUE /**/
?H:#define FILE_cnt(fp) $stdio_cnt
?H:#$d_stdstdio_cnt_lval STDIO_CNT_LVALUE /**/
?H:#$d_stdstdio_ptr_lval_sets_cnt STDIO_PTR_LVAL_SETS_CNT /**/
?H:#$d_stdstdio_ptr_lval_nochange_cnt STDIO_PTR_LVAL_NOCHANGE_CNT /**/
?H:?FILE_filbuf:#if defined(STDIO_PTR_LVALUE) && defined(STDIO_CNT_LVALUE)
?H:?FILE_filbuf:#define FILE_filbuf(fp) $stdio_filbuf /**/
?H:?FILE_filbuf:#endif
?H:?d_stdstdio:#endif
?H:.
```

?W:d\_stdstdio:FILE\_ptr FILE\_cnt FILE\_filbuf  
?C:USE\_STDIO\_BASE ~ d\_stdstdio:  
?C: This symbol is defined if the \_base field (or similar) of the  
?C: stdio FILE structure can be used to access the  
stdio buffer for  
?C: a file handle. If this is defined, then the FILE\_base(fp) macro  
?C: will also be defined and should be used to access this field.  
?C: Also, the FILE\_bufsiz(fp) macro will be defined and should be used  
?C: to determine the number of bytes in the buffer. USE\_STDIO\_BASE  
?C: will never be defined unless USE\_STDIO\_PTR is.  
?C:.

?C:FILE\_base:  
?C: This macro is used to access the \_base field (or equivalent) of the  
?C: FILE structure pointed to by its argument. This macro will always be  
?C: defined if USE\_STDIO\_BASE is defined.  
?C:.

?C:FILE\_bufsiz:  
?C: This macro is used to determine the number of bytes in the I/O

```

?C: buffer pointed to by _base field (or equivalent) of the FILE
?C: structure pointed to its argument. This macro will always be defined
?C: if USE_STDIO_BASE is defined.
?C:.
?H:?d_stdibase:#$d_stdibase USE_STDIO_BASE /**/
?H:?d_stdibase:#ifdef USE_STDIO_BASE
?H:#define FILE_base(fp) $stdio_base
?H:#define FILE_bufsiz(fp) $stdio_bufsiz
?H:?d_stdibase:#endif
?H:.
?W:d_stdibase:FILE_base
FILE_bufsiz
?T:ptr_lval cnt_lval filbuf xxx
?F:!try
?LINT:set d_stdstdio d_stdibase
: see if _ptr and _cnt from stdio act std
echo " "

if $contains '_lbfsize' `./findhdr stdio.h` >/dev/null 2>&1 ; then
echo "(Looks like you have stdio.h from BSD.)"
case "$stdio_ptr" in
") stdio_ptr='((fp)->_p)'
ptr_lval=$define
;;
*) ptr_lval=$d_stdio_ptr_lval;;
esac
case "$stdio_cnt" in
") stdio_cnt='((fp)->_r)'
cnt_lval=$define
;;
*) cnt_lval=$d_stdio_cnt_lval;;
esac
case "$stdio_base" in
") stdio_base='((fp)->_ub._base ? (fp)->_ub._base : (fp)->_bf._base)';;
esac
case "$stdio_bufsiz" in
") stdio_bufsiz='((fp)->_ub._base ? (fp)->_ub._size : (fp)->_bf._size)';;
esac
elif $contains '_IO_fpos_t' `./findhdr stdio.h` `./findhdr libio.h` >/dev/null 2>&1 ; then
echo "(Looks like you have stdio.h from Linux.)"
case "$stdio_ptr" in
") stdio_ptr='((fp)->_IO_read_ptr)'
ptr_lval=$define
;;
*) ptr_lval=$d_stdio_ptr_lval;;
esac
case "$stdio_cnt"

```

```

in
") stdio_cnt='((fp)->_IO_read_end - (fp)->_IO_read_ptr)'
cnt_lval=$undef
;;
*) cnt_lval=$d_stdio_cnt_lval;;
esac
case "$stdio_base" in
") stdio_base='((fp)->_IO_read_base)';;
esac
case "$stdio_bufsiz" in
") stdio_bufsiz='((fp)->_IO_read_end - (fp)->_IO_read_base)';;
esac
else
case "$stdio_ptr" in
") stdio_ptr='(fp)->_ptr)'
ptr_lval=$define
;;
*) ptr_lval=$d_stdio_ptr_lval;;
esac
case "$stdio_cnt" in
") stdio_cnt='(fp)->_cnt)'
cnt_lval=$define
;;
*) cnt_lval=$d_stdio_cnt_lval;;
esac
case "$stdio_base" in
") stdio_base='(fp)->_base)';;
esac
case "$stdio_bufsiz" in
") stdio_bufsiz='((fp)->_cnt + (fp)->_ptr - (fp)->_base)';;
esac
fi

```

: test whether \_ptr and \_cnt really work

```
echo "Checking how std your stdio is..." >&4
```

```
$cat >try.c <<EOP
```

```
#include <stdio.h>
```

```
#$i_stdlib I_STDLIB
```

```
#ifdef I_STDLIB
```

```
#include <stdlib.h>
```

```
#endif
```

```
#define FILE_ptr(fp) $stdio_ptr
```

```
#define FILE_cnt(fp) $stdio_cnt
```

```
int main() {
```

```
FILE *fp = fopen("try.c", "r");
```

```
char c = getc(fp);
```

```
if
```

```

(
 18 <= FILE_cnt(fp) &&
 strncmp(FILE_ptr(fp), "include <stdio.h>\n", 18) == 0
)
exit(0);
exit(1);
}
EOP
val="$undef"
set try
if eval $compile && $to try.c; then
if $run ./try; then
 echo "Your stdio acts pretty std."
 val="$define"
else
 echo "Your stdio isn't very std."
fi
else
 echo "Your stdio doesn't appear very std."
fi
$rm_try

glibc 2.2.90 and above apparently change stdio streams so Perl's
direct buffer manipulation no longer works. The Configure tests
should be changed to correctly detect this, but until then,
the following check should at least let perl compile and run.
(This quick fix should be updated before 5.8.1.)
To be defensive, reject all unknown versions, and all versions > 2.2.9.
A. Dougherty, June 3, 2002.
case "$d_gnulibc" in
$define)
 case "$gnulibc_version" in
2.[01]*) ;;
2.2) ;;
2.2.[0-9]) ;;
*) echo "But I will not snoop inside glibc $gnulibc_version stdio buffers."
 val="$undef"
 ;;
esac
;;
esac
set d_stdstdio
eval
$setvar

@if STDIO_PTR_LVALUE || d_stdio_ptr_lval
: Can _ptr be used as an lvalue?
?X: Only makes sense if we have a known stdio implementation.

```



```

case "$d_stdstdio$ptr_lval" in
$define$define) val=$define ;;
*) val=$undef ;;
esac
set d_stdio_ptr_lval
eval $setvar
@end

@if STDIO_CNT_LVALUE || d_stdio_cnt_lval
: Can _cnt be used as an lvalue?
?X: Only makes sense if we have a known stdio implementation.
case "$d_stdstdio$cnt_lval" in
$define$define) val=$define ;;
*) val=$undef ;;
esac
set d_stdio_cnt_lval
eval $setvar
@end

@if FILE_filbuf
: How to access the stdio _filbuf or __filbuf function.
: If this fails, check how the getc macro in stdio.h works.
case "${d_stdio_ptr_lval}${d_stdio_cnt_lval}" in
${define}${define})
: Try $hint value, if any, then _filbuf, __filbuf, _fill, then punt.
: _fill is for os/2.
xxx='notok'
for filbuf in $stdio_filbuf '_filbuf(fp)' '__filbuf(fp)' '_fill(fp)'; do
$cat >try.c <<EOP
#include <stdio.h>
#$i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#define
FILE_ptr(fp) $stdio_ptr
#define FILE_cnt(fp) $stdio_cnt
#define FILE_filbuf(fp) $filbuf
int main() {
FILE *fp = fopen("try.c", "r");
int c;
c = getc(fp);
c = FILE_filbuf(fp); /* Just looking for linker errors.*/
exit(0);
}
EOP
set try
if eval $compile && $to try.c && $run ./try; then

```

```

echo "Your stdio appears to use $filbuf"
stdio_filbuf="$filbuf"
xxx='ok'
break
else
echo "Hmm. $filbuf doesn't seem to work."
fi
$rm_try
done
case "$xxx" in
notok) echo "I can't figure out how to access _filbuf"
echo "I'll just have to work around it."
d_stdio_ptr_lval="$undef"
d_stdio_cnt_lval="$undef"
;;
esac
;;
esac
@end

@if STDIO_PTR_LVALUE
: test whether setting _ptr sets _cnt as a side effect
d_stdio_ptr_lval_sets_cnt="$undef"
d_stdio_ptr_lval_nochange_cnt="$undef"
case "$d_stdio_ptr_lval$d_stdstdio" in
$define$define)
echo "Checking to see what happens if we set the stdio ptr..." >&4
$cat >try.c <<EOP
#include <stdio.h>
/* Can
we scream? */
/* Eat dust sed :-) */
/* In the buffer space, no one can hear you scream. */
#$i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#define FILE_ptr(fp) $stdio_ptr
#define FILE_cnt(fp) $stdio_cnt
#include <sys/types.h>
int main() {
FILE *fp = fopen("try.c", "r");
int c;
char *ptr;
size_t cnt;
if (!fp) {
puts("Fail even to read");
exit(1);

```

```

}
c = getc(fp); /* Read away the first # */
if (c == EOF) {
 puts("Fail even to read");
 exit(1);
}
if (!(
 18 <= FILE_cnt(fp) &&
 strncmp(FILE_ptr(fp), "include <stdio.h>\n", 18) == 0
)) {
 puts("Fail even to read");
 exit (1);
}
ptr = (char*) FILE_ptr(fp);
cnt = (size_t)FILE_cnt(fp);

FILE_ptr(fp) += 42;

if ((char*)FILE_ptr(fp) != (ptr + 42)) {
 printf("Fail ptr check %p != %p", FILE_ptr(fp), (ptr + 42));
 exit (1);
}
if (FILE_cnt(fp) <= 20) {
 printf ("Fail (<20 chars to test)");
 exit (1);
}
if (strncmp(FILE_ptr(fp), "Eat dust sed :-) *\n", 20) != 0) {
 puts("Fail compare");
 exit
(1);
}
if (cnt == FILE_cnt(fp)) {
 puts("Pass_unchanged");
 exit (0);
}
if (FILE_cnt(fp) == (cnt - 42)) {
 puts("Pass_changed");
 exit (0);
}
printf("Fail count was %d now %d\n", cnt, FILE_cnt(fp));
return 1;

}
EOP
set try
if eval $compile && $to try.c; then
case ` $run ./try ` in
Pass_changed)

```

```

echo "Increasing ptr in your stdio decreases cnt by the same amount. Good." >&4
d_stdio_ptr_lval_sets_cnt="$define" ;;
Pass_unchanged)
echo "Increasing ptr in your stdio leaves cnt unchanged. Good." >&4
d_stdio_ptr_lval_nochange_cnt="$define" ;;
Fail*)
echo "Increasing ptr in your stdio didn't do exactly what I expected. We'll not be doing that then." >&4 ;;
*)
echo "It appears attempting to set ptr in your stdio is a bad plan." >&4 ;;
esac
else
echo "It seems we can't set ptr in your stdio. Nevermind." >&4
fi
$rm_try
;;
esac
@end

@if d_stdibase || USE_STDIO_BASE || FILE_base || FILE_bufsiz
: see if _base is also standard
val="$undef"
case
"$d_stdstdio" in
$define)
$cat >try.c <<EOP
#include <stdio.h>
#$i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#define FILE_base(fp) $stdio_base
#define FILE_bufsiz(fp) $stdio_bufsiz
int main() {
FILE *fp = fopen("try.c", "r");
char c = getc(fp);
if (
19 <= FILE_bufsiz(fp) &&
strncmp(FILE_base(fp), "#include <stdio.h>\n", 19) == 0
)
exit(0);
exit(1);
}
EOP
set try
if eval $compile && $to try.c; then
if $run ./try; then
echo "And its _base field acts std."
val="$define"

```

```

else
 echo "But its _base field isn't std."
fi
else
 echo "However, it seems to be lacking the _base field."
fi
$rm_try
;;
esac
set d_stdibase
eval $setvar

@end

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_stdstdio.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: Id
?RCS:
?RCS: Copyright (c) 2019 Karl Williamson
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_towupper: Inlibc
?MAKE: -pick add $@ %<
?S:d_towupper:
?S: This variable conditionally defines the HAS_TOWUPPER symbol, which
?S: indicates to the C program that the towupper() routine is available.
?S:.
?C:HAS_TOWUPPER:
?C: This symbol, if defined, indicates that the towupper () routine is
?C: available to do case conversion.
?C:.
?H:#$d_towupper HAS_TOWUPPER /**/
?H:.
?LINT:set d_towupper
: see if towupper exists
set towupper d_towupper
eval $inlibc

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_towupper.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_open3.U,v 3.0.1.2 1997/02/28 15:37:12 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: d_open3.U,v $
?RCS: Revision 3.0.1.2 1997/02/28 15:37:12 ram
?RCS: patch61: added ?F: metalint hint
?RCS:
?RCS: Revision 3.0.1.1 1995/07/25 13:58:26 ram
?RCS: patch56: added knowledge of the O_NONBLOCK symbol
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:44 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_open3: Compile test cat h_fcntl h_sysfile rm_try Setvar Findhdr run i_stdlib
?MAKE: -pick add $@ %<
?X: It would be easy to separate the
h_O_stuff from this.
?X: Is there a reason to do so? -- HMS
?S:d_open3:
?S: This variable conditionally defines the HAS_OPEN3 manifest constant,
?S: which indicates to the C program that the 3 argument version of
?S: the open(2) function is available.
?S:.
?C:HAS_OPEN3 (OPEN3):
?C: This manifest constant lets the C program know that the three
?C: argument form of open(2) is available.
?C:.
?H:#$d_open3 HAS_OPEN3 /**/
?H:.
?W:%<:O_RDONLY O_WRONLY O_RDWR O_NDELAY O_APPEND O_SYNC O_CREAT O_TRUNC
?W:%<:O_EXCL O_NONBLOCK
?F:!try
?LINT:set d_open3
?LINT:change h_fcntl h_sysfile
: Locate the flags for 'open()'
echo " "
$cat >try.c <<EOCP
#include <sys/types.h>
#ifdef I_FCNTL
#include <fcntl.h>
#endif

```

```

#ifdef I_SYS_FILE
#include <sys/file.h>
#endif
#$i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
int main() {
 if(O_RDONLY);
#ifdef O_TRUNC
 exit(0);
#else
 exit(1);
#endif
}
EOCP
: check sys/file.h first to get FREAD on Sun
if $test `./findhdr sys/file.h` && \
 set try -DI_SYS_FILE
&& eval $compile; then
h_sysfile=true;
echo "<sys/file.h> defines the O_* constants..." >&4
if $run ./try; then
 echo "and you have the 3 argument form of open()." >&4
 val="$define"
else
 echo "but not the 3 argument form of open(). Oh, well." >&4
 val="$undef"
fi
elif $test `./findhdr fcntl.h` && \
 set try -DI_FCNTL && eval $compile; then
h_fcntl=true;
echo "<fcntl.h> defines the O_* constants..." >&4
if $run ./try; then
 echo "and you have the 3 argument form of open()." >&4
 val="$define"
else
 echo "but not the 3 argument form of open(). Oh, well." >&4
 val="$undef"
fi
else
 val="$undef"
 echo "I can't find the O_* constant definitions! You got problems." >&4
fi
set d_open3
eval $setvar
$rm_try

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d\_open3.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: cpp\_stuff.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:30:48 ram

?RCS: patch61: added cute quoting trick for wild stringify support

?RCS:

?RCS: Revision 3.0.1.1 1994/10/29 16:08:24 ram

?RCS: patch36: now uses cppstdin instead of plain cpp for consistency (ADO)

?RCS: patch36: remove temporary files when done

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:36 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:cpp\_stuff cpp\_quote: cat contains cppstdin cppflags cppminus rm Warn \  
package

?MAKE: -pick

add \$@ %<

?S:cpp\_stuff:

?S: This variable contains an identification of the catenation mechanism

?S: used by the C preprocessor.

?S:.

?S:cpp\_quote:

?S: This variable is set to either "" or " depending on whether the

?S: pre-processor pre-dates ANSI or not. It is used in the production of

?S: the SQuoTe() and EQuoTe() macros, and was introduced to overcome a bug

?S: in gcc 3.x whereby the pre-processor complained loudly about the

?S: unterminated strings.

?S:.

?C:CAT2:

?C: This macro catenates 2 tokens together.

?C:.

?C:CAT3:

?C: This macro catenates 3 tokens together.

?C:.

?C:CAT4:



```

?C: This macro catenates 4 tokens together.
?C:.
?C:CAT5:
?C: This macro catenates 5 tokens together.
?C:.
?C:STRINGIFY:
?C: This macro surrounds its token with double quotes.
?C:.
?C:SCAT2:
?C: This macro catenates 2 tokens together and stringifies the result.
?C:.
?C:SCAT3:
?C: This macro catenates 3 tokens together and stringifies the result.
?C:.
?C:SCAT4:
?C: This macro catenates 4 tokens
together and stringifies the result.
?C:.
?C:SCAT5:
?C: This macro catenates 5 tokens together and stringifies the result.
?C:.
?H:??<:#if $cpp_stuff == 1
?H:?CAT2:#define CAT2(a,b)a/**/b
?H:?CAT3:#define CAT3(a,b,c)a/**/b/**/c
?H:?CAT4:#define CAT4(a,b,c,d)a/**/b/**/c/**/d
?H:?CAT5:#define CAT5(a,b,c,d,e)a/**/b/**/c/**/d/**/e
?H:?STRINGIFY:#define STRINGIFY(a)"a"
?H:??<:#define SQuote(a){ cpp_quote }a
?H:??<:#define EQuote(a)a{ cpp_quote }
?H:?SCAT2:#define SCAT2(a,b)EQuote(SQuote(a)b)
?H:?SCAT3:#define SCAT3(a,b,c)EQuote(SQuote(a)b/**/c)
?H:?SCAT4:#define SCAT4(a,b,c,d)EQuote(SQuote(a)b/**/c/**/d)
?H:?SCAT5:#define SCAT5(a,b,c,d,e)EQuote(SQuote(a)b/**/c/**/d/**/e)
?H:??<:#endif
?H:??<:#if $cpp_stuff == 42
?X: The additional level of indirection enables these macros to be
?X: used as arguments to other macros. See K&R 2nd ed., page 231.
?H:??<:#define CaTiFy(a,b) a ## b
?H:??<:#define CAT2(a,b) CaTiFy(a,b)
?H:?CAT3:#define CAT3(a,b,c) CAT2(CaTiFy(a,b),c)
?H:?CAT4:#define CAT4(a,b,c,d)
CAT2(CaTiFy(a,b), CaTiFy(c,d))
?H:?CAT5:#define CAT5(a,b,c,d,e) CAT2(CAT2(CaTiFy(a,b), CaTiFy(c,d)), e)
?H:??<:#define StGiFy(a)# a
?H:?STRINGIFY:#define STRINGIFY(a)StGiFy(a)
?H:?SCAT2:#define SCAT2(a,b)StGiFy(a) StGiFy(b)
?H:?SCAT3:#define SCAT3(a,b,c)StGiFy(a) StGiFy(b) StGiFy(c)
?H:?SCAT4:#define SCAT4(a,b,c,d)StGiFy(a) StGiFy(b) StGiFy(c) StGiFy(d)

```

```

?H:?SCAT5:#define SCAT5(a,b,c,d,e)StGiFy(a) StGiFy(b) StGiFy(c) StGiFy(d) StGiFy(e)
?H:?%<:#endif
?H:?%<:#if $cpp_stuff != 1 && $cpp_stuff != 42
?H:?%<:#include "Bleth: How does this C preprocessor catenate tokens?"
?H:?%<:#endif
?H:.
?W:%<:CAT2 CAT3 CAT4 CAT5 STRINGIFY SCAT2 SCAT3 SCAT4 SCAT5
?F:!cpp_stuff.c
?LINT:known StGiFy EQuoTe SQuoTe CaTiFy
: how do we catenate cpp tokens here?
echo " "
echo "Checking to see how your cpp does stuff like catenate tokens..." >&4
cpp_quote="
$cat >cpp_stuff.c <<'EOCP'
#define RCAT(a,b)a/**/b
#define ACAT(a,b)a ## b
RCAT(Rei,ser)
ACAT(Cir,cus)
EOCP
$cppstdin $cppflags $cppminus <cpp_stuff.c >cpp_stuff.out
2>&1
if $contains 'Circus' cpp_stuff.out >/dev/null 2>&1; then
echo "Oh! Smells like ANSI's been here."
echo "We can catify or stringify, separately or together!"
cpp_stuff=42
elif $contains 'Reiser' cpp_stuff.out >/dev/null 2>&1; then
echo "Ah, yes! The good old days!"
cpp_stuff=1
$cat >cpp_stuff.c <<'EOCP'
#define SQuoTe(a)"a
#define EQuoTe(a)a"
#define CAT2(a,b)EQuoTe(SQuoTe(a)b)
CAT2(Vic,tory)
EOCP
$cppstdin $cppflags $cppminus <cpp_stuff.c >cpp_stuff.out 2>&1
if $contains ""Victory"" cpp_stuff.out >/dev/null 2>&1; then
echo "I'll resort to a cute trick to also be able to stringify."
cpp_quote=""
else
$cat <<EOM
However, in the good old days we don't know how to stringify and
catify at the same time...
@if SCAT2 || SCAT3 || SCAT4 || SCAT5
You might have to edit the values of the SCAT[2-5] macros in config.h...
@else
Hopefully, $package does not need this feature.
@end
EOM

```

```
fi
else
./warn <<EOM
I can't seem to be able to catenate tokens with your cpp.
@if
CAT2 || CAT3 || CAT4 || CAT5 || SCAT2 || SCAT3 || SCAT4 || SCAT5
You're going to have to edit the values of the following
macros in config.h:
```

```
@if CAT2 || CAT3 || CAT4 || CAT5
CAT[2-5]
@end
@if SCAT2 || SCAT3 || SCAT4 || SCAT5
SCAT[2-5]
@end
```

in order to let me compile.

```
@end
EOM
cpp_stuff="/* Help! How do we handle cpp_stuff? *//"
fi
$rm -f cpp_stuff.*
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/cpp_stuff.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_sbrk.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_sbrk.U,v $
?RCS: Revision 3.0.1.1 1994/01/24 14:06:31 ram
?RCS: patch16: created
?RCS:
?MAKE:d_sbrk: Inlibc
?MAKE: -pick add $@ %<
?S:d_sbrk:
?S: This variable conditionally defines HAS_SBRK if sbrk() is
?S: available to add more core to the process.
?S:.
```

?C:HAS\_SBRK:

?C: This symbol, if defined, indicates that the sbrk system call is

?C: available to add/release core. Always true on Unix.

?C:.

?H:#\$d\_sbrk HAS\_SBRK /\*\*/

?H:.

?LINT:set d\_sbrk

: see

if sbrk exists

set sbrk d\_sbrk

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_sbrk.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_union\_semun.U,v \$

?RCS:

?RCS: Copyright (c) 1998 Andy Dougherty

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: d\_union\_semun.U,v \$

?RCS:

?MAKE:d\_union\_semun d\_semctl\_semun d\_semctl\_semid\_ds: Compile Setvar Myread run \  
cat rm\_try d\_sem

?MAKE: -pick add \$@ %<

?S:d\_union\_semun:

?S: This variable conditionally defines HAS\_UNION\_SEMUN if the

?S: union semun is defined by including <sys/sem.h>.

?S:.

?S:d\_semctl\_semun:

?S: This variable conditionally defines USE\_SEMCTL\_SEMUN, which

?S: indicates that union semun is to be used for semctl IPC\_STAT.

?S:.

?S:d\_semctl\_semid\_ds:

?S: This variable conditionally defines USE\_SEMCTL\_SEMID\_DS, which

?S: indicates that struct semid\_ds \* is to be used for semctl IPC\_STAT.

?S:.

?C:HAS\_UNION\_SEMUN:

?C: This symbol, if defined, indicates that the union semun

is

?C: defined by including <sys/sem.h>. If not, the user code

?C: probably needs to define it as:

?C: union semun {

?C: int val;

```

?C: struct semid_ds *buf;
?C: unsigned short *array;
?C: }
?C:.
?C:USE_SEMCTL_SEMUN:
?C: This symbol, if defined, indicates that union semun is
?C: used for semctl IPC_STAT.
?C:.
?C:USE_SEMCTL_SEMID_DS:
?C: This symbol, if defined, indicates that struct semid_ds * is
?C: used for semctl IPC_STAT.
?C:.
?H:#$d_union_semun HAS_UNION_SEMUN /**/
?H:#$d_semctl_semun USE_SEMCTL_SEMUN /**/
?H:#$d_semctl_semid_ds USE_SEMCTL_SEMID_DS /**/
?H:.
?T:xxx also
?F:!try !tryh.h
?LINT: set d_union_semun d_semctl_semun d_semctl_semid_ds
: see whether sys/sem.h defines union semun
echo " "
$cat > try.c <<'END'
#include <sys/types.h>
#include <sys/ipc.h>
#include <sys/sem.h>
int main () { union semun semun; semun.buf = 0; }
END
set try
if eval $compile; then
 echo "You have union semun in <sys/sem.h>." >&4
 val="$define"
else
 echo "You do not have union
semun in <sys/sem.h>." >&4
 val="$undef"
fi
$rm_try
set d_union_semun
eval $setvar

: see how to do semctl IPC_STAT
case "$d_sem" in
$define)
 echo " "
?X: use tryh.h instead of try.h because $rm_try cleans up try.*
 $cat > tryh.h <<END
#endif S_IRUSR
ifdef S_IREAD

```

```

define S_IRUSR S_IREAD
define S_IWUSR S_IWRITE
define S_IXUSR S_IEXEC
else
define S_IRUSR 0400
define S_IWUSR 0200
define S_IXUSR 0100
endif
define S_IRGRP (S_IRUSR>>3)
define S_IWGRP (S_IWUSR>>3)
define S_IXGRP (S_IXUSR>>3)
define S_IROTH (S_IRUSR>>6)
define S_IWOTH (S_IWUSR>>6)
define S_IXOTH (S_IXUSR>>6)
#endif
#ifndef S_IRWXU
define S_IRWXU (S_IRUSR|S_IWUSR|S_IXUSR)
define S_IRWXG (S_IRGRP|S_IWGRP|S_IXGRP)
define S_IRWXO (S_IROTH|S_IWOTH|S_IXOTH)
#endif
END
: see whether semctl IPC_STAT can use union semun
case "$d_semctl_semun" in
")
 val="$undef"
 $cat > try.c <<END
#include <sys/types.h>
#include <sys/ipc.h>
#include <sys/sem.h>
#include
<sys/stat.h>
#include <stdio.h>
#include <errno.h>
#include "tryh.h"
#ifndef errno
extern int errno;
#endif
#$d_union_semun HAS_UNION_SEMUN
int main() {
 union semun
#ifndef HAS_UNION_SEMUN
 {
 int val;
 struct semid_ds *buf;
 unsigned short *array;
 }
#endif
 arg;

```

```

int sem, st;

#if defined(IPC_PRIVATE) && defined(S_IRWXU) && defined(S_IRWXG) && defined(S_IRWXO) &&
defined(IPC_CREAT)
 sem = semget(IPC_PRIVATE, 1, S_IRWXU|S_IRWXG|S_IRWXO|IPC_CREAT);
 if (sem > -1) {
struct semid_ds argbuf;
arg.buf = &argbuf;
ifdef IPC_STAT
st = semctl(sem, 0, IPC_STAT, arg);
if (st == 0)
 printf("semun\n");
else
endif /* IPC_STAT */
 printf("semctl IPC_STAT failed: errno = %d\n", errno);
ifdef IPC_RMID
if (semctl(sem, 0, IPC_RMID, arg) != 0)
endif /* IPC_RMID */
 printf("semctl IPC_RMID failed: errno = %d\n", errno);
 } else
endif /* IPC_PRIVATE && ... */
 printf("semget failed: errno = %d\n", errno);
return 0;
}
END

set try

if eval $compile; then
xxx=`$run ./try`
 case "$xxx" in
 semun) val="$define" ;;
 esac
fi
$rm_try
set d_semctl_semun
eval $setvar
;;
esac
case "$d_semctl_semun" in
$define)
 echo "You can use union semun for semctl IPC_STAT." >&4
also='also'
 ;;
*) echo "You cannot use union semun for semctl IPC_STAT." >&4
also="
 ;;
esac

```

```

: see whether semctl IPC_STAT can use struct semid_ds pointer
case "$d_semctl_semid_ds" in
")
 val="$undef"
 $cat > try.c <<'END'
#include <sys/types.h>
#include <sys/ipc.h>
#include <sys/sem.h>
#include <sys/stat.h>
#include "tryh.h"
#include <stdio.h>
#include <errno.h>
#ifdef errno
extern int errno;
#endif
int main() {
 union semun
#ifdef HAS_UNION_SEMUN
 {
 int val;
 struct semid_ds *buf;
 unsigned short *array;
 }
#endif
 arg;
 struct semid_ds argbuf;
 int sem, st;

#ifdef IPC_PRIVATE && defined(S_IRWXU) && defined(S_IRWXG)
&& defined(S_IRWXO) && defined(IPC_CREAT)
 sem = semget(IPC_PRIVATE, 1, S_IRWXU|S_IRWXG|S_IRWXO|IPC_CREAT);
 if (sem > -1) {
 arg.buf = &argbuf;
#ifdef IPC_STAT
 st = semctl(sem, 0, IPC_STAT, arg);
 if (st == 0)
 printf("semid_ds\n");
 else
#ifdef IPC_STAT */
 printf("semctl IPC_STAT failed: errno = %d\n", errno);
#ifdef IPC_RMID
 if (semctl(sem, 0, IPC_RMID, arg) != 0)
#ifdef IPC_RMID */
 printf("semctl IPC_RMID failed: errno = %d\n", errno);
 } else
#ifdef IPC_PRIVATE && ... */
 printf("semget failed: errno = %d\n", errno);

```



```

return 0;
}
END
set try
if eval $compile; then
xxx=`$run ./try`
case "$xxx" in
semid_ds) val="$define" ;;
esac
fi
$rm_try
set d_semctl_semip_ds
eval $setvar
;;
esac
case "$d_semctl_semip_ds" in
$define)
echo "You can $also use struct semip_ds* for semctl IPC_STAT." >&4
;;
*) echo "You cannot use
struct semip_ds* for semctl IPC_STAT." >&4
;;
esac
;;
*) val="$undef"

```

```

We do not have the full sem*(2) library, so assume we can not
use either.

```

```

set d_semctl_semun
eval $setvar

set d_semctl_semip_ds
eval $setvar
;;
esac
$rm_try tryh.h

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/modified/d_union_semun.U

```

No license file was found, but licenses were detected in source scan.

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?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?MAKE:d\_mkostemp: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_mkostemp:  
?S: This variable conditionally defines HAS\_MKOSTEMP if mkostemp() is  
?S: available to exclusively create and open a uniquely named (with a  
?S: suffix) temporary file.  
?S:.  
?C:HAS\_MKOSTEMP:  
?C: This symbol, if defined, indicates that the mkostemp routine is  
?C: available to exclusively create and open a uniquely named (with a  
?C: suffix) temporary file.  
?C:.  
?H:#\$d\_mkostemp HAS\_MKOSTEMP /\*\*/  
?H:.  
?LINT:set d\_mkostemp  
: see if mkostemp exists  
set mkostemp d\_mkostemp  
eval \$inlibc

#### Found

in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_mkostemp.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_syscall.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_syscall.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:07:42 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_syscall: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_syscall:  
?S: This variable conditionally defines HAS\_SYSCALL if syscall() is  
?S: available call arbitrary system calls.  
?S:.

?C:HAS\_SYSCALL (SYSCALL):

?C: This symbol, if defined, indicates that the syscall routine is

?C: available to call arbitrary system calls. If undefined, that's tough.

?C:.

?H:#\$d\_syscall

HAS\_SYSCALL /\*\*/

?H:.

?LINT:set d\_syscall

: see if syscall exists

set syscall d\_syscall

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_syscall.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_newsadm.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_newsadm.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:36:53 ram

?RCS: patch61: added Guess dependency

?RCS:

?RCS: Revision 3.0.1.1 1994/10/29 16:14:33 ram

?RCS: patch36: call ./eunice explicitly instead of relying on PATH

?RCS:

?RCS: Revision 3.0 1993/08/18 12:06:42 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_newsadm newsadmin: cat contains Guess Setvar Myread Oldconfig

?MAKE: -pick add \$@ %<

?S:d\_newsadm:

?S: This variable

conditionally defines the NEWS\_ADMIN symbol, which

?S: indicates to the C program that there is a user who is in charge

?S: of news administration.

?S:.

?S:newsadmin:

?S: This variable holds the login name of the news administrator, if any.

?S:.

```

?C:NEWS_ADMIN (NEWSADMIN):
?C: This symbol, if defined, contains the login name of the news
?C: administrator.
?C:.
?H:#$d_newsadm NEWS_ADMIN "$newsadmin" /**/
?H:.
?LINT:set d_newsadm
: get news administrator name
case "$newsadmin" in
")
if $contains "^news:" /etc/passwd >/dev/null 2>&1 ; then
dflt=news
elif $contains "usenet:" /etc/passwd >/dev/null 2>&1 ; then
dflt=usenet
elif ./eunice; then
dflt=system
else
dflt=root
fi
;;
*)
dflt="$newsadmin"
;;
esac
$cat <<'EOM'

```

Many systems keep their news in a private directory, or have a non-superuser in charge of administering news. (If you don't have such a user, take the default answer.) I need the login name (not directory) which is used for news administration.

```

EOM
rp="News
admin login?"
./myread
newsadmin="$ans"
case "$newsadmin" in
root) val="$undef" ;;
*) val="$define" ;;
esac
set d_newsadm
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_newsadm.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: i_grp.U,v 3.0 1993/08/18 12:08:20 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
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?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: GRPASSWD detection added by Andy Dougherty July 14, 1998.
?RCS:
?RCS: $Log: i_grp.U,v $
?RCS: Revision 3.0 1993/08/18 12:08:20 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:i_grp d_grpasswd: \
contains rm cppstdin cppflags cppminus Inhdr Findhdr Setvar
?MAKE: -pick add $@ %<
?S:i_grp:
?S: This variable conditionally defines the I_GRP symbol, and indicates
?S: whether a C program should include <grp.h>.
?S:.
?S:d_grpasswd:
?S: This variable conditionally
defines GRPASSWD, which indicates
?S: that struct group in <grp.h> contains gr_passwd.
?S:.
?C:I_GRP:
?C: This symbol, if defined, indicates to the C program that it should
?C: include <grp.h>.
?C:.
?C:GRPASSWD:
?C: This symbol, if defined, indicates to the C program that struct group
?C: in <grp.h> contains gr_passwd.
?C:.
?H:#$i_grp I_GRP /**/
?H:#$d_grpasswd GRPASSWD /**/
?H:.
?LINT:set i_grp d_grpasswd
?T: xxx
: see if this is an grp system
set grp.h i_grp
eval $inhdr

case "$i_grp" in
$define)
xxx=`./findhdr grp.h`

```

```
$cpstdin $cppflags $cppminus < $xxx >$.h
```

```
if $contains 'gr_passwd' $.h >/dev/null 2>&1; then
 val="$define"
else
 val="$undef"
fi
set d_grpasswd
eval $setvar

$rm -f $.h
;;
*)
val="$undef";
set d_grpasswd; eval $setvar
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i_grp.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Obsol_h.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: Obsol_h.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:05:11 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?X:
```

```
?X: This file is prepended to .MT/Obsol_h if that file is not empty. That file
```

```
?X: contains the necessary mappings of new symbols to obsolete ones.
```

```
?X:
```

```
?MAKE:Obsol_h:
```

```
?MAKE: -pick prepend $@ ./Obsol_h
```

```
?LINT:nocomment
```

```
/*
```

```
* The following symbols are obsolete. They are mapped to the the new
```

```
* symbols only to ease the transition process. The
```

sources should be

\* updated so as to use the new symbols only, as the support for these

\* obsolete symbols may end without notice.

\*/

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Obsolet\_h.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_loconv.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_loconv.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:14:11 ram

?RCS: patch36: created by ADO

?RCS:

?MAKE:d\_loconv: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_loconv:

?S: This variable conditionally defines HAS\_LOCALECONV if localeconv() is

?S: available for numeric and monetary formatting conventions.

?S:.

?C:HAS\_LOCALECONV:

?C: This symbol, if defined, indicates that the localeconv routine is

?C: available for numeric and monetary formatting conventions.

?C:.

?H:#\$d\_loconv HAS\_LOCALECONV /\*\*/

?H:.

?LINT:set d\_loconv

: see if localeconv exists

set localeconv d\_loconv

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_loconv.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1996, Andy Dougherty

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS:

?RCS: \$Log: Unix.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:20:06 ram

?RCS: patch61: created

?RCS:

?X:

?X: The purpose of this unit is to define things that are common across all

?X: known UNIX platforms. If Configure is ported/used on a non-UNIX

?X: environment, then some of the following variables can be redefined in hint

?X: files.

?X:

?MAKE:Unix \_a \_o firstmakefile archobjs: Oldconfig

?MAKE: -pick add \$@ %<

?S:\_a (lib\_ext):

?S: This variable defines the extension  
used for ordinary libraries.

?S: For unix, it is '.a'. The '.' is included. Other possible

?S: values include '.lib'.

?S:.

?S:\_o (obj\_ext):

?S: This variable defines the extension used for object files.

?S: For unix, it is '.o'. The '.' is included. Other possible

?S: values include '.obj'.

?S:.

?S:firstmakefile:

?S: This variable defines the first file searched by make. On unix,

?S: it is makefile (then Makefile). On case-insensitive systems,

?S: it might be something else. This is only used to deal with

?S: convoluted make depend tricks.

?S:.

?S:archobjs:

?S: This variable defines any additional objects that must be linked

?S: in with the program on this architecture. On unix, it is usually

?S: empty. It is typically used to include emulations of unix calls

?S: or other facilities. For perl on OS/2, for example, this would

?S: include os2/os2.obj.



```
?S:
?INIT:: Extra object files, if any, needed on this platform.
?INIT:archobjs="
: Define several unixisms.
: Hints files
or command line option can be used to override them.
case "$_a" in
") _a='.a';;
esac
case "$_o" in
") _o='.o';;
esac
```

```
@if firstmakefile
: Which makefile gets called first. This is used by make depend.
case "$firstmakefile" in
") firstmakefile='makefile';;
esac
```

```
@end
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Unix.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: mboxchar.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: mboxchar.U,v $
?RCS: Revision 3.0.1.2 1995/07/25 14:13:12 ram
?RCS: patch56: ensure ctrl-A characters are visible in prompt (WED)
?RCS:
?RCS: Revision 3.0.1.1 1994/05/06 15:11:22 ram
?RCS: patch23: added support for MMDF mailboxes (WED)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:15 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:mboxchar: cat package shsharp Myread Oldconfig
?MAKE: -pick add $@ %<
```

```

?S:mboxchar:
?S: This variable
contains the eventual value of the MBOXCHAR symbol,
?S: which is how a C program can identify a file as a mailbox.
?S:.
?C:MBOXCHAR:
?C: This symbol contains a character which will match the beginning
?C: of a mailbox file.
?C:.
?H:#define MBOXCHAR '$mboxchar' /**/
?H:.
?T:CTRLA
?INIT:CTRLA=`echo a | tr a '\001`
: determine how to determine when a file is a mailbox
case "$mboxchar" in
") dflt=F;;
?X: The following ^A is two-chars to ensure it will print out -- WED
"$CTRLA") dflt='^A';;
*) dflt="$mboxchar";;
esac
$cat <<EOM

```

In saving articles, \$package wants to differentiate between saving to mailbox format files and normal files. It does this by examining the first character of the file in question. On most systems the first line starts with "From ...", so the first character is an F. Other systems use magic cookies like control codes between articles, so one of those would be first. For example, MMDF messages are separated with lines of four control-A's (you may specify one as ^A, i.e. caret A).

```

EOM
rp="What's the first character of a mailbox file?"
./myread
mboxchar="$ans"
case "$mboxchar" in
F) ;;
"$CTRLA") ;;
^A|^a) mboxchar="$CTRLA";;
*) cat <<'EOM'

```

You will need to edit the shell script mbox.saver to properly append an article to a mailbox. The arguments to the script are documented in

```

EOM
case "$shsharp" in
false) echo "comments in mbox.saver.std.";
true) echo "comments in the shell script itself.";
esac

```

esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/mboxchar.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_strcoll.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_strcoll.U,v \$

?RCS: Revision 3.0.1.1 1994/08/29 16:12:01 ram

?RCS: patch32: created by ADO

?RCS:

?MAKE:d\_strcoll: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_strcoll:

?S: This variable conditionally defines HAS\_STRCOLL if strcoll() is

?S: available to compare strings using collating information.

?S:.

?C:HAS\_STRCOLL:

?C: This symbol, if defined, indicates that the strcoll routine  
is

?C: available to compare strings using collating information.

?C:.

?H:#\$d\_strcoll HAS\_STRCOLL /\*\*/

?H:.

?LINT:set d\_strcoll

: see if strcoll exists

set strcoll d\_strcoll

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_strcoll.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: usenm.U,v 3.0.1.1 1997/02/28 16:26:40 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: usenm.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 16:26:40 ram

?RCS: patch61: don't use nm with the GNU C library

?RCS: patch61: added support for Linux shared libs

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:57 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:usenm runnm nm\_opt nm\_so\_opt: cat test Myread Oldconfig myuname grep \  
nm d\_gnulibc osname egrep rsrc

?MAKE: -pick add \$@ %<

?S:usenm:

?S: This variable contains 'true' or 'false' depending  
whether the

?S: nm extraction is wanted or not.

?S:.

?S:runnm:

?S: This variable contains 'true' or 'false' depending whether the  
?S: nm extraction should be performed or not, according to the value  
?S: of usenm and the flags on the Configure command line.

?S:.

?S:nm\_opt:

?S: This variable holds the options that may be necessary for nm.

?S:.

?S:nm\_so\_opt:

?S: This variable holds the options that may be necessary for nm  
?S: to work on a shared library but that can not be used on an  
?S: archive library. Currently, this is only used by Linux, where  
?S: nm --dynamic is \*required\* to get symbols from an ELF library which  
?S: has been stripped, but nm --dynamic is \*fatal\* on an archive library.  
?S: Maybe Linux should just always set usenm=false.

?S:.

: see if nm is to be used to determine whether a symbol is defined or not

?X: If there is enough inquiries, it might be worth to wait for the nm  
?X: extraction. Otherwise, the C compilations might be a better deal.

?X:

?X: Don't bother if we're  
using GNU libc -- skimo

?LINT:extern PASE

case "\$usenm" in

```

")
dflt="
case "$d_gnulibc" in
"$define")
echo " "
echo "nm probably won't work on the GNU C Library." >&4
dflt=n
;;
esac
case "$dflt" in
")
if $test "$osname" = aix -a "X$PASE" != "Xdefine" -a ! -f /lib/syscalls.exp; then
echo " "
echo "Whoops! This is an AIX system without /lib/syscalls.exp!" >&4
echo "'nm' won't be sufficient on this system." >&4
dflt=n
fi
;;
esac
case "$dflt" in
") dflt=`$egrep 'inlibc|csym' $rsrc/Configure | wc -l 2>/dev/null`
if $test $dflt -gt 20; then
dflt=y
else
dflt=n
fi
;;
esac
;;
*)
case "$usenm" in
true|$define) dflt=y;;
*) dflt=n;;
esac
;;
esac
$cat <<EOM

```

I can use \$nm to extract the symbols from your C libraries. This is a time consuming task which may generate huge output on the disk (up to 3 megabytes) but that should make the symbols extraction faster. The alternative is to skip the 'nm' extraction part and to compile a small test program instead to determine whether each symbol is present. If you have a fast C compiler and/or if your 'nm' output cannot be parsed, this may be the best solution.

You probably shouldn't let me use 'nm' if you are using the GNU C Library.

EOM

```
rp="Shall I use $nm to extract C symbols from the libraries?"
./myread
case "$ans" in
[Nn]*) usenm=false;;
*) usenm=true;;
esac
```

?X: Name extraction is to be run if 'nm' usage is wanted and if no -r flag  
?X: was provided to configure (in which case we simply re-use the previous  
?X: values).

```
runnm=$usenm
case "$reusval" in
true) runnm=false;;
esac
```

: nm options which may be necessary

```
case "$nm_opt" in
") if $test -f /mach_boot; then
nm_opt=" # Mach
elif $test -d /usr/ccs/lib; then
nm_opt='-p' # Solaris (and SunOS?)
elif $test -f /dgux; then
nm_opt='-p' # DG-UX
elif $test -f /lib64/rld; then
nm_opt='-p' # 64-bit Irix
else
nm_opt="
fi;;
esac
```

: nm options which may be necessary for shared libraries but illegal

: for archive

libraries. Thank you, Linux.

```
case "$nm_so_opt" in
") case "$myuname" in
linux|gnu*)
if $nm --help | $grep 'dynamic' > /dev/null 2>&1; then
nm_so_opt='--dynamic'
fi
;;
esac
;;
esac
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/modified/usenm.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_htonl.U,v \$

?RCS: Revision 3.0.1.2 1994/08/29 16:09:25 ram

?RCS: patch32: now properly handles htonl() and friends when macros (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/05/06 14:45:00 ram

?RCS: patch23: now also check for htonl() macro (ADO)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:06:22 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_htonl: Inlibc Setvar i\_niin i\_sysin cat rm contains \  
cppstdin cppflags cppminus

?MAKE: -pick add \$@ %<

?S:d\_htonl:

?S: This variable conditionally

defines HAS\_HTONL if htonl() and its

?S: friends are available to do network order byte swapping.

?S:.

?C:HAS\_HTONL (HTONL):

?C: This symbol, if defined, indicates that the htonl() routine (and

?C: friends htons() ntohl() ntohs()) are available to do network

?C: order byte swapping.

?C:.

?C:HAS\_HTONS (HTONS):

?C: This symbol, if defined, indicates that the htons() routine (and

?C: friends htonl() ntohl() ntohs()) are available to do network

?C: order byte swapping.

?C:.

?C:HAS\_NTOHL (NTOHL):

?C: This symbol, if defined, indicates that the ntohl() routine (and

?C: friends htonl() htons() ntohs()) are available to do network

?C: order byte swapping.

?C:.

?C:HAS\_NTOHS (NTOHS):

?C: This symbol, if defined, indicates that the ntohs() routine (and

?C: friends htonl() htons() ntohl() are available to do network

?C: order byte swapping.

?C:.

?H:#\$d\_htonl HAS\_HTONL /\*\*/

?H:#\$d\_htonl HAS\_HTONS /\*\*/

?H:#\$d\_htonl HAS\_NTOHL /\*\*/

?H:#\$d\_htonl HAS\_NTOHS /\*\*/

?H:.

?F:!htonl.c

?LINT:set d\_htonl

:

see if htonl --and friends-- exists

val="

set htonl val

eval \$inlibc

: Maybe they are macros.

case "\$val" in

\$undef)

\$cat >htonl.c <<EOM

#include <stdio.h>

#include <sys/types.h>

#\$i\_niin I\_NETINET\_IN

#\$i\_sysin I\_SYS\_IN

#ifdef I\_NETINET\_IN

#include <netinet/in.h>

#endif

#ifdef I\_SYS\_IN

#include <sys/in.h>

#endif

#ifdef htonl

printf("Defined as a macro.");

#endif

EOM

\$cppstdin \$cppflags \$cppminus < htonl.c >htonl.E 2>/dev/null

if \$contains 'Defined as a macro' htonl.E >/dev/null 2>&1; then

val="\$define"

echo "But it seems to be defined as a macro." >&4

fi

\$rm -f htonl.?

::

esac

set d\_htonl

eval \$setvar

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/dist/U/d\_htonl.U



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```
?RCS: $Id: d_ctermid.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_ctermid.U,v $
?RCS: Revision 3.0 1993/08/18 12:05:54 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_ctermid: Inlibc
?MAKE: -pick add $@ %<
?S:d_ctermid:
?S: This variable conditionally defines CTERMID if ctermid() is
?S: available to generate filename for terminal.
?S:.
?C:HAS_CTERMID (CTERMID):
?C: This symbol, if defined, indicates that the ctermid routine is
?C: available to generate filename for terminal.
?C:.
?H:#$d_ctermid
HAS_CTERMID /**/
?H:.
?LINT:set d_ctermid
: see if ctermid exists
set ctermid d_ctermid
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_ctermid.U
```

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```
?RCS: $Id: d_localtime_r.U,v 0RCS:
?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi
?RCS: Copyright (c) 2006,2007 H.Merijn Brand
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.
?RCS:
```

?MAKE:d\_localtime\_r d\_localtime\_r\_needs\_tzset localtime\_r\_proto: Inlibc \  
 cat run Protochk Hasproto i\_systypes usethreads i\_time i\_systime \  
 rm\_try Compile extern\_C i\_stdlib i\_unistd i\_malloc

?MAKE: -pick add \$@ %<

?S:d\_localtime\_r:  
 ?S: This variable conditionally defines the HAS\_LOCALTIME\_R symbol,  
 ?S: which indicates to the C program that the localtime\_r()  
 ?S: routine is available.  
 ?S:.

?S:d\_localtime\_r\_needs\_tzset:  
 ?S: This variable conditionally defines the LOCALTIME\_R\_NEEDS\_TZSET  
 ?S: symbol, which makes us call tzset before localtime\_r()  
 ?S:.

?S:localtime\_r\_proto:  
 ?S: This  
 variable encodes the prototype of localtime\_r.  
 ?S: It is zero if d\_localtime\_r is undef, and one of the  
 ?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_localtime\_r  
 ?S: is defined.  
 ?S:.

?C:HAS\_LOCALTIME\_R:  
 ?C: This symbol, if defined, indicates that the localtime\_r routine  
 ?C: is available to localtime re-entrantly.  
 ?C:.

?C:LOCALTIME\_R\_NEEDS\_TZSET:  
 ?C: Many libc's localtime\_r implementations do not call tzset,  
 ?C: making them differ from localtime(), and making timezone  
 ?C: changes using \$ENV{TZ} without explicitly calling tzset  
 ?C: impossible. This symbol makes us call tzset before localtime\_r  
 ?C:.

?H:%<:#\$d\_localtime\_r\_needs\_tzset LOCALTIME\_R\_NEEDS\_TZSET /\*\*/  
 ?H:%<:#ifdef LOCALTIME\_R\_NEEDS\_TZSET  
 ?H:%<:#define L\_R\_TZSET tzset(),  
 ?H:%<:#else  
 ?H:%<:#define L\_R\_TZSET  
 ?H:%<:#endif  
 ?H:.

?C:L\_R\_TZSET:  
 ?C: If localtime\_r() needs tzset, it is defined in this define  
 ?C:.

?C:LOCALTIME\_R\_PROTO:  
 ?C: This symbol encodes the prototype of localtime\_r.  
 ?C: It is zero if d\_localtime\_r  
 is undef, and one of the  
 ?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_localtime\_r  
 ?C: is defined.  
 ?C:.

?H:#\$d\_localtime\_r HAS\_LOCALTIME\_R /\*\*/

```

?H:#define LOCALTIME_R_PROTO $localtime_r_proto /**/
?H:.
?T:try hdrs d_localtime_r_proto
?F:!try
: see if localtime_r exists
set localtime_r d_localtime_r
eval $inlibc
case "$d_localtime_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_time time.h $i_systime sys/time.h"
case "$d_localtime_r_proto:$usethreads" in
":define") d_localtime_r_proto=define
set d_localtime_r_proto localtime_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_localtime_r_proto" in
define)
case "$localtime_r_proto" in
"|0) try='struct tm* localtime_r(const time_t*, struct tm*);'
./prochck "$extern_C $try" $hdrs && localtime_r_proto=S_TS ;;
esac
case "$localtime_r_proto" in
"|0) try='int localtime_r(const time_t*, struct tm*);'
./prochck "$extern_C $try" $hdrs && localtime_r_proto=I_TS ;;
esac
case "$localtime_r_proto" in
"|0) d_localtime_r=undef
localtime_r_proto=0
echo
"Disabling localtime_r, cannot determine prototype." >&4 ;;
*) case "$localtime_r_proto" in
REENTRANT_PROTO*) ;;
*) localtime_r_proto="REENTRANT_PROTO_$localtime_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "localtime_r has no prototype, not using it." >&4 ;;
esac
d_localtime_r=undef
localtime_r_proto=0
;;
esac
;;
*) localtime_r_proto=0
;;

```

esac

```
: see if localtime_r calls tzset
case "$localtime_r_proto" in
REENTRANT_PROTO*)
 $cat >try.c <<EOCP
/* Does our libc's localtime_r call tzset ?
* return 0 if so, 1 otherwise.
*/
#$i_systypes I_SYS_TYPES
#$i_unistd I_UNISTD
#$i_time I_TIME
#$i_stdlib I_STDLIB
#$i_malloc I_MALLOC
#ifdef I_SYS_TYPES
include <sys/types.h>
#endif
#ifdef I_UNISTD
include <unistd.h>
#endif
#ifdef I_TIME
include <time.h>
#endif
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#include <string.h>
#ifdef I_MALLOC
include <malloc.h>
#endif
int
main()
{
 time_t t = time(0L);
 char w_tz[]="TZ" "=GMT+5",
 e_tz[]="TZ" "=GMT-5",
 tz_e = (char)malloc(16),
 tz_w = (char)malloc(16);
 struct tm tm_e, tm_w;
 memset(&tm_e,'\0',sizeof(struct tm));
 memset(&tm_w,'\0',sizeof(struct tm));
 strcpy(tz_e,e_tz);
 strcpy(tz_w,w_tz);

 putenv(tz_e);
 localtime_r(&t, &tm_e);

 putenv(tz_w);
```

```

localtime_r(&t, &tm_w);

if(memcmp(&tm_e, &tm_w, sizeof(struct tm)) == 0)
return 1;
return 0;
}
EOCP
set try
if eval $compile; then
 if $run ./try; then
d_localtime_r_needs_tzset=undef;
 else
d_localtime_r_needs_tzset=define;
 fi;
else
 d_localtime_r_needs_tzset=undef;
fi;
;;
*)
 d_localtime_r_needs_tzset=undef;
;;
esac
$rm_try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_localtime_r.U

```

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```

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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: ssize_type.U,v $
?RCS: Revision 3.0.1.3 1997/02/28 16:24:21 ram
?RCS: patch61: integrated perl5 concerns for mis-configured sfio
?RCS:
?RCS: Revision 3.0.1.2 1994/10/29 16:30:28 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS: patch36: added 'ldflags' to the test compile line (ADO)

```

```

?RCS:
?RCS: Revision 3.0.1.1 1994/08/29 16:33:06 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:ssizetype: Myread Typedef
sizetype cat rm \
+cc +optimize +ccflags +ldflags +libs _o
?MAKE: -pick add $@ %<
?S:ssizetype:
?S: This variable defines ssizetype to be something like ssize_t,
?S: long or int. It is used by functions that return a count
?S: of bytes or an error condition. It must be a signed type.
?S: We will pick a type such that sizeof(SSize_t) == sizeof(Size_t).
?S:.
?C:SSize_t:
?C: This symbol holds the type used by functions that return
?C: a count of bytes or an error condition. It must be a signed type.
?C: It is usually ssize_t, but may be long or int, etc.
?C: It may be necessary to include <sys/types.h> or <unistd.h>
?C: to get any typedef'ed information.
?C: We will pick a type such that sizeof(SSize_t) == sizeof(Size_t).
?C:.
?H:#define SSize_t $ssizetype /* signed count of bytes */
?H:.
?F:!ssize.out !ssize
: see what type is used for signed size_t
set ssize_t ssizetype int stdio.h sys/types.h
eval $typedef
dflt="$ssizetype"
?X: Now check out whether sizeof(SSize_t) == sizeof(Size_t)
$cat
> ssize.c <<EOM
#include <stdio.h>
#include <sys/types.h>
#define Size_t $sizetype
#define SSize_t $dflt
int main()
{
if (sizeof(Size_t) == sizeof(SSize_t))
printf("$dflt\n");
else if (sizeof(Size_t) == sizeof(int))
printf("int\n");
else
printf("long\n");
fflush(stdout);
exit(0);
}
EOM

```

```

echo " "
?X: If $libs contains -lsfio, and sfio is mis-configured, then it
?X: sometimes (apparently) runs and exits with a 0 status, but with no
?X: output!. Thus we check with test -s whether we actually got any
?X: output. I think it has to do with sfio's use of _exit vs. exit,
?X: but I don't know for sure. --Andy Dougherty 1/27/97.
if $cc $optimize $cflags $ldflags -o ssize ssize.c $libs > /dev/null 2>&1 &&
./ssize > ssize.out 2>/dev/null && test -s ssize.out ; then
ssizetype=`$cat ssize.out`
echo "I'll be using $ssizetype for functions returning a byte count." >&4
else
$cat >&4 <<EOM
Help! I can't compile and run the ssize_t test program: please enlighten me!
(This
is probably a misconfiguration in your system or libraries, and
you really ought to fix it. Still, I'll try anyway.)

```

I need a type that is the same size as \$sizetype, but is guaranteed to be signed. Common values are ssize\_t, int and long.

```

EOM
rp="What signed type is the same size as $sizetype?"
./myread
ssizetype="$ans"
fi
$rm -f ssize ssize$_o ssize.*

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/ssizetype.U
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```

```

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?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?X: This unit generates a $hasfield string that is used internally
?X: by Configure to check if this system has a field for a
?X: particular struct (of if this system has a particular struct!)
?X:
?X: To use it, say something like:
?X: set d_statblocks stat st_blocks i_sysstat sys/stat.h
?X: eval $hasfield
?X: Or, for more complicated sets of headers, do something like
?X: hdrs="$define sys/foo.h

```

```

?X: $i_sysbar sys/bar.h
?X: $i_syszot sys/zot.h
?X: $i_zappa zappa.h"
?X: set d_statblocks stat st_blocks $hdrs
?X: eval $hasfield
?X:
?MAKE:Hasfield: Setvar rm_try test Compile
?MAKE: -pick add $@ %<
?T:varname struct field
?V:hasfield
: Define hasfield macro for Configure internal use
hasfield='varname=$1;
struct=$2; field=$3; shift; shift; shift;
while $test $# -ge 2; do
case "$1" in
$define) echo "#include <$2>;";
esac ;
shift 2;
done > try.c;
echo "int main () { struct $struct foo; char* bar; bar = (char*)foo.$field; }" >> try.c;
set try;
if eval $compile; then
val="$define";
else
val="$undef";
fi;
set $varname;
eval $setvar;
$rm_try'

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/protos/Hasfield.U

```

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```

?RCS: $Id: dlsrc.U,v$

```

```

?RCS:

```

```

?RCS: Copyright (c) 1996-1998, Andy Dougherty

```

```

?RCS:

```

```

?RCS: You may distribute under the terms of either the GNU General Public

```

```

?RCS: License or the Artistic License, as specified in the README file.

```

```

?RCS:

```

```

?RCS: $Log: dlsrc.U,v $

```

```

?RCS:

```

```

?X: hpux support thanks to Jeff Okamoto <okamoto@hpcc101.corp.hp.com>

```

```

?X:

```

```

?X: To create a shared library, you must compile ALL source files in the

```

```

?X: library with +z (or possibly +Z if the library is whopping huge),

```



?X: then link the library with -b. Example:

?X: cc -c +z module\_a.c

?X: cc -c +z module\_b.c

?X: ld -b module\_a.o module\_b.o -o module.sl

?X:

?MAKE:usedl ld dlsrc ccdlflags lddlflags ccdlflags bin\_ELF ld\_can\_script: \  
 rm\_try Getfile Myread test osname sed d\_dlopen Findhdr Setvar \  
 src run cc ccflags ldflags optimize ls gccversion cat rsrc i\_stdlib \  
 i\_unistd osvers sysroot

?MAKE: -pick add \$@ %<

?Y:BOTTOM

?S:usedl:

?S: This variable  
 indicates if the system supports dynamic  
 loading of some sort. See also dlsrc and dlobj.

?S:.

?S:ld:

?S: This variable indicates the program to be used to link  
 libraries for dynamic loading. On some systems, it is 'ld'.  
 ?S: On ELF systems, it should be \$cc. Mostly, we'll try to respect  
 ?S: the hint file setting.

?S:.

?S:dlsrc:

?S: This variable contains the name of the dynamic loading file that  
 ?S: will be used with the package.

?S:.

?S:ccdlflags:

?S: This variable contains any special flags that might need to be  
 ?S: passed with 'cc -c' to compile modules to be used to create a shared  
 ?S: library that will be used for dynamic loading. For hpux, this  
 ?S: should be +z. It is up to the makefile to use it.

?S:.

?S:lddlflags:

?S: This variable contains any special flags that might need to be  
 ?S: passed to \$ld to create a shared library suitable for dynamic  
 ?S: loading. It is up to the makefile to use it. For hpux, it  
 ?S: should be '-b'. For sunos 4.1, it is empty.

?S:.

?S:ccdflags:

?S: This  
 variable contains any special flags that might need to be  
 ?S: passed to cc to link with a shared library for dynamic loading.  
 ?S: It is up to the makefile to use it. For sunos 4.1, it should  
 ?S: be empty.

?S:.

?S:bin\_ELF:

?S: This variable saves the result from configure if generated binaries  
 ?S: are in ELF format. Only set to defined when the test has actually

?S: been performed, and the result was positive.

?S:.

?S:ld\_can\_script:

?S: This variable shows if the loader accepts scripts in the form of

?S: -Wl,--version-script=ld.script. This is currently only supported

?S: for GNU ld on ELF in dynamic loading builds.

?S:.

?C:USE\_DYNAMIC\_LOADING ~ %<:

?C: This symbol, if defined, indicates that dynamic loading of

?C: some sort is available.

?C:.

?H:%<:#\$usedl USE\_DYNAMIC\_LOADING /\*\*/

?H:.

?W:%<:dlopen

?T:dldir thisflag tdir

?F:!a.out

: determine which dynamic loading, if any, to compile in

echo " "

dldir="ext/DynaLoader"

case "\$usedl" in

  \$define|y|true)

  dflt='y'

  usedl="\$define"

  ;;

  \$undef|n|false)

  dflt='n'

  usedl="\$undef"

  ;;

  \*)

  dflt='n'

  case "\$d\_dlopen" in

    \$define) dflt='y' ;;

  esac

  : Does a dl\_XXX.XS file exist for this operating system

  \$test -f \$src/\$dldir/dl\_\${osname}.xs && dflt='y'

  ;;

  esac

rp="Do you wish to use dynamic loading?"

  ./myread

  usedl="\$ans"

  bin\_ELF="\$undef"

  case "\$ans" in

    y\*) usedl="\$define"

  case "\$dlsrc" in

    ") if \$test -f \$src/\$dldir/dl\_\${osname}.xs ; then

      dflt="\$dldir/dl\_\${osname}.xs"

    elif \$test "\$d\_dlopen" = "\$define" ; then

      dflt="\$dldir/dl\_dlopen.xs"

```

else
 dflt="
fi
;;
*) dflt="$dldir/$dlsrc"
;;
esac
echo "The following dynamic loading files are available:"
: Can not go over to $dldir because getfile has path hard-coded in.
tdir=`pwd`; cd "$srsr"; $ls -C $dldir/dl*.xs; cd "$tdir"
rp="Source file to use for dynamic loading"
fn="fne"
gfpth="$src"
./getfile
usedl="$define"
: emulate basename
dlsrc=`echo $ans | $sed -e 's%.*^([^\]*)$%\1%'`

```

```

$cat
<< EOM

```

Some systems may require passing special flags to \$cc -c to compile modules that will be used to create a shared library. To use no flags, say "none".

```

EOM
case "$cccdlflags" in
 *) case "$gccversion" in
 *) case "$osname" in
 hpux) dflt='+z' ;;
 irix*) dflt='-KPIC' ;;
 svr4*|esix*|solaris|nonstopux) dflt='-KPIC' ;;
 sunos) dflt='-pic' ;;
 *) dflt='none' ;;
 esac
 ;;
 *) case "$osname" in
 darwin) dflt='none' ;;
 linux|svr4*|esix*|solaris|nonstopux) dflt='-fPIC' ;;
 *) dflt='-fpic' ;;
 esac ;;
 esac ;;
 ' ') dflt='none' ;;
 *) dflt="$cccdlflags" ;;
esac

case "$dflt" in
 none) dflt=" ;;

```

```

esac

If -Dsysroot was specified, now's the time to add it
to cccdlflags
if test "X$sysroot" != X; then
 case "$gccversion" in
 *) ;;
 *) case "$dflt" in
 sysroot) ;;
 'undef'|*)
 dflt="$dflt --sysroot=$sysroot" ;;
 esac
 ;;
 esac
fi

case "$dflt" in
 *) dflt='none';;
esac

rp="Any
special flags to pass to $cc -c to compile shared library modules?"
./myread
case "$ans" in
?X: Use ' ' so that a subsequent Configure run preserves the old state.
 none) cccdlflags=' ' ;;
 *) cccdlflags="$ans" ;;
esac

cat << EOM

```

Some systems use ld to create libraries that can be dynamically loaded, while other systems (such as those using ELF) use \$cc.

EOM

```

: Determine if this is ELF
$cat >try.c <<EOM
/* Test for whether ELF binaries are produced */
#include <fcntl.h>
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#ifdef I_UNISTD
#include <unistd.h>
#endif

```

```

int main() {
 char b[4];
 int i = open("a.out",O_RDONLY);
 if(i == -1)
 exit(1); /* fail */
 if(read(i,b,4)==4 && b[0]==127 && b[1]=='E' && b[2]=='L' && b[3]=='F')
 exit(0); /* succeed (yes, it is ELF) */
 exit(1); /* fail */
}

```

EOM

```

if $cc $ccflags $ldflags -o a.out try.c >/dev/null 2>&1 && $run ./a.out; then

```

```

 bin_ELF="$define"

```

```

fi

```

```

$rm_try

```

```

case "$ld" in

```

```

 *) if $test $bin_ELF = "$define"; then

```

```

 cat <<EOM

```

You appear to have ELF support. I'll use \$cc to build dynamic libraries.

EOM

```

 dflt="$cc"

```

```

 else

```

```

 echo "I'll use ld to build dynamic libraries."

```

```

 dflt='ld'

```

```

 fi

```

```

;;

```

```

 *) dflt="$ld"

```

```

;;

```

```

esac

```

```

rp="What command should be used to create dynamic libraries?"

```

```

./myread

```

```

ld="$ans"

```

```

cat << EOM

```

Some systems may require passing special flags to \$ld to create a library that can be dynamically loaded. If your ld flags include -L/other/path options to locate libraries outside your loader's normal search path, you may need to specify those -L options here as well. To use no flags, say "none".

EOM

```

case "$ldflags" in

```

```

 *) case "$osname" in

```

```

 haiku) dflt='-shared' ;;

```

```

 hpux) dflt='-b';

```

```

case "$gccversion" in
 *) dflt="$dflt +vnocompatwarnings" ;;
esac
;;
linux|irix*|gnu*) dflt="-shared $optimize" ;;
solaris) # See [perl #66604].
 # On Solaris 11, gcc -m64
on amd64
 # appears not to understand -G. gcc versions at
 # least as old as 3.4.3 support -shared, so just
 # use that with Solaris 11 and later, but keep
 # the old behavior for older Solaris versions.
 case "$gccversion" in
 *) dflt='-G' ;;
 *) case "$osvers" in
 2.?|2.10) dflt='-G' ;;
 *) dflt='-shared' ;;
 esac
 ;;
 *) case "$osvers" in
 sunos) dflt='-assert nodefinitions' ;;
 svr4*|esix*|nonstopux) dflt="-G $ldflags" ;;
 *) dflt='none' ;;
 esac
 ;;
 *) dflt="$ldldflags" ;;
 esac

```

: Only do this for gcc, since, for example, qcc has no concept  
of --sysroot.

if \$test "X\$sysroot" != X; then

```

 case "$gccversion" in
 *) dflt="$dflt --sysroot $sysroot" ;;
 esac
fi

```

: Try to guess additional flags to pick up local libraries.

: Be careful not to append to a plain 'none'

```

case "$dflt" in
 none) dflt="" ;;
esac
for thisflag in $ldflags; do
 case "$thisflag" in
 -L*|-R*|-Wl,-R*)

```

```

case " $dflt " in
" $thisflag ") ;;
*) dflt="$dflt $thisflag" ;;
 esac
 ;;
 esac
done

```

```

case "$dflt" in
'| ') dflt='none' ;;
esac

```

```

case "$ldflags" in
-fstack-protector-strong)
case "$dflt" in
-fstack-protector-strong) ;; # Don't add it again
*) dflt="$dflt -fstack-protector-strong" ;;
esac
;;
-fstack-protector)
case "$dflt" in
-fstack-protector) ;; # Don't add it again
*) dflt="$dflt -fstack-protector" ;;
esac
;;
esac

```

rp="Any special flags to pass to \$ld to create a dynamically loaded library?"

. ./myread

```

case "$ans" in

```

?X: Use ' ' so that a subsequent Configure run preserves the old state.

```

 none) lddflags=' ' ;;
 *) lddflags="$ans" ;;
esac

```

cat <<EOM

Some systems may require passing special flags to \$cc to indicate that the resulting executable will use dynamic linking. To use no flags, say "none".

EOM

```

case "$ccldflags" in
") case "$osname" in
linux|hpux|gnu*)
dflt='-Wl,-E' ;;
sunos) dflt='none' ;;
*) dflt='none' ;;

```

```

esac ;;
 ') dflt='none' ;;
 *) dflt="$ccdlflags" ;;
esac
rp="Any special flags to pass to $cc to use dynamic linking?"
. ./myread
case "$ans" in
?X: Use ' ' so that a subsequent Configure run preserves the old state.
 none) ccdlflags=' ' ;;
 *) ccdlflags="$ans" ;;
esac
;;
?X: End of usedl=y section

```

```

 *) usedl="$undef"
ld='ld'
dlsrc='dl_none.xs'
lddlflags=""
ccdlflags=""
;;
esac

```

```

ld_can_script="$undef"
case "bin_ELFusedl" in
 $define$define)
Abuse try.h and a.out names for neat cleanup
$cat >try.c <<EOM
void foo() {}
void bar() {}
EOM
$cat >try.h <<EOM
LIBTEST_42 {
global:
foo;
local: *;
};
EOM
if $cc $cccdlflags $ccdlflags $ccflags \
 $ldflags $lddlflags -o a.out try.c \
 -Wl,--version-script=try.h >/dev/null 2>&1 \
 && $stest -s a.out ; then
 echo "ld supports scripting" >&4
 ld_can_script="$define"
else
 echo "ld does not support scripting" >&4
fi
$rm_try

```



```
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/dlsrc.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_statblks.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:07:29 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_statblks: contains Setvar Findhdr
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_statblks:
```

```
?S: This variable conditionally defines USE_STAT_BLOCKS if this system
```

```
?S: has a stat structure declaring st_blksize and st_blocks.
```

```
?S:.
```

```
?C:USE_STAT_BLOCKS (STATBLOCKS):
```

```
?C: This symbol is defined if this system has a stat structure declaring
```

```
?C: st_blksize and st_blocks.
```

```
?C:.
```

```
?H:#$d_statblks USE_STAT_BLOCKS
```

```
/**/
```

```
?H:.
```

```
?T:xxx
```

```
?LINT:set d_statblks
```

```
: see if stat knows about block sizes
```

```
echo " "
```

```
xxx=`./findhdr sys/stat.h`
```

```
if $contains 'st_blocks;' "$xxx" >/dev/null 2>&1 ; then
```

```
if $contains 'st_blksize;' "$xxx" >/dev/null 2>&1 ; then
```

```
echo "Your stat() knows about block sizes." >&4
```

```
val="$define"
```

```
else
```

```
echo "Your stat() doesn't know about block sizes." >&4
```

```
val="$undef"
```

```
fi
```

```
else
echo "Your stat() doesn't know about block sizes." >&4
val="$undef"
fi
set d_statblks
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_statblks.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_tcstpgrp.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
```

```
?RCS:
```

```
?RCS: $Log: d_tcstpgrp.U,v $
```

```
?RCS: Revision 3.0.1.1 1994/08/29 16:12:11 ram
```

```
?RCS: patch32: created by ADO
```

```
?RCS:
```

```
?MAKE:d_tcsetpgrp: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_tcsetpgrp:
```

```
?S: This variable conditionally defines the HAS_TCSETPGRP symbol, which
```

```
?S: indicates to the C program that the tcsetpgrp() routine is available
```

```
?S: to set foreground process group ID.
```

```
?S:.
```

```
?C:HAS_TCSETPGRP
```

```
:
```

```
?C: This symbol, if defined, indicates that the tcsetpgrp routine is
```

```
?C: available to set foreground process group ID.
```

```
?C:.
```

```
?H:#$d_tcsetpgrp HAS_TCSETPGRP /**/
```

```
?H:.
```

```
?LINT:set d_tcsetpgrp
```

```
: see if tcsetpgrp exists
```

```
set tcsetpgrp d_tcsetpgrp
```

```
eval $inlibc
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_tcstpgrp.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_inetaton.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1996, Spider Boardman

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_inetaton.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:36:35 ram

?RCS: patch61: created

?RCS:

?MAKE:d\_inetaton: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_inetaton:

?S: This variable conditionally defines the HAS\_INET\_ATON symbol, which

?S: indicates to the C program that the inet\_aton() function is available

?S: to parse IP address "dotted-quad" strings.

?S:.

?C:HAS\_INET\_ATON:

?C: This symbol, if defined, indicates

to the C program that the

?C: inet\_aton() function is available to parse IP address "dotted-quad"

?C: strings.

?C:.

?H:#\$d\_inetaton HAS\_INET\_ATON /\*\*/

?H:.

?LINT:set d\_inetaton

: check whether inet\_aton exists

set inet\_aton d\_inetaton

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_inetaton.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:

?MAKE:usesocks: Myread Oldconfig Setvar spackage package

?MAKE: -pick add \$@ %<

?Y:TOP

?S:usesocks:

?S: This variable conditionally defines the USE\_SOCKS symbol,

?S: and indicates that Perl should be built to use SOCKS.

?S:.

?C:USE\_SOCKS:

?C: This symbol, if defined, indicates that Perl should

?C: be built to use socks.

?C:.

?H:?%<:#\$usesocks USE\_SOCKS /\*\*/

?H:.

?D:usesocks="

?LINT:set usesocks

: check for requested SOCKS support

case "\$usesocks" in

\$define|true|[yY]\*) dflt='y';

\*)

dflt='n';

esac

cat <<EOM

\$spackage can be built to use the SOCKS proxy protocol library.

If this doesn't make any sense to you, just accept the default '\$dflt'.

EOM

rp="Build \$package for SOCKS?"

./myread

case "\$ans" in

y|Y) val="\$define" ;;

\*) val="\$undef" ;;

esac

set usesocks

eval \$setvar

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/usesocks.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 2000 Jarkko Hietaniemi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?MAKE:d\_getespwnam: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_getespwnam:  
?S: This variable conditionally defines HAS\_GETESPWNAM if getespwnam() is  
?S: available to retrieve enhanced (shadow) password entries by name.  
?S:.  
?C:HAS\_GETESPWNAM:  
?C: This symbol, if defined, indicates that the getespwnam system call is  
?C: available to retrieve enhanced (shadow) password entries by name.  
?C:.  
?H:#\$d\_getespwnam HAS\_GETESPWNAM /\*\*/  
?H:.  
?LINT:set d\_getespwnam  
: see if getespwnam exists  
set getespwnam d\_getespwnam  
eval \$inlibc

Found in

path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_getespwnam.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_locale.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1996, Andy Dougherty  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: i\_locale.U,v \$  
?RCS: Revision 3.0.1.1 1997/02/28 15:48:23 ram  
?RCS: patch61: created  
?RCS:

?MAKE:i\_locale: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_locale:  
?S: This variable conditionally defines the I\_LOCALE symbol,  
?S: and indicates whether a C program should include <locale.h>.  
?S:.  
?C:I\_LOCALE:  
?C: This symbol, if defined, indicates to the C program that it should  
?C: include <locale.h>.  
?C:.  
?H:#\$i\_locale I\_LOCALE /\*\*/  
?H:.  
?LINT:set  
i\_locale  
: see if locale.h is available  
set locale.h i\_locale  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_locale.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: man3dir.U,v 3.1 1999/07/08 20:52:19 doughera Exp doughera \$

?RCS:

?RCS: Copyright (c) 1996-1999, Andy Dougherty

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: man3dir.U,v \$

?RCS: Revision 3.1 1999/07/08 20:52:19 doughera

?RCS: Updated for perl5.005\_5x

?RCS:

?RCS: Revision 3.0.1.1 1997/02/28 16:10:34 ram

?RCS: patch61: created

?RCS:

?X: This was originally specific to perl5. Since perl5 has man pages that

?X: go in both man1/ and man3/ directories, we need both man1dir

?X: and man3dir. This unit is basically dist's mansrc.U with

?X: man3 used instead

of man everywhere.

?X: I then added various tests because perl5 has \*lots\* of man3

?X: pages with long file names. -- ADO

```

?X:
?MAKE:man3dir man3direxp man3ext installman3dir: cat nroff Loc Oldconfig \
sed man1dir spackage package Getfile Setprefixvar Prefixit Prefixup \
d_flexfnam privlib Myread test
?MAKE: -pick add $@ %<
?Y:TOP
?D:man3dir="
?S:man3dir:
?S: This variable contains the name of the directory in which manual
?S: source pages are to be put. It is the responsibility of the
?S: Makefile.SH to get the value of this into the proper command.
?S: You must be prepared to do the ~name expansion yourself.
?S:.
?D:man3direxp="
?S:man3direxp:
?S: This variable is the same as the man3dir variable, but is filename
?S: expanded at configuration time, for convenient use in makefiles.
?S:.
?D:installman3dir="
?S:installman3dir:
?S: This variable is really the same as man3direxp, unless you are using
?S: AFS in which case it points to the read/write location whereas
?S: man3direxp only
?S: points to the read-only access location. For extra
?S: portability, you should only use this variable within your makefiles.
?S:.
?S:man3ext:
?S: This variable contains the extension that the manual page should
?S: have: one of 'n', 'l', or '3'. The Makefile must supply the '!'.
?S: See man3dir.
?S:.
?T:prog tdfit
?LINT:change prefixvar
?LINT:set man3direxp
: determine where library module manual pages go
set man3dir man3dir none
eval $prefixit
$cat <<EOM

```

\$spackage has manual pages for many of the library modules.  
EOM

```

case "$nroff" in
nroff)
$cat <<'EOM'

```

However, you don't have nroff, so they're probably useless to you.

```

EOM
case "$man3dir" in

```

```
) man3dir="none";;
esac;;
esac
```

```
case "$d_flexfnam" in
undef)
```

```
$cat <<'EOM'
```

However, your system can't handle the long file names like File::Basename.3.

```
EOM
```

```
case "$man3dir" in
```

```
) man3dir="none";;
```

```
esac;;
```

```
esac
```

```
echo "If you don't want the manual sources installed, answer 'none'."
```

```
?X: In 5.005_57 and earlier, I had the following notes:
```

```
?X:
```

```
We do not use /usr/local/man/man3 because some man programs will
```

```
?X: only show the /usr/local/man/man3 contents, and not the system ones,
```

```
?X: thus man less will show the perl module less.pm, but not the system
```

```
?X: less command. We might also conflict with Tcl man pages.
```

```
?X: However, something like /opt/perl/man/man3 is fine.
```

```
?X:
```

```
?X: However, opinion seems to be shifting such that 'man POSIX' ought
```

```
?X: to just work. -- Andy Dougherty July 8, 1999
```

```
?X:
```

```
?X: remove any trailing -3.0 or other version indication from $package
```

```
prog=`echo $package | $sed 's/-[0-9.]*$//`
```

```
case "$man3dir" in
```

```
) dflt=`echo "$man1dir" | $sed -e 's/man1/man3/g' -e 's/man\./man\./g`
```

```
if $test -d "$privlib/man/man3"; then
```

```
cat <<EOM >&4
```

WARNING: Previous versions of perl installed man3 pages into

\$privlib/man/man3. This version will suggest a

new default of \$dflt.

```
EOM
```

```
tdflt=$dflt
```

```
dflt='n'
```

```
rp='Do you wish to preserve the old behavior?(y/n)'
```

```
./myread
```

```
case "$ans" in
```

```
y*) dflt="$privlib/man/man3"
```

```
::
```

```
*) dflt=$tdflt ;;
```

```
esac
```

```
fi
```

```
::
```



```

*) dflt="$man3dir" ;;
esac
case "$dflt" in
' ') dflt=none ;;
esac
echo " "
fn=dn+~
rp="Where do the $package library man pages (source) go?"
./getfile
prefixvar=man3dir
./setprefixvar

case "$man3dir" in
") man3dir=' '
installman3dir="";;
esac

: What suffix to use on installed man pages
case "$man3dir" in
' ')
man3ext='0'
;;
*)
rp="What suffix should be used for the $package library man pages?"
case "$man3ext" in
") case "$man3dir" in
*3) dflt=3 ;;
*3p) dflt=3p ;;
*3pm) dflt=3pm ;;
*1) dflt=1;;
*n) dflt=n;;
*o) dflt=o;;
*p) dflt=p;;
*C) dflt=C;;
*L) dflt=L;;
*L3) dflt=L3;;
*) dflt=3;;
esac
;;
*) dflt="$man3ext";;
esac
./myread
man3ext="$ans"
;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/installdirs/man3dir.U

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_getpgid.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1996, Andy Dougherty
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_getpgid.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 15:33:44 ram
?RCS: patch61: created
?RCS:
?MAKE:d_getpgid: Inlibc
?MAKE: -pick add $@ %<
?S:d_getpgid:
?S: This variable conditionally defines the HAS_GETPGID symbol, which
?S: indicates to the C program that the getpgid(pid) function
?S: is available to get the process group id.
?S:
?C:HAS_GETPGID:
?C: This symbol, if defined, indicates to the C program
?C: that
?C: the getpgid(pid) function is available to get the
?C: process group id.
?C:
?H:#$d_getpgid HAS_GETPGID /**/
?H:
?LINT:set d_getpgid
: see if getpgid exists
set getpgid d_getpgid
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_getpgid.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1999, Jarkko Hietaniemi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
```

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_stdio\_stream\_array stdio\_stream\_array: run \  
 Compile cat rm\_try Oldconfig Myread Setvar

?MAKE: -pick add \$@ %<

?S:d\_stdio\_stream\_array:

?S: This variable tells whether there is an array holding

?S: the stdio streams.

?S:.

?S:stdio\_stream\_array:

?S: This variable tells the name of the array holding the stdio streams.

?S: Usual values include \_iob, \_\_iob, and \_\_sF.

?S:.

?C:HAS\_STDIO\_STREAM\_ARRAY:

?C: This symbol, if defined, tells that there is an array

?C: holding the stdio streams.

?C:.

?C:STDIO\_STREAM\_ARRAY:

?C: This

symbol tells the name of the array holding the stdio streams.

?C: Usual values include \_iob, \_\_iob, and \_\_sF.

?C:.

?H:#\$d\_stdio\_stream\_array HAS\_STDIO\_STREAM\_ARRAY /\*\*/  
 ?H:?%<:#ifdef HAS\_STDIO\_STREAM\_ARRAY  
 ?H:?%<:#define STDIO\_STREAM\_ARRAY \$stdio\_stream\_array  
 ?H:?%<:#endif  
 ?H:.

?T:s

?F:!try

: Check stream access

\$cat >&4 <<EOM

Checking how to access stdio streams by file descriptor number...

EOM

case "\$stdio\_stream\_array" in  
 ") \$cat >try.c <<EOCP  
 #include <stdio.h>  
 int main() {  
 if (&STDIO\_STREAM\_ARRAY[fileno(stdin)] == stdin)  
 printf("yes\n");  
 }  
 EOCP  
 for s in \_iob \_\_iob \_\_sF  
 do  
 set try -DSTDIO\_STREAM\_ARRAY=\$s  
 if eval \$compile; then

```

case "`$run ./try`" in
yes) stdio_stream_array=$s; break ;;
esac
fi
done
$rm_try
esac

```

```
case "$stdio_stream_array" in
```

```
*) $cat >&4 <<EOM
```

I can't figure out how to access stdio streams by file descriptor number.

EOM

```
d_stdio_stream_array="$undef"
```

```
::
```

```
*) $cat >&4 <<EOM
```

You can access stdio streams by file descriptor number

by the \$stdio\_stream\_array array.

EOM

```
d_stdio_stream_array="$define"
```

```
::
```

```
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/stdio_streams.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998, Jarkko Hietaniemi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:i\_inttypes: Inhdr cat rm\_try Setvar Compile

?MAKE: -pick add \$@ %<

?S:i\_inttypes:

?S: This variable conditionally defines the I\_INTTYPES symbol,

?S: and indicates whether a C program should include <inttypes.h>.

?S:.

?C:I\_INTTYPES:

?C: This symbol, if defined, indicates to the C program that it should

?C: include <inttypes.h>.

?C:.

?H:#\$i\_inttypes I\_INTTYPES /\*\*/

?H:.

```

?LINT:set i_inttypes
: see if inttypes.h is available
: we want a real compile instead of Inhdr because some systems
: have an inttypes.h
 which includes non-existent headers
echo " "
$cat >try.c <<EOCP
#include <inttypes.h>
int main() {
 static int32_t foo32 = 0x12345678;
}
EOCP
set try
if eval $compile; then
 echo "<inttypes.h> found." >&4
 val="$define"
else
 echo "<inttypes.h> NOT found." >&4
 val="$undef"
fi
$rm_try
set i_inttypes
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_inttypes.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: Oldconfig.U,v 3.0.1.10 1997/02/28 15:06:39 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: Oldconfig.U,v $
?RCS: Revision 3.0.1.10 1997/02/28 15:06:39 ram
?RCS: patch61: added support for src.U
?RCS: patch61: new OSNAME define
?RCS: patch61: can now sense new OSes
?RCS:
?RCS: Revision 3.0.1.9 1995/07/25 13:40:51 ram
?RCS: patch56: now knows about OS/2 platforms
?RCS:

```

?RCS: Revision 3.0.1.8 1995/05/12 12:04:18 ram

?RCS: patch54: config.sh reload logic now knows about new -K switch

?RCS: patch54: cleaned up and extended osvers for DEC OSF/1 (ADO)

?RCS: patch54: added MachTen detection (ADO)

?RCS:

?RCS: Revision 3.0.1.7 1995/02/15 14:13:41 ram

?RCS: patch51: adapted osvers computation for AIX (ADO)

?RCS:

?RCS: Revision 3.0.1.6 1995/01/30 14:27:15 ram

?RCS: patch49: unit Options.U now exports file optdef.sh, not a variable

?RCS: patch49: update code for myuname changed (WED)

?RCS:

?RCS: Revision 3.0.1.5 1995/01/11 15:15:36 ram

?RCS: patch45: added quotes around the INITPROG variable (ADO)

?RCS: patch45: allows variable overriding after config file loading

?RCS:

?RCS: Revision 3.0.1.4 1994/10/29 15:57:05 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS: patch36: merged with the version used for perl5's Configure (ADO)

?RCS:

?RCS: Revision 3.0.1.3 1994/05/06 14:24:17 ram

?RCS: patch23: added support for osf1 hints

?RCS: patch23: new support for solaris and i386 systems (ADO)

?RCS:

?RCS: Revision 3.0.1.2 1994/01/24 14:05:02 ram

?RCS: patch16: added post-processing on myuname for Xenix targets

?RCS:

patch16: message proposing config.sh defaults made consistent

?RCS:

?RCS: Revision 3.0.1.1 1993/09/13 15:56:32 ram

?RCS: patch10: force use of config.sh when -d option is used (WAD)

?RCS: patch10: complain about non-existent hint files (WAD)

?RCS: patch10: added Options dependency for fastread variable

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:12 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit tries to remember what we did last time we ran Configure, mostly

?X: for the sake of setting defaults.

?X:

?MAKE:Oldconfig hint myuname osname osvers: Instruct Myread uname \

Checkcc Mksymlinks run \

sh awk sed test cat rm lns tr n c contains Loc Options Tr src trnl ln

?MAKE: -pick wipe \$@ %<

?S:myuname:

?S: The output of 'uname -a' if available, otherwise the hostname.

?S: The whole thing is then lower-cased and slashes and single quotes are

?S: removed.

?S:.

?S:hint:

?S: Gives the type of hints used for previous answers. May be one of

?S: "default",

"recommended" or "previous".

?S:.

?S:osname:

?S: This variable contains the operating system name (e.g. sunos,

?S: solaris, hpux, etc.). It can be useful later on for setting

?S: defaults. Any spaces are replaced with underscores. It is set

?S: to a null string if we can't figure it out.

?S:.

?S:osvers:

?S: This variable contains the operating system version (e.g.

?S: 4.1.3, 5.2, etc.). It is primarily used for helping select

?S: an appropriate hints file, but might be useful elsewhere for

?S: setting defaults. It is set to " if we can't figure it out.

?S: We try to be flexible about how much of the version number

?S: to keep, e.g. if 4.1.1, 4.1.2, and 4.1.3 are essentially the

?S: same for this package, hints files might just be os\_4.0 or

?S: os\_4.1, etc., not keeping separate files for each little release.

?S:.

?C:OSNAME:

?C: This symbol contains the name of the operating system, as determined

?C: by Configure. You shouldn't rely on it too much; the specific

?C: feature tests

from Configure are generally more reliable.

?C:.

?C:OSVERS:

?C: This symbol contains the version of the operating system, as determined

?C: by Configure. You shouldn't rely on it too much; the specific

?C: feature tests from Configure are generally more reliable.

?C:.

?H:#define OSNAME "\$osname" /\*\*/

?H:#define OSVERS "\$osvers" /\*\*/

?H:.

?F:!config.sh

?T:tmp tmp\_n tmp\_c tmp\_sh file

?T:xxxxfile xxxfile xxfile xfile hintfile newmyuname

?T:tans \_ isesix INITPROG DJGPP

?D:osname="

?LINT:change n c sh

?LINT:extern targetarch

?LINT:extern hostarch

?LINT:change hostarch

?LINT:extern is\_os2

```

: Try to determine whether config.sh was made on this system
case "$config_sh" in
")
?X: indentation wrong on purpose--RAM
?X: Leave a white space between first two '(' for ksh. The sub-shell is needed
?X: on some machines to avoid the error message when uname is not found; e.g.
?X: old SUN-OS 3.2 would not execute hostname in (uname -a || hostname). Sigh!
?X: Now not using a subshell but instead $test.
myuname=`$uname
-a 2>/dev/null`
$test -z "$myuname" && myuname=`hostname 2>/dev/null`
Downcase everything to avoid ambiguity.
Remove slashes and single quotes so we can use parts of this in
directory and file names.
Remove newlines so myuname is sane to use elsewhere.
tr '[A-Z]' '[a-z]' would not work in EBCDIC
because the A-Z/a-z are not consecutive.
myuname=`echo $myuname | $sed -e "s,[/],g" | \
./tr '[A-Z]' '[a-z]' | $tr $trnl ' `
?X: Save the value we just computed to reset myuname after we get done here.
newmyuname="$myuname"
dflt=n
case "$knowitall" in
")
if test -f ../config.sh; then
if $contains myuname= ../config.sh >/dev/null 2>&1; then
eval "`grep myuname= ../config.sh`"
fi
if test "X$myuname" = "X$newmyuname"; then
dflt=y
fi
fi
;;
*) dflt=y;;
esac

@if {test -d ../hints}
: Get old answers from old config file if Configure was run on the
: same system, otherwise use the hints.
hint=default
cd ..
?X: Since we are now at the root of the source
tree, we must use $src
?X: to access the sources and not $rsrc. See src.U for details...
if test -f config.sh; then
echo " "
rp="I see a config.sh file. Shall I use it to set the defaults?"
. UU/myread

```



```

case "$ans" in
n*[N*]) echo "OK, I'll ignore it."
mv config.sh config.sh.old
myuname="$newmyuname"
;;
*) echo "Fetching default answers from your old config.sh file..." >&4
tmp_n="$n"
tmp_c="$c"
tmp_sh="$sh"
./config.sh
cp config.sh UU
n="$tmp_n"
c="$tmp_c"
: Older versions did not always set $sh. Catch re-use of such
: an old config.sh.
case "$sh" in
") sh="$tmp_sh" ;;
esac
hint=previous
;;
esac
fi
./UU/checkcc
if test ! -f config.sh; then
$cat <<EOM

```

First time through, eh? I have some defaults handy for some systems that need some extra help getting the Configure answers right:

EOM

```

(cd $src/hints; ls -C *.sh) | $sed 's/\,sh/ /g' >&4
dflt="
: Half the following guesses are probably wrong... If you have better
: tests or hints,
please send them to <MAINTLOC>
: The metaconfig authors would also appreciate a copy...
$test -f /irix && osname=irix
$test -f /xenix && osname=sco_xenix
$test -f /dynix && osname=dynix
$test -f /dnix && osname=dnix
$test -f /lynx.os && osname=lynxos
$test -f /unicos && osname=unicos && osvers=`$uname -r`
$test -f /unicosmk && osname=unicosmk && osvers=`$uname -r`
$test -f /unicosmk.ar && osname=unicosmk && osvers=`$uname -r`
$test -f /bin/mips && /bin/mips && osname=mips
$test -d /usr/apollo/bin && osname=apollo
$test -f /etc/saf/_sactab && osname=svr4
$test -d /usr/include/minix && osname=minix && osvers=`$uname -r`

```

```

$test -f /system/gnu_library/bin/ar.pm && osname=vos
$test -f /sys/utilities/MultiView && osname=amigaos
if $test -d /MachTen -o -d /MachTen_Folder; then
?X: MachTen uname -a output looks like
?X: xxx 4 0.0 Macintosh
?X: MachTen /sbin/version output looks like
?X: MachTen 4.0 Mon Aug 28 10:18:00 1995
?X: MachTen 3.x had the 'version' command in /usr/etc/version.

```

```

osname=machten
if
$test -x /sbin/version; then
osvers=`/sbin/version | $awk '{print $2}' |
$sed -e 's/[A-Za-z]$/'`
elif $test -x /usr/etc/version; then
osvers=`/usr/etc/version | $awk '{print $2}' |
$sed -e 's/[A-Za-z]$/'`
else
osvers="$2.$3"
fi
fi

```

```

$test -f /sys/posix.dll &&
$test -f /usr/bin/what &&
set X `/usr/bin/what /sys/posix.dll` &&
$test "$3" = UWIN &&
osname=uwin &&
osvers="$5"

```

?X: If we have uname, we already computed a suitable uname -a output,  
?X: and it lies in \$myuname.

```

if $test -f $uname; then
set X $myuname
shift

```

```

case "$5" in
fps*) osname=fps ;;
mips*)
case "$4" in
umips) osname=umips ;;
*) osname=mips ;;
esac;;
[23]100) osname=mips ;;

```

?X: Interactive Unix.

```

i386*)
tmp=`/bin/uname -X 2>/dev/null|awk '/3\.2v[45]/{ print $(NF) }`
if $test "$tmp" != "" -a "$3" = "3.2" -a -f /etc/systemid; then
osname='sco'
osvers=$tmp

```

```

elif $test -f /etc/kconfig; then
 osname=isc
 if
test "$lns" = "$ln -s"; then
 osvers=4
 elif $contains _SYSV3 /usr/include/stdio.h > /dev/null 2>&1 ; then
 osvers=3
 elif $contains _POSIX_SOURCE /usr/include/stdio.h > /dev/null 2>&1 ; then
 osvers=2
 fi
fi
tmp=""
;;

```

?X: MS-DOS djgpp uname -a output looks like:

?X: ms-dos xxx 6 22 pc

?X: \$1 is the "dos flavor" (need not be "ms-dos").

?X: \$2 is the node name

?X: \$3 and \$4 are version/subversion

?X: \$5 is always "pc", but that might not be unique to DJGPP.

?X: (e.g. Solaris\_x86 has \$5 = i86pc, which doesn't actually conflict,

?X: but it's close enough that I can easily imagine other vendors also

?X: using variants of pc\* in \$5.)

?X: The "DJGPP" environment variable is always set when djgpp is active.

pc\*)

```

if test -n "$DJGPP"; then

```

```

 osname=dos

```

```

 osvers=djgpp

```

```

fi

```

```

;;

```

```

esac

```

```

case "$1" in

```

```

 aix) osname=aix

```

?X: aix 4.1 uname -a output looks like

?X: AIX foo 1 4 000123456789

?X: where \$4 is the major release number and \$3 is the (minor)

version.

?X: More detail on the version is available with the oslevel command.

?X: in 3.2.x, it output a string (see case statements below). In 4.1,

?X: it puts out something like 4.1.1.0

```

tmp=`(oslevel) 2>/dev/null || echo "not found") 2>&1`

```

```

case "$tmp" in

```

```

 # oslevel can fail with:

```

```

 # oslevel: Unable to acquire lock.

```

```

 *not\ found) osvers="$4"."$3" ;;

```

```

 '<3240'|<>3240') osvers=3.2.0 ;;

```

```

 '=3240'|>3240'|<3250'|<>3250') osvers=3.2.4 ;;

```

```

 '=3250'|>3250') osvers=3.2.5 ;;

```

```

*) osvers=$tmp;;
esac
;;
bitrig) osname=bitrig
osvers="$3"
;;
bsd386) osname=bsd386
osvers=`$uname -r`
;;
cygwin*) osname=cygwin
osvers="$3"
;;
*dc.osx) osname=dcosx
osvers="$3"
;;
dnix) osname=dnix
osvers="$3"
;;
domainos) osname=apollo
osvers="$3"
;;
dgux) osname=dgux
osvers="$3"
;;
dragonfly) osname=dragonfly
osvers="$3"
;;
?X: uname -a returns
?X: DYNIX/ptx xxx 4.0 V4.1.2 i386
dynixptx*) osname=dynixptx
osvers=`echo
"$4"|sed 's/^v//`
;;
freebsd) osname=freebsd
osvers="$3" ;;
genix) osname=genix ;;
?X: GNU/Hurd uname -a gives something like:
?X: GNU foo 0.3 GNU-Mach 1.4/Hurd-0.3 i386-AT386 GNU
?X: GNU gnu 0.3 GNUmach-1.2/Hurd-0.3 i386-AT386 GNU
?X: Note the hostname on the second one, which will fool Configure
?X: into using the SysV case!
gnu) osname=gnu
osvers="$3" ;;
?X: HP-UX uname -a gives something like
?X: HP-UX foobar B.10.20 A 9000/735 2016483812 two-user license
?X: Preserve the full 10.20 string instead of the previous plain '10'.
?X: Thanks to Graham Barr. --AD 6/30/1998
hp*) osname=hpux

```

```

osvers=`echo "$3" | $sed 's,.*\.[0-9]*\.[0-9]*\),1,`
;;
irix*) osname=irix
case "$3" in
4*) osvers=4 ;;
5*) osvers=5 ;;
*) osvers="$3" ;;
esac
;;
linux) osname=linux
case "$3" in
*) osvers="$3" ;;
esac
$test -f /system/lib/libandroid.so && osname=linux-android
;;
MiNT) osname=mint
;;
minix) osname=minix
osvers=`$uname -r`
;;
netbsd*)
osname=netbsd
osvers="$3"
;;
news-os) osvers="$3"
case "$3" in
4*) osname=newsos4 ;;
*) osname=newsos ;;
esac
;;
nonstop-ux) osname=nonstopux ;;
openbsd) osname=openbsd
osvers="$3"
;;
os2) osname=os2
osvers="$4"
;;
POSIX-BC | posix-bc) osname=posix-bc
osvers="$3"
;;
powerux | power_ux | powermax_os | powermaxos | \
powerunix | power_unix) osname=powerux
osvers="$3"
;;
qnx) osname=qnx
osvers="$4"
;;
solaris) osname=solaris

```

```

case "$3" in
5*) osvers=`echo $3 | $sed 's/^5/2/g` ;;
*) osvers="$3" ;;
esac
;;
sunos) osname=sunos
case "$3" in
5*) osname=solaris
osvers=`echo $3 | $sed 's/^5/2/g` ;;
*) osvers="$3" ;;
esac
;;
titanos) osname=titanos
case "$3" in
1*) osvers=1 ;;
2*) osvers=2 ;;
3*) osvers=3 ;;
4*) osvers=4 ;;
*) osvers="$3" ;;
esac
;;
ultrix) osname=ultrix
osvers="$3"
;;
osf1|mips+) case "$5" in
alpha)
?X: DEC OSF/1 myuname
-a output looks like: osf1 xxxx t3.2 123.4 alpha
?X: where the version number can be something like [xvt]n.n
osname=dec_osf
?X: sizer knows the minor minor version: the letter
osvers=`sizer -v | awk -FUNIX '{print $2}' | awk '{print $1}' | tr '[A-Z]' '[a-z]' | sed 's/^[xvt]//`
case "$osvers" in
[1-9].[0-9]*) ;;
*) osvers=`echo "$3" | sed 's/^[xvt]//` ;;
esac
;;
hp*) osname=hp_osf1 ;;
mips) osname=mips_osf1 ;;
?X: hp and mips were unsupported Technology Releases -- ADO, 24/10/94
esac
;;
UnixWare 7.1.2 is known as Open UNIX 8
openunix|unixware) osname=svr5
osvers="$4"
;;
uts) osname=uts
osvers="$3"

```

```

;;
vos) osvers="$3"
;;
$2) case "$osname" in
isc) ;;
freebsd) ;;
svr*)
: svr4.x or possibly later
case "svr$3" in
${osname}*)
osname=svr$3
osvers=$4
;;
esac
case "$osname" in
svr4.0)
: Check for ESIX
if test -f /stand/boot ; then
eval `grep '^INITPROG=[a-z/0-9]*$'
/stand/boot`
if test -n "$INITPROG" -a -f "$INITPROG"; then
isesix=`strings -a $INITPROG|grep 'ESIX SYSTEM V/386 Release 4.0`
if test -n "$isesix"; then
osname=esix4
fi
fi
fi
;;
esac
;;
*) if test -f /etc/systemid; then
osname=sco
set `echo $3 | $sed 's/\./ /g` $4
if $test -f $src/hints/sco_$1_$2_$3.sh; then
osvers=$1.$2.$3
elif $test -f $src/hints/sco_$1_$2.sh; then
osvers=$1.$2
elif $test -f $src/hints/sco_$1.sh; then
osvers=$1
fi
else
case "$osname" in
") : Still unknown. Probably a generic Sys V.
osname="sysv"
osvers="$3"
;;
esac
fi

```

```

;;
esac
;;
*) case "$osname" in
") : Still unknown. Probably a generic BSD.
osname="$1"
osvers="$3"
;;
esac
;;
esac
else
?X: Try to identify sony's NEWS-OS (BSD unix)
if test -f /vmunix -a -f $src/hints/news_os.sh; then
(what /vmunix | UU/tr '[A-Z]'
[a-z]') > UU/kernel.what 2>&1
if $contains news-os UU/kernel.what >/dev/null 2>&1; then
osname=news_os
fi
$rm -f UU/kernel.what
?X: Maybe it's OS/2 or DOS or something similar
elif test -d c:/ -o -n "$is_os2" ; then
set X $myuname
osname=os2
osvers="$5"
fi
fi

case "$targetarch" in
") ;;
*) hostarch=$osname
case "$targetarch" in
nto*|*-nto-*)
Will load qnx.sh, which should change osname to nto
osname=qnx
osvers=""
;;
linux-android)
Catch arm-linux-androideabi, mipsel-linux-android,
and i686-linux-android
osname=linux-android
osvers=""
;;
linux)
Something like arm-linux-gnueabi is really just
plain linux.
osname=linux

```



```

osvers="
;;
solaris|*sunos*)
osname=solaris
XXX perhaps we should just assume
osvers to be 2, or maybe take the value
from targetarch. Using $run before the
hints are run is somewhat icky.
set X ` $run $uname -a 2>/dev/null `
shift
case "$3" in
 5*) osvers=`echo $3 | $sed 's/^5/2/g'` ;;
 *) osvers="$3" ;;
esac
;;
*)
osname=`echo $targetarch|sed 's,^[^-]*-,`
osvers="
;;
esac
;;
esac

```

: Now look for a hint file osname\_osvers, unless one has been specified already.

```

case "$hintfile" in
"|' ')
file=`echo "${osname}_${osvers}" | $sed -e 's%\.\%_g' -e 's%_$$%%`

```

: Also try without trailing minor version numbers.

```

xfile=`echo $file | $sed -e 's%_[^_]*$%%`
xxfile=`echo $xfile | $sed -e 's%_[^_]*$%%`
xxxfile=`echo $xxfile | $sed -e 's%_[^_]*$%%`
xxxxfile=`echo $xxxfile | $sed -e 's%_[^_]*$%%`
case "$file" in
") dflt=none ;;
*) case "$osvers" in
") dflt=$file
;;
*) if $test -f $src/hints/$file.sh ; then
dflt=$file
elif $test -f $src/hints/$xfile.sh ; then
dflt=$xfile
elif $test -f $src/hints/$xxxfile.sh ; then
dflt=$xxxfile
elif $test -f $src/hints/$xxxxfile.sh ; then
dflt=$xxxxfile

```

```

dflt=$xxxxfile
elif $test -f "$src/hints/${osname}.sh" ; then
 dflt="${osname}"
else
 dflt=none
fi
;;
esac
;;
esac
if $test -f Policy.sh ; then
 case "$dflt" in
 Policy) ;;
 none) dflt="Policy" ;;
 *) dflt="Policy $dflt" ;;
 esac
fi
;;
*)
dflt=`echo $hintfile | $sed 's/\.sh$/'^
;;
esac

```

```

if $test -f Policy.sh ; then
 $cat <<EOM

```

There's also

a Policy hint file available, which should make the site-specific (policy) questions easier to answer.

EOM

```

fi

```

```

$cat <<EOM

```

You may give one or more space-separated answers, or "none" if appropriate.

If you have a handcrafted Policy.sh file or a Policy.sh file generated by a previous run of Configure, you may specify it as well as or instead of OS-specific hints. If hints are provided for your OS, you should use them: although Perl can probably be built without hints on many platforms, using hints often improve performance and may enable features that Configure can't set up on its own. If there are no hints that match your OS, specify "none"; DO NOT give a wrong version or a wrong OS.

EOM

```

rp="Which of these apply, if any?"

```

```

. UU/myread

```

```

tans=$ans
for file in $ans; do
if $test X$file = XPolicy -a -f Policy.sh; then
. Policy.sh
$cat Policy.sh >> UU/config.sh
elif $test -f $src/hints/$file.sh; then
. $src/hints/$file.sh
$cat $src/hints/$file.sh >> UU/config.sh
elif
$test X"$ans" = X -o X"$ans" = Xnone ; then
: nothing
else
: Give one chance to correct a possible typo.
echo "$file.sh does not exist"
dflt=$file
rp="hint to use instead?"
. UU/myread
for file in $ans; do
if $test -f "$src/hints/$file.sh"; then
. $src/hints/$file.sh
$cat $src/hints/$file.sh >> UU/config.sh
elif $test X$ans = X -o X$ans = Xnone ; then
: nothing
else
echo "$file.sh does not exist -- ignored."
fi
done
fi
done

hint=recommended
: Remember our hint file for later.
if $test -f "$src/hints/$file.sh" ; then
hintfile="$file"
else
hintfile=""
fi
fi
cd UU
?X: From here on, we must use $src instead of $src
@else
: Get old answers, if there is a config file out there
hint=default
hintfile=""
if test -f ../config.sh; then
echo " "
rp="I see a config.sh file. Shall I use it to set the defaults?"
. ./myread

```

```

case "$ans" in
n*[N*]) echo "OK, I'll ignore it.";;
*) echo "Fetching default answers from
your old config.sh file..." >&4
tmp_n="$n"
tmp_c="$c"
.../config.sh
cp ../config.sh .
n="$tmp_n"
c="$tmp_c"
hint=previous
;;
esac
fi
@end
?X: remember, indentation is wrong--RAM
;;
*)
echo " "
echo "Fetching default answers from $config_sh..." >&4
tmp_n="$n"
tmp_c="$c"
cd ..
?X: preserve symbolic links, if any
cp $config_sh config.sh 2>/dev/null
chmod +w config.sh
. ./config.sh
cd UU
cp ../config.sh .
n="$tmp_n"
c="$tmp_c"
hint=previous
;;
esac
. ./optdef.sh

: Restore computed paths
for file in $loclist $strylist; do
eval $file="\$_$file"
done

@if osname || osvers
cat << EOM

```

Configure uses the operating system name and version to set some defaults. The default value is probably right if the name rings a bell. Otherwise, since spelling matters for me, either accept the default or answer "none" to leave it blank.

```

EOM
@end
@if osname
case "$osname" in
'|')
 case "$hintfile" in
 '|' |none) dflt=none ;;
 *) dflt=`echo $hintfile | $sed -e 's/\.sh$//'
 -e 's/_.*$//'^` ;;
 esac
 ;;
 *) dflt="$osname" ;;
esac
rp="Operating system name?"
./myread
case "$ans" in
none) osname="" ;;
) osname=`echo "$ans" | $sed -e 's/[][]/_/g' | ./tr '[A-Z]' '[a-z]'^` ;;
esac
@end
@if osvers
@if osname
echo " "
@end
case "$osvers" in
'|')
 case "$hintfile" in
 '|' |none) dflt=none ;;
) dflt=`echo $hintfile | $sed -e 's/\.sh$//' -e 's/^[^_]//'^
 dflt=`echo $dflt | $sed -e 's/^_/' -e 's/_/./g'^`
 case "$dflt" in
 '|') dflt=none ;;
 esac
 ;;
 esac
 ;;
 *) dflt="$osvers" ;;
esac
rp="Operating system version?"
./myread
case "$ans" in
none) osvers="" ;;
*) osvers="$ans" ;;
esac

@end

```

./posthint.sh

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Oldconfig.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_srandom\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_srandom\_r srandom\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
usethreads i\_stdlib extern\_C

?MAKE: -pick add \$@ %<

?S:d\_srandom\_r:

?S: This variable conditionally defines the HAS\_SRANDOM\_R symbol,

?S: which indicates to the C program that the srandom\_r()

?S: routine is available.

?S:.

?S:srandom\_r\_proto:

?S: This variable encodes the prototype of srandom\_r.

?S: It is zero if d\_srandom\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_srandom\_r

?S: is defined.

?S:.

?C:HAS\_SRANDOM\_R:

?C: This symbol, if defined, indicates that the srandom\_r routine

?C: is available to srandom re-entrantly.

?C:.

?C:SRANDOM\_R\_PROTO:

?C: This

symbol encodes the prototype of srandom\_r.

?C: It is zero if d\_srandom\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_srandom\_r

?C: is defined.

?C:.

?H:#\$d\_srandom\_r HAS\_SRANDOM\_R /\*\*/

?H:#define SRANDOM\_R\_PROTO \$srandom\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_srandom\_r\_proto

: see if srandom\_r exists

set srandom\_r d\_srandom\_r

eval \$inlibc

case "\$d\_srandom\_r" in

```

"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_stdlib stdlib.h"
case "$d_srandom_r_proto:$usethreads" in
":define") d_srandom_r_proto=define
set d_srandom_r_proto srandom_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_srandom_r_proto" in
define)
case "$srandom_r_proto" in
"|0) try='int srandom_r(unsigned int, struct random_data*);'
./prochck "$extern_C $try" $hdrs && srandom_r_proto=I_TS ;;
esac
case "$srandom_r_proto" in
"|0) d_srandom_r=undef
srandom_r_proto=0
echo "Disabling srandom_r, cannot determine prototype.">&4 ;;
*
) case "$srandom_r_proto" in
REENTRANT_PROTO*) ;;
*) srandom_r_proto="REENTRANT_PROTO_$srandom_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "srandom_r has no prototype, not using it.">&4 ;;
esac
d_srandom_r=undef
srandom_r_proto=0
;;
esac
;;
*) srandom_r_proto=0
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_srandom_r.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_setsid.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.  
 ?RCS: You may reuse parts of this distribution only within the terms of  
 ?RCS: that same Artistic Licence; a copy of which may be found at the root  
 ?RCS: of the source tree for dist 4.0.  
 ?RCS:  
 ?RCS: \$Log: d\_setsid.U,v \$  
 ?RCS: Revision 3.0.1.1 1994/01/24 14:06:49 ram  
 ?RCS: patch16: created  
 ?RCS:  
 ?RCS: Revision 3.0 1993/08/18 12:05:56 ram  
 ?RCS: Baseline for dist 3.0 netwide release.  
 ?RCS:  
 ?MAKE:d\_setsid: Inlibc  
 ?MAKE: -pick add \$@ %<  
 ?S:d\_setsid:  
 ?S: This variable conditionally defines HAS\_SETSID if setsid() is  
 ?S: available to set the process group ID.  
 ?S:.  
 ?C:HAS\_SETSID:  
 ?C: This symbol, if defined, indicates that the setsid routine is  
 ?C: available  
 ?C: to set the process group ID.  
 ?C:.  
 ?H:#\$d\_setsid HAS\_SETSID /\*\*/  
 ?H:.  
 ?LINT:set d\_setsid  
 : see if setsid exists  
 set setsid d\_setsid  
 eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_setsid.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2005 H.Merijn Brand

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_clearenv: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_clearenv:

?S: This variable conditionally defines the HAS\_CLEARENV symbol, which

?S: indicates to the C program that the clearenv () routine is available.

?S:.



?C:HAS\_CLEARENV:

?C: This symbol, if defined, indicates that the clearenv () routine is

?C: available for use.

?C:.

?H:#\$d\_clearenv HAS\_CLEARENV /\*\*/

?H:.

?LINT:set d\_clearenv

: see if clearenv exists

set clearenv d\_clearenv

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_clearenv.U

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_remquo: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_remquo:

?S: This variable conditionally defines the HAS\_REMQUO symbol, which

?S: indicates to the C program that the remquo() routine is available.

?S:.

?C:HAS\_REMQUO:

?C: This symbol, if defined, indicates that the remquo routine is

?C: available to return the remainder and part of quotient.

?C:.

?H:#\$d\_remquo HAS\_REMQUO /\*\*/

?H:.

?LINT:set d\_remquo

: see if remquo exists

set remquo d\_remquo

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_remquo.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_gdbm.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: i\_gdbm.U,v \$  
?RCS: Revision 3.0.1.1 1995/05/12 12:16:39 ram  
?RCS: patch54: made more robust by checking both header and lib (ADO)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:08:19 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:i\_gdbm: Inhdr Inlibc Setvar  
?MAKE: -pick add \$@ %<  
?S:i\_gdbm (d\_gdbm):  
?S: This variable conditionally defines the I\_GDBM symbol, which  
?S: indicates to the C program that <gdbm.h> exists and should  
?S: be included.  
?S:.  
?C:I\_GDBM  
(HAS\_GDBM):  
?C: This symbol, if defined, indicates that <gdbm.h> exists and should  
?C: be included.  
?C:.  
?H:#\$i\_gdbm I\_GDBM /\*\*/  
?H:.  
?T:t\_gdbm d\_gdbm\_open  
?LINT:set i\_gdbm  
: see if gdbm.h is available  
?X: t\_gdbm is a tentative check. We might just have the .h, not the lib -- ADO  
set gdbm.h t\_gdbm  
eval \$inhdr  
case "\$t\_gdbm" in  
\$define)  
: see if gdbm\_open exists  
set gdbm\_open d\_gdbm\_open  
eval \$inlibc  
case "\$d\_gdbm\_open" in  
\$undef)  
t\_gdbm="\$undef"  
echo "We won't be including <gdbm.h>"  
;;  
esac  
;;  
esac  
val="\$t\_gdbm"  
set i\_gdbm  
eval \$setvar

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_gdbm.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2004 H.Merijn Brand

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_strlcpy: Inlibc Hasproto d\_gnulibc

?MAKE: -pick add \$@ %<

?S:d\_strlcpy:

?S: This variable conditionally defines the HAS\_STRLCPY symbol, which

?S: indicates to the C program that the strlcpy () routine is available.

?S:.

?C:HAS\_STRLCPY:

?C: This symbol, if defined, indicates that the strlcpy () routine is

?C: available to do string copying.

?C:.

?H:#\$d\_strlcpy HAS\_STRLCPY /\*\*/

?H:.

?T:d\_strlcpy\_proto xx1 xx2 xx3 xx4

?LINT:set d\_strlcpy

: see if strlcpy exists

: We need both a prototype in string.h and the symbol in libc.

echo " "

d\_strlcpy\_proto="

xx1="#\$d\_gnulibc HAS\_GNULIBC"

xx2="#if defined(HAS\_GNULIBC) && !defined(\_GNU\_SOURCE)'

xx3='# define \_GNU\_SOURCE'

xx4='#endif'

set d\_strlcpy\_proto strlcpy

literal "\$xx1" literal "\$xx2" literal "\$xx3" literal "\$xx4" define string.h

eval \$hasproto

case "\$d\_strlcpy\_proto" in

define) # see if strlcpy exists

set strlcpy d\_strlcpy

eval \$inlibc

::

\*) val=\$undef

set d\_strlcpy

eval \$setvar

::

esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_strlcpy.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_memcpy.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_memcpy.U,v \$

?RCS: Revision 3.0.1.1 1993/09/13 16:02:58 ram

?RCS: patch10: removed text recommending bcopy over memcpy (WAD)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:06:34 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_memcpy: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_memcpy:

?S: This variable conditionally defines the HAS\_MEMCPY symbol, which

?S: indicates to the C program that the memcpy() routine is available

?S: to copy blocks of

memory.

?S:.

?C:HAS\_MEMCPY (MEMCPY):

?C: This symbol, if defined, indicates that the memcpy routine is available

?C: to copy blocks of memory.

?C:.

?H:#\$d\_memcpy HAS\_MEMCPY /\*\*/

?H:.

?LINT:set d\_memcpy

: see if memcpy exists

set memcpy d\_memcpy

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_memcpy.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_perlio.U,v \$

?RCS:

?RCS: Copyright (c) 1998 Andy Dougherty

```

?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: $Log: d_perlio.U,v $
?RCS:
?MAKE:useperlio: Myread Oldconfig Setvar
?MAKE: -pick add $@ %<
?Y:TOP
?S:useperlio:
?S: This variable conditionally defines the USE_PERLIO symbol,
?S: and indicates that the PerlIO abstraction should be
?S: used throughout.
?S:.
?C:USE_PERLIO:
?C: This symbol, if defined, indicates that the PerlIO abstraction should
?C: be used throughout. If not defined, stdio should be
?C: used in a fully backward compatible manner.
?C:.
?H:?%<:#ifndef USE_PERLIO
?H:?%<:#$useperlio USE_PERLIO /**/
?H:?%<:#endif
?H:.
: Check if we want perlio
useperlio="$define"

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/perl/useperlio.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: Id
?RCS:
?RCS: Copyright (c) 2017, 2019, Karl Williamson
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?MAKE:i_wctype: Inhdr
?MAKE: -pick add $@ %<
?S:i_wctype:
?S: This variable conditionally defines the I_WCTYPE symbol,
?S: that indicates whether a C program may include <wctype.h>.
?S:.
?C:I_WCTYPE:

```

?C: This symbol, if defined, indicates that <wctype.h> exists.

?C:.

?H:#\$i\_wctype I\_WCTYPE /\*\*/

?H:.

?LINT:set i\_wctype

: see if this system has wctype.h

set wctype.h i\_wctype

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_wctype.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_msgsnd.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_msgsnd.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:41 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_msgsnd: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_msgsnd:

?S: This variable conditionally defines the HAS\_MSGSND symbol, which

?S: indicates to the C program that the msgsnd() routine is available.

?S:.

?C:HAS\_MSGSND:

?C: This symbol, if defined, indicates that the msgsnd() routine is

?C: available to send a message into the message queue.

?C:.

?H:#\$d\_msgsnd

HAS\_MSGSND /\*\*/

?H:.

?LINT:set d\_msgsnd

: see if msgsnd exists

set msgsnd d\_msgsnd

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/dist/U/d\_msgsnd.U

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```
?RCS: $Id: d_getppid.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_getppid.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:07:45 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_getppid: Inlibc
?MAKE: -pick add $@ %<
?S:d_getppid:
?S: This variable conditionally defines the HAS_GETPPID symbol, which
?S: indicates to the C program that the getppid() routine is available
?S: to get the parent process ID.
?S:.
?C:HAS_GETPPID :
?C: This symbol,
if defined, indicates that the getppid routine is
?C: available to get the parent process ID.
?C:.
?H:#$d_getppid HAS_GETPPID /**/
?H:.
?LINT:set d_getppid
: see if getppid exists
set getppid d_getppid
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_getppid.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1999 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
```

```

?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_fs_data_s: Hasstruct i_sysparam i_sysmount i_systypes Setvar
?MAKE: -pick add $@ %<
?S:d_fs_data_s:
?S: This variable conditionally defines the HAS_STRUCT_FS_DATA symbol,
?S: which indicates that the struct fs_data is supported.
?S:.
?C:HAS_STRUCT_FS_DATA:
?C: This symbol, if defined, indicates that the struct fs_data
?C: to do statfs() is supported.
?C:.
?H:#$d_fs_data_s HAS_STRUCT_FS_DATA /**/
?H:.
?LINT:set d_fs_data_s
: Check for fs_data_s
echo " "
echo "Checking to see if your system supports struct fs_data..." >&4
set d_fs_data_s fs_data $i_systypes sys/types.h $i_sysparam sys/param.h $i_sysmount sys/mount.h
eval $hasstruct
case "$d_fs_data_s" in
"$define") echo "Yes, it does." ;;
*)
 echo "No, it doesn't." ;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_fs_data_s.U

```

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```

?RCS: $Id: d_srand48_r.U,v 0RCS:
?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.
?RCS:
?MAKE:d_srand48_r srand48_r_proto: Inlibc Protochk Hasproto i_systypes \
 usethreads i_stdlib extern_C
?MAKE: -pick add $@ %<
?S:d_srand48_r:
?S: This variable conditionally defines the HAS_SRAND48_R symbol,
?S: which indicates to the C program that the srand48_r()
?S: routine is available.
?S:.
?S:srand48_r_proto:

```



?S: This variable encodes the prototype of srand48\_r.

?S: It is zero if d\_srand48\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_srand48\_r

?S: is defined.

?S:.

?C:HAS\_SRAND48\_R:

?C: This symbol, if defined, indicates that the srand48\_r routine

?C: is available to srand48 re-entrantly.

?C:.

?C:SRAND48\_R\_PROTO:

?C: This

symbol encodes the prototype of srand48\_r.

?C: It is zero if d\_srand48\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_srand48\_r

?C: is defined.

?C:.

?H:#\$d\_srand48\_r HAS\_SRAND48\_R /\*\*/

?H:#define SRAND48\_R\_PROTO \$srand48\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_srand48\_r\_proto

: see if srand48\_r exists

set srand48\_r d\_srand48\_r

eval \$inlibc

case "\$d\_srand48\_r" in

"\$define")

hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_stdlib stdlib.h"

case "\$d\_srand48\_r\_proto:\$susethreads" in

":define") d\_srand48\_r\_proto=define

set d\_srand48\_r\_proto srand48\_r \$hdrs

eval \$hasproto ;;

\*) ;;

esac

case "\$d\_srand48\_r\_proto" in

define)

case "\$srand48\_r\_proto" in

"|0) try='int srand48\_r(long, struct drand48\_data\*);'

./protochk "\$sextern\_C \$try" \$hdrs && srand48\_r\_proto=I\_LS ;;

esac

case "\$srand48\_r\_proto" in

"|0) d\_srand48\_r=undef

srand48\_r\_proto=0

echo "Disabling srand48\_r, cannot determine prototype." >&4 ;;

\* ) case

"\$srand48\_r\_proto" in

REENTRANT\_PROTO\*) ;;

\*) srand48\_r\_proto="REENTRANT\_PROTO\_\$srand48\_r\_proto" ;;

esac

echo "Prototype: \$try" ;;

```

esac
;;
*) case "$susetthreads" in
define) echo "srand48_r has no prototype, not using it." >&4 ;;
esac
d_srand48_r=undef
srand48_r_proto=0
;;
esac
;;
*) srand48_r_proto=0
;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_srand48\_r.U

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: ccflags.U,v \$

?RCS: Revision 3.0.1.9 1997/02/28 15:27:07 ram

?RCS: patch61: removed support for NO\_PROTOTYPE detection on SCO

?RCS: patch61: new locincpth variable

?RCS: patch61: added info on the "additional ld flags" question

?RCS:

?RCS: Revision 3.0.1.8 1995/07/25 13:48:54 ram

?RCS: patch56: re-arranged compile line to include ldflags before objects

?RCS:

?RCS: Revision 3.0.1.7 1995/05/12 12:08:33 ram

?RCS: patch54: now checks for cc/ccflags/ldflags coherency

?RCS:

?RCS: Revision 3.0.1.6

1994/10/29 16:07:02 ram

?RCS: patch36: gcc versioning no longer relies on the C compiler's name

?RCS: patch36: simplified check for gcc version checking (ADO)

?RCS:

?RCS: Revision 3.0.1.5 1994/08/29 16:06:35 ram

?RCS: patch32: propagate -posix flag from ccflags to ldflags

?RCS:  
?RCS: Revision 3.0.1.4 1994/05/06 14:28:45 ram  
?RCS: patch23: -fpcc-struct-return only needed in gcc 1.x (ADO)  
?RCS: patch23: cppflags now computed on an option-by-option basis  
?RCS: patch23: magically added cc flags now only done the first time  
?RCS:  
?RCS: Revision 3.0.1.3 1993/09/13 15:58:29 ram  
?RCS: patch10: explicitly mention -DDEBUG just in case they need it (WAD)  
?RCS: patch10: removed all the "tans" variable usage (WAD)  
?RCS:  
?RCS: Revision 3.0.1.2 1993/08/27 14:39:38 ram  
?RCS: patch7: added support for OSF/1 machines  
?RCS:  
?RCS: Revision 3.0.1.1 1993/08/25 14:00:24 ram  
?RCS: patch6: added defaults for cppflags, ccflags and ldflags  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:05:31 ram  
?RCS:  
Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:ccflags ldflags lkflags cppflags optimize locincpth: test cat \  
Myread Guess Options Oldconfig gccversion mips\_type +usrinc \  
package contains rm rm\_try +cc cppstdin cppminus cpprun cpplast libpth \  
loclibpth hint  
?MAKE: -pick add \$@ %<  
?S:ccflags:  
?S: This variable contains any additional C compiler flags desired by  
?S: the user. It is up to the Makefile to use this.  
?S:.  
?S:cppflags:  
?S: This variable holds the flags that will be passed to the C pre-  
?S: processor. It is up to the Makefile to use it.  
?S:.  
?S:optimize:  
?S: This variable contains any optimizer/debugger flag that should be used.  
?S: It is up to the Makefile to use it.  
?S:.  
?S:ldflags:  
?S: This variable contains any additional C loader flags desired by  
?S: the user. It is up to the Makefile to use this.  
?S:.  
?S:lkflags:  
?S: This variable contains any additional C partial linker flags desired by  
?S: the user. It is up to the Makefile to use this.  
?S:.  
?S:locincpth:  
?S: This

```

variable contains a list of additional directories to be
?S: searched by the compiler. The appropriate -I directives will
?S: be added to ccflags. This is intended to simplify setting
?S: local directories from the Configure command line.
?S: It's not much, but it parallels the loclibpth stuff in libpth.U.
?S:.
?T:inctest thisincl xxx flag inclwanted ftry previous thislibdir
?F:!cpp.c
?D:cppflags=""
?D:ccflags=""
?D:ldflags=""
?D:optimize=""
?INIT:: Possible local include directories to search.
?INIT:: Set locincpth to "" in a hint file to defeat local include searches.
?INIT:locincpth="/usr/local/include /opt/local/include /usr/gnu/include"
?INIT:locincpth="$locincpth /opt/gnu/include /usr/GNU/include /opt/GNU/include"
?INIT::
?INIT:: no include file wanted by default
?INIT:inclwanted=""
?INIT:
: determine optimize, if desired, or use for debug flag also
case "$optimize" in
'|$undef) dflt='none';;
")
case "$gccversion" in
") dflt='-O';;
*) dflt='-O2 -g';;
esac
;;
*)
dflt="$optimize";;
esac
case "$gccversion" in
") $cat <<EOH

```

Some C compilers have problems with their optimizers. By default, \$package compiles with the -O flag to use the optimizer. Alternately, you might want to use the symbolic debugger, which uses the -g flag (on traditional Unix systems). Either flag can be specified here. To use neither flag, specify the word "none".

```

EOH
;;
*) $cat <<EOH

```

With the GNU C compiler, it is possible to supply both -O2 and -g flags, to be able to reasonably optimize, whilst retaining the ability to use a symbolic debugger. Either flag can be specified here. To use neither flag,

specify the word "none".

EOH

```
;;
esac
rp="What optimizer/debugger flag should be used?"
./myread
optimize="$ans"
case "$optimize" in
'none') optimize=" ";;
esac
```

dflt="

: We will not override a previous value, but we might want to

: augment a hint file

```
case "$hint" in
default|recommended)
case "$gccversion" in
1*) dflt='-fpcc-struct-return' ;;
esac
```

?X:

check for POSIXized ISC

```
case "$gccversion" in
2*) if test -d /etc/conf/kconfig.d &&
$contains _POSIX_VERSION $usrinc/sys/unistd.h >/dev/null 2>&1
then
dflt="$dflt -posix"
```

fi

;;

esac

?X: turn warnings on if they're using gcc

```
case "$gccversion" in
1*|2*) dflt="$dflt -Wall";;
```

?X: starting with version 3, add "-W -Wall -Wformat=2 -Wshadow" by default

```
*) dflt="$dflt -W -Wall -Wformat=2 -Wshadow";;
```

esac

;;

esac

?X: In USG mode, a MIPS system may need some BSD includes

```
case "$mips_type" in
BSD|") inclwanted="$locincpth $usrinc";;
*) inclwanted="$locincpth $inclwanted $usrinc/bsd";;
esac
```

for thisincl in \$inclwanted; do

if \$test -d \$thisincl; then

if \$test x\$thisincl != x\$usrinc; then

case "\$dflt" in

```

$thisincl);;
*) dflt="$dflt -I$thisincl";;
esac
fi
fi
done

```

?X: Include test function (header, symbol)

```

inctest='if $contains $2 $usrinc/$1 >/dev/null 2>&1; then
xxx=true;
elif $contains $2 $usrinc/sys/$1 >/dev/null 2>&1; then
xxx=true;
else
xxx=false;
fi;
if
$xxx; then
case "$dflt" in
$2);;
*) dflt="$dflt -D$2";;
esac;
fi'

```

?X:

?X: OSF/1 uses \_\_LANGUAGE\_C\_\_ instead of LANGUAGE\_C

?X:

```

if ./osf1; then
set signal.h __LANGUAGE_C__; eval $inctest
else
set signal.h LANGUAGE_C; eval $inctest
fi

```

```

case "$hint" in
default|recommended) dflt="$ccflags $dflt" ;;
*) dflt="$ccflags";;
esac

```

```

case "$dflt" in
'| ') dflt=none;;
esac
$cat <<EOH

```

Your C compiler may want other flags. For this question you should include -I/whatever and -DWHATEVER flags and any other flags used by the C compiler, but you should NOT include libraries or ld flags like -lwhatever.

To use no flags, specify the word "none".

```

EOH
?X: strip leading space
set X $dflt
shift
dflt=${1+"$@"}
rp="Any additional cc flags?"
./myread
case "$ans" in
none) ccflags="";;
*) ccflags="$ans";;
esac

```

: the following weeds options from ccflags that are of no interest to cpp

```

cppflags="$ccflags"
case "$gccversion" in
1*) cppflags="$cppflags -D__GNUC__"
esac
case "$mips_type" in
");;
BSD)
cppflags="$cppflags -DSYSTYPE_BSD43";;
esac
case "$cppflags" in
");;
*)
echo " "
echo "Let me guess what the preprocessor flags are..." >&4
set X $cppflags
shift
cppflags="
$cat >cpp.c <<'EOM'
#define BLURFL foo

```

BLURFL xx LFRULB

EOM

?X:

?X: For each cc flag, try it out with both cppstdin and cprun, since the

?X: first is almost surely a cc wrapper. We have to try both in case

?X: of cc flags like '-Olimit 2900' that are actually two words...

?X:

```

previous="
for flag in $*
do
case "$flag" in
-*) ftry="$flag";;
*) ftry="$previous $flag";;
esac
if $cppstdin -DLFRULB=bar $ftry $cppminus <cpp.c \

```

```

>cpp1.out 2>/dev/null && \
$cpprun -DLFRULB=bar $ftry $cpplast <cpp.c \
>cpp2.out 2>/dev/null && \
$contains 'foo.*xx.*bar' cpp1.out >/dev/null 2>&1 && \
$contains 'foo.*xx.*bar' cpp2.out >/dev/null 2>&1
then
cppflags="$cpflags $ftry"
previous="
else
previous="$flag"
fi
done
set X $cpflags
shift
cppflags=${1+"$@"}
case "$cpflags"
in
*_**) echo "They appear to be: $cpflags";;
esac
$rm -f cpp.c cpp?.out
;;
esac

```

: flags used in final linking phase

```

case "$ldflags" in
*) if ./venix; then
dflt='-i -z'
else
dflt="
fi
case "$ccflags" in
-posix) dflt="$dflt -posix" ;;
esac
;;
*) dflt="$ldflags";;
esac

```

: Try to guess additional flags to pick up local libraries.

```

for thislibdir in $libpth; do
case " $loclibpth " in
" $thislibdir ")
case "$dflt " in
" -L$thislibdir ") ;;
*) dflt="$dflt -L$thislibdir" ;;
esac
;;
esac
done

```



```
case "$dflt" in
") dflt='none' ;;
*) set X $dflt; shift; dflt="$@";;
esac
```

\$cat <<EOH

Your C linker may need flags. For this question you should include -L/whatever and any other flags used by the C linker, but you should NOT include libraries like -lwhatever.

Make sure you include the appropriate -L/path flags if your C linker does not normally search all of the directories you specified above, namely

\$libpth

To use no flags, specify the word "none".

EOH

```
rp="Any
additional ld flags (NOT including libraries)?"
./myread
case "$ans" in
none) ldflags="";;
*) ldflags="$ans";;
esac
rmlist="$rmlist pdp11"
```

```
@if lkflags
: partial linking may need other flags
case "$lkflags" in
") case "$ldflags" in
") dflt='none';;
*) dflt="$ldflags";;
esac;;
*) dflt="$lkflags";;
esac
echo " "
rp="Partial linking flags to be used (NOT including -r)?"
./myread
case "$ans" in
none) lkflags="";;
*) lkflags="$ans";;
esac
```

@end

?X:

?X: If the user changes compilers after selecting a hint file, it's possible that the suggested cflags/ldflags will be wrong. Try to compile and run a simple test program. Let the user see all the error messages. -- ADO and RAM

```
?X:
: coherency check
echo " "
echo "Checking your choice of C compiler and flags for coherency..." >&4
?X: Strip extra blanks in case some of the following variables are empty
set X $cc $optimize $cflags $ldflags -o try try.c
shift
$cat >try.msg <<EOM
I've tried to compile and run a simple program
with:

$*
./try
```

and I got the following output:

```
EOM
$cat > try.c <<'EOF'
#include <stdio.h>
int main() { exit(0); }
EOF
dflt=y
?X: Use "sh -c" to avoid error messages tagged with leading "Configure:".
?X: We need to try the resulting executable, because cc might yield a 0 status
?X: even when ld failed, in which case the executable will not run properly,
?X: if its x bit is set at all...
if sh -c "$cc $optimize $cflags $ldflags -o try try.c" >>try.msg 2>&1; then
if sh -c './try' >>try.msg 2>&1; then
 dflt=n
else
 echo "The program compiled OK, but exited with status $?." >>try.msg
 rp="You have a problem. Shall I abort Configure"
 dflt=y
fi
else
 echo "I can't compile the test program." >>try.msg
 rp="You have a BIG problem. Shall I abort Configure"
 dflt=y
fi
case "$dflt" in
y)
 $cat try.msg >&4
?X: using -K will prevent default aborting--maybe they're cross compiling?
case "$knowitall" in
```

```

")
echo "(The supplied flags might be incorrect with this C compiler.)"
;;
*)
dflt=n;;
esac
echo " "
. ./myread
case "$ans" in
n*|N*) ;;
*) echo "Ok. Stopping Configure." >&4
exit 1
;;
esac
;;
n) echo "OK, that should do.";;
esac
$rm_try

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/ccflags.U
```

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?RCS:

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?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_isinf: Inlibc cat Compile rm\_try Setvar

?MAKE: -pick add \$@ %<

?S:d\_isinf:

?S: This variable conditionally defines the HAS\_ISINF symbol, which

?S: indicates to the C program that the isinf() routine is available.

?S:.

?C:HAS\_ISINF:

?C: This symbol, if defined, indicates that the isinf routine is

?C: available to check whether a double is an infinity.

?C:.

?H:#\$d\_isinf HAS\_ISINF /\*\*/

?H:.

?LINT:set d\_isinf

: check for isinf

echo "Checking to see if you have isinf..." >&4

\$cat >try.c <<EOCP

#include <math.h>

```
int main() { return isinf(0.0); }
EOCP
set try
if eval $compile; then
 val="$define"
 echo "You have isinf."
else
 val="$undef"
 echo "You do not have isinf."
fi
$rm_try
set d_isinf
eval $setvar
```

Found

in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_isinf.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_bzero.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_bzero.U,v \$

?RCS: Revision 3.0.1.2 1993/10/16 13:48:15 ram

?RCS: patch12: added magic support for bzero()

?RCS:

?RCS: Revision 3.0.1.1 1993/09/13 16:01:33 ram

?RCS: patch10: now only defines HAS\_BZERO, no macro remap on memset (WAD)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:46 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_bzero: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_bzero:

?S: This variable conditionally defines the HAS\_BZERO  
symbol if

?S: the bzero() routine is available to set memory to 0.

?S:.

?C:HAS\_BZERO:

?C: This symbol is defined if the bzero() routine is available to

?C: set a memory block to 0.

?C:.

?H:#\$d\_bzero HAS\_BZERO /\*\*/

?H:.

?M:bzero: HAS\_BZERO

?M:#ifndef HAS\_BZERO

?M:#ifndef bzero

?M:#define bzero(s,l) memset((s),0,(l))

?M:#endif

?M:#endif

?M:.

?LINT:set d\_bzero

: see if bzero exists

set bzero d\_bzero

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_bzero.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: abortsig.U,v 3.0.1.1 1994/10/29 16:02:19 ram Exp \$

?RCS:

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?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: abortsig.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:02:19 ram

?RCS: patch36: call ./usg explicitly instead of relying on PATH

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:20 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:abortsig: Myread Oldconfig Guess cat Compile rm

?MAKE: -pick add \$@ %<

?S:abortsig:

?S: This variable holds the name of the signal used by the abort() call.

?S:.

?C:ABORTSIG:

?C: This symbol holds the signal number (symbol)

used by the abort() call. To

?C: actually define the signal symbol, <signal.h> should be included.

```

?C:.
?H:#define ABORTSIG $abortsig /**/
?H:.
?T:signal
: which signal is sent by abort ?
echo " "
case "$abortsig" in
")
echo "Checking to see which signal is sent to the process by abort()..." >&4
echo "abort" > abort.sh
chmod +x abort.sh
?X: SIGABRT should replace SIGIOT on USG machines in a near future (1991).
for signal in SIGIOT SIGILL SIGABRT; do
case "$abortsig" in
") $cat >abort.c <<EOP
#include <signal.h>
caught() { exit(0); }
int main()
{
#ifdef $signal
signal($signal, caught);
#endif
if (-1 == abort())
exit(1);
exit(1);
}
EOP
?X: We have to use the abort.sh script otherwise sh behaves strangely on AIX.
set abort
if eval $compile; then
(/abort.sh) >/dev/null 2>&1
case $? in
0) abortsig="$signal";;
esac
fi
;;
esac
done
;;
esac
case "$abortsig" in
") echo "(I wasn't able to compute the signal name--guessing)"
if ./usg; then
dflt="SIGIOT"
else
dflt="SIGILL"
fi;;
*)

```

```

dflt="$abortsig"
;;
esac
rp="Which signal does abort() send to the process (signal name)?"
./myread
abortsig="$ans"
$rm -f core abort.sh abort abort.c

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/abortsig.U

```

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```

$Id: errnolist.a,v 3.0 1993/08/18 12:04:35 ram Exp ram $
#
Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
#
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as specified in the README file that comes with the distribution.
You may reuse parts of this distribution only within the terms of
that same Artistic Licence; a copy of which may be found at the root
of the source tree for dist 4.0.
#
Original Author: Harlan Stenn <harlan@mumps.pfcs.com>
#
$Log: errnolist.a,v $
Revision 3.0 1993/08/18 12:04:35 ram
Baseline for dist 3.0 netwide release.
#
#
This is a simple-minded awk script to generate an initialization for
sys_errnolist on systems that don't have it.
This file now depends only on sys/errno.h error numbers under maxerr being
in order. It will complain and die if not. NOTE: It will still produce
a compilable output file, even with errors, so you
must check the output.

```

```

BEGIN {
 format = "\t\"%s\", \n"
 printf("/*\n** This is a generated file. Do NOT edit it unless you really have to...\n*/\n\n")
 printf("char *sys_errnolist[] = {\n")
 maxerr = 89
}

```

```

$1=="#define" {
 if(count > maxerr || substr($2,1,1) != "E")
 next # we're not interested

```

```

if($3 < count) { # this is bad
 printf("Fatal error: %s out of order at %s\n",\
 FILENAME, $2)>"/dev/tty"
 exit 1
}
fill in the blanks
while($3 > count) {
 dummy=sprintf("EDUMMY%d",count)
 printf(format,dummy)
 count++
}
printf(format,$2)
count++
}

END {
 printf("\t0\n");\n")
}

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/lib/errnolist.a
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_pthratrj.U,v \$

?RCS:

?RCS: Copyright (c) 1998 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_old\_pthread\_create\_joinable old\_pthread\_create\_joinable: \  
cat Compile rm\_try Setvar usethreads i\_pthread

?MAKE: -pick add \$@ %<

?S:d\_old\_pthread\_create\_joinable:

?S: This variable conditionally defines pthread\_create\_joinable.

?S: undef if pthread.h defines PTHREAD\_CREATE\_JOINABLE.

?S:.

?S:old\_pthread\_create\_joinable:

?S: This variable defines the constant to use for creating joinable

?S: (aka undetached) pthreads. Unused if pthread.h defines

?S: PTHREAD\_CREATE\_JOINABLE. If used, possible values are

?S: PTHREAD\_CREATE\_UNDETACHED and \_\_UNDETACHED.

?S:.

?C:OLD\_PTHREAD\_CREATE\_JOINABLE:

?C: This symbol, if defined, indicates how to create pthread

?C: in joinable (aka undetached)



```

state. NOTE: not defined
?C: if pthread.h already has defined PTHREAD_CREATE_JOINABLE
?C: (the new version of the constant).
?C: If defined, known values are PTHREAD_CREATE_UNDETACHED
?C: and __UNDETACHED.
?C:.
?H: #d_old_pthread_create_joinable OLD_PTHREAD_CREATE_JOINABLE $old_pthread_create_joinable /**/
?H:.
: how to create joinable pthreads
if test "X$usethreads" = "X$define" -a "X$i_pthread" = "X$define"; then
echo " "
echo "Checking what constant to use for creating joinable pthreads..." >&4
$cat >try.c <<'EOCP'
#include <pthread.h>
int main() {
 int detachstate = JOINABLE;
}
EOCP
set try -DJOINABLE=PTHREAD_CREATE_JOINABLE
if eval $compile; then
echo "You seem to use PTHREAD_CREATE_JOINABLE." >&4
val="$undef" # Yes, undef.
set d_old_pthread_create_joinable
eval $setvar
val=""
set old_pthread_create_joinable
eval $setvar
else
set try -DJOINABLE=PTHREAD_CREATE_UNDETACHED
if eval $compile; then
echo "You seem to use PTHREAD_CREATE_UNDETACHED." >&4
val="$define"
set
d_old_pthread_create_joinable
eval $setvar
val=PTHREAD_CREATE_UNDETACHED
set old_pthread_create_joinable
eval $setvar
else
set try -DJOINABLE=__UNDETACHED
if eval $compile; then
echo "You seem to use __UNDETACHED." >&4
val="$define"
set d_old_pthread_create_joinable
eval $setvar
val=__UNDETACHED
set old_pthread_create_joinable
eval $setvar

```

```

else
echo "Egads, nothing obvious found. Guessing that you use 0." >&4
val="$define"
set d_old_pthread_create_joinable
eval $setvar
val=0
set old_pthread_create_joinable
eval $setvar
fi
fi
fi
$rm_try
else
d_old_pthread_create_joinable="$undef"
old_pthread_create_joinable=""
fi

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_pthratrj.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_setnetent\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

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?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_setnetent\_r setnetent\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
 usethreads i\_netdb extern\_C

?MAKE: -pick add \$@ %<

?S:d\_setnetent\_r:

?S: This variable conditionally defines the HAS\_SETNETENT\_R symbol,

?S: which indicates to the C program that the setnetent\_r()

?S: routine is available.

?S:.

?S:setnetent\_r\_proto:

?S: This variable encodes the prototype of setnetent\_r.

?S: It is zero if d\_setnetent\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_setnetent\_r

?S: is defined.

?S:.

?C:HAS\_SETNETENT\_R:

?C: This symbol, if defined, indicates that the setnetent\_r routine

?C: is

available to setnetent re-entrantly.

?C:.

?C:SETNETENT\_R\_PROTO:

?C: This symbol encodes the prototype of setnetent\_r.

?C: It is zero if d\_setnetent\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_setnetent\_r

?C: is defined.

?C:.

?H:#\$d\_setnetent\_r HAS\_SETNETENT\_R /\*\*/

?H:#define SETNETENT\_R\_PROTO \$setnetent\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_setnetent\_r\_proto

: see if setnetent\_r exists

set setnetent\_r d\_setnetent\_r

eval \$inlibc

case "\$d\_setnetent\_r" in

"\$define")

hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_netdb netdb.h"

case "\$d\_setnetent\_r\_proto:\$usethreads" in

":define") d\_setnetent\_r\_proto=define

set d\_setnetent\_r\_proto setnetent\_r \$hdrs

eval \$hasproto ;;

\*) ;;

esac

case "\$d\_setnetent\_r\_proto" in

define)

case "\$setnetent\_r\_proto" in

"|0) try='int setnetent\_r(int, struct netent\_data\*);'

./protochk "\$extern\_C \$try" \$hdrs && setnetent\_r\_proto=I\_ID ;;

esac

case "\$setnetent\_r\_proto" in

"|0) try='void setnetent\_r(int, struct netent\_data\*);'

./protochk

"\$extern\_C \$try" \$hdrs && setnetent\_r\_proto=V\_ID ;;

esac

case "\$setnetent\_r\_proto" in

"|0) d\_setnetent\_r=undef

setnetent\_r\_proto=0

echo "Disabling setnetent\_r, cannot determine prototype." >&4 ;;

\*) case "\$setnetent\_r\_proto" in

REENTRANT\_PROTO\*) ;;

\*) setnetent\_r\_proto="REENTRANT\_PROTO\_\$setnetent\_r\_proto" ;;

esac

echo "Prototype: \$try" ;;

esac

::

\*) case "\$usethreads" in

define) echo "setnetent\_r has no prototype, not using it." >&4 ;;

```
esac
d_setnetent_r=undef
setnetent_r_proto=0
;;
esac
;;
*) setnetent_r_proto=0
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_setnetent_r.U
```

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?RCS:

?RCS: \$Log: i\_dirent.U,v \$

?RCS: Revision 3.0.1.4 1994/10/29 16:20:01 ram

?RCS: patch36: failed scanning for 'd\_namlen' with missing <dirent.h> (ADO)

?RCS:

?RCS: Revision 3.0.1.3 1994/06/20 07:01:25 ram

?RCS: patch30: added direntrytype for hints, merely for NeXT (ADO)

?RCS: patch30: now checks for both struct dirent and direct (ADO)

?RCS:

?RCS: Revision 3.0.1.2 1994/05/13 15:22:37 ram

?RCS: patch27: new variable direntrytype for proper type setting (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/01/24

14:11:15 ram

?RCS: patch16: added new Direntry\_t pseudo-type for directory entries

?RCS:

?RCS: Revision 3.0 1993/08/18 12:08:17 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit looks whether there is a dirent system or not

?X:

?MAKE:i\_dirent d\_dirnamlen direntrytype: test contains Setvar \

Myread Findhdr cppstdin cppflags cppminus rm\_try

```

?MAKE: -pick add $@ %<
?S:i_dirent:
?S: This variable conditionally defines I_DIRENT, which indicates
?S: to the C program that it should include <dirent.h>.
?S:.
?S:d_dirnamlen:
?S: This variable conditionally defines DIRNAMLEN, which indicates
?S: to the C program that the length of directory entry names is
?S: provided by a d_namelen field.
?S:.
?S:direntrytype:
?S: This symbol is set to 'struct direct' or 'struct dirent' depending on
?S: whether dirent is available or not. You should use this pseudo type to
?S: portably declare your directory entries.
?S:.
?C:I_DIRENT:
?C: This symbol, if defined, indicates to the C program
?C: that it should
?C: include <dirent.h>. Using this symbol also triggers the definition
?C: of the Direntry_t define which ends up being 'struct dirent' or
?C: 'struct direct' depending on the availability of <dirent.h>.
?C:.
?C:DIRNAMLEN:
?C: This symbol, if defined, indicates to the C program that the length
?C: of directory entry names is provided by a d_namlen field. Otherwise
?C: you need to do strlen() on the d_name field.
?C:.
?C:Direntry_t:
?C: This symbol is set to 'struct direct' or 'struct dirent' depending on
?C: whether dirent is available or not. You should use this pseudo type to
?C: portably declare your directory entries.
?C:.
?H:#$i_dirent I_DIRENT /**/
?H:#$d_dirnamlen DIRNAMLEN /**/
?H:?%<:@if I_DIRENT && Direntry_t
?H:?%<:#define Direntry_t $direntrytype
?H:?%<:@end
?H:.
?T:xinc guess1 guess2
?LINT:set i_dirent d_dirnamlen
: see if this is a dirent system
echo " "
if xinc=`./findhdr dirent.h`; $test "$xinc"; then
val="$define"
echo "<dirent.h> found." >&4
else
val="$undef"
if

```

```

xinc=`./findhdr sys/dir.h`; $test "$xinc"; then
 echo "<sys/dir.h> found." >&4
 echo " "
else
 xinc=`./findhdr sys/ndir.h`
fi
echo "<dirent.h> NOT found." >&4
fi
set i_dirent
eval $setvar

```

?X: Use struct dirent or struct direct? If we're using dirent.h,

?X: it's probably struct dirent, but apparently not always.

?X: Assume \$xinc still contains the name of the header file we're using.

```
@if direntrytype || Direntry_t
```

```
: Look for type of directory structure.
```

```
echo " "
```

```
$cppstdin $cppflags $cppminus < "$xinc" > try.c
```

```
case "$direntrytype" in
```

```
"| ")
```

```
case "$i_dirent" in
```

```
$define) guess1='struct dirent' ;;
```

```
*) guess1='struct direct' ;;
```

```
esac
```

```
::
```

```
*) guess1="$direntrytype"
```

```
::
```

```
esac
```

```
case "$guess1" in
```

```
'struct dirent') guess2='struct direct' ;;
```

```
*) guess2='struct dirent' ;;
```

```
esac
```

```
if $contains "$guess1" try.c >/dev/null 2>&1; then
```

```
 direntrytype="$guess1"
```

```
 echo "Your directory entries are $direntrytype." >&4
```

```
elif $contains "$guess2" try.c >/dev/null 2>&1; then
```

```
 direntrytype="$guess2"
```

```
 echo
```

```
 "Your directory entries seem to be $direntrytype." >&4
```

```
else
```

```
 echo "I don't recognize your system's directory entries." >&4
```

```
 rp="What type is used for directory entries on this system?"
```

```
 dflt="$guess1"
```

```
 . ./myread
```

```
 direntrytype="$ans"
```

```

fi
$rm_try

@end

@if d_dirnamlen || DIRNAMLEN
: see if the directory entry stores field length
echo " "
$ccpstdin $ccpflags $ccpminus < "$xinc" > try.c
if $contains 'd_namlen' try.c >/dev/null 2>&1; then
echo "Good, your directory entry keeps length information in d_namlen." >&4
val="$define"
else
echo "Your directory entry does not know about the d_namlen field." >&4
val="$undef"
fi
set d_dirnamlen
eval $setvar
$rm_try

@end

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_dirent.U
```

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?RCS: of the source tree for dist 4.0.

?RCS:

?MAKE:Assert: cat

?MAKE: -pick add \$@ %<

?F:./static\_assert.h

: static assertion checking include file

?X:

?X: C programs can include this file to perform STATIC\_ASSERT() checks

?X: which are done at compile-time and cause the compilation to fail when

?X: the expression is false.

?X:

?X: It is sufficient to compile with: \$cc -c \$ccflags try.c

?X: There is no need to link the file to spot the assertion failure.

?X:

```
$cat >static_assert.h <<'EOC'
#define STATIC_ASSERT(expr) \
do { switch (0) { case ((expr) ? 1 : 0): case 0: break; } }
while(0)
EOC
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/Assert.U
```

No license file was found, but licenses were detected in source scan.

## Perl5 Metaconfig Units

Copyright (c) 1996-1998, Andy Dougherty

Copyright (c) 1999-2011, H.Merijn Brand

All rights reserved.

These units are the ones used to build Configure and config\_h.SH  
in the Perl5 distribution.

metaconfig will first look in its standard locations (specified when you  
installed dist). It will then recurse through the 'U' subdirectory  
and find any additional "private" units. Private units override  
standard ones supplied with metaconfig.

Files in this directory:

### README

This file.

### Glossary.patch

The standard dist units contain some strings that make pod2man  
complain. This patch silences those warnings. As new units are  
added and Configure is regenerated, this patch may need more and more  
'fuzz' to be applied. It should be freshly regenerated every once  
in a while. See also mkgloss.pl

### In-all.pl

Re-generate the all/ folder

### mkglossary

A script

to regenerate Porting/Glossary. You have to manually  
edit the top of the script to point the location of your metaconfig  
units. It is called automatically by 'mksample'. See also mkgloss.pl

### mkgloss.pl

A perl script that calls U/mkglossary from the perl source tree, sorts



the list of symbols, and applies the patch mentioned in Glossary.patch. When called on its own, redirect the output to a temporary file, and compare that file to Porting/Glossary before applying.

#### mksample

A script to regenerate Porting/config.sh and Porting/config.H. It also calls mkglossary, if necessary.

#### Subdirectories:

The units and other related files have been broken up into the following directories.

#### a\_dvisory/

These are units that have to go first in the generated config\_h.SH. A word of explanation: Configure and config\_h.SH are generated from 'Units' (the \*.U files). Files indicate dependencies (using make(1)), and Configure is built to follow those dependencies.

However, config\_h.SH

is simply built by putting all the units in alphabetical order and extracting the relevant lines. (This could be fixed, I suppose, but it wasn't trivial the one time I looked.)

The a\_dvisory/ directory, then, is a place to put units that need to be early in config\_h.SH. (Most units are self-contained and ought to be able to go anywhere. However, some things, like byteorder, need to have the #defines from multiarch available.)

#### acl/

This is an old patch to begin to detect and use ACL (access control list) file protection schemes.

#### all/

A folder that conveniently holds symbolic links to all the modules that are used to build the current Configure and config\_h.SH.

#### compline/

These are similar to the standard units, but I have modified them to have a more uniform compile command line, usually using the new Compile.U unit. (The ccflags.U unit is perl-specific since it mentions -DDEBUGGING and -DPOSIX\_SOURCE, but that's the only place it is perl-specific.)

#### dist\_patches/

These are patches to dist that must be applied before it is built and installed. I have submitted these for inclusion in the regular dist distribution. They have already been applied to the ../dist-3.0at70b directory.

#### ebcdic/

These are units that had to be specially modified to work under either EBCDIC or ASCII.

#### installdirs/

These are units to handle perl's installation directories and related issues.

#### modified/

These are modified versions of the standard units. Also included in this directory are new units that are clearly derived from existing units. I have submitted these for inclusion in the regular dist distribution.

#### nullified/

These are null units that replace units in the standard distribution. Typically they are there because some part of the perl source accidentally uses a symbol that metaconfig thinks means we want the corresponding unit.

#### perl/

These are specific to perl. Some are heavily derived from original dist units, and are marked as such. Others are original.

#### perl\_patches/

These are patches to the perl source. This directory should ordinarily be empty, but there may have been drift between the standard version of perl and the one associated with these units.

#### protos/

These are units modified to use the new Hasproto.U or Protochk.U units to check for prototypes.

#### threads/

These are specific to threading perl.

#### typedefs/

These are standard units modified to use the modified Typedef.U unit to check for typedefs. (The modified Typdef.U includes a function to avoid unnecessary prompts if the typedef being searched for exists.)

Where appropriate, I submitted these units for inclusion into the regular dist distribution. However, since dist is no longer actively

maintained, and the alternative is for \*me\* to actively maintain it,  
the units just  
sit here.

#### Copyright Information:

Unless otherwise indicated, the files contained in this  
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Clause 7 of this modified  
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In accordance with this clause, the versions of these units

contained here are made available under the same terms as the rest of the units.

If you have any questions about the use of these units or about the differences

between these units and the standard versions, please feel free to ask.

Andy Dougherty [doughera@lafayette.edu](mailto:doughera@lafayette.edu)  
Dept. of Physics  
Lafayette College  
Easton, PA 18042-1782

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/README
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_usleep.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_usleep.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:07:53 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_usleep: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_usleep:
```

```
?S: This variable conditionally defines HAS_USLEEP if usleep() is
```

```
?S: available to do high granularity sleeps.
```

```
?S:.
```

```
?C:HAS_USLEEP (USLEEP):
```

```
?C: This symbol, if defined, indicates that the usleep routine is
```

```
?C: available to let the process sleep on a sub-second accuracy.
```

```
?C:.
```

```
?H:#$d_usleep
```

```
HAS_USLEEP /**/
```

```
?H:.
```

```
?LINT:set d_usleep
```

```
: see if usleep exists
```

```
set usleep d_usleep
```

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_usleep.U

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?RCS: \$Id: d\_getnent.U,v 3.0 1993/08/18 12:06:09 ram Exp \$

?RCS:

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?RCS:

?RCS: \$Log: d\_getnent.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:09 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_getnent: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_getnent:

?S: This variable conditionally defines HAS\_GETNETENT if getnetent() is

?S: available to look up network names in some data base or another.

?S:.

?C:HAS\_GETNETENT:

?C: This symbol, if defined, indicates that the getnetent() routine is

?C: available to look up network names in some data base

or another.

?C:.

?H:#\$d\_getnent HAS\_GETNETENT /\*\*/

?H:.

?LINT:set d\_getnent

: see if getnetent exists

set getnetent d\_getnent

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_getnent.U

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?RCS: \$Id: n.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS:

?RCS: \$Log: n.U,v \$

?RCS: Revision 3.0 1993/08/18 12:09:19 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:n c: contains

?MAKE: -pick add \$@ %<

?S:n:

?S: This variable contains the -n flag if that is what causes the echo

?S: command to suppress newline. Otherwise it is null. Correct usage is

?S: \$echo \$n "prompt for a question: \$c".

?S:.

?S:c:

?S: This variable contains the \c string if that is what causes the echo

?S: command to suppress newline.

Otherwise it is null. Correct usage is

?S: \$echo \$n "prompt for a question: \$c".

?S:.

: first determine how to suppress newline on echo command

echo " "

echo "Checking echo to see how to suppress newlines..."

(echo "hi there\c" ; echo " ")>.echotmp

if \$contains c .echotmp >/dev/null 2>&1 ; then

echo "...using -n."

n='-n'

c=""

else

cat <<'EOM'

...using \c

EOM

n=""

c='\c'

fi

echo \$n "The star should be here-->\$c"

echo '\*'

rm -f .echotmp

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/n.U

No license file was found, but licenses were detected in source scan.

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?RCS: of the source tree for dist 4.0.  
?RCS:  
?MAKE:ilp d\_ilp32 d\_ilp64 d\_lp64 d\_can64: Assert Myread Setvar \  
cat rm +cc +ccflags echo n c intsize longsize ptrsize  
?MAKE: -pick add \$@ %<  
?S:ilp:  
?S: This variable contains the largest amount of bits that the CPU supports,  
?S: from the compiler's point of view. Typically 32 or 64.  
?S:.  
?S:d\_ilp32:  
?S: This variable conditionally defines the CPU\_IS\_ILP32.  
?S:.  
?S:d\_ilp64:  
?S: This variable conditionally defines the CPU\_IS\_ILP64.  
?S:.  
?S:d\_lp64:  
?S: This variable conditionally defines the CPU\_IS\_LP64.  
?S:.  
?S:d\_can64:  
?S: This variable  
conditionally defines CAN\_HANDLE\_64BITS.  
?S:.  
?C:CPU\_ILP\_MAXBITS:  
?C: This symbol contains the largest amount of bits that the CPU natively  
?C: supports from the compiler's point of view. Typically 32 or 64.  
?C:.  
?C:CPU\_IS\_ILP32:  
?C: When defined, this indicates that the integer, long and pointer variables  
?C: hold 32-bit values.  
?C:.  
?C:CPU\_IS\_ILP64:  
?C: When defined, this indicates that the integer, long and pointer variables  
?C: hold 64-bit values.  
?C:.  
?C:CPU\_IS\_LP64:  
?C: When defined, this indicates that the long and pointer variables hold  
?C: 64-bit values but integers are smaller (probably only 32-bit wide).  
?C:.  
?C:CAN\_HANDLE\_64BITS:  
?C: When defined, this indicates that the compiler can handle 64-bit values  
?C: despite the CPU having only 32-bit registers. These are available using  
?C: the "long long" C type. It is only defined for ILP32 machines, since

?C: 64-bit support is naturally available on ILP64 and LP64 machines.

?C:.

?H:#define CPU\_ILP\_MAXBITS \$ilp

?H:#\$d\_ilp32

CPU\_IS\_ILP32 /\*\*/

?H:#\$d\_ilp64 CPU\_IS\_ILP64 /\*\*/

?H:#\$d\_lp64 CPU\_IS\_LP64 /\*\*/

?H:#\$d\_can64 CAN\_HANDLE\_64BITS /\*\*/

?H:.

?LINT: set d\_ilp32 d\_ilp64 d\_lp64 d\_can64

: check for architecture type

echo " "

\$echo \$n "Computing CPU architecture type...\$c" >&4

ilp=`expr \$longsize \\* 8`

case "\$ptrsize" in

8)

val=\$undef; set d\_ilp32; eval \$setvar

case "\$sintsize" in

8)

echo " ILP64." >&4

val=\$define; set d\_ilp64; eval \$setvar

val=\$undef; set d\_lp64; eval \$setvar

::

\*)

echo " LP64." >&4

val=\$define; set d\_lp64; eval \$setvar

val=\$undef; set d\_ilp64; eval \$setvar

::

esac

::

\*)

echo " ILP\${ilp}." >&4

case "\$ilp" in

32) val=\$define;;

\*) val=\$undef;;

esac

set d\_ilp32; eval \$setvar

val=\$undef; set d\_ilp64; eval \$setvar

val=\$undef; set d\_lp64; eval \$setvar

::

esac

@if CAN\_HANDLE\_64BITS || d\_can64

: see whether compiler supports 64-bit emulation

val=\$undef

case "\$ilp" in

64) val=\$define;;

\*)



```

$cat >try.c <<EOCP
#include "static_assert.h"
long long foo;
int main()
{
 STATIC_ASSERT(8
 == sizeof(foo));
 return 0;
}
EOCP
if $cc -c $cflags try.c >/dev/null 2>&1; then
 echo " "
 echo "Your compiler also supports 64-bit emulation." >&4
 val=$define
fi
$rm -f try.*
;;
esac
set d_can64
eval $setvar

@end

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/ilp.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getsrvby.U,v \$

?RCS:

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?RCS:

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?RCS:

?MAKE:d\_getsbyname d\_getsbyport: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_getsbyname:

?S: This variable conditionally defines the HAS\_GETSERVBYNAME

?S: symbol, which indicates to the C program that the

?S: getservbyname() routine is available to look up services

?S: by their name.

?S:.

?S:d\_getsbyport:

?S: This variable conditionally defines the HAS\_GETSERVBYPOR

?S: symbol, which indicates to the C program that the

?S: getservbyport() routine is available to look up services

?S: by their port.

?S:  
?C:HAS\_GETSERVBYNAME:  
?C: This symbol, if defined, indicates that the getservbyname()  
?C: routine is available to look up services by their name.

?C:  
?C:HAS\_GETSERVBYPORT:  
?C: This symbol, if defined,  
indicates that the getservbyport()  
?C: routine is available to look up services by their port.

?C:  
?H:#\$d\_getsbyname HAS\_GETSERVBYNAME /\*\*/  
?H:#\$d\_getsbyport HAS\_GETSERVBYPORT /\*\*/  
?H:

?LINT:set d\_getsbyname d\_getsbyport  
: Optional checks for getsbyname and getsbyport

```
@if d_getsbyname || HAS_GETSERVBYNAME
: see if getservbyname exists
set getservbyname d_getsbyname
eval $inlibc
@end
```

```
@if d_getsbyport || HAS_GETSERVBYPORT
: see if getservbyport exists
set getservbyport d_getsbyport
eval $inlibc
@end
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_getsrby.U

No license file was found, but licenses were detected in source scan.

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:  
?MAKE:d\_fdclose: Inlibc  
?MAKE: -pick add \$@ %<

?S:d\_fdclose:  
?S: This variable conditionally defines the HAS\_FDCLOSE symbol, which  
?S: indicates to the C program that the fdclose() routine is available.

?S:  
?C:HAS\_FDCLOSE:  
?C: This symbol, if defined, indicates that the fdclose routine is  
?C: available to free a FILE structure without closing the underlying  
?C: file descriptor. This function appeared in FreeBSD 10.2.

?C:  
?H:#\$d\_fdclose HAS\_FDCLOSE /\*\*/

```
?H:
?LINT:set d_fdclose
: see if fdclose exists
set fdclose d_fdclose
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_fdclose.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Options.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
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```

```
?RCS:
```

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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: Options.U,v $
```

```
?RCS: Revision 3.0.1.7 1997/02/28 15:08:15 ram
```

```
?RCS: patch61: optdef.sh now starts with a "startsh"
```

```
?RCS: patch61: moved some code from Head.U
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.6 1995/09/25 09:14:46 ram
```

```
?RCS: patch59: protected option parsing code against 'echo -*' option failure
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.5 1995/05/12 12:04:52 ram
```

```
?RCS: patch54: added -K option for experts
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.4 1995/01/30 14:27:52 ram
```

```
?RCS:
```

```
patch49: this unit now exports file optdef.sh, not a variable
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.3 1995/01/11 15:19:00 ram
```

```
?RCS: patch45: new -O option allowing -D and -U to override config.sh settings
```

```
?RCS: patch45: file optdef.sh is no longer removed after sourcing
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.2 1994/10/29 15:58:06 ram
```

```
?RCS: patch36: ensure option definition file is removed before appending
```

```
?RCS: patch36: protect variable definitions with spaces in them
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.1 1994/06/20 06:55:44 ram
```

```
?RCS: patch30: now uses new me symbol to tag error messages
```

```
?RCS: patch30: new -D and -U options to define/undef symbols (JHI)
```

```
?RCS:
```

```

?RCS: Revision 3.0 1993/08/18 12:05:14 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: Command line parsing. It is really important that the variables used here
?X: be not listed in the MAKE line, or they will be saved in config.sh and
?X: loading this file to fetch default answers would clobber the values set
?X: herein.
?X:
?MAKE:Options:
startsh
?MAKE: -pick wipe $@ %<
?V:reuseval alldone error realsilent silent extractsh fastread \
knowitall: config_sh
?T:arg argn symbol config_arg0 config_args config_argc xxx yyy zzz uuu
?T:args_exp args_sep arg_exp ccflags
?F:!Configure
?F:./optdef.sh ./cmdline.opt ./posthint.sh ./cmdl.opt
: Save command line options in file UU/cmdline.opt for later use in
: generating config.sh.
?X: This temporary file will be read by Oldsym.U. I used a temporary
?X: file to preserve all sorts of potential command line quotes and
?X: also because we don't know in advance how many variables we'll
?X: need, so I can't actually declare them on the MAKE line.
?X: The config_args variable won't be quite correct if Configure is
?X: fed something like ./Configure -Dcc="gcc -B/usr/ccs/bin/"
?X: since the quotes are gone by the time we see them. You'd have to
?X: reconstruct the command line from the config_arg? lines, but since
?X: I don't imagine anyone actually having to do that, I'm not going
?X:
to worry too much.
cat > cmdline.opt <<EOSH
: Configure command line arguments.
config_arg0='$0'
config_args='$*'
config_argc=$#
EOSH
argn=1
args_exp=""
args_sep=""
for arg in "$@"; do
cat >>cmdline.opt <<EOSH
config_arg$argn='$arg'
EOSH
?X: Extreme backslashitis: replace each ' by """"
cat <<EOC | sed -e "s/'/""""/g" > cmdl.opt
$arg
EOC

```

```

arg_exp=`cat cmdl.opt`
args_exp="$args_exp$args_sep'$arg_exp'"
argn=`expr $argn + 1`
args_sep=' '
done
?X: args_exp is good for restarting self: eval "set X $args_exp"; shift; $0 "$@"
?X: used by hints/os2.sh in Perl, for instance
rm -f cmdl.opt

```

: produce awk script to parse command line options

```
cat >options.awk <<'EOF'
```

```
BEGIN {
```

```
optstr = "A:dD:eEf:hKOrsSU:V"; # getopt-style specification
```

```
len = length(optstr);
```

```
for (i = 1; i <= len; i++) {
```

```
 c = substr(optstr, i, 1);
```

?X: some older awk's do not have the C ?: construct

```
 if (i < len) a = substr(optstr, i + 1, 1); else a = "";
```

```
 if (a == ":") {
```

```
 arg[c] = 1;
```

```
 i++;
```

```
 }
```

```
 opt[c]
```

```
= 1;
```

```
}
```

```
}
```

```
{
```

```
 expect = 0;
```

```
 str = $0;
```

```
 if (substr(str, 1, 1) != "-") {
```

```
 printf("%s\n", str);
```

```
 next;
```

```
 }
```

```
 len = length($0);
```

```
 for (i = 2; i <= len; i++) {
```

```
 c = substr(str, i, 1);
```

```
 if (!opt[c]) {
```

```
 printf("-%s\n", substr(str, i));
```

```
 next;
```

```
 }
```

```
 printf("-%s\n", c);
```

```
 if (arg[c]) {
```

```
 if (i < len)
```

```
 printf("%s\n", substr(str, i + 1));
```

```
 else
```

```
 expect = 1;
```

```
 next;
```

```

}
}
}
END {
if (expect)
print "?";
}
EOF

```

: process the command line options

?X: Use "\$@" to keep arguments with spaces in them from being split apart.

?X: For the same reason, awk will output quoted arguments and the final eval

?X: removes them and sets a proper \$\* array. An 'X' is prepended to each

?X: argument before being fed to echo to guard against 'echo -x', where -x

?X: would be understood as an echo option! It is removed before feeding awk.

```
set X `for arg in "$@"; do echo "X$arg"; done |
```

```
sed -e s/X// | awk -f options.awk`
```

```
eval "set $*"
```

```
shift
```

```
rm -f options.awk
```

: set up default values

```
fastread=""
```

```
reuseval=false
```

```
config_sh=""
```

```
alldone=""
```

```
error=""
```

```
silent=""
```

```
extractsh=""
```

```
knowitall=""
```

```
rm
```

```
-f optdef.sh posthint.sh
```

```
cat >optdef.sh <<EOS
```

```
$startsh
```

```
EOS
```

?X:

?X: Given that we now have the possibility to execute Configure remotely

?X: thanks to the new src.U support, we have to face the possibility

?X: of having to ask where the source lie, which means we need the Myread.U

?X: stuff and possibly other things that might echo something on the

?X: screen...

?X:

?X: That's not pretty, and might be confusing in 99% of the time. So...

?X: We introduce a new realsilent variable which is set when -s is given,

?X: and we force silent=true if -S is supplied. The Extractall.U unit

?X: will then undo the >&4 redirection based on the value of the

?X: realsilent variable... -- RAM, 18/93/96

?X:

```
: option parsing
while test $# -gt 0; do
case "$1" in
-d) shift; fastread=yes;;
-e) shift; alldone=cont;;
-f)
 shift
 cd ..
if test -r "$1"; then
 config_sh="$1"
else
 echo "$me: cannot read config file $1."
>&2
 error=true
fi
cd UU
shift;;
--help\
-h) shift; error=true;;
-r) shift; reuseval=true;;
-s) shift; silent=true; realsilent=true;;
-E) shift; alldone=exit;;
-K) shift; knowitall=true;;
-O) shift;;
-S) shift; silent=true; extractsh=true;;
-D)
 shift
case "$1" in
*=)
 echo "$me: use '-U symbol=', not '-D symbol='." >&2
 echo "$me: ignoring -D $1" >&2
 ;;
=) echo "$1" | \
 sed -e "s/'\"/\"'/g" -e "s/=(.*)/=\\1/" >> optdef.sh;;
*) echo "$1='define'" >> optdef.sh;;
esac
shift
;;
-U)
 shift
case "$1" in
*=) echo "$1" >> optdef.sh;;
=)
 echo "$me: use '-D symbol=val', not '-U symbol=val'." >&2
 echo "$me: ignoring -U $1" >&2
 ;;
```

```

*) echo "$1='undef'" >> optdef.sh;;
esac
shift
;;
-A)
 shift
 xxx=""
 yyy="$1"
 zzz=""
 uuu=undef
 case "$yyy" in
 =) zzz=`echo "$yyy"|sed 's!=.*!!'^
 case "$zzz" in
 .) zzz="" ;;
 *) xxx=append

 zzz=" "`echo "$yyy"|sed 's!^[^=]*=!!'^
 yyy=`echo "$yyy"|sed 's!=.*!!'^ ;;
 esac
 ;;
 esac
 case "$xxx" in
 ") case "$yyy" in
 .) xxx=`echo "$yyy"|sed 's!:.*!!'^
 yyy=`echo "$yyy"|sed 's!^[^:]*:!!'^
 zzz=`echo "$yyy"|sed 's!^[^=]*=!!'^
 yyy=`echo "$yyy"|sed 's!=.*!!'^ ;;
) xxx=`echo "$yyy"|sed 's!:.!!'^
 yyy=`echo "$yyy"|sed 's!^[^:]*:!!'^ ;;
 esac
 ;;
 esac
 case "$xxx" in
 append)
 echo "$yyy=\\"${yyy}$zzz\\"" >> posthint.sh ;;
 clear)
 echo "$yyy="" >> posthint.sh ;;
 define)
 case "$zzz" in
 ") zzz=define ;;
 esac
 echo "$yyy='$zzz'" >> posthint.sh ;;
 eval)
 echo "eval \\"$yyy=$zzz\\"" >> posthint.sh ;;
 prepend)
 echo "$yyy=\\"$zzz\${yyy}\\"" >> posthint.sh ;;
 undef)

```



```

 case "$zzz" in
 ") zzz="$uuu" ;;
 esac
 echo "$yyy=$zzz" >> posthint.sh ;;
 *) echo "$me: unknown -A command '$xxx', ignoring -A $1" >&2 ;;
 esac
 shift
 ;;
-V) echo "$me generated by metaconfig <VERSION> PL<PATCHLEVEL>." >&2
 exit 0;;
--) break;;
-*) echo "$me: unknown option $1" >&2; shift; error=true;;
*) break;;
 esac
done

```

```

case "$error" in
true)
cat >&2 <<EOM
Usage: $me [-dehrsEKOSV] [-f config.sh] [-D symbol] [-D symbol=value]

```

```

 [-U symbol] [-U symbol=] [-A command:symbol...]

```

-d : use defaults for all answers.

-e : go on without questioning past the production of config.sh.

-f : specify an alternate default configuration file.

-h : print this help message and exit (with an error status).

-r : reuse C symbols value if possible (skips costly nm extraction).

-s : silent mode, only echoes questions and essential information.

-D : define symbol to have some value:

```

 -D symbol symbol gets the value

```

'define'

```

 -D symbol=value symbol gets the value 'value'

```

common used examples (see INSTALL for more info):

```

-Duse64bitint use 64bit integers

```

```

-Duse64bitall use 64bit integers and pointers

```

```

-Dusetthreads use thread support

```

```

-Dinc_version_list=none do not include older perl trees in @INC

```

```

-DEBUGGING=none DEBUGGING options

```

```

-Dcc=gcc choose your compiler

```

```

-Dprefix=/opt/perl5 choose your destination

```

-E : stop at the end of questions, after having produced config.sh.

-K : do not use unless you know what you are doing.

-O : ignored for backward compatibility

-S : perform variable substitutions on all .SH files (can mix with -f)

-U : undefine symbol:

```

-U symbol symbol gets the value 'undef'

```

```

-U symbol= symbol gets completely empty

```

e.g.: -Uversiononly

-A : manipulate symbol after the platform specific hints have been applied:

```

-A append:symbol=value append value to symbol
-A symbol=value like append:, but with a separating space
-A define:symbol=value define symbol to have value
-A clear:symbol define symbol to be "
-A define:symbol define symbol to be 'define'
-A eval:symbol=value define symbol to be eval of value
-A prepend:symbol=value prepend value to symbol
-A undef:symbol define symbol to be 'undef'
-A undef:symbol= define symbol to be "
e.g.: -A prepend:libswanted='cl pthread '
 -A cflags=-DSOME_MACRO
-V : print version number and exit (with a zero status).
EOM
exit 1
;;
esac

?X:
?X: Unless they specified either -S or both -d and -e/E, make sure we're
?X: running interactively, i.e. attached to a terminal. Moved from Head.U to
?X: be able to handle batch configurations...
?X:
?X: We have to hardwire the Configure name and cannot use $me,
?X: since if they
?X: said 'sh <Configure', then $me is 'sh'...
?X:
: Sanity checks
case "$fastread$alldone" in
yescont|yesexit) ;;
*)
case "$extractsh" in
true) ;;
*)
if test ! -t 0; then
echo "Say 'sh Configure', not 'sh <Configure'"
exit 1
fi
;;
esac
;;
esac

?X: In silent mode, the standard output is closed. Questions are asked by
?X: outputting on file descriptor #4, which is the original stdout descriptor.
?X: This filters out all the "junk", since all the needed information is written
?X: on #4. Note that ksh will not let us redirect output if the file descriptor
?X: has not be defined yet, unlike sh, hence the following line...--RAM.
exec 4>&1

```

```
case "$silent" in
true) exec 1>/dev/null;;
esac
```

: run the defines and the undefines, if any, but leave the file out there...

```
touch optdef.sh
```

?X: -q is POSIX

?X: It does not work in SysV (solaris) or old BSD greps.

```
grep '\| optdef.sh >/dev/null 2>&1
```

if test \$? = 0; then

```
 echo "Configure does not support \| in -D arguments"
```

```
 exit 1
```

```
fi
```

```
./optdef.sh
```

: create the posthint manipulation script and leave the file out there...

?X: this file will be perused by Oldconfig.U

```
touch posthint.sh
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Options.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_brokstat.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_brokstat.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:30:53 ram

?RCS: patch61: created

?RCS:

?MAKE:d\_brokstat: cat contains cppstdin cppminus +cppflags rm Setvar

?MAKE: -pick add \$@ %<

?S:d\_brokstat:

?S: This variable conditionally defines STAT\_MACROS\_BROKEN if some

?S: of the S\_IS\*() macros from <sys/stat.h> give false positive on

?S: regular files.

?S:.

?C:STAT\_MACROS\_BROKEN:

?C: This symbol, if defined, indicates that the S\_IS\*() stat macros

?C: such

```

as S_ISBLK() give false positive and are thus unusable.
?C: Your best bet is then to supply your own set.
?C:.
?H:#$d_brokstat STAT_MACROS_BROKEN /**/
?H:.
?F:!try.c !try
?LINT:set d_brokstat
?LINT:usefile try
?X: This test inspired by autoconf -- RAM, 28/02/97
: are stat macros sane?
echo " "
echo "Checking whether your stat() macros are broken..."
$cat >try.c <<'EOC'
#include <sys/types.h>
#include <sys/stat.h>

#if defined(S_ISBLK) && defined(S_IFDIR)
#if S_ISBLK(S_IFDIR)
Broken
#endif
#endif

#if defined(S_ISBLK) && defined(S_IFCHR)
#if S_ISBLK(S_IFCHR)
Broken
#endif
#endif

#if defined(S_ISLNK) && defined(S_IFREG)
#if S_ISLNK(S_IFREG)
Broken.
#endif
#endif

#if defined(S_ISSOCK) && defined(S_IFREG)
#if S_ISSOCK(S_IFREG)
Broken.
#endif
#endif
EOC
$cppstdin $cppflags $cppminus <try.c 2>/dev/null >try
if $contains Broken try >/dev/null 2>&1; then
echo "Alas, they are. I'll use my own macro set then." >&4
val="$define"
else
echo "Nope, working just fine." >&4
val="$undef"
fi

```

```
$rm
-f try try.c
set d_brokstat
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_brokstat.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1996, Andy Dougherty

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: sitearch.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 16:21:30 ram

?RCS: patch61: created

?RCS:

?MAKE:sitearch sitearchexp installsitearch: afs cat Getfile \

Oldconfig Prefixit prefix test archname sitelib

?MAKE: -pick add \$@ %<

?Y:TOP

?S:sitearch:

?S: This variable contains the eventual value of the SITEARCH symbol,

?S: which is the name of the private library for this package. It may

?S: have a ~ on the front. It is up to the makefile to eventually create

?S: this

directory while performing installation (with ~ substitution).

?S:.

?S:sitearchexp:

?S: This variable is the ~name expanded version of sitearch, so that you

?S: may use it directly in Makefiles or shell scripts.

?S:.

?S:installsitearch:

?S: This variable is really the same as sitearchexp but may differ on

?S: those systems using AFS. For extra portability, only this variable

?S: should be used in makefiles.

?S:.

?C:SITEARCH:

?C: This symbol contains the name of the private library for this package.

?C: The library is private in the sense that it needn't be in anyone's

?C: execution path, but it should be accessible by the world. The program

?C: should be prepared to do ~ expansion.

?C: The standard distribution will put nothing in this directory.

?C: Individual sites may place their own extensions and modules in

?C: this directory.

?C:.

?C:SITEARCH\_EXP:

?C: This symbol contains the ~name expanded version of SITEARCH, to be used

?C: in programs that are not prepared to deal

with ~ expansion at run-time.

?C:.

```
?H:#define SITEARCH "$sitearch" /**/
```

```
?H:#define SITEARCH_EXP "$sitearchexp" /**/
```

?H:.

?T:xxx

: determine where site specific architecture-dependent libraries go.

```
xxx=`echo $sitelib/$archname | sed 's!^$prefix!!`
```

: xxx is usually lib/site\_perl/archname.

```
set sitearch sitearch none
```

```
eval $prefixit
```

```
case "$sitearch" in
```

```
 *) dflt="$sitelib/$archname" ;;
```

```
 *) dflt="$sitearch" ;;
```

```
esac
```

```
$cat <<EOM
```

The installation process will also create a directory for architecture-dependent site-specific extensions and modules.

EOM

```
fn=nd~+
```

```
rp='Pathname for the site-specific architecture-dependent library files?'
```

```
./getfile
```

```
if $test "X$sitearchexp" != "X$sansexp"; then
```

```
 installsitearch="
```

```
fi
```

```
sitearch="$ans"
```

```
sitearchexp="$sansexp"
```

```
if $afs; then
```

```
 $cat <<EOM
```

Since you are running AFS, I need to distinguish the directory in which private files reside from the directory in which they are installed (and from which they are presumably copied to the former directory by occult means).

EOM

```
case
```

```

"$installsitearch" in
") dflt=`echo $sitearchexp | sed 's#^/afs/#/afs/.#`";
*) dflt="$installsitearch";;
esac
fn=de~
rp='Where will private files be installed?'
./getfile
installsitearch="$ans"
else
installsitearch="$sitearchexp"
fi

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/sitearch.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: archname.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 15:24:32 ram

?RCS: patch61: changed the way the archname is mangled from unname

?RCS:

?RCS: Revision 3.0.1.2 1995/05/12 12:05:24 ram

?RCS: patch54: protect against spaces in "uname -m" output (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1995/02/15 14:14:21 ram

?RCS: patch51: created

?RCS:

?MAKE:archname myarchname: sed Loc Myread Oldconfig osname test rm

?MAKE: -pick add \$@ %<

?S:archname:

?S: This variable is a short name to characterize the current

?S: architecture.

It is used mainly to construct the default archlib.

?S:.

?S:myarchname:

?S: This variable holds the architecture name computed by Configure in

?S: a previous run. It is not intended to be perused by any user and

?S: should never be set in a hint file.

?S:.

?C:ARCHNAME:

?C: This symbol holds a string representing the architecture name.

?C: It may be used to construct an architecture-dependant pathname

?C: where library files may be held under a private library, for

?C: instance.

?C:.

?H:#define ARCHNAME "\$archname" /\*\*/

?H:.

?T:xxx tarch

: determine the architecture name

echo " "

?X: We always recompute archname in case osname changes. However, we need

?X: to be careful since, as ADO rightfully pointed out, some systems pick

?X: silly architecture names (0001307135000-aix on AIX or 9000/715-ux under

?X: HP-UX). Therefore, we allow hint files to superseed our guess and ask

?X: the user for confirmation.

```
if xxx=`./loc arch blurfl $pth`; $test -f "$xxx"; then
```

```
 tarch=`arch`-"-$osname"
```

```
elif
```

```
 xxx=`./loc uname blurfl $pth`; $test -f "$xxx" ; then
```

```
 if uname -m > tmparch 2>&1 ; then
```

```
 tarch=`$sed -e 's/ *$//' -e 's/ /_/g' \
```

```
 -e 's/$/""-$osname/' tmparch`
```

```
 else
```

```
 tarch="$osname"
```

```
 fi
```

```
 $rm -f tmparch
```

```
else
```

```
 tarch="$osname"
```

```
fi
```

```
case "$myarchname" in
```

```
 "|"$tarch") ;;
```

```
*)
```

```
 echo "(Your architecture name used to be $myarchname.)"
```

```
 archname="
```

```
;;
```

```
esac
```

```
case "$archname" in
```

```
 ") dflt="$tarch";;
```

```
 *) dflt="$archname";;
```

```
esac
```

```
rp='What is your architecture name'
```

```
./myread
```

```
archname="$ans"
```

```
myarchname="$tarch"
```

Found in path(s):



\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/archname.U

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_expm1: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_expm1:

?S: This variable conditionally defines the HAS\_EXPM1 symbol, which

?S: indicates to the C program that the expm1() routine is available.

?S:.

?C:HAS\_EXPM1:

?C: This symbol, if defined, indicates that the expm1 routine is

?C: available to do the exp(x) - 1 when x is near 1 function.

?C:.

?H:#\$d\_expm1 HAS\_EXPM1 /\*\*/

?H:.

?LINT:set d\_expm1

: see if expm1 exists

set expm1 d\_expm1

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_expm1.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_mkdtmp: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_mkdtmp:

?S: This variable conditionally defines the HAS\_MKDTEMP symbol, which

?S: indicates to the C program that the mkdtmp() routine is available

?S: to exclusively create a uniquely named temporary directory.

?S:.

?C:HAS\_MKDTEMP :

?C: This symbol, if defined, indicates that the mkdtmp routine is

?C: available to exclusively create a uniquely named temporary directory.

?C:.

?H:#\$d\_mkdtmp HAS\_MKDTEMP /\*\*/

?H:  
?LINT:set d\_mkdtemp  
: see if mkdtemp exists  
set mkdtemp d\_mkdtemp  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_mkdtemp.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_fpclassl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fpclassl:

?S: This variable conditionally defines the HAS\_FPCLASSL symbol, which

?S: indicates to the C program that the fpclassl() routine is available.

?S:.

?C:HAS\_FPCLASSL:

?C: This symbol, if defined, indicates that the fpclassl routine is

?C: available to classify long doubles. Available for example in IRIX.

?C: The returned values are defined in <ieeefp.h> and are:

?C:

?C: FP\_SNAN signaling NaN

?C: FP\_QNAN quiet NaN

?C: FP\_NINF negative infinity

?C: FP\_PINF positive infinity

?C: FP\_NDENORM negative denormalized non-zero

?C: FP\_PDENORM positive denormalized non-zero

?C: FP\_NZERO negative zero

?C: FP\_PZERO positive zero

?C: FP\_NNORM negative

normalized non-zero

?C: FP\_PNORM positive normalized non-zero

?C:.

?H:#\$d\_fpclassl HAS\_FPCLASSL /\*\*/

?H:.

?LINT:set d\_fpclassl

: see if fpclassl exists

set fpclassl d\_fpclassl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fpclassl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_fcctl.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: i\_fcctl.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:18 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:i\_fcctl: h\_fcctl h\_sysfile +i\_sysfile Inhdr Setvar

?MAKE: -pick add \$@ %<

?S:i\_fcctl:

?S: This variable controls the value of I\_FCCTL (which tells

?S: the C program to include <fcctl.h>).

?S:.

?C:I\_FCCTL (HDR\_O\_STUFF FCCTL):

?C: This manifest constant tells the C program to include <fcctl.h>.

?C:.

?H:#\$i\_fcctl I\_FCCTL /\*\*/

?H:.

?T:val

?X:

Make line lists +i\_sysfile to ensure tests for <sys/file.h> will be

?X: conducted prior tests for <fcctl.h>, hence making sure the h\_sysfile

?X: variable is correctly set when we reach that unit.

?LINT:set i\_fcctl

?LINT:use i\_sysfile

?LINT:change h\_fcctl

: see if fcctl.h is there

val="

set fcctl.h val

eval \$inhdr

: see if we can include fcctl.h

case "\$val" in

"\$define")

echo " "

if \$h\_fcctl; then

```

val="$define"
echo "We'll be including <fcntl.h>." >&4
else
val="$undef"
if $h_sysfile; then
echo "We don't need to include <fcntl.h> if we include <sys/file.h>." >&4
else
echo "We won't be including <fcntl.h>." >&4
fi
fi
;;
*)
h_fcntl=false
val="$undef"
;;
esac
set i_fcntl
eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_fcntl.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_stddef.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: i\_stddef.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:27 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:i\_stddef: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_stddef:

?S: This variable conditionally defines the I\_STDDEF symbol, which

?S: indicates to the C program that <stddef.h> exists and should

?S: be included.

?S:.

?C:I\_STDDEF:

?C: This symbol, if defined, indicates that <stddef.h> exists and should

?C: be included.

```
?C:.
?H:#$i_stddef I_STDDEF /**/
?H:.
?LINT:set
i_stddef
: see if stddef is available
set stddef.h i_stddef
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_stddef.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: sizetype.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:32:10 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:sizetype: Myread Typedef
?MAKE: -pick add $@ %<
?S:sizetype:
?S: This variable defines sizetype to be something like size_t,
?S: unsigned long, or whatever type is used to declare length
?S: parameters for string functions.
?S:.
?C:Size_t:
?C: This symbol holds the type used to declare length parameters
?C: for string
functions. It is usually size_t, but may be
?C: unsigned long, int, etc. It may be necessary to include
?C: <sys/types.h> to get any typedef'ed information.
?C:.
?H:#define Size_t $sizetype /* length paramater for string functions */
?H:.
: see what type is used for size_t
set size_t sizetype 'unsigned int' stdio.h sys/types.h
```

```
eval $typedef
dflt="$sizetype"
echo " "
rp="What type is used for the length parameter for string functions?"
./myread
sizetype="$ans"
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/sizetype.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: modetype.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:25:07 ram

?RCS: patch36: created by ADO

?RCS:

?MAKE:modetype: Myread Typedef

?MAKE: -pick add \$@ %<

?S:modetype:

?S: This variable defines modetype to be something like mode\_t,

?S: int, unsigned short, or whatever type is used to declare file

?S: modes for system calls.

?S:.

?C:Mode\_t:

?C: This symbol holds the type used to declare file modes

?C: for systems calls.

It is usually mode\_t, but may be

?C: int or unsigned short. It may be necessary to include <sys/types.h>

?C: to get any typedef'ed information.

?C:.

?H:#define Mode\_t \$modetype /\* file mode parameter for system calls \*/

?H:.

: see what type is used for mode\_t

set mode\_t modetype int stdio.h sys/types.h

eval \$typedef

dflt="\$modetype"

```
echo " "
rp="What type is used for file modes?"
./myread
modetype="$ans"
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/modetype.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: vendorhtml1dir.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1999, Andy Dougherty
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: vendorhtml1dir.U,v $
```

```
?RCS: Revision 1.1 1999/07/08 18:32:57 doughera
```

```
?RCS: Initial revision
```

```
?RCS:
```

```
?MAKE:vendorhtml1dir vendorhtml1direxp installvendorhtml1dir: html1dir Getfile \
```

```
Setprefixvar Oldconfig Prefixit test vendorprefix prefix sed
```

```
?MAKE: -pick add $@ %<
```

```
?Y:TOP
```

```
?S:vendorhtml1dir:
```

```
?S: This variable contains the name of the directory for html
```

```
?S: pages. It may have a ~ on the front.
```

```
?S: The standard distribution will put nothing in this
directory.
```

```
?S: Vendors who distribute perl may wish to place their own
```

```
?S: html pages in this directory with
```

```
?S: MakeMaker Makefile.PL INSTALLDIRS=vendor
```

```
?S: or equivalent. See INSTALL for details.
```

```
?S:.
```

```
?S:vendorhtml1direxp:
```

```
?S: This variable is the ~name expanded version of vendorhtml1dir, so that you
```

```
?S: may use it directly in Makefiles or shell scripts.
```

```
?S:.
```

```
?D:installvendorhtml1dir="
```

```
?S:installvendorhtml1dir:
```

```
?S: This variable is really the same as vendorhtml1direxp but may differ on
```

```
?S: those systems using AFS. For extra portability, only this variable
```

```
?S: should be used in makefiles.
```

```
?S:.
```

```

?LINT:change prefixvar
?LINT:set installvendorhtml1dir
: Set the vendorhtml1dir variables
case "$vendorprefix" in
") vendorhtml1dir="
vendorhtml1direxp="
;;
*) : determine where vendor-supplied html pages go.
: There is no standard location, so try to copy the previously-selected
: directory structure for the core html pages.
: XXX Better default suggestions would be welcome.
case "$vendorhtml1dir"
in
") dflt=`echo "$html1dir" | $sed "s#^$prefix#$vendorprefix#"` ;;
*) dflt=$vendorhtml1dir ;;
esac
case "$dflt" in
"|') dflt=none ;;
esac
fn=dn+~
rp='Pathname for the vendor-supplied html pages?'
./getfile
vendorhtml1dir="$ans"
vendorhtml1direxp="$ansexp"
;;
esac
: Use ' ' for none so value is preserved next time through Configure
$test X"$vendorhtml1dir" = "X" && vendorhtml1dir=' '
prefixvar=vendorhtml1dir
./installprefix

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/vendorhtml1dir.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_\_fwalk: Inlibc

?MAKE: -pick add \$@ %<



?S:d\_\_fwalk:  
?S: This variable conditionally defines HAS\_\_FWALK if \_fwalk() is  
?S: available to apply a function to all the file handles.  
?S:.  
?C:HAS\_\_FWALK:  
?C: This symbol, if defined, indicates that the \_fwalk system call is  
?C: available to apply a function to all the file handles.  
?C:.  
?H:#\$d\_\_fwalk HAS\_\_FWALK /\*\*/  
?H:.  
?LINT:set d\_\_fwalk  
: see if \_fwalk exists  
set fwalk d\_\_fwalk  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_\_fwalk.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_sterror.U,v \$  
?RCS: Revision 3.0.1.3 1994/05/13 15:20:27 ram  
?RCS: patch27: now uses new macro support for cleaner Strerror def  
?RCS:  
?RCS: Revision 3.0.1.2 1994/05/06 14:58:26 ram  
?RCS: patch23: renamed sterror into Strerror to protect name space (ADO)  
?RCS:  
?RCS: Revision 3.0.1.1 1994/01/24 14:08:56 ram  
?RCS: patch16: protected code looking for sys\_errnolist[] with @if  
?RCS: patch16: added default value for d\_sysernlst  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:07:35 ram  
?RCS: Baseline  
for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_sterror d\_syserrlst d\_sysernlst d\_strerrm: contains Csym Findhdr  
?MAKE: -pick add \$@ %<  
?S:d\_sterror:

?S: This variable conditionally defines HAS\_STRERROR if strerror() is available to translate error numbers to strings.

?S:.

?S:d\_syserrlst:

?S: This variable conditionally defines HAS\_SYS\_ERRLIST if sys\_errlist[] is available to translate error numbers to strings.

?S:.

?S:d\_sysernlst:

?S: This variable conditionally defines HAS\_SYS\_ERRNOLIST if sys\_errnolist[] is available to translate error numbers to the symbolic name.

?S:.

?S:d\_strerror:

?S: This variable holds what Strerrr is defined as to translate an error code condition into an error message string. It could be 'strerror' or a more complex macro emulating strerror with sys\_errlist[], or the "unknown" string when both strerror and sys\_errlist are missing.

?S:.

?C:HAS\_STRERROR (STRERROR):

?C: This symbol, if defined, indicates that the strerror routine is available to translate error numbers to strings. See the writeup of Strerror() in this file before you try to define your own.

?C:.

?C:HAS\_SYS\_ERRLIST (SYSERRLIST):

?C: This symbol, if defined, indicates that the sys\_errlist array is available to translate error numbers to strings. The extern int sys\_nerr gives the size of that table.

?C:.

?C:HAS\_SYS\_ERRNOLIST (SYSERRNOLIST):

?C: This symbol, if defined, indicates that the sys\_errnolist array is available to translate an errno code into its symbolic name (e.g. ENOENT). The extern int sys\_nerrno gives the size of that table.

?C:.

?C:Strerror:

?C: This preprocessor symbol is defined as a macro if strerror() is not available to translate error numbers to strings but sys\_errlist[] array is there.

?C:.

?H:#\$d\_strerror HAS\_STRERROR /\*\*/  
 ?H:#\$d\_syserrlst HAS\_SYS\_ERRLIST /\*\*/  
 ?H:#\$d\_sysernlst HAS\_SYS\_ERRNOLIST /\*\*/  
 ?H:#define Strerror(e) \$d\_strerror

?H:.

?D:d\_sysernlst="

?T:xxx val

: see if strerror and/or sys\_errlist[] exist

echo " "

```

if set sterror val -f d_sterror; eval $csym; $val; then
echo 'sterror() found.' >&4
d_sterror="$define"
d_sterrm='sterror(e)'
if set sys_errlist val -a d_syserrlst; eval $csym; $val; then
echo "(You also have sys_errlist[], so we could roll our own sterror.)"
d_syserrlst="$define"
else
echo "(Since you don't have sys_errlist[], sterror() is welcome.)"
d_syserrlst="$undef"
fi
elif xxx=`./findhdr string.h`; test "$xxx" || xxx=`./findhdr strings.h`; \
$contains '#[]*define.*sterror' "$xxx" >/dev/null 2>&1; then
echo 'sterror() found in string header.' >&4
d_sterror="$define"
d_sterrm='sterror(e)'
if set sys_errlist val -a d_syserrlst; eval $csym; $val; then
echo "(Most probably, sterror() uses sys_errlist[] for descriptions.)"
d_syserrlst="$define"
else
echo "(You don't appear to have any sys_errlist[], how can this be?)"
d_syserrlst="$undef"
fi
elif set sys_errlist val -a d_syserrlst; eval $csym; $val; then
echo "sterror()
not found, but you have sys_errlist[] so we'll use that." >&4
d_sterror="$undef"
d_syserrlst="$define"
d_sterrm='((e)<0||(e)>=sys_nerr?"unknown":sys_errlist[e])'
else
echo 'sterror() and sys_errlist[] NOT found.' >&4
d_sterror="$undef"
d_syserrlst="$undef"
d_sterrm=""unknown""
fi
@if d_syserrlst || HAS_SYS_ERRNOLIST
if set sys_errnolist val -a d_syserrlst; eval $csym; $val; then
echo "(Symbolic error codes can be fetched via the sys_errnolist[] array.)"
d_syserrlst="$define"
else
echo "(However, I can't extract the symbolic error code out of errno.)"
d_syserrlst="$undef"
fi
@end

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_sterror.U

```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_nan: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_nan:

?S: This variable conditionally defines HAS\_NAN if nan() is

?S: available to generate NaN.

?S:.

?C:HAS\_NAN:

?C: This symbol, if defined, indicates that the nan routine is

?C: available to generate NaN.

?C:.

?H:#\$d\_nan HAS\_NAN /\*\*/

?H:.

?LINT:set d\_nan

: see if nan exists

set nan d\_nan

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_nan.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_chown.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_chown.U,v \$

?RCS: Revision 3.0.1.1 1994/08/29 16:07:14 ram

?RCS: patch32: created by ADO

?RCS:

?MAKE:d\_chown: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_chown:

?S: This variable conditionally defines the HAS\_CHOWN symbol, which

?S: indicates to the C program that the chown() routine is available.

?S:  
?C:HAS\_CHOWN :  
?C: This symbol, if defined, indicates that the chown routine is  
?C: available.  
?C:.  
?H:#\$d\_chown  
HAS\_CHOWN /\*\*/  
?H:.  
?LINT:set d\_chown  
: see if chown exists  
set chown d\_chown  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_chown.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_dlfcn.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
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?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>  
?RCS:  
?RCS: \$Log: i\_dlfcn.U,v \$  
?RCS: Revision 3.0.1.1 1994/08/29 16:21:53 ram  
?RCS: patch32: created by ADO  
?RCS:  
?MAKE:i\_dlfcn: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_dlfcn:  
?S: This variable conditionally defines the I\_DLFCN symbol, which  
?S: indicates to the C program that <dlfcn.h> exists and should  
?S: be included.  
?S:  
?C:I\_DLFCN:  
?C: This symbol, if defined, indicates that <dlfcn.h> exists  
and should  
?C: be included.  
?C:.  
?H:#\$i\_dlfcn I\_DLFCN /\*\*/  
?H:.

```
?LINT:set i_dlfcn
: see if dlfcn is available
set dlfcn.h i_dlfcn
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_dlfcn.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
```

```
?RCS:
```

```
?RCS: $Log: Ins.U,v $
```

```
?RCS: Revision 3.0.1.1 1994/06/20 07:05:52 ram
```

```
?RCS: patch30: created by ADO
```

```
?RCS:
```

```
?X:
```

```
?X: This unit checks whether symbolic links are really supported.
```

```
?X: We can't rely on d_symlink because that may be listed in the
```

```
?X: C library but unimplemented.
```

```
?X:
```

```
?MAKE:lns: ln rm touch test
```

```
?MAKE: -pick add $@ %<
```

```
?S:lns:
```

```
?S: This variable holds the name of the command to make
```

```
?S: symbolic links (if they are supported).
```

It can be used

```
?S: in the Makefile. It is either 'ln -s' or 'ln'
```

```
?S:.
```

```
: determine whether symbolic links are supported
```

```
echo " "
```

```
$rm -f blurfl sym
```

```
$touch blurfl
```

```
if $ln -s blurfl sym > /dev/null 2>&1 && $test -f sym; then
```

```
echo "Symbolic links are supported." >&4
```

```
lns="$ln -s"
```

```
else
```

```
echo "Symbolic links are NOT supported." >&4
```

```
lns="$ln"
fi
$rm -f blurfl sym
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/lns.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: fpostype.U,v 3.0.1.2 1994/08/29 16:20:52 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: fpostype.U,v $
?RCS: Revision 3.0.1.2 1994/08/29 16:20:52 ram
?RCS: patch32: now uses new Typedef unit to compute type information
?RCS:
?RCS: Revision 3.0.1.1 1994/06/20 06:59:59 ram
?RCS: patch30: created
?RCS:
?MAKE:fpostype: Myread Typedef
?MAKE: -pick add $@ %<
?S:fpostype:
?S: This variable defines Fpos_t to be something like fpos_t, long,
?S: uint, or whatever type is used to declare file positions in libc.
?S:.
?C:Fpos_t:
?C: This symbol holds
the type used to declare file positions in libc.
?C: It can be fpos_t, long, uint, etc... It may be necessary to include
?C: <sys/types.h> to get any typedef'ed information.
?C:.
?H:#define Fpos_t $fpostype /* File position type */
?H:.
?LINT:set fpostype
: see what type file positions are declared as in the library
rp="What is the type for file position used by fsetpos()?"
set fpos_t fpostype long stdio.h sys/types.h
eval $typedef_ask
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
```

5.30.0/U/typedefs/fpostype.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2017, Karl Williamson

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:i\_wchar: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_wchar:

?S: This variable conditionally defines the I\_WCHAR symbol,

?S: that indicates whether a C program may include <wchar.h>.

?S:.

?C:I\_WCHAR:

?C: This symbol, if defined, indicates to the C program that <wchar.h>

?C: is available for inclusion

?C:.

?H:#\$i\_wchar I\_WCHAR /\*\*/

?H:.

?LINT:set i\_wchar

: see if wchar.h is present

set wchar.h i\_wchar

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_wchar.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: locdist.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: locdist.U,v \$

?RCS: Revision 3.0.1.1 1994/05/06 15:09:20 ram

?RCS: patch23: added support for multi-state regions (WED)



?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:06 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:locdist orgdist citydist statedist multistatedist centrydist contdist: \  
test newslibexp cat Myread Oldconfig  
?MAKE: -pick add \$@ %<  
?S:locdist:  
?S: This variable contains the eventual value of the LOCDIST symbol,  
?S: which  
is the local organization's distribution name for news.  
?S:.  
?S:orgdist:  
?S: This variable contains the eventual value of the ORGDIST symbol,  
?S: which is the organization's distribution name for news.  
?S:.  
?S:citydist:  
?S: This variable contains the eventual value of the CITYDIST symbol,  
?S: which is the city's distribution name for news.  
?S:.  
?S:statedist:  
?S: This variable contains the eventual value of the STATEDIST symbol,  
?S: which is the state's or province's distribution name for news.  
?S:.  
?S:multistatedist:  
?S: This variable contains the eventual value of the MULTISTATEDIST symbol,  
?S: which is the news distribution code for multi-state region.  
?S:.  
?S:entrydist:  
?S: This variable contains the eventual value of the CNTRYDIST symbol,  
?S: which is the country's distribution name for news.  
?S:.  
?S:contdist:  
?S: This variable contains the eventual value of the CONTDIST symbol,  
?S: which is the continent's distribution name for news.  
?S:.  
?C:LOCDIST:  
?C: This symbol contains the  
distribution name for the news system that  
?C: restricts article distribution to the local organization.  
?C:.  
?C:ORGDIST:  
?C: This symbol contains the distribution name for the news system that  
?C: restricts article distribution to the organization.  
?C:.  
?C:CITYDIST:  
?C: This symbol contains the distribution name for the news system that  
?C: restricts article distribution to the city.

?C:.

?C:STATEDIST:

?C: This symbol contains the distribution name for the news system that

?C: restricts article distribution to the state or province.

?C:.

?C:MULTISTATEDIST:

?C: This symbol contains the distribution name for the news system that

?C: restricts article distribution to a multi-state region.

?C:.

?C:CNTRYDIST:

?C: This symbol contains the distribution name for the news system that

?C: restricts article distribution to the country.

?C:.

?C:CONTDIST:

?C: This symbol contains the distribution name for the news system that

?C: restricts article distribution to the continent.

?C:.

?H:#define LOCDIST

```
"$locdist" /**/
```

?H:#define ORGDIST "\$orgdist" /\*\*/

?H:#define CITYDIST "\$citydist" /\*\*/

?H:#define MULTISTATEDIST "\$multistatedist" /\*\*/

?H:#define STATEDIST "\$statedist" /\*\*/

?H:#define CNTRYDIST "\$entrydist" /\*\*/

?H:#define CONTDIST "\$contdist" /\*\*/

?H:.

: get the local distributions

\$cat <<'EOH'

Distribution groups are the things you use on the Distribution line to limit where an article will go to. You are likely to be a member of several distribution groups, such as organization, city, state, province, country, continent, etc. For example, Los Angeles has the distribution code "la", New Jersey has the code "nj", and Europe has the code "eunet".

The categories you will be asked are:

local organization (Could be just one machine or a cluster or an office)

organization att, dec, kgb, ...

city la, ny, mosc, ...

state/province ca, nj, bc, ...

multi-state region pnw, ne, ...

country usa, can, rok, whatever

continent na (North America), asia, etc.

EOH

if \$test

```

-f $newslibexp/distributions; then
case "$silent" in
true) ;;
*) dflt='Hit return to continue'
rp="
./myread
";
esac
echo "Here is your distributions file:" >&4
echo " " >&4
$cat >&4 $newslibexp/distributions
echo " " >&4
fi
echo "Use 'none' for any distributions you don't have."
echo " "
case "$locdist" in
") dflt="none";;
*) dflt="$locdist";;
esac
rp="What is the distribution code for your local organization?"
./myread
locdist="$ans"
case "$orgdist" in
") dflt="none";;
*) dflt="$orgdist";;
esac
rp="What is the distribution code for your organization?"
./myread
orgdist="$ans"
case "$citydist" in
") dflt="none";;
*) dflt="$citydist";;
esac
rp="What is the distribution code for your city?"
./myread
citydist="$ans"
case "$statedist" in
") dflt="none";;
*) dflt="$statedist";;
esac
rp="What is the distribution code for your state/province?"
./myread
statedist="$ans"
case "$multistatedist" in
") dflt="none";;
*) dflt="$multistatedist";;
esac
rp="What is the

```

```

distribution code for your multi-state region?"
./myread
multistatedist="$ans"
case "$cntrydist" in
") dflt="none";;
*) dflt="$cntrydist";;
esac
rp="What is the distribution code for your country?"
./myread
cntrydist="$ans"
case "$contdist" in
") dflt="none";;
*) dflt="$contdist";;
esac
rp="What is the distribution code for your continent?"
./myread
contdist="$ans"
$cat <<'EOM'

```

If you have any other distribution groups you will need to edit Pnews and newsetup to add them.

EOM

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/locdist.U
```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_fmax: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fmax:

?S: This variable conditionally defines the HAS\_FMAX symbol, which

?S: indicates to the C program that the fmax() routine is available.

?S:.

?C:HAS\_FMAX:

?C: This symbol, if defined, indicates that the fmax routine is

?C: available to do the maximum function.

?C:.

?H:#d\_fmax HAS\_FMAX /\*\*/

?H:.

?LINT:set d\_fmax

: see if fmax exists

set fmax d\_fmax

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fmax.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_group.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_group.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:34:52 ram

?RCS: patch61: useless unit dropped.

?RCS:

?RCS: Revision 3.0.1.1 1994/08/29 16:07:48 ram

?RCS: patch32: created by ADO

?RCS:

?X:

?X: Useless unit dropped.

?X:

?LINT:empty

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_group.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_float.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: i\_float.U,v \$

?RCS: Revision 3.0.1.1 1994/08/29 16:21:57 ram

?RCS: patch32: created by ADO  
?RCS:  
?MAKE:i\_float: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_float:  
?S: This variable conditionally defines the I\_FLOAT symbol, and indicates  
?S: whether a C program may include <float.h> to get symbols like DBL\_MAX  
?S: or DBL\_MIN, i.e. machine dependent floating point values.  
?S:.  
?C:I\_FLOAT:  
?C: This  
symbol, if defined, indicates to the C program that it should  
?C: include <float.h> to get definition of symbols like DBL\_MAX or  
?C: DBL\_MIN, i.e. machine dependent floating point values.  
?C:.  
?H:#\$i\_float I\_FLOAT /\*\*/  
?H:.  
?LINT:set i\_float  
: see if this is a float.h system  
set float.h i\_float  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_float.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: Oldconfig.U,v \$  
?RCS: Revision 3.0.1.10 1997/02/28 15:06:39 ram  
?RCS: patch61: added support for src.U  
?RCS: patch61: new OSNAME define  
?RCS: patch61: can now sense new OSes  
?RCS:  
?RCS: Revision 3.0.1.9 1995/07/25 13:40:51 ram  
?RCS: patch56: now knows about OS/2 platforms  
?RCS:  
?RCS: Revision 3.0.1.8 1995/05/12 12:04:18 ram  
?RCS: patch54: config.sh reload logic now knows about new -K switch

?RCS: patch54: cleaned up and extended osvers for DEC OSF/1 (ADO)  
?RCS: patch54: added MachTen detection  
(ADO)  
?RCS:  
?RCS: Revision 3.0.1.7 1995/02/15 14:13:41 ram  
?RCS: patch51: adapted osvers computation for AIX (ADO)  
?RCS:  
?RCS: Revision 3.0.1.6 1995/01/30 14:27:15 ram  
?RCS: patch49: unit Options.U now exports file optdef.sh, not a variable  
?RCS: patch49: update code for myuname changed (WED)  
?RCS:  
?RCS: Revision 3.0.1.5 1995/01/11 15:15:36 ram  
?RCS: patch45: added quotes around the INITPROG variable (ADO)  
?RCS: patch45: allows variable overriding after config file loading  
?RCS:  
?RCS: Revision 3.0.1.4 1994/10/29 15:57:05 ram  
?RCS: patch36: added ?F: line for metalint file checking  
?RCS: patch36: merged with the version used for perl5's Configure (ADO)  
?RCS:  
?RCS: Revision 3.0.1.3 1994/05/06 14:24:17 ram  
?RCS: patch23: added support for osf1 hints  
?RCS: patch23: new support for solaris and i386 systems (ADO)  
?RCS:  
?RCS: Revision 3.0.1.2 1994/01/24 14:05:02 ram  
?RCS: patch16: added post-processing on myuname for Xenix targets  
?RCS: patch16: message proposing config.sh  
defaults made consistent  
?RCS:  
?RCS: Revision 3.0.1.1 1993/09/13 15:56:32 ram  
?RCS: patch10: force use of config.sh when -d option is used (WAD)  
?RCS: patch10: complain about non-existent hint files (WAD)  
?RCS: patch10: added Options dependency for fastread variable  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:05:12 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: This unit tries to remember what we did last time we ran Configure, mostly  
?X: for the sake of setting defaults.  
?X:  
?MAKE:Oldconfig hint myuname osname osvers: Instruct Myread Checkcc \  
Mksymlinks Loc Options Tr src trnl ln uname sh awk sed test cat grep \  
rm lns tr n c contains targetarch  
?MAKE: -pick wipe \$@ %<  
?S:myuname:  
?S: The output of 'uname -a' if available, otherwise the hostname. On Xenix,  
?S: pseudo variables assignments in the output are stripped, thank you. The  
?S: whole thing is then lower-cased.

?S:  
?S:hint:  
?S: Gives the type of hints used for previous answers. May be one of  
?S: "default",  
"recommended" or "previous".  
?S:  
?S:osname:  
?S: This variable contains the operating system name (e.g. sunos,  
?S: solaris, hpux, etc.). It can be useful later on for setting  
?S: defaults. Any spaces are replaced with underscores. It is set  
?S: to a null string if we can't figure it out.  
?S:  
?S:osvers:  
?S: This variable contains the operating system version (e.g.  
?S: 4.1.3, 5.2, etc.). It is primarily used for helping select  
?S: an appropriate hints file, but might be useful elsewhere for  
?S: setting defaults. It is set to " if we can't figure it out.  
?S: We try to be flexible about how much of the version number  
?S: to keep, e.g. if 4.1.1, 4.1.2, and 4.1.3 are essentially the  
?S: same for this package, hints files might just be os\_4.0 or  
?S: os\_4.1, etc., not keeping separate files for each little release.  
?S:  
?C:OSNAME:  
?C: This symbol contains the name of the operating system, as determined  
?C: by Configure. You shouldn't rely on it too much; the specific  
?C: feature  
tests from Configure are generally more reliable.  
?C:  
?C:OSVERS:  
?C: This symbol contains the version of the operating system, as determined  
?C: by Configure. You shouldn't rely on it too much; the specific  
?C: feature tests from Configure are generally more reliable.  
?C:  
?H:#define OSNAME "\$osname" /\*\*/  
?H:#define OSVERS "\$osvers" /\*\*/  
?H:  
?F:!config.sh  
?T:tmp tmp\_n tmp\_c tmp\_sh file  
?T:xxxxfile xxxfile xxfile xfile hintfile newmyuname  
?T:tans \_ isesix INITPROG DJGPP has\_uname  
?D:osname="  
?LINT:change n c sh  
?LINT:extern hostarch  
?LINT:change hostarch  
: Determine the name of the machine  
myuname=`\$uname -a 2>/dev/null`  
\$test -z "\$myuname" && myuname=`hostname 2>/dev/null`  
?X: Special mention for Xenix, whose 'uname -a' gives us output like this:



```

?X: sysname=XENIX
?X: nodename=whatever
?X: release=2.3.2 .. etc...
?X: Therefore, we strip all this variable assignment junk and remove all the
?X: new lines to keep the myuname variable sane... --RAM
myuname=`echo $myuname | $sed -e
's/^[^=]*=/' -e 's/\\//g' | \
./tr '[A-Z]' '[a-z]' | $tr $trnl ' '`
?X: Save the value we just computed to reset myuname after we get done here.
newmyuname="$myuname"
$test -f "$uname$_exe" && has_uname=y

```

: Guessing of the OS name -- half the following guesses are probably wrong...

: If you have better tests or hints, please send them to the metaconfig

: authors and to <MAINTLOC>

```

$test -f /irix && osname=irix
$test -f /xenix && osname=sco_xenix
$test -f /dynix && osname=dynix
$test -f /dnix && osname=dnix
$test -f /lynx.os && osname=lynxos
$test -f /unicos && osname=unicos && osvers=`$uname -r`
$test -f /unicosmk && osname=unicosmk && osvers=`$uname -r`
$test -f /unicosmk.ar && osname=unicosmk && osvers=`$uname -r`
$test -f /bin/mips && /bin/mips && osname=mips
$test -d /NextApps && set X `hostinfo | $grep 'NeXT Mach.*:' | \
$sed -e 's:/://' -e 's/\./_/' && osname=next && osvers=$4
$test -d /usr/apollo/bin && osname=apollo
$test -f /etc/saf/_sactab && osname=svr4
$test -d /usr/include/minix
&& osname=minix
$test -f /system/gnu_library/bin/ar.pm && osname=vos
if $test -d /MachTen -o -d /MachTen_Folder; then
?X: MachTen uname -a output looks like
?X: xxx 4 0.0 Macintosh
?X: MachTen /sbin/version output looks like
?X: MachTen 4.0 Mon Aug 28 10:18:00 1995
?X: MachTen 3.x had the 'version' command in /usr/etc/version.
osname=machten
if $test -x /sbin/version; then
osvers=`/sbin/version | $awk '{print $2}' |
$sed -e 's/[A-Za-z]$/'`
elif $test -x /usr/etc/version; then
osvers=`/usr/etc/version | $awk '{print $2}' |
$sed -e 's/[A-Za-z]$/'`
else
osvers="$2.$3"
fi
fi

```

```

$test -f /sys/posix.dll &&
$test -f /usr/bin/what &&
set X `usr/bin/what /sys/posix.dll` &&
$test "$3" = UWIN &&
osname=uwin &&
osvers="$5"
?X: If we have uname, we already computed a suitable uname -a output, correctly
?X: formatted for Xenix, and it lies in $myuname.
if $test "X$has_uname" != X; then
set X $myuname
shift
case "$5" in
fps*) osname=fps ;;
mips*)
case "$4"
in
umips) osname=umips ;;
*) osname=mips ;;
esac;;
[23]100) osname=mips ;;
next*) osname=next ;;
?X: Interactive Unix.
i386*)
tmp=`/bin/uname -X 2>/dev/null|awk '3\,2v[45]/{ print $(NF) }`
if $test "$tmp" != "" -a "$3" = "3.2" -a -f /etc/systemid; then
osname='sco'
osvers=$tmp
elif $test -f /etc/kconfig; then
osname=isc
if $test "$lns" = "$ln -s"; then
osvers=4
elif $contains _SYSV3 /usr/include/stdio.h > /dev/null 2>&1 ; then
osvers=3
elif $contains _POSIX_SOURCE /usr/include/stdio.h > /dev/null 2>&1 ; then
osvers=2
fi
fi
tmp=""
;;
?X: MS-DOS djgpp uname -a output looks like:
?X: ms-dos xxx 6 22 pc
?X: $1 is the "dos flavor" (need not be "ms-dos").
?X: $2 is the node name
?X: $3 and $4 are version/subversion
?X: $5 is always "pc", but that might not be unique to DJGPP.
?X: (e.g. Solaris_x86 has $5 = i86pc, which doesn't actually conflict,
?X: but it's close enough that I can easily imagine other vendors also
?X: using variants

```

of pc\* in \$5.)

?X: The "DJGPP" environment variable is always set when djgpp is active.

pc\*)

```
if $test -n "$DJGPP"; then
```

```
 osname=dos
```

```
 osvers=djgpp
```

```
fi
```

```
::
```

```
esac
```

```
case "$1" in
```

```
 aix) osname=aix
```

?X: aix 4.1 uname -a output looks like

?X: AIX foo 1 4 000123456789

?X: where \$4 is the major release number and \$3 is the (minor) version.

?X: More detail on the version is available with the oslevel command.

?X: in 3.2.x, it output a string (see case statements below). In 4.1,

?X: it puts out something like 4.1.1.0

```
tmp=`(oslevel) 2>/dev/null || echo "not found") 2>&1`
```

```
case "$tmp" in
```

```
'not found') osvers="$4"."$3" ;;
```

```
'<3240'|<>3240') osvers=3.2.0 ;;
```

```
'=3240'|>3240'|<3250'|<>3250') osvers=3.2.4 ;;
```

```
'=3250'|>3250') osvers=3.2.5 ;;
```

```
*) osvers=$tmp;;
```

```
esac
```

```
::
```

```
bsd386) osname=bsd386
```

```
 osvers=`$uname -r`
```

```
::
```

```
cygwin*) osname=cygwin
```

```
 osvers="$3"
```

```
::
```

```
*dc.osx) osname=dcosx
```

```
 osvers="$3"
```

```
::
```

```
dnix) osname=dnix
```

```
 osvers="$3"
```

```
::
```

```
domainos) osname=apollo
```

```
 osvers="$3"
```

```
::
```

```
dgux)
```

```
 osname=dgux
```

```
 osvers="$3"
```

```
::
```

?X: uname -a returns

?X: DYNIX/ptx xxx 4.0 V4.1.2 i386

```
dynixptx*) osname=dynixptx
```

```

osvers=`echo "$4"|sed 's/^v//'^
;;
freebsd) osname=freebsd
osvers="$3" ;;
genix) osname=genix ;;
?X: HP-UX uname -a gives something like
?X: HP-UX foobar B.10.20 A 9000/735 2016483812 two-user license
?X: Preserve the full 10.20 string instead of the previous plain '10'.
?X: Thanks to Graham Barr. --AD 6/30/1998
hp*) osname=hpux
osvers=`echo "$3" | $sed 's,.*\.[0-9]*\.[0-9]*\),\1,'
;;
irix*) osname=irix
case "$3" in
4*) osvers=4 ;;
5*) osvers=5 ;;
*) osvers="$3" ;;
esac
;;
linux) osname=linux
case "$3" in
*) osvers="$3" ;;
esac
;;
MiNT) osname=mint
;;
netbsd*) osname=netbsd
osvers="$3"
;;
news-os) osvers="$3"
case "$3" in
4*) osname=newsos4 ;;
*) osname=newsos ;;
esac
;;
next*) osname=next ;;
nonstop-ux) osname=nonstopux ;;
openbsd) osname=openbsd
osvers="$3"
;;
POSIX-BC | posix-bc
) osname=posix-bc
osvers="$3"
;;
powerux | power_ux | powermax_os | powermaxos | \
powerunix | power_unix) osname=powerux
osvers="$3"
;;

```

```

qnx) osname=qnx
osvers="$4"
;;
solaris) osname=solaris
case "$3" in
5*) osvers=`echo $3 | $sed 's/^5/2/g'` ;;
*) osvers="$3" ;;
esac
;;
sunos) osname=sunos
case "$3" in
5*) osname=solaris
osvers=`echo $3 | $sed 's/^5/2/g'` ;;
*) osvers="$3" ;;
esac
;;
titanos) osname=titanos
case "$3" in
1*) osvers=1 ;;
2*) osvers=2 ;;
3*) osvers=3 ;;
4*) osvers=4 ;;
*) osvers="$3" ;;
esac
;;
ultrix) osname=ultrix
osvers="$3"
;;
osf1|mips+) case "$5" in
alpha)
?X: DEC OSF/1 myuname -a output looks like: osf1 xxxx t3.2 123.4 alpha
?X: where the version number can be something like [xvt]n.n
osname=dec_osf
?X: sizer knows the minor minor version: the letter
osvers=`sizer -v | awk '{print $3}' | \
.tr '[A-Z]' '[a-z]' | sed 's/^[xvt]//'`
case "$osvers" in
[1-9].[0-9]*) ;;
*) osvers=`echo
"$3" | sed 's/^[xvt]//'` ;;
esac
;;
hp*) osname=hp_osf1 ;;
mips) osname=mips_osf1 ;;
?X: hp and mips were unsupported Technology Releases -- ADO, 24/10/94
esac
;;
unixware) osname=svr5

```

```

osvers="$4"
;;
uts) osname=uts
osvers="$3"
;;
vos) osvers="$3"
;;
$2) case "$osname" in
isc) ;;
freebsd) ;;
svr*)
: svr4.x or possibly later
case "svr$3" in
${osname}*)
osname=svr$3
osvers=$4
;;
esac
case "$osname" in
svr4.0)
: Check for ESIX
if $test -f /stand/boot ; then
eval `grep '^INITPROG=[a-z/0-9]*$' /stand/boot`
if $test -n "$INITPROG" -a -f "$INITPROG"; then
isesix=`strings -a $INITPROG | \
$grep 'ESIX SYSTEM V/386 Release 4.0`
if $test -n "$isesix"; then
osname=esix4
fi
fi
fi
;;
esac
*) if $test -f /etc/systemid; then
osname=sco
set `echo $3 | $sed 's/\./ /g` $4
if $test -f $src/hints/sco_$1_$2_$3.sh; then
osvers=$1.$2.$3
elif $test
-f $src/hints/sco_$1_$2.sh; then
osvers=$1.$2
elif $test -f $src/hints/sco_$1.sh; then
osvers=$1
fi
else
case "$osname" in
") : Still unknown. Probably a generic Sys V.

```

```

osname="sysv"
osvers="$3"
;;
esac
fi
;;
esac
;;
*) case "$osname" in
") : Still unknown. Probably a generic BSD.
osname="$1"
osvers="$3"
;;
esac
;;
esac
else
?X: Try to identify sony's NEWS-OS (BSD unix)
if $test -f /vmunix -a -f $src/hints/news_os.sh; then
(what /vmunix | UU/tr '[A-Z]' '[a-z]') > UU/kernel.what 2>&1
if $contains news-os UU/kernel.what >/dev/null 2>&1; then
osname=news_os
fi
$rm -f UU/kernel.what
?X: Maybe it's OS/2 or DOS or something similar
elif $test -d c/.; then
set X $myuname
osname=os2
osvers="$5"
fi
fi

: Try to determine whether config.sh was made on this system
case "$config_sh" in
")
?X: indentation wrong on purpose--RAM
dflt=n
case "$knowitall" in
")
if test -f ../config.sh; then
if $contains
myuname= ../config.sh >/dev/null 2>&1; then
eval "`$grep myuname= ../config.sh`"
fi
if test "X$myuname" = "X$newmyuname"; then
dflt=y
fi
fi

```

```

;;
*) dflt=y;;
esac

: Get old answers from config file if it was generated on the same system
hint=default
if $test -f ../config.sh; then
echo " "
rp="I see a config.sh file. Shall I use it to set the defaults?"
. ./myread
case "$ans" in
n*|N*) echo "OK, I'll ignore it."
mv ../config.sh ../config.sh.old
myuname="$newmyuname"
;;
*) echo "Fetching default answers from your old config.sh file..." >&4
tmp_n="$n"
tmp_c="$c"
tmp_sh="$sh"
. ../config.sh
cp ../config.sh .
n="$tmp_n"
c="$tmp_c"
hint=previous
;;
esac
fi
?X: remember, case indentation is wrong--RAM
;;
*)
echo " "
echo "Fetching default answers from $config_sh..." >&4
tmp_n="$n"
tmp_c="$c"
tmp_sh="$sh"
cd ..
?X: preserve symbolic links, if any
cp $config_sh config.sh 2>/dev/null
chmod +w config.sh
. ./config.sh
cd UU
cp ../config.sh
.
n="$tmp_n"
c="$tmp_c"
hint=previous
;;
esac

```



?X: Older versions did not always set \$sh.

```
case "$sh" in
*) sh="$tmp_sh" ;;
esac
$test "$soverride" && . ./optdef.sh
```

```
: Restore computed paths
for file in $loclist $strylist; do
 eval $file="\$_$file"
done
```

./checkcc

?X: Cross-compiling support

```
case "$targetarch" in
*) ;;
*) hostarch=$osname
 osname=`echo $targetarch|sed 's,^[^-]*-,`
 osvers=""
 ;;
esac
```

```
@if {test -d ../hints}
```

: Offer them some hints based on their OS

```
cd ..
```

?X: Since we are now at the root of the source tree, we must use \$src

?X: to access the sources and not \$rsrc. See src.U for details...

```
if $test ! -f config.sh; then
```

```
 $cat <<EOM
```

First time through, eh? I have some defaults handy for some systems that need some extra help getting the Configure answers right:

EOM

```
(cd $src/hints; ls -C *.sh) | $sed 's/\./ /g' >&4
dflt="
```

: Now look for a hint file osname\_osvers, unless one has been

: specified already.

```
case "$hintfile" in
```

```
"|')
```

```
 file=`echo "${osname}_${osvers}"
```

```
| $sed -e 's%\._%g' -e 's%_%%`
```

: Also try without trailing minor version numbers.

```
xfile=`echo $file | $sed -e 's%_[^_]*$%%`
```

```
xxfile=`echo $xfile | $sed -e 's%_[^_]*$%%`
```

```
xxxfile=`echo $xxfile | $sed -e 's%_[^_]*$%%`
```

```
xxxxfile=`echo $xxxfile | $sed -e 's%_[^_]*$%%`
```

```
case "$file" in
```

```

") dflt=none ;;
*) case "$osvers" in
") dflt=$file
;;
*) if $test -f $src/hints/$file.sh ; then
dflt=$file
elif $test -f $src/hints/$xfile.sh ; then
dflt=$xfile
elif $test -f $src/hints/$xxfile.sh ; then
dflt=$xxfile
elif $test -f $src/hints/$xxxfile.sh ; then
dflt=$xxxfile
elif $test -f $src/hints/$xxxxfile.sh ; then
dflt=$xxxxfile
elif $test -f "$src/hints/${osname}.sh" ; then
dflt="${osname}"
else
dflt=none
fi
;;
esac
;;
esac
if $test -f Policy.sh ; then
case "$dflt" in
Policy) ;;
none) dflt="Policy" ;;
*) dflt="Policy $dflt" ;;
esac
fi
;;
*)
dflt=`echo
$hintfile | $sed 's/\.sh$//`
;;
esac

if $test -f Policy.sh ; then
$cat <<EOM

```

There's also a Policy hint file available, which should make the site-specific (policy) questions easier to answer.

EOM

fi

\$cat <<EOM

You may give one or more space-separated answers, or "none" if appropriate. A well-behaved OS will have no hints, so answering "none" or just "Policy" is a good thing. DO NOT give a wrong version or a wrong OS.

EOM

```
rp="Which of these apply, if any?"
. UU/myread
tans=$ans
for file in $ans; do
if $test X$file = XPolicy -a -f Policy.sh; then
. Policy.sh
$cat Policy.sh >> UU/config.sh
elif $test -f $src/hints/$file.sh; then
. $src/hints/$file.sh
$cat $src/hints/$file.sh >> UU/config.sh
elif $test X"$tans" = X -o X"$tans" = Xnone ; then
: nothing
else
: Give one chance to correct a possible typo.
echo "$file.sh does not exist"
dflt=$file
rp="hint to use instead?"
. UU/myread
for file in $ans; do
if $test -f "$src/hints/$file.sh";
then
. $src/hints/$file.sh
$cat $src/hints/$file.sh >> UU/config.sh
elif $test X$ans = X -o X$ans = Xnone ; then
: nothing
else
echo "$file.sh does not exist -- ignored."
fi
done
fi
done

hint=recommended
: Remember our hint file for later.
if $test -f "$src/hints/$file.sh" ; then
hintfile="$file"
else
hintfile=""
fi
fi
cd UU
?X: From here on, we must use $src instead of $src
```

```
@end
: Process their -A options
./posthint.sh
```

```
@if osname || osvers
: Ask them to confirm the OS name
cat << EOM
```

Configure uses the operating system name and version to set some defaults. The default value is probably right if the name rings a bell. Otherwise, since spelling matters for me, either accept the default or answer "none" to leave it blank.

```
EOM
@end
@if osname
case "$osname" in
'| ')
case "$hintfile" in
'| 'none) dflt=none ;;
) dflt=`echo $hintfile | $sed -e 's/\.sh$//' -e 's/_.$//'^` ;;
esac
;;
*) dflt="$osname" ;;
esac
rp="Operating
system name?"
./myread
case "$ans" in
none) osname="" ;;
) osname=`echo "$ans" | $sed -e 's/[][]/_/g' | ./tr '[A-Z]' '[a-z]'^` ;;
esac
@end
@if osvers
@if osname
echo " "
@end
case "$osvers" in
'| ')
case "$hintfile" in
'| 'none) dflt=none ;;
) dflt=`echo $hintfile | $sed -e 's/\.sh$//' -e 's/^[^_]//'^`
dflt=`echo $dflt | $sed -e 's/^_//' -e 's/_/./g'^`
case "$dflt" in
'| ') dflt=none ;;
esac
;;
```

```

 esac
 ;;
 *) dflt="$osvers" ;;
esac
rp="Operating system version?"
./myread
case "$ans" in
none) osvers="" ;;
*) osvers="$ans" ;;
esac

@end

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Oldconfig.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_ilogbl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_ilogbl:

?S: This variable conditionally defines the HAS\_ILOGBL symbol, which

?S: indicates to the C program that the ilogbl() routine is available

?S: for extracting the exponent of long double x as a signed integer.

?S: If scalbnl is also present we can emulate frexpl.

?S:.

?C:HAS\_ILOGBL:

?C: This symbol, if defined, indicates that the ilogbl routine is

?C: available. If scalbnl is also present we can emulate frexpl.

?C:.

?H:#\$d\_ilogbl HAS\_ILOGBL /\*\*/

?H:.

?LINT:set d\_ilogbl

: see if ilogbl exists

set ilogbl d\_ilogbl

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_ilogbl.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_lockf.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_lockf.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:09:36 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_lockf: Inlibc
?MAKE: -pick add $@ %<
?S:d_lockf:
?S: This variable conditionally defines HAS_LOCKF if lockf() is
?S: available to do file locking.
?S:.
?C:HAS_LOCKF (LOCKF):
?C: This symbol, if defined, indicates that the lockf routine is
?C: available to do file locking.
?C:.
?H:#$d_lockf
HAS_LOCKF /**/
?H:.
?LINT:set d_lockf
: see if lockf exists
set lockf d_lockf
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_lockf.U
```

No license file was found, but licenses were detected in source scan.

```
/*
```

```
* $Id: setsid.C,v 3.0.1.1 1994/01/24 13:58:47 ram Exp ram $
```

```
*
```

```
* Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
*
```

```
* You may redistribute only under the terms of the Artistic Licence,
```

```
* as specified in the README file that comes with the distribution.
```

\* You may reuse parts of this distribution only within the terms of  
\* that same Artistic Licence; a copy of which may be found at the root  
\* of the source tree for dist 4.0.  
\*  
\* \$Log: setsid.C,v \$  
\* Revision 3.0.1.1 1994/01/24 13:58:47 ram  
\* patch16: created  
\*  
\*/

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/lib/C/fake/setsid.C

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_vprintf.U,v \$

?RCS: Revision 3.0 1993/08/18 12:07:59 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_vprintf d\_charvspr: Guess cat +cc +ccflags Csym Setvar

?MAKE: -pick add \$@ %<

?S:d\_vprintf:

?S: This variable conditionally defines the HAS\_VPRINTF symbol, which

?S: indicates to the C program that the vprintf() routine is available

?S: to printf with a pointer to an argument list.

?S:.

?S:d\_charvspr:

?S: This variable conditionally defines CHARVSPRINTF if this system

?S: has

vsprintf returning type (char\*). The trend seems to be to

?S: declare it as "int vsprintf()".

?S:.

?C:HAS\_VPRINTF (VPRINTF):

?C: This symbol, if defined, indicates that the vprintf routine is available

?C: to printf with a pointer to an argument list. If unavailable, you

?C: may need to write your own, probably in terms of \_doprnt().

?C:.

?C:USE\_CHAR\_VSPRINTF (CHARVSPRINTF):

?C: This symbol is defined if this system has vsprintf() returning type  
?C: (char\*). The trend seems to be to declare it as "int vsprintf()". It  
?C: is up to the package author to declare vsprintf correctly based on the  
?C: symbol.

?C:.

?H:#\$d\_vprintf HAS\_VPRINTF /\*\*/

?H:#\$d\_charvspr USE\_CHAR\_VSPRINTF /\*\*/

?H:.

?F:!vprintf !vprintf.c

?T:val2

?LINT:set d\_vprintf d\_charvspr

: see if vprintf exists

echo " "

if set vprintf val -f d\_vprintf; eval \$csym; \$val; then

echo 'vprintf() found.' >&4

val="\$define"

\$cat >vprintf.c <<'EOF'

#include <varargs.h>

```
int main() { xxx("foo"); }
```

```
xxx(va_alist)
```

```
va_dcl
```

```
{
```

```
va_list args;
```

```
char
```

```
buf[10];
```

```
va_start(args);
```

```
exit(((unsigned long)vsprintf(buf,"%s",args) > 10L);
```

```
}
```

```
EOF
```

```
if $cc $ccflags -o vprintf vprintf.c >/dev/null 2>&1 && ./vprintf; then
```

```
echo "Your vsprintf() returns (int)." >&4
```

```
val2="$undef"
```

```
else
```

```
echo "Your vsprintf() returns (char*)." >&4
```

```
val2="$define"
```

```
fi
```

```
else
```

```
echo 'vprintf() NOT found.' >&4
```

```
val="$undef"
```

```
val2="$undef"
```

```
fi
```

```
set d_vprintf
```

```
eval $setvar
```

```
val=$val2
```

```
set d_charvspr
```



eval \$setvar

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_vprintf.U

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_voidsig.U,v \$

?RCS: Revision 3.0.1.3 1995/05/12 12:12:46 ram

?RCS: patch54: made cppflags dependency optional

?RCS:

?RCS: Revision 3.0.1.2 1994/08/29 16:20:35 ram

?RCS: patch32: now sets signal\_t only once d\_voidsig is known (WED)

?RCS:

?RCS: Revision 3.0.1.1 1994/06/20 06:59:54 ram

?RCS: patch30: now properly sets signal\_t when re-using previous value

?RCS:

?RCS: Revision 3.0 1993/08/18 12:07:56 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_voidsig signal\_t: rm contains  
cppstdin cppminus +cppflags test Myread \  
Oldconfig Setvar Findhdr

?MAKE: -pick add \$@ %<

?S:d\_voidsig:

?S: This variable conditionally defines VOIDSIG if this system

?S: declares "void (\*signal(...))()" in signal.h. The old way was to

?S: declare it as "int (\*signal(...))()".

?S:.

?S:signal\_t:

?S: This variable holds the type of the signal handler (void or int).

?S:.

?C:VOIDSIG:

?C: This symbol is defined if this system declares "void (\*signal(...))()" in

?C: signal.h. The old way was to declare it as "int (\*signal(...))()". It

?C: is up to the package author to declare things correctly based on the

?C: symbol.

?C:.

```

?C:Signal_t (SIGNAL_T):
?C: This symbol's value is either "void" or "int", corresponding to the
?C: appropriate return type of a signal handler. Thus, you can declare
?C: a signal handler using "Signal_t (*handler())", and define the
?C: handler using "Signal_t handler(sig)".
?C:.
?H:#$d_voidsig VOIDSIG /**/
?H:#define Signal_t $signal_t /* Signal handler's return
type */
?H:.
?T:xxx
?LINT:set d_voidsig
: see if signal is declared as pointer to function returning int or void
echo " "
xxx=`./findhdr signal.h`
$test "$xxx" && $cppstdin $cppminus $cppflags < $xxx >$.tmp 2>/dev/null
if $contains 'int.*\[]*signal' $$tmp >/dev/null 2>&1 ; then
echo "You have int (*signal())() instead of void." >&4
val="$undef"
elif $contains 'void.*\[]*signal' $$tmp >/dev/null 2>&1 ; then
echo "You have void (*signal())() instead of int." >&4
val="$define"
elif $contains 'extern[]*\[\]*signal' $$tmp >/dev/null 2>&1 ; then
echo "You have int (*signal())() instead of void." >&4
val="$undef"
else
case "$d_voidsig" in
")
echo "I can't determine whether signal handler returns void or int..." >&4
dflt=void
rp="What type does your signal handler return?"
./myread
case "$ans" in
v*) val="$define";;
*) val="$undef";;
esac;;
"$define")
echo "As you already told me, signal handler returns void." >&4;;
*)
echo "As you already told
me, signal handler returns int." >&4;;
esac
fi
set d_voidsig
eval $setvar
case "$d_voidsig" in
"$define") signal_t="void";;
*) signal_t="int";;

```

```
esac
$rm -f $$tmp
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_voidsig.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_recvmsg: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_recvmsg:

?S: This variable conditionally defines the HAS\_RECVMSG symbol, which

?S: indicates to the C program that the recvmsg() routine is available.

?S:.

?C:HAS\_RECVMSG:

?C: This symbol, if defined, indicates that the recvmsg routine is

?C: available to send structured socket messages.

?C:.

?H:#\$d\_recvmsg HAS\_RECVMSG /\*\*/

?H:.

?LINT:set d\_recvmsg

: see if recvmsg exists

set recvmsg d\_recvmsg

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_recvmsg.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: prototype.U,v \$

?RCS: Revision 3.0.1.3 1994/05/06 15:11:49 ram

?RCS: patch23: ensure cc flags used when looking for prototype support

?RCS:

?RCS: Revision 3.0.1.2 1994/01/24 14:15:36 ram

?RCS: patch16: prototype handling macros now appear only when needed

?RCS:

?RCS: Revision 3.0.1.1 1993/08/25 14:03:12 ram

?RCS: patch6: defines were referring to non-existent VOID symbol

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:36 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:prototype:

Myread Oldconfig cat +cc +ccflags rm Setvar

?MAKE: -pick add \$@ %<

?S:prototype:

?S: This variable holds the eventual value of CAN\_PROTOTYPE, which

?S: indicates the C compiler can handle function prototypes.

?S:.

?C:CAN\_PROTOTYPE ~ %<:

?C: If defined, this macro indicates that the C compiler can handle

?C: function prototypes.

?C:.

?C:DOTS:

?C: This macro is used to specify the ... in function prototypes which

?C: have arbitrary additional arguments.

?C:.

?C:NXT\_ARG:

?C: This macro is used to separate arguments in the declared argument list.

?C:.

?C:P\_FUNC:

?C: This macro is used to declare "private" (static) functions.

?C: It takes three arguments: the function type and name, a parenthesized

?C: traditional (comma separated) argument list, and the declared argument

?C: list (in which arguments are separated with NXT\_ARG, and additional

?C: arbitrary arguments are specified with DOTS). For example:

?C:

?C: P\_FUNC(int foo, (bar, baz), int bar NXT\_ARG char \*baz[])

?C:.

?C:P\_FUNC\_VOID:

?C: This

macro is used to declare "private" (static) functions that have

?C: no arguments. The macro takes one argument: the function type and name.

?C: For example:

?C:

?C: P\_FUNC\_VOID(int subr)

?C:.

?C:V\_FUNC:

?C: This macro is used to declare "public" (non-static) functions.

?C: It takes three arguments: the function type and name, a parenthesized

?C: traditional (comma separated) argument list, and the declared argument

?C: list (in which arguments are separated with NXT\_ARG, and additional

?C: arbitrary arguments are specified with DOTS). For example:

?C:

?C: V\_FUNC(int main, (argc, argv), int argc NXT\_ARG char \*argv[])

?C:.

?C:V\_FUNC\_VOID:

?C: This macro is used to declare "public" (non-static) functions that have

?C: no arguments. The macro takes one argument: the function type and name.

?C: For example:

?C:

?C: V\_FUNC\_VOID(int fork)

?C:.

?C:\_ (P):

?C: This macro is used to declare function parameters for folks who want

?C: to make declarations with prototypes using a

?C: different style than

?C: the above macros. Use double parentheses. For example:

?C:

?C: int main \_((int argc, char \*argv[]));

?C:.

?H:%<:#\$prototype CAN\_PROTOTYPE /\*\*/

?H:%<:#ifdef CAN\_PROTOTYPE

?H:?NXT\_ARG:#define NXT\_ARG ,

?H:?DOTS:#define DOTS , ...

?H:?V\_FUNC:#define V\_FUNC(name, arglist, args)name(args)

?H:?P\_FUNC:#define P\_FUNC(name, arglist, args)static name(args)

?H:?V\_FUNC\_VOID:#define V\_FUNC\_VOID(name)name(void)

?H:?P\_FUNC\_VOID:#define P\_FUNC\_VOID(name)static name(void)

?H:?\_:#define \_(args) args

?H:%<:#else

?H:?NXT\_ARG:#define NXT\_ARG ;

?H:?DOTS:#define DOTS

?H:?V\_FUNC:#define V\_FUNC(name, arglist, args)name arglist args;

?H:?P\_FUNC:#define P\_FUNC(name, arglist, args)static name arglist args;

?H:?V\_FUNC\_VOID:#define V\_FUNC\_VOID(name)name()

?H:?P\_FUNC\_VOID:#define P\_FUNC\_VOID(name)static name()

?H:?\_:#define \_(args) ()

?H:%<:#endif

?H:.

?W:%<:NXT\_ARG DOTS V\_FUNC P\_FUNC V\_FUNC\_VOID P\_FUNC\_VOID \_

?LINT:set prototype

: Cruising for prototypes

echo " "

echo "Checking out

```

function prototypes..." >&4
$cat >prototype.c <<'EOCP'
int main(int argc, char *argv[]) {
 exit(0);}
EOCP
if $cc $ccflags -c prototype.c >prototype.out 2>&1 ; then
 echo "Your C compiler appears to support function prototypes."
 val="$define"
else
 echo "Your C compiler doesn't seem to understand function prototypes."
 val="$undef"
fi
set prototype
eval $setvar
$rm -f prototype*

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/prototype.U

```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_memmem: Hasproto Inlibc Setvar d\_gnulibc

?MAKE: -pick add \$@ %<

?S:d\_memmem:

?S: This variable conditionally defines the HAS\_MEMMEM symbol, which

?S: indicates to the C program that the memmem() routine is available

?S: to return a pointer to the start of the first occurrence of a

?S: substring in a memory area (or NULL if not found).

?S:.

?C:HAS\_MEMMEM:

?C: This symbol, if defined, indicates that the memmem routine is

?C: available to return a pointer to the start of the first occurrence

?C: of a substring in a memory area (or NULL if not found).

?C: In glibc, memmem is a GNU extension. The function is visible in

?C: libc, but the prototype is only visible if \_GNU\_SOURCE is #defined.

?C: Thus we only define this if both the prototype and symbol are found.

?C:.

?H:#\$d\_memmem

HAS\_MEMMEM /\*\*/

?H:.

?T:d\_memmem\_proto xx1 xx2 xx3 xx4

?LINT:set d\_memmem

: see if memmem exists

: We need both a prototype in string.h and the symbol in libc.

echo " "

```

d_memmem_proto="
xx1="#$d_gnulibc HAS_GNULIBC"
xx2="#if defined(HAS_GNULIBC) && !defined(_GNU_SOURCE)'
xx3='# define _GNU_SOURCE'
xx4='#endif'
set d_memmem_proto memmem literal "$xx1" literal "$xx2" literal "$xx3" literal "$xx4" define string.h
eval $hasproto
case "$d_memmem_proto" in
 define) # see if memmem exists
 set memmem d_memmem
 eval $inlibc
 ;;
 *) val=$undef
 set d_memmem
 eval $setvar
 ;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_memmem.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: uidtype.U,v \$

?RCS: Revision 3.0.1.3 1994/08/29 16:33:25 ram

?RCS: patch32: now uses new Typedef unit to compute type information

?RCS:

?RCS: Revision 3.0.1.2 1994/06/20 07:09:36 ram

?RCS: patch30: comment for uidtype referred to the obsoleted symbol

?RCS:

?RCS: Revision 3.0.1.1 1994/05/13 15:28:27 ram

?RCS: patch27: made conform to its gidtype.U companion

?RCS: patch27: question now explicitly mentions getuid()

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:56 ram

?RCS: Baseline for dist

3.0 netwide release.

?RCS:

```

?MAKE:uidtype: Myread Typedef Findhdr
?MAKE: -pick add $@ %<
?S:uidtype:
?S: This variable defines Uid_t to be something like uid_t, int,
?S: ushort, or whatever type is used to declare user ids in the kernel.
?S:.
?C:Uid_t (UIDTYPE):
?C: This symbol holds the type used to declare user ids in the kernel.
?C: It can be int, ushort, uid_t, etc... It may be necessary to include
?C: <sys/types.h> to get any typedef'ed information.
?C:.
?H:#define Uid_t $uidtype /* UID type */
?H:.
?T:xxx
: see what type uids are declared as in the kernel
set uid_t uidtype xxx stdio.h sys/types.h
eval $typedef
case "$uidtype" in
xxx)
xxx=`./findhdr sys/user.h`
set `grep '_ruid;' "$xxx" 2>/dev/null` unsigned short
case $1 in
unsigned) dflt="$1 $2" ;;
*) dflt="$1" ;;
esac
;;
*) dflt="$uidtype";;
esac
echo " "
rp="What is the type for user ids returned by getuid()?"
./myread
uidtype="$ans"

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/uidtype.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: perlxv.U,v 1.1 2000/08/31 17:53:56 jhi Exp jhi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1999 Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:ivtype uvtype nvtype ivsize uvsize nvsize \
i8type u8type i16type u16type i32type u32type i64type u64type \
i8size u8size i16size u16size i32size u32size i64size u64size \
```



```
d_nv_preserves_uv nv_preserves_uv_bits nv_overflows_integers_at \
d_nv_zero_is_allbits_zero: \
echo rm_try use64bitint d_quad quadtype uquadtype usequadmath \
d_longdbl uselongdouble longdblsize doublesize i_quadmath \
shortsize intsize longsize i_stdlib libs gccversion \
cat Compile i_inttypes test_signal_t run
?MAKE: -pick add $@ %<
?S:ivtype:
?S: This variable contains the C type used for Perl's IV.
?S:.
?S:uvtype:
?S: This variable contains the C type
used for Perl's UV.
?S:.
?S:nvtype:
?S: This variable contains the C type used for Perl's NV.
?S:.
?S:i8type:
?S: This variable contains the C type used for Perl's I8.
?S:.
?S:u8type:
?S: This variable contains the C type used for Perl's U8.
?S:.
?S:i16type:
?S: This variable contains the C type used for Perl's I16.
?S:.
?S:u16type:
?S: This variable contains the C type used for Perl's U16.
?S:.
?S:i32type:
?S: This variable contains the C type used for Perl's I32.
?S:.
?S:u32type:
?S: This variable contains the C type used for Perl's U32.
?S:.
?S:i64type:
?S: This variable contains the C type used for Perl's I64.
?S:.
?S:u64type:
?S: This variable contains the C type used for Perl's U64.
?S:.
?S:ivsize:
?S: This variable is the size of an IV in bytes.
?S:.
?S:uvsize:
?S: This variable is the size of a UV in bytes.
?S:.
?S:i8size:
```

?S: This variable is the size of an I8 in bytes.  
?S:.  
?S:u8size:  
?S: This variable is the size of an U8 in bytes.  
?S:.  
?S:i16size:  
?S: This variable is the  
size of an I16 in bytes.  
?S:.  
?S:u16size:  
?S: This variable is the size of an U16 in bytes.  
?S:.  
?S:i32size:  
?S: This variable is the size of an I32 in bytes.  
?S:.  
?S:u32size:  
?S: This variable is the size of an U32 in bytes.  
?S:.  
?S:i64size:  
?S: This variable is the size of an I64 in bytes.  
?S:.  
?S:u64size:  
?S: This variable is the size of an U64 in bytes.  
?S:.  
?S:nvsize:  
?S: This variable is the size of a Perl NV in bytes.  
?S: Note that some floating point formats have unused bytes.  
?S:.  
?S:d\_nv\_preserves\_uv:  
?S: This variable indicates whether a variable of type nvtype  
?S: can preserve all the bits a variable of type uvtype.  
?S:.  
?S:nv\_preserves\_uv\_bits:  
?S: This variable indicates how many of bits type uvtype  
?S: a variable nvtype can preserve.  
?S:.  
?S:nv\_overflows\_integers\_at:  
?S: This variable gives the largest integer value that NVs can hold  
?S: as a constant floating point expression.  
?S: If it could not be determined, it holds the value 0.  
?S:.  
?S:d\_nv\_zero\_is\_allbits\_zero:  
?S: This  
variable indicates whether a variable of type nvtype  
?S: stores 0.0 in memory as all bits zero.  
?S:.  
?C:IVTYPE:  
?C: This symbol defines the C type used for Perl's IV.

?C:  
?C:UVTYPE:  
?C: This symbol defines the C type used for Perl's UV.  
?C:  
?C:I8TYPE:  
?C: This symbol defines the C type used for Perl's I8.  
?C:  
?C:U8TYPE:  
?C: This symbol defines the C type used for Perl's U8.  
?C:  
?C:I16TYPE:  
?C: This symbol defines the C type used for Perl's I16.  
?C:  
?C:U16TYPE:  
?C: This symbol defines the C type used for Perl's U16.  
?C:  
?C:I32TYPE:  
?C: This symbol defines the C type used for Perl's I32.  
?C:  
?C:U32TYPE:  
?C: This symbol defines the C type used for Perl's U32.  
?C:  
?C:I64TYPE:  
?C: This symbol defines the C type used for Perl's I64.  
?C:  
?C:U64TYPE:  
?C: This symbol defines the C type used for Perl's U64.  
?C:  
?C:NVTYPE:  
?C: This symbol defines the C type used for Perl's NV.  
?C:  
?C:IVSIZE:  
?C: This symbol contains the sizeof(IV).  
?C:  
?C:UVSIZE:  
?C: This symbol contains the  
sizeof(UV).  
?C:  
?C:I8SIZE:  
?C: This symbol contains the sizeof(I8).  
?C:  
?C:U8SIZE:  
?C: This symbol contains the sizeof(U8).  
?C:  
?C:I16SIZE:  
?C: This symbol contains the sizeof(I16).  
?C:  
?C:U16SIZE:

?C: This symbol contains the sizeof(U16).

?C:.

?C:I32SIZE:

?C: This symbol contains the sizeof(I32).

?C:.

?C:U32SIZE:

?C: This symbol contains the sizeof(U32).

?C:.

?C:I64SIZE:

?C: This symbol contains the sizeof(I64).

?C:.

?C:U64SIZE:

?C: This symbol contains the sizeof(U64).

?C:.

?C:NVSIZE:

?C: This symbol contains the sizeof(NV).

?C: Note that some floating point formats have unused bytes.

?C: The most notable example is the x86\* 80-bit extended precision

?C: which comes in byte sizes of 12 and 16 (for 32 and 64 bit

?C: platforms, respectively), but which only uses 10 bytes.

?C: Perl compiled with -Duselongdouble on x86\* is like this.

?C:.

?C:NV\_PRESERVES\_UV:

?C: This symbol, if defined, indicates that a variable of type NVTYPE

?C: can preserve all the bits of a variable of type UVTYPE.

?C:.

?C:NV\_PRESERVES\_UV\_BITS:

?C: This

symbol contains the number of bits a variable of type NVTYPE

?C: can preserve of a variable of type UVTYPE.

?C:.

?C:NV\_OVERFLOWES\_INTEGERS\_AT:

?C: This symbol gives the largest integer value that NVs can hold. This

?C: value + 1.0 cannot be stored accurately. It is expressed as constant

?C: floating point expression to reduce the chance of decimal/binary

?C: conversion issues. If it can not be determined, the value 0 is given.

?C:.

?C:NV\_ZERO\_IS\_ALLBITS\_ZERO:

?C: This symbol, if defined, indicates that a variable of type NVTYPE

?C: stores 0.0 in memory as all bits zero.

?C:.

?H:#define IVTYPE \$ivtype /\*\*/

?H:#define UVTYPE \$uvtype /\*\*/

?H:#define I8TYPE \$i8type /\*\*/

?H:#define U8TYPE \$u8type /\*\*/

?H:#define I16TYPE \$i16type /\*\*/

?H:#define U16TYPE \$u16type /\*\*/

?H:#define I32TYPE \$i32type /\*\*/

```

?H:#define U32TYPE $u32type /**/
?H:?%<:#ifdef HAS_QUAD
?H:?%<:#define I64TYPE $i64type /**/
?H:?%<:#define U64TYPE $u64type /**/
?H:?%<:#endif
?H:#define NVTYPE $nvtype /**/
?H:#define IVSIZE $ivsize /**/
?H:#define UVSIZE $uvsize /**/
?H:#define I8SIZE $i8size /**/
?H:#define U8SIZE $u8size /**/
?H:#define I16SIZE $i16size /**/
?H:#define U16SIZE $u16size /**/
?H:#define I32SIZE $i32size /**/
?H:#define U32SIZE $u32size /**/
?H:?%<:#ifdef
HAS_QUAD
?H:?%<:#define I64SIZE $i64size /**/
?H:?%<:#define U64SIZE $u64size /**/
?H:?%<:#endif
?H:#define NVSIZE $nvsize /**/
?H:$d_nv_preserves_uv NV_PRESERVES_UV
?H:#define NV_PRESERVES_UV_BITS $nv_preserves_uv_bits
?H:#define NV_OVERFLOWS_INTEGERS_AT ($nv_overflows_integers_at)
?H:$d_nv_zero_is_allbits_zero NV_ZERO_IS_ALLBITS_ZERO
?H:?%<:#if UVSIZE == 8
?H:?%<:# ifdef BYTEORDER
?H:?%<:# if BYTEORDER == 0x1234
?H:?%<:# undef BYTEORDER
?H:?%<:# define BYTEORDER 0x12345678
?H:?%<:# else
?H:?%<:# if BYTEORDER == 0x4321
?H:?%<:# undef BYTEORDER
?H:?%<:# define BYTEORDER 0x87654321
?H:?%<:#
endif
?H:?%<:# endif
?H:?%<:# endif
?H:?%<:#endif
?H:.
?T:xxx
?T:d
?F:!try
: Check basic sizes
echo " "
$echo "Choosing the C types to be used for Perl's internal types..." >&4

case "$use64bitint:$d_quad:$quadtype" in
define:define:?)

```

```
ivtype="$quadtype"
uvtype="$uquadtype"
ivsize=8
uvsize=8
;;
*) ivtype="long"
uvtype="unsigned long"
ivsize=$longsize
uvsize=$longsize
;;
esac
```

```
case "$uselongdouble:$d_longdbl" in
define:define)
nvtype="long double"
nvsize=$longdblsize
;;
*) nvtype=double
nvsize=$doublesize
;;
esac
```

```
case "$usequadmath:$i_quadmath" in
define:define)
nvtype="__float128"
nvsize=16
case "$libs" in
quadmath) ;;
*) $cat <<EOM >&4
```

```
*** You requested the use of the quadmath library, but you
*** do not seem to have the quadmath library installed.
*** Cannot continue, aborting.
```

```
EOM
 exit 1
 ;;
esac
;;
define:*) $cat <<EOM >&4
```

```
*** You requested the use of the quadmath library, but you
*** do not seem to have the required header, <quadmath.h>.
```

```
EOM
 case "$gccversion" in
 [23].*[4.[0-5]*)
 $cat <<EOM >&4
 *** Your gcc looks a bit old:
 *** $gccversion
```

```

EOM
;;
")
$cat <<EOM >&4
*** You are not running a gcc.
EOM
;;
esac
$cat <<EOM >&4
*** For the quadmath library you need at least gcc 4.6.
*** Cannot continue, aborting.
EOM
exit 1
;;
esac

```

```

$echo "(IV will be "$ivtype", $ivsize bytes)"
$echo "(UV will be "$uvtype", $uvsize bytes)"
$echo "(NV will be "$nvtype", $nvsize bytes)"

```

```

$cat >try.c <<EOCP
#i_inttypes I_INTTYPES
#ifdef I_INTTYPES
#include <inttypes.h>
#endif
#include <stdio.h>
int main() {
#ifdef INT8
 int8_t i = INT8_MAX;
 uint8_t u = UINT8_MAX;
 printf("int8_t\n");
#endif
#ifdef INT16
 int16_t i = INT16_MAX;
 uint16_t u = UINT16_MAX;
 printf("int16_t\n");
#endif
#ifdef INT32
 int32_t i = INT32_MAX;
 uint32_t u = UINT32_MAX;
 printf("int32_t\n");
#endif
}
EOCP

```

```

i8type="signed char"
u8type="unsigned char"
i8size=1

```

```
u8size=1
```

```
case "$i16type" in
") case "$shortsize" in
2) i16type=short
u16type="unsigned
short"
i16size=$shortsize
u16size=$shortsize
;;
esac
;;
esac
case "$i16type" in
") set try -DINT16
if eval $compile; then
case "$run ./try`" in
int16_t)
i16type=int16_t
u16type=uint16_t
i16size=2
u16size=2
;;
esac
fi
;;
esac
case "$i16type" in
") if $test $shortsize -ge 2; then
i16type=short
u16type="unsigned short"
i16size=$shortsize
u16size=$shortsize
fi
;;
esac
```

```
case "$i32type" in
") case "$longsize" in
4) i32type=long
u32type="unsigned long"
i32size=$longsize
u32size=$longsize
;;
*) case "$intsize" in
4) i32type=int
u32type="unsigned int"
i32size=$intsize
```



```

 u32size=$intsize
 ;;
esac
;;
esac
;;
esac
case "$i32type" in
") set try -DINT32
if eval $compile; then
 case "`$run ./try`" in
 int32_t)
 i32type=int32_t
 u32type=uint32_t
 i32size=4
 u32size=4
 ;;
 esac
fi
;;
esac
case "$i32type" in
") if $test $intsize -ge 4; then
 i32type=int
 u32type="unsigned int"
 i32size=$intsize
 u32size=$intsize
fi
;;
esac

case
"$i64type" in
") case "$d_quad:$quadtype" in
define:?)
 i64type="$quadtype"
 u64type="$uquadtype"
 i64size=8
 u64size=8
 ;;
esac
;;
esac

$echo "Checking how many bits of your UVs your NVs can preserve..." >&4
$cat <<EOP >try.c
#include <stdio.h>
#$i_stdlib I_STDLIB

```

```

#ifndef I_STDLIB
#include <stdlib.h>
#endif
#include <sys/types.h>
#include <signal.h>
#ifdef SIGFPE
/* volatile so that the compiler has to store it out to memory */
volatile int bletched = 0;
$signal_t blech(int s) { bletched = 1; }
#endif
int main() {
 $svtype u = 0;
 $nvtype d;
 int n = 8 * $svsize;
 int i;
#ifdef SIGFPE
 signal(SIGFPE, blech);
#endif

 for (i = 0; i < n; i++) {
 u = u << 1 | ($svtype)1;
 d = ($nvtype)u;
 if (($svtype)d != u)
 break;
 if (d <= 0)
 break;
 d = ($nvtype)(u - 1);
 if (($svtype)d != (u - 1))
 break;
#ifdef SIGFPE
 if (bletched)
 break;
#endif
 }
 printf("%d\n",
((i == n) ? -n : i));
 exit(0);
}
EOP
set try

d_nv_preserves_uv="$undef"
if eval $compile; then
 nv_preserves_uv_bits="$run ./try`"
fi
case "$nv_preserves_uv_bits" in
\[1-9]*)
 nv_preserves_uv_bits=`expr 0 - $nv_preserves_uv_bits`

```

```

$echo "Your NVs can preserve all $nv_preserves_uv_bits bits of your UVs." 2>&1
d_nv_preserves_uv="$define"
;;
[1-9]*) $echo "Your NVs can preserve only $nv_preserves_uv_bits bits of your UVs." 2>&1
d_nv_preserves_uv="$undef" ;;
*) $echo "Can't figure out how many bits your NVs preserve." 2>&1
nv_preserves_uv_bits="0" ;;
esac
$rm_try

```

```

$echo "Checking to find the largest integer value your NVs can hold..." >&4
$cat <<EOP>try.c
#include <stdio.h>

```

```

typedef $nvtype NV;

int
main() {
 NV value = 2;
 int count = 1;

 while(count < 256) {
 /* volatile so that the compiler has to store it out to memory */
 volatile NV up = value + 1.0;
 volatile NV negated = -value;
 volatile NV down = negated - 1.0;
 volatile NV got_up = up
 - value;
 int up_good = got_up == 1.0;
 int got_down = down - negated;
 int down_good = got_down == -1.0;

 if (down_good != up_good) {
 fprintf(stderr,
 "Inconsistency - up %d %f; down %d %f; for 2**%d (%.20f)\n",
 up_good, (double) got_up, down_good, (double) got_down,
 count, (double) value);
 return 1;
 }
 if (!up_good) {
 while (1) {
 if (count > 8) {
 count -= 8;
 fputs("256.0", stdout);
 } else {
 count--;
 fputs("2.0", stdout);
 }
 }
 }
 }
}

```

```

if (!count) {
 puts("");
 return 0;
}
fputs("!", stdout);
}
}
value *= 2;
++count;
}
fprintf(stderr, "Cannot overflow integer range, even at 2**%d (%.20f)\n",
 count, (double) value);
return 1;
}
EOP
set try

```

```
nv_overflows_integers_at='0'
```

```
if eval $compile; then
```

```
 xxx="$run ./try`"
```

```
 case "$?" in
```

```
0)
```

```
 case "$xxx" in
```

```
2*) cat >&4 <<EOM
```

The largest integer your NVs can preserve is equal to \$xxx

```
EOM
```

```
 nv_overflows_integers_at="$xxx"
```

```
 ;;
```

```
*) cat
```

```
>&4 <<EOM
```

Cannot determine the largest integer value your NVs can hold, unexpected output

```
'$xxx'
```

```
EOM
```

```
 ;;
```

```
 esac
```

```
 ;;
```

```
*) cat >&4 <<EOM
```

Cannot determine the largest integer value your NVs can hold

```
EOM
```

```
 ;;
```

```
 esac
```

```
fi
```

```
$rm_try
```

```
$echo "Checking whether NV 0.0 is all bits zero in memory..." >&4
```

```
$cat <<EOP >try.c
```

```
#include <stdio.h>
```

```
#$i_stdlib I_STDLIB
```

```

#ifdef I_STDLIB
#include <stdlib.h>
#endif
#include <string.h>
#include <sys/types.h>
#include <signal.h>
#ifdef SIGFPE
/* volatile so that the compiler has to store it out to memory */
volatile int bletched = 0;
$signal_t blech(int s) { bletched = 1; }
#endif

int checkit($nvttype d, const char *where) {
 void *v = &d;
 unsigned char *p = (unsigned char *)v;
 unsigned char *end = p + sizeof(d);
 int fail = 0;

 while (p < end)
fail += *p++;

 if (!fail)
return 0;

 p = (unsigned char *)v;
 printf("No - %s: 0x", where);
 while (p < end)
printf ("%02X", *p++);
 printf("\n");
 return 1;
}

int
main(int argc, char **argv) {
 $nvttype d = 0.0;
 int fail = 0;
 fail += checkit(d, "0.0");

 /* The compiler shouldn't be assuming that bletched is 0 */
 d = bletched;

 fail += checkit(d, "bleched");

#ifdef SIGFPE
 signal(SIGFPE, blech);
#endif

 /* Paranoia - the compiler should have no way of knowing that ANSI says

```

```

 that argv[argc] will always be NULL. Actually, if it did assume this it
 would be buggy, as this is C and main() can be called from elsewhere in
 the program. */
d = argv[argc] ? 1 : 0;

if (d) {
printf("Odd argv[argc]=%p, d=%g\n", argv[argc], d);
}

fail += checkit(d, "ternary");

memset(&d, sizeof(d), argv[argc] ? 1 : 0);

if (d != 0.0) {
printf("No - memset doesn't give 0.0\n");
/* This might just blow up: */
printf("(gives %g)\n", d);
return 1;
}

#ifdef SIGFPE
 if (bletched) {
printf("No - something bleched\n");
return 1;
}
#endif
if (fail) {
 printf("No - %d fail(s)\n",
fail);
 return 1;
}
printf("Yes\n");
return 0;
}
EOP
set try

d_nv_zero_is_allbits_zero="$undef"
if eval $compile; then
 xxx="$run ./try`"
 case "$?" in
0)
 case "$xxx" in
Yes) cat >&4 <<EOM
0.0 is represented as all bits zero in memory
EOM
 d_nv_zero_is_allbits_zero="$define"
 ;;

```

```

*) cat >&4 <<EOM
0.0 is not represented as all bits zero in memory
EOM
 d_nv_zero_is_allbits_zero="$undef"
 ;;
 esac
 ;;
*) cat >&4 <<EOM
0.0 is not represented as all bits zero in memory
EOM
 d_nv_zero_is_allbits_zero="$undef"
 ;;
 esac
fi
$rm_try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/perl.v.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getservent\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_getservent\_r getservent\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
 usethreads i\_netdb extern\_C

?MAKE: -pick add \$@ %<

?S:d\_getservent\_r:

?S: This variable conditionally defines the HAS\_GETSERVENT\_R symbol,

?S: which indicates to the C program that the getservent\_r()

?S: routine is available.

?S:.

?S:getservent\_r\_proto:

?S: This variable encodes the prototype of getservent\_r.

?S: It is zero if d\_getservent\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getservent\_r

?S: is defined.

?S:.

?C:HAS\_GETSERVENT\_R:

?C: This symbol, if defined, indicates that the getservent\_r routine

?C: is

available to getservent re-entrantly.

?C:.

```

?C:GETSERVENT_R_PROTO:
?C: This symbol encodes the prototype of getservent_r.
?C: It is zero if d_getservent_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_getservent_r
?C: is defined.
?C:.
?H:#$d_getservent_r HAS_GETSERVENT_R /**/
?H:#define GETSERVENT_R_PROTO $getservent_r_proto /**/
?H:.
?T:try hdrs d_getservent_r_proto
: see if getservent_r exists
set getservent_r d_getservent_r
eval $inlibc
case "$d_getservent_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_netdb netdb.h"
case "$d_getservent_r_proto:$usetthreads" in
":define") d_getservent_r_proto=define
set d_getservent_r_proto getservent_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_getservent_r_proto" in
define)
case "$getservent_r_proto" in
"|0) try='int getservent_r(struct servent*, char*, size_t, struct servent**);'
./protochk "$extern_C $try" $hdrs && getservent_r_proto=I_SBWR ;;
esac
case "$getservent_r_proto"
in
"|0) try='int getservent_r(struct servent*, char*, int);'
./protochk "$extern_C $try" $hdrs && getservent_r_proto=I_SBI ;;
esac
case "$getservent_r_proto" in
"|0) try='struct servent* getservent_r(struct servent*, char*, int);'
./protochk "$extern_C $try" $hdrs && getservent_r_proto=S_SBI ;;
esac
case "$getservent_r_proto" in
"|0) try='int getservent_r(struct servent*, struct servent_data*);'
./protochk "$extern_C $try" $hdrs && getservent_r_proto=I_SD ;;
esac
case "$getservent_r_proto" in
"|0) d_getservent_r=undef
getservent_r_proto=0
echo "Disabling getservent_r, cannot determine prototype." >&4 ;;
*) case "$getservent_r_proto" in
REENTRANT_PROTO*) ;;
*) getservent_r_proto="REENTRANT_PROTO_$getservent_r_proto" ;;

```



```

esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetreads" in
define) echo "getservernt_r has no prototype, not using it." >&4 ;;
esac
d_getservernt_r=undef
getservernt_r_proto=0
;;
esac
;;
*) getservernt_r_proto=0
;;
esac

```

Found

in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_getservernt\_r.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: pidtype.U,v \$

?RCS: Revision 3.0.1.1 1994/08/29 16:31:27 ram

?RCS: patch32: now uses new Typedef unit to compute type information

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:33 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:pidtype: Myread Typedef

?MAKE: -pick add \$@ %<

?S:pidtype:

?S: This variable defines PIDTYPE to be something like pid\_t, int,

?S: ushort, or whatever type is used to declare process ids in the kernel.

?S:.

?C:Pid\_t (PIDTYPE):

?C: This symbol holds the type

used to declare process ids in the kernel.

?C: It can be int, uint, pid\_t, etc... It may be necessary to include

?C: <sys/types.h> to get any typedef'ed information.

?C:.

?H:#define Pid\_t \$pidtype /\* PID type \*/

?H:.

: see what type pids are declared as in the kernel

set pid\_t pidtype int stdio.h sys/types.h

eval \$typedef

dflt="\$pidtype"

echo " "

rp="What type are process ids on this system declared as?"

./myread

pidtype="\$ans"

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/pidtype.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: orderlib.U,v \$

?RCS: Revision 3.0.1.4 1997/02/28 16:18:18 ram

?RCS: patch61: replaced .a with \$\_a all over the place

?RCS: patch61: likewise for .o replaced by \$\_o

?RCS: patch61: now uses the ar located by Loc.U

?RCS:

?RCS: Revision 3.0.1.3 1995/01/11 15:33:04 ram

?RCS: patch45: allows hint files to specify their own value for 'ranlib'

?RCS:

?RCS: Revision 3.0.1.2 1994/10/29 16:26:48 ram

?RCS: patch36: now performs a real small compile for accurate checks (ADO)

?RCS:

?RCS: Revision 3.0.1.1

1994/08/29 16:31:17 ram

?RCS: patch32: use cc variable instead of hardwired 'cc' in 1st compile

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:26 ram

?RCS: Baseline for dist 3.0 netwide release.

```

?RCS:
?MAKE:orderlib ranlib: Loc ar cat test rm +cc +ccflags +ldflags +libs _a _o
?MAKE: -pick add $@ %<
?S:orderlib:
?S: This variable is "true" if the components of libraries must be ordered
?S: (with `lorder $* | tsort`) before placing them in an archive. Set to
?S: "false" if ranlib or ar can generate random libraries.
?S:.
?S:ranlib:
?S: This variable is set to the pathname of the ranlib program, if it is
?S: needed to generate random libraries. Set to ":" if ar can generate
?S: random libraries or if random libraries are not supported
?S:.
?F:!foobar
: see if ar generates random libraries by itself
echo " "
echo "Checking how to generate random libraries on your machine..." >&4
?X: Some systems (like MIPS) complain when running ar... Others like Ultrix
?X: need an explicit 'ar ts'
to add the table of contents.
?X: Still others like Linux run ar ts successfully, but still need ranlib.
?X: This set of tests seems the minimum necessary to check out Linux.
?X: We need to explicitly put the entries in out-of-order so that Sun's ld
?X: will fail. (Otherwise it complains, but gives an exit status of 0.)
echo 'int bar1() { return bar2(); }' > bar1.c
echo 'int bar2() { return 2; }' > bar2.c
$cat > foo.c <<'EOP'
int main() { printf("%d\n", bar1()); exit(0); }
EOP
$cc $ccflags -c bar1.c >/dev/null 2>&1
$cc $ccflags -c bar2.c >/dev/null 2>&1
$cc $ccflags -c foo.c >/dev/null 2>&1
$ar rc bar$_a bar2$_o bar1$_o >/dev/null 2>&1
if $cc $ccflags $ldflags -o foobar foo$_o bar$_a $libs >/dev/null 2>&1 &&
./foobar >/dev/null 2>&1; then
echo "ar appears to generate random libraries itself."
orderlib=false
ranlib=":"
elif $ar ts bar$_a >/dev/null 2>&1 &&
$cc $ccflags $ldflags -o foobar foo$_o bar$_a $libs >/dev/null 2>&1 &&
./foobar >/dev/null 2>&1; then
echo "a table of contents
needs to be added with 'ar ts'."
orderlib=false
ranlib="$ar ts"
else
?X: Allow hints to specify their own ranlib "script". For instance, on
?X: some NeXT machines, the timestamp put by ranlib is not correct, and this

```

?X: may raise tedious recompiles for nothing. Therefore, NeXT may add the

?X: ranlib='sleep 5; /bin/ranlib' line in their hints to "fix" that.

?X: (reported by Andreas Koenig <k@franz.ww.tu-berlin.de>)

```
case "$ranlib" in
:) ranlib=";;
")
ranlib=`./loc ranlib X /usr/bin /bin /usr/local/bin`
$test -f $ranlib || ranlib="
;;
esac
if $test -n "$ranlib"; then
echo "your system has '$ranlib'; we'll use that."
orderlib=false
else
echo "your system doesn't seem to support random libraries"
echo "so we'll use lorder and tsort to order the libraries."
orderlib=true
ranlib=":"
fi
fi
$rm -f foo* bar*
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/orderlib.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_memset.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_memset.U,v \$

?RCS: Revision 3.0.1.1 1993/09/13 16:03:11 ram

?RCS: patch10: removed text recommending bzero over memset (WAD)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:06:36 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_memset: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_memset:

?S: This variable conditionally defines the HAS\_MEMSET symbol, which

?S: indicates to the C program that the memset() routine is available

?S: to set blocks of memory.

?S:.

?C:HAS\_MEMSET

(MEMSET):

?C: This symbol, if defined, indicates that the memset routine is available

?C: to set blocks of memory.

?C:.

?H:#\$d\_memset HAS\_MEMSET /\*\*/

?H:.

?LINT:set d\_memset

: see if memset exists

set memset d\_memset

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_memset.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_gethbynm.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_gethbynm.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:08 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_gethbyname: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_gethbyname (d\_gethbynm d\_gethstby):

?S: This variable conditionally defines the HAS\_GETHOSTBYNAME symbol, which

?S: indicates to the C program that the gethostbyname() routine is available

?S: to look up host names in some data base or other.

?S:.

?C:HAS\_GETHOSTBYNAME (GETHOSTBYNAME):

?C: This

symbol, if defined, indicates that the gethostbyname() routine is

?C: available to look up host names in some data base or other.

?C:.

?H:#\$d\_gethbyname HAS\_GETHOSTBYNAME /\*\*/

?H:.

```
?LINT:set d_gethbyname
: see if gethostbyname exists
set gethostbyname d_gethbyname
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_gethbynm.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
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?RCS: as specified in the README file that comes with the distribution.
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```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: Original Author: Thomas Neumann <tom@smart.bo.open.de>
```

```
?RCS:
```

```
?RCS: $Log: Findhdr.U,v $
```

```
?RCS: Revision 3.0.1.2 1994/10/29 15:53:08 ram
```

```
?RCS: patch36: added ?F: line for metalint file checking
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.1 1994/05/06 14:03:56 ram
```

```
?RCS: patch23: cppminus must be after other cppflags, not before
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:04:54 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?X:
```

```
?X: This unit produces a findhdr script which is used to locate the header
```

```
?X: files
```

```
in $usrinc or other stranger places using cpp capabilities. The
```

```
?X: script is given an include file base name, like 'stdio.h' or 'sys/file.h'
```

```
?X: and it returns the full path of the include file and a zero status or an
```

```
?X: empty string with an error status if the file could not be located.
```

```
?X:
```

```
?MAKE:Findhdr: grep test tr rm +usrinc awk cat startsh \
```

```
cppstdin cppminus +cppflags eunicefix osname
```

```
?MAKE: -pick add $@ %<
```

```
?LINT:define fieldn
```

```
?S:fieldn:
```

```
?S: This variable is used internally by Configure. It contains the position
```

```
?S: of the included file name in cpp output. That is to say, when cpp
```

```
?S: pre-processes a #include <file> line, it replaces it by a # line which
```

```

?S: contains the original position in the input file and the full name of
?S: included file, between "quotes".
?S:.
?V:fieldn
?F:./findhdr !fieldn
?T:cline pos wanted name awkprg cppfilter testaccess status usrincdir
: determine filename position in cpp output
echo " "
echo "Computing filename position in cpp output for #include
directives..." >&4
echo '#include <stdio.h>' > foo.c
case "$osname" in
vos)
testaccess=-e
?X: VOS: path component separator is >
cppfilter="tr '\\\\>' '/' |"
;;
*)
testaccess=-r
cppfilter="
;;
esac
$cat >fieldn <<EOF
$startsh
$cppstdin $cppflags $cppminus <foo.c 2>/dev/null | \
$grep '^[]*#.*stdio.h'| \
while read cline; do
pos=1
set $cline
while $test $# -gt 0; do
if $test $testaccess `echo $1 | $tr -d ""`; then
echo "$pos"
exit 0
fi
shift
pos=`expr $pos + 1`
done
done
EOF
chmod +x fieldn
fieldn=`./fieldn`
$rm -f foo.c fieldn
case $fieldn in
") pos='???';;
1) pos=first;;
2) pos=second;;
3) pos=third;;
*) pos="{fieldn}th";;

```

```

esac
echo "Your cpp writes the filename in the $pos field of the line."

?X: To locate a header file, we cannot simply check for $usrinc/file.h, since
?X: some machine have the headers in weird places and our only hope is that
?X: the C pre-processor will know how to find those headers. Thank you Next!
: locate header file
$cat
>findhdr <<EOF
$startsh
wanted=\$1
name=""
for usrincdir in $usrinc; do
if test -f \$usrincdir/\$wanted; then
echo "\$usrincdir/\$wanted"
exit 0
fi
done
awkprg='{ print \$$fieldn }'
echo "#include < \$wanted >" > foo\$\$.c
$cpptest $cpptestminus $cppflags < foo\$\$.c 2>/dev/null | \
$cppfilter $grep "^ []*#.*\$wanted" | \
while read cline; do
name=\echo \$cline | $awk "\$awkprg" | $tr -d ""\`
case "\$name" in
*[\|\\\]\$wanted) echo "\$name"; exit 1;;
*[\|\\\]\$wanted) echo "\$name"; exit 1;;
*) exit 2;;
esac
done
?X: status = 0: grep returned 0 lines, case statement not executed
?X: status = 1: headerfile found
?X: status = 2: while loop executed, no headerfile found
status=\$?
$rm -f foo\$\$.c
if test \$status -eq 1; then
exit 0
fi
exit 1
EOF
chmod +x findhdr
$seunicefix findhdr

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Findhdr.U
```

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```
?RCS: $Id: i_dld.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: i_dld.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:20:07 ram
?RCS: patch36: created by ADO
?RCS:
?MAKE:i_dld: Inhdr
?MAKE: -pick add $@ %<
?S:i_dld:
?S: This variable conditionally defines the I_DLD symbol, which
?S: indicates to the C program that <dld.h> (GNU dynamic loading)
?S: exists and should be included.
?S:.
?C:I_DLD:
?C: This symbol, if defined, indicates that <dld.h>
exists and should
?C: be included before using GNU dynamic loading features.
?C:.
?H:#$i_dld I_DLD /**/
?H:.
?LINT:set i_dld
: see if dld is available
set dld.h i_dld
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_dld.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: libflex.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: libflex.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 15:57:48 ram

?RCS: patch61: replaced .a with \$\_a all over the place

?RCS:

?RCS: Revision 3.0.1.2 1994/05/06 15:07:02 ram

?RCS: patch23: now uses full library path instead of -l notation

?RCS:

?RCS: Revision 3.0.1.1 1994/01/24 14:13:25 ram

?RCS: patch16: un-obsolete this unit to allow smooth lex/flex compilations

?RCS:

?RCS: Revision 3.0 1993/08/18 12:08:59 ram

?RCS: Baseline for dist 3.0 netwide  
release.

?RCS:

?MAKE:libflex: Loc lex libpth \_a

?MAKE: -pick add \$@ %<

?S:libflex:

?S: This variable contains the argument to pass to the loader in order  
?S: to get the flex/lex library routines. If there is no flex or flex  
?S: library, it is null.

?S:.

?T:xxx

: see if we should include -fl

echo " "

case "\$lex" in

\*flex)

xxx=`./loc libfl\$\_a x \$libpth`

case "\$xxx" in

x)

echo "No flex library found." >&4

libflex="

::

\*)

echo "flex library found in \$xxx." >&4

libflex="\$xxx"

::

esac

::

\*lex)

xxx=`./loc libl\$\_a x \$libpth`

case "\$xxx" in

x)

echo "No lex library found." >&4

libflex="

::

\*)

```

echo "lex library found in $xxx." >&4
libflex="$xxx"
;;
esac
;;
*)
echo "You don't seem to have lex or flex, so I won't look for libraries." >&4
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/libflex.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_mbstowcs.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_mbstowcs.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:29 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_mbstowcs: Inlibc
?MAKE: -pick add $@ %<
?S:d_mbstowcs:
?S: This variable conditionally defines the HAS_MBSTOWCS symbol, which
?S: indicates to the C program that the mbstowcs() routine is available
?S: to convert a multibyte string into a wide character string.
?S:.
?C:HAS_MBSTOWCS (MBSTOWCS):
?C: This symbol, if defined, indicates
?C: that the mbstowcs routine is
?C: available to convert a multibyte string into a wide character string.
?C:.
?H:#$d_mbstowcs HAS_MBSTOWCS /**/
?H:.
?LINT:set d_mbstowcs
: see if mbstowcs exists
set mbstowcs d_mbstowcs
eval $inlibc

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_mbstowcs.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_dlerror.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_dlerror.U,v \$

?RCS: Revision 3.0.1.2 1995/07/25 13:52:49 ram

?RCS: patch56: force compile-link test since symbol might lie in crt0.o (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/10/29 16:11:23 ram

?RCS: patch36: created by ADO

?RCS:

?MAKE:d\_dlerror: Inlibc runnm

?MAKE: -pick add \$@ %<

?S:d\_dlerror:

?S: This variable conditionally defines the HAS\_DLERROR symbol, which

?S: indicates

to the C program that the dlerror() routine is available.

?S:.

?C:HAS\_DLERROR :

?C: This symbol, if defined, indicates that the dlerror routine is

?C: available to return a string describing the last error that

?C: occurred from a call to dlopen(), dlclose() or dlsym().

?C:.

?H:#\$d\_dlerror HAS\_DLERROR /\*\*/

?H:.

?T: xxx\_runnm

?LINT:set d\_dlerror

?X: We don't permanently change runnm, but we do temporarily.

?LINT: change runnm

: see if dlerror exists

?X: On NetBSD and FreeBSD, dlerror might be available, but it is in

?X: /usr/lib/crt0.o, not in any of the libraries. Therefore, do not

?X: use the nm extraction, but use a real compile and link test instead.

xxx\_runnm="\$runnm"

runnm=false

```
set dlerror d_dlerror
eval $inlibc
runnm="$xxx_runnm"
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_dlerror.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

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?RCS:

?RCS: \$Log: lseektype.U,v \$

?RCS: Revision 3.0.1.1 1994/08/29 16:30:10 ram

?RCS: patch32: now uses new Typedef unit to compute type information

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:08 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:lseektype: Myread Typedef

?MAKE: -pick add \$@ %<

?S:lseektype:

?S: This variable defines lseektype to be something like off\_t, long,

?S: or whatever type is used to declare lseek offset's type in the

?S: kernel (which also appears to be lseek's return type).

?S:.

?C:Off\_t

(LSEEKTYPE):

?C: This symbol holds the type used to declare offsets in the kernel.

?C: It can be int, long, off\_t, etc... It may be necessary to include

?C: <sys/types.h> to get any typedef'ed information.

?C:.

?H:#define Off\_t \$lseektype /\* <offset> type \*/

?H:.

: see what type lseek is declared as in the kernel

```
set off_t lseektype long stdio.h sys/types.h
```

```
eval $typedef
```

```
echo " "
```

```
dflt="$lseektype"
```

```
rp="What type is lseek's offset on this system declared as?"
```

```
./myread
```

lseektype="\$ans"

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/lseektype.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000, Jarkko Hietaniemi

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?RCS: You may reuse parts of this distribution only within the terms of

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:need\_va\_copy: rm\_try cat Compile run

?MAKE: -pick add \$@ %<

?S:need\_va\_copy:

?S: This symbol, if defined, indicates that the system stores

?S: the variable argument list datatype, va\_list, in a format

?S: that cannot be copied by simple assignment, so that some

?S: other means must be used when copying is required.

?S: As such systems vary in their provision (or non-provision)

?S: of copying mechanisms, handy.h defines a platform-

?S: independent macro, Perl\_va\_copy(src, dst), to do the job.

?S:.

?C:NEED\_VA\_COPY:

?C: This

symbol, if defined, indicates that the system stores

?C: the variable argument list datatype, va\_list, in a format

?C: that cannot be copied by simple assignment, so that some

?C: other means must be used when copying is required.

?C: As such systems vary in their provision (or non-provision)

?C: of copying mechanisms, handy.h defines a platform-

?C: independent macro, Perl\_va\_copy(src, dst), to do the job.

?C:.

?H:#\$need\_va\_copy NEED\_VA\_COPY /\*\*/

?H:.

?T:okay

?F:!try

: see if we need va\_copy

echo " "

\$cat >try.c <<EOCP

#include <stdarg.h>

#include <stdio.h>

#include <stdlib.h>

```

#include <signal.h>

int
ivfprintf(FILE *f, const char *fmt, va_list *valp)
{
 return vfprintf(f, fmt, *valp);
}

int
myvfprintf(FILE *f, const char *fmt, va_list val)
{
 return ivfprintf(f, fmt, &val);
}

int
myprintf(char *fmt, ...)
{
 va_list val;
 va_start(val, fmt);
 return myvfprintf(stdout, fmt, val);
}

int
main(int ac, char **av)
{
 signal(SIGSEGV, exit);

 myprintf("%s%s all right, then\n",
 "that", "\");
 exit(0);
}
EOCP
set try
if eval $compile && $run ./try 2>&1 >/dev/null; then
case "`$run ./try`" in
 "that's all right, then")
 okay=yes
 ;;
 esac
fi
case "$okay" in
 yes) echo "It seems that you don't need va_copy()." >&4
 need_va_copy="$undef"
 ;;
 *) echo "It seems that va_copy() or similar will be needed." >&4
 need_va_copy="$define"
 ;;
 esac

```

\$rm\_try

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/need\_va\_copy.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_shadow.U,v \$

?RCS:

?RCS: Copyright (c) 1998 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:i\_shadow: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_shadow:

?S: This variable conditionally defines the I\_SHADOW symbol, and indicates

?S: whether a C program should include <shadow.h>.

?S:.

?C:I\_SHADOW:

?C: This symbol, if defined, indicates that <shadow.h> exists and

?C: should be included.

?C:.

?H:#\$i\_shadow I\_SHADOW /\*\*/

?H:.

?LINT:set i\_shadow

: see if this is a shadow.h system

set shadow.h i\_shadow

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_shadow.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS:

?RCS: \$Log: randfunc.U,v \$

?RCS: Revision 3.0 1993/08/18 12:09:39 ram



?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This is the new unit that should be used when random  
 ?X: functions are to be used. It thus makes randbits.U obsolete.

?X:

?MAKE:randfunc mrand seedfunc nrandbits: cat +cc rm test Myread Csym

?MAKE: -pick add \$@ %<

?S:randfunc:

?S: Indicates the name of the random number function to use.

?S: Values include drand48, random, and rand. In C programs,  
 ?S: the 'nrand' macro is defined  
 to generate uniformly distributed  
 ?S: random numbers over the range [0., 1.] (see mrand and nrand).

?S:.

?S:mrand:

?S: Indicates the macro to be used to generate normalized  
 ?S: random numbers. Uses randfunc, often divided by  
 ?S: (double) ((1 << nrandbits) -1) in order to normalize the result.  
 ?S: In C programs, the macro 'nrand' is mapped on mrand.

?S:.

?S:seedfunc:

?S: Indicates the random number generating seed function.

?S: Values include srand48, srandom, and srand.

?S:.

?S:nrandbits:

?S: Indicates how many bits are produced by the function used to  
 ?S: generate normalized random numbers.

?S:.

?C:nrand:

?C: This macro is to be used to generate uniformly distributed  
 ?C: random numbers over the range [0., 1.].

?C:.

?C:seednrand:

?C: This symbol defines the macro to be used in seeding the  
 ?C: random number generator (see nrand).

?C:.

?H:#define nrand() \$mrand /\*\*/  
 ?H:#define seednrand(x) \$seedfunc(x) /\*\*/  
 ?H:.

?T:cont val

?LINT:nothere \$nrandbits)

: How can we generate normalized  
 random numbers ?  
 echo " "  
 case "\$randfunc" in  
 ")  
 if set drand48 val -f; eval \$csym; \$val; then

```

dflt="drand48"
echo "Good, found drand48()." >&4
elif set random val -f; eval $csym; $val; then
dflt="random"
echo "OK, found random()." >&4
else
dflt="rand"
echo "Yick, looks like I have to use rand()." >&4
fi
echo " "
;;
*)
dflt="$randfunc"
;;
esac
cont=true
while $test "$cont"; do
rp="Use which function to generate random numbers?"
./myread
?X: Invalidates nrandbits if the answer is not the default so
?X: that the value stored in config.sh will not be used when
?X: we change our random function.
if $test "$ans" = "$dflt"; then
: null
else
nrandbits="
fi
randfunc="$ans"
if set $ans val -f; eval $csym; $val; then
cont="
else
dflt=n
rp="Function $ans does not exists. Use that name anyway?"
./myread
dflt=rand
case "$ans" in
[yY]*) cont=";;
esac
fi
case "$cont" in
")
case "$randfunc" in
drand48)
mrand="drand48()"
seedfunc="srand48"
;;
rand*)
case

```

```

"$nrandbits" in
)
echo "Checking to see how many bits your $randfunc() function produces..." >&4
$cat >try.c <<EOCP
#include <stdio.h>
int main()
{
register int i;
register unsigned long tmp;
register unsigned long max = 0L;
extern long random();

for (i = 1000; i; i--) {
tmp = (unsigned long)$randfunc();
if (tmp > max) max = tmp;
}
for (i = 0; max; i++)
max /= 2;
printf("%d\n",i);
}
EOCP
if $cc -o try try.c >/dev/null 2>&1 ; then
dflt=`try`
else
dflt=?
echo "(I can't seem to compile the test program...)"
fi
;;
*)
dflt="$nrandbits"
;;
esac
rp="How many bits does your $randfunc() function produce?"
./myread
nrandbits="$ans"
$rm -f try.c try
mrand="($randfunc() / (double) ((1 << $nrandbits) -1))"
seedfunc="srand"
;;
?X: The following is provided just in case...
*)
dflt="31"
rp="How many bits does your $randfunc() function produce?"
./myread
nrandbits="$ans"
seedfunc="s$randfunc"
mrand="($randfunc()

```

```

/ (double) ((1 << $nrandbits) - 1))"
if set $seedfunc val -f; eval $sym; $val; then
 echo "(Using $seedfunc() to seed random generator)"
else
 echo "(Warning: no $seedfunc() to seed random generator)"
 seedfunc=rand
fi
;;
esac
;;
esac
done

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/randfunc.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_flock.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_flock.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:05 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_flock: Inlibc
?MAKE: -pick add $@ %<
?S:d_flock:
?S: This variable conditionally defines HAS_FLOCK if flock() is
?S: available to do file locking.
?S:.
?C:HAS_FLOCK (FLOCK):
?C: This symbol, if defined, indicates that the flock routine is
?C: available to do file locking.
?C:.
?H:#$d_flock HAS_FLOCK /**/
?H:.
?LINT:set d_flock
: see
if flock exists
set flock d_flock

```

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_flock.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_memccpy.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_memccpy.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:31 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_memccpy: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_memccpy:

?S: This variable conditionally defines the HAS\_MEMCCPY symbol, which

?S: indicates to the C program that the memccpy() routine is available

?S: to copy a character into a block of memory.

?S:.

?C:HAS\_MEMCCPY (MEMCCPY):

?C: This symbol, if defined, indicates that the memccpy routine  
is available

?C: to copy a character into a block of memory. Otherwise you should

?C: roll your own.

?C:.

?H:#\$d\_memccpy HAS\_MEMCCPY /\*\*/

?H:.

?LINT:set d\_memccpy

: see if memccpy exists

set memccpy d\_memccpy

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_memccpy.U

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?RCS: \$Id: i\_poll.U,v \$

?RCS:

?RCS: Copyright (c) 1998 Jarkko Hietaniemi  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:i\_poll: Inhdr Hasfield  
?MAKE: -pick add \$@ %<  
?S:i\_poll:  
?S: This variable conditionally defines the I\_POLL symbol, and indicates  
?S: whether a C program should include <poll.h>.  
?S:.  
?C:I\_POLL:  
?C: This symbol, if defined, indicates that <poll.h> exists and  
?C: should be included. (see also HAS\_POLL)  
?C:.  
?H:#\$i\_poll I\_POLL /\*\*/  
?H:.  
?LINT:set i\_poll  
: see if this is a poll.h system  
set poll.h i\_poll  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_poll.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Copyright (c) 1998 Andy Dougherty  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?RCS:  
?X:  
?X: This unit is just a quick shorthand for the compile command  
?X: to be used in all the other metaconfig units.  
?X:  
?MAKE:Compile: +cc +optimize +ccflags +ldflags +libs

```

?MAKE: -pick add $@ %<
?LINT:define compile compile_ok
?V:compile compile_ok mc_file
?S:compile:
?S: This shell variable is used internally
 by Configure to provide
?S: a convenient shorthand for the typical compile command, namely
?S: $cc $optimize $ccflags $ldflags -o $1 $1.c $libs > /dev/null 2>&1
?S: Note that the output filename does not include the _exe
?S: extension. Instead we assume that the linker will be
?S: "helpful" and automatically appending the correct suffix.
?S: OS/2 users will apparently need to supply the -Zexe flag to
?S: get this behavior.
?S:
?S: To use this variable, say something like:
?S: echo 'int main() { exit(0); }' > try.c
?S: set try
?S: if eval $compile; then
?S: echo "success" # and do whatever . . .
?S: else
?S: echo "failure" # and do whatever . . .
?S: fi
?S: To add extra flags cc flags (e.g. -DWHATEVER) just put them
?S: in $*, e.g.
?S: set try -DTRY_THIS_FLAG
?S:.
?S:compile_ok:
?S: This shell variable is used internally by Configure to provide
?S: a convenient shorthand for the typical compile command that you
?S: expect to work ok. It is the same as $compile,
 except we
?S: deliberately let the user see any error messages.
?S:.
: define a shorthand compile call
compile='
mc_file=$1;
shift;
$cc -o ${mc_file} $optimize $ccflags $ldflags $* ${mc_file}.c $libs > /dev/null 2>&1;'
: define a shorthand compile call for compilations that should be ok.
compile_ok='
mc_file=$1;
shift;
$cc -o ${mc_file} $optimize $ccflags $ldflags $* ${mc_file}.c $libs;'

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/Compile.U

```

No license file was found, but licenses were detected in source scan.

```
case $CONFIG in
")
if test -f config.sh; then TOP=.;
elif test -f ../config.sh; then TOP=../.;
elif test -f ../../config.sh; then TOP=../../.;
elif test -f ../../../config.sh; then TOP=../../../.;
elif test -f ../../../../config.sh; then TOP=../../../../.;
else
echo "Can't find config.sh."; exit 1
fi
. $TOP/config.sh
;;
esac
case "$0" in
/) cd `expr X$0 : 'X\(.*/'` ;;
esac
echo "Extracting makedir (with variable substitutions)"
$spitshell >makedir <<!GROK!THIS!
$startsh
$Id: makedir.sh,v 3.0.1.1 1994/01/24 14:00:08 ram Exp ram $
#
Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
#
You may redistribute only under the terms of the Artistic Licence,
as specified in the README file that comes with the distribution.
You may reuse parts of this distribution only within the terms of
that same Artistic Licence; a copy of which may be found at the root
of the source tree for dist 4.0.
#
Original
Author: Larry Wall <lwall@netlabs.com>
#
$Log: makedir.sh,v $
Revision 3.0.1.1 1994/01/24 14:00:08 ram
patch16: changed top ln-style config.sh lookup into test-style one
#
Revision 3.0 1993/08/18 12:04:38 ram
Baseline for dist 3.0 netwide release.
#

export PATH || (echo "OOPS, this isn't sh. Desperation time. I will feed myself to sh."; sh \${0}; kill \${0})

case \ $# in
0)
$echo "makedir pathname filenameflag"
exit 1
```



```
;;
esac
```

```
: guarantee one slash before 1st component
```

```
case \ $1 in
/*) ;;
*) set .\ $1 \ $2 ;;
esac
```

```
: strip last component if it is to be a filename
```

```
case X\ $2 in
X1) set \ $echo \ $1 | $sed 's:(.*)/[^/]*\ $:1:\` ` ;;
*) set \ $1 ;;
esac
```

```
: return reasonable status if nothing to be created
```

```
if $test -d "\ $1" ; then
 exit 0
fi
```

```
list=""
```

```
while true ; do
 case \ $1 in
 /)
 list="\ $1 \ $list"
 set \ $echo \ $1 | $sed 's:(.*)/:\ 1 :'\`
 ;;
 *)
 break
 ;;
 esac
done
```

```
set \ $list
```

```
for dir do
```

```
 $mkdir \ $dir >/dev/null 2>&1
done
!GROK!THIS!
$eunicefix
 mkdir
chmod +x mkdir
```

```
Found in path(s):
```

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/lib/mkdir.SH
```

```
No license file was found, but licenses were detected in source scan.
```

```

?RCS: $Id: d_select.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_select.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:02 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_select: Inlibc
?MAKE: -pick add $@ %<
?S:d_select:
?S: This variable conditionally defines HAS_SELECT if select() is
?S: available to select active file descriptors. A <sys/time.h>
?S: inclusion may be necessary for the timeout field.
?S:.
?C:HAS_SELECT:
?C: This symbol, if defined, indicates that the select routine is
?C: available
?C: to select active file descriptors. If the timeout field
?C: is used, <sys/time.h> may need to be included.
?C:.
?H:#$d_select HAS_SELECT /**/
?H:.
?LINT:set d_select
: see if select exists
set select d_select
eval $inlibc

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_select.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: sitescript.U,v $
?RCS:
?RCS: Copyright (c) 1999 Andy Dougherty
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.

```

```

?RCS:
?RCS: $Log: sitescript.U,v $
?RCS:
?MAKE:sitescript sitescriptexp installsitescript : Getfile Oldconfig test \
 Setprefixvar sitebin siteprefix
?MAKE: -pick add $@ %<
?Y:TOP
?D:sitescript="
?S:sitescript:
?S: This variable holds the name of the directory in which the user wants
?S: to put add-on publicly executable files for the package in question. It
?S: is most often a local directory such as /usr/local/bin. Programs using
?S: this variable must be prepared to deal with ~name substitution.
?S: The standard
 distribution will put nothing in this directory.
?S: After perl has been installed, users may install their own local
?S: scripts in this directory with
?S: MakeMaker Makefile.PL
?S: or equivalent. See INSTALL for details.
?S:.
?D:sitescriptexp="
?S:sitescriptexp:
?S: This is the same as the sitescript variable, but is filename expanded at
?S: configuration time, for use in your makefiles.
?S:.
?D:installsitescript="
?S:installsitescript:
?S: This variable is usually the same as sitescriptexp, unless you are on
?S: a system running AFS, in which case they may differ slightly. You
?S: should always use this variable within your makefiles for portability.
?S:.
?LINT:change prefixvar
?LINT:set installsitescript
?LINT:set sitescript
?LINT:set sitescriptexp
: determine where add-on public executable scripts go
case "$sitescript" in
") dflt=$siteprefix/script
 $test -d $dflt || dflt=$sitebin ;;
*) dflt="$sitescript" ;;
esac
fn=d~+
rp='Pathname where add-on public executable scripts
 should be installed?'
. ./getfile
prefixvar=sitescript
. ./setprefixvar

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/sitescript.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: mallocsrc.U,v 3.0.1.2 1997/02/28 16:10:26 ram Exp \$  
?RCS:  
?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: mallocsrc.U,v \$  
?RCS: Revision 3.0.1.2 1997/02/28 16:10:26 ram  
?RCS: patch61: added support for Free\_t, the type of free()  
?RCS: patch61: replaced .o with \$\_o all over the place  
?RCS:  
?RCS: Revision 3.0.1.1 1994/05/06 15:10:46 ram  
?RCS: patch23: added support for MYMALLOC, mainly for perl5 (ADO)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:12 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:mallocsrc mallocobj usemallocwrap usemymalloc  
malloctype d\_mymalloc \  
freetype: Myread \  
Oldconfig package Guess Setvar rm cat +cc +ccflags Findhdr \  
i\_malloc i\_stdlib sed libs \_o ptrsize useithreads  
?MAKE: -pick add \$@ %<  
?X: Put near top so that other tests don't erroneously include  
?X: -lmalloc. --AD 22 June 1998  
?Y:TOP  
?S:usemymalloc:  
?S: This variable contains y if the malloc that comes with this package  
?S: is desired over the system's version of malloc. People often include  
?S: special versions of malloc for efficiency, but such versions are often  
?S: less portable. See also mallocsrc and mallocobj.  
?S: If this is 'y', then -lmalloc is removed from \$libs.  
?S:.  
?S:usemallocwrap:  
?S: This variable contains y if we are wrapping malloc to prevent  
?S: integer overflow during size calculations.  
?S:.  
?S:mallocsrc:  
?S: This variable contains the name of the malloc.c that comes with

?S: the package, if that malloc.c is preferred over the system malloc.  
 ?S: Otherwise the value is null. This variable is intended for generating  
 ?S: Makefiles.  
 ?S:.  
 ?S:d\_mymalloc:  
 ?S: This  
 variable conditionally defines MYMALLOC in case other parts  
 ?S: of the source want to take special action if MYMALLOC is used.  
 ?S: This may include different sorts of profiling or error detection.  
 ?S:.  
 ?S:mallocobj:  
 ?S: This variable contains the name of the malloc.o that this package  
 ?S: generates, if that malloc.o is preferred over the system malloc.  
 ?S: Otherwise the value is null. This variable is intended for generating  
 ?S: Makefiles. See mallosrc.  
 ?S:.  
 ?S:freetype:  
 ?S: This variable contains the return type of free(). It is usually  
 ?S: void, but occasionally int.  
 ?S:.  
 ?S:malloctype:  
 ?S: This variable contains the kind of ptr returned by malloc and realloc.  
 ?S:.  
 ?C:Free\_t:  
 ?C: This variable contains the return type of free(). It is usually  
 ?C: void, but occasionally int.  
 ?C:.  
 ?C:Malloc\_t (MALLOCPTRTYPE):  
 ?C: This symbol is the type of pointer returned by malloc and realloc.  
 ?C:.  
 ?H:#define Malloc\_t \$malloctype /\*\*/  
 ?H:#define Free\_t  
 \$freetype /\*\*/  
 ?H:.  
 ?C:PERL\_MALLOC\_WRAP:  
 ?C: This symbol, if defined, indicates that we'd like malloc wrap checks.  
 ?C:.  
 ?H:#\$usemallocwrap PERL\_MALLOC\_WRAP /\*\*/  
 ?H:.  
 ?C:MYMALLOC:  
 ?C: This symbol, if defined, indicates that we're using our own malloc.  
 ?C:.  
 ?H:#\$d\_mymalloc MYMALLOC /\*\*/  
 ?H:.  
 ?LINT:extern usedevel  
 ?LINT:change libs  
 ?X: Cannot test for mallosrc; it is the unit's name and there is a bug in  
 ?X: the interpreter which defines all the names, even though they are not used.

```

@if mallocobj
: determine whether to use malloc wrapping
echo " "
case "$usemallocwrap" in
[yY]*|true|$define) dflt='y' ;;
[nN]*|false|$undef) dflt='n' ;;
*) case "$usedevel" in
[yY]*|true|$define) dflt='y' ;;
*) dflt='n' ;;
esac
;;
esac
rp="Do you wish to wrap malloc calls to protect against potential overflows?"
./myread
usemallocwrap="$ans"
case "$ans" in
y*|true)
usemallocwrap="$define" ;;
*)
usemallocwrap="$undef" ;;
esac

: determine which malloc to compile in
echo " "
case "$usemymalloc"
in
[yY]*|true|$define) dflt='y' ;;
[nN]*|false|$undef) dflt='n' ;;
*) case "$ptrsize" in
4) dflt='y' ;;
*) dflt='n' ;;
esac
if test "$useithreads" = "$define"; then dflt='n'; fi
;;
esac
rp="Do you wish to attempt to use the malloc that comes with $package?"
./myread
usemymalloc="$ans"
case "$ans" in
y*|true)
usemymalloc='y'
mallosrc='malloc.c'
mallocobj='malloc$_o'
d_mymalloc="$define"
?X: Maybe libs.U should be dependent on mallosrc.U, but then
?X: most packages that use dist probably don't supply their own
?X: malloc, so this is probably an o.k. compromise
case "$libs" in

```

```

-lmalloc)
: Remove malloc from list of libraries to use
echo "Removing unneeded -lmalloc from library list" >&4
set `echo X $libs | $sed -e 's/-lmalloc / /' -e 's/-lmalloc$//'^
shift
libs="$*"
echo "libs = $libs" >&4
;;
esac
;;
*)
usemymalloc='n'
malloclsrc=""
malloclobj=""
d_mymalloc="$undef"
;;
esac

@end
@if MALLOC_PTRTYPE || Malloc_t || Free_t
: compute the return types of
malloc and free
echo " "
$cat >malloc.c <<END
#$i_malloc I_MALLOC
#$i_stdlib I_STDLIB
#include <stdio.h>
#include <sys/types.h>
#ifdef I_MALLOC
#include <malloc.h>
#endif
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#ifdef TRY_MALLOC
void *malloc();
#endif
#ifdef TRY_FREE
void free();
#endif
END
@if MALLOC_PTRTYPE || Malloc_t
case "$malloctype" in
")
if $cc $cflags -c -DTRY_MALLOC malloc.c >/dev/null 2>&1; then
malloctype='void *'
else
malloctype='char *'

```

```
fi
;;
esac
echo "Your system wants malloc to return '$malloctype', it would seem." >&4
@end
```

```
@if Free_t
case "$freetype" in
")
if $cc $ccflags -c -DTRY_FREE malloc.c >/dev/null 2>&1; then
freetype='void'
else
freetype='int'
fi
;;
esac
echo "Your system uses $freetype free(), it would seem." >&4
@end
$rm -f malloc.[co]
@end
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/mallosrc.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:usesocks: Myread Oldconfig Setvar

?MAKE: -pick add \$@ %<

?Y:TOP

?S:usesocks:

?S: This variable conditionally defines the USE\_SOCKS symbol,

?S: and indicates that Perl should be built to use SOCKS.

?S:.

?C:USE\_SOCKS:

?C: This symbol, if defined, indicates that Perl should

?C: be built to use socks.

?C:.

?H:%<:#ifndef USE\_SOCKS

?H:%<:#\$usesocks USE\_SOCKS /\*\*/

?H:%<:#endif

?H:.



```
?LINT:set usesocks
?INIT:: set usesocks on the Configure command line to enable socks.
: Check is we will use socks
?X: We should really have some explanatory text here, and some
?X: automatic setting of sensible defaults.
case "$usesocks" in
$define|true|[yY]*) dflt='y';
*) dflt='n';;
esac
cat <<EOM
```

Perl can be built to use the SOCKS proxy protocol library. To do so, Configure must be run with -Dusesocks. If you use SOCKS you also need to use the PerlIO abstraction layer, this will be implicitly selected.

If this doesn't make any sense to you, just accept the default '\$dflt'.

```
EOM
rp='Build Perl for SOCKS?'
. ./myread
case "$ans" in
y|Y) val="$define" ;;
*) val="$undef" ;;
esac
set usesocks
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/usesocks.U
```

No license file was found, but licenses were detected in source scan.

?RCS: Copyright (c) 2006-2007, H.Merijn Brand

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS:

?MAKE:d\_dir\_dd\_fd: Compile cat rm\_try Setvar i\_dirent i\_stdlib

?MAKE: -pick add \$@ %<

?S:d\_dir\_dd\_fd (d\_dir\_dd\_fd.U):

?S: This variable conditionally defines the HAS\_DIR\_DD\_FD symbol, which

?S: indicates that the DIR directory stream type contains a member

?S: variable called dd\_fd.

?S:.

?C:HAS\_DIR\_DD\_FD:

?C: This symbol, if defined, indicates that the the DIR\* dirstream

?C: structure contains a member variable named dd\_fd.

?C:.

?H:#\$d\_dir\_dd\_fd HAS\_DIR\_DD\_FD /\*\*/

?H:.

?LINT:set d\_dir\_dd\_fd

: Look for DIR.dd\_fd

case "\$i\_dirent"

in

"\$define")

echo "Checking to see if DIR has a dd\_fd member variable" >&4

\$cat >try.c <<EOCP

#\$i\_stdlib I\_STDLIB

#ifdef I\_STDLIB

#include <stdlib.h>

#endif

#include <dirent.h>

int main() {

DIR dir;

dir.dd\_fd = 1;

return 0;

}

EOCP

val=\$undef

set try

if eval \$compile; then

echo "Yes, it does."

val="\$define"

else

echo "No, it does not."

val="\$undef"

fi

::

\*)

echo "You don't have a <dirent.h>, so not checking for dd\_fd." >&4

val="\$undef"

::

esac

set d\_dir\_dd\_fd

eval \$setvar

\$rm\_try

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_dir\_dd\_fd.U

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1999, Jarkko Hietaniemi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?MAKE:full_ar: ar
?MAKE: -pick add $@ %<
?S:full_ar:
?S: This variable contains the full pathname to 'ar', whether or
?S: not the user has specified 'portability'. This is only used
?S: in the Makefile.SH.
?S:.
: Store the full pathname to the ar program for use in the C program
: Respect a hint or command line value for full_ar.
case "$full_ar" in
") full_ar=$ar ;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/Loc_ar.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_syslog.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_syslog.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 15:46:56 ram
?RCS: patch61: replaced .o with $_o all over the place
?RCS:
?RCS: Revision 3.0 1993/08/18 12:07:43 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_syslog: test Csym Setvar Findhdr
```

```
?MAKE: -pick add $@ %<
?S:d_syslog:
?S: This variable conditionally defines the HAS_SYSLOG symbol, which
?S: indicates to the C program that syslog() exists on this system.
?S:.
?C:HAS_SYSLOG
(LIBSYSLOG):
?C: This symbol, if defined, indicates that the program can rely on the
?C: system providing syslog(). Otherwise, the syslog code provided by
?C: the package should be used.
?C:.
?H:#$d_syslog HAS_SYSLOG /**/
?H:.
?LINT:set d_syslog
: see if syslog is available
echo " "
if $test `./findhdr syslog.h` && \
(set syslog val -f d_syslog; eval $csym; $val); then
echo "syslog() found." >&4
val="$define"
else
echo "syslog() not found in your C library." >&4
val="$undef"
fi
set d_syslog
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_syslog.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_syswait.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: i_syswait.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:08:42 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?X:
```

```
?X: This unit looks wether <sys/wait.h> is available or not
```

?X:  
?MAKE:i\_syswait: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_syswait:  
?S: This variable conditionally defines I\_SYS\_WAIT, which indicates  
?S: to the C program that it should include <sys/wait.h>.  
?S:.  
?C:I\_SYS\_WAIT (I\_SYSWAIT):  
?C: This symbol, if defined, indicates to the C program  
that it should  
?C: include <sys/wait.h>.  
?C:.  
?H:#\$i\_syswait I\_SYS\_WAIT /\*\*/  
?H:.  
?LINT:set i\_syswait  
: see if this is a syswait system  
set sys/wait.h i\_syswait  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_syswait.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: privlib.U,v 3.1 1999/07/08 18:32:29 doughera Exp doughera \$  
?RCS:  
?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
?RCS:  
?RCS: This file is included with or a derivative work of a file included  
?RCS: with the metaconfig program of Raphael Manfredi's "dist" distribution.  
?RCS: In accordance with clause 7 of dist's modified Artistic License:  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?RCS: \$Log: privlib.U,v \$  
?RCS: Revision 3.1 1999/07/08 18:32:29 doughera  
?RCS: Updated for perl5.005\_5x  
?RCS:  
?RCS: Revision 3.0.1.4 1995/09/25 09:17:09 ram  
?RCS: patch59: unit is now forced to the top of Configure, if possible  
?RCS:  
?RCS: Revision 3.0.1.3 1995/01/30 14:44:23 ram  
?RCS: patch49: can now handle installation prefix changes (from WED)  
?RCS:  
?RCS: Revision 3.0.1.2 1994/08/29 16:31:52 ram  
?RCS:

patch32: now uses installation prefix  
?RCS:  
?RCS: Revision 3.0.1.1 1993/09/13 16:12:34 ram  
?RCS: patch10: added support for /local/lib (WED)  
?RCS: patch10: prompt phrasing made more explicit (WED)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:35 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:privlib privlibexp installprivlib: package cat Getfile Oldconfig \  
Setprefixvar Prefixit version installstyle binexp  
?MAKE: -pick add \$@ %<  
?Y:TOP  
?D:privlib="  
?S:privlib:  
?S: This variable contains the eventual value of the PRIVLIB symbol,  
?S: which is the name of the private library for this package. It may  
?S: have a ~ on the front. It is up to the makefile to eventually create  
?S: this directory while performing installation (with ~ substitution).  
?S:.  
?D:privlibexp="  
?S:privlibexp:  
?S: This variable is the ~name expanded version of privlib, so that you  
?S: may use it directly in Makefiles or shell scripts.  
?S:.  
?D:installprivlib="  
?S:installprivlib:  
?S: This variable  
is really the same as privlibexp but may differ on  
?S: those systems using AFS. For extra portability, only this variable  
?S: should be used in makefiles.  
?S:.  
?C:PRIVLIB:  
?C: This symbol contains the name of the private library for this package.  
?C: The library is private in the sense that it needn't be in anyone's  
?C: execution path, but it should be accessible by the world. The program  
?C: should be prepared to do ~ expansion.  
?C:.  
?C:PRIVLIB\_EXP:  
?C: This symbol contains the ~name expanded version of PRIVLIB, to be used  
?C: in programs that are not prepared to deal with ~ expansion at run-time.  
?C:.  
?H:#define PRIVLIB "\$privlib" /\*\*/  
?H:#define PRIVLIB\_EXP "\$privlibexp" /\*\*/  
?H:.  
?LINT:change prefixvar  
?LINT:set installprivlib  
?LINT:set privlib

```
?LINT:set privlibexp
: determine where private library files go
: Usual default is /usr/local/lib/perl5/$version.
: Also allow things like /opt/perl/lib/$version, since
: /opt/perl/lib/perl5... would be redundant.
: The default "style"
 setting is made in installstyle.U
case "$installstyle" in
lib/perl5) set dflt privlib lib/$package/$version ;;
*) set dflt privlib lib/$version ;;
esac
eval $prefixit
$cat <<EOM
```

There are some auxiliary files for \$package that need to be put into a private library directory that is accessible by everyone.

```
EOM
?X: Force dependency on bin.U
fn=$binexp
fn=d~+
rp='Pathname where the private library files will reside?'
./getfile
prefixvar=privlib
./setprefixvar
```

```
Found in path(s):
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/privlib.U
No license file was found, but licenses were detected in source scan.
```

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 2014 H.Merijn Brand
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_ptrdiff_t: Inlibc Setvar Compile rm_try cat
?MAKE: -pick add $@ %<
?S:d_ptrdiff_t:
?S: This symbol will be defined if the C compiler supports ptrdiff_t.
?S:.
?C:HAS_PTRDIFF_T:
?C: This symbol will be defined if the C compiler supports ptrdiff_t.
?C:.
?H:#$d_ptrdiff_t HAS_PTRDIFF_T /**/
?H:.
```

```

?LINT:set d_ptrdiff_t
: check for ptrdiff_t
echo " "
echo "Checking to see if you have ptrdiff_t..." >&4
$cat >try.c <<EOCP
#include <stddef.h>
int main() { ptrdiff_t x = 7; }
EOCP
set try
if eval $compile; then
 val="$define"
 echo "You have ptrdiff_t."
else
 val="$undef"
 echo "You do not have ptrdiff_t."
fi
$rm_try
set d_ptrdiff_t
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_ptrdiff_t.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_tminsys.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_tminsys.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:47 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_tminsys: contains Setvar Findhdr
?MAKE: -pick add $@ %<
?S:d_tminsys:
?S: This variable conditionally defines TM_IN_SYS if this system
?S: declares "struct tm" in <sys/time.h> rather than <time.h>.
?S:
?C:TM_IN_SYS (TMINSYS):
?C: This symbol is defined if this system declares "struct tm" in
?C: in <sys/time.h> rather than <time.h>.

```



```

We can't just say
?C: -I/usr/include/sys because some systems have both time files, and
?C: the -I trick gets the wrong one.
?C:.
?H:#$d_tminsys TM_IN_SYS /**/
?H:.
?LINT:set d_tminsys
: see if struct tm is defined in sys/time.h
echo " "
if $contains 'struct tm' `./findhdr time.h` >/dev/null 2>&1 ; then
echo "You have struct tm defined in <time.h> rather than <sys/time.h>." >&4
val="$undef"
else
echo "You have struct tm defined in <sys/time.h> rather than <time.h>." >&4
val="$define"
fi
set d_tminsys
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/d_tminsys.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_pidcheck.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_pidcheck.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 15:37:55 ram
?RCS: patch61: replaced .o with $_o all over the place
?RCS: patch61: added ?F: metalint hint
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:46 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_pidcheck: cat rm +cc _o
?MAKE: -pick add $@ %<
?S:d_pidcheck:
?S: This variable conditionally defines the variable PIDCHECK
?S: which indicates that kill(pid, 0) will check for an

```

```

active pid.
?S:.
?C:PIDCHECK:
?C: This symbol, if defined, means that the kill(pid, 0) will
?C: check for an active pid (i.e. the kernel will run all the
?C: necessary pid checks, but no signal is actually sent).
?C:.
?H:#$d_pidcheck PIDCHECK /**/
?H:.
?F:!try
: check for "kill(pid, 0)"
echo " "
case "$d_pidcheck" in
"$define")
echo "I already know your system supports kill(pid, 0) for pid checks." >&4
;;
"$undef")
echo "We both know your system does not support signal #0 for pid checks." >&4
;;
*)
echo "Checking to see if kill(pid, 0) works..." >&4
$cat >try.c <<'EOCP'
int main()
{
int pid, status0, status9;

if ((pid = fork()) == 0)
{
sleep(30);
exit(1);
}
status0 = kill(pid, 0);
status9 = kill(pid, 9);
exit(status0 == status9);
}
EOCP
if $cc -o try try.c >/dev/null 2>&1 ; then
if ./try >/dev/null 2>&1 ; then
echo "Yes, it does marvels."
d_pidcheck="$undef"
else
d_pidcheck="$define"
echo "No, it doesn't."
fi
else
echo "(I was unable to compile
the test program.)"
echo "Your system does not appear to support kill(pid, 0)."
```

```
d_pidcheck="$undef"
fi
$rm -f try.c try$_o try
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_pidcheck.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_regcmp.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_regcmp.U,v $
```

```
?RCS: Revision 3.0.1.1 1995/01/30 14:34:45 ram
```

```
?RCS: patch49: now looks for POSIX regcomp() routine
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:06:53 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_regcmp d_re_comp d_regcomp: Csym cat
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_regcomp:
```

```
?S: This variable conditionally defines the HAS_REGCOMP symbol, which
```

```
?S: indicates to the C program that the regcomp() routine is available
```

```
?S: for regular
```

```
patern matching (usally on POSIX.2 conforming systems).
```

```
?S:.
```

```
?S:d_regcmp:
```

```
?S: This variable conditionally defines the HAS_REGCMP symbol, which
```

```
?S: indicates to the C program that the regcmp() routine is available
```

```
?S: for regular patern matching (usally on System V).
```

```
?S:.
```

```
?S:d_re_comp:
```

```
?S: This variable conditionally defines the HAS_RECOMP symbol, which
```

```
?S: indicates to the C program that the re_comp() routine is available
```

```
?S: for regular patern matching (usally on BSD). If so, it is likely that
```

```
?S: re_exec() exists.
```

```
?S:.
```

```
?C:HAS_REGCOMP (REGCOMP):
```

?C: This symbol, if defined, indicates that the regcomp() routine is  
?C: available to do some regular pattern matching (usually on POSIX.2  
?C: conforming systems).

?C:.

?C:HAS\_REGCMP (REGCMP):

?C: This symbol, if defined, indicates that the regcmp() routine is  
?C: available to do some regular pattern matching (usually on System V).

?C:.

?C:HAS\_RECOMP (RECOMP):

?C: This symbol, if defined, indicates that the re\_comp() routine is  
?C: available

to do some regular pattern matching (usually on BSD). If so,

?C: it is likely that re\_exec() be available.

?C:.

?H:#\$d\_regcomp HAS\_REGCOMP /\* POSIX.2 \*/

?H:#\$d\_regcomp HAS\_REGCOMP /\* sysV \*/

?H:#\$d\_re\_comp HAS\_RECOMP /\* BSD \*/

?H:.

?T:val

: see if regcomp, regcmp, or re\_comp exist, for regular pattern matching

echo " "

if set regcomp val -f d\_regcomp; eval \$csym; \$val; then

echo 'regcomp() found.' >&4

d\_regcomp="\$define"

d\_regcmp="\$undef"

d\_re\_comp="\$undef"

elif set regcmp val -f d\_regcmp; eval \$csym; \$val; then

echo 'regcmp() found.' >&4

d\_regcomp="\$define"

d\_regcmp="\$undef"

d\_re\_comp="\$undef"

elif set re\_comp val -f d\_re\_comp; eval \$csym; \$val; then

echo 're\_comp() found, assuming re\_exec() also exists.' >&4

d\_re\_comp="\$define"

d\_regcomp="\$undef"

d\_regcmp="\$undef"

else

\$cat >&4 <<EOM

No regcomp(), regcmp() nor re\_comp() found !! No regular pattern matching.

EOM

d\_regcomp="\$undef"

d\_re\_comp="\$undef"

d\_regcomp="\$undef"

fi

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/dist/U/d\_regcmp.U

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1998, Jarkko Hietaniemi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?MAKE:i_pthread: Inhdr
?MAKE: -pick add $@ %<
?S:i_pthread:
?S: This variable conditionally defines the I_PTHREAD symbol,
?S: and indicates whether a C program should include <pthread.h>.
?S:.
?C:I_PTHREAD:
?C: This symbol, if defined, indicates to the C program that it should
?C: include <pthread.h>.
?C:.
?H:#$i_pthread I_PTHREAD /**/
?H:.
?LINT:set i_pthread
: see if POSIX threads are available
set pthread.h i_pthread
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/i_pthread.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: Oldsym.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 15:06:58 ram
?RCS: patch61: added support for src.U
?RCS:
```

```

?RCS: Revision 3.0 1993/08/18 12:05:13 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit follows the creation of the config.sh file. It adds some
?X: special symbols: defines from patchlevel.h file if any and CONFIG,
?X: which is set to true. Then, we try to keep all the new symbols that
?X: may come from a hint file or a previous config.sh file.
?X:
?MAKE:Oldsym:
 Config_sh Options test hint src sed sort uniq
?MAKE: -pick add $@ %<
?T:CONFIG sym tmp
?F:!UU
: add special variables
$test -f $src/patchlevel.h && \
awk '/^#define/ {printf "%s=%s\n", $2, $3}' $src/patchlevel.h >>config.sh
echo "CONFIG=true" >>config.sh

: propagate old symbols
if $test -f UU/config.sh; then
?X: Make sure each symbol is unique in oldconfig.sh
 <UU/config.sh $sort | $uniq >UU/oldconfig.sh
?X:
?X: All the symbols that appear twice come only from config.sh (hence the
?X: two config.sh in the command line). These symbols will be removed by
?X: the uniq -u command. The oldsyms file thus contains all the symbols
?X: that did not appear in the produced config.sh (Larry Wall).
?X:
?X: Do not touch the -u flag of uniq. This means you too, Jarkko.
?X:
$sed -n 's/^\([a-zA-Z_0-9]*\)=.*/\1/p' \
 config.sh config.sh UU/oldconfig.sh | \
 $sort | $uniq -u >UU/oldsyms
set X `cat UU/oldsyms`
shift
case $# in
0) ;;
*)
 cat <<EOM
Hmm...You had some extra variables I don't know about...I'll
try to keep 'em...
EOM
 echo ": Variables propagated from previous config.sh file." >>config.sh
 for sym in `cat UU/oldsyms`; do
 echo " Propagating $hint variable ""$sym..."
 eval 'tmp=""${sym}""'
 echo "$tmp" | \

```

```
sed -e "s/'\"/\"/g" -e "s/^\$sym='\" -e "s/\/\" >>config.sh
done
;;
esac
fi
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Oldsym.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_copysignl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_copysignl:

?S: This variable conditionally defines the HAS\_COPYSIGNL symbol, which

?S: indicates to the C program that the copysignl() routine is available.

?S: If aintl is also present we can emulate modfl.

?S:.

?C:HAS\_COPYSIGNL:

?C: This symbol, if defined, indicates that the copysignl routine is

?C: available. If aintl is also present we can emulate modfl.

?C:.

?H:#\$d\_copysignl HAS\_COPYSIGNL /\*\*/

?H:.

?LINT:set d\_copysignl

: see if copysignl exists

set copysignl d\_copysignl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_copysignl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: voidflags.U,v \$  
?RCS: Revision 3.0.1.2 1997/02/28 16:27:58 ram  
?RCS: patch61: don't prompt them if the void support is high enough for us  
?RCS:  
?RCS: Revision 3.0.1.1 1995/01/11 15:37:44 ram  
?RCS: patch45: cosmetic change to avoid spurious blank lines when using -s  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:10:01 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:voidflags defvoidused: cat sed rm rm\_try contains +cc +ccflags package \  
Oldconfig Myread  
?MAKE: -pick add \$@ %<  
?S:voidflags:  
?S: This  
variable contains the eventual value of the VOIDFLAGS symbol,  
?S: which indicates how much support of the void type is given by this  
?S: compiler. See VOIDFLAGS for more info.  
?S:.  
?S:defvoidused:  
?S: This variable contains the default value of the VOIDUSED symbol (15).  
?S:.  
?X: Exceptionally, we have to explicitly alias the symbol name for  
?X: config\_h.SH, otherwise the comment would not appear.  
?C:VOIDFLAGS ~ %<:  
?C: This symbol indicates how much support of the void type is given by this  
?C: compiler. What various bits mean:  
?C:  
?C: 1 = supports declaration of void  
?C: 2 = supports arrays of pointers to functions returning void  
?C: 4 = supports comparisons between pointers to void functions and  
?C: addresses of void functions  
?C: 8 = supports declaration of generic void pointers  
?C:  
?C: The package designer should define VOIDUSED to indicate the requirements  
?C: of the package. This can be done either by #defining VOIDUSED before  
?C: including  
config.h, or by defining defvoidused in Myinit.U. If the  
?C: latter approach is taken, only those flags will be tested. If the  
?C: level of void support necessary is not present, defines void to int.  
?C:.  
?H:%<:#ifndef VOIDUSED  
?H:%<:#define VOIDUSED \$defvoidused  
?H:%<:#endif  
?H:%<:#define VOIDFLAGS \$voidflags



```

?H:?%<:#if (VOIDFLAGS & VOIDUSED) != VOIDUSED
?H:?%<:#define void int /* is void to be avoided? */
?H:?%<:#define M_VOID /* Xenix strikes again */
?H:?%<:#endif
?H:.
?W:%<:void
?F:!out !try.c !flags
?LINT:usefile .out flags try.c
?INIT:: full support for void wanted by default
?INIT:defvoidused=15
?INIT:
?LINT:known void M_VOID VOIDUSED
: check for void type
echo " "
echo "Checking to see how well your C compiler groks the void type..." >&4
$cat >flags <<EOM

```

Support flag bits are:

- 1: basic void declarations.
- 2: arrays of pointers to functions returning void.
- 4: operations between pointers to and addresses of void functions.
- 8: generic void pointers.

EOM

```

case
"$voidflags" in
")
$cat >try.c <<'EOCP'
#if TRY & 1
void sub() {
#else
sub() {
#endif
extern void moo(); /* function returning void */
void (*goo)(); /* ptr to func returning void */
#if TRY & 8
void *hue; /* generic ptr */
#endif
#if TRY & 2
void (*foo[10])();
#endif

#if TRY & 4
if(goo == moo) {
 exit(0);
}
#endif
exit(0);

```

```

}
int main() { sub(); }
EOCP
?X: This unit used to use cc -S in those tests to try to speed up things, but
?X: unfortunately, AIX 3.2 does not support this option.
if $cc $ccflags -c -DTRY=$defvoidused try.c >.out 2>&1 ; then
 voidflags=$defvoidused
 echo "Good. It appears to support void to the level $package wants."
 if $contains warning .out >/dev/null 2>&1; then
 echo "However, you might get some warnings that look like this:"
 $sed -e 's/^/' .out
 fi
else
 echo "Hmm, your compiler has some difficulty with void. Checking further..." >&4
 $cat >&4 flags
 $rm -f flags
 if $cc $ccflags -c -DTRY=1 try.c >/dev/null 2>&1; then
 echo
 "It supports 1..."
 if $cc $ccflags -c -DTRY=3 try.c >/dev/null 2>&1; then
 echo "It also supports 2..."
 if $cc $ccflags -c -DTRY=7 try.c >/dev/null 2>&1; then
 voidflags=7
 echo "And it supports 4 but not 8 definitely."
 else
 echo "It doesn't support 4..."
 if $cc $ccflags -c -DTRY=11 try.c >/dev/null 2>&1; then
 voidflags=11
 echo "But it supports 8."
 else
 voidflags=3
 echo "Neither does it support 8."
 fi
 fi
 else
 echo "It does not support 2..."
 if $cc $ccflags -c -DTRY=13 try.c >/dev/null 2>&1; then
 voidflags=13
 echo "But it supports 4 and 8."
 else
 if $cc $ccflags -c -DTRY=5 try.c >/dev/null 2>&1; then
 voidflags=5
 echo "And it supports 4 but has not heard about 8."
 else
 echo "However it supports 8 but not 4."
 fi
 fi
 fi
 fi
fi

```

```

else
 echo "There is no support at all for void."
 voidflags=0
fi
fi
esac
?X: Only prompt user if support does not match the
level we want
case "$voidflags" in
"$defvoidused")
 echo "Good. I already know it supports void to the level $package wants."
 ;;
*)
 dflt="$voidflags";
 test -f flags && $cat flags
 rp="Your void support flags add up to what?"
 . ./myread
 voidflags="$ans"
 ;;
esac
$rm_try flags

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/voidflags.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_setprotoent\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_setprotoent\_r setprotoent\_r\_proto: Inlibc Protochk Hasproto \  
i\_systypes usethreads i\_netdb extern\_C

?MAKE: -pick add \$@ %<

?S:d\_setprotoent\_r:

?S: This variable conditionally defines the HAS\_SETPROTOENT\_R symbol,

?S: which indicates to the C program that the setprotoent\_r()

?S: routine is available.

?S:.

?S:setprotoent\_r\_proto:

?S: This variable encodes the prototype of setprotoent\_r.

?S: It is zero if d\_setprotoent\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_setprotoent\_r

?S: is defined.

?S:.

?C:HAS\_SETPROTOENT\_R:

?C: This symbol, if defined, indicates that the setprotoent\_r routine

?C: is available to setprotoent re-entrantly.

?C:.

?C:SETPROTOENT\_R\_PROTO:

?C: This symbol encodes the prototype of setprotoent\_r.

?C: It is zero if d\_setprotoent\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_setprotoent\_r

?C: is defined.

?C:.

?H:#\$d\_setprotoent\_r HAS\_SETPROTOENT\_R /\*\*/

?H:#define SETPROTOENT\_R\_PROTO \$setprotoent\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_setprotoent\_r\_proto

: see if setprotoent\_r exists

set setprotoent\_r d\_setprotoent\_r

eval \$inlibc

case "\$d\_setprotoent\_r" in

"\$define")

hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_netdb netdb.h"

case "\$d\_setprotoent\_r\_proto:\$usethreads" in

":define") d\_setprotoent\_r\_proto=define

set d\_setprotoent\_r\_proto setprotoent\_r \$hdrs

eval \$hasproto ;;

\*) ;;

esac

case "\$d\_setprotoent\_r\_proto" in

define)

case "\$setprotoent\_r\_proto" in

"|0) try='int setprotoent\_r(int, struct protoent\_data\*);'

./prochck "\$extern\_C \$try" \$hdrs && setprotoent\_r\_proto=I\_ID ;;

esac

case "\$setprotoent\_r\_proto"

in

"|0) try='void setprotoent\_r(int, struct protoent\_data\*);'

./prochck "\$extern\_C \$try" \$hdrs && setprotoent\_r\_proto=V\_ID ;;

esac

case "\$setprotoent\_r\_proto" in

"|0) d\_setprotoent\_r=undef

setprotoent\_r\_proto=0

echo "Disabling setprotoent\_r, cannot determine prototype." >&4 ;;

\*) case "\$setprotoent\_r\_proto" in

REENTRANT\_PROTO\*) ;;

\*) setprotoent\_r\_proto="REENTRANT\_PROTO\_\$setprotoent\_r\_proto" ;;

esac

echo "Prototype: \$try" ;;

```

esac
;;
*) case "$usethreads" in
define) echo "setprotoent_r has no prototype, not using it." >&4 ;;
esac
d_setprotoent_r=undef
setprotoent_r_proto=0
;;
esac
;;
*) setprotoent_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_setprotoent_r.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_dlsymun.U,v \$

?RCS:

?RCS: Copyright (c) 1996-1998, Andy Dougherty

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: d\_dlsymun.U,v \$

?RCS:

?RCS:

?MAKE:d\_dlsymun: cat cc cflags ldflags ld rm Setvar dlsrc i\_dlfcn i\_stdlib \  
cccdlflags ccdlflags lddlflags libs dlextr \_o run to

?MAKE: -pick add \$@ %<

?X: This is specific to perl5.

?S:d\_dlsymun:

?S: This variable conditionally defines DLSYM\_NEEDS\_UNDERSCORE, which

?S: indicates that we need to prepend an underscore to the symbol

?S: name before calling dlsym().

?S:.

?C:DLSYM\_NEEDS\_UNDERSCORE:

?C: This symbol, if defined, indicates that we need to prepend an

?C: underscore to the symbol name before calling dlsym(). This only

?C: makes sense if you \*have\* dlsym, which we will presume is the

?C: case if you're using dl\_dlopen.xs.

?C:.

?H:#\$d\_dlsymun DLSYM\_NEEDS\_UNDERSCORE /\*\*/

?H:.

?LINT:set

```

d_dlsymun
?T: xxx
?F:!fred
: Check if dlsym need a leading underscore
echo " "
val="$undef"

case "$dlsrc" in
dl_dlopen.xs)
echo "Checking whether your dlsym() needs a leading underscore ..." >&4
$cat >dyna.c <<'EOM'
fred () { }
EOM

$cat >fred.c<<EOM

#include <stdio.h>
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#ifdef I_DLFCN
#include <dlfcn.h> /* the dynamic linker include file for SunOS/Solaris */
#else
#include <sys/types.h>
#include <nlist.h>
#include <link.h>
#endif

extern int fred() ;

int main()
{
void * handle ;
void * symbol ;
#ifdef RTLD_LAZY
int mode = 1 ;
#else
int mode = RTLD_LAZY ;
#endif
handle = dlopen("./dyna.$dlex", mode) ;
if (handle == NULL) {
printf ("1\n") ;
fflush (stdout) ;
exit(0);
}
symbol = dlsym(handle, "fred") ;

```

```

 if (symbol == NULL) {
/* try putting a leading underscore */
symbol = dlsym(handle, "_fred");
if (symbol ==
NULL) {
 printf ("2\n");
 fflush (stdout);
 exit(0);
}
printf ("3\n");
}
else
printf ("4\n");
fflush (stdout);
exit(0);
}
EOM
: Call the object file tmp-dyna.o in case dlext=o.
if $cc $cflags $cccdlflags -c dyna.c > /dev/null 2>&1 &&
mv dyna${_o} tmp-dyna${_o} > /dev/null 2>&1 &&
$ld -o dyna.$dlext $ldflags $lddlflags tmp-dyna${_o} > /dev/null 2>&1 &&
$cc -o fred $cflags $ldflags $cccdlflags $ccdlflags fred.c $libs > /dev/null 2>&1 && $to dyna.$dlext; then
xxx=`$run ./fred`
case $xxx in
1) echo "Test program failed using dlopen." >&4
echo "Perhaps you should not use dynamic loading." >&4;;
2) echo "Test program failed using dlsym." >&4
echo "Perhaps you should not use dynamic loading." >&4;;
3) echo "dlsym needs a leading underscore" >&4
val="$define" ;;
4) echo "dlsym doesn't need a leading underscore." >&4;;
esac
else
echo "I can't compile and run the test program." >&4
echo "I'm guessing that dlsym
doesn't need a leading underscore." >&4
fi
;;
esac

$rm -f fred fred.* dyna.$dlext dyna.* tmp-dyna.*

set d_dlsymun
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/perl/d_dlsymun.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: libc.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: libc.U,v \$  
?RCS: Revision 3.0.1.10 1997/02/28 15:56:48 ram  
?RCS: patch61: replaced .a with \$\_a all over the place  
?RCS: patch61: added support for HPUX-10 nm output  
?RCS:  
?RCS: Revision 3.0.1.9 1995/07/25 14:11:56 ram  
?RCS: patch56: now knows about OS/2 platforms  
?RCS:  
?RCS: Revision 3.0.1.8 1995/05/12 12:20:47 ram  
?RCS: patch54: made sure only most recent version of shared lib is picked  
?RCS: patch54: final "nm -p" check now uses xscan and xrun  
like everybody  
?RCS: patch54: can now grok Linux nm output with lead \_\_IO (ADO)  
?RCS: patch54: added support for Linux ELF output, using 'W' for alias (ADO)  
?RCS:  
?RCS: Revision 3.0.1.7 1994/10/29 16:23:40 ram  
?RCS: patch36: now looks for shared libraries before anything else (ADO)  
?RCS: patch36: added new nm output format (ADO)  
?RCS:  
?RCS: Revision 3.0.1.6 1994/08/29 16:28:10 ram  
?RCS: patch32: added I-type symbols for nm output parsing on Linux  
?RCS:  
?RCS: Revision 3.0.1.5 1994/06/20 07:03:24 ram  
?RCS: patch30: checks are now presented by succession of if/elif  
?RCS: patch30: uniformized checks for shared objects with new so symbol  
?RCS:  
?RCS: Revision 3.0.1.4 1994/05/06 15:06:33 ram  
?RCS: patch23: added shared library knowledge (ADO and WED)  
?RCS:  
?RCS: Revision 3.0.1.3 1994/01/24 14:12:17 ram  
?RCS: patch16: can now export nm\_extract as an internal-use only variable  
?RCS:  
?RCS: Revision 3.0.1.2 1993/09/13 16:09:03 ram  
?RCS: patch10: added special handling for Apollo  
systems (WAD)  
?RCS:



```

?RCS: Revision 3.0.1.1 1993/08/27 14:40:03 ram
?RCS: patch7: added entry for /usr/shlib/libc.so (OSF/1 machines)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:57 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:libc +nm_extract: echo n c rm test grep Getfile Myread Oldconfig Loc \
sed libs incpath libpth ar runnm nm nm_opt nm_so_opt contains xlibpth \
so _a _o osname trnl tr sort uniq sysroot
?MAKE: -pick add $@ %<
?S:libc:
?S: This variable contains the location of the C library.
?S:.
?S:nm_extract:
?S: This variable holds the name of the extraction command used to process
?S: the output of nm and yield the list of defined symbols. It is used
?S: internally by Configure.
?S:.
?T:thislib try libnames xxx xscan xrun thisname com tans file
?F:!libnames !libc.tmp !tmp.imp
?LINT:extern PASE
?LINT:extern libnames
?LINT:change nm_opt
?INIT:libnames=""
: Figure out where the libc is located
case "$runnm" in
true)
?X: indentation is wrong on purpose--RAM
:
get list of predefined functions in a handy place
echo " "
case "$libc" in
") libc=unknown
case "$libs" in
-lc_s) libc=`./loc libc_s$_a $libc $libpth`
esac
;;
esac
case "$libs" in
") ;;
*) for thislib in $libs; do
case "$thislib" in
-lc|-lc_s)
: Handle C library specially below.
;;
-l*)
thislib=`echo $thislib | $sed -e 's/^-l//`
if try=`./loc lib$thislib.$so.'*' X $libpth`; $test -f "$try"; then

```

```

:
elif try=`./loc lib$thislib.$so X $libpth`; $test -f "$try"; then
:
elif try=`./loc lib$thislib$_a X $libpth`; $test -f "$try"; then
:
elif try=`./loc $thislib$_a X $libpth`; $test -f "$try"; then
:
elif try=`./loc lib$thislib X $libpth`; $test -f "$try"; then
:
elif try=`./loc $thislib X $libpth`; $test -f "$try"; then
:
elif try=`./loc libthislib$_a X $xlibpth`; $test -f "$try"; then
:
else
 try="
fi
libnames="$libnames $try"
;;
*) libnames="$libnames $thislib" ;;
esac
done
;;
esac
?X:
?X: Some systems (e.g. DG/UX) use
"environmental" links, which make the test
?X: -f fail. Ditto for symbolic links. So in order to reliably check the
?X: existence of a file, we use test -r. It will still fail with DG/UX links
?X: though, but at least it will detect symbolic links. At some strategic
?X: points, we make use of (test -h), using a sub-shell in case builtin test
?X: does not implement the -h check for symbolic links. This makes it
?X: possible to preset libc in a hint file for instance and have it show up
?X: as-is in the question.
?X:
xxx=normal
case "$libc" in
unknown)
?X:
?X: The sed below transforms .so.9 .so.12 into something like .so.0009 .so.0012,
?X: then sorts on it to allow keeping .so.12 instead of .so.9 as the latest
?X: up-to-date library. The initial filename (before sed munging, saved in hold
?X: space via 'h') is appended via 'G' before sorting, then the leading munged
?X: part is removed after sorting. Nice efficient work from Tye McQueen.
?X: The initial blurfl is here to prevent the trailing
pipe from producing an
?X: empty string, causing Configure to output all its set variables!
?X:
set /lib/libc.$so

```

```

for xxx in $libpth; do
$test -r $1 || set $xxx/libc.$so
: The messy sed command sorts on library version numbers.
$test -r $1 || \
set `echo blurfl; echo $xxx/libc.$so.[0-9]* | \
tr ' ' $trnl | egrep -v \.[A-Za-z]*$' | $sed -e '
h
s/[0-9][0-9]*/0000&/g
s/0*\([0-9][0-9][0-9][0-9][0-9]\)\^1/g
G
s/\n/ / | \
$sort | $sed -e 's/^\.* //'^
eval set \$$#
done
$test -r $1 || set $sysroot/usr/ccs/lib/libc.$so
$test -r $1 || set $sysroot/lib/libsys_s$_a
;;
*)
?X: ensure the test below for the (shared) C library will fail
set blurfl
;;
esac
if $test -r "$1"; then
echo "Your (shared) C library seems to be in $1."
libc="$1"
elif $test -r /lib/libc && $test -r /lib/clib; then
?X:
?X: Apollo has its C library in /lib/clib AND /lib/libc
?X: not to mention its math library in /lib/syslib...
?X:
echo "Your C library seems to be in both /lib/clib
and /lib/libc."
xxx=apollo
libc='/lib/clib /lib/libc'
if $test -r /lib/syslib; then
echo "(Your math library is in /lib/syslib.)"
?X: Put syslib in libc -- not quite right, but won't hurt
libc="$libc /lib/syslib"
fi
elif $test -r "$libc" || (test -h "$libc") >/dev/null 2>&1; then
echo "Your C library seems to be in $libc, as you said before."
?X: For mips, and...
elif $test -r $incpath/usr/lib/libc$_a; then
libc=$incpath/usr/lib/libc$_a;
echo "Your C library seems to be in $libc. That's fine."
elif $test -r /lib/libc$_a; then
libc=/lib/libc$_a;
echo "Your C library seems to be in $libc. You're normal."

```

```

else
if tans=`./loc libc$_a blurfl/dyick $libpth`; $test -r "$stans"; then
:
elif tans=`./loc libc blurfl/dyick $libpth`; $test -r "$stans"; then
libnames="$libnames "`./loc clib blurfl/dyick $libpth`
elif tans=`./loc clib blurfl/dyick $libpth`; $test -r "$stans"; then
:
elif tans=`./loc Slibc$_a blurfl/dyick $xlibpth`; $test -r "$stans"; then
:
elif tans=`./loc
Mlibc$_a blurfl/dyick $xlibpth`; $test -r "$stans"; then
:
else
tans=`./loc Llibc$_a blurfl/dyick $xlibpth`
fi
if $test -r "$stans"; then
echo "Your C library seems to be in $stans, of all places."
libc=$stans
else
libc='blurfl'
fi
fi
if $test $xxx = apollo -o -r "$libc" || (test -h "$libc") >/dev/null 2>&1; then
dflt="$libc"
cat <<EOM

```

If the guess above is wrong (which it might be if you're using a strange compiler, or your machine supports multiple models), you can override it here.

```

EOM
else
dflt=""
echo $libpth | $tr ' ' $trnl | $sort | $uniq > libpath
cat >&4 <<EOM

```

I can't seem to find your C library. I've looked in the following places:

```

EOM
$sed 's/^/ /' libpath
cat <<EOM

```

None of these seems to contain your C library. I need to get its name...

```

EOM
fi
fn=f
rp='Where is your C library?'
./getfile
libc="$ans"

```

```

echo " "
echo $libc $libnames | $tr ' ' $trnl | $sort | $uniq > libnames
set X `cat libnames`
shift
xxx=files
case $# in 1) xxx=file; esac
echo
"Extracting names from the following $xxx for later perusal:" >&4
echo " "
$sed 's/^/ /' libnames >&4
echo " "
$echo $n "This may take a while...$c" >&4

?X:
?X: Linux may need the special Dynamic option to nm for shared libraries.
?X: In general, this is stored in the nm_so_opt variable.
?X: Unfortunately, that option may be fatal on non-shared libraries.
?X:
for file in $*; do
case $file in
$so) $nm $nm_so_opt $nm_opt $file 2>/dev/null;;
*) $nm $nm_opt $file 2>/dev/null;;
esac
done >libc.tmp

$echo $n ".$c"
?X:
?X: To accelerate processing, we look at the correct 'sed' command
?X: by using a small subset of libc.tmp, i.e. fprintf function.
?X: When we know which sed command to use, do the name extraction
?X:
$grep fprintf libc.tmp > libc.ptf
?X:
?X: In order to enhance readability and save some space, we define
?X: some variables that will be "eval"ed.
?X:
xscan='eval "<libc.ptf $com >libc.list"; $echo $n ".$c" >&4'
xrun='eval "<libc.tmp $com >libc.list"; echo "done." >&4'
?X:
BSD-like output, I and W types added for Linux
?X: Some versions of Linux include a leading __IO in the symbol name.
?X: HP-UX 10 reportedly has trailing spaces, though I'm surprised it has
?X: BSD-like output. (AD).
?X: GNU extension: i is "indirect function"
xxx=[ADTSIW]
if com="$sed -n -e 's/__IO//' -e 's/^. *$xxx */p';\
eval $xscan;\

```

```

$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
?X: SYSV-like output
elif com="$sed -n -e 's/^__ */' -e 's/^([a-zA-Z_0-9]*)*.xtern.*\1/p';\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e '/|UNDEF/d' -e '/FUNC..GL/s/^.*|__ */p';\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e 's/^.* D __ */p' -e 's/^.* D //p';\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e 's/^_/' -e 's/^([a-zA-Z_0-9]*)*.xtern.*text.*\1/p';\
eval $xscan;\
$contains '^fprintf$'
libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e 's/^.*|FUNC |GLOB .*/p';\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$grep '|' | $sed -n -e '/|COMMON/d' -e '/|DATA/d' \
-e '/file/d' -e 's/^([]*).*\1/p';\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e 's/^.*|FUNC |GLOB .*/p' -e 's/^.*|FUNC |WEAK .*/p';\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
?X: mips nm output (sysV)
elif com="$sed -n -e 's/^__/' -e '/|Undef/d' -e '/|Proc/s/.*\1/p';\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e 's/^.*|Proc .*\|Text *| */p';\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e '/Def. Text/s/.*\ ([]*)\$/\1/p';\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
?X: OS/2

```

```

nm output
elif com="$sed -n -e 's/^-0-9a-f]*_\(.*)=.*\1/p";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
elif com="$sed -n -e 's/.*\text n\ \ \ \.//p";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
?X: AIX nm output
elif com="$sed -n -e 's/^__.*// -e 's/[]*D[]*[0-9]*.*//p";\
eval $xscan;\
$contains '^fprintf$' libc.list >/dev/null 2>&1; then
 eval $xrun
else
$nm -p $* 2>/dev/null >libc.tmp
$grep fprintf libc.tmp > libc.ptf
if com="$sed -n -e 's/.* [ADTSIW] *[_.]*/p' -e 's/.* [ADTSIW] //p";\
eval $xscan; $contains '^fprintf$' libc.list >/dev/null 2>&1
then
nm_opt='-p'
eval $xrun
else
echo " "
echo "$nm didn't seem to work right. Trying $ar instead..." >&4
com="
if $ar t $libc > libc.tmp && \
$contains '^fprintf$' libc.tmp >/dev/null 2>&1
then
for thisname in $libnames $libc; do
$ar t $thisname >>libc.tmp
done
$sed -e "s/\$_o\$//" < libc.tmp > libc.list
echo
"Ok." >&4
elif test "X$osname" = "Xos2" && $ar tv $libc > libc.tmp; then
?X: Repeat libc to extract forwarders to DLL entries too
for thisname in $libnames $libc; do
$ar tv $thisname >>libc.tmp
?X: Revision 50 of EMX has bug in ar: it will not extract forwarders
?X: to DLL entries. Use emximp which will extract exactly them.
emximp -o tmp.imp $thisname \
2>/dev/null && \
$sed -e 's/\([_a-zA-Z0-9]*\) .*$/\1/p' \
< tmp.imp >>libc.tmp
$rm -f tmp.imp
done
$sed -e "s/\$_o\$//" -e 's/^\|+//< libc.tmp > libc.list

```

```

echo "Ok." >&4
else
echo "$ar didn't seem to work right." >&4
echo "Maybe this is a Cray...trying bld instead..." >&4
if bld t $libc | \
$sed -e 's/.*\|/' -e "s/\|$_o:.*\|/" > libc.list &&
$test -s libc.list
then
for thisname in $libnames; do
bld t $libnames | \
$sed -e 's/.*\|/' -e "s/\|$_o:.*\|/" >>libc.list
$ar t $thisname >>libc.tmp
done
echo "Ok." >&4
else
echo
" That didn't work either. Giving up." >&4
exit 1
fi
fi
fi
fi
nm_extract="$com"
case "$PASE" in
define)
echo " "
echo "Since you are compiling for PASE, extracting more symbols from libc.a ..." >&4
dump -Tv /lib/libc.a | awk '$7 == "/unix" {print $5 " " $8}' | grep "^SV" | awk '{print $2}' >> libc.list
;;
*) if $test -f /lib/syscalls.exp; then
echo " "
echo "Also extracting names from /lib/syscalls.exp for good ole AIX..." >&4
$sed -n 's/^\([^\]*\)[\]*syscall[0-9]*[\]*$/1/p' \
/lib/syscalls.exp >>libc.list
fi
;;
esac
;;
esac
$rm -f libnames libpath

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/libc.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_setegid.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:



?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_setegid.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:07:07 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_setegid: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_setegid:  
?S: This variable conditionally defines the HAS\_SETEGID symbol, which  
?S: indicates to the C program that the setegid() routine is available  
?S: to change the effective gid of the current program.  
?S:.  
?C:HAS\_SETEGID (SETEGID):  
?C: This symbol, if defined, indicates that the setegid  
routine is available  
?C: to change the effective gid of the current program.  
?C:.  
?H:#\$d\_setegid HAS\_SETEGID /\*\*/  
?H:.  
?LINT:set d\_setegid  
: see if setegid exists  
set setegid d\_setegid  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_setegid.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: sysman.U,v 3.0.1.2 1994/06/20 07:08:43 ram Exp \$  
?RCS:  
?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: sysman.U,v \$  
?RCS: Revision 3.0.1.2 1994/06/20 07:08:43 ram

?RCS: patch30: now explicitly states that /usr/man/man1 is the default  
?RCS: patch30: added /usr/local/man/man1 to the search list  
?RCS:  
?RCS: Revision 3.0.1.1 1993/09/13 16:13:50 ram  
?RCS: patch10: added support for /local/man/man1 (WAD)  
?RCS: patch10: added temporary syspath variable to cut down on line length  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:55 ram  
?RCS: Baseline for dist 3.0 netwide  
release.

?RCS:

?MAKE:sysman: test Loc Oldconfig

?MAKE: -pick add \$@ %<

?S:sysman:

?S: This variable holds the place where the manual is located on this

?S: system. It is not the place where the user wants to put his manual

?S: pages. Rather it is the place where Configure may look to find manual

?S: for unix commands (section 1 of the manual usually). See mansrc.

?S:.

?T:syspath

: determine where manual pages are on this system

echo " "

case "\$sysman" in

")

syspath="/usr/share/man/man1 /usr/man/man1"

syspath="\$syspath /usr/man/mann /usr/man/man1 /usr/man/local/man1"

syspath="\$syspath /usr/man/u\_man/man1"

syspath="\$syspath /usr/catman/u\_man/man1 /usr/man/l\_man/man1"

syspath="\$syspath /usr/local/man/u\_man/man1 /usr/local/man/l\_man/man1"

syspath="\$syspath /usr/man/man.L /local/man/man1 /usr/local/man/man1"

sysman=`./loc . /usr/man/man1 \$syspath`

::

esac

if \$test -d "\$sysman"; then

echo "System manual is in \$sysman." >&4

else

echo "Could not find manual pages in source form."

>&4

fi

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/sysman.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: cc.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

```

?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: cc.U,v $
?RCS: Revision 3.0.1.4 1995/05/12 12:06:47 ram
?RCS: patch54: may now abort Configure when cc does not work
?RCS:
?RCS: Revision 3.0.1.3 1995/01/11 15:20:11 ram
?RCS: patch45: changed gcc checking message to a more explicit one (WED)
?RCS:
?RCS: Revision 3.0.1.2 1994/10/29 16:04:29 ram
?RCS: patch36: detect gcc even when not called as 'gcc' (ADO)
?RCS: patch36: simplified gcc version checking (ADO)
?RCS: patch36: added ?F: line for metalint
file checking
?RCS:
?RCS: Revision 3.0.1.1 1994/05/06 14:26:06 ram
?RCS: patch23: added support for gcc version (ADO)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:30 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:cc: Myread Oldconfig Checkcc test
?MAKE: -pick add $@ %<
?S:cc:
?S: This variable holds the name of a command to execute a C compiler which
?S: can resolve multiple global references that happen to have the same
?S: name. Usual values are 'cc' and 'gcc'.
?S: Fervent ANSI compilers may be called 'c89'. AIX has xlc.
?S:.
?F:!cc.cbu
?D:cc='cc'
: Determine the C compiler to be used
echo " "
case "$cc" in
") dflt=cc;;
*) dflt="$cc";;
esac
rp="Use which C compiler?"
./myread
cc="$ans"

: See whether they have no cc but they do have gcc
./trygcc

```

```
?X: Look for a hint-file generated 'call-back-unit'. Now that the
?X: user has specified the compiler, we may need to set or change some
?X: other defaults.
if $test -f cc.cbu; then
 ./cc.cbu
fi
./checkcc
```

Found

in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/cc.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_sysconf.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: as specified in the README file that comes with the distribution.
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```
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
```

```
?RCS:
```

```
?RCS: $Log: d_sysconf.U,v $
```

```
?RCS: Revision 3.0.1.1 1994/10/29 16:15:57 ram
```

```
?RCS: patch36: created by ADO
```

```
?RCS:
```

```
?MAKE:d_sysconf: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_sysconf:
```

```
?S: This variable conditionally defines the HAS_SYSCONF symbol, which
```

```
?S: indicates to the C program that the sysconf() routine is available
```

```
?S: to determine system related limits and options.
```

```
?S:.
```

```
?C:HAS_SYSCONF:
```

```
?C: This
```

```
symbol, if defined, indicates that sysconf() is available
```

```
?C: to determine system related limits and options.
```

```
?C:.
```

```
?H:#$d_sysconf HAS_SYSCONF /**/
```

```
?H:.
```

```
?LINT:set d_sysconf
```

```
: see if sysconf exists
```

```
set sysconf d_sysconf
```

```
eval $inlibc
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_sysconf.U

No license file was found, but licenses were detected in source scan.

?RCS: Copyright (c) 2014-2014, Karl Williamson & H.Merijn Brand

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_wcsxfrm: Compile cat rm\_try run Oldconfig Setvar

?MAKE: -pick add \$@ %<

?S:d\_wcsxfrm:

?S: This variable conditionally defines the HAS\_WCSXFRM symbol if the

?S: wcsxfrm() routine is available and can be used to compare wide

?S: character strings.

?S:.

?C:HAS\_WCSXFRM:

?C: This symbol, if defined, indicates that the wcsxfrm routine is

?C: available to transform a wide character string for wcsncmp().

?C:.

?H:#\$d\_wcsxfrm HAS\_WCSXFRM /\*\*/

?H:.

?F:!try

?LINT: set d\_wcsxfrm

: look for wcsxfrm

echo " "

\$cat >try.c <<'EOCP'

#include

<errno.h>

#include <wchar.h>

int main ()

{

    wchar\_t dst[4], \*src = L" ";

    errno = 0;

    return (wcsxfrm (dst, src, 1) ? errno ? errno : 0 : 1);

}

EOCP

set try

?X: if \$cc \$ccflags \$ldflags -o try try.c \$libs >/dev/null 2>&1 ; then

val="\$undef"

if eval \$compile; then

    `\$run ./try`

    case "\$?" in

```

0) echo "A working wcsxfrm() found." >&4
 val="$define" ;;
*) echo "wcsxfrm() found, but it doesn't work" >&4
 ;;
esac
else
 echo "wcsxfrm() NOT found." >&4
fi
set d_wcsxfrm
eval $setvar
$rm_try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_wcsxfrm.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_seteuid.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_seteuid.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:08 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_seteuid: Inlibc
?MAKE: -pick add $@ %<
?S:d_seteuid:
?S: This variable conditionally defines the HAS_SETEUID symbol, which
?S: indicates to the C program that the seteuid() routine is available
?S: to change the effective uid of the current program.
?S:.
?C:HAS_SETEUID (SETEUID):
?C: This symbol, if defined, indicates that the seteuid
?C: routine is available
?C: to change the effective uid of the current program.
?C:.
?H:#$d_seteuid HAS_SETEUID /**/
?H:.
?LINT:set d_seteuid
: see if seteuid exists
set seteuid d_seteuid

```

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_setuid.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_preadv.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_preadv.U,v \$

?RCS:

?MAKE:d\_preadv: Inlibc

?MAKE: -pick add @\$@ %<

?S:d\_preadv:

?S: This variable conditionally defines the HAS\_PREADV symbol, which

?S: indicates to the C program that the preadv() routine is available.

?S:.

?C:HAS\_PREADV :

?C: This symbol, if defined, indicates that the preadv routine is

?C: available to perform vectored reads on a file descriptor at a

?C: given offset.

?C:.

?H:#\$d\_preadv HAS\_PREADV /\*\*/

?H:.

?LINT:set d\_preadv

:

see if preadv exists

set preadv d\_preadv

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_preadv.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.  
 ?RCS: You may reuse parts of this distribution only within the terms of  
 ?RCS: that same Artistic License; a copy of which may be found at the root  
 ?RCS: of the source tree for dist 4.0.  
 ?RCS:  
 ?RCS: \$Log: d\_gethent.U,v \$  
 ?RCS: Revision 3.0 1993/08/18 12:06:09 ram  
 ?RCS: Baseline for dist 3.0 netwide release.  
 ?RCS:  
 ?MAKE:d\_gethent: Inlibc  
 ?MAKE: -pick add \$@ %<  
 ?S:d\_gethent:  
 ?S: This variable conditionally defines HAS\_GETHOSTENT if gethostent() is  
 ?S: available to dup file descriptors.  
 ?S:.  
 ?C:HAS\_GETHOSTENT (GETHOSTENT):  
 ?C: This symbol, if defined, indicates that the gethostent routine is  
 ?C: available to lookup host names in some data base or other.  
 ?C:.  
 ?H:#\$d\_gethent HAS\_GETHOSTENT /\*\*/  
 ?H:.  
 ?LINT:set  
 d\_gethent  
 : see if gethostent exists  
 set gethostent d\_gethent  
 eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_gethent.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_mkfifo.U 1 2006-08-24 12:32:52Z rmanfredi \$  
 ?RCS:  
 ?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
 ?RCS:  
 ?RCS: You may redistribute only under the terms of the Artistic Licence,  
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 ?RCS: of the source tree for dist 4.0.  
 ?RCS:  
 ?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>  
 ?RCS:  
 ?RCS: \$Log: d\_mkfifo.U,v \$  
 ?RCS: Revision 3.0.1.1 1994/10/29 16:14:17 ram  
 ?RCS: patch36: created by ADO  
 ?RCS:



```

?RCS:
?MAKE:d_mkfifo: Inlibc
?MAKE: -pick add $@ %<
?S:d_mkfifo:
?S: This variable conditionally defines the HAS_MKFIFO symbol, which
?S: indicates to the C program that the mkfifo() routine is available.
?S:.
?C:HAS_MKFIFO :
?C: This symbol, if defined, indicates that the mkfifo
routine is
?C: available to create FIFOs. Otherwise, mknod should be able to
?C: do it for you. However, if mkfifo is there, mknod might require
?C: super-user privileges which mkfifo will not.
?C:.
?H:#$d_mkfifo HAS_MKFIFO /**/
?H:.
?LINT:set d_mkfifo
: see if mkfifo exists
set mkfifo d_mkfifo
eval $inlibc

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/d_mkfifo.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: Id
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: libpth.U,v $
?RCS: Revision 3.0.1.6 1997/02/28 16:08:49 ram
?RCS: patch61: new loclibpth variable
?RCS:
?RCS: Revision 3.0.1.5 1995/01/11 15:31:30 ram
?RCS: patch45: call ./mips instead of just mips (WED)
?RCS:
?RCS: Revision 3.0.1.4 1994/08/29 16:29:15 ram
?RCS: patch32: added /lib/pa1.1 for HP-UX specially tuned PA-RISC libs (ADO)
?RCS: patch32: fixed information message, making it clearer (ADO)
?RCS:
?RCS: Revision 3.0.1.3 1994/06/20 07:03:54 ram

```

?RCS: patch30: added /usr/shlib to  
glibpth for shared-only libraries  
?RCS:  
?RCS: Revision 3.0.1.2 1994/05/13 15:26:57 ram  
?RCS: patch27: fixed a typo (libpth -> glibpth)  
?RCS:  
?RCS: Revision 3.0.1.1 1994/05/06 15:07:53 ram  
?RCS: patch23: now asks for library directories to be searched (ADO)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:02 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: This unit initializes the path for C library lookup.  
?X:  
?MAKE:libpth glibpth xlibpth plibpth loclibpth: \  
usrinc incpath test cat Myread Oldconfig  
?MAKE: -pick add \$@ %<  
?S:libpth:  
?S: This variable holds the general path (space-separated) used to find  
?S: libraries. It is intended to be used by other units.  
?S:.  
?S:glibpth:  
?S: This variable holds the general path (space-separated) used to  
?S: find libraries. It may contain directories that do not exist on  
?S: this platform, libpth is the cleaned-up version.  
?S:.  
?S:xlibpth:  
?S: This variable holds extra path (space-separated) used to find  
?S: libraries on this platform,  
?S: for example CPU-specific libraries  
?S: (on multi-CPU platforms) may be listed here.  
?S:.  
?S:loclibpth:  
?S: This variable holds the paths (space-separated) used to find local  
?S: libraries. It is prepended to libpth, and is intended to be easily  
?S: set from the command line.  
?S:.  
?S:plibpth:  
?S: Holds the private path used by Configure to find out the libraries.  
?S: Its value is prepend to libpth. This variable takes care of special  
?S: machines, like the mips. Usually, it should be empty.  
?S:.  
?T: xxx dlist  
?LINT:use usrinc  
?INIT:: change the next line if compiling for Xenix/286 on Xenix/386  
?INIT:xlibpth='/usr/lib/386 /lib/386'  
?INIT:: Possible local library directories to search.

```

?INIT:loclibpth="/usr/local/lib /opt/local/lib /usr/gnu/lib"
?INIT:loclibpth="$loclibpth /opt/gnu/lib /usr/GNU/lib /opt/GNU/lib"
?INIT:
?INIT:: general looking path for locating libraries
?INIT:glibpth="/lib /usr/lib $xlibpth"
?INIT:glibpth="$glibpth /usr/ccs/lib /usr/ucblib /usr/local/lib"
?X: /shlib
is for Digital Unix 4.0
?X: /usr/shlib is for OSF/1 systems.
?INIT:test -f /usr/shlib/libc.so && glibpth="/usr/shlib $glibpth"
?INIT:test -f /shlib/libc.so && glibpth="/shlib $glibpth"
?INIT:
?INIT:: Private path used by Configure to find libraries. Its value
?INIT:: is prepended to libpth. This variable takes care of special
?INIT:: machines, like the mips. Usually, it should be empty.
?INIT:plibpth=""
?INIT:
: Set private lib path
case "$plibpth" in
") if ./mips; then
?X: on mips, we DO NOT want /lib, and we want $incpath/usr/lib
plibpth="$incpath/usr/lib /usr/local/lib /usr/ccs/lib"
fi;;
esac
case "$libpth" in
') dlist="";;
") dlist="$loclibpth $plibpth $glibpth";;
*) dlist="$libpth";;
esac

: Now check and see which directories actually exist, avoiding duplicates
libpth=""
for xxx in $dlist
do
if $test -d $xxx; then
case " $libpth " in
" $xxx ") ;;
*) libpth="$libpth $xxx";;
esac
fi
done
$cat <<'EOM'

```

Some systems have incompatible or broken versions of libraries. Among the directories listed in the question below, please remove any you know not to be holding relevant libraries, and add any that are needed. Say "none" for none.

```

EOM
case "$libpth" in
") dflt='none';;
*)
?X: strip leading space
set X $libpth
shift
dflt=${1+"$@"}
;;
esac
rp="Directories to use for library searches?"
./myread
case "$sans" in
none) libpth=' ';;
*) libpth="$sans";;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/libpth.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_systypes.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

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?RCS: as specified in the README file that comes with the distribution.
```

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?RCS: You may reuse parts of this distribution only within the terms of
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: i_systypes.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:08:41 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?X:
```

```
?X: Look wether <sys/types.h> needs to be included.
```

```
?X:
```

```
?MAKE:i_systypes: Inhdr
```

```
?MAKE: -pick add $@ %<
```

```
?S:i_systypes:
```

```
?S: This variable conditionally defines the I_SYS_TYPES symbol,
```

```
?S: and indicates whether a C program should include <sys/types.h>.
```

```
?S:.
```

```
?C:I_SYS_TYPES (I_SYSTYPES):
```

```
?C: This symbol, if defined, indicates to the C program
```

```
that it should
?C: include <sys/types.h>.
?C:.
?H:#$i_systypes I_SYS_TYPES /**/
?H:.
?LINT:set i_systypes
: see if sys/types.h has to be included
set sys/types.h i_systypes
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_systypes.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_sunmath.U,v $
?RCS:
?RCS: Copyright (c) 2000 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:i_sunmath: Inhdr Hasfield
?MAKE: -pick add $@ %<
?S:i_sunmath:
?S: This variable conditionally defines the I_SUNMATH symbol, and indicates
?S: whether a C program should include <sunmath.h>.
?S:.
?C:I_SUNMATH:
?C: This symbol, if defined, indicates that <sunmath.h> exists and
?C: should be included.
?C:.
?H:#$i_sunmath I_SUNMATH /**/
?H:.
?LINT:set i_sunmath
: see if this is a sunmath.h system
set sunmath.h i_sunmath
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_sunmath.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_setlocale_r.U,v 0RCS:
?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
```

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_setlocale\_r setlocale\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
 usethreads i\_locale extern\_C

?MAKE: -pick add \$@ %<

?S:d\_setlocale\_r:

?S: This variable conditionally defines the HAS\_SETLOCALE\_R symbol,  
 ?S: which indicates to the C program that the setlocale\_r()  
 ?S: routine is available.

?S:.

?S:setlocale\_r\_proto:

?S: This variable encodes the prototype of setlocale\_r.  
 ?S: It is zero if d\_setlocale\_r is undef, and one of the  
 ?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_setlocale\_r  
 ?S: is defined.

?S:.

?C:HAS\_SETLOCALE\_R:

?C: This symbol, if defined, indicates that the setlocale\_r routine  
 ?C: is  
 available to setlocale re-entrantly.

?C:.

?C:SETLOCALE\_R\_PROTO:

?C: This symbol encodes the prototype of setlocale\_r.  
 ?C: It is zero if d\_setlocale\_r is undef, and one of the  
 ?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_setlocale\_r  
 ?C: is defined.

?C:.

?H:#\$d\_setlocale\_r HAS\_SETLOCALE\_R /\*\*/  
 ?H:#define SETLOCALE\_R\_PROTO \$setlocale\_r\_proto /\*\*/  
 ?H:.

?T:try hdrs d\_setlocale\_r\_proto  
 : see if setlocale\_r exists  
 set setlocale\_r d\_setlocale\_r  
 eval \$inlibc  
 case "\$d\_setlocale\_r" in  
 "\$define")  
 hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_locale locale.h"  
 case "\$d\_setlocale\_r\_proto:\$usethreads" in  
 ":define") d\_setlocale\_r\_proto=define  
 set d\_setlocale\_r\_proto setlocale\_r \$hdrs  
 eval \$hasproto ;;  
 \*) ;;  
 esac  
 case "\$d\_setlocale\_r\_proto" in  
 define)  
 case "\$setlocale\_r\_proto" in

```

"|0) try='int setlocale_r(int, const char*, char*, int);'
./protochk "$extern_C $try" $hdrs && setlocale_r_proto=I_ICBI ;;
esac
case "$setlocale_r_proto" in
"|0) d_setlocale_r=undef
setlocale_r_proto=0
echo
"Disabling setlocale_r, cannot determine prototype." >&4 ;;
*) case "$setlocale_r_proto" in
REENTRANT_PROTO*) ;;
*) setlocale_r_proto="REENTRANT_PROTO_$setlocale_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "setlocale_r has no prototype, not using it." >&4 ;;
esac
d_setlocale_r=undef
setlocale_r_proto=0
;;
esac
;;
*) setlocale_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_setlocale_r.U

```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_memory.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: i_memory.U,v $
```

```
?RCS: Revision 3.0.1.3 1994/06/20 07:01:55 ram
```

```
?RCS: patch30: cosmetic changes
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.2 1994/05/13 15:23:56 ram
```

```
?RCS: patch27: modified to avoid spurious Whoa warnings (ADO)
```

```

?RCS:
?RCS: Revision 3.0.1.1 1994/05/06 15:02:25 ram
?RCS: patch23: avoid conflicts with <string.h>
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:22 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:i_memory: Inhdr strings cppstdin
cppflags cppminus contains rm Setvar
?MAKE: -pick add $@ %<
?S:i_memory:
?S: This variable conditionally defines the I_MEMORY symbol, and indicates
?S: whether a C program should include <memory.h>.
?S:.
?C:I_MEMORY:
?C: This symbol, if defined, indicates to the C program that it should
?C: include <memory.h>.
?C:.
?H:#$i_memory I_MEMORY /**/
?H:.
?LINT:set i_memory
?X:
?X: Unfortunately, the definitions of memory functions sometimes
?X: conflict with those in <string.h>. We'll assume that if
?X: <string.h> contains memcpy, then we don't need memory.h
?X:
: see if memory.h is available.
val="
set memory.h val
eval $inhdr

: See if it conflicts with string.h
case "$val" in
$define)
case "$strings" in
") ;;
*)
$cppstdin $cppflags $cppminus < $strings > mem.h
if $contains 'memcpy' mem.h >/dev/null 2>&1; then
echo " "
echo "We won't be including <memory.h>."
val="$undef"
fi
$rm -f mem.h
;;
esac
esac
set i_memory

```



eval \$setvar

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_memory.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_fcntl\_can\_lock.U,v\$

?RCS:

?RCS: Copyright (c) 2000, Andrew Dougherty

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: d\_fcntl\_can\_lock.U,v \$

?RCS:

?MAKE:d\_fcntl\_can\_lock: d\_fcntl Compile Setvar cat rm\_try run signal\_t i\_stdlib

?MAKE: -pick add \$@ %<

?S:d\_fcntl\_can\_lock:

?S: This variable conditionally defines the FCNTL\_CAN\_LOCK symbol

?S: and indicates whether file locking with fcntl() works.

?S:.

?C:FCNTL\_CAN\_LOCK:

?C: This symbol, if defined, indicates that fcntl() can be used

?C: for file locking. Normally on Unix systems this is defined.

?C: It may be undefined on VMS.

?C:.

?H:#\$d\_fcntl\_can\_lock FCNTL\_CAN\_LOCK /\*\*/

?H:.

?F:!try

?LINT: set d\_fcntl\_can\_lock

?X: fcntl may not be fully functional. As of November 2000, on VMS and

?X: DOS/DJGPP, fctnl-based locking doesn't work.

?X: Thanks

to Craig A. Berry <craig.berry@psinetcs.com> for this test.

: See if fcntl-based locking works.

echo " "

\$cat >try.c <<EOCP

#\$i\_stdlib I\_STDLIB

#ifdef I\_STDLIB

#include <stdlib.h>

#endif

#include <unistd.h>

#include <fcntl.h>

#include <signal.h>

\$signal\_t blech(int x) { exit(3); }

int main() {

#if defined(F\_SETLK) && defined(F\_SETLKW)

```

struct flock flock;
int retval, fd;
fd = open("try.c", O_RDONLY);
flock.l_type = F_RDLCK;
flock.l_whence = SEEK_SET;
flock.l_start = flock.l_len = 0;
signal(SIGALRM, blech);
alarm(10);
retval = fcntl(fd, F_SETLK, &flock);
close(fd);
(retval < 0 ? exit(2) : exit(0));
#else
 exit(2);
#endif
}
EOCP
echo "Checking if fcntl-based file locking works... "
case "$d_fcntl" in
"$define")
set try
if eval $compile_ok; then
if $run ./try; then
echo "Yes, it seems to work."
val="$define"
else
echo "Nope, it didn't work."
val="$undef"
case "$?" in
3) $cat >&4 <<EOM

*** I had to
forcibly timeout from fcntl(..., F_SETLK, ...).
*** This is (almost) impossible.
*** If your NFS lock daemons are not feeling well, something like
*** this may happen, please investigate. Cannot continue, aborting.

EOM
exit 1
;;
esac
fi
else
echo "I'm unable to compile the test program, so I'll assume not."
val="$undef"
fi
;;
*) val="$undef";
echo "Nope, since you don't even have fcntl()."

```

```
;;
esac
set d_fcntl_can_lock
eval $setvar
$rm_try
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_fcntl_can_lock.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_neterrno.U,v 3.0.1.3 1994/10/29 16:20:29 ram Exp \$

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: i\_neterrno.U,v \$

?RCS: Revision 3.0.1.3 1994/10/29 16:20:29 ram

?RCS: patch36: forgot to initialize 'val' to an empty value (ADO)

?RCS:

?RCS: Revision 3.0.1.2 1994/08/29 16:22:10 ram

?RCS: patch32: removed spurious echo

?RCS:

?RCS: Revision 3.0.1.1 1994/06/20 07:02:05 ram

?RCS: patch30: created by ADO

?RCS:

?MAKE:i\_neterrno: Inhdr +cc +ccflags rm\_try Setvar

?MAKE: -pick

add \$@ %<

?S:i\_neterrno:

?S: This variable conditionally defines the I\_NET\_ERRNO symbol, which

?S: indicates to the C program that <net/errno.h> exists and should

?S: be included.

?S:.

?C:I\_NET\_ERRNO:

?C: This symbol, if defined, indicates that <net/errno.h> exists and

?C: should be included.

?C:.

?H:#\$i\_neterrno I\_NET\_ERRNO /\*\*/

?H:.

?LINT:set i\_neterrno

: see if net/errno.h is available

```
val="
set net/errno.h val
eval $inhdr
```

: Unfortunately, it causes problems on some systems. Arrgh.

```
case "$val" in
$define)
cat > try.c <<'EOM'
#include <stdio.h>
#include <errno.h>
#include <net/errno.h>
int func()
{
return ENOTSOCK;
}
EOM
if $cc $ccflags -c try.c >/dev/null 2>&1; then
echo "We'll be including <net/errno.h>." >&4
else
echo "We won't be including <net/errno.h>." >&4
val="$undef"
fi
$rm_try
;;
esac
set i_neterrno
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i_neterrno.U
```

No license file was found, but licenses were detected in source scan.

?RCS: Copyright (c) 2006-2007, H.Merijn Brand

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?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_snprintf d\_vsnprintf : Inlibc Compile cat run rm\_try

?MAKE: -pick add \$@ %<

?S:d\_snprintf:

?S: This variable conditionally defines the HAS\_SNPRINTF symbol, which

?S: indicates to the C program that the snprintf () library function

?S: is available.

```

?S:
?S:d_vsnprintf:
?S: This variable conditionally defines the HAS_VSNPRINTF symbol, which
?S: indicates to the C program that the vsnprintf () library function
?S: is available.
?S:
?C:HAS_SNPRINTF:
?C: This symbol, if defined, indicates that the snprintf () library
?C: function
?C: is available for use.
?C:
?C:HAS_VSNPRINTF:
?C: This symbol, if defined, indicates that the vsnprintf () library
?C: function is available for use.
?C:
?H:#$d_snprintf HAS_SNPRINTF /**/
?H:#$d_vsnprintf HAS_VSNPRINTF /**/
?H:
?F:!try
: see if snprintf exists
set snprintf d_snprintf
eval $inlibc

: see if vsnprintf exists
set vsnprintf d_vsnprintf
eval $inlibc

case "$d_snprintf-$d_vsnprintf" in
"$define-$define")
 $cat <<EOM
Checking whether your snprintf() and vsnprintf() work okay...
EOM
 $cat >try.c <<'EOCP'
/* v?snprintf testing logic courtesy of Russ Allbery.
* According to C99:
* - if the buffer is too short it still must be \0-terminated
* - if the buffer is too short the potentially required length
* must be returned and not -1
* - if the buffer is NULL the potentially required length
* must be returned and not -1 or core dump
*/
#include <stdio.h>
#include <stdarg.h>

char buf[2];

int test (char *format, ...)
{

```

```

va_list args;
int count;

va_start
(args, format);
count = vsnprintf (buf, sizeof buf, format, args);
va_end (args);
return count;
}

```

```

int main ()
{
return ((test ("%s", "abcd") == 4 && buf[0] == 'a' && buf[1] == '\0'
&& snprintf (NULL, 0, "%s", "abcd") == 4) ? 0 : 1);
}

```

EOCP

```

set try
if eval $compile; then
`$run ./try`
case "$?" in
0) echo "Your snprintf() and vsnprintf() seem to be working okay." ;;
*) cat <<EOM >&4

```

Your snprintf() and snprintf() don't seem to be working okay.

EOM

```

d_snprintf="$undef"
d_vsnprintf="$undef"
;;
esac
else
echo "(I can't seem to compile the test program--assuming they don't)"
d_snprintf="$undef"
d_vsnprintf="$undef"
fi
$rm_try
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_snprintf.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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```

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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_attribut.U,v $
?RCS: Revision 3.0.1.3 1995/01/30 14:33:45 ram
?RCS: patch49: test C program now includes <stdio.h> (WED)
?RCS:
?RCS: Revision 3.0.1.2 1995/01/11 15:25:47 ram
?RCS: patch45: fixed typo in the d_attribut variable (ADO)
?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 16:08:55 ram
?RCS: patch36: created by ADO
?RCS:
?MAKE:d_attribut: Myread Oldconfig cat cc cflags rm Setvar contains
?MAKE: -pick add $@ %<
?S:d_attribut
(d_attrib):
?S: This variable conditionally defines HASATTRIBUTE, which
?S: indicates the C compiler can check for function attributes,
?S: such as printf formats.
?S:.
?C:HASATTRIBUTE ~ %< (GNUC_ATTRIBUTE_CHECK):
?C: This symbol indicates the C compiler can check for function attributes,
?C: such as printf formats. This is normally only supported by GNU cc.
?C:.
?H:?%<:#$d_attribut HASATTRIBUTE /**/
?H:?%<:#ifndef HASATTRIBUTE
?H:?%<:#define __attribute__(_arg_)
?H:?%<:#endif
?H:.
?W:?%<:__attribute__
?LINT:set d_attribut
?LINT:known __attribute__
: Look for GNU-cc style attribute checking
echo " "
echo "Checking whether your compiler can handle __attribute__ ..." >&4
$cat >attrib.c <<'EOCP'
#include <stdio.h>
void croak (char* pat,...) __attribute__((format(printf,1,2),noreturn));
EOCP
if $cc $ccflags -c attrib.c >attrib.out 2>&1 ; then
if $contains 'warning' attrib.out >/dev/null 2>&1; then
echo "Your C compiler doesn't fully support __attribute__."
val="$undef"
else

```

```

echo
"Your C compiler supports __attribute__."
val="$define"
fi
else
echo "Your C compiler doesn't seem to understand __attribute__ at all."
val="$undef"
fi
set d_attribut
eval $setvar
$rm -f attrib*

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_attribut.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: i_math.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: i_math.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:21:59 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:i_math: Inhdr
?MAKE: -pick add $@ %<
?X: Are there really systems that *DON'T* have math.h?
?S:i_math:
?S: This variable conditionally defines the I_MATH symbol, and indicates
?S: whether a C program may include <math.h>.
?S:.
?C:I_MATH:
?C: This symbol, if defined, indicates
?C: to the C program that it should
?C: include <math.h>.
?C:.
?H:#$i_math I_MATH /**/
?H:.
?LINT:set i_math

```



: see if this is a math.h system

set math.h i\_math

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_math.U

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?RCS: \$Id: i\_systimeb.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS:

?RCS: \$Log: i\_systimeb.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:37 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit looks wether <sys/timeb.h> should be included

?X: or not when using ftime() (for struct timeb definition).

?X:

?X: Force looking for <sys/time.h> for struct timeb.

?X:INC: i\_systime

?MAKE:i\_systimeb: test contains Loc Setvar Findhdr

?MAKE: -pick add \$@ %<

?S:i\_systimeb:

?S: This variable conditionally defines I\_SYS\_TIMEB,  
which indicates

?S: to the C program that it should include <sys/timeb.h>.

?S:.

?C:I\_SYS\_TIMEB (I\_SYSTIMEB):

?C: This symbol, if defined, indicates to the C program that it should

?C: include <sys/timeb.h>, in order to define struct timeb (some systems

?C: define this in <sys/time.h>). This is useful when using ftime().

?C: You should include <sys/time.h> if I\_SYS\_TIMEB is not defined,

?C: nor is I\_SYS\_TIME.

?C:.

?H:#\$i\_systimeb I\_SYS\_TIMEB /\*\*/

?H:.

?T:xxx

?LINT:set i\_systimeb

: see where struct timeb is defined

```

echo " "
xxx=`./findhdr sys/timeb.h`
if $test "$xxx"; then
if $contains 'struct timeb' $xxx >/dev/null 2>&1; then
val="$define"
echo "You have struct timeb defined in <sys/timeb.h>." >&4
else
val="$undef"
echo "Assuming struct timeb is defined in <sys/time.h>." >&4
fi
else
val="$undef"
echo "No <sys/timeb.h> -- Assuming struct timeb is defined in <sys/time.h>." >&4
fi
set i_systimeb
eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_systimeb.U
```

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```

?RCS: $Id: d_usendir.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_usendir.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 15:47:34 ram
?RCS: patch61: replaced .a with $_a all over the place
?RCS: patch61: likewise for .o replaced by $_o
?RCS:
?RCS: Revision 3.0 1993/08/18 12:07:52 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_usendir i_ndir ndirlib: test Setvar Findhdr d_readdir _a
?MAKE: -pick add $@ %<
?S:d_usendir:
?S: This variable conditionally defines the EMULATE_NDIR symbol, which
?S: indicates
to the C program that it should compile the ndir.c code
?S: provided with the package.
?S:.

```

?S:i\_ndir (d\_libndir):  
 ?S: This variable conditionally defines the I\_NDIR symbol, which  
 ?S: indicates to the C program that it should include the system's  
 ?S: version of ndir.h, rather than the one with this package.  
 ?S:.  
 ?S:ndirlib:  
 ?S: The name of the library to include at linking stage to resolve ndir  
 ?S: symbols. It is up to the makefile to use this value.  
 ?S:.  
 ?C:EMULATE\_NDIR (USENDIR):  
 ?C: This symbol, if defined, indicates that the program should compile  
 ?C: the ndir.c code provided with the package.  
 ?C:.  
 ?C:I\_NDIR (LIBNDIR):  
 ?C: This symbol, if defined, indicates that the program should include the  
 ?C: system's version of ndir.h, rather than the one with this package.  
 ?C:.  
 ?H:#\$d\_usendir EMULATE\_NDIR /\*\*/  
 ?H:#\$i\_ndir I\_NDIR /\*\*/  
 ?H:.  
 ?T:val2  
 ?LINT: set d\_usendir i\_ndir  
 : see if there are directory access routines out there  
 echo " "  
 if \$test `./findhdr ndir.h` && \  
 ( \$test -r /usr/lib/libndir\$\_a  
 || \$test -r /usr/local/lib/libndir\$\_a ); then  
 echo "Ndir library found." >&4  
 if \$test -r /usr/lib/libndir\$\_a; then  
 ndirlib='-lndir'  
 else  
 ndirlib="/usr/local/lib/libndir\$\_a"  
 fi  
 val2="\$define"  
 val="\$undef"  
 else  
 ndirlib="  
 val2="\$undef"  
 case "\$d\_readdir" in  
 "\$define")  
 echo "No ndir library found, but you have readdir() so we'll use that." >&4  
 val="\$undef";  
 ;;  
 \*)  
 echo "No ndir library found." >&4  
 val="\$define"  
 ;;  
 esac

```
fi
set d_usendir
eval $setvar
val="$val2"
set i_ndir
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_usendir.U
```

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?RCS:

?MAKE:d\_logb: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_logb:

?S: This variable conditionally defines the HAS\_LOGB symbol, which

?S: indicates to the C program that the logb() routine is available

?S: to extract the exponent of x.

?S:.

?C:HAS\_LOGB:

?C: This symbol, if defined, indicates that the logb routine is

?C: available to do the logb function.

?C:.

?H:#\$d\_logb HAS\_LOGB /\*\*/

?H:.

?LINT:set d\_logb

: see if logb exists

set logb d\_logb

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_logb.U
```

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?RCS: \$Id: i\_socks.U,v \$

?RCS:

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?RCS:

?MAKE:i\_socks: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_socks:

?S: This variable conditionally defines the I\_SOCKS symbol, and indicates

?S: whether a C program should include <socks.h>.

?S:.

?C:I\_SOCKS:

?C: This symbol, if defined, indicates that <socks.h> exists and

?C: should be included.

?C:.

?H:#\$i\_socks I\_SOCKS /\*\*/

?H:.

?LINT:set i\_socks

: see if this is a socks.h system

set socks.h i\_socks

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_socks.U

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?RCS: \$Id: Warn.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Extract.U,v \$

?X:

?X: This unit produces a shell script which can be run in order to emit

?X: an important warning to the user, which will be remembered and shown

?X: at the end of the Configure run as well.

?X:

?X: A typical use would be:

?X:

?X: ./warn <<EOM

?X: Problem with your C compiler: can't turn debugging on.

?X: EOM

?X:

?X: or:

?X:

?X: ./warn "Problem with your C compiler: can't turn debugging on."

?X:

?X: Which will both display to the user:

?X:

?X: \*\*\*

WARNING:

?X: \*\*\* Problem with your C compiler: can't turn debugging on.

?X: \*\*\*

?X:

?MAKE:Warn: startsh eunicefix

?MAKE: -pick add \$@ %<

?F:./warn

: script used to emit important warnings

cat >warn <<EOS

\$startsh

?X: Read the whole warning message from stdin into a temporary file

?X: when no argument was supplied.

if test \$# -gt 0; then

echo "\$@" >msg

else

cat >msg

fi

?X: Emit the warning, prefixing all lines with '\*\*\* '

echo "\*\*\* WARNING:" >&4

sed -e 's/^/\*\*\* /' <msg >&4

echo "\*\*\* " >&4

?X: Save the warning in the logs, which will be shown again at the end

cat msg >>config.msg

echo " " >>config.msg

rm -f msg

EOS

chmod +x warn

\$eunicefix warn

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Warn.U

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?RCS:

?MAKE:d\_erfc: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_erfc:

?S: This variable conditionally defines the HAS\_ERFC symbol, which

?S: indicates to the C program that the erfc() routine is available.

?S:.

?C:HAS\_ERFC:

?C: This symbol, if defined, indicates that the erfc routine is

?C: available to do the complementary error function.

?C:.

?H:#\$d\_erfc HAS\_ERFC /\*\*/

```
?H:
?LINT:set d_erfc
: see if erfc exists
set erfc d_erfc
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_erfc.U
```

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```
?RCS: $Id: d_poll.U 15 2006-08-30 18:21:51Z rmanfredi $
?RCS:
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?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_poll.U,v $
?RCS: Revision 3.0.1.2 1997/02/28 15:38:17 ram
?RCS: patch61: mention that <poll.h> can be included if HAS_POLL defined
?RCS:
?RCS: Revision 3.0.1.1 1995/01/11 15:26:31 ram
?RCS: patch45: created
?RCS:
?MAKE:d_poll: Inlibc
?MAKE: -pick add $@ %<
?S:d_poll:
?S: This variable conditionally defines the HAS_POLL symbol, which
?S: indicates to the C program that the poll() routine is available
?S: to poll active file descriptors.
?S:
?C:HAS_POLL
:
?C: This symbol, if defined, indicates that the poll routine is
?C: available to poll active file descriptors. Please check I_POLL and
?C: I_SYS_POLL to know which header should be included as well.
?C:
?H:#$d_poll HAS_POLL /**/
?H:
?LINT:set d_poll
: see if poll exists
set poll d_poll
eval $inlibc
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_poll.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_strtok.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS:

?RCS: \$Log: d\_strtok.U,v \$

?RCS: Revision 3.0 1993/08/18 12:07:38 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: The strtok routine now appears to be a standard one, but it was

?X: missing in early BSD systems.

?X:

?MAKE:d\_strtok: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_strtok:

?S: This variable conditionally defines HAS\_STRTOK if strtok() is

?S: available to scan strings for tokens.

?S:.

?C:HAS\_STRTOK (STRTOK):

?C: This symbol, if defined, indicates

that the strtok routine is

?C: available to scan strings for tokens.

?C:.

?H:#\$d\_strtok HAS\_STRTOK /\*\*/

?H:.

?LINT:set d\_strtok

: see if strtok exists

set strtok d\_strtok

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_strtok.U

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?RCS: \$Id\$

?RCS:



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?RCS:  
?MAKE:d\_getmntent: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_getmntent:  
?S: This variable conditionally defines the HAS\_GETMNTENT symbol, which  
?S: indicates to the C program that the getmntent() routine is available  
?S: to iterate through mounted files to get their mount info.  
?S:.  
?C:HAS\_GETMNTENT:  
?C: This symbol, if defined, indicates that the getmntent routine is  
?C: available to iterate through mounted file systems to get their info.  
?C:.  
?H:#\$d\_getmntent HAS\_GETMNTENT /\*\*/  
?H:.  
?LINT:set d\_getmntent  
: see if getmntent exists  
set getmntent d\_getmntent  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_getmntent.U

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?RCS:  
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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?MAKE:selectminbits: Compile cat rm\_try Oldconfig d\_select \  
i\_time i\_systime i\_systimek i\_sysselect selecttype d\_socket \  
byteorder Myread Setvar run i\_stdlib ptrsize  
?MAKE: -pick add \$@ %<  
?S:selectminbits:  
?S: This variable holds the minimum number of bits operated by select.  
?S: That is, if you do select(n, ...), how many bits at least will be  
?S: cleared in the masks if some activity is detected. Usually this  
?S: is either n or 32\*ceil(n/32), especially many little-endians do  
?S: the latter. This is only useful if

you have select(), naturally.

?S:.

?C:SELECT\_MIN\_BITS:

?C: This symbol holds the minimum number of bits operated by select.

?C: That is, if you do select(n, ...), how many bits at least will be

?C: cleared in the masks if some activity is detected. Usually this

?C: is either n or 32\*ceil(n/32), especially many little-endians do

?C: the latter. This is only useful if you have select(), naturally.

?C:.

```
?H:#define SELECT_MIN_BITS $selectminbits /**/
```

?H:.

?T:bits

?T:safebits

?F:!try

: check for the select 'width'

```
case "$selectminbits" in
```

```
) safebits=`expr $ptrsize * 8`
```

```
 case "$d_select" in
```

```
 $define)
```

```
 $cat <<EOM
```

Checking to see on how many bits at a time your select() operates...

EOM

```
$cat >try.c <<EOCP
```

```
#include <sys/types.h>
```

```
#$i_time I_TIME
```

```
#$i_systime I_SYS_TIME
```

```
#$i_systimek I_SYS_TIME_KERNEL
```

```
#ifdef I_TIME
```

```
include <time.h>
```

```
#endif
```

```
#ifdef I_SYS_TIME
```

```
ifdef I_SYS_TIME_KERNEL
```

```
define KERNEL
```

```
endif
```

```
include <sys/time.h>
```

```
ifdef I_SYS_TIME_KERNEL
```

```
undef KERNEL
```

```
endif
```

```
#endif
```

```
#$i_sysselect
```

```
 I_SYS_SELECT
```

```
#ifdef I_SYS_SELECT
```

```
#include <sys/select.h>
```

```
#endif
```

```
#$d_socket HAS_SOCKET
```

```
#ifdef HAS_SOCKET
```

```
include <sys/socket.h> /* Might include <sys/bsdtypes.h> */
```

```

#endif
#include <stdio.h>
#ifdef I_STDLIB
#include <stdlib.h>
#endif
$selecttype b;
#define S sizeof(*(b))
#define MINBITS 64
#define NBYTES (S * 8 > MINBITS ? S : MINBITS/8)
#define NBITS (NBYTES * 8)
int main() {
 char *s = (char *)malloc(NBYTES);
 struct timeval t;
 int i;
 FILE* fp;
 int fd;

 if (!s)
 exit(1);
 fclose(stdin);
 fp = fopen("try.c", "r");
 if (fp == 0)
 exit(2);
 fd = fileno(fp);
 if (fd < 0)
 exit(3);
 b = ($selecttype)s;
 for (i = 0; i < NBITS; i++)
 FD_SET(i, b);
 t.tv_sec = 0;
 t.tv_usec = 0;
 select(fd + 1, b, 0, 0, &t);
 for (i = NBITS - 1; i > fd && FD_ISSET(i, b); i--);
 free(s);
 printf("%d\n", i + 1);
 return 0;
}

```

EOCP

```

set try
if eval $compile_ok; then
 selectminbits=`$run
./try 2>/dev/null`
 case "$selectminbits" in
 *) cat >&4 <<EOM

```

Cannot figure out on how many bits at a time your select() operates.

I'll play safe and guess it is \$safebits bits.

EOM

```

selectminbits=$safebits
bits="$safebits bits"
;;
1) bits="1 bit" ;;
*) bits="$selectminbits bits" ;;
esac
echo "Your select() operates on $bits at a time." >&4
else
rp='What is the minimum number of bits your select() operates on?'
case "$byteorder" in
12345678) dflt=64 ;;
1234) dflt=32 ;;
*) dflt=1 ;;
esac
. ./myread
val=$ans
selectminbits="$val"
fi
$rm_try
;;
*) : no select, so pick a harmless default
selectminbits=$safebits
;;
esac
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/selectminbits.U
```

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?RCS: \$Id\$

?RCS:

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?RCS:

?MAKE:d\_fpos64\_t: \

Inlibc Setvar Compile rm\_try cat fposize

?MAKE: -pick add \$@ %<

?S:d\_fpos64\_t:

?S: This symbol will be defined if the C compiler supports fpos64\_t.

?S:.

?C:HAS\_FPOS64\_T:

?C: This symbol will be defined if the C compiler supports fpos64\_t.

?C:.

```
?H:#$d_fpos64_t HAS_FPOS64_T /**/
?H:.
?LINT:set d_fpos64_t
: check for fpos64_t
echo " "
echo "Checking to see if you have fpos64_t..." >&4
$cat >try.c <<EOCP
#include <stdio.h>
int main() { fpos64_t x = 7; }
EOCP
set try
if eval $compile; then
val="$define"
echo "You have fpos64_t."
else
val="$undef"
echo "You do not have fpos64_t."
case "$fposize" in
8) echo "(Your fpos_t is 64 bits, so you could use that.)" ;;
)
esac
fi
$rm_try
set
d_fpos64_t
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_fpos64_t.U
```

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```
?RCS: $Id: d_wifstat.U,v 3.0.1.3 1997/02/28 15:47:43 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
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?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: d_wifstat.U,v $
?RCS: Revision 3.0.1.3 1997/02/28 15:47:43 ram
?RCS: patch61: added a ?F: metalint hint
?RCS:
?RCS: Revision 3.0.1.2 1995/07/25 14:09:10 ram
?RCS: patch56: re-arranged compile line to include ldflags before objects
?RCS:
```

```

?RCS: Revision 3.0.1.1 1995/03/21 08:47:46 ram
?RCS: patch52: created
?RCS:
?MAKE:d_wifstat: Compile d_uwait Oldconfig cat rm
?MAKE: -pick add $@ %<
?S:d_wifstat:
?S: This symbol conditionally defines USE_WIFSTAT
if the C program can
?S: safely use the WIFxxx macros with the kind of wait() parameter
?S: declared in the program (see UNION_WAIT), or if it can't. Should
?S: only matter on HP-UX, where the macros are incorrectly written and
?S: therefore cause programs using them with an 'union wait' variable
?S: to not compile properly.
?S:.
?C:USE_WIFSTAT:
?C: This symbol, if defined, indicates to the C program that the argument
?C: for the WIFxxx set of macros such as WIFSIGNALED or WIFEXITED can
?C: be of the same kind as the one used to hold the wait() status. Should
?C: only matter on HP-UX, where the macros are incorrectly written and
?C: therefore cause programs using them with an 'union wait' variable
?C: to not compile properly. See also UNION_WAIT.
?C:.
?H:#$d_wifstat USE_WIFSTAT /**/
?H:.
?T:type
?F:!foo
: see if we can use WIFxxx macros
echo " "
case "$d_wifstat" in
"$define") echo "As before, you can safely use WIFEXITED and friends!" >&4;;
"$undef") echo "You still can't use WIFEXITED
and friends!" >&4;;
*)
echo "Let's see whether you can use the WIFEXITED(status) macro and its"
case "$d_uwait" in
"$define") type='union wait';;
*) type='int';;
esac
echo "friends with status declared as '$type status'..."
$cat >foo.c <<EOCP
#include <sys/types.h>
#include <sys/wait.h>

int main()
{
$type status;
int e = 0;

```

```

#ifdef WIFEXITED
if (WIFEXITED(status))
 printf("\n");
exit(0);
#else
exit(2);
#endif
}
EOCP
d_wifstat="$undef"
set foo
if eval $compile; then
if ./foo >/dev/null; then
 echo "Great! Looks like we can use the WIFxxx macros." >&4
 d_wifstat="$define"
else
 echo "You don't seem to have WIFxxx macros, but that's ok." >&4
fi
else
 echo "Apparently you can't use WIFxxx macros properly." >&4
fi
$rm -f foo.* foo core
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_wifstat.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: sitebin.U,v \$

?RCS:

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?RCS:

?RCS: \$Log: sitebin.U,v \$

?RCS:

?MAKE:sitebin sitebinexp installsitebin : Getfile Oldconfig \

Setprefixvar siteprefix

?MAKE: -pick add \$@ %<

?Y:TOP

?D:sitebin="

?S:sitebin:

?S: This variable holds the name of the directory in which the user wants  
?S: to put add-on publicly executable files for the package in question. It  
?S: is most often a local directory such as /usr/local/bin. Programs using  
?S: this variable must be prepared to deal with ~name substitution.  
?S: The standard distribution will put nothing  
in this directory.  
?S: After perl has been installed, users may install their own local  
?S: executables in this directory with  
?S: MakeMaker Makefile.PL  
?S: or equivalent. See INSTALL for details.

?S:.

?D:sitebinexp="

?S:sitebinexp:

?S: This is the same as the sitebin variable, but is filename expanded at

?S: configuration time, for use in your makefiles.

?S:.

?D:installsitebin="

?S:installsitebin:

?S: This variable is usually the same as sitebinexp, unless you are on

?S: a system running AFS, in which case they may differ slightly. You

?S: should always use this variable within your makefiles for portability.

?S:.

?LINT:change prefixvar

?LINT:set installsitebin

?LINT:set sitebin

?LINT:set sitebinexp

: determine where add-on public executables go

case "\$sitebin" in

") dflt=\$siteprefix/bin ;;

\*) dflt=\$sitebin ;;

esac

fn=d~

rp='Pathname where the add-on public executables should be installed?'

./getfile

prefixvar=sitebin

./setprefixvar

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/sitebin.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_db.U,v 3.0.1.3 1995/07/25 14:10:22 ram Exp \$

?RCS:

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?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>  
?RCS:  
?RCS: \$Log: i\_db.U,v \$  
?RCS: Revision 3.0.1.3 1995/07/25 14:10:22 ram  
?RCS: patch56: conditionally use const in test programs (ADO)  
?RCS:  
?RCS: Revision 3.0.1.2 1995/05/12 12:14:42 ram  
?RCS: patch54: extended for more intimate DB probing (ADO)  
?RCS:  
?RCS: Revision 3.0.1.1 1994/08/29 16:21:50 ram  
?RCS: patch32: created by ADO  
?RCS:  
?MAKE:i\_db db\_hashtype db\_prefixtype \  
db\_version\_major  
db\_version\_minor db\_version\_patch : \  
Inhdr +cc +ccflags rm\_try contains cat \  
Compile libs sed run i\_stdlib  
?MAKE: -pick add \$@ %<  
?S:i\_db:  
?S: This variable conditionally defines the I\_DB symbol, and indicates  
?S: whether a C program may include Berkeley's DB include file <db.h>.  
?S:.  
?S:db\_hashtype:  
?S: This variable contains the type of the hash structure element  
?S: in the <db.h> header file. In older versions of DB, it was  
?S: int, while in newer ones it is u\_int32\_t.  
?S:.  
?S:db\_prefixtype:  
?S: This variable contains the type of the prefix structure element  
?S: in the <db.h> header file. In older versions of DB, it was  
?S: int, while in newer ones it is size\_t.  
?S:.  
?S:db\_version\_major:  
?S: This variable contains the major version number of  
?S: Berkeley DB found in the <db.h> header file.  
?S:.  
?S:db\_version\_minor:  
?S: This variable contains the minor version number of  
?S: Berkeley DB found in the <db.h> header file.  
?S: For DB version 1 this is always 0.  
?S:.  
?S:db\_version\_patch:  
?S: This

```

variable contains the patch version number of
?S: Berkeley DB found in the <db.h> header file.
?S: For DB version 1 this is always 0.
?S:.
?C:I_DB:
?C: This symbol, if defined, indicates to the C program that it should
?C: include Berkeley's DB include file <db.h>.
?C:.
?C:DB_Prefix_t:
?C: This symbol contains the type of the prefix structure element
?C: in the <db.h> header file. In older versions of DB, it was
?C: int, while in newer ones it is u_int32_t.
?C:.
?C:DB_Hash_t:
?C: This symbol contains the type of the prefix structure element
?C: in the <db.h> header file. In older versions of DB, it was
?C: int, while in newer ones it is size_t.
?C:.
?C:DB_VERSION_MAJOR_CFG:
?C: This symbol, if defined, defines the major version number of
?C: Berkeley DB found in the <db.h> header when Perl was configured.
?C:.
?C:DB_VERSION_MINOR_CFG:
?C: This symbol, if defined, defines the minor version number of
?C: Berkeley DB found in the <db.h> header when Perl was configured.
?C: For
DB version 1 this is always 0.
?C:.
?C:DB_VERSION_PATCH_CFG:
?C: This symbol, if defined, defines the patch version number of
?C: Berkeley DB found in the <db.h> header when Perl was configured.
?C: For DB version 1 this is always 0.
?C:.
?H:#$i_db I_DB /**/
?H:#define DB_Hash_t $db_hashtype /**/
?H:#define DB_Prefix_t $db_prefixtype /**/
?H:#define DB_VERSION_MAJOR_CFG $db_version_major /**/
?H:#define DB_VERSION_MINOR_CFG $db_version_minor /**/
?H:#define DB_VERSION_PATCH_CFG $db_version_patch /**/
?H:.
?F:!try
?LINT:change libs
: see if this is a db.h system
set db.h i_db
eval $inhdr

case "$i_db" in
$define)

```

```

: Check db version.
echo " "
echo "Checking Berkeley DB version ..." >&4
$cat >try.c <<EOCP
#include <sys/types.h>
#include <stdio.h>
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#include <db.h>
int main(int argc, char *argv[])
{
#ifdef DB_VERSION_MAJOR /* DB version >= 2 */
 int Major, Minor, Patch ;
 unsigned long Version ;
 (void)db_version(&Major,
&Minor, &Patch) ;
 if (argc == 2) {
 printf("%d %d %d %d %d %d\n",
 DB_VERSION_MAJOR, DB_VERSION_MINOR, DB_VERSION_PATCH,
 Major, Minor, Patch);
 exit(0);
 }
 printf("You have Berkeley DB Version 2 or greater.\n");

 printf("db.h is from Berkeley DB Version %d.%d.%d\n",
DB_VERSION_MAJOR, DB_VERSION_MINOR, DB_VERSION_PATCH);
 printf("libdb is from Berkeley DB Version %d.%d.%d\n",
Major, Minor, Patch) ;

 /* check that db.h & libdb are compatible */
 if (DB_VERSION_MAJOR != Major || DB_VERSION_MINOR != Minor || DB_VERSION_PATCH != Patch) {
printf("db.h and libdb are incompatible.\n") ;
 exit(3);
 }

 printf("db.h and libdb are compatible.\n") ;

 Version = DB_VERSION_MAJOR * 1000000 + DB_VERSION_MINOR * 1000
+ DB_VERSION_PATCH ;

 /* needs to be >= 2.3.4 */
 if (Version < 2003004) {
 /* if (DB_VERSION_MAJOR == 2 && DB_VERSION_MINOR == 0 && DB_VERSION_PATCH < 5) { */
printf("Perl needs
Berkeley DB 2.3.4 or greater.\n") ;
 exit(2);
 }
}

```

```

}

exit(0);
#else
#if defined(_DB_H_) && defined(BTREEMAGIC) && defined(HASHMAGIC)
if (argc == 2) {
 printf("1 0 0\n");
 exit(0);
}
printf("You have Berkeley DB Version 1.\n");
exit(0); /* DB version < 2: the coast is clear. */
#else
exit(1); /* <db.h> not Berkeley DB? */
#endif
#endif
}
EOCP
set try
if eval $compile_ok && $run ./try; then
echo 'Looks OK.' >&4
set ` $run ./try 1 `
db_version_major=$1
db_version_minor=$2
db_version_patch=$3
else
echo "I can't use Berkeley DB with your <db.h>. I'll disable Berkeley DB." >&4
i_db=$undef
case " $libs " in
"-ldb ")
: Remove db from list of libraries to use
echo "Removing unusable -ldb from library list" >&4
set `echo X $libs | $sed -e 's/-ldb //' -e 's/-ldb$/'`
shift
libs="$*"
echo "libs = $libs" >&4
;;
esac
fi
$rm_try
;;
esac

@if DB_Hash_t
case "$i_db" in
define)
: Check the return type needed
for hash
echo " "

```

```

echo "Checking return type needed for hash for Berkeley DB ..." >&4
$cat >try.c <<EOCP
#include <sys/types.h>
#include <db.h>

#ifdef DB_VERSION_MAJOR
u_int32_t hash_cb (const void* ptr, size_t size)
{
 return 0;
}
HASHINFO info;
int main()
{
 info.hash = hash_cb;
}
#endif
EOCP
if $cc $ccflags -c try.c >try.out 2>&1 ; then
if $contains warning try.out >>/dev/null 2>&1 ; then
 db_hashtype='int'
else
 db_hashtype='u_int32_t'
fi
else
: XXX Maybe we should just give up here.
db_hashtype=u_int32_t
$cat try.out >&4
echo "Help: I can't seem to compile the db test program." >&4
echo "Something's wrong, but I'll assume you use $db_hashtype." >&4
fi
$rm_try
echo "Your version of Berkeley DB uses $db_hashtype for hash."
;;
*) db_hashtype=u_int32_t
;;
esac
@end
@if DB_Prefix_t
case "$i_db" in
define)
: Check the return type needed for prefix
echo " "
echo "Checking return type needed for prefix for Berkeley DB ..." >&4
cat >try.c <<EOCP
#include
<sys/types.h>
#include <db.h>

```

```

#ifndef DB_VERSION_MAJOR
size_t prefix_cb (const DBT *key1, const DBT *key2)
{
 return 0;
}
BTREEINFO info;
int main()
{
 info.prefix = prefix_cb;
}
#endif
EOCP
if $cc $cflags -c try.c >try.out 2>&1 ; then
if $contains warning try.out >>/dev/null 2>&1 ; then
 db_prefixtype='int'
else
 db_prefixtype='size_t'
fi
else
 db_prefixtype='size_t'
: XXX Maybe we should just give up here.
$cat try.out >&4
echo "Help: I can't seem to compile the db test program." >&4
echo "Something's wrong, but I'll assume you use $db_prefixtype." >&4
fi
$rm_try
echo "Your version of Berkeley DB uses $db_prefixtype for prefix."
;;
*) db_prefixtype='size_t'
;;
esac
@end

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_db.U
```

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```
?RCS: $Id: vendorarch.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1999, Andy Dougherty
```

```
?RCS:
```

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```

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```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

?RCS: \$Log: vendorarch.U,v \$

?RCS: Revision 1.1 1999/07/08 18:32:57 doughera

?RCS: Initial revision

?RCS:

?MAKE:d\_vendorarch vendorarch vendorarchexp installvendorarch: sed Getfile \  
 Setprefixvar Oldconfig Prefixit archname vendorlib vendorprefix test

?MAKE: -pick add \$@ %<

?Y:TOP

?S:vendorarch:

?S: This variable contains the value of the PERL\_VENDORARCH symbol.

?S: It may have a ~ on the front.

?S: The standard distribution will put nothing in this directory.

?S: Vendors

who distribute perl may wish to place their own

?S: architecture-dependent modules and extensions in this directory with

?S: MakeMaker Makefile.PL INSTALLDIRS=vendor

?S: or equivalent. See INSTALL for details.

?S:.

?S:vendorarchexp:

?S: This variable is the ~name expanded version of vendorarch, so that you

?S: may use it directly in Makefiles or shell scripts.

?S:.

?D:installvendorarch="

?S:installvendorarch:

?S: This variable is really the same as vendorarchexp but may differ on

?S: those systems using AFS. For extra portability, only this variable

?S: should be used in makefiles.

?S:.

?S:d\_vendorarch:

?S: This variable conditionally defined PERL\_VENDORARCH.

?S:.

?C:PERL\_VENDORARCH:

?C: If defined, this symbol contains the name of a private library.

?C: The library is private in the sense that it needn't be in anyone's

?C: execution path, but it should be accessible by the world.

?C: It may have a ~ on the front.

?C: The standard distribution will put nothing in this

directory.

?C: Vendors who distribute perl may wish to place their own

?C: architecture-dependent modules and extensions in this directory with

?C: MakeMaker Makefile.PL INSTALLDIRS=vendor

?C: or equivalent. See INSTALL for details.

?C:.

?C:PERL\_VENDORARCH\_EXP:

?C: This symbol contains the ~name expanded version of PERL\_VENDORARCH, to be used

?C: in programs that are not prepared to deal with ~ expansion at run-time.

?C:.

?H:#\$d\_vendorarch PERL\_VENDORARCH "\$vendorarch" /\*\*/

```

?H:#$d_vendorarch PERL_VENDORARCH_EXP "$vendorarchexp" /**/
?H:.
?LINT:change prefixvar
?LINT:set installvendorarch
: Set the vendorarch variables
case "$vendorprefix" in
") d_vendorarch="$undef"
vendorarch="
vendorarchexp="
;;
*) d_vendorarch="$define"
: determine where vendor-supplied architecture-dependent libraries go.
: vendorlib default is /usr/local/lib/perl5/vendor_perl/$version
: vendorarch default is /usr/local/lib/perl5/vendor_perl/$version/$sarchname
: vendorlib may have an optional trailing
/share.
case "$vendorarch" in
") dflt=`echo $vendorlib | $sed 's,/share$,,'`
dflt="$dflt/$sarchname"
;;
*) dflt="$vendorarch" ;;
esac
fn=d~+
rp='Pathname for vendor-supplied architecture-dependent files?'
./getfile
vendorarch="$ans"
vendorarchexp="$ansexp"
;;
esac
prefixvar=vendorarch
./installprefix
if $test X"$vendorarch" = X"$vendorlib"; then
d_vendorarch="$undef"
else
d_vendorarch="$define"
fi

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/vendorarch.U

```

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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>  
?RCS:  
?RCS: \$Log: i\_neterrno.U,v \$  
?RCS: Revision 3.0.1.3 1994/10/29 16:20:29 ram  
?RCS: patch36: forgot to initialize 'val' to an empty value (ADO)  
?RCS:  
?RCS: Revision 3.0.1.2 1994/08/29 16:22:10 ram  
?RCS: patch32: removed spurious echo  
?RCS:  
?RCS: Revision 3.0.1.1 1994/06/20 07:02:05 ram  
?RCS: patch30: created by ADO  
?RCS:  
?MAKE:i\_neterrno: Inhdr +cc +ccflags rm\_try Setvar  
?MAKE: -pick add \$@ %<  
?S:i\_neterrno:  
?S: This variable  
conditionally defines the I\_NET\_ERRNO symbol, which  
?S: indicates to the C program that <net/errno.h> exists and should  
?S: be included.  
?S:.  
?C:I\_NET\_ERRNO:  
?C: This symbol, if defined, indicates that <net/errno.h> exists and  
?C: should be included.  
?C:.  
?H:#\$i\_neterrno I\_NET\_ERRNO /\*\*/  
?H:.  
?LINT:set i\_neterrno  
: see if net/errno.h is available  
val="  
set net/errno.h val  
eval \$inhdr  
  
: Unfortunately, it causes problems on some systems. Arrgh.  
case "\$val" in  
\$define)  
cat > try.c <<'EOM'  
#include <stdio.h>  
#include <errno.h>  
#include <net/errno.h>  
int func()  
{  
return ENOTSOCK;  
}  
EOM

```

if $cc $cflags -c try.c >/dev/null 2>&1; then
 echo "We'll be including <net/errno.h>." >&4
else
 echo "We won't be including <net/errno.h>." >&4
 val="$undef"
fi
$rm_try
;;
esac
set i_neterrno
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/i_neterrno.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getgrnam\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_getgrnam\_r getgrnam\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
 usethreads i\_grp extern\_C

?MAKE: -pick add \$@ %<

?S:d\_getgrnam\_r:

?S: This variable conditionally defines the HAS\_GETGRNAM\_R symbol,

?S: which indicates to the C program that the getgrnam\_r()

?S: routine is available.

?S:.

?S:getgrnam\_r\_proto:

?S: This variable encodes the prototype of getgrnam\_r.

?S: It is zero if d\_getgrnam\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getgrnam\_r

?S: is defined.

?S:.

?C:HAS\_GETGRNAM\_R:

?C: This symbol, if defined, indicates that the getgrnam\_r routine

?C: is available to

getgrnam re-entrantly.

?C:.

?C:GETGRNAM\_R\_PROTO:

?C: This symbol encodes the prototype of getgrnam\_r.

?C: It is zero if d\_getgrnam\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getgrnam\_r

```

?C: is defined.
?C:.
?H:#$d_getgrnam_r HAS_GETGRNAM_R /**/
?H:#define GETGRNAM_R_PROTO $getgrnam_r_proto /**/
?H:.
?T:try hdrs d_getgrnam_r_proto
: see if getgrnam_r exists
set getgrnam_r d_getgrnam_r
eval $inlibc
case "$d_getgrnam_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_grp grp.h"
case "$d_getgrnam_r_proto:$usethreads" in
":define") d_getgrnam_r_proto=define
set d_getgrnam_r_proto getgrnam_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_getgrnam_r_proto" in
define)
case "$getgrnam_r_proto" in
"|0) try='int getgrnam_r(const char*, struct group*, char*, size_t, struct group**);'
./protochk "$extern_C $try" $hdrs && getgrnam_r_proto=I_CSBWR ;;
esac
case "$getgrnam_r_proto" in
"|0) try='int getgrnam_r(const char*, struct group*, char*,
int, struct group**);'
./protochk "$extern_C $try" $hdrs && getgrnam_r_proto=I_CSBI ;
esac
case "$getgrnam_r_proto" in
"|0) try='struct group* getgrnam_r(const char*, char*, int);'
./protochk "$extern_C $try" $hdrs && getgrnam_r_proto=S_CBI ;;
esac
case "$getgrnam_r_proto" in
"|0) try='int getgrnam_r(const char*, struct group*, char*, int);'
./protochk "$extern_C $try" $hdrs && getgrnam_r_proto=I_CSBI ;;
esac
case "$getgrnam_r_proto" in
"|0) try='struct group* getgrnam_r(const char*, struct group*, char*, int);'
./protochk "$extern_C $try" $hdrs && getgrnam_r_proto=S_CSBI ;;
esac
case "$getgrnam_r_proto" in
"|0) d_getgrnam_r=undef
getgrnam_r_proto=0
echo "Disabling getgrnam_r, cannot determine prototype." >&4 ;;
*) case "$getgrnam_r_proto" in
REENTRANT_PROTO*) ;;
*) getgrnam_r_proto="REENTRANT_PROTO_$getgrnam_r_proto" ;;

```

```

esac
echo "Prototype: $try" ;;
esac
;;
*) case "$susetthreads" in
define) echo "getgrnam_r has no prototype, not using it."
>&4 ;;
esac
d_getgrnam_r=undef
getgrnam_r_proto=0
;;
esac
;;
*) getgrnam_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_getgrnam_r.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Loc.U,v \$

?RCS: Revision 3.0.1.10 1997/02/28 15:04:16 ram

?RCS: patch61: allow users to specify paths on the command line

?RCS: patch61: will now substitute cp for ln if not supported

?RCS:

?RCS: Revision 3.0.1.9 1995/09/25 09:11:24 ram

?RCS: patch59: commented the purpose of the #un-def directive

?RCS: patch59: abort Configure run when mandatory command is missing

?RCS:

?RCS: Revision 3.0.1.8 1995/07/25 13:40:40 ram

?RCS: patch56: now knows about OS/2 platforms

?RCS:

?RCS: Revision 3.0.1.7

1995/01/11 15:13:37 ram

?RCS: patch45: protected "sh -c" within backquotes for Linux and SGI

?RCS: patch45: added path lookup for the 'comm' program

?RCS:  
 ?RCS: Revision 3.0.1.6 1994/10/29 15:56:14 ram  
 ?RCS: patch36: added ?F: line for metalint file checking  
 ?RCS: patch36: be careful and guard against wildcard searching (ADO)  
 ?RCS:  
 ?RCS: Revision 3.0.1.5 1994/06/20 06:54:55 ram  
 ?RCS: patch30: now locates find  
 ?RCS:  
 ?RCS: Revision 3.0.1.4 1994/05/13 15:18:15 ram  
 ?RCS: patch27: added byacc to the trylist (ADO)  
 ?RCS: patch27: lint lines reformatted (ADO)  
 ?RCS:  
 ?RCS: Revision 3.0.1.3 1994/01/24 14:01:44 ram  
 ?RCS: patch16: added metalint hint on changed PATH variable  
 ?RCS:  
 ?RCS: Revision 3.0.1.2 1993/12/15 08:16:52 ram  
 ?RCS: patch15: now set \_test variable when test is built-in  
 ?RCS: patch15: fixed rare cases where echo is not needed  
 ?RCS:  
 ?RCS: Revision 3.0.1.1 1993/09/13 15:47:13 ram  
 ?RCS: patch10: test program not always in /bin/test (WAD)  
 ?RCS:  
 ?RCS: Revision  
 3.0 1993/08/18 12:05:05 ram  
 ?RCS: Baseline for dist 3.0 netwide release.  
 ?RCS:  
 ?X:  
 ?X: This unit produces a shell script "loc" which can be used to find out  
 ?X: where in a list of directories something is. It then uses loc to  
 ?X: determine the location of commonly used programs. It leaves loc sitting  
 ?X: around for other Configure units to use, but arranges for its demise  
 ?X: at the end of Configure.  
 ?X:  
 ?X: To add a new program to find, add it both to the ?MAKE: line and to either  
 ?X: the loclist or trylist variable.  
 ?X:  
 ?X: I put startsh at the end of the dependency list, in order to avoid the  
 ?X: loading of the spitshell unit before the instructions.  
 ?X:  
 ?MAKE:Loc awk ar bash bison byacc cat chgrp chmod chown \  
 comm compress cp cpio cpp csh date echo egrep emacs expr find flex \  
 gmake gzip grep inews ksh less line lint ln lp lpr ls mail mailx \  
 make mkdir more mv nm nroff perl pg pmake pr rm rmail sed sendmail \  
 shar sleep smail sort submit tail tar tbl tee test touch tr troff  
 \  
 uname uniq uuname vi zcat zip: eunicefix n c startsh Instruct Warn  
 ?MAKE: -pick weed \$@ %<  
 ?LINT:describe awk ar bash bison byacc cat chgrp chmod chown \

```

comm compress cp cpio cpp csh date echo egrep emacs expr find flex \
gmake gzip grep inews ksh less line lint ln lp lpr ls mail mailx \
make mkdir more mv nm nroff perl pg pmake pr rm rmail sed sendmail \
shar sleep smail sort submit tail tar tbl tee test touch tr troff \
uname uniq uuname vi zcat zip
?V::pth loclist trylist
?F:./loc
?T:thisthing thing xxx dir file say DJGPP
?T:_test _grep _cp _gmake _egrep _ln _make dflt
?LINT: change PATH
: find out where common programs are
echo " "
echo "Locating common programs..." >&4
cat <<EOSC >loc
$startsh
case $# in
0) exit 1;;
esac
thing=${$1
shift
dflt=${$1
shift
for dir in *; do
case "\$thing" in
.)
if test -d \$dir/\$thing; then
echo \$dir
exit 0
fi
;;
*)
?X: Be careful in case thing includes wildcards that might expand to multiple
?X: files. Choose the last one.
This happens when searching for shared
?X: libraries with version numbers. How to choose which one we want is
?X: probably an insoluble problem, in general.
?X: Some folks leave things like libc.so.orig around w/o read
?X: permission. A -r test would handle that, but since ./loc is
?X: also used to find executables (which are installed w/o read
?X: permission on SCO ODT 3.0, we can't include the -r test.
for thisthing in \$dir/\$thing; do
: just loop through to pick last item
done
if test -f \$thisthing; then
echo \$thisthing
exit 0
elif test -f \$thisthing$_exe; then
echo \$thisthing

```

```
exit 0
elif test -f \${dir}/${thing}.exe; then
if test -n "$DJGPP"; then
 echo \${dir}/${thing}.exe
else
 : on Eunice apparently
 echo \${dir}/${thing}
fi
exit 0
fi
;;
esac
done
echo \${dflt}
exit 1
EOSC
chmod +x loc
$eunicefix loc
loclist="
?awk:awk
?cat:cat
?chgrp:chgrp
?chmod:chmod
?chown:chown
?comm:comm
?cp:cp
?echo:echo
?expr:expr
?find:find
?grep:grep
?ls:ls
?mkdir:mkdir
?mv:mv
?rm:rm
?sed:sed
?sleep:sleep
?sort:sort
?tail:tail
?touch:touch
?tr:tr
?uniq:uniq
"
trylist="
?Mcc:Mcc
?ar:ar
?bash:bash
?bison:bison
?byacc:byacc
```

?compress:compress  
?cpio:cpio  
?cpp:cpp  
?csh:csh  
?date:date  
?egrep:egrep  
?emacs:emacs  
?flex:flex  
?gmake:gmake  
?gzip:gzip  
?inews:inews  
?ksh:ksh  
?less:less  
?line:line  
?lint:lint  
?ln:ln  
?lp:lp  
?lpr:lpr  
?mail:mail  
?mailx:mailx  
?make:make  
?more:more  
?nm:nm  
?nroff:nroff  
?perl:perl  
?pg:pg  
?pmake:pmake  
?pr:pr  
?rmail:rmail  
?sendmail:sendmail  
?shar:shar  
?smail:smail  
?submit:submit  
?tar:tar  
?tbl:tbl  
?tee:tee  
?test:test  
?troff:troff  
?uname:uname  
?uuname:uuname  
?vi:vi  
?zcat:zcat  
?zip:zip  
"  
?LINT:set  
awk ar bash bison yacc cat chgrp chmod chown \  
comm compress cp cpio cpp csh date echo emacs expr find flex \  
gmake gzip grep inews ksh less line lint lp lpr ls mail mailx \



```

mkdir more mv nm nroff perl pg pmake pr rm rmail sed sendmail \
shar sleep smail sort submit tail tar tbl tee touch tr troff \
uname uniq uuname vi zcat zip
pth=`echo $PATH | sed
-e "s/$p_/ /g"`
pth="$pth /lib /usr/lib"
for file in $loclist; do
?X:
?X: Allow them to -Dmake=pmake on the command line for instance...
?X: If the file is not fully qualified, as in -Dmake=pmake, then we
?X: look the for the specified command (pmake here). If they say
?X: -Dmake=/sbin/make for instance, then we make sure the file
?X: exists, or we die...
?X:
eval xxx=\$$file
case "$xxx" in
/*|?:[\\]*)
if test -f "$xxx"; then
: ok
else
./warn "no $xxx -- ignoring your setting for $file."
xxx=`./loc $file $file $pth`
fi
;;
*) xxx=`./loc $file $file $pth`;
*) xxx=`./loc $xxx $xxx $pth`;
esac
eval $file=$xxx$_exe
eval _$file=$xxx
case "$xxx" in
/*)
echo $file is in $xxx.
;;
?:[\\]*)
echo $file is in $xxx.
;;
*)
echo "I don't know where '$file' is, and my life depends on it." >&4
echo "Go find a public domain implementation or fix your PATH setting!" >&4
exit 1
;;
esac
done
echo " "
echo "Don't worry
if any of the following aren't found..."
say=offhand

```

```

for file in $trylist; do
?X: Allow them to -Dmake=pmake on the command line for instance (see above)
eval xxx=\$$file
case "$xxx" in
/*|?:[\\]*)
if test -f "$xxx"; then
: ok
else
./warn "no $xxx -- ignoring your setting for $file."
xxx=`./loc $file $file $pth`
fi
;;
") xxx=`./loc $file $file $pth`;
*) xxx=`./loc $xxx $xxx $pth`;
esac
eval $file=$xxx$_exe
eval $_$file=$xxx
case "$xxx" in
/*)
echo $file is in $xxx.
;;
?X: Under OS/2, we have PC-like paths
?:[\\]*)
echo $file is in $xxx.
;;
*)
echo "I don't see $file out there, $say."
say=either
;;
esac
done
case "$grep" in
egrep)
echo "Substituting grep for egrep."
egrep=$grep
_egrep=$_grep
;;
esac
@if ln
case "$ln" in
ln)
echo "Substituting cp for ln."
ln=$cp
_ln=$_cp
;;
esac
@end
@if make || gmake

```

```

case "$make" in
make)
case "$gmake" in
gmake)
echo "I can't find make or gmake, and my life depends on it." >&4
echo "Go find a
public domain implementation or fix your PATH setting!" >&4
exit 1
;;
esac
;;
esac
case "$gmake" in
gmake) ;;
*) # We can't have osname yet.
if test -f "/system/gnu_library/bin/ar.pm"; then # Stratus VOS
Assume that gmake, if found, is definitely GNU make
and prefer it over the system make.
echo "Substituting gmake for make."
make=$gmake
_make=$_gmake
fi
;;
esac
@end
case "$test" in
test)
echo "Hopefully test is built into your sh."
;;
*)
if `sh -c "PATH= test true" >/dev/null 2>&1`; then
echo "Using the test built into your sh."
?X:
?X: We need to set both test and _test, since Oldconfig.U will use the _test
?X: value to systematically restore computed paths, which may be wrong if
?X: we choose to load an old config.sh generated on another platform.
?X:
test=test
_test=test
fi
;;
esac
?LINT:change n c
case "$echo" in
echo)
echo "Hopefully echo is built into your sh."
;;
?X: For those rare cases where we don't need $echo...

```

```

") ;;
*)
echo " "
echo "Checking
compatibility between $echo and builtin echo (if any)..." >&4
$echo $n "hi there$c" >foo1
echo $n "hi there$c" >foo2
if cmp foo1 foo2 >/dev/null 2>&1; then
echo "They are compatible. In fact, they may be identical."
else
case "$n" in
'-n') n=" c='\c';;
*) n='-n' c="";;
esac
cat <<FOO

```

They are not compatible! You are probably running ksh on a non-USG system. I'll have to use \$echo instead of the builtin, since Bourne shell doesn't have echo built in and we may have to run some Bourne shell scripts. That means I'll have to use '\$n\$c' to suppress newlines now. Life is ridiculous.

```

FOO
$echo $n "The star should be here-->$c"
$echo "*"
fi
$rm -f foo1 foo2
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Loc.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: selecttype.U,v 3.0.1.3 1997/02/28 16:20:09 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: selecttype.U,v $
?RCS: Revision 3.0.1.3 1997/02/28 16:20:09 ram
?RCS: patch61: always include <sys/select.h> when available for test

```

```

?RCS:
?RCS: Revision 3.0.1.2 1995/07/25 14:14:06 ram
?RCS: patch56: removed harmful spaces in assignment
?RCS:
?RCS: Revision 3.0.1.1 1994/06/20 07:06:31 ram
?RCS: patch30: created by ADO
?RCS:
?MAKE:selecttype: Protochk Oldconfig Myread cat
\
d_fd_set d_select d_socket i_systime i_sysselect extern_C
?MAKE: -pick add $@ %<
?S:selecttype:
?S: This variable holds the type used for the 2nd, 3rd, and 4th
?S: arguments to select. Usually, this is 'fd_set *', if HAS_FD_SET
?S: is defined, and 'int *' otherwise. This is only useful if you
?S: have select(), naturally.
?S:.
?C:Select_fd_set_t:
?C: This symbol holds the type used for the 2nd, 3rd, and 4th
?C: arguments to select. Usually, this is 'fd_set *', if HAS_FD_SET
?C: is defined, and 'int *' otherwise. This is only useful if you
?C: have select(), of course.
?C:.
?H:#define Select_fd_set_t $selecttype /**/
?H:.
?T:xxx nfd tmo try hdrs val
: check for type of arguments to select.
case "$selecttype" in
") case "$d_select" in
$define)
echo " "
$cat <<EOM
Checking to see what type of arguments are accepted by select().
EOM
hdrs="$define sys/types.h
$i_systime sys/time.h
$i_sysselect sys/select.h
$d_socket sys/socket.h"
: The first arg can be int, unsigned,
or size_t
: The last arg may or may not be 'const'
val="
: void pointer has been seen but using that
: breaks the selectminbits test
for xxx in 'fd_set *' 'int *'; do
for nfd in 'int' 'size_t' 'unsigned long' 'unsigned' ; do
for tmo in 'struct timeval *' 'const struct timeval *'; do
case "$val" in

```

```

") try="$extern_C select _(($nfd, $xxx, $xxx, $xxx, $tmo));"
if ./protochk "$try" $hdrs; then
 echo "Your system accepts $xxx."
 val="$xxx"
fi
;;
esac
done
done
done
?X: In the unlikely event that none of those worked, prompt the user.
case "$sval" in
") rp='What is the type for the 2nd, 3rd, and 4th arguments to select?'
case "$d_fd_set" in
 $define) dflt="fd_set *" ;;
 *) dflt="int *" ;;
esac
. ./myread
val=$ans
;;
esac
selecttype="$sval"
;;
*) : no select, so pick a harmless default
selecttype='int *'
;;
esac
;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/protos/selecttype.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_localeconv\_1: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_localeconv\_1:

?S: This variable conditionally defines the HAS\_LOCALECONV\_L symbol, which

?S: indicates to the C program that the localeconv\_1() routine is available.

?S:.

?C:HAS\_LOCALECONV\_L:

?C: This symbol, if defined, indicates that the localeconv\_1 routine is

?C: available to query certain information about a locale.

?C:.

?H:#\$d\_localeconv\_1 HAS\_LOCALECONV\_L /\*\*/

?H:.

?LINT:set d\_localeconv\_1

: see if localeconv\_1 exists

set localeconv\_1 d\_localeconv\_1

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_localeconv\_1.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: inc\_version\_list.U,v \$

?RCS:

?RCS: Copyright (c) 2000 Andy Dougherty

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: inc\_version\_list.U,v \$

?RCS:

?MAKE:inc\_version\_list inc\_version\_list\_init d\_inc\_version\_list: cat sed \

Getfile perl5 version api\_versionstring rm Myread archname \

prefix sitelib\_stem exe\_ext

?MAKE: -pick add \$@ %<

?Y:TOP

?S:inc\_version\_list:

?S: This variable specifies the list of subdirectories in over

?S: which perl.c:incpush() and lib/lib.pm will automatically

?S: search when adding directories to @INC. The elements in

?S: the list are separated by spaces. This is only useful

?S: if

you have a perl library directory tree structured like the

?S: default one. See INSTALL for how this works. The versioned

?S: site\_perl directory was introduced in 5.005, so that is the

?S: lowest possible value.

?S:

?S: This list includes architecture-dependent directories back to

?S: version \$api\_versionstring (e.g. 5.5.640) and

?S: architecture-independent directories all the way back to

?S: 5.005.

?S:  
?S:inc\_version\_list\_init:  
?S: This variable holds the same list as inc\_version\_list, but  
?S: each item is enclosed in double quotes and separated by commas,  
?S: suitable for use in the PERL\_INC\_VERSION\_LIST initialization.  
?S:  
?S:d\_inc\_version\_list:  
?S: This variable conditionally defines PERL\_INC\_VERSION\_LIST.  
?S: It is set to undef when PERL\_INC\_VERSION\_LIST is empty.  
?S:  
?C:PERL\_INC\_VERSION\_LIST:  
?C: This variable specifies the list of subdirectories in over  
?C: which perl.c:incpush() and lib/lib.pm will automatically  
?C: search when adding directories to @INC, in a format suitable  
?C: for  
a C initialization string. See the inc\_version\_list entry  
?C: in Porting/Glossary for more details.  
?C:  
?H:#\$d\_inc\_version\_list PERL\_INC\_VERSION\_LIST \$inc\_version\_list\_init /\*\*/  
?H:  
?T:stem  
: Determine list of previous versions to include in @INC  
\$cat > getverlist <<EOPL  
#!/\$perl5 -w  
use File::Basename;  
\sapi\_versionstring = "\$sapi\_versionstring";  
\version = "\$version";  
\stem = "\$sitelib\_stem";  
\sarchname = "\$sarchname";  
EOPL  
\$cat >> getverlist <<'EOPL'  
# The list found is store twice for each entry: the original name, and  
# the binary broken down version as pack "sss", so sorting is easy and  
# unambiguous. This will work for all versions that have a maximum of  
# three digit groups, separate by '.'s or '\_'s. Names are extended with  
# ".0.0" to ensure at least three elements for the pack.  
# -- H.Merijn Brand (m)'06 23-10-2006  
  
# Can't have leading @ because metaconfig interprets it as a command!  
;@inc\_version\_list=();  
# XXX Redo to do opendir/readdir?  
if (-d \$stem)  
{  
chdir(\$stem);  
;@candidates = map {  
[ \$\_, pack "sss", split m/[.\_]/, "\$\_.0.0" ] } glob("5.\*");  
;@candidates = sort { \$a->[1] cmp \$b->[1]} @candidates;  
}



```

else {
 ;@candidates = ();
}

($pversion, $aversion, $vsn5005) = map {
 pack "sss", split m/[. _]/, "$_.0.0" } $version, $api_versionstring, "5.005";
foreach $d (@candidates) {
 if ($d->[1] lt $pversion) {
 if ($d->[1] ge $aversion) {
 unshift(@inc_version_list, grep { -d } $d->[0]."/$archname", $d->[0]);
 }
 elsif ($d->[1] ge $vsn5005) {
 unshift(@inc_version_list, grep { -d } $d->[0]);
 }
 }
 else {
Skip newer version. I.e. don't look in
5.7.0 if we're installing 5.6.1.
 }
}

if (@inc_version_list) {
 print join(' ', @inc_version_list);
}
else {
 # Blank space to preserve value for next Configure run.
 print " ";
}
EOPL
chmod +x getverlist
case "$inc_version_list" in
") if test -x "$perl5$exe_ext"; then
 dflt=`$perl5 getverlist`
else
 dflt='none'
fi
;;
$undef) dflt='none'
;;
?X: Configure -Dinc_version_list='5.6.0/$archname 5.6.0' ...
*) eval dflt=\"\$inc_version_list\" ;;
esac
case "$dflt" in
'| ') dflt=none ;;
esac
case "$dflt" in
5.005) dflt=none ;;
esac

```

\$cat <<EOM

In order to ease the process of upgrading, this version of perl can be configured to use modules built and installed with earlier versions of perl that were installed under \$prefix. Specify here the list of earlier versions that this version of perl should check. If Configure detected no earlier versions of perl installed under \$prefix, then the list will be empty. Answer 'none' to tell perl to not search earlier versions.

The default should almost always be sensible, so if you're not sure, just accept the default.

EOM

```
rp='List of earlier versions to include in @INC?'
./myread
case "$ans" in
[Nn]one|"|" |$undef) inc_version_list=' ' ;;
*) inc_version_list="$ans" ;;
esac
case "$inc_version_list" in
"|" ')
inc_version_list_init='0'
d_inc_version_list="$undef"
;;
*) inc_version_list_init=`echo
$inc_version_list |
$sed -e 's/^\|/' -e 's/ /','/g' -e 's/$/"/,0/'
d_inc_version_list="$define"
;;
esac
$rm -f getverlist
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/inc\_version\_list.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getnetprotos.U,v \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

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?RCS: of the source tree for dist 3.0.

?RCS:

```
?MAKE:d_getnetprotos : Hasproto i_netdb
?MAKE: -pick add $@ %<
?S:d_getnetprotos:
?S: This variable conditionally defines the HAS_GETNET_PROTOS symbol,
?S: which indicates to the C program that <netdb.h> supplies
?S: prototypes for the various getnet*() functions.
?S: See also netdbtype.U for probing for various netdb types.
?S:.
?C:HAS_GETNET_PROTOS:
?C: This symbol, if defined, indicates that <netdb.h> includes
?C: prototypes for getnetent(), getnetbyname(), and
?C: getnetbyaddr(). Otherwise,
?C: it is up to the program to guess
?C: them. See netdbtype.U for probing for various Netdb_xxx_t types.
?C:.
?H:#$d_getnetprotos HAS_GETNET_PROTOS /**/
?H:.
?LINT:set d_getnetprotos
: see if prototypes for various getnetxxx netdb.h functions are available
echo " "
set d_getnetprotos getnetent $i_netdb netdb.h
eval $hasproto
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/protos/d_getnetprotos.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_libutil.U,v $
?RCS:
?RCS: Copyright (c) 2000 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:i_libutil: Inhdr Hasfield
?MAKE: -pick add $@ %<
?S:i_libutil:
?S: This variable conditionally defines the I_LIBUTIL symbol, and indicates
?S: whether a C program should include <libutil.h>.
?S:.
?C:I_LIBUTIL:
?C: This symbol, if defined, indicates that <libutil.h> exists and
?C: should be included.
?C:.
?H:#$i_libutil I_LIBUTIL /**/
?H:.
?LINT:set i_libutil
```

: see if this is a libutil.h system

set libutil.h i\_libutil

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_libutil.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_open3.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:37:12 ram

?RCS: patch61: added ?F: metalint hint

?RCS:

?RCS: Revision 3.0.1.1 1995/07/25 13:58:26 ram

?RCS: patch56: added knowledge of the O\_NONBLOCK symbol

?RCS:

?RCS: Revision 3.0 1993/08/18 12:06:44 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_open3: test +cc cat +cppflags h\_fcntl h\_sysfile rm Setvar Findhdr Warn

?MAKE: -pick add \$@ %<

?X: It would be easy to separate the h\_O\_stuff from this.

?X: Is there a reason

to do so? -- HMS

?S:d\_open3:

?S: This variable conditionally defines the HAS\_OPEN3 manifest constant,

?S: which indicates to the C program that the 3 argument version of

?S: the open(2) function is available.

?S:.

?C:HAS\_OPEN3 (OPEN3):

?C: This manifest constant lets the C program know that the three

?C: argument form of open(2) is available.

?C:.

?H:#\$d\_open3 HAS\_OPEN3 /\*\*/

?H:.

?W:%<:O\_RDONLY O\_WRONLY O\_RDWR O\_NDELAY O\_APPEND O\_SYNC O\_CREAT O\_TRUNC

?W:%<:O\_EXCL O\_NONBLOCK

?F:!open3

```

?LINT:set d_open3
?LINT:change h_fcntl h_sysfile
: Locate the flags for 'open()'
echo " "
$cat >open3.c <<'EOCP'
#include <sys/types.h>
#ifdef I_FCNTL
#include <fcntl.h>
#endif
#ifdef I_SYS_FILE
#include <sys/file.h>
#endif
int main() {
 if(O_RDONLY);
#ifdef O_TRUNC
 exit(0);
#else
 exit(1);
#endif
}
EOCP
: check sys/file.h first to get FREAD on Sun
if $test `./findhdr sys/file.h` && \
 $cc $cppflags "-DI_SYS_FILE" -o open3 open3.c >/dev/null 2>&1 ; then
 h_sysfile=true;
 echo "<sys/file.h> defines the
O_* constants..." >&4
 if ./open3; then
 echo "and you have the 3 argument form of open()." >&4
 val="$define"
 else
 echo "but not the 3 argument form of open(). Oh, well." >&4
 val="$undef"
 fi
elif $test `./findhdr fcntl.h` && \
 $cc "-DI_FCNTL" -o open3 open3.c >/dev/null 2>&1 ; then
 h_fcntl=true;
 echo "<fcntl.h> defines the O_* constants..." >&4
 if ./open3; then
 echo "and you have the 3 argument form of open()." >&4
 val="$define"
 else
 echo "but not the 3 argument form of open(). Oh, well." >&4
 val="$undef"
 fi
else
 val="$undef"
./warn "I can't find the O_* constant definitions! You got problems."

```

```
fi
set d_open3
eval $setvar
$rm -f open3*
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_open3.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_sanemcmp.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:41:19 ram

?RCS: patch61: created

?RCS:

?RCS:

?MAKE:d\_sanemcmp: cat d\_memcmp +cc +optimize +ccflags +libs +ldflags rm \  
i\_memory i\_stdlib i\_string i\_unistd Oldconfig Setvar

?MAKE: -pick add \$@ %<

?S:d\_sanemcmp:

?S: This variable conditionally defines the HAS\_SANE\_MEMCMP symbol if

?S: the memcpy() routine is available and can be used to compare relative

?S: magnitudes of chars with their high bits set.

?S:.

?C:HAS\_SANE\_MEMCMP:

?C: This symbol,

if defined, indicates that the memcmp routine is available

?C: and can be used to compare relative magnitudes of chars with their high

?C: bits set. If it is not defined, roll your own version.

?C:.

?H:#\$d\_sanemcmp HAS\_SANE\_MEMCMP /\*\*/

?H:.

?F:!sanemcmp

?LINT: set d\_sanemcmp

: can memcmp be trusted to compare relative magnitude?

?X: assume the worst

val="\$undef"

case "\$d\_memcmp" in

"\$define")

```

echo " "
echo \
 "Checking to see if your memcmp() can compare relative magnitude..." >&4
$cat >foo.c <<EOCP
#$i_memory I_MEMORY
#$i_stdlib I_STDLIB
#$i_string I_STRING
#$i_unistd I_UNISTD
EOCP
$cat >>foo.c <<'EOCP'
#include <stdio.h>
#ifdef I_MEMORY
include <memory.h>
#endif
#ifdef I_STDLIB
include <stdlib.h>
#endif
#ifdef I_STRING
include <string.h>
#else
include <strings.h>
#endif
#ifdef I_UNISTD
include <unistd.h> /* Needed for NetBSD */
#endif
int main()
{
char a = -1;
char b = 0;
if ((a < b) && memcmp(&a, &b, 1) < 0)
 exit(1);
 exit(0);
}
EOCP
if $cc $optimize $ccflags
$ldflags \
 -o sanemcmp foo.c $libs >/dev/null 2>&1; then
if ./sanemcmp 2>/dev/null; then
 echo "Yes, it can."
 val="$define"
else
 echo "No, it can't (it uses signed chars)."

```

```
$rm -f foo.* sanemcmp core
set d_sanemcmp
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_sanemcmp.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: cpp_trad.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
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```
?RCS: as specified in the README file that comes with the distribution.
```

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```
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: cpp_stuff.U,v $
```

```
?MAKE:cpp_trad: cpp cat contains rm
```

```
?MAKE: -pick add $@ %<
```

```
?S:cpp_trad:
```

```
?S: This variable contains the program to run to get traditional C
```

```
?S: preprocessor semantics and not ISO C semantics: we want something
```

```
?S: that knows as little about C as possible to use as a more general
```

```
?S: purpose preprocessor.
```

```
?S:.
```

```
?F:!foo.c !foo.cpp
```

```
: how do we get traditional cpp semantics?
```

```
echo " "
```

```
echo "Checking to see how to get traditional cpp semantics..."
```

```
>&4
```

```
$cat >foo.c <<'EOF'
```

```
#define A(x) x
```

```
#define B(y) y
```

```
A(a)B(b)
```

```
EOF
```

```
if $cpp foo.c >foo.cpp; $contains ab foo.cpp >/dev/null 2>&1; then
```

```
echo "Plain '$cpp' works just fine."
```

```
cpp_trad="$cpp"
```

```
elif $cpp -traditional foo.c >foo.cpp; \
```

```
$contains ab foo.cpp >/dev/null 2>&1; then
```

```
echo "We'll use '$cpp -traditional' to get proper semantics."
```

```
cpp_trad="$cpp -traditional"
```

```
else
```

```
echo "I don't know how to get traditional semantics with '$cpp'." >&4
```

```
cpp_trad="$cpp"
```



fi

```
$rm -f foo.c foo.cpp
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/cpp_trad.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_chroot.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
```

```
?RCS:
```

```
?RCS: $Log: d_chroot.U,v $
```

```
?RCS: Revision 3.0.1.1 1994/08/29 16:07:17 ram
```

```
?RCS: patch32: created by ADO
```

```
?RCS:
```

```
?MAKE:d_chroot: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_chroot:
```

```
?S: This variable conditionally defines the HAS_CHROOT symbol, which
```

```
?S: indicates to the C program that the chroot() routine is available.
```

```
?S:.
```

```
?C:HAS_CHROOT :
```

```
?C: This symbol, if defined, indicates that the chroot routine
```

```
is
```

```
?C: available.
```

```
?C:.
```

```
?H:#$d_chroot HAS_CHROOT /**/
```

```
?H:.
```

```
?LINT:set d_chroot
```

```
: see if chroot exists
```

```
set chroot d_chroot
```

```
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_chroot.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```

?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_getpgrp.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 15:34:28 ram
?RCS: patch61: new USE_BSD_GETPGRP to detect the getpgrp() flavour
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:15 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_getpgrp d_bsdgetpgrp: Guess Inlibc Setvar cat rm \
+cc +ccflags +ldflags +libs i_unistd
?MAKE: -pick add $@ %<
?S:d_getpgrp:
?S: This variable conditionally defines HAS_GETPGRP if getpgrp() is
?S: available to get the current process group.
?S:.
?S:d_bsdgetpgrp:
?S: This
variable conditionally defines USE_BSD_GETPGRP if
?S: getpgrp needs one arguments whereas USG one needs none.
?S:.
?C:HAS_GETPGRP (GETPGRP):
?C: This symbol, if defined, indicates that the getpgrp routine is
?C: available to get the current process group.
?C:.
?C:USE_BSD_GETPGRP:
?C: This symbol, if defined, indicates that getpgrp needs one
?C: arguments whereas USG one needs none.
?C:.
?H:#$d_getpgrp HAS_GETPGRP /**/
?H:#$d_bsdgetpgrp USE_BSD_GETPGRP /**/
?H:.
?F:!set !set.c
?T:xxx
?LINT:set d_getpgrp d_bsdgetpgrp
: see if getpgrp exists
set getpgrp d_getpgrp
eval $inlibc

@if USE_BSD_GETPGRP || d_bsdgetpgrp
case "$d_getpgrp" in

```

```

"$define")
echo " "
echo "Checking to see which flavor of getpgrp is in use..."
$cat >set.c <<EOP
#$i_unistd I_UNISTD
#include <sys/types.h>
#ifdef I_UNISTD
include <unistd.h>
#endif
int main()
{
if (getuid() == 0) {
printf("(I see you are running Configure as super-user...)\n");
setuid(1);
}
#ifdef TRY_BSD_PGRP
if (getpgrp(1) ==
0)
exit(0);
#else
if (getpgrp() > 0)
exit(0);
#endif
exit(1);
}
EOP
if $cc -DTRY_BSD_PGRP $ccflags $ldflags -o set set.c $libs >/dev/null 2>&1
&& ./set
then
echo "You have to use getpgrp(pid) instead of getpgrp()." >&4
val="$define"
elif $cc $ccflags $ldflags -o set set.c $libs >/dev/null 2>&1 && ./set; then
echo "You have to use getpgrp() instead of getpgrp(pid)." >&4
val="$undef"
else
echo "I can't seem to compile and run the test program."
if ./usg; then
xxx="a USG one, i.e. you use getpgrp()."
else
SVR4 systems can appear rather BSD-ish.
case "$i_unistd" in
$undef)
xxx="a BSD one, i.e. you use getpgrp(pid)."
val="$define"
;;
$define)
xxx="probably a USG one, i.e. you use getpgrp()."
val="$undef"

```

```

;;
esac
fi
echo "Assuming your getpgrp is $xxx" >&4
fi
;;
*) val="$undef";;
esac
set d_bsdgetpgrp
eval $setvar
$rm -f set set.c
@end

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_getpgrp.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: sunscanf.U,v 3.0 1993/08/18 12:09:54 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: sunscanf.U,v $
?RCS: Revision 3.0 1993/08/18 12:09:54 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:sunscanf: cat rm Compile Myread test Setvar
?MAKE: -pick add $@ %<
?S:sunscanf:
?S: This variable is set if this system runs with the Sun version
?S: of scanf.
?S:.
?C:SUNSCANF:
?C: This variable is set if this system runs with the Sun version
?C: of scanf.
?C:.
?H:#$sunscanf SUNSCANF /**/
?H:.
?LINT:set sunscanf
?F:!scanf
: check to see what

```

```

kinda scanf your using.
echo " "
echo "Checking to see what flavor of scanf you have..." >&4
$cat >scanf.c <<'EOCP'
int main()
{
float value;

sscanf("4.5", "%g", &value);
printf("%d\n", value == 4.5);
}
EOCP
set scanf
if eval $compile_ok; then
if $test `./scanf` = 0; then
echo "Hmm.. seems you are not running the USG flavor.."
val="$undef"
else
echo "Uh... you are running the USG flavor of scanf."
val="$define"
fi
else
echo "(I can't seem to compile the test program... Guessing)"
val="$undef"
fi
set sunscanf
eval $setvar
$rm -f scanf*

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/sunscanf.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: shm_for.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: shm_for.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:28:37 ram
?RCS: patch36: call ./Cpysym explicitly instead of relying on PATH
?RCS:

```

```

?RCS: Revision 3.0 1993/08/18 12:09:46 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:shm_for shm_att shm_lim: Cppsym Myread ipc uname
?MAKE: -pick add $@ %<
?S:shm_for:
?S: This variable tells us the type of machine we're expecting the
?S: shared memory code to run on. The value is available to C
 programs
?S: in the C_SHM_FOR manifest.
?S:.
?S:shm_att:
?S: This variable tells us where a shared memory segment should be
?S: attached. Good values are HIGH, LOW, and ZERO.
?S:.
?S:shm_lim:
?S: This variable tells us if shared memory attached HIGH should
?S: have an upper limit.
?S:.
?X: -----
?X: It's a potential lose to define anything beginning with SHM...
?X: At least we can think that S_ stands for "String version of ..." -- HMS
?X: -----
?C:S_SHM_FOR ~ %<:
?C: This symbol identifies what we chose for the target system's
?C: default shared memory configuration parameters.
?C:.
?C:S_SHM_ATT ~ %<:
?C: This symbol holds the default "place" to attach shared memory.
?C: Values are "HIGH", "ZERO", and "LOW".
?C:.
?C:S_SHM_LIM ~ %<:
?C: This symbol holds the default upper bound address limit if shared
?C: memory is attached HIGH. If zero, there is no upper limit.
?C:.
?H:%<:#ifdef
 SERVE_SHM
?H:%<:#define S_SHM_FOR "$shm_for"
?H:%<:#define S_SHM_ATT "$shm_att"
?H:%<:#define S_SHM_LIM "$shm_lim"
?H:%<:#endif
?H:.
?W:%<:S_SHM_FOR S_SHM_ATT S_SHM_LIM
: see how to attach shared memory
echo " "
echo "Deciding how to attach shared memory..." >&4

case "$ipc" in

```

```

shm)
shm_for='Default case'
shm_att='HIGH'
shm_lim='0x0'
if ./Cppsym tower32 tower32_600; then
echo "NCR Towers are usually normal..."
: echo "Oh, an NCR Tower."
: This works for the 600
shm_for='NCR Tower 32'
shm_att='LOW'
else
case "$uname" in
*/uname)
case "`uname -m`" in
ACS??68*)
echo "Oh, an Altos 3068."
shm_for='Altos 3068:'
shm_lim='0x800000'
;;
esac
;;
*)
echo "Looks normal to me..."
;;
esac
fi

dflt="$shm_for"
rp='Description of shared memory configuration?'
./myread
shm_for="$ans"

dflt="$shm_att"
rp='Where should shared memory be attached?'
./myread
shm_att="$ans"

case "$shm_att" in
HIGH)
dflt="$shm_lim"
rp='What is
the upper address limit for shared memory?'
./myread
shm_lim="$ans"
;;
*)
shm_lim=""
;;

```

```

esac
;;

*)
echo "but you aren't using shared memory so I won't bother." >&4
shm_for='NOT CONFIGURED'
shm_att='NONE'
shm_lim='-1'
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/shm_for.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_charsprf.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_charsprf.U,v $
?RCS: Revision 3.0 1993/08/18 12:05:49 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_charsprf: cat rm +cc Setvar
?MAKE: -pick add $@ %<
?S:d_charsprf:
?S: This variable conditionally defines CHARSPRINTF if this system
?S: declares "char *sprintf()" in stdio.h. The trend seems to be to
?S: declare it as "int sprintf()".
?S:
?C:CHARSPRINTF:
?C: This symbol is defined if this system declares "char *sprintf()" in
?C: stdio.h.
?C: The trend seems to be to declare it as "int sprintf()". It
?C: is up to the package author to declare sprintf correctly based on the
?C: symbol.
?C:
?H:#$d_charsprf CHARSPRINTF /**/
?H:
?F:!ucbsprf.c !ucbsprf
?LINT:set d_charsprf

```



```

: see if sprintf is declared as int or pointer to char
echo " "
$cat >ucbsprf.c <<'EOF'
int main()
{
int sprintf();
char buf[10];
exit(((unsigned long)sprintf(buf,"%s","foo") > 10L);
}
EOF
if $cc -o ucbsprf ucbsprf.c >/dev/null 2>&1 && ./ucbsprf; then
echo "Your sprintf() returns (int)." >&4
val="$undef"
else
echo "Your sprintf() returns (char*)." >&4
val="$define"
fi
set d_charsprf
eval $setvar
$rm -f ucbsprf*

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_charsprf.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: ebcdic.U,v 3.0.1.3 1994/05/06 15:11:49 doughera Exp $
?RCS:
?RCS: Copyright (c) 1998 Andy Dougherty
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: Original author Jarkko Hietaniemi <jhi@iki.fi>
?RCS: Merged into dist by Andy Dougherty July 13, 1998
?RCS:
?MAKE:ebcdic: Compile Setvar cat rm_try run
?MAKE: -pick add $@ %<
?S:ebcdic:
?S: This variable conditionally defines EBCDIC if this
?S: system uses EBCDIC encoding.
?S:.
?C:EBCDIC:
?C: This symbol, if defined, indicates that this system uses
?C: EBCDIC encoding.
?C:.
?H:#$ebcdic EBCDIC /**/
?H:.

```

```
?F:!try
?LINT:set ebcDic
: Determine if this is an EBCDIC system
echo " "
echo "Determining whether or not we are on an EBCDIC system..." >&4
$cat >try.c <<'EOM'
int main()
{
if ('M'==0xd4) return 0;
return 1;
}
EOM
```

```
val=$undef
set try
if eval
$compile_ok; then
if $run ./try; then
echo "You seem to speak EBCDIC." >&4
val="$define"
else
echo "Nope, no EBCDIC, probably ASCII or some ISO Latin. Or UTF-8." >&4
fi
else
echo "I'm unable to compile the test program." >&4
echo "I'll assume ASCII or some ISO Latin. Or UTF8." >&4
fi
$rm_try
set ebcDic
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/ebcdic/ebcdic.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_setpent.U,v 3.0 1993/08/18 12:06:09 ram Exp $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: d_setpent.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:06:09 ram
```

?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_setpent: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_setpent:  
?S: This variable conditionally defines HAS\_SETPROTOENT if setprotoent() is  
?S: available.  
?S:.  
?C:HAS\_SETPROTOENT:  
?C: This symbol, if defined, indicates that the setprotoent() routine is  
?C: available.  
?C:.  
?H:#\$d\_setpent HAS\_SETPROTOENT /\*\*/  
?H:.  
?LINT:set d\_setpent  
: see if setprotoent  
exists  
set setprotoent d\_setpent  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_setpent.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: make.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1996, Andy Dougherty  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: make.U,v \$  
?RCS: Revision 3.0.1.1 1997/02/28 16:09:40 ram  
?RCS: patch61: created  
?RCS:  
?MAKE:make\_set\_make : Loc rm sed make  
?MAKE: -pick add \$@ %<  
?S:make\_set\_make:  
?S: Some versions of 'make' set the variable MAKE. Others do not.  
?S: This variable contains the string to be included in Makefile.SH  
?S: so that MAKE is set if needed, and not if not needed.  
?S: Possible values are:  
?S:

```

?S: make_set_make='#' #
If your make program handles this for you,
?S:
?S: make_set_make="MAKE=$make" # if it doesn't.
?S:
?S: This uses a comment character so that we can distinguish a
?S: 'set' value (from a previous config.sh or Configure -D option)
?S: from an uncomputed value.
?S:.
?LINT: extern MAKE
?LINT: change MAKE
?X: This test is based on one from an autoconf-generated configure
?X: script. Autoconf stole a lot from Configure, but now it's our
?X: turn to do so... ;-) -- RAM, 21/02/97
: check whether make sets MAKE
echo " "
echo "Checking if your $make program sets \$(MAKE)..." >&4
case "$make_set_make" in
")
?X: Use sed so we don't have a line beginning with @echo. Metaconfig
?X: will think that's a command like @if or @end.
$sed 's/^X //' > testmake.mak << 'EOF'
Xall:
X @echo 'maketemp="\$(MAKE)'"
EOF
?X: GNU make sometimes prints "make[1]: Entering...", which would confuse us
case "`$make -f testmake.mak 2>/dev/null`" in
maketemp=) make_set_make='#' ;;
*) make_set_make="MAKE=$make" ;;
esac
$rm
-f testmake.mak
;;
esac
case "$make_set_make" in
'#') echo "Yup, it does.";;
*) echo "Nope, it doesn't.";;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/make.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_modfl d\_modflproto: Inlibc Compile Hasproto cat \  
test ccflags uselongdouble \  
d\_sqrtl d\_aintl d\_copysignl d\_ilogbl d\_scalbnl d\_frexp d\_ldexpl \  
d\_truncl

?MAKE: -pick add \$@ %<

?S:d\_modfl:

?S: This variable conditionally defines the HAS\_MODFL symbol, which

?S: indicates to the C program that the modfl() routine is available.

?S:.

?S:d\_modflproto:

?S: This symbol, if defined, indicates that the system provides

?S: a prototype for the modfl() function. Otherwise, it is up

?S: to the program to supply one. C99 says it should be

?S: long double modfl(long double, long double \*);

?S:.

?C:HAS\_MODFL:

?C: This symbol, if defined, indicates that the modfl routine is

?C: available to split a long double

?C: x into a fractional part f and

?C: an integer part i such that  $|f| < 1.0$  and  $(f + i) = x$ .

?C:.

?C:HAS\_MODFL\_PROTO:

?C: This symbol, if defined, indicates that the system provides

?C: a prototype for the modfl() function. Otherwise, it is up

?C: to the program to supply one.

?C:.

?H:#\$d\_modfl HAS\_MODFL /\*\*/

?H:#\$d\_modflproto HAS\_MODFL\_PROTO /\*\*/

?H:.

?T:message

?LINT:set d\_modfl

?LINT:set d\_modflproto

?LINT:change ccflags

: see if modfl exists

set modfl d\_modfl

eval \$inlibc

: see if prototype for modfl is available

echo " "

set d\_modflproto modfl define math.h

eval \$hasproto

if \$test "\$uselongdouble" = "\$define"; then

message=""

if \$test "\$d\_sqrtl" != "\$define"; then

```

message="$message sqrtl"
fi
if $test "$d_modfl" != "$define"; then
if $test "$d_truncl:$d_copysignl" = "$define:$define"; then
 echo "You have both truncl and copysignl, so I can emulate modfl."
else
 if $test "$d_aintl:$d_copysignl" = "$define:$define"; then
 echo "You have both aintl
and copysignl, so I can emulate modfl."
 else
 message="$message modfl"
 fi
fi
fi
if $test "$d_frexp1" != "$define"; then
if $test "$d_ilogbl:$d_scalbnl" = "$define:$define"; then
 echo "You have both ilogbl and scalbnl, so I can emulate frexp1."
else
 message="$message frexp1"
fi
fi
fi
if $test "$d_ldexpl" != "$define"; then
message="$message ldexpl"
fi

if $test "$message" != ""; then
$cat <<EOM >&4

```

```

*** You requested the use of long doubles but you do not seem to have
*** the following mathematical functions needed for long double support:
*** $message
*** Please rerun Configure without -Duselongdouble and/or -Dusemorebits.
*** Cannot continue, aborting.

```

EOM

```

exit 1
fi
fi

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/perl/d_modfl.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

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?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: mallocsrc.U,v \$  
?RCS: Revision 3.0.1.2 1997/02/28 16:10:26 ram  
?RCS: patch61: added support for Free\_t, the type of free()  
?RCS: patch61: replaced .o with \$\_o all over the place  
?RCS:  
?RCS: Revision 3.0.1.1 1994/05/06 15:10:46 ram  
?RCS: patch23: added support for MYMALLOC, mainly for perl5 (ADO)  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:12 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:mallocsrc mallocobj usemymalloc malloctype d\_mymalloc \  
freetype: Myread \  
Oldconfig  
package Guess Setvar rm cat +cc +ccflags Findhdr \  
i\_malloc i\_stdlib sed libs \_o ptrsize  
?MAKE: -pick add \$@ %<  
?X: Put near top so that other tests don't erroneously include  
?X: -lmalloc. --AD 22 June 1998  
?Y:TOP  
?S:usemymalloc:  
?S: This variable contains y if the malloc that comes with this package  
?S: is desired over the system's version of malloc. People often include  
?S: special versions of malloc for efficiency, but such versions are often  
?S: less portable. See also mallocsrc and mallocobj.  
?S: If this is 'y', then -lmalloc is removed from \$libs.  
?S:.  
?S:mallocsrc:  
?S: This variable contains the name of the malloc.c that comes with  
?S: the package, if that malloc.c is preferred over the system malloc.  
?S: Otherwise the value is null. This variable is intended for generating  
?S: Makefiles.  
?S:.  
?S:d\_mymalloc:  
?S: This variable conditionally defines MYMALLOC in case other parts  
?S: of the source want to take special action if MYMALLOC is used.  
?S: This may include different sorts  
of profiling or error detection.  
?S:.  
?S:mallocobj:  
?S: This variable contains the name of the malloc.o that this package

?S: generates, if that malloc.o is preferred over the system malloc.

?S: Otherwise the value is null. This variable is intended for generating

?S: Makefiles. See malloclib.

?S:.

?S:freetype:

?S: This variable contains the return type of free(). It is usually

?S: void, but occasionally int.

?S:.

?S:malloctype:

?S: This variable contains the kind of ptr returned by malloc and realloc.

?S:.

?C:Free\_t:

?C: This variable contains the return type of free(). It is usually

?C: void, but occasionally int.

?C:.

?C:Malloc\_t (MALLOCPTRTYPE):

?C: This symbol is the type of pointer returned by malloc and realloc.

?C:.

?H:#define Malloc\_t \$malloctype /\*\*/

?H:#define Free\_t \$freetype /\*\*/

?H:.

?C:MYMALLOC:

?C: This symbol, if defined, indicates that we're using our own malloc.

?C:.

?H:#\$d\_mymalloc MYMALLOC /\*\*/

?H:.

?LINT:change libs

?X: Cannot test for malloclib; it

is the unit's name and there is a bug in

?X: the interpreter which defines all the names, even though they are not used.

@if malloclib

: determine which malloc to compile in

echo " "

case "\$usemymalloc" in

[yY]\*|true|\$define) dflt='y' ;;

[nN]\*|false|\$undef) dflt='n' ;;

\*)

case "\$ptrsize" in

4) dflt='y' ;;

\*) dflt='n' ;;

esac

::

esac

rp="Do you wish to attempt to use the malloc that comes with \$package?"

./myread

usemymalloc="\$ans"

case "\$ans" in

y\*|true)



```

usemymalloc='y'
mallosrc='malloc.c'
mallocobj="malloc$_o"
d_mymalloc="$define"
?X: Maybe libs.U should be dependent on mallosrc.U, but then
?X: most packages that use dist probably don't supply their own
?X: malloc, so this is probably an o.k. compromise
case "$libs" in
-lmalloc)
: Remove malloc from list of libraries to use
echo "Removing unneeded -lmalloc from library list" >&4
set `echo X $libs | $sed -e 's/-lmalloc / /' -e 's/-lmalloc$/'^
shift
libs="$*"
echo "libs = $libs" >&4
;;
esac
;;
*)
usemymalloc='n'
mallosrc=""
mallocobj=""
d_mymalloc="$undef"
;;
esac

@end
@if
MALLOCPTRTYPE || Malloc_t || Free_t
: compute the return types of malloc and free
echo " "
$cat >malloc.c <<END
#$i_malloc I_MALLOC
#$i_stdlib I_STDLIB
#include <stdio.h>
#include <sys/types.h>
#ifdef I_MALLOC
#include <malloc.h>
#endif
#ifdef I_STDLIB
#include <stdlib.h>
#endif
#ifdef TRY_MALLOC
void *malloc();
#endif
#ifdef TRY_FREE
void free();
#endif

```

```
END
@if MALLOC_PTRTYPE || Malloc_t
case "$malloctype" in
")
if $cc $ccflags -c -DTRY_MALLOC malloc.c >/dev/null 2>&1; then
malloctype='void *'
else
malloctype='char *'
fi
;;
esac
echo "Your system wants malloc to return '$malloctype', it would seem." >&4
@end
```

```
@if Free_t
case "$freetype" in
")
if $cc $ccflags -c -DTRY_FREE malloc.c >/dev/null 2>&1; then
freetype='void'
else
freetype='int'
fi
;;
esac
echo "Your system uses $freetype free(), it would seem." >&4
@end
$rm -f malloc.[co]
@end
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/mallosrc.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998, Jarkko Hietaniemi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:i\_netinetcp: Inhdr

?MAKE: -pick add \$@ %<

?S:i\_netinetcp:

?S: This variable conditionally defines the I\_NETINET\_TCP symbol,

?S: and indicates whether a C program should include <netinet/tcp.h>.

?S:.

?C:I\_NETINET\_TCP:

?C: This symbol, if defined, indicates to the C program that it should

?C: include <netinet/tcp.h>.

?C:.

?H:#\$i\_netinettcp I\_NETINET\_TCP /\*\*/

?H:.

?LINT:set i\_netinettcp

: see if netinet/tcp.h is available

set netinet/tcp.h i\_netinettcp

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_netinettcp.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: perlpath.U,v 3.0.1.2 1995/09/25 09:17:04 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: This file is included with or a derivative work of a file included

?RCS: with the metaconfig program of Raphael Manfredi's "dist" distribution.

?RCS: In accordance with clause 7 of dist's modified Artistic License:

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: perlpath.U,v \$

?RCS:

?RCS: Special perl5 unit -- we haven't installed perl yet.

?RCS:

?RCS: Revision 3.0.1.2 1995/09/25 09:17:04 ram

?RCS: patch59: unit is now forced to the top of Configure, if possible

?RCS:

?RCS: Revision 3.0.1.1 1995/01/11 15:33:53 ram

?RCS: patch45: can now use Loc variables since path stripping is deferred

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:32 ram

?RCS: Baseline for dist

3.0 netwide release.

?RCS:

?X:

?X: The purpose of this unit is to locate perl good enough to construct a #!

?X:

?MAKE:perlpath: cat Getfile Loc Myread Oldconfig initialinstalllocation \

startperl version versiononly

```

?MAKE: -pick add $@ %<
?Y:TOP
?S:perlpath:
?S: This variable contains the eventual value of the PERLPATH symbol,
?S: which contains the name of the perl interpreter to be used in
?S: shell scripts and in the "eval 'exec'" idiom. This variable is
?S: not necessarily the pathname of the file containing the perl
?S: interpreter; you must append the executable extension (_exe) if
?S: it is not already present. Note that Perl code that runs during
?S: the Perl build process cannot reference this variable, as Perl
?S: may not have been installed, or even if installed, may be a
?S: different version of Perl.
?S:.
?C:PERLPATH:
?C: This symbol contains the name of the perl interpreter to be
?C: used in shell scripts and in the "eval 'exec'" idiom.
?C:.
?H:#define PERLPATH "$perlpath" /**/
?H:.
:
figure best path for perl in scripts
case "$perlpath" in
")
case "$versiononly" in
"$define") perlpath="$initialinstalllocation/perl$version";;
*) perlpath="$initialinstalllocation/perl";;
esac
case "$startperl" in
!) ;;
*)
$cat <<EOH

```

I will use the "eval 'exec'" idiom to start Perl on your system.  
I can use the full path of your Perl binary for this purpose, but  
doing so may cause problems if you want to share those scripts and  
Perl is not always in a standard place (\$initialinstalllocation/perl).

```

EOH
dflt="$initialinstalllocation/perl"
rp="What path shall I use in \"eval 'exec'\"?"
./myread
perlpath="$ans"
;;
esac
;;
esac
case "$startperl" in
!) ;;

```

```
*) echo "I'll use $perlpath in \"eval 'exec'\"" ;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/perlpath.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Chk_whoami.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: Chk_whoami.U,v $
?RCS: Revision 3.0 1993/08/18 12:04:46 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit makes sure we don't try to include whoami.h if uname() exists.
?X:
?MAKE:Chk_whoami: d_uname i_whoami
?MAKE: -pick add $@ %<
?LINT:change i_whoami
: weed out incompatibilities
case "$d_uname" in
"$define") i_whoami="$undef" ;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Chk_whoami.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_sethent.U,v 3.0 1993/08/18 12:06:09 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
```

?RCS: \$Log: d\_sethent.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:06:09 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_sethent: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_sethent:  
?S: This variable conditionally defines HAS\_SETHOSTENT if sethostent() is  
?S: available.  
?S:.  
?C:HAS\_SETHOSTENT:  
?C: This symbol, if defined, indicates that the sethostent() routine is  
?C: available.  
?C:.  
?H:#\$d\_sethent HAS\_SETHOSTENT /\*\*/  
?H:.  
?LINT:set d\_sethent  
: see if sethostent exists  
set  
sethostent d\_sethent  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_sethent.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_unistd.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: i\_unistd.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:08:46 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:i\_unistd: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_unistd:  
?S: This variable conditionally defines the I\_UNISTD symbol, and indicates  
?S: whether a C program should include <unistd.h>.  
?S:.  
?C:I\_UNISTD:

?C: This symbol, if defined, indicates to the C program that it should

?C: include <unistd.h>.

?C:.

?H:#\$i\_unistd I\_UNISTD /\*\*/

?H:.

?LINT:set

i\_unistd

: see if this is a unistd.h system

set unistd.h i\_unistd

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_unistd.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: bin.U,v 3.1 1999/07/09 18:20:13 doughera Exp doughera \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: bin.U,v \$

?RCS: Revision 3.1 1999/07/09 18:20:13 doughera

?RCS: Updated for installprefix

?RCS:

?RCS: Revision 3.0.1.4 1995/09/25 09:15:32 ram

?RCS: patch59: unit is now forced to the top of Configure, if possible

?RCS:

?RCS: Revision 3.0.1.3 1995/01/30 14:32:40 ram

?RCS: patch49: can now handle installation prefix changes (from WED)

?RCS:

?RCS: Revision 3.0.1.2 1994/08/29 16:05:28 ram

?RCS: patch32: now uses installation prefix

?RCS:

?RCS:

Revision 3.0.1.1 1993/09/13 15:56:51 ram

?RCS: patch10: made prompting more explicit (WAD)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:26 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:bin binexp installbin userelocatableinc initialinstalllocation: \

Myread Prefixit Getfile Setvar Setprefixvar Oldconfig \

test prefix prefixexp  
?MAKE: -pick add \$@ %<  
?Y:TOP  
?D:bin="  
?S:bin:  
?S: This variable holds the name of the directory in which the user wants  
?S: to put publicly executable images for the package in question. It  
?S: is most often a local directory such as /usr/local/bin. Programs using  
?S: this variable must be prepared to deal with ~name substitution.  
?S:.  
?D:binexp="  
?S:binexp:  
?S: This is the same as the bin variable, but is filename expanded at  
?S: configuration time, for use in your makefiles.  
?S:.  
?D:installbin="  
?S:installbin:  
?S: This variable is the same as binexp unless AFS is running in which case  
?S: the user is explicitly prompted for it. This variable  
should always  
?S: be used in your makefiles for maximum portability.  
?S:.  
?D:userrelocatableinc="  
?S:userrelocatableinc:  
?S: This variable is set to true to indicate that perl should relocate  
?S: @INC entries at runtime based on the path to the perl binary.  
?S: Any @INC paths starting ".../" are relocated relative to the directory  
?S: containing the perl binary, and a logical cleanup of the path is then  
?S: made around the join point (removing "dir../" pairs)  
?S:.  
?S:initialinstalllocation:  
?S: When userrelocatableinc is true, this variable holds the location  
?S: that make install should copy the perl binary to, with all the  
?S: run-time relocatable paths calculated from this at install time.  
?S: When used, it is initialized to the original value of binexp, and  
?S: then binexp is set to '.../', as the other binaries are found  
?S: relative to the perl binary.  
?S:.  
?C:BIN:  
?C: This symbol holds the path of the bin directory where the package will  
?C: be installed. Program must be  
prepared to deal with ~name substitution.  
?C:.  
?C:BIN\_EXP:  
?C: This symbol is the filename expanded version of the BIN symbol, for  
?C: programs that do not want to deal with that at run-time.  
?C:.  
?C:PERL\_RELOCATABLE\_INC:



```

?C: This symbol, if defined, indicates that we'd like to relocate entries
?C: in @INC at run time based on the location of the perl binary.
?C:.
?H:#define BIN "$bin" /**/
?H:#define BIN_EXP "$binexp" /**/
?H:#define PERL_RELOCATABLE_INC "$userelocatableinc" /**/
?H:.
?D:bin='/usr/local/bin'
?LINT:change prefix
?LINT:change prefixexp
?LINT:change prefixvar
?LINT:change installprefixexp
?LINT:set userelocatableinc
: determine where public executables go
echo " "
set dflt bin bin
eval $prefixit
fn=d~
rp='Pathname where the public executables will reside?'
./getfile
if $test "X$sansexp" != "X$binexp"; then
 installbin="
fi
prefixvar=bin
: XXX Bug? -- ignores Configure -Dinstallprefix setting.
: XXX If this is fixed, also fix the "start perl" hunk below, which relies on
:
 this via initialinstalllocation
./setprefixvar

case "$userelocatableinc" in
$define|true|[yY]*) dflt='y' ;;
*) dflt='n' ;;
esac
cat <<EOM

```

Would you like to build Perl so that the installation is relocatable, so that library paths in @INC are determined relative to the path of the perl binary? This is not advised for system Perl installs, or if you need to run setid scripts or scripts under taint mode.

If this doesn't make any sense to you, just accept the default '\$dflt'.

```

EOM
rp='Use relocatable @INC?'
./myread
case "$ans" in
y|Y) val="$define" ;;
*) val="$undef" ;;

```

```

esac
set userelocatableinc
eval $setvar

initialinstalllocation="$binexp"
: Default prefix is now "up one level from where the binaries are"
case "$userelocatableinc" in
$define|true|[yY]*)
 bin="..."
 binexp="..."
 prefix=".../"
 prefixexp=".../"
 installprefixexp=".../"
 ;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/bin.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: vendorbin.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera \$

?RCS:

?RCS: Copyright (c) 1999, Andy Dougherty

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

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?RCS: You may reuse parts of this distribution only within the terms of

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: vendorbin.U,v \$

?RCS: Revision 1.1 1999/07/08 18:32:57 doughera

?RCS: Initial revision

?RCS:

?MAKE:d\_vendorbin vendorbin vendorbinexp installvendorbin: Getfile \

Setprefixvar Oldconfig Prefixit vendorprefix

?MAKE: -pick add \$@ %<

?Y:TOP

?S:vendorbin:

?S: This variable contains the eventual value of the VENDORBIN symbol.

?S: It may have a ~ on the front.

?S: The standard distribution will put nothing in this directory.

?S: Vendors who distribute perl

may wish to place additional

?S: binaries in this directory with

?S: MakeMaker Makefile.PL INSTALLDIRS=vendor

?S: or equivalent. See INSTALL for details.

?S:.

?S:vendorbinexp:

?S: This variable is the ~name expanded version of vendorbin, so that you

?S: may use it directly in Makefiles or shell scripts.

?S:.

?D:installvendorbin="

?S:installvendorbin:

?S: This variable is really the same as vendorbinexp but may differ on

?S: those systems using AFS. For extra portability, only this variable

?S: should be used in makefiles.

?S:.

?S:d\_vendorbin:

?S: This variable conditionally defines PERL\_VENDORBIN.

?S:.

?C:PERL\_VENDORBIN:

?C: If defined, this symbol contains the name of a directory

?C: for holding vendor-supplied executables.

?C: It may have a ~ on the front.

?C: The standard distribution will put nothing in this directory.

?C: Vendors who distribute perl may wish to place additional

?C: binaries in this directory with

?C: MakeMaker Makefile.PL INSTALLDIRS=vendor

?C: or equivalent.

See INSTALL for details.

?C:.

?C:PERL\_VENDORBIN\_EXP:

?C: This symbol contains the ~name expanded version of VENDORBIN, to be used

?C: in programs that are not prepared to deal with ~ expansion at run-time.

?C:.

?H:#\$d\_vendorbin PERL\_VENDORBIN "\$vendorbin" /\*\*/

?H:#\$d\_vendorbin PERL\_VENDORBIN\_EXP "\$vendorbinexp" /\*\*/

?H:.

?LINT:change prefixvar

?LINT:set installvendorbin

: Set the vendorbin variables

case "\$vendorprefix" in

) d\_vendorbin="\$undef"

vendorbin="

vendorbinexp="

;;

\*) d\_vendorbin="\$define"

: determine where vendor-supplied executables go.

case "\$vendorbin" in

) dflt=\$vendorprefix/bin ;;

\*) dflt="\$vendorbin" ;;

esac

fn=d~+

rp='Pathname for the vendor-supplied executables directory?'

```
./getfile
vendorbin="$ans"
vendorbinexp="$ansexp"
;;
esac
prefixvar=vendorbin
./installprefix
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/vendorbin.U
```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_fmin: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fmin:

?S: This variable conditionally defines the HAS\_FMIN symbol, which

?S: indicates to the C program that the fmin() routine is available.

?S:.

?C:HAS\_FMIN:

?C: This symbol, if defined, indicates that the fmin routine is

?C: available to do the minimum function.

?C:.

?H:#\$d\_fmin HAS\_FMIN /\*\*/

?H:.

?LINT:set d\_fmin

: see if fmin exists

set fmin d\_fmin

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_fmin.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_isnan: Inlibc cat Compile rm\_try Setvar

?MAKE: -pick add \$@ %<

?S:d\_isnan:

?S: This variable conditionally defines the HAS\_ISNAN symbol, which

?S: indicates to the C program that the isnan() routine is available.

?S:.

?C:HAS\_ISNAN:

?C: This symbol, if defined, indicates that the isnan routine is

?C: available to check whether a double is a NaN.

?C:.

?H:#\$d\_isnan HAS\_ISNAN /\*\*/

?H:.

?LINT:set d\_isnan

: check for isnan

echo "Checking to see if you have isnan..." >&4

\$cat >try.c <<EOCP

#include <math.h>

int main() { return isnan(0.0); }

EOCP

set try

if eval \$compile; then

val="\$define"

echo "You have isnan."

else

val="\$undef"

echo "You do not have isnan."

fi

\$rm\_try

set d\_isnan

eval \$setvar

Found

in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_isnan.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: doublesize.U,v 3.0.1.1 1994/10/29 16:17:06 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: doublesize.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:17:06 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:

```

?RCS: Revision 3.0 1993/08/18 12:08:06 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:doublesize: cat rm_try Myread Compile run i_stdlib
?MAKE: -pick add $@ %<
?S:doublesize:
?S: This variable contains the value of the DOUBLESIZE symbol, which
?S: indicates to the C program how many bytes there are in a double.
?S:.
?C:DOUBLESIZE:
?C: This
symbol contains the size of a double, so that the C preprocessor
?C: can make decisions based on it.
?C:.
?H:#define DOUBLESIZE $doublesize /**/
?H:.
?F:!try
: check for length of double
echo " "
case "$doublesize" in
")
echo "Checking to see how big your double precision numbers are..." >&4
$cat >try.c <<EOCP
#include <stdio.h>
#$i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
int main()
{
printf("%d\n", (int)sizeof(double));
exit(0);
}
EOCP
set try
if eval $compile_ok; then
doublesize=`$run ./try`
echo "Your double is $doublesize bytes long."
else
dflt='8'
echo "(I can't seem to compile the test program. Guessing...)"
rp="What is the size of a double precision number (in bytes)?"
./myread
doublesize="$ans"
fi
;;
esac
$rm_try

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/doublesize.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Typedef.U,v 3.0.1.3 1995/07/25 13:42:07 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: Typedef.U,v \$

?RCS: Revision 3.0.1.3 1995/07/25 13:42:07 ram

?RCS: patch56: added backslash escapes within evals to prevent space problems

?RCS:

?RCS: Revision 3.0.1.2 1994/10/29 16:01:16 ram

?RCS: patch36: don't clobber visible 'val' variable, use 'varval' instead

?RCS:

?RCS: Revision 3.0.1.1 1994/08/29 16:05:14 ram

?RCS: patch32: created

?RCS:

?X:

?X: This unit checks for the definition of a given typedef.

?X:

?X: To use it, say:

?X: set typedef

val\_t default [includes]

?X: eval \$typedef

?X:

?MAKE:Typedef: cppstdin cppminus cppflags rm sed contains Oldconfig Myread

?MAKE: -pick add \$@ %<

?LINT:define typedef

?LINT:define typedef\_ask

?V:typedef typedef\_ask

?S:typedef:

?S: This shell variable is used internally by Configure to check

?S: whether a given typedef is defined or not. A typical use is:

?S: set typedef val\_t default [includes]

?S: eval \$typedef

?S: That will return val\_t set to default if the typedef was not found,

?S: to typedef otherwise. If no includes are specified, look in sys/types.h.

?S:.

?S:typedef\_ask:

?S: This shell variable is used internally by Configure to check  
 ?S: whether a given typedef is defined or not. If it is not defined,  
 ?S: this will call the ./myread script to prompt for an answer.  
 ?S: It is intended to be used to avoid unnecessary prompts.  
 ?S: A typical use is  
 ?S: rp="What is the type for file position used by fseek()?"  
 ?S: set fpos\_t fpostype long stdio.h sys/types.h  
 ?S: eval \$typedef\_ask  
 ?S: This  
 will set fpostype=fpos\_t, if fpos\_t is available. Otherwise  
 ?S: it will call myread with a default of 'long', and a prompt of \$rp.  
 ?S:.

?T:type var def inclist varval inc

?F:!temp.c

: define an is-a-typedef? function

```
typedef='type=$1; var=$2; def=$3; shift; shift; shift; inclist=$@;
```

```
case "$inclist" in
```

```
 "") inclist="sys/types.h";;
```

```
esac;
```

```
eval "varval=\${$var}";
```

```
case "$varval" in
```

```
 "")
```

```
 $rm -f temp.c;
```

```
 for inc in $inclist; do
```

```
 echo "#include <$inc>" >>temp.c;
```

```
 done;
```

?X: Maybe it's a #define instead of a typedef.

```
 echo "#ifdef $type" >> temp.c;
```

```
 echo "printf(\"We have $type\");" >> temp.c;
```

```
 echo "#endif" >> temp.c;
```

```
 $cpcppstdin $cpcppflags $cpcppminus < temp.c >temp.E 2>/dev/null;
```

```
 if $contains $type temp.E >/dev/null 2>&1; then
```

```
 eval "$var=\${$type}";
```

```
 else
```

```
 eval "$var=\${$def}";
```

```
 fi;
```

```
 $rm -f temp.?.;
```

```
 *) eval "$var=\${$varval}";;
```

```
esac'
```

?X: Originally, I eval'd \$typedef and then checked the results against

?X: \$type. Unfortunately, it then became complicated to check

?X: whether you are re-using

an old config.sh value, and the logic got

?X: so convoluted it became easier to just copy the function above

?X: and alter it slightly. A.D. 3/1998

: define an is-a-typedef? function that prompts if the type is not available.

```
typedef_ask='type=$1; var=$2; def=$3; shift; shift; shift; inclist=$@;
```



```

case "$inclist" in
"") inclist="sys/types.h";;
esac;
eval "varval=\${$var}";
case "$svarval" in
"")
$rm -f temp.c;
for inc in $inclist; do
echo "#include <$inc>" >>temp.c;
done;
?X: Maybe it's a #define instead of a typedef.
echo "#ifndef $type" >> temp.c;
echo "printf(\"We have $type\");" >> temp.c;
echo "#endif" >> temp.c;
$cpstdin $cppflags $cppminus < temp.c >temp.E 2>/dev/null;
echo " " ;
echo "$rp" | $sed -e "s/What is/Looking for/" -e "s/?.?/?";
if $contains $type temp.E >/dev/null 2>&1; then
echo "$type found." >&4;
eval "$var=\${$type}";
else
echo "$type NOT found." >&4;
dflt="$def";
. ./myread ;
eval "$var=\${$ans}";
fi;
$rm -f temp.?.?;
*) eval "$var=\${$svarval}";;
esac'

```

Found

in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/Typedef.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:

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?RCS: You may reuse parts of this distribution only within the terms of

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:sitehtml3dir sitehtml3direxp installsitehtml3dir: Getfile \

Setprefixvar prefix siteprefix html3dir sed

```

?MAKE: -pick add $@ %<
?Y:TOP
?D:sitehtml3dir="
?S:sitehtml3dir:
?S: This variable contains the name of the directory in which site-specific
?S: library html source pages are to be put. It is the responsibility of the
?S: Makefile.SH to get the value of this into the proper command.
?S: You must be prepared to do the ~name expansion yourself.
?S: The standard distribution will put nothing in this directory.
?S: After
perl has been installed, users may install their own local
?S: library html pages in this directory with
?S: MakeMaker Makefile.PL
?S: or equivalent. See INSTALL for details.
?S:.
?D:sitehtml3direxp="
?S:sitehtml3direxp:
?S: This variable is the same as the sitehtml3dir variable, but is filename
?S: expanded at configuration time, for convenient use in makefiles.
?S:.
?D:installsitehtml3dir="
?S:installsitehtml3dir:
?S: This variable is really the same as sitehtml3direxp, unless you are using
?S: AFS in which case it points to the read/write location whereas
?S: html3direxp only points to the read-only access location. For extra
?S: portability, you should only use this variable within your makefiles.
?S:.
?LINT:change prefixvar
?LINT:set installsitehtml3dir
?LINT:set sitehtml3dir
?LINT:set sitehtml3direxp
: determine where add-on library html pages go
: There is no standard location, so try to copy the previously-selected
: directory structure for the core html pages.
case
"$sitehtml3dir" in
") dflt=`echo "$html3dir" | $sed "s#^$prefix#$siteprefix#"` ;;
*) dflt=$sitehtml3dir ;;
esac
case "$dflt" in
"| ") dflt=none ;;
esac
fn=dn+~
rp='Pathname where the site-specific library html pages should be installed?'
./getfile
prefixvar=sitehtml3dir
./setprefixvar

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/sitehtml3dir.U

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?RCS:

?RCS: \$Log: sig\_name.U,v \$

?RCS: Revision 3.0.1.5 1997/02/28 16:21:25 ram

?RCS: patch61: brand new algorithm for sig\_name and (new!) sig\_num

?RCS:

?RCS: Revision 3.0.1.4 1995/07/25 14:14:54 ram

?RCS: patch56: added <asm/signal.h> lookup for linux

?RCS:

?RCS: Revision 3.0.1.3 1995/05/12 12:24:11 ram

?RCS: patch54: now looks for <linux/signal.h> too (ADO)

?RCS:

?RCS: Revision 3.0.1.2 1994/06/20 07:06:57 ram

?RCS: patch30: final echo was missing to close awk-printed string

?RCS:

?RCS: Revision 3.0.1.1

1994/05/06 15:17:55 ram

?RCS: patch23: signal list now formatted to avoid scroll-ups (ADO)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:47 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:sig\_name sig\_name\_init sig\_num sig\_num\_init sig\_count sig\_size: \

awk Signal Oldconfig rm

?MAKE: -pick add \$@ %<

?S:sig\_name:

?S: This variable holds the signal names, space separated. The leading

?S: SIG in signal name is removed. A ZERO is prepended to the

?S: list. This is currently not used.

?S:.

?S:sig\_name\_init:

?S: This variable holds the signal names, enclosed in double quotes and

?S: separated by commas, suitable for use in the SIG\_NAME definition

?S: below. A "ZERO" is prepended to the list, and the list is

?S: terminated with a plain 0. The leading SIG in signal names

?S: is removed. See sig\_num.

?S:.

?S:sig\_num:

?S: This variable holds the signal numbers, space separated. A ZERO is

?S: prepended to the list (corresponding to the fake SIGZERO), and

?S: the list is terminated

with a 0. Those numbers correspond to

?S: the value of the signal listed in the same place within the

?S: sig\_name list.

?S:.

?S:sig\_num\_init:

?S: This variable holds the signal numbers, enclosed in double quotes and

?S: separated by commas, suitable for use in the SIG\_NUM definition

?S: below. A "ZERO" is prepended to the list, and the list is

?S: terminated with a plain 0.

?S:.

?S:sig\_count (sig\_name.U):

?S: This variable holds a number larger than the largest valid

?S: signal number. This is usually the same as the NSIG macro.

?S:.

?S:sig\_size:

?S: This variable contains the number of elements of the sig\_name

?S: and sig\_num arrays, excluding the final NULL entry.

?S:.

?C:SIG\_NAME:

?C: This symbol contains a list of signal names in order of

?C: signal number. This is intended

?C: to be used as a static array initialization, like this:

?C: char \*sig\_name[] = { SIG\_NAME };

?C: The signals in the list are separated with commas, and each signal

?C: is surrounded by double

quotes. There is no leading SIG in the signal

?C: name, i.e. SIGQUIT is known as "QUIT".

?C: Gaps in the signal numbers (up to NSIG) are filled in with NUMnn,

?C: etc., where nn is the actual signal number (e.g. NUM37).

?C: The signal number for sig\_name[i] is stored in sig\_num[i].

?C: The last element is 0 to terminate the list with a NULL. This

?C: corresponds to the 0 at the end of the sig\_num list.

?C:.

?C:SIG\_NUM:

?C: This symbol contains a list of signal numbers, in the same order as the

?C: SIG\_NAME list. It is suitable for static array initialization, as in:

?C: int sig\_num[] = { SIG\_NUM };

?C: The signals in the list are separated with commas, and the indices

?C: within that list and the SIG\_NAME list match, so it's easy to compute

?C: the signal name from a number or vice versa at the price of a small

?C: dynamic linear lookup.

?C: Duplicates are allowed, but are moved to the end of the list.

?C: The signal number corresponding to sig\_name[i] is sig\_number[i].

?C: if (i

< NSIG) then sig\_number[i] == i.

?C: The last element is 0, corresponding to the 0 at the end of

?C: the sig\_name list.

?C:.

?C:SIG\_COUNT:

?C: This variable contains a number larger than the largest

?C: signal number. This is usually the same as the NSIG macro.

?C:.

?C:SIG\_SIZE:

?C: This variable contains the number of elements of the sig\_name

?C: and sig\_num arrays, excluding the final NULL entry.

?C:.

?H:#define SIG\_NAME \$sig\_name\_init /\*\*/

?H:#define SIG\_NUM \$sig\_num\_init /\*\*/

?H:#define SIG\_COUNT \$sig\_count /\*\*/

?H:#define SIG\_SIZE \$sig\_size /\*\*/

?H:.

?T:i doinit

?F:!= !signal\_cmd

?X: signal.cmd creates a file signal.lst which has two columns:

?X: NAME number, e.g.

?X: HUP 1

?X: The list is sorted on signal number, with duplicates moved to

?X: the end..

: generate list of signal names

echo " "

case "\$sig\_name\_init" in

") doinit=yes ;;

\*) case "\$sig\_num\_init" in

"|\*,\*) doinit=yes ;;

esac ;;

esac

case "\$doinit" in

yes)

echo "Generating a list of signal names and

numbers..." >&4

./signal\_cmd

sig\_count=`\$awk '/^NSIG/ { printf "%d", \$2 }' signal.lst`

sig\_name=`\$awk 'BEGIN { printf "ZERO " }

!/^NSIG/ { printf "%s ", \$1 }' signal.lst`

sig\_num=`\$awk 'BEGIN { printf "0 " }

!/^NSIG/ { printf "%d ", \$2 }' signal.lst`

sig\_name\_init=`\$awk 'BEGIN { printf "\"ZERO\", " }

!/^NSIG/ { printf "\"%s\", ", \$1 }

END { printf "0\n" }' signal.lst`

sig\_num\_init=`\$awk 'BEGIN { printf "0, " }

```

 !/^NSIG/ { printf "%d, ", $2}
 END { printf "0\n"}' signal.lst`
;;
esac
echo "The following $sig_count signals are available:"
echo " "
echo $sig_name | $awk \
'BEGIN { linelen = 0 }
{
for (i = 1; i <= NF; i++) {
name = "SIG" $i " "
linelen = linelen + length(name)
if (linelen > 70) {
printf "\n"
linelen = length(name)
}
printf "%s", name
}
printf "\n"
}'
sig_size=`echo $sig_name | awk '{print NF}'`
$rm -f signal.signal.c signal.awk signal.lst signal_cmd

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/sig\_name.U

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?RCS:

?RCS: \$Log: package.U,v \$

?RCS: Revision 3.0.1.3 1994/10/29 16:27:21 ram

?RCS: patch36: beware of non-ascii character sets when translating case

?RCS:

?RCS: Revision 3.0.1.2 1993/11/10 17:37:02 ram

?RCS: patch14: skip definition of spackage if not otherwise used

?RCS:

?RCS: Revision 3.0.1.1 1993/09/13 16:11:10 ram

?RCS: patch10: added package, suitable for starting sentences

?RCS:

?RCS: Revision 3.0 1993/08/18 12:09:28 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:package spackage:

Nothing

?MAKE: -pick wipe \$@ %<

?S:package:

?S: This variable contains the name of the package being constructed.

?S: It is primarily intended for the use of later Configure units.

?S:.

?S:spackage:

?S: This variable contains the name of the package being constructed,

?S: with the first letter uppercased, i.e. suitable for starting

?S: sentences.

?S:.

?C:PACKAGE:

?C: This variable contains the name of the package being built.

?C:.

?H:#define PACKAGE "\$package"

?H:.

?T:first last

: set package name

package='<PACKAGENAME>'

@if spackage

first=`echo \$package | sed -e 's/^(.).\*\1/'`

last=`echo \$package | sed -e 's/^(.\*)\1/'`

?X:

?X: So early in the Configure script, we don't have ./tr set up and can't

?X: include Tr in our dependency or that would create a cycle. Therefore,

?X: we have to somehow duplicate the work done in Tr. That's life.

?X:

case "" echo AbyZ | tr '[:lower:]' '[:upper:]' 2>/dev/null" in

ABYZ) spackage=`echo \$first | tr '[:lower:]' '[:upper:]'`\$last;;

\*) spackage=`echo

\$first | tr '[a-z]' '[A-Z]'`\$last;;

esac

@end

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/package.U

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?RCS: \$Id: Oldsym.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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```

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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: Oldsym.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 15:06:58 ram
?RCS: patch61: added support for src.U
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:13 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit follows the creation of the config.sh file. It adds some
?X: special symbols: defines from patchlevel.h file if any and PERL_CONFIG_SH,
?X: which is set to true. Then, we try to keep all the new symbols that
?X: may come from a hint
?X: file or a previous config.sh file.
?X:
?MAKE:Oldsym: Config_sh cat test hint src sed sort uniq perl_patchlevel
?MAKE: -pick add $@ %<
?T:PERL_CONFIG_SH PERL_PATCHLEVEL sym tmp
?F:!UU
: add special variables
$test -f $src/patchlevel.h && \
awk '/^#define[]+PERL_/ {printf "%s=%s\n",$2,$3}' $src/patchlevel.h >>config.sh
echo "PERL_PATCHLEVEL='$perl_patchlevel'" >>config.sh
echo "PERL_CONFIG_SH=true" >>config.sh

: propagate old symbols
if $test -f UU/config.sh; then
?X: Make sure each symbol is unique in oldconfig.sh
<UU/config.sh $sort | $uniq >UU/oldconfig.sh
?X:
?X: All the symbols that appear twice come only from config.sh (hence the
?X: two config.sh in the command line). These symbols will be removed by
?X: the uniq -u command. The oldsyms file thus contains all the symbols
?X: that did not appear in the produced config.sh (Larry Wall).
?X:
?X: Do not touch the -u flag of uniq. This means you too, Jarkko.
?X:
$sed -n 's/^\([a-zA-Z_0-9]*\)=.*\1/p'\
config.sh config.sh UU/oldconfig.sh
\
$sort | $uniq -u >UU/oldsyms
set X ` $cat UU/oldsyms `
shift
case $# in

```



```

0) ;;
*)
$cat <<EOM
Hmm...You had some extra variables I don't know about...I'll try to keep 'em...
EOM
echo ": Variables propagated from previous config.sh file." >>config.sh
for sym in ` $cat UU/oldsyms`; do
echo " Propagating $hint variable ""$"$sym..."
eval 'tmp=""${sym}""'
echo "$tmp" | \
sed -e "s/^\\""/g" -e "s/^\$sym=/'" -e "s/$/'/" >>config.sh
done
;;
esac
fi

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Oldsym.U
```

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?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_dlopen.U,v \$

?RCS: Revision 3.0.1.2 1995/07/25 13:52:56 ram

?RCS: patch56: force compile-link test since symbol might lie in crt0.o (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/08/29 16:07:34 ram

?RCS: patch32: created by ADO

?RCS:

?MAKE:d\_dlopen: Inlibc runnm

?MAKE: -pick add \$@ %<

?S:d\_dlopen:

?S: This variable conditionally defines the HAS\_DLOPEN symbol, which

?S: indicates to the C program that the dlopen() routine

is available.

?S:.

?C:HAS\_DLOPEN :

?C: This symbol, if defined, indicates that the dlopen routine is  
?C: available.  
?C:.  
?H:#\$d\_dlopen HAS\_DLOPEN /\*\*/  
?H:.  
?T: xxx\_runnm  
?LINT:set d\_dlopen  
?X: We don't permanently change runnm, but we do temporarily.  
?LINT: change runnm  
: see if dlopen exists  
?X: On NetBSD and FreeBSD, dlopen is available, but it is in  
?X: /usr/lib/crt0.o, not in any of the libraries. Therefore, do not  
?X: use the nm extraction, but use a real compile and link test instead.  
xxx\_runnm="\$runnm"  
runnm=false  
set dlopen d\_dlopen  
eval \$inlibc  
runnm="\$xxx\_runnm"

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_dlopen.U

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?RCS: \$Id: sh.U,v 3.0.1.1 1997/02/28 16:20:13 ram Exp \$  
?RCS:  
?RCS: Copyright (c) 1997, Chip Salzenberg  
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?RCS:  
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?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: sh.U,v \$  
?RCS: Revision 3.0.1.1 1997/02/28 16:20:13 ram  
?RCS: patch61: created  
?RCS:  
?MAKE:sh targetsh: Head  
?MAKE: -pick wipe \$@ %<  
?S:sh:  
?S: This variable contains the full pathname of the shell used  
?S: on this system to execute Bourne shell scripts. Usually, this will be  
?S: /bin/sh, though it's possible that some systems will have /bin/ksh,  
?S: /bin/pdksh, /bin/ash, /bin/bash, or even something such as  
?S: D:/bin/sh.exe.  
?S: This

unit comes before Options.U, so you can't set sh with a -D

?S: option, though you can override this (and startsh)

?S: with -O -Dsh=/bin/whatever -Dstartsh=whatever

?S:.

?S:targetsh:

?S: If cross-compiling, this variable contains the location of sh on the

?S: target system.

?S: If not, this will be the same as \$sh.

?S:.

?C:SH\_PATH:

?C: This symbol contains the full pathname to the shell used on this

?C: on this system to execute Bourne shell scripts. Usually, this will be

?C: /bin/sh, though it's possible that some systems will have /bin/ksh,

?C: /bin/pdksh, /bin/ash, /bin/bash, or even something such as

?C: D:/bin/sh.exe.

?C:.

?H:#define SH\_PATH "\$targetsh" /\*\*/

?H:.

?T:xxx try pth p SYSTYPE

?LINT:extern maintloc maintname \_exe

?X:

?X: Be quiet unless something unusual happens because this gets

?X: loaded up even before options are processed.

?X: Can't use ./loc because that depends on startsh, which, in turn

?X: depends on this unit.

?X:

: Find the basic shell for

Bourne shell scripts

case "\$sh" in

)

?X: SYSTYPE is for some older MIPS systems.

?X: I do not know if it is still needed.

case "\$SYSTYPE" in

\*bsd\*|sys5\*) xxx="/\$SYSTYPE/bin/sh";;

\*) xxx='/bin/sh';;

esac

if test -f "\$xxx"; then

sh="\$xxx"

else

: Build up a list and do a single loop so we can 'break' out.

pth=`echo \$PATH | sed -e "s/\$p\_/ /g"`

for xxx in sh bash ksh pdksh ash; do

for p in \$pth; do

try="\$try \${p}/\${xxx}"

done

done

for xxx in \$try; do

if test -f "\$xxx"; then

```
sh="$xxx";
break
elif test "X$_exe" != X -a -f "$xxx$_exe"; then
sh="$xxx";
break
elif test -f "$xxx.exe"; then
sh="$xxx";
break
fi
done
fi
;;
esac
```

?X: fd 4 isn't open yet...

```
case "$sh" in
```

```
) cat >&2 <<EOM
```

```
$me: Fatal Error: I can't find a Bourne Shell anywhere.
```

Usually it's in /bin/sh. How did you even get this far?

Please contact me (<\$maintname>) at <\$maintloc> and we'll try to straighten this all out.

```
EOM
```

```
exit 1
```

```
;;
```

```
esac
```

: When cross-compiling

we need to separate the sh-to-run-Configure-with from the sh-to-use-in-Perl

: default both to the same thing, cross-compilers can then set targetsh differently if they like  
targetsh=\$sh

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/sh.U
```

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```
?RCS: $Id: d_setvbuf.U,v 3.0.1.1 1994/08/29 16:11:57 ram Exp $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1998 Andy Dougherty
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
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```

```
?RCS:
```

```
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
```

```
?RCS:
```

```
?RCS: $Log: d_setvbuf.U,v $
```

```
?RCS:
```

?MAKE:d\_setvbuf: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_setvbuf:  
?S: This variable conditionally defines the HAS\_SETVBUF symbol, which  
?S: indicates to the C program that the setvbuf() routine is available  
?S: to change buffering on an open stdio stream.  
?S:.  
?C:HAS\_SETVBUF :  
?C: This symbol, if defined, indicates that the setvbuf routine is  
?C: available to change buffering on an open stdio stream.  
?C: to a line-buffered mode.  
?C:.  
?H:#\$d\_setvbuf HAS\_SETVBUF /\*\*/  
?H:.  
?LINT:set d\_setvbuf  
: see if setvbuf exists  
set setvbuf d\_setvbuf  
eval \$inlibc

#### Found

in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_setvbuf.U

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?RCS:

?MAKE:d\_strerror\_l: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_strerror\_l:

?S: This variable conditionally defines the HAS\_STRERROR\_L symbol, which

?S: indicates to the C program that the strerror\_l() routine is available

?S: to return the error message for a given errno value in a particular

?S: locale (identified by a locale\_t object).

?S:.

?C:HAS\_STRERROR\_L:

?C: This symbol, if defined, indicates that the strerror\_l routine is

?C: available to return the error message for a given errno value in

?C: a particular locale (identified by a locale\_t object).

?C:.

?H:#\$d\_strerror\_l HAS\_STRERROR\_L /\*\*/  
?H:.

?LINT:set d\_strerror\_l

: see if strerror\_l exists

set strerror\_l d\_strerror\_l

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_strerror\_1.U

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?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_gconvert.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 15:33:38 ram

?RCS: patch61: integrated new unit from perl5

?RCS:

?RCS: Revision 3.0.1.2 1995/07/25 13:55:59 ram

?RCS: patch56: improved comments about the Gconvert macro (ADO)

?RCS: patch56: force compile-link test since it may exist but be unusable (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/10/29 16:12:51 ram

?RCS: patch36: created by ADO

?RCS:

?MAKE:d\_Gconvert:

cat cc cflags ldflags libs rm\_try \_o

?MAKE: -pick add \$@ %<

?S:d\_Gconvert:

?S: This variable holds what Gconvert is defined as to convert

?S: floating point numbers into strings. It could be 'gconvert'

?S: or a more complex macro emulating gconvert with gcvt() or sprintf.

?S:.

?C:Gconvert:

?C: This preprocessor macro is defined to convert a floating point

?C: number to a string without a trailing decimal point. This

?C: emulates the behavior of sprintf("%g"), but is sometimes much more

?C: efficient. If gconvert() is not available, but gcvt() drops the

?C: trailing decimal point, then gcvt() is used. If all else fails,

?C: a macro using sprintf("%g") is used. Arguments for the Gconvert

?C: macro are: value, number of digits, whether trailing zeros should

?C: be retained, and the output buffer.

?C: Possible values are:

?C: d\_Gconvert='gconvert((x),(n),(t),(b))'

?C: d\_Gconvert='gcvt((x),(n),(b))'

```

?C: d_Gconvert='sprintf((b),"%.*g",(n),(x))'
?C: The last two assume trailing zeros should
 not be kept.
?C:.
?H:#define Gconvert(x,n,t,b) $d_Gconvert
?H:.
?T: xxx_list xxx_convert
?F:!try
?X:
: Check how to convert floats to strings.
echo " "
echo "Checking for an efficient way to convert floats to strings."
?X: We want to be sure to drop trailing decimal points (perl5
?X: needs this).
$cat >try.c <<'EOP'
#ifdef TRY_gconvert
#define Gconvert(x,n,t,b) gconvert((x),(n),(t),(b))
char *myname = "gconvert";
#endif
#ifdef TRY_gcvt
#define Gconvert(x,n,t,b) gcvt((x),(n),(b))
char *myname = "gcvt";
#endif
#ifdef TRY_sprintf
#define Gconvert(x,n,t,b) sprintf((b),"%.*g",(n),(x))
char *myname = "sprintf";
#endif

#include <stdio.h>

int
checkit(expect, got)
char *expect;
char *got;
{
 if (strcmp(expect, got)) {
 printf("%s oddity: Expected %s, got %s\n",
 myname, expect, got);
 exit(1);
 }
}

int
main()
{
 char buf[64];
 buf[63] = '\0';

```

```

/* This must be 1st test on (which?) platform */
/* Alan Burlison <AlanBurlsin@unn.unisys.com> */
Gconvert(0.1, 8, 0, buf);
checkit("0.1",
buf);

Gconvert(1.0, 8, 0, buf);
checkit("1", buf);

Gconvert(0.0, 8, 0, buf);
checkit("0", buf);

Gconvert(-1.0, 8, 0, buf);
checkit("-1", buf);

/* Some Linux gcvt's give 1.e+5 here. */
Gconvert(100000.0, 8, 0, buf);
checkit("100000", buf);

/* Some Linux gcvt's give -1.e+5 here. */
Gconvert(-100000.0, 8, 0, buf);
checkit("-100000", buf);

exit(0);
}
EOP
?X: List of order in which to search for functions.
?X: Usual order of efficiency is gconvert gcvt sprintf
?X: Respect a previous or hinted value.
case "$d_Gconvert" in
gconvert*) xxx_list='gconvert gcvt sprintf' ;;
gcvt*) xxx_list='gcvt gconvert sprintf' ;;
sprintf*) xxx_list='sprintf gconvert gcvt' ;;
*) xxx_list='gconvert gcvt sprintf' ;;
esac

for xxx_convert in $xxx_list; do
echo "Trying $xxx_convert"
$rm_try
if $cc $ccflags -DTRY_$xxx_convert $ldflags -o try \
try.c $libs > /dev/null 2>&1 ; then
echo "$xxx_convert" found. >&4
if ./try; then
echo "I'll use $xxx_convert to convert floats
into a string." >&4
break;
else
echo "...But $xxx_convert didn't work as I expected."

```



```
fi
else
 echo "$xxx_convert NOT found." >&4
fi
done
```

```
case "$xxx_convert" in
gconvert) d_Gconvert='gconvert((x),(n),(t),(b))' ;;
gcvt) d_Gconvert='gcvt((x),(n),(b))' ;;
*) d_Gconvert='sprintf((b),"%.*g",(n),(x))' ;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_gconvert.U
```

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_finitel: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_finitel:

?S: This variable conditionally defines the HAS\_FINITEL symbol, which

?S: indicates to the C program that the finitel() routine is available.

?S:.

?C:HAS\_FINITEL:

?C: This symbol, if defined, indicates that the finitel routine is

?C: available to check whether a long double is finite

?C: (non-infinity non-NaN).

?C:.

?H:#\$d\_finitel HAS\_FINITEL /\*\*/

?H:.

?LINT:set d\_finitel

: see if finitel exists

set finitel d\_finitel

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_finitel.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:  
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?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_class: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_class:  
?S: This variable conditionally defines the HAS\_CLASS symbol, which  
?S: indicates to the C program that the class() routine is available.  
?S:.  
?C:HAS\_CLASS:  
?C: This symbol, if defined, indicates that the class routine is  
?C: available to classify doubles. Available for example in AIX.  
?C: The returned values are defined in <float.h> and are:  
?C:  
?C: FP\_PLUS\_NORM Positive normalized, nonzero  
?C: FP\_MINUS\_NORM Negative normalized, nonzero  
?C: FP\_PLUS\_DENORM Positive denormalized, nonzero  
?C: FP\_MINUS\_DENORM Negative denormalized, nonzero  
?C: FP\_PLUS\_ZERO +0.0  
?C: FP\_MINUS\_ZERO -0.0  
?C: FP\_PLUS\_INF +INF  
?C: FP\_MINUS\_INF -INF  
?C: FP\_NANS Signaling  
Not a Number (NaNS)  
?C: FP\_NANQ Quiet Not a Number (NaNQ)  
?C:.  
?H:#\$d\_class HAS\_CLASS /\*\*/  
?H:.  
?LINT:set d\_class  
: see if class exists  
set class d\_class  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_class.U

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_drand48proto: Hasproto i\_stdlib i\_unistd

?MAKE: -pick add \$@ %<

?S:d\_drand48proto:

?S: This variable conditionally defines the HAS\_DRAND48\_PROTO symbol,

?S: which indicates to the C program that the system provides

?S: a prototype for the drand48() function. Otherwise, it is

?S: up to the program to supply one.

?S:.

?C:HAS\_DRAND48\_PROTO:

?C: This symbol, if defined, indicates that the system provides

?C: a prototype for the drand48() function. Otherwise, it is up

?C: to the program to supply one. A good guess

is

?C: extern double drand48(void);

?C:.

?H:#\$d\_drand48proto HAS\_DRAND48\_PROTO /\*\*/

?H:.

?LINT:set d\_drand48proto

: see if prototype for drand48 is available

echo " "

set d\_drand48proto drand48 \$i\_stdlib stdlib.h \$i\_unistd unistd.h

eval \$hasproto

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/protos/d\_drand48proto.U

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_unordered: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_unordered:

?S: This variable conditionally defines the HAS\_UNORDERED symbol, which

?S: indicates to the C program that the unordered() routine is available.

?S:.

?C:HAS\_UNORDERED:

?C: This symbol, if defined, indicates that the unordered routine is

?C: available to check whether two doubles are unordered

?C: (effectively: whether either of them is NaN)

```
?C:
?H:#$d_unordered HAS_UNORDERED /**/
?H:
?LINT:set d_unordered
: see if unordered exists
set unordered d_unordered
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_unordered.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
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?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_times.U,v $
?RCS: Revision 3.0.1.2 1995/07/25 14:07:50 ram
?RCS: patch56: typo fix, sytem -> system
?RCS:
?RCS: Revision 3.0.1.1 1994/08/29 16:14:00 ram
?RCS: patch32: now uses new Typedef unit to compute type information
?RCS:
?RCS: Revision 3.0 1993/08/18 12:07:46 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: What is the type returned by times() ?
?X:
?X: Force inclusion of <sys/types.h>
?X:INC: i_systypes
?MAKE:d_times clocktype: Csym Myread Typedef i_systimes
?MAKE: -pick
add $@ %<
?S:d_times:
?S: This variable conditionally defines the HAS_TIMES symbol, which indicates
?S: that the times() routine exists. The times() routine is normally
?S: provided on UNIX systems. You may have to include <sys/times.h>.
?S:
?S:clocktype:
?S: This variable holds the type returned by times(). It can be long,
```

?S: or clock\_t on BSD sites (in which case <sys/types.h> should be

?S: included).

?S:.

?C:HAS\_TIMES (TIMES):

?C: This symbol, if defined, indicates that the times() routine exists.

?C: Note that this became obsolete on some systems (SUNOS), which now

?C: use getrusage(). It may be necessary to include <sys/times.h>.

?C:.

?C:Clock\_t (CLOCKTYPE):

?C: This symbol holds the type returned by times(). It can be long,

?C: or clock\_t on BSD sites (in which case <sys/types.h> should be

?C: included).

?C:.

?H:#\$d\_times HAS\_TIMES /\*\*/

?H:#define Clock\_t \$clocktype /\* Clock time \*/

?H:.

?T:val inc

: see if times exists

echo " "

if set times val -f d\_times; eval \$csym;

\$val; then

echo 'times() found.' >&4

d\_times="\$define"

inc="

case "\$i\_systimes" in

"\$define") inc='sys/times.h';;

esac

set clock\_t clocktype long stdio.h sys/types.h \$inc

eval \$typedef

dflt="\$clocktype"

echo " "

rp="What type is returned by times() on this system?"

. ./myread

clocktype="\$ans"

else

echo 'times() NOT found, hope that will do.' >&4

d\_times="\$undef"

?X: The following is needed for typedef (won't like an empty variable)

clocktype='int'

fi

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_times.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: ipc.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: ipc.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:53 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:ipc serve\_shm serve\_msg serve\_inet\_udp serve\_inet\_tcp serve\_unix\_udp \  
serve\_unix\_tcp: test Myread Oldconfig d\_socket d\_msg d\_shm d\_sem

?MAKE: -pick add \$@ %<

?LINT:use d\_msg d\_sem

?S:ipc:

?S: This variable holds the type of IPC service we'll be using. Values  
?S: include "ip", "shm", "msg", "cms" and "os9". We don't worry about  
?S: cms or os9  
here, because Configure doesn't run in those places--HMS.

?S:.

?S:serve\_shm:

?S: This variable controls the definition of SERVE\_SHM, which tells the  
?S: C program to use USG shared memory for IPC.

?S:.

?S:serve\_msg:

?S: This variable controls the definition of SERVE\_MSG, which tells the  
?S: C program to use USG message queues for IPC.

?S:.

?S:serve\_inet\_udp:

?S: This variable controls the definition of SERVE\_INET\_UDP, which tells  
?S: the C program to enable InterNet-domain UDP support for IPC.

?S:.

?S:serve\_inet\_tcp:

?S: This variable controls the definition of SERVE\_INET\_TCP, which tells  
?S: the C program to enable InterNet-domain TCP support for IPC.

?S:.

?S:serve\_unix\_udp:

?S: This variable controls the definition of SERVE\_UNIX\_UDP, which tells  
?S: the C program to enable Unix-domain UDP support for IPC.

?S:.

?S:serve\_unix\_tcp:

?S: This variable controls the definition of SERVE\_UNIX\_TCP, which tells  
?S: the C program to enable Unix-domain TCP support for IPC.

?S:.

?C:SERVE\_SHM:

?C: If

defined, tells the C program to use USG shared memory for IPC.

?C:.

?C:SERVE\_MSG:

?C: If defined, tells the C program to use USG message queues for IPC.

?C:.

?C:SERVE\_INET\_UDP:

?C: If defined, tells the C program to enable InterNet-domain UDP

?C: support for IPC.

?C:.

?C:SERVE\_INET\_TCP:

?C: If defined, tells the C program to enable InterNet-domain TCP

?C: support for IPC.

?C:.

?C:SERVE\_UNIX\_UDP:

?C: If defined, tells the C program to enable Unix-domain UDP

?C: support for IPC.

?C:.

?C:SERVE\_UNIX\_TCP:

?C: If defined, tells the C program to enable Unix-domain TCP

?C: support for IPC.

?C:.

?H:#\$serve\_shm SERVE\_SHM /\*\*/

?H:#\$serve\_msg SERVE\_MSG /\*\*/

?H:#\$serve\_inet\_udp SERVE\_INET\_UDP /\*\*/

?H:#\$serve\_inet\_tcp SERVE\_INET\_TCP /\*\*/

?H:#\$serve\_unix\_udp SERVE\_UNIX\_UDP /\*\*/

?H:#\$serve\_unix\_tcp SERVE\_UNIX\_TCP /\*\*/

?H:.

?X: FIXME -- RAM

?INIT:serve\_shm=""

?INIT:serve\_msg="\$undef"

?INIT:serve\_inet\_udp=""

?INIT:serve\_inet\_tcp=""

?INIT:serve\_unix\_udp=""

?INIT:serve\_unix\_tcp=""

: get IPC mechanism

echo

" "

ipc=""

while \$test -z "\$ipc"

do

if \$test "\$ipc" != "shm" -a "\$d\_socket" = "\$define"; then

ipc=""

if \$test "\$serve\_inet\_udp" = "\$undef"; then

  dflt=n

  else

  dflt=y

  fi

```
rp='Provide InterNet-domain UDP service?'
./myread
dflt=""
case "$ans" in
n*) serve_inet_udp="$undef";;
*)
serve_inet_udp="$define"
ipc='ip'
;;
esac
```

```
if $test "$serve_inet_tcp" = "$define"; then
dflt=y
else
dflt=n
fi
```

```
rp='Provide InterNet-domain TCP service?'
./myread
dflt=""
case "$ans" in
n*) serve_inet_tcp="$undef";;
*)
serve_inet_tcp="$define"
ipc='ip'
;;
esac
```

```
if $test "$serve_unix_udp" = "$define"; then
dflt=y
else
dflt=n
fi
```

```
rp='Provide Unix-domain UDP service?'
./myread
dflt=""
case "$ans" in
n*) serve_unix_udp="$undef";;
*)
serve_unix_udp="$define"
ipc='ip'
;;
esac
```

```
if $test "$serve_unix_tcp" = "$define"; then
dflt=y
else
dflt=n
fi
```



```

rp='Provide Unix-domain TCP service?'
./myread
dflt=""
case
"$ans" in
n*) serve_unix_tcp="$undef";;
*)
serve_unix_tcp="$define"
ipc='ip'
;;
esac
else
serve_inet_udp="$undef"
serve_inet_tcp="$undef"
serve_unix_udp="$undef"
serve_unix_tcp="$undef"
fi
if $test "$ipc" != "ip" -a "$d_shm" = "$define"; then
echo "Providing USG shared memory IPC support." >&4
serve_shm="$define"
ipc='shm'
else
serve_shm="$undef"
fi
if $test -z "$ipc"; then
echo "You must select an IPC mechanism." >&4
fi
done

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/ipc.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: sizetype.U,v 3.0.1.1 1994/08/29 16:32:10 ram Exp \$

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: sizetype.U,v \$

?RCS: Revision 3.0.1.1 1994/08/29 16:32:10 ram

```

?RCS: patch32: created by ADO
?RCS:
?MAKE:sizetype: Myread Typedef
?MAKE: -pick add $@ %<
?S:sizetype:
?S: This variable defines sizetype to be something like size_t,
?S: unsigned long, or whatever type is used to declare length
?S: parameters for string functions.
?S:.
?C:Size_t:
?C: This symbol holds the type used
to declare length parameters
?C: for string functions. It is usually size_t, but may be
?C: unsigned long, int, etc. It may be necessary to include
?C: <sys/types.h> to get any typedef'ed information.
?C:.
?H:#define Size_t $sizetype /* length parameter for string functions */
?H:.
?LINT: set sizetype
: see what type is used for size_t
rp="What is the type used for the length parameter for string functions?"
set size_t sizetype 'unsigned int' stdio.h sys/types.h
eval $typedef_ask

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/typedefs/sizetype.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_wait3.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_wait3.U,v $
?RCS: Revision 3.0 1993/08/18 12:08:01 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_wait3: Inlibc
?MAKE: -pick add $@ %<
?S:d_wait3:
?S: This variable conditionally defines the HAS_WAIT3 symbol, which
?S: indicates to the C program that the wait3() subroutine exists.

```

?S:  
?C:HAS\_WAIT3:  
?C: This symbol, if defined, indicates that the wait3() subroutine  
?C: exists.  
?C:  
?H:#\$d\_wait3 HAS\_WAIT3 /\*\*/  
?H:  
?LINT:set d\_wait3  
:  
see if 'wait3()' exists  
set wait3 d\_wait3  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_wait3.U

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?RCS: You may distribute this file under the terms of either

?RCS: a) the "Artistic License" which comes with Perl, or

?RCS: b) the "Artistic License" which comes with dist, or

?RCS: c) the GNU General Public License as published by the Free

?RCS: Software Foundation; either version 1, or (at your option) any

?RCS: later version (see the file "Copying" that comes with the

?RCS: Perl distribution).

?RCS: Which one to use is your choice.

?RCS: See the U/README file.

?MAKE:d\_builtin\_add\_overflow d\_builtin\_sub\_overflow d\_builtin\_mul\_overflow : Compile Setvar cat run rm\_try

?MAKE: -pick add \$@ %<

?S:d\_builtin\_add\_overflow:

?S: This variable conditionally defines HAS\_BUILTIN\_ADD\_OVERFLOW, which

?S: indicates that the compiler supports \_\_builtin\_add\_overflow(x,y,&z)

?S: for safely adding x and y into z while checking for overflow.

?S:.

?S:d\_builtin\_sub\_overflow:

?S: This

variable conditionally defines HAS\_BUILTIN\_SUB\_OVERFLOW, which

?S: indicates that the compiler supports \_\_builtin\_sub\_overflow(x,y,&z)

?S: for safely subtracting y from x into z while checking for overflow.

?S:.

?S:d\_builtin\_mul\_overflow:

?S: This variable conditionally defines HAS\_BUILTIN\_MUL\_OVERFLOW, which

?S: indicates that the compiler supports \_\_builtin\_mul\_overflow(x,y,&z)

?S: for safely multiplying x and y into z while checking for overflow.

?S:.

?C:HAS\_BUILTIN\_ADD\_OVERFLOW:

?C: This symbol, if defined, indicates that the compiler supports  
?C: \_\_builtin\_add\_overflow for adding integers with overflow checks.

?C:.

?C:HAS\_BUILTIN\_SUB\_OVERFLOW:

?C: This symbol, if defined, indicates that the compiler supports  
?C: \_\_builtin\_sub\_overflow for subtracting integers with overflow checks.

?C:.

?C:HAS\_BUILTIN\_MUL\_OVERFLOW:

?C: This symbol, if defined, indicates that the compiler supports  
?C: \_\_builtin\_mul\_overflow for multiplying integers with overflow checks.

?C:.

?H:#\$d\_builtin\_add\_overflow

```
HAS_BUILTIN_ADD_OVERFLOW /**/
```

?H:#\$d\_builtin\_sub\_overflow HAS\_BUILTIN\_SUB\_OVERFLOW /\*\*/

```
?H:#$d_builtin_mul_overflow HAS_BUILTIN_MUL_OVERFLOW /**/
```

?H:.

?F:!try

?LINT:set d\_builtin\_add\_overflow d\_builtin\_sub\_overflow d\_builtin\_mul\_overflow

: Look for GCC-style \_\_builtin\_add\_overflow

```
case "$d_builtin_add_overflow" in
```

```
)
```

```
 echo " "
```

```
 echo "Checking whether your compiler can handle __builtin_add_overflow ..." >&4
```

```
 $cat >try.c <<'EOCP'
```

```
int main(void) {
```

```
 const unsigned int uint_max = ~0u;
```

```
 int target_int = 0;
```

```
 if (__builtin_add_overflow(1, 2, &target_int) || target_int != 3) {
```

```
 return 1;
```

```
 }
```

```
 if (!__builtin_add_overflow((int)(uint_max >> 1), 1, &target_int)) {
```

```
 return 1;
```

```
 }
```

```
 if (!__builtin_add_overflow(uint_max, -1, &target_int)) {
```

```
 return 1;
```

```
 }
```

```
 return 0;
```

```
}
```

```
EOCP
```

```
set try
```

```
if eval $compile && $run ./try; then
```

```
 echo "Your C compiler supports __builtin_add_overflow."
```

```
 val="$define"
```

```
else
```

```
 echo
```

```
"Your C compiler doesn't seem to understand __builtin_add_overflow."
```

```
 val="$undef"
```

```
fi
```

```

;;
*) val="$d_builtin_add_overflow" ;;
esac

set d_builtin_add_overflow
eval $setvar
$rm_try

: Look for GCC-style __builtin_sub_overflow
case "$d_builtin_sub_overflow" in
")
 echo " "
 echo "Checking whether your compiler can handle __builtin_sub_overflow ..." >&4
 $cat >try.c <<'EOCP'
int main(void) {
 const unsigned int uint_max = ~0u;
 int target_int = 0;
 if (__builtin_sub_overflow(1, -2, &target_int) || target_int != 3) {
 return 1;
 }
 if (!__builtin_sub_overflow(-(int)(uint_max >> 1), 2, &target_int)) {
 return 1;
 }
 if (!__builtin_sub_overflow(uint_max, 1, &target_int)) {
 return 1;
 }
 return 0;
}
EOCP
set try
if eval $compile && $run ./try; then
 echo "Your C compiler supports __builtin_sub_overflow."
 val="$define"
else
 echo "Your C compiler doesn't seem to understand __builtin_sub_overflow."
 val="$undef"
fi
;;
*) val="$d_builtin_sub_overflow" ;;
esac

set d_builtin_sub_overflow
eval $setvar
$rm_try

: Look for GCC-style __builtin_mul_overflow
case "$d_builtin_mul_overflow" in
")

```

```

echo " "
echo "Checking whether your compiler can handle __builtin_mul_overflow ..." >&4
$cat >try.c <<'EOCP'
int main(void) {
 const unsigned int uint_max = ~0u;
 int target_int = 0;
 if (__builtin_mul_overflow(2, 3, &target_int) || target_int != 6) {
 return 1;
 }
 if (!__builtin_mul_overflow((int)(uint_max >> 1), 2, &target_int)) {
 return 1;
 }
 if (!__builtin_mul_overflow(uint_max, 1, &target_int)) {
 return 1;
 }
 return 0;
}
EOCP
set try
if eval $compile && $run ./try; then
 echo "Your C compiler supports __builtin_mul_overflow."
 val="$define"
else
 echo "Your C compiler doesn't seem to understand __builtin_mul_overflow."
 val="$undef"
fi
;;
*) val="$d_builtin_mul_overflow"
;;
esac

set d_builtin_mul_overflow
eval $setvar
$rm_try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_builtin_overflow.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getpwent.U,v \$

?RCS:

?RCS: Copyright (c) 1998 Andy Dougherty

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: d\_getpwent.U,v \$

?RCS:  
?MAKE:d\_getpwent: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_getpwent:  
?S: This variable conditionally defines the HAS\_GETPWENT symbol, which  
?S: indicates to the C program that the getpwent() routine is available  
?S: for sequential access of the passwd database.  
?S:.  
?C:HAS\_GETPWENT:  
?C: This symbol, if defined, indicates that the getpwent routine is  
?C: available for sequential access of the passwd database.  
?C: If this is not available, the older getpw() function may be available.  
?C:.  
?H:#\$d\_getpwent HAS\_GETPWENT /\*\*/  
?H:.  
?LINT:set d\_getpwent  
: see if getpwent exists  
set getpwent d\_getpwent  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_getpwent.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_su\_chown.U 1 2006-08-24 12:32:52Z rmanfredi \$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic Licence,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_su\_chown.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:07:40 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_su\_chown: Csym Setvar  
?MAKE: -pick add \$@ %<  
?S:d\_su\_chown (d\_rootchown):  
?S: This variable conditionally defines the SU\_CHOWN symbol, which  
?S: indicates to the C program that only root can chown() the owner  
?S: of a file.  
?S:.  
?C:SU\_CHOWN (ROOT\_CHOWN):  
?C: This symbol, if defined, indicates that the system allows only root

```

?C: can
change the owner of a file with chown().
?C:.
?H:#$d_su_chown SU_CHOWN /**/
?H:.
?LINT:set d_su_chown
: see if 'chown()' is restricted.
: but not too hard, as it is late and I am tired. -- HMS
echo " "
if set setreuid val -f d_su_chown; eval $csym; $val; then
echo 'It looks like only root can chown() the owner of a file.' >&4
val="$define"
else
echo 'It looks like root or the owner can chown() a file away.' >&4
val="$undef"
fi
set d_su_chown
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_su_chown.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_msem_lck.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_msem_lck.U,v $
?MAKE:d_msem_lck: Inlibc
?MAKE: -pick add $@ %<
?S:d_msem_lck:
?S: This variable conditionally defines HAS_MSEM_LOCK if msem_lock() is
?S: available, thereby indicating kernel support for memory semaphores.
?S:.
?C:HAS_MSEM_LOCK:
?C: This symbol, if defined, indicates that memory semaphores are
?C: available to protect mmap()'ed regions.
?C:.
?H:#$d_msem_lck HAS_MSEM_LOCK /**/
?H:.
?LINT:set d_msem_lck

```



```
: see if msem_lock exists
set
msem_lock d_msem_lck
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_msem_lck.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: etc.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: etc.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:08:07 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:etc etcexp: Getfile Loc Oldconfig
```

```
?MAKE: -pick add $@ %<
```

```
?S:etc:
```

```
?S: This variable holds the name of the directory in which the user wants
```

```
?S: to put "administrative" executable images for the package in question.
```

```
?S: It is most often a local directory such as /usr/local/etc. Programs
```

```
?S: relying on this variable must be prepared to deal with
```

```
~name
```

```
?S: substitutions.
```

```
?S:.
```

```
?S:etcexp:
```

```
?S: This is the same as the etc variable, but is filename expanded at
```

```
?S: configuration time, for convenient use in makefiles.
```

```
?S:.
```

```
: determine where administrative executables go
```

```
case "$etc" in
```

```
)
```

```
dfit=`./loc ./local/etc /usr/local/etc /local/etc /usr/etc /etc`
```

```
;;
```

```
*)
```

```
dfit="$etc"
```

```
;;
```

```
esac
```

```
fn=d~
```

rp='Where should the administrative executables go?'

./getfile

etc="\$ans"

etcexp="\$ansexp"

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/etc.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Extensions.U,v\$

?RCS:

?RCS: Copyright (c) 1996-1998, Andy Dougherty

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: Extensions.U,v \$

?RCS:

?MAKE:known\_extensions extensions dynamic\_ext static\_ext nonxs\_ext \

useposix useopcode uselanginfo : \

Myread hint usedl d\_sem d\_socket i\_db i\_dbm i\_rpcsvdbm i\_gdbm \

d\_ndbm usethreads use5005threads package test cat rsrc \

d\_msg d\_shm osname use64bitint \

libs d\_cplusplus sed ls rm contains trnl sort

?MAKE: -pick add \$@ %<

?Y:BOTTOM

?S:known\_extensions:

?S: This variable holds a list of all extensions (both XS and non-xs)

?S: included in the package source distribution. This information is

?S: only really of use during the Perl build, as the list makes no

?S: distinction between extensions which were build and installed, and

?S: those which

where not. See "extensions" for the list of extensions

?S: actually built and available.

?S:.

?S:dynamic\_ext:

?S: This variable holds a list of XS extension files we want to

?S: link dynamically into the package. It is used by Makefile.

?S:.

?S:static\_ext:

?S: This variable holds a list of XS extension files we want to

?S: link statically into the package. It is used by Makefile.

?S:.

?S:nonxs\_ext:

?S: This variable holds a list of all non-xs extensions built and

?S: installed by the package. By default, all non-xs extensions

?S: distributed will be built, with the exception of platform-specific

?S: extensions (currently only one VMS specific extension).

?S:.

?S:extensions:

?S: This variable holds a list of all extension files (both XS and

?S: non-xs) installed with the package. It is propagated to Config.pm

?S: and is typically used to test whether a particular extension

?S: is available.

?S:.

?S:useposix:

?S: This variable holds either 'true' or 'false' to indicate

?S: whether the

POSIX extension should be used. The sole

?S: use for this currently is to allow an easy mechanism

?S: for hints files to indicate that POSIX will not compile

?S: on a particular system.

?S:.

?S:useopcode:

?S: This variable holds either 'true' or 'false' to indicate

?S: whether the Opcode extension should be used. The sole

?S: use for this currently is to allow an easy mechanism

?S: for users to skip the Opcode extension from the Configure

?S: command line.

?S:.

?S:uselanginfo:

?S: This variable holds either 'true' or 'false' to indicate

?S: whether the I18N::Langinfo extension should be used. The sole

?S: use for this currently is to allow an easy mechanism for users to skip

?S: this extension from the Configure command line.

?S:.

?T:xxx avail\_ext this\_ext tdir xs\_extensions nonxs\_extensions find\_extensions

?INIT:: set useposix=false in your hint file to disable the POSIX extension.

?INIT:useposix=true

?INIT:: set useopcode=false in your hint file to disable the Opcode extension.

?INIT:useopcode=true

?INIT::

set uselanginfo=false in your hint file to disable the I18N::Langinfo extension.

?INIT:uselanginfo=true

?LINT:extern noextensions

?LINT:extern onlyextensions

?T:keepextensions i

: Check extensions

echo " "

echo "Looking for extensions..." >&4

: If we are using the old config.sh, nonxs\_extensions and xs\_extensions may

: contain old or inaccurate or duplicate values.

nonxs\_extensions="

xs\_extensions="

: We do not use find because it might not be available.

: We do not just use MANIFEST because the user may have dropped  
: some additional extensions into the source tree and expect them  
: to be built.

: Function to recursively find available extensions, ignoring DynaLoader  
: NOTE: recursion limit of 10 to prevent runaway in case of symlink madness  
: In 5.10.1 and later, extensions are stored in directories  
: like File-Glob instead of the older File/Glob/.

```
find_extensions='
 for xxx in *; do
case "$xxx" in
 DynaLoader|dynaload) ;;
 *)
 this_ext=`echo
"$xxx" | $sed -e s/-/\\/g`;
 case "$this_ext" in
Scalar/List/Utils) this_ext="List/Util" ;;
PathTools) this_ext="Cwd" ;;
 esac;
 echo " $xs_extensions $nonxs_extensions" > "$tdir/$$.tmp";
 if $contains " $this_ext " "$tdir/$$.tmp"; then
echo >&4;
echo "Duplicate directories detected for extension $xxx" >&4;
echo "Configure cannot correctly recover from this - shall I abort?" >&4;
case "$knowitall" in
 "") dflt=y;;
 *) dflt=n;;
 esac;
 ../UU/myread;
case "$ans" in
n*|N*) ;;
*) echo >&4;
 echo "Ok. Stopping Configure." >&4;
 echo "Please remove the duplicate directory (e.g. using git clean) and then re-run Configure" >&4;
 exit 1;;
 esac;
echo "Ok. You will need to correct config.sh before running make." >&4;
 fi;
 $ls -l "$xxx" > "$tdir/$$.tmp";
 if $contains "\.xs$" "$tdir/$$.tmp" > /dev/null 2>&1; then
xs_extensions="$xs_extensions $this_ext";
 elif $contains "\.c$" "$tdir/$$.tmp" > /dev/null
2>&1; then
xs_extensions="$xs_extensions $this_ext";
 elif $test -d "$xxx"; then
nonxs_extensions="$nonxs_extensions $this_ext";
 fi;
 $rm -f "$tdir/$$.tmp";
```

```

;;
esac;
done'
tdir=`pwd`
cd "$rsrc/cpan"
set X
shift
eval $find_extensions
cd "$rsrc/dist"
set X
shift
eval $find_extensions
cd "$rsrc/ext"
set X
shift
eval $find_extensions
set X $xs_extensions
shift
xs_extensions=`echo "$*" | tr ' ' $trnl | $sort | tr $trnl ' '^
set X $nonxs_extensions
shift
nonxs_extensions=`echo "$*" | tr ' ' $trnl | $sort | tr $trnl ' '^
cd "$tdir"
known_extensions=`echo $nonxs_extensions $xs_extensions | tr ' ' $trnl | $sort | tr $trnl ' '^

```

: Now see which are supported on this system.

?X: avail\_ext lists available XS extensions.

```
avail_ext="
```

```
for xxx in $xs_extensions ; do
```

```
case "$xxx" in
```

?X: Handle possible DOS 8.3 filename and case alterations

```
Amiga*)
```

```
case "$osname" in
```

```
amigaos) avail_ext="$savail_ext $xxx" ;;
```

```
esac
```

```
;;
```

```
DB_File|db_file)
```

```
case "$i_db" in
```

```
$define)
```

```
avail_ext="$savail_ext $xxx" ;;
```

```
esac
```

```
;;
```

```
GDBM_File|gdbm_fil)
```

```
case "$i_gdbm" in
```

```
$define) avail_ext="$savail_ext $xxx" ;;
```

```
esac
```

```
;;
```

```
IPC/SysV|ipc/sysv)
```

```

: XXX Do we need a useipcsysv variable here
case "${d_msg}${d_sem}${d_shm}" in
"${define}") avail_ext="$savail_ext $xxx" ;;
esac
;;
NDBM_File|ndbm_fil)
case "$d_ndbm" in
$define)
 case "$osname-$use64bitint" in
 hpux-define)
 case "$libs" in
-lndbm) avail_ext="$savail_ext $xxx" ;;
esac
;;
*) avail_ext="$savail_ext $xxx" ;;
esac
;;
esac
;;
ODBM_File|odbm_fil)
case "${i_dbm}${i_rpcsvcdbm}" in
"${define}")
 case "$d_cplusplus" in
 define) ;; # delete as a function name will not work
 *) case "$osname-$use64bitint" in
 hpux-define)
 case "$libs" in
-ldb) avail_ext="$savail_ext $xxx" ;;
esac
;;
*) avail_ext="$savail_ext $xxx" ;;
esac
;;
esac
;;
Opcode|opcode)
case "$useopcode" in
true|define|y)
avail_ext="$savail_ext $xxx" ;;
esac
;;
POSIX|posix)
case "$useposix" in
true|define|y) avail_ext="$savail_ext $xxx" ;;
esac
;;

```

```

Socket|socket)
case "$d_socket" in
true|$define|y) avail_ext="$avail_ext $xxx" ;;
esac
;;
I18N/Langinfo|langinfo)
case "$uselanginfo" in
true|define|y) avail_ext="$avail_ext $xxx" ;;
esac
;;
Sys/Syslog|sys/syslog)
case $osname in
amigaos) ;; # not really very useful on AmigaOS
*)
: XXX syslog requires socket
case "$d_socket" in
true|$define|y) avail_ext="$avail_ext $xxx" ;;
esac
;;
esac
;;
Thread|thread)
case "$sethreads" in
true|$define|y)
case "$use5005threads" in
$define|true|[yY]*) avail_ext="$avail_ext $xxx" ;;
esac
esac
;;
threads|threads/shared)
threads and threads::shared are special cases.
To stop people from asking "Perl 5.8.0 was supposed
to have this new fancy threads
implementation but my
perl doesn't have it" and from people trying to
(re)install the threads module using CPAN.pm and
CPAN.pm then offering to reinstall Perl 5.8.0,
the threads.pm and threads/shared.pm will always be
there, croaking informatively ("you need to rebuild
all of Perl with threads, sorry") when threads haven't
been compiled in.
--jhi
avail_ext="$avail_ext $xxx"
;;
VMS*)
;;
Win32*)
case "$osname" in

```

```

cygwin) avail_ext="$savail_ext $xxx" ;;
esac
;;
XS/APItest|xs/apitest)
This is just for testing. Skip it unless we have dynamic loading.

case "$usedl" in
$define) avail_ext="$savail_ext $xxx" ;;
esac
;;
XS/Typemap|xs/typemap)
This is just for testing. Skip it unless we have dynamic loading.
case "$usedl" in
$define) avail_ext="$savail_ext $xxx" ;;
esac
;;
*) avail_ext="$savail_ext $xxx"
;;
esac
done

set X $savail_ext
shift
avail_ext="$*"

case "$onlyextensions" in
") ;;
*) keepextensions="
echo
"You have requested that only certain extensions be included..." >&4
for i in $onlyextensions; do
case " $savail_ext " in
" $i ")
echo "Keeping extension $i."
keepextensions="$keepextensions $i"
;;
*) echo "Ignoring extension $i." ;;
esac
done
avail_ext="$keepextensions"
;;
esac

case "$noextensions" in
") ;;
*) keepextensions="
echo "You have requested that certain extensions be ignored..." >&4
for i in $savail_ext; do

```



```

case " $noextensions " in
" $i ") echo "Ignoring extension $i." ;;
*) echo "Keeping extension $i.";
 keepextensions="$keepextensions $i"
 ;;
esac
done
avail_ext="$keepextensions"
;;
esac

```

: Now see which nonxs extensions are supported on this system.

: For now assume all are.

```

nonxs_ext=""
for xxx in $nonxs_extensions ; do
case "$xxx" in
VMS*)
 ;;
*) nonxs_ext="$nonxs_ext $xxx"
 ;;
esac
done

```

```

set X $nonxs_ext
shift
nonxs_ext="$*"

```

```

case
$usedl in
$define)
$cat <<EOM

```

A number of extensions are supplied with \$package. You may choose to compile these extensions for dynamic loading (the default), compile them into the \$package executable (static loading), or not include them at all. Answer "none" to include no extensions.

Note that DynaLoader is always built and need not be mentioned here.

EOM

```

case "$dynamic_ext" in
")
: Exclude those listed in static_ext
dflt=""
for xxx in $avail_ext; do
case " $static_ext " in
" $xxx ") ;;
*) dflt="$dflt $xxx" ;;
esac
done

```

```

set X $dflt
shift
dflt="$*"
;;
*) dflt="$dynamic_ext"
Perhaps we are reusing an old out-of-date config.sh.
case "$hint" in
previous)
if test X"$dynamic_ext" != X"$avail_ext"; then
$cat <<EOM

```

NOTICE: Your previous config.sh list may be incorrect.

The extensions now available to you are

```

${avail_ext}

```

but the default list from your previous config.sh is

```

${dynamic_ext}

```

EOM

```

fi
;;
esac
;;
esac
case
"$dflt" in
") dflt=none;;
esac
rp="What extensions do you wish to load dynamically?"
. ./myread
case "$ans" in
?X: Use ' ' so a subsequent Configure will preserve that value.
none) dynamic_ext=' ' ;;
*) dynamic_ext="$ans" ;;
esac

```

```

case "$static_ext" in
")
: Exclude those already listed in dynamic linking
dflt="
for xxx in $avail_ext; do
case " $dynamic_ext " in
" $xxx ") ;;
*) dflt="$dflt $xxx" ;;
esac
done
set X $dflt
shift
dflt="$*"
;;

```

```

*) dflt="$static_ext"
;;
esac

case "$dflt" in
") dflt=none;;
esac
rp="What extensions do you wish to load statically?"
. ./myread
case "$ans" in
?X: Use ' ' so a subsequent Configure will preserve that value.
none) static_ext=' ' ;;
*) static_ext="$ans" ;;
esac
;;
*)
$cat <<EOM
A number of extensions are supplied with $package. Answer "none"
to include no extensions.
Note that DynaLoader is always built and need not be mentioned here.

```

EOM

```

case "$static_ext" in
")
dflt="$avail_ext" ;;
*) dflt="$static_ext"
Perhaps we are reusing an old out-of-date config.sh.
case "$hint" in
previous)
if test X"$static_ext" != X"$avail_ext"; then
$cat <<EOM

```

NOTICE: Your previous config.sh list may be incorrect.

The extensions now available to you are

```

${avail_ext}

```

but the default list from your previous config.sh is

```

${static_ext}

```

EOM

```

fi
;;
esac
;;
esac
: Exclude those that are not xs extensions
case "$dflt" in
") dflt=none;;
esac
rp="What extensions do you wish to include?"

```

```

./myread
case "$ans" in
?X: Use ' ' so a subsequent Configure will preserve that value.
none) static_ext='' ;;
*) static_ext="$ans" ;;
esac
;;
esac
#
Encode is a special case. If we are building Encode as a static
extension, we need to explicitly list its subextensions as well.
For other nested extensions, this is handled automatically by
the appropriate Makefile.PL.
case " $static_ext " in
" Encode ") # Add the subextensions of Encode
cd
"$src/cpan"
for xxx in `ls Encode/*/Makefile.PL|awk -F/ '{print $2}`; do
static_ext="$static_ext Encode/$xxx"
known_extensions="$known_extensions Encode/$xxx"
done
cd "$stdir"
;;
esac

set X $dynamic_ext $static_ext $nonxs_ext
shift
extensions="$*"

Sanity check: We require an extension suitable for use with
AnyDBM_File, as well as Fcntl and IO. (Failure to have these
should show up as failures in the test suite, but it's helpful to
catch them now.) The 'extensions' list is normally sorted
alphabetically, so we need to accept either
DB_File ... Fcntl ... IO
or something like
Fcntl ... NDBM_File ... IO
case "$extensions" in
_File "" Fcntl "*" IO "*) ;; # DB_File
" Fcntl "" *_File "*" IO "*) ;; # GDBM_File
" Fcntl "" IO "*" *_File "*) ;; # NDBM_File
*) echo "WARNING: Extensions DB_File or *DBM_File, Fcntl, and IO not configured." >&4
echo "WARNING: The Perl you are building will be quite crippled." >& 4
;;
esac

Found in path(s):
*
```

/opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/Extensions.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_semop.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_semop.U,v \$

?RCS: Revision 3.0 1993/08/18 12:07:05 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_semop: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_semop:

?S: This variable conditionally defines the HAS\_SEMOP symbol, which

?S: indicates to the C program that the semop() routine is available.

?S:.

?C:HAS\_SEMOP:

?C: This symbol, if defined, indicates that the semop() routine is

?C: available to execute semaphore operations.

?C:.

?H:#\$d\_semop

HAS\_SEMOP /\*\*/

?H:.

?LINT:set d\_semop

: see if semop exists

set semop d\_semop

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_semop.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: registers.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: that same Artistic Licence; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: registers.U,v \$  
?RCS: Revision 3.0.1.2 1997/02/28 16:19:41 ram  
?RCS: patch61: removed empty ?LINT lines  
?RCS:  
?RCS: Revision 3.0.1.1 1994/10/29 16:28:33 ram  
?RCS: patch36: call ./Cpplib explicitly instead of relying on PATH  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:41 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:registers reg1 reg2 reg3 reg4 reg5 reg6 reg7 reg8 reg9 reg10 reg11 \  
reg12 reg13 reg14 reg15 reg16: awk rm Cpplib  
Myread Oldconfig  
?MAKE: -pick add \$@ %<  
?S:registers:  
?S: This variable contains the number of register declarations paid  
?S: attention to by the C compiler.  
?S:.  
?S:reg1:  
?S: This variable, along with reg2, reg3, etc. contains the eventual  
?S: value for the symbols register1, register2, register3, etc. It has  
?S: either the value "register" or is null.  
?S:.  
?C:register1:  
?C: This symbol, along with register2, register3, etc. is either the word  
?C: "register" or null, depending on whether the C compiler pays attention  
?C: to this many register declarations. The intent is that you don't have  
?C: to order your register declarations in the order of importance, so you  
?C: can freely declare register variables in sub-blocks of code and as  
?C: function parameters. Do not use register<n> more than once per routine.  
?C:.  
?LINT:describe reg2 reg3 reg4 reg5 reg6 reg7 reg8 reg9 reg10 reg11  
?LINT:describe reg12 reg13 reg14 reg15 reg16  
?LINT:known register2 register3 register4 register5 register6  
register7  
?LINT:known register8 register9 register10 register11 register12 register13  
?LINT:known register14 register15 register16  
?H:#define register1 \$reg1 /\*\*/  
?H:#define register2 \$reg2 /\*\*/  
?H:#define register3 \$reg3 /\*\*/  
?H:#define register4 \$reg4 /\*\*/  
?H:#define register5 \$reg5 /\*\*/  
?H:#define register6 \$reg6 /\*\*/  
?H:#define register7 \$reg7 /\*\*/  
?H:#define register8 \$reg8 /\*\*/

```

?H:#define register9 $reg9 /**/
?H:#define register10 $reg10 /**/
?H:#define register11 $reg11 /**/
?H:#define register12 $reg12 /**/
?H:#define register13 $reg13 /**/
?H:#define register14 $reg14 /**/
?H:#define register15 $reg15 /**/
?H:#define register16 $reg16 /**/
?H:
?F:!.foo
: see how many register declarations we want to use
case "$registers" in
")
if ./Cpplib vax; then
dflt=6
elif ./Cpplib sun mc68000 mips; then
dflt=10
elif ./Cpplib pyr; then
dflt=14
elif ./Cpplib ns32000 ns16000; then
dflt=5
elif ./Cpplib $smallmach; then
dflt=3
else
: if you have any other numbers
for me, please send them in
dflt=6
fi;;
*) dflt=$registers ;;
esac
?LINT:set reg2 reg3 reg4 reg5 reg6 reg7 reg8 reg9 reg10 reg11
?LINT:set reg12 reg13 reg14 reg15 reg16
cat <<EOM

```

Different C compilers on different machines pay attention to different numbers of register declarations. About how many register declarations in each routine does your C compiler pay attention to? (OK to guess)

```

EOM
rp="Maximum register declarations?"
./myread
registers=$ans
reg1="
$awk "BEGIN { for (i=1; i<=16; i++) printf \"reg%d=\\n\\\", i} \" \
</dev/null >.foo
./foo
$awk "BEGIN { for (i=1; i<=$registers; i++) printf \"reg%d=register\\n\\\", i} \" \
</dev/null >.foo

```

```
./foo
$rm -f .foo
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/registers.U
```

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?RCS:

?MAKE:d\_fpclassify d\_fp\_classify: Inlibc cat Compile rm\_try Setvar

?MAKE: -pick add \$@ %<

?X:the short story is that C99 says use fpclassify. But the story is confused

?X:by systems "partially C99" (or fully "pre C99") which either use fpclassify

?X:but with different return values, or they use fp\_classify (with the expected)

?X:return values, or they use some other spelling of \*fp\*class\* (sometimes even

?X:without the \*fp\* part), with yet another set(s) of return values ...

?S:d\_fpclassify:

?S: This variable conditionally defines the HAS\_FPCLASSIFY symbol, which

?S: indicates to the C program that the fpclassify() routine is available.

?S:.

?S:d\_fp\_classify:

?S: This variable conditionally defines the HAS\_FP\_CLASSIFY symbol, which

?S: indicates to the C program that the fp\_classify() routine is available.

?S:.

?C:HAS\_FPCLASSIFY:

?C: This symbol, if defined, indicates that the fpclassify routine is

?C: available to classify doubles. Available for example in HP-UX.

?C: The returned values are defined in <math.h> and are

?C:

?C: FP\_NORMAL Normalized

?C: FP\_ZERO Zero

?C: FP\_INFINITE Infinity

?C: FP\_SUBNORMAL Denormalized

?C: FP\_NAN NaN

?C:

?C:.

?C:HAS\_FP\_CLASSIFY:

?C: This symbol, if defined, indicates that the fp\_classify routine is

?C: available to classify doubles. The values are defined in <math.h>

?C:

?C: FP\_NORMAL Normalized

?C: FP\_ZERO Zero

?C: FP\_INFINITE Infinity



```

?C: FP_SUBNORMAL Denormalized
?C: FP_NAN NaN
?C:
?C.:
?H: # $d_fpclassify HAS_FPCLASSIFY /**/
?H: # $d_fp_classify HAS_FP_CLASSIFY /**/
?H:
?LINT: set d_fpclassify
?LINT: set d_fp_classify
: check for fpclassify
?X: classified (Comment by jhi)
?X: fpclassify i_math
?X: fp_classify i_math
?X: fpclass i_math
i_jeefp i_fp
?X: fp_class i_math i_fp_class
?X: No i_fp_class yet. But the systems that have
?X: this (Tru64 and IRIX) both had <fp_class.h>
?X: class i_math
echo "Checking to see if you have fpclassify..." >&4
$cat >try.c <<EOCP
#include <math.h>
int main() { return fpclassify(1.0) == FP_NORMAL ? 0 : 1; }
EOCP
set try
if eval $compile; then
val="$define"
echo "You have fpclassify."
else
val="$undef"
echo "You do not have fpclassify."
fi
$rm_try
set d_fpclassify
eval $setvar

: see if fp_classify exists
set fp_classify d_fp_classify
eval $inlibc

Found in path(s):
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_fpclassify.U
No license file was found, but licenses were detected in source scan.

```

```

?RCS: Id
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

```

```

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?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: sockopt.U,v $
?RCS: Revision 3.0.1.1 1995/07/25 14:16:14 ram
?RCS: patch56: obsoleted KEEPALIVE in favor of CAN_KEEPALIVE for consistency
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:48 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_keepalive: cat rm contains +cc +ccflags socketlib sockethdr \
d_oldsock libs Oldconfig Setvar Findhdr
?MAKE: -pick add $@ %<
?S:d_keepalive:
?S: This symbol conditionally defines CAN_KEEPALIVE which indicates to the C
?S: program that setsockopt
SO_KEEPALIVE will work properly.
?S:.
?C:CAN_KEEPALIVE (KEEPALIVE):
?C: This symbol if defined indicates to the C program that the SO_KEEPALIVE
?C: option of setsockopt() will work as advertised in the manual.
?C:.
?H:#$d_keepalive CAN_KEEPALIVE /**/
?H:.
?F:!socket
?LINT:set d_keepalive
: see if setsockopt with SO_KEEPALIVE works as advertised
echo " "
case "$d_oldsock" in
"$undef")
if $contains SO_KEEPALIVE `./findhdr sys/socket.h` \
/dev/null >/dev/null 2>&1
then
echo "OK, let's see if SO_KEEPALIVE works as advertised..." >&4
$cat > socket.c <<EOP
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
#include <netdb.h>

int main()
{
int s = socket(AF_INET, SOCK_STREAM, 0);
if (s == -1)

```

```

exit(1);
if (-1 == setsockopt(s, SOL_SOCKET, SO_KEEPALIVE, 0, 0))
 exit(2);
exit(0);
}
EOP
if $cc $ccflags $sockethdr -o socket socket.c $libs \
 $socketlib >/dev/null 2>&1; then
 ./socket >/dev/null 2>&1
 case $? in
 0) echo "Yes, it does!"
 val="$define";;
 1)
$cat <<EOM
(Something went wrong -- Assuming SO_KEEPALIVE is broken)
EOM
 val="$undef";;
 2) echo "No, it doesn't. Don't trust your manuals!!"
 val="$undef";;
 esac
 else
 cat <<EOM
(I can't compile the test program -- Assuming SO_KEEPALIVE is broken)
EOM
 val="$undef"
 fi
 else
 echo "Strange!! You have BSD 4.2 sockets but no SO_KEEPALIVE option."
 val="$undef"
 fi;;
*) cat <<EOM
As you have an old socket interface, you can't have heard of SO_KEEPALIVE.
EOM
 val="$undef";;
 esac
 set d_keepalive
 eval $setvar
 $rm -f socket socket.c

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/sockopt.U

```

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?RCS: \$Id\$

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:use64bitint use64bitall archname64: Myread Oldconfig Setvar test \  
usemorebits longsize ccflags d\_quad uquadtype Compile rm\_try run

?MAKE: -pick add \$@ %<

?Y:TOP

?S:use64bitint:

?S: This variable conditionally defines the USE\_64\_BIT\_INT symbol,

?S: and indicates that 64-bit integer types should be used

?S: when available. The minimal possible 64-bitness

?S: is employed, just enough to get 64-bit integers into Perl.

?S: This may mean using for example "long longs", while your memory

?S: may still be limited to 2 gigabytes.

?S:.

?S:use64bitall:

?S: This variable conditionally defines the USE\_64\_BIT\_ALL symbol,

?S: and indicates that 64-bit integer types should be used

?S: when available. The maximal

possible

?S: 64-bitness is employed: LP64 or ILP64, meaning that you will

?S: be able to use more than 2 gigabytes of memory. This mode is

?S: even more binary incompatible than USE\_64\_BIT\_INT. You may not

?S: be able to run the resulting executable in a 32-bit CPU at all or

?S: you may need at least to reboot your OS to 64-bit mode.

?S:.

?S:archname64:

?S: This variable is used for the 64-bitness part of \$archname.

?S:.

?C:USE\_64\_BIT\_INT:

?C: This symbol, if defined, indicates that 64-bit integers should

?C: be used when available. If not defined, the native integers

?C: will be employed (be they 32 or 64 bits). The minimal possible

?C: 64-bitness is used, just enough to get 64-bit integers into Perl.

?C: This may mean using for example "long longs", while your memory

?C: may still be limited to 2 gigabytes.

?C:.

?C:USE\_64\_BIT\_ALL:

?C: This symbol, if defined, indicates that 64-bit integers should

?C: be used when available. If not defined, the native integers

?C: will be used (be

they 32 or 64 bits). The maximal possible

?C: 64-bitness is employed: LP64 or ILP64, meaning that you will

?C: be able to use more than 2 gigabytes of memory. This mode is

?C: even more binary incompatible than USE\_64\_BIT\_INT. You may not

?C: be able to run the resulting executable in a 32-bit CPU at all or

?C: you may need at least to reboot your OS to 64-bit mode.

?C:.

```

?H:%<:#ifndef USE_64_BIT_INT
?H:%<:#$use64bitint USE_64_BIT_INT /**/
?H:%<:#endif
?H:%<:#ifndef USE_64_BIT_ALL
?H:%<:#$use64bitall USE_64_BIT_ALL /**/
?H:%<:#endif
?H:
?INIT:archname64="
?LINT:extern ccflags
?LINT:use usemorebits
?LINT:extern use64bits
?LINT:extern uselonglong
?LINT:extern uselonglongs
?LINT:extern use64bitints
?LINT:extern use64bitsint
?LINT:extern use64bitsall
?T:libcquad
?F:!try
?F:!use64bitint.cbu
?F:!use64bitall.cbu
: Do we want 64bit support
case "$uselonglong" in
"$define"|true|[yY]*)
cat <<EOM >&4

```

\*\*\* Configure -Duselonglong is deprecated, using -Duse64bitint instead.

```

EOM
use64bitint="$define"
;;
esac
case
"$use64bits" in
"$define"|true|[yY]*)
cat <<EOM >&4

```

\*\*\* Configure -Duse64bits is deprecated, using -Duse64bitint instead.

```

EOM
use64bitint="$define"
;;
esac
case "$use64bitints" in
"$define"|true|[yY]*)
cat <<EOM >&4

```

\*\*\* There is no Configure -Duse64bitints, using -Duse64bitint instead.

```

EOM
use64bitint="$define"
;;

```

```
esac
case "$use64bitsint" in
"$define"|true|[yY]*)
cat <<EOM >&4
```

\*\*\* There is no Configure -Duse64bitsint, using -Duse64bitint instead.

```
EOM
use64bitint="$define"
;;
esac
case "$uselongs" in
"$define"|true|[yY]*)
cat <<EOM >&4
```

\*\*\* There is no Configure -Duselongs, using -Duse64bitint instead.

```
EOM
use64bitint="$define"
;;
esac
case "$use64bitsall" in
"$define"|true|[yY]*)
cat <<EOM >&4
```

\*\*\* There is no Configure -Duse64bitsall, using -Duse64bitall instead.

```
EOM
use64bitall="$define"
;;
esac
```

```
case "$ccflags" in
-DUSE_LONG_LONG|*-DUSE_64_BIT_INT*|*-DUSE_64_BIT_ALL*) use64bitint="$define";;
esac
case "$use64bitall" in
"$define"|true|[yY]*)
use64bitint="$define" ;;
esac
```

```
case "$longsize" in
8) cat <<EOM
```

You have natively 64-bit long integers.

```
EOM
val="$define"
;;
*) case "$use64bitint" in
"$define"|true|[yY]*) dflt='y';;
*) dflt='n';;
esac
```

```

case "$d_quad" in
"$define") ;;
*) dflt='n' ;;
esac
cat <<EOM

```

Perl can be built to take advantage of 64-bit integer types on some systems. To do so, Configure can be run with `-Duse64bitint`. Choosing this option will most probably introduce binary incompatibilities.

If this doesn't make any sense to you, just accept the default '\$dflt'. (The default has been chosen based on your configuration.)

EOM

```

rp="Try to use 64-bit integers, if available?"
./myread
case "$ans" in
[yY]*) val="$define" ;;
*) val="$undef" ;;
esac
;;
esac
set use64bitint
eval $setvar

```

```

case "$use64bitall" in
"$define"|true|[yY]*) dflt='y' ;;
*) case "$longsize" in
8) dflt='y' ;;
*) dflt='n' ;;
esac
;;
esac
cat <<EOM

```

You may also

choose to try maximal 64-bitness. It means using as much 64-bitness as possible on the platform. This in turn means even more binary incompatibilities. On the other hand, your platform may not have any more 64-bitness available than what you already have chosen.

If this doesn't make any sense to you, just accept the default '\$dflt'. (The default has been chosen based on your configuration.)

EOM

```

rp="Try to use maximal 64-bit support, if available?"
./myread
case "$ans" in
[yY]*) val="$define" ;;
*) val="$undef" ;;

```

```

esac
set use64bitall
eval $setvar
case "$use64bitall" in
"$define")
case "$use64bitint" in
"$undef")
cat <<EOM

```

Since you have chosen a maximally 64-bit build, I'm also turning on the use of 64-bit integers.

EOM

```

use64bitint="$define" ;;
esac
;;
esac

```

```

: Look for a hint-file generated 'call-back-unit'. If the
: user has specified that a 64-bit perl is to be built,
: we may need to set or change some other defaults.
if $test -f use64bitint.cbu; then
echo "Your
platform has some specific hints regarding 64-bit integers, using them..."
. ./use64bitint.cbu
fi

```

```

case "$use64bitint" in
"$define"|true|[yY]*)
: This test was common to all the OpenBSD forks, and seems harmless for
: other platforms:
echo " "
echo "Checking if your C library has broken 64-bit functions..." >&4
cat >try.c <<EOCP
#include <stdio.h>
typedef $uquadtype myULL;
int main (void)
{
struct {
double d;
myULL u;
} *p, test[] = {
{4294967303.15, 4294967303ULL},
{4294967294.2, 4294967294ULL},
{4294967295.7, 4294967295ULL},
{0.0, 0ULL}
};
for (p = test; p->u; p++) {
myULL x = (myULL)p->d;
if (x != p->u) {

```



```

 printf("buggy\n");
 return 0;
}
}
printf("ok\n");
return 0;
}
EOCP
set try
if eval $compile_ok; then
 libcquad=`$run ./try`
 echo "Your C library's 64-bit functions are $libcquad."
else
 echo "(I can't seem to compile the test program.)"
 echo "Assuming that your C library's 64-bit functions are ok."
 libcquad="ok"
fi
$rm_try

case
"$libcquad" in
 buggy*)
 cat >&4 <<EOM

*** You have a C library with broken 64-bit functions.
*** 64-bit support does not work reliably in this configuration.
*** Please rerun Configure without -Duse64bitint and/or -Dusemorebits.
*** Cannot continue, aborting.

EOM
 exit 1
 ;;
esac
case "$longsize" in
4) case "$archname64" in
 ") archname64=64int ;;
 esac
 ;;
esac
;;
esac

: Look for a hint-file generated 'call-back-unit'. If the
: user has specified that a maximally 64-bit perl is to be built,
: we may need to set or change some other defaults.
if $test -f use64bitall.cbu; then
 echo "Your platform has some specific hints regarding 64-bit builds, using them..."
 . ./use64bitall.cbu

```

```
fi
case "$use64bitall" in
"$define"|true|[yY]*)
case "$longsize" in
4) case "$archname64" in
"64int) archname64=64all ;;
esac
;;
esac
;;
esac
```

```
case "$d_quad:$use64bitint" in
$undef:$define)
cat >&4 <<EOF
```

```
*** You have chosen to use 64-bit
integers,
*** but none can be found.
*** Please rerun Configure without -Duse64bitint and/or -Dusemorebits.
*** Cannot continue, aborting.
```

```
EOF
exit 1
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/use64bits.U
```

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?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2019 Karl Williamson

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_towlower: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_towlower:

?S: This variable conditionally defines the HAS\_TOWLOWER symbol, which

?S: indicates to the C program that the towlower() routine is available.

?S:.

?C:HAS\_TOWLOWER:

?C: This symbol, if defined, indicates that the towlower () routine is

?C: available to do case conversion.

?C:.  
?H:#\$d\_towlower HAS\_TOWLOWER /\*\*/  
?H:.  
?LINT:set d\_towlower  
: see if towlower exists  
set towlower d\_towlower  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_towlower.U

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_fegetround: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_fegetround:

?S: This variable conditionally defines HAS\_FEGETROUND if fegetround() is

?S: available to get the floating point rounding mode.

?S:.

?C:HAS\_FEGETROUND:

?C: This symbol, if defined, indicates that the fegetround routine is

?C: available to return the macro corresponding to the current rounding

?C: mode.

?C:.

?H:#\$d\_fegetround HAS\_FEGETROUND /\*\*/  
?H:.

?LINT:set d\_fegetround

: see if fegetround exists

set fegetround d\_fegetround

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_fegetround.U

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?RCS: of the source tree for dist 3.0.

?RCS:

```

?MAKE:uidsign: Myread Typedef uidtype Compile run
?MAKE: -pick add $@ %<
?S:uidsign:
?S: This variable contains the signedness of a uidtype.
?S: 1 for unsigned, -1 for signed.
?S:.
?C:Uid_t_sign:
?C: This symbol holds the signedness of a Uid_t.
?C: 1 for unsigned, -1 for signed.
?C:.
?H:#define Uid_t_sign $uidsign /* UID sign */
?H:.
?T:yyy zzz
?F:!try
: Check if UID is signed
echo " "
case "$uidtype" in
*_t) zzz="$uidtype" ;;
*) zzz="uid" ;;
esac
echo "Checking the sign of $zzz..." >&4
cat > try.c <<EOCP
#include <sys/types.h>
#include
<stdio.h>
int main() {
 $uidtype foo = -1;
 if (foo < 0)
 printf("-1\n");
 else
 printf("1\n");
}
EOCP
set try
if eval $compile; then
 yyy=`$run ./try`
 case "$yyy" in
 ") uidsign=1
 echo "(I can't execute the test program--guessing unsigned.)" >&4
 ;;
 *) uidsign=$yyy
 case "$uidsign" in
 1) echo "Your $zzz is unsigned." ;;
 -1) echo "Your $zzz is signed." ;;
 esac
 ;;
 esac
else

```

```
uidsign=1
echo "(I can't compile the test program--guessing unsigned.)" >&4
fi
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/uidsign.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_endprotoent\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_endprotoent\_r endprotoent\_r\_proto: Inlibc Protochk Hasproto \  
i\_systypes usethreads i\_netdb extern\_C

?MAKE: -pick add \$@ %<

?S:d\_endprotoent\_r:

?S: This variable conditionally defines the HAS\_ENDPROTOENT\_R symbol,

?S: which indicates to the C program that the endprotoent\_r()

?S: routine is available.

?S:.

?S:endprotoent\_r\_proto:

?S: This variable encodes the prototype of endprotoent\_r.

?S: It is zero if d\_endprotoent\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_endprotoent\_r

?S: is defined.

?S:.

?C:HAS\_ENDPROTOENT\_R:

?C: This symbol, if defined, indicates that the endprotoent\_r  
routine

?C: is available to endprotoent re-entrantly.

?C:.

?C:ENDPROTOENT\_R\_PROTO:

?C: This symbol encodes the prototype of endprotoent\_r.

?C: It is zero if d\_endprotoent\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_endprotoent\_r

?C: is defined.

?C:.

?H:#\$d\_endprotoent\_r HAS\_ENDPROTOENT\_R /\*\*/

?H:#define ENDPROTOENT\_R\_PROTO \$endprotoent\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_endprotoent\_r\_proto

: see if endprotoent\_r exists

set endprotoent\_r d\_endprotoent\_r

```

eval $inlibc
case "$d_endprotoent_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_netdb netdb.h"
case "$d_endprotoent_r_proto:$usethreads" in
":define") d_endprotoent_r_proto=define
set d_endprotoent_r_proto endprotoent_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_endprotoent_r_proto" in
define)
case "$endprotoent_r_proto" in
"|0) try='int endprotoent_r(struct protoent_data*);'
./protochk "$sextern_C $try" $hdrs && endprotoent_r_proto=I_D ;;
esac
case "$endprotoent_r_proto"
in
"|0) try='void endprotoent_r(struct protoent_data*);'
./protochk "$sextern_C $try" $hdrs && endprotoent_r_proto=V_D ;;
esac
case "$endprotoent_r_proto" in
"|0) d_endprotoent_r=undef
endprotoent_r_proto=0
echo "Disabling endprotoent_r, cannot determine prototype." >&4 ;;
*) case "$endprotoent_r_proto" in
REENTRANT_PROTO*) ;;
*) endprotoent_r_proto="REENTRANT_PROTO_$endprotoent_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "endprotoent_r has no prototype, not using it." >&4 ;;
esac
d_endprotoent_r=undef
endprotoent_r_proto=0
;;
esac
;;
*) endprotoent_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_endprotoent_r.U

```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: html3dir.U,v $
?RCS:
?RCS: Copyright (c) 1999 Andy Dougherty
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?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
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?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: html3dir.U,v $
?RCS:
?MAKE:html3dir html3direxp installhtml3dir: cat sed Loc Myread \
 spackage test Getfile Setprefixvar Prefixit Prefixup html1dir
?MAKE: -pick add $@ %<
?Y:TOP
?D:html3dir="
?S:html3dir:
?S: This variable contains the name of the directory in which html
?S: source pages are to be put. This directory is for pages
?S: that describe libraries or modules. It is intended to
?S: correspond roughly to section 3 of the Unix manuals.
?S:.
?D:html3direxp="
?S:html3direxp:
?S: This variable
?S: is the same as the html3dir variable, but is filename
?S: expanded at configuration time, for convenient use in makefiles.
?S:.
?D:installhtml3dir="
?S:installhtml3dir:
?S: This variable is really the same as html3direxp, unless you are
?S: using a different installprefix. For extra portability, you
?S: should only use this variable within your makefiles.
?S:.
?LINT:change prefixvar
?LINT:set html3direxp
?LINT:set installhtml3dir
: determine where html pages for libraries and modules go
set html3dir html3dir none
eval $prefixit
$cat <<EOM
```

If you wish to install html files for modules associated with \$spackage, indicate the appropriate directory here. To skip installing html files, answer "none".

EOM

: There is no obvious default. If they have specified html1dir, then

: try to key off that, possibly changing ../html1 into ../html3.

case "\$html3dir" in

) html3dir=`echo "\$html1dir" | \$sed 's/1\$/3\$/'` ;;

\*) dflt=\$html3dir ;;

esac

fn=dn+~

rp="Directory for the \$spackage module

html pages?"

./getfile

prefixvar=html3dir

./setprefixvar

: Use ' ' for none so value is preserved next time through Configure

\$test X"\$html3dir" = "X" && html3dir=' '

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/html3dir.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

?MAKE:d\_setproctitle: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_setproctitle:

?S: This variable conditionally defines the HAS\_SETPROCTITLE symbol,

?S: which indicates to the C program that the setproctitle() routine

?S: is available.

?S:.

?C:HAS\_SETPROCTITLE:

?C: This symbol, if defined, indicates that the setproctitle routine is

?C: available to set process title.

?C:.

?H:#\$d\_setproctitle HAS\_SETPROCTITLE /\*\*/

?H:.

?LINT:set d\_setproctitle

: see if setproctitle exists

set setproctitle d\_setproctitle

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-



5.30.0/U/perl/d\_setproctitle.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: bitpbyte.U,v 3.0.1.1 1994/10/29 16:02:54 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: bitpbyte.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:02:54 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:27 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:bitpbyte: cat rm Myread Compile run

?MAKE: -pick add \$@ %<

?S:bitpbyte:

?S: This variable contains the value of the BITS\_PER\_BYTE symbol, which

?S: indicates to the C program how many bits there are in a byte.

?S:.

?C:BITS\_PER\_BYTE:

?C: This

symbol contains the number of bits in a byte, so that the C

?C: preprocessor can make decisions based on it.

?C:.

?H:#define BITS\_PER\_BYTE \$bitpbyte /\*\*/

?H:.

?F:!try

: check for length of byte

echo " "

case "\$bitpbyte" in

")

echo "Checking to see how many bits there are in a byte..." >&4

\$cat >try.c <<'EOCP'

#include <stdio.h>

?X: Standard C requires a macro CHAR\_BIT in <limits.h>

#ifdef \_\_STDC\_\_

#include <limits.h>

#ifndef CHAR\_BIT

#define CHAR\_BIT 8

#endif

#ifndef BITSPERBYTE

```

#define BITSPERBYTE CHAR_BIT
#endif
#else
?X: On non standard C, try with <values.h>
#include <values.h>
#endif
#define BITSPERBYTE 8
#endif
#endif
int main()
{
printf("%d\n", BITSPERBYTE);
}
EOCP
set try
if eval $compile_ok; then
dflt=`$run ./try`
else
dflt='8'
echo "(I can't seem to compile the test program. Guessing...)"
fi
;;
*)
dflt="$bitbyte"
;;
esac
rp="What is the length of a byte (in bits)?"
./myread
bitbyte="$ans"
$rm -f try.c try

```

Found in path(s):

\*

/opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/bitbyte.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

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?RCS:

?MAKE:d\_strtoq: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_strtoq:

?S: This variable conditionally defines the HAS\_STRTOQ symbol, which

?S: indicates to the C program that the strtouq() routine is available.

?S:.

?C:HAS\_STRTOQ:

?C: This symbol, if defined, indicates that the strtouq routine is

?C: available to convert strings to long longs (quads).

?C:.

?H:#\$d\_strtoq HAS\_STRTOQ /\*\*/

?H:.

?LINT:set d\_strtoq

: see if strtouq exists

set strtouq d\_strtoq

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_strtoq.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_times.U,v 3.0.1.2 1995/07/25 14:07:50 ram Exp \$

?RCS:

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?RCS:

?RCS: \$Log: d\_times.U,v \$

?RCS: Revision 3.0.1.2 1995/07/25 14:07:50 ram

?RCS: patch56: typo fix, sytem -> system

?RCS:

?RCS: Revision 3.0.1.1 1994/08/29 16:14:00 ram

?RCS: patch32: now uses new Typedef unit to compute type information

?RCS:

?RCS: Revision 3.0 1993/08/18 12:07:46 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: What is the type returned by times() ?

?X:

?X: Force inclusion of <sys/types.h>

?X:INC: i\_systypes

?MAKE:d\_times clocktype:

Csym Myread Typedef i\_systimes

?MAKE: -pick add \$@ %<

?S:d\_times:

?S: This variable conditionally defines the HAS\_TIMES symbol, which indicates

?S: that the times() routine exists. The times() routine is normally  
?S: provided on UNIX systems. You may have to include <sys/times.h>.

?S:.

?S:clocktype:

?S: This variable holds the type returned by times(). It can be long,

?S: or clock\_t on BSD sites (in which case <sys/types.h> should be

?S: included).

?S:.

?C:HAS\_TIMES (TIMES):

?C: This symbol, if defined, indicates that the times() routine exists.

?C: Note that this became obsolete on some systems (SUNOS), which now

?C: use getrusage(). It may be necessary to include <sys/times.h>.

?C:.

?C:Clock\_t (CLOCKTYPE):

?C: This symbol holds the type returned by times(). It can be long,

?C: or clock\_t on BSD sites (in which case <sys/types.h> should be

?C: included).

?C:.

?H:#\$d\_times HAS\_TIMES /\*\*/

?H:#define Clock\_t \$clocktype /\* Clock time \*/

?H:.

?T:val inc

: see if times exists

echo "

"

if set times val -f d\_times; eval \$csym; \$val; then

echo 'times() found.' >&4

d\_times="\$define"

inc="

case "\$i\_systimes" in

"\$define") inc='sys/times.h';;

esac

rp="What is the type returned by times() on this system?"

set clock\_t clocktype long stdio.h sys/types.h \$inc

eval \$typedef\_ask

else

echo 'times() NOT found, hope that will do.' >&4

d\_times="\$undef"

?X: The following is needed for typedef (won't like an empty variable)

clocktype='int'

fi

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/d\_times.U

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?RCS: \$Id\$

```

?RCS:
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?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: Ins.U,v $
?RCS: Revision 3.0.1.1 1994/06/20 07:05:52 ram
?RCS: patch30: created by ADO
?RCS:
?MAKE:issymlink: Ins test rm
?MAKE: -pick add $@ %<
?S:issymlink:
?S: This variable holds the test command to test for a symbolic link
?S: (if they are supported). Typical values include 'test -h' and
?S: 'test -L'.
?S:.
?T:pth p
?LINT:change PATH test
?LINT:extern newsh
: determine whether symbolic links are supported
echo
" "
case "$Ins" in
"In" -s")
echo "Checking how to test for symbolic links..." >&4
$Ins blurfl sym
if $test "X$sissymlink" = X; then
?X:
?X: In some AIX 4 versions the (ksh) builtin test (-h) is broken.
?X:
case "$newsh" in
") sh -c "PATH= test -h sym" >/dev/null 2>&1 ;;
*) $newsh -c "PATH= test -h sym" >/dev/null 2>&1 ;;
esac
if test $? = 0; then
issymlink="test -h"
else
echo "Your builtin 'test -h' may be broken." >&4
case "$stest" in
/*) ;;
*) pth=`echo $PATH | sed -e "s/$p_/ /g"`
for p in $pth

```

```

do
 if test -f "$p/$test"; then
 test="$p/$test"
 break
 fi
done
;;
esac
case "$test" in
/*)
 echo "Trying external '$test -h'." >&4
 issymLink="$test -h"
 if $test ! -h sym >/dev/null 2>&1; then
 echo "External '$test -h' is broken, too." >&4
 issymLink=""
 fi
 ;;
*) issymLink="" ;;
esac
fi
fi
if $test "X$issymLink" = X; then
 if $test -L sym 2>/dev/null; then
 issymLink="$test
-L"
 echo "The builtin '$test -L' worked." >&4
 fi
fi
if $test "X$issymLink" != X; then
 echo "You can test for symbolic links with '$issymLink'." >&4
else
 echo "I do not know how you can test for symbolic links." >&4
fi
$rm -f blurfl sym
;;
*) echo "No symbolic links, so not testing for their testing..." >&4
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/issymLink.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: netdbtype.U,v \$

?RCS:

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?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: netdbtype.U,v \$

?RCS:

?MAKE:netdb\_host\_type netdb\_hlen\_type netdb\_name\_type netdb\_net\_type: \

Protochk Oldconfig Myread cat \

d\_gethbyaddr d\_gethbyname d\_getnbyaddr \

i\_niin i\_netdb i\_unistd d\_socket sizetype extern\_C

?MAKE: -pick add \$@ %<

?S:netdb\_host\_type:

?S: This variable holds the type used for the 1st argument to

?S: gethostbyaddr(). Usually, this is char \* or void \*, possibly

?S: with or without a const prefix.

?S: This is only useful if you have gethostbyaddr(), naturally.

?S:.

?S:netdb\_hlen\_type:

?S: This variable holds the type used for the 2nd argument to

?S: gethostbyaddr(). Usually,

this is int or size\_t or unsigned.

?S: This is only useful if you have gethostbyaddr(), naturally.

?S:.

?S:netdb\_name\_type:

?S: This variable holds the type used for the argument to

?S: gethostbyname(). Usually, this is char \* or const char \*.

?S: This is only useful if you have gethostbyname(), naturally.

?S:.

?S:netdb\_net\_type:

?S: This variable holds the type used for the 1st argument to

?S: getnetbyaddr(). Usually, this is int or long.

?S: This is only useful if you have getnetbyaddr(), naturally.

?S:.

?C:Netdb\_host\_t:

?C: This symbol holds the type used for the 1st argument

?C: to gethostbyaddr().

?C:.

?C:Netdb\_hlen\_t:

?C: This symbol holds the type used for the 2nd argument

?C: to gethostbyaddr().

?C:.

?C:Netdb\_name\_t:

?C: This symbol holds the type used for the argument to

?C: gethostbyname().

?C:.

?C:Netdb\_net\_t:

?C: This symbol holds the type used for the 1st argument to

```
?C: getnetbyaddr().
?C:.
?H:#define Netdb_host_t $netdb_host_type /**/
?H:#define Netdb_hlen_t $netdb_hlen_type
/**/
?H:#define Netdb_name_t $netdb_name_type /**/
?H:#define Netdb_net_t $netdb_net_type /**/
?H:.
?T:xxx yyy try hdrs
@if netdb_host_type || Netdb_host_t || netdb_hlen_type || Netdb_hlen_t
: check for type of arguments to gethostbyaddr.
if test "X$netdb_host_type" = X -o "X$netdb_hlen_type" = X; then
case "$d_gethbyaddr" in
$define)
$cat <<EOM
```

Checking to see what type of arguments are accepted by gethostbyaddr().

EOM

```
hdrs="$define sys/types.h
$d_socket sys/socket.h
$i_niin netinet/in.h
$i_netdb netdb.h
$i_unistd unistd.h"
: The first arg can 'char *' or 'void *'
: The second arg is some of integral type
for xxx in in_addr_t 'const void *' 'const char *' 'void *' 'char *'; do
for yyy in size_t long int; do
case "$netdb_host_type" in
") try="$extern_C struct hostent *gethostbyaddr($xxx, $yyy, int);"
if ./protochk "$try" $hdrs; then
echo "Your system accepts $xxx for the first arg."
echo "...and $yyy for the second arg."
netdb_host_type="$xxx"
netdb_hlen_type="$yyy"
fi
;;
esac
done
done
:
```

In case none of those worked, prompt the user.

```
case "$netdb_host_type" in
") rp='What is the type for the 1st argument to gethostbyaddr?'
dflt='char *'
./myread
netdb_host_type=$ans
rp='What is the type for the 2nd argument to gethostbyaddr?'
dflt="$sizetype"
```



```

./myread
netdb_hlen_type=$ans
;;
esac
;;
*) : no gethostbyaddr, so pick harmless defaults
netdb_host_type='char *'
netdb_hlen_type="$sizetype"
;;
esac
Remove the "const" if needed. -- but then we'll have a
prototype clash!
netdb_host_type=`echo "$netdb_host_type" | sed 's/^const //'`
fi
@end

```

```

@if netdb_name_type || Netdb_name_t
: check for type of argument to gethostbyname.
if test "X$netdb_name_type" = X ; then
case "$d_gethbyname" in
$define)
$cat <<EOM

```

Checking to see what type of argument is accepted by gethostbyname().

EOM

```

hdrs="$define sys/types.h
$d_socket sys/socket.h
$i_niin
netinet/in.h
$i_netdb netdb.h
$i_unistd unistd.h"
for xxx in "const char *" "char *"; do
case "$netdb_name_type" in
") try="$Sextern_C struct hostent *gethostbyname($xxx);"
if ./protochk "$stry" $hdrs; then
echo "Your system accepts $xxx."
netdb_name_type="$xxx"
fi
;;
esac
done
: In case none of those worked, prompt the user.
case "$netdb_name_type" in
") rp='What is the type for the 1st argument to gethostbyname?'
dflt='char *'
./myread
netdb_name_type=$ans
;;

```

```

esac
;;
*) : no gethostbyname, so pick harmless default
netdb_name_type='char *'
;;
esac
fi
@end

```

```

@if netdb_net_type || Netdb_net_t
: check for type of 1st argument to getnetbyaddr.
if test "X$netdb_net_type" = X ; then
case "$d_getnbyaddr" in
$define)
$cat <<EOM

```

Checking to see what type of 1st argument is accepted by getnetbyaddr().

EOM

```

hdrs="$define sys/types.h
$d_socket sys/socket.h
$i_niin netinet/in.h
$i_netdb netdb.h
$i_unistd
unistd.h"
for xxx in in_addr_t "unsigned long" long "unsigned int" int; do
case "$netdb_net_type" in
") try="$extern_C struct netent *getnetbyaddr($xxx, int);"
if ./protochk "$stry" $hdrs; then
echo "Your system accepts $xxx."
netdb_net_type="$xxx"
fi
;;
esac
done
: In case none of those worked, prompt the user.
case "$netdb_net_type" in
") rp='What is the type for the 1st argument to getnetbyaddr?'
dflt='long'
./myread
netdb_net_type=$ans
;;
esac
;;
*) : no getnetbyaddr, so pick harmless default
netdb_net_type='long'
;;
esac
fi

```

@end

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/protos/netdbtype.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getservbyname\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_getservbyname\_r getservbyname\_r\_proto: Inlibc Protochk Hasproto \  
i\_systypes usethreads i\_netdb extern\_C

?MAKE: -pick add \$@ %<

?S:d\_getservbyname\_r:

?S: This variable conditionally defines the HAS\_GETSERVBYNAME\_R symbol,

?S: which indicates to the C program that the getservbyname\_r()

?S: routine is available.

?S:.

?S:getservbyname\_r\_proto:

?S: This variable encodes the prototype of getservbyname\_r.

?S: It is zero if d\_getservbyname\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getservbyname\_r

?S: is defined.

?S:.

?C:HAS\_GETSERVBYNAME\_R:

?C: This symbol, if defined, indicates

that the getservbyname\_r routine

?C: is available to getservbyname re-entrantly.

?C:.

?C:GETSERVBYNAME\_R\_PROTO:

?C: This symbol encodes the prototype of getservbyname\_r.

?C: It is zero if d\_getservbyname\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getservbyname\_r

?C: is defined.

?C:.

?H:#\$d\_getservbyname\_r HAS\_GETSERVBYNAME\_R /\*\*/

?H:#define GETSERVBYNAME\_R\_PROTO \$getservbyname\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_getservbyname\_r\_proto

: see if getservbyname\_r exists

set getservbyname\_r d\_getservbyname\_r

eval \$inlibc

case "\$d\_getservbyname\_r" in

```

"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_netdb netdb.h"
case "$d_getservbyname_r_proto:$susetheads" in
":define") d_getservbyname_r_proto=define
set d_getservbyname_r_proto getservbyname_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_getservbyname_r_proto" in
define)
case "$getservbyname_r_proto" in
"|0) try='int getservbyname_r(const char*, const char*, struct servent*, char*,
size_t, struct servent**);'
./protochk "$extern_C $try" $hdrs && getservbyname_r_proto=I_CCSD ;
esac
case "$getservbyname_r_proto" in
"|0) try='struct servent* getservbyname_r(const char*, const char*, struct servent*, char*, int);'
./protochk "$extern_C $try" $hdrs && getservbyname_r_proto=S_CCSD ;
esac
case "$getservbyname_r_proto" in
"|0) try='int getservbyname_r(const char*, const char*, struct servent*, struct servent_data*);'
./protochk "$extern_C $try" $hdrs && getservbyname_r_proto=I_CCSD ;
esac
case "$getservbyname_r_proto" in
"|0) d_getservbyname_r=undef
getservbyname_r_proto=0
echo "Disabling getservbyname_r, cannot determine prototype." >&4 ;;
*) case "$getservbyname_r_proto" in
REENTRANT_PROTO*) ;;
*) getservbyname_r_proto="REENTRANT_PROTO_$getservbyname_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$susetheads" in
define) echo "getservbyname_r has no prototype, not using it." >&4 ;;
esac
d_getservbyname_r=undef
getservbyname_r_proto=0
;;
esac
;;
*) getservbyname_r_proto=0
;;
esac

```

Found

in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_getservbyname\_r.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_getmnt: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_getmnt:

?S: This variable conditionally defines the HAS\_GETMNT symbol, which

?S: indicates to the C program that the getmnt() routine is available

?S: to retrieve one or more mount info blocks by filename.

?S:.

?C:HAS\_GETMNT:

?C: This symbol, if defined, indicates that the getmnt routine is

?C: available to get filesystem mount info by filename.

?C:.

?H:#\$d\_getmnt HAS\_GETMNT /\*\*/

?H:.

?LINT:set d\_getmnt

: see if getmnt exists

set getmnt d\_getmnt

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_getmnt.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

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?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_getnameinfo: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_getnameinfo:

?S: This variable conditionally defines the HAS\_GETNAMEINFO symbol,

?S: which indicates to the C program that the getnameinfo() function

?S: is available.

?S:.

?C:HAS\_GETNAMEINFO:

?C: This symbol, if defined, indicates that the getnameinfo() function

?C: is available for use.

?C:.

?H:#\$d\_getnameinfo HAS\_GETNAMEINFO /\*\*/

?H:.

?LINT:set d\_getnameinfo

: see if getnameinfo exists

set getnameinfo d\_getnameinfo

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_getnameinfo.U

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_nearbyint: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_nearbyint:

?S: This variable conditionally defines HAS\_NEARBYINT if nearbyint()

?S: is available to return the integral value closest to (according to

?S: the current rounding mode) to x.

?S:.

?C:HAS\_NEARBYINT:

?C: This symbol, if defined, indicates that the nearbyint routine is

?C: available to return the integral value closest to (according to

?C: the current rounding mode) to x.

?C:.

?H:#\$d\_nearbyint HAS\_NEARBYINT /\*\*/

?H:.

?LINT:set d\_nearbyint

: see if nearbyint exists

set nearbyint d\_nearbyint

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_nearbyint.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: startperl.U,v 3.0 1993/08/18 12:09:50 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

```

?RCS: This file is included with or a derivative work of a file included
?RCS: with the metaconfig program of Raphael Manfredi's "dist" distribution.
?RCS: In accordance with clause 7 of dist's modified Artistic License:
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: $Log: startperl.U,v $
?RCS: Perl5 version -- I always have d_portable=define.
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:50 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:startperl: cat Myread sharpbang initialinstalllocation test \
versiononly version
?MAKE: -pick add $@ %<
?Y:TOP
?X: This is different from dist's standard startperl.U unit because
?X: we can't directly test #!/usr/local/bin/perl (or
whatever) because
?X: we haven't built and installed perl yet.
?S:startperl:
?S: This variable contains the string to put on the front of a perl
?S: script to make sure (hopefully) that it runs with perl and not some
?S: shell. Of course, that leading line must be followed by the classical
?S: perl idiom:
?S: eval 'exec perl -S $0 ${1+"$@"}'
?S: if $running_under_some_shell;
?S: to guarantee perl startup should the shell execute the script. Note
?S: that this magic incantation is not understood by csh.
?S:.
?C:STARTPERL:
?C: This variable contains the string to put in front of a perl
?C: script to make sure (one hopes) that it runs with perl and not
?C: some shell.
?C:.
?H:#define STARTPERL "$startperl" /**/
?H:.
: figure out how to guarantee perl startup
: XXX Note that this currently takes advantage of the bug that binexp ignores
: the Configure -Dinstallprefix setting, which in turn means that under
: relocatable @INC, initialinstalllocation is what binexp started as.
case
"$startperl" in
")
case "$sharpbang" in
*!)
$cat <<EOH

```

I can use the #! construct to start perl on your system. This will make startup of perl scripts faster, but may cause problems if you want to share those scripts and perl is not in a standard place (\$initialinstalllocation/perl) on all your platforms. The alternative is to force a shell by starting the script with a single ':' character.

EOH

```
case "$versiononly" in
"$define") dflt="$initialinstalllocation/perl$version";;
*) dflt="$initialinstalllocation/perl";;
esac
rp='What shall I put after the #! to start up perl ("none" to not use #!)?'
. ./myread
case "$ans" in
none) startperl=": # use perl";;
*) startperl="#!$ans"
if $test 30 -lt `echo "$ans" | wc -c`; then
$cat >&4 <<EOM
```

WARNING: Some systems limit the #! command to 32 characters.  
If you experience difficulty running Perl scripts with #!, try installing Perl in a directory with a shorter pathname.

EOM

```
fi ;;
esac
;;
*)
startperl=": # use perl"
;;
esac
;;
esac
echo "I'll use $startperl to start perl scripts."
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/startperl.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:



?MAKE:d\_accessx: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_accessx:  
?S: This variable conditionally defines the HAS\_ACCESSX symbol, which  
?S: indicates to the C program that the accessx() routine is available.  
?S:.  
?C:HAS\_ACCESSX :  
?C: This symbol, if defined, indicates that the accessx routine is  
?C: available to do extended access checks.  
?C:.  
?H:#\$d\_accessx HAS\_ACCESSX /\*\*/  
?H:.  
?LINT:set d\_accessx  
: see if accessx exists  
set accessx d\_accessx  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/acl/d\_accessx.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1996, Andy Dougherty  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: d\_strtoul.U,v \$  
?RCS: Revision 3.0.1.1 1997/02/28 15:46:43 ram  
?RCS: patch61: created  
?RCS:  
?RCS:  
?MAKE:d\_strtoul: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_strtoul:  
?S: This variable conditionally defines the HAS\_STRTOUL symbol, which  
?S: indicates to the C program that the strtoul() routine is available  
?S: to provide conversion of strings to unsigned long.  
?S:.  
?C:HAS\_STRTOUL (STRTOUL):  
?C: This symbol, if defined, indicates that the strtoul routine is  
?C: available

to provide conversion of strings to unsigned long.

?C:.

?H:#\$d\_strtoul HAS\_STRTOUL /\*\*/

?H:.

?LINT:set d\_strtoul

: see if strtoul exists

set strtoul d\_strtoul

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_strtoul.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_gethostbyname\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_gethostbyname\_r gethostbyname\_r\_proto: Inlibc Protochk Hasproto \  
i\_systypes usethreads i\_netdb extern\_C

?MAKE: -pick add \$@ %<

?S:d\_gethostbyname\_r:

?S: This variable conditionally defines the HAS\_GETHOSTBYNAME\_R symbol,

?S: which indicates to the C program that the gethostbyname\_r()

?S: routine is available.

?S:.

?S:gethostbyname\_r\_proto:

?S: This variable encodes the prototype of gethostbyname\_r.

?S: It is zero if d\_gethostbyname\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_gethostbyname\_r

?S: is defined.

?S:.

?C:HAS\_GETHOSTBYNAME\_R:

?C: This symbol, if defined, indicates

that the gethostbyname\_r routine

?C: is available to gethostbyname re-entrantly.

?C:.

?C:GETHOSTBYNAME\_R\_PROTO:

?C: This symbol encodes the prototype of gethostbyname\_r.

?C: It is zero if d\_gethostbyname\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_gethostbyname\_r

?C: is defined.

?C:.

?H:#\$d\_gethostbyname\_r HAS\_GETHOSTBYNAME\_R /\*\*/

```

?H:#define GETHOSTBYNAME_R_PROTO $gethostbyname_r_proto /**/
?H:.
?T:try hdrs d_gethostbyname_r_proto
: see if gethostbyname_r exists
set gethostbyname_r d_gethostbyname_r
eval $inlibc
case "$d_gethostbyname_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_netdb netdb.h"
case "$d_gethostbyname_r_proto:$usethreads" in
":define") d_gethostbyname_r_proto=define
set d_gethostbyname_r_proto gethostbyname_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_gethostbyname_r_proto" in
define)
case "$gethostbyname_r_proto" in
"|0) try='int gethostbyname_r(const char*, struct hostent*, char*, size_t, struct
hostent**, int*);'
./prochck "$extern_C $try" $hdrs && gethostbyname_r_proto=I_CSBWRE ;;
esac
case "$gethostbyname_r_proto" in
"|0) try='struct hostent* gethostbyname_r(const char*, struct hostent*, char*, int, int*);'
./prochck "$extern_C $try" $hdrs && gethostbyname_r_proto=S_CSBIE ;;
esac
case "$gethostbyname_r_proto" in
"|0) try='int gethostbyname_r(const char*, struct hostent*, struct hostent_data*);'
./prochck "$extern_C $try" $hdrs && gethostbyname_r_proto=I_CSD ;;
esac
case "$gethostbyname_r_proto" in
"|0) d_gethostbyname_r=undef
gethostbyname_r_proto=0
echo "Disabling gethostbyname_r, cannot determine prototype." >&4 ;;
*) case "$gethostbyname_r_proto" in
REENTRANT_PROTO*) ;;
*) gethostbyname_r_proto="REENTRANT_PROTO_$gethostbyname_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "gethostbyname_r has no prototype, not using it." >&4 ;;
esac
d_gethostbyname_r=undef
gethostbyname_r_proto=0
;;
esac

```

```
::
*) gethostbyname_r_proto=0
::
esac
```

#### Found

in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_gethostbyname_r.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_pwd.U,v 3.0.1.2 1995/07/25 14:10:57 ram Exp $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: i_pwd.U,v $
```

```
?RCS: Revision 3.0.1.2 1995/07/25 14:10:57 ram
```

```
?RCS: patch56: use setvar so hint file values can override our guesses (ADO)
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.1 1994/05/06 15:03:27 ram
```

```
?RCS: patch23: had forgotten cppminus in cppstdin test (ADO)
```

```
?RCS:
```

```
?RCS: Revision 3.0 1993/08/18 12:08:25 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?X:
```

```
?X: This unit checks whether there is a pwd system or not
```

```
?X:
```

```
?MAKE:i_pwd d_pwquota d_pwage d_pwchange
```

```
d_pwclass d_pwexpire \
```

```
d_pwgecos d_pwpasswd d_pwcomment: \
```

```
contains rm cppstdin cppflags cppminus Inhdr Findhdr Setvar
```

```
?MAKE: -pick add $@ %<
```

```
?S:i_pwd:
```

```
?S: This variable conditionally defines I_PWD, which indicates
```

```
?S: to the C program that it should include <pwd.h>.
```

```
?S:.
```

```
?S:d_pwquota:
```

```
?S: This variable conditionally defines PWQUOTA, which indicates
```

```
?S: that struct passwd contains pw_quota.
```

```
?S:.
```

```
?S:d_pwage:
```

?S: This variable conditionally defines PWAGE, which indicates  
?S: that struct passwd contains pw\_age.  
?S:.  
?S:d\_pwchange:  
?S: This variable conditionally defines PWCHANGE, which indicates  
?S: that struct passwd contains pw\_change.  
?S:.  
?S:d\_pwclass:  
?S: This variable conditionally defines PWCLASS, which indicates  
?S: that struct passwd contains pw\_class.  
?S:.  
?S:d\_pwexpire:  
?S: This variable conditionally defines PWEXPIRE, which indicates  
?S: that struct passwd contains pw\_expire.  
?S:.  
?S:d\_pwcomment:  
?S: This variable conditionally defines PWCOMMENT, which indicates  
?S: that  
struct passwd contains pw\_comment.  
?S:.  
?S:d\_pwgecos:  
?S: This variable conditionally defines PWGECOS, which indicates  
?S: that struct passwd contains pw\_gecos.  
?S:.  
?S:d\_pwpasswd:  
?S: This variable conditionally defines PWPASSWD, which indicates  
?S: that struct passwd contains pw\_passwd.  
?S:.  
?C:I\_PWD:  
?C: This symbol, if defined, indicates to the C program that it should  
?C: include <pwd.h>.  
?C:.  
?C:PWQUOTA:  
?C: This symbol, if defined, indicates to the C program that struct passwd  
?C: contains pw\_quota.  
?C:.  
?C:PWAGE:  
?C: This symbol, if defined, indicates to the C program that struct passwd  
?C: contains pw\_age.  
?C:.  
?C:PWCHANGE:  
?C: This symbol, if defined, indicates to the C program that struct passwd  
?C: contains pw\_change.  
?C:.  
?C:PWCLASS:  
?C: This symbol, if defined, indicates to the C program that struct passwd  
?C: contains pw\_class.  
?C:.

```

?C:PWEXPIRE:
?C: This symbol, if defined, indicates to the C program that struct passwd
?C: contains pw_expire.
?C:.
?C:PWCOMMENT:
?C: This
symbol, if defined, indicates to the C program that struct passwd
?C: contains pw_comment.
?C:.
?C:PWGECOS:
?C: This symbol, if defined, indicates to the C program that struct passwd
?C: contains pw_gecos.
?C:.
?C:PWPASSWD:
?C: This symbol, if defined, indicates to the C program that struct passwd
?C: contains pw_passwd.
?C:.
?H:#$i_pwd I_PWD /**/
?H:#$d_pwquota PWQUOTA /**/
?H:#$d_pwage PWAGE /**/
?H:#$d_pwchange PWCHANGE /**/
?H:#$d_pwclass PWCLASS /**/
?H:#$d_pwexpire PWEXPIRE /**/
?H:#$d_pwcomment PWCOMMENT /**/
?H:#$d_pwgecos PWGECOS /**/
?H:#$d_pwpasswd PWPASSWD /**/
?H:.
?LINT: set i_pwd d_pwquota d_pwage d_pwchange d_pwclass d_pwexpire d_pwcomment
?LINT: set d_pwgecos d_pwpasswd
?T:xxx
: see if this is a pwd.h system
set pwd.h i_pwd
eval $inhdr

case "$i_pwd" in
$define)
xxx=`./findhdr pwd.h`
Scppstdin Scppflags Scppminus < $xxx >$.h

if $contains 'pw_quota' $.h >/dev/null 2>&1; then
val="$define"
else
val="$undef"
fi
set d_pwquota
eval $setvar

if $contains 'pw_age'

```

```
$$h >/dev/null 2>&1; then
```

```
 val="$define"
```

```
else
```

```
 val="$undef"
```

```
fi
```

```
set d_pwage
```

```
eval $setvar
```

```
if $contains 'pw_change' $$h >/dev/null 2>&1; then
```

```
 val="$define"
```

```
else
```

```
 val="$undef"
```

```
fi
```

```
set d_pwchange
```

```
eval $setvar
```

```
if $contains 'pw_class' $$h >/dev/null 2>&1; then
```

```
 val="$define"
```

```
else
```

```
 val="$undef"
```

```
fi
```

```
set d_pwclass
```

```
eval $setvar
```

```
if $contains 'pw_expire' $$h >/dev/null 2>&1; then
```

```
 val="$define"
```

```
else
```

```
 val="$undef"
```

```
fi
```

```
set d_pwexpire
```

```
eval $setvar
```

```
if $contains 'pw_comment' $$h >/dev/null 2>&1; then
```

```
 val="$define"
```

```
else
```

```
 val="$undef"
```

```
fi
```

```
set d_pwcomment
```

```
eval $setvar
```

```
if $contains 'pw_gecos' $$h >/dev/null 2>&1; then
```

```
 val="$define"
```

```
else
```

```
 val="$undef"
```

```
fi
```

```
set d_pwgecos
```

```
eval $setvar
```

```

if $contains 'pw_passwd' $$h >/dev/null 2>&1; then
 val="$define"
else
 val="$undef"
fi
set d_pwpasswd
eval $setvar

$rm -f $$h
;;
*)
val="$undef";
set d_pwquota; eval $setvar
set d_pwage; eval $setvar
set d_pwchange; eval $setvar
set d_pwclass; eval $setvar
set
d_pwexpire; eval $setvar
set d_pwcomment; eval $setvar
set d_pwgecos; eval $setvar
set d_pwpasswd; eval $setvar
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i_pwd.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_strxfrm.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_strxfrm.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:12:04 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_strxfrm: Inlibc
?MAKE:-pick add $@ %<
?S:d_strxfrm:

```



?S: This variable conditionally defines HAS\_STRXFRM if strxfrm() is

?S: available to transform strings.

?S:.

?C:HAS\_STRXFRM:

?C: This symbol, if defined, indicates that the strxfrm() routine is

?C: available to transform

strings.

?C:.

?H:#\$d\_strxfrm HAS\_STRXFRM /\*\*/

?H:.

?LINT:set d\_strxfrm

: see if strxfrm exists

set strxfrm d\_strxfrm

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_strxfrm.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_sysmode.U,v \$

?RCS:

?RCS: Copyright (c) 2000 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:i\_sysmode: Inhdr Hasfield

?MAKE: -pick add \$@ %<

?S:i\_sysmode:

?S: This variable conditionally defines the I\_SYSMODE symbol,

?S: and indicates whether a C program should include <sys/mode.h>.

?S:.

?C:I\_SYSMODE:

?C: This symbol, if defined, indicates that <sys/mode.h> exists and

?C: should be included.

?C:.

?H:#\$i\_sysmode I\_SYSMODE /\*\*/

?H:.

?LINT:set i\_sysmode

: see if this is a sys/mode.h system

set sys/mode.h i\_sysmode

eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_sysmode.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: fpostype.U,v \$

?RCS: Revision 3.0.1.2 1994/08/29 16:20:52 ram

?RCS: patch32: now uses new Typedef unit to compute type information

?RCS:

?RCS: Revision 3.0.1.1 1994/06/20 06:59:59 ram

?RCS: patch30: created

?RCS:

?MAKE:fpostype: Myread Typedef

?MAKE: -pick add @\$@ %<

?S:fpostype:

?S: This variable defines Fpos\_t to be something like fpost\_t, long,

?S: uint, or whatever type is used to declare file positions in libc.

?S:.

?C:Fpos\_t:

?C: This symbol holds the type used to declare file positions  
in libc.

?C: It can be fpos\_t, long, uint, etc... It may be necessary to include

?C: <sys/types.h> to get any typedef'ed information.

?C:.

?H:#define Fpos\_t \$fpostype /\* File position type \*/

?H:.

: see what type file positions are declared as in the library

set fpos\_t fpostype long stdio.h sys/types.h

eval \$typedef

echo " "

dflt="\$fpostype"

rp="What is the type for file position used by fsetpos()?"

./myread

fpostype="\$ans"

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/fpostype.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: usrinc.U,v 1.1 2000/06/27 00:20:28 jhi Exp \$

?RCS:  
?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
?RCS:  
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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: usrinc.U,v \$  
?RCS: Revision 1.1 2000/06/27 00:20:28 jhi  
?RCS: Initial revision  
?RCS:  
?RCS: Revision 3.0.1.3 1997/02/28 16:27:12 ram  
?RCS: patch61: don't ask for the include path unless they are on a MIPS  
?RCS:  
?RCS: Revision 3.0.1.2 1995/05/12 12:24:36 ram  
?RCS: patch54: ensure that ./mips always exists (ADO)  
?RCS:  
?RCS: Revision 3.0.1.1 1994/05/06 15:18:31 ram  
?RCS: patch23: ensure usrinc value is preserved across sessions (WED)  
?RCS:  
?RCS: Revision  
3.0 1993/08/18 12:09:58 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:usrinc incpath mips\_type: test cat echo n c Getfile Guess \  
Oldconfig eunicefix contains rm sysroot cc  
?MAKE: -pick add \$@ %<  
?S:usrinc:  
?S: This variable holds the path of the include files, which is  
?S: usually /usr/include. It is mainly used by other Configure units.  
?S:.  
?S:incpath:  
?S: This variable must precede the normal include path to get the  
?S: right one, as in "\$incpath/usr/include" or "\$incpath/usr/lib".  
?S: Value can be "" or "/bsd43" on mips.  
?S:.  
?S:mips\_type:  
?S: This variable holds the environment type for the mips system.  
?S: Possible values are "BSD 4.3" and "System V".  
?S:.  
?D:usrinc=/usr/include'  
?LINT:extern cppflags  
?LINT:create mips  
?T:xxx\_prompt  
?F:./mips  
: What should the include directory be ?

```

: Use sysroot if set, so findhdr looks in the right place.
echo " "
$echo $n "Hmm... $c"
dflt="$sysroot/usr/include"
incpath=""
?X: mips_type is used later, to add -DSYSTYPE_BSD43
to cppflags if needed.
mips_type=""
?X:
?X: Cannot put the following in Guess, or we get a circular dependency.
?X:
if $test -f /bin/mips && /bin/mips; then
echo "Looks like a MIPS system..."
$cat >usr.c <<'EOCP'
#ifdef SYSTYPE_BSD43
/bsd43
#endif
EOCP
if $cc $cppflags -E usr.c > usr.out && $contains /usr.out >/dev/null 2>&1; then
dflt='/bsd43/usr/include'
incpath='/bsd43'
mips_type='BSD 4.3'
else
mips_type='System V'
fi
$rm -f usr.c usr.out
echo "and you're compiling with the $mips_type compiler and libraries."
xxx_prompt=y
echo "exit 0" >mips
else
echo "Doesn't look like a MIPS system."
xxx_prompt=n
echo "exit 1" >mips
fi
chmod +x mips
$unicefix mips
case "$usrinc" in
") ;;
*) dflt="$usrinc";;
esac
case "$xxx_prompt" in
y) fn=d/
echo " "
rp='Where are the include files you want to use?'
./getfile
usrinc="$ans"
;;
*) usrinc="$dflt"

```

```
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/usrinc.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_lstat.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_lstat.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:06:28 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_lstat: Inlibc
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_lstat:
```

```
?S: This variable conditionally defines HAS_LSTAT if lstat() is
```

```
?S: available to do file stats on symbolic links.
```

```
?S:.
```

```
?C:HAS_LSTAT (LSTAT):
```

```
?C: This symbol, if defined, indicates that the lstat routine is
```

```
?C: available to do file stats on symbolic links.
```

```
?C:.
```

```
?H:#$d_lstat HAS_LSTAT /**/
```

```
?H:.
```

```
?LINT:set
```

```
 d_lstat
```

```
: see if lstat exists
```

```
set lstat d_lstat
```

```
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_lstat.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: prefshell.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```

?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: prefshell.U,v $
?RCS: Revision 3.0.1.2 1994/10/29 16:28:13 ram
?RCS: patch36: added SHELL temporary since metalint now sees ${SHELL}
?RCS:
?RCS: Revision 3.0.1.1 1993/09/13 16:11:47 ram
?RCS: patch10: non-portable var substitution was used (WAD)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:34 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:prefshell: cat package Getfile Oldconfig ksh csh bash
?MAKE: -pick add $@ %<
?S:prefshell:
?S: This
 variable contains the eventual value of the PREFSHELL symbol,
?S: which contains the full name of the preferred user shell on this
?S: system. Usual values are /bin/csh, /bin/ksh, /bin/sh.
?S:.
?C:PREFSHELL:
?C: This symbol contains the full name of the preferred user shell on this
?C: system. Usual values are /bin/csh, /bin/ksh, /bin/sh.
?C:.
?H:#define PREFSHELL "$prefshell" /**/
?H:.
?T:SHELL
: find out which shell people like to use most
case "$prefshell" in
")
case "$ksh $bash $csh" in
/ksh) dflt="$ksh" ;;
/bash) dflt="$bash" ;;
/csh) dflt="$csh" ;;
*) dflt='/bin/sh' ;;
esac
;;
*) dflt="$prefshell";;
esac
?X: Some shells (Ultrix) do not understand ${SHELL:-/bin/sh}, sigh!
$cat <<EOM

```

Give the full path name of the shell most people like to use on your system.

This will be used by \$package whenever the user wants to get a shell escape (for instance) and is not necessarily the same as the shell you are currently using (\${SHELL-/bin/sh}).

EOM

fn=f/~

rp='Preferred

shell to be used?'

./getfile

prefshell=\$ans

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/prefshell.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: as specified in the README file that comes with the distribution.

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: gidtype.U,v \$

?RCS: Revision 3.0.1.3 1994/08/29 16:21:44 ram

?RCS: patch32: now uses new Typedef unit to compute type information

?RCS: patch32: removed useless usage of Setvar (for now)

?RCS:

?RCS: Revision 3.0.1.2 1994/05/13 15:21:07 ram

?RCS: patch27: added lint hint

?RCS:

?RCS: Revision 3.0.1.1 1994/05/06 15:01:51 ram

?RCS: patch23: protected gidtype setting via setvar (ADO)

?RCS: patch23: made Gid\_t comment more explicit (ADO)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:08:11 ram

?RCS:

Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:gidtype: Myread Typedef Findhdr

?MAKE: -pick add \$@ %<

?S:gidtype:

?S: This variable defines Gid\_t to be something like gid\_t, int,

?S: ushort, or whatever type is used to declare the return type

?S: of getgid(). Typically, it is the type of group ids in the kernel.

?S:.

?C:Gid\_t (GIDTYPE):

?C: This symbol holds the return type of getgid() and the type of

?C: argument to setrgid() and related functions. Typically,

?C: it is the type of group ids in the kernel. It can be int, ushort,

?C: uid\_t, etc... It may be necessary to include <sys/types.h> to get

?C: any typedef'ed information.

?C:.

?H:#define Gid\_t \$gidtype /\* Type for getgid(), etc... \*/

?H:.

?T:xxx

: see what type gids are declared as in the kernel

set gid\_t gidtype xxx stdio.h sys/types.h

eval \$typedef

case "\$gidtype" in

xxx)

xxx=`./findhdr sys/user.h`

set `grep 'groups\[NGROUPS\];' "\$xxx" 2>/dev/null` unsigned short

case \$1 in

unsigned) dflt="\$1 \$2" ;;

\*) dflt="\$1"

::

esac

::

\*) dflt="\$gidtype";;

esac

echo " "

rp="What is the type for group ids returned by getgid()?"

./myread

gidtype="\$ans"

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/gidtype.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getlogin.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:



```

?RCS: $Log: d_getlogin.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:07:41 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_getlogin: Inlibc
?MAKE: -pick add $@ %<
?S:d_getlogin:
?S: This variable conditionally defines the HAS_GETLOGIN symbol, which
?S: indicates to the C program that the getlogin() routine is available
?S: to get the login name.
?S:.
?C:HAS_GETLOGIN :
?C: This symbol,
if defined, indicates that the getlogin routine is
?C: available to get the login name.
?C:.
?H:#$d_getlogin HAS_GETLOGIN /**/
?H:.
?LINT:set d_getlogin
: see if getlogin exists
set getlogin d_getlogin
eval $inlibc

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/d_getlogin.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: Hasproto.U $
?RCS:
?RCS: Copyright (c) 1998 Andy Dougherty
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?X: This unit generates a $hasproto string that is used internally
?X: by Configure to check if this system has a prototype for a
?X: particular function
?X:
?X: To use it, say something like:
?X: set d_getnetent_proto getnetent $i_netdb netdb.h
?X: eval $hasproto
?X: Or, for more complicated sets of headers, do something like
?X: hdrs="$define sys/types.h
?X: $i_systime sys/time.h
?X: $i_sysselect sys/select.h
?X: $i_netdb netdb.h"
?X: set d_getnetent_proto getnetent $hdrs

```

?X: eval \$hasproto  
?X:  
?X: There is also an 'escape' hatch built in. If you have a pair  
?X: of args 'literal 'stuff' then 'stuff' gets included literally  
?X: into the test program. See Protochk.U for more details.

?X:

?MAKE:Hasproto:

Setvar cppstdin cppflags cppminus contains rm\_try test

?MAKE: -pick add \$@ %<

?T:func varname

?F:!try.c

?V:hasproto

: Define hasproto macro for Configure internal use

hasproto='varname=\$1; func=\$2; shift; shift;

while \$test \$# -ge 2; do

case "\$1" in

\$define) echo "#include <\$2>;";

literal) echo "\$2" ;;

esac ;

shift 2;

done > try.c;

\$cppstdin \$cppflags \$cppminus < try.c > tryout.c 2>/dev/null;

if \$contains "\$func.\*( " tryout.c >/dev/null 2>&1; then

echo "\$func() prototype found.";

val="\$define";

else

echo "\$func() prototype NOT found.";

val="\$undef";

fi;

set \$varname;

eval \$setvar;

\$rm\_try tryout.c'

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/protos/Hasproto.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: instubperl.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera \$

?RCS:

?RCS: Copyright (c) 1999, Jarkko Hietaniemi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:installusrbinperl: installbin cat bin Myread Setvar test Devel

?MAKE: -pick add \$@ %<

?LINT:set installusrbinperl

?Y:TOP

?S:installusrbinperl:

?S: This variable tells whether Perl should be installed also as

?S: /usr/bin/perl in addition to

?S: \$installbin/perl

?S:.

?C:INSTALL\_USR\_BIN\_PERL:

?C: This symbol, if defined, indicates that Perl is to be installed

?C: also as /usr/bin/perl.

?C:.

?H:#\$installusrbinperl INSTALL\_USR\_BIN\_PERL /\*\*/

?H:.

: determine

whether to install perl also as /usr/bin/perl

echo " "

if \$test -d /usr/bin -a "X\$installbin" != X/usr/bin; then

\$cat <<EOM

Many scripts expect perl to be installed as /usr/bin/perl.

If you want to, I can install the perl you are about to compile

as /usr/bin/perl (in addition to \$bin/perl).

EOM

if test -f /usr/bin/perl; then

\$cat <<EOM

However, please note that because you already have a /usr/bin/perl,  
overwriting that with a new Perl would very probably cause problems.  
Therefore I'm assuming you don't want to do that (unless you insist).

EOM

case "\$installusrbinperl" in

"\$define"|[yY]\*) dflt='y';;

\*) dflt='n';;

esac

else

\$cat <<EOM

Since you don't have a /usr/bin/perl I'm assuming creating one is okay.

EOM

case "\$installusrbinperl" in

"\$undef"|[nN]\*) dflt='n';;

\*) dflt='y';;

esac

```

fi
rp="Do you want to install perl as /usr/bin/perl?"
. ./myread
case "$ans" in
[yY]*) val="$define";;
*) val="$undef" ;;
esac
else
val="$undef"
fi
set
installusrbinperl
eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/instubperl.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Unix.U,v 3.0.1.1 1997/02/28 15:20:06 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: Unix.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:20:06 ram

?RCS: patch61: created

?RCS:

?X:

?X: The purpose of this unit is to define things that are common across all

?X: known UNIX platforms. If Configure is ported/used on a non-UNIX

?X: environment, then some of the following variables can be redefined in hint

?X: files.

?X:

?MAKE:Unix \_exe \_a \_o exe\_ext lib\_ext obj\_ext path\_sep \

firstmakefile archobjs rm\_try: Oldconfig rm

?MAKE: -pick add \$@ %<

?S:\_exe:

?S: This

variable defines the extension used for executable files.

?S: DJGPP, Cygwin and OS/2 use '.exe'. Stratus VOS uses '.pm'.

?S: On operating systems which do not require a specific extension

?S: for executable files, this variable is empty.

?S:.  
?S:\_a:  
?S: This variable defines the extension used for ordinary library files.  
?S: For unix, it is '.a'. The '.' is included. Other possible  
?S: values include '.lib'.  
?S:.  
?S:\_o:  
?S: This variable defines the extension used for object files.  
?S: For unix, it is '.o'. The '.' is included. Other possible  
?S: values include '.obj'.  
?S:.  
?S:firstmakefile:  
?S: This variable defines the first file searched by make. On unix,  
?S: it is makefile (then Makefile). On case-insensitive systems,  
?S: it might be something else. This is only used to deal with  
?S: convoluted make depend tricks.  
?S:.  
?S:archobjs:  
?S: This variable defines any additional objects that must be linked  
?S: in with the program on this architecture. On unix, it is usually  
?S: empty.  
It is typically used to include emulations of unix calls  
?S: or other facilities. For perl on OS/2, for example, this would  
?S: include os2/os2.obj.  
?S:.  
?X: Metaconfig's Obsolete symbol stuff is too over-eager. In the  
?X: perl sources, it picks up things like "P" and "FLOCK" that are  
?X: not used in the way Metaconfig thinks they are. Thus I can't  
?X: just declare these obsolete and then run metaconfig -o.  
?X: Instead, I'll just handle them here.  
?X: Sadly, history has conspired to give us a web of definitions;  
?X: this could have been much simpler.  
?S:lib\_ext:  
?S: This is an old synonym for \_a.  
?S:.  
?S:exe\_ext:  
?S: This is an old synonym for \_exe.  
?S:.  
?S:obj\_ext:  
?S: This is an old synonym for \_o.  
?S:.  
?S:path\_sep:  
?S: This is an old synonym for p\_ in Head.U, the character  
?S: used to separate elements in the command shell search PATH.  
?S:.  
?S:rm\_try:  
?S: This is a cleanup variable for try test programs.  
?S: Internal Configure use only.

```

?S:.
?LINT: change p_
?INIT::
 Trailing extension. Override this in a hint file, if needed.
?INIT:: Extra object files, if any, needed on this platform.
?INIT:archobjs="
: Define several unixisms.
: Hints files or command line option can be used to override them.
: The convoluted testing is in case hints files set either the old
: or the new name.
case "$_exe" in
") case "$exe_ext" in
") ;;
*) _exe="$exe_ext" ;;
esac
;;
esac
case "$_a" in
") case "$lib_ext" in
 "_a='.a';;
*) _a="$lib_ext" ;;
esac
;;
esac
case "$_o" in
") case "$obj_ext" in
 "_o='.o';;
*) _o="$obj_ext";;
esac
;;
esac
case "$p_" in
") case "$path_sep" in
 "p_=':':;
*) p_="$path_sep";;
esac
;;
esac
exe_ext=$_exe
lib_ext=$_a
obj_ext=$_o
path_sep=$p_

rm_try="$rm -f try try$_exe a.out .out try.[cho] try.$_o core core.try* try.core*"

@if firstmakefile
: Which makefile gets called first. This is used by make depend.
case "$firstmakefile" in

```

```
) firstmakefile='makefile';;
```

```
esac
```

```
@end
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Unix.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1998 Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:d_fseeko: Inlibc longsize
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_fseeko:
```

```
?S: This variable conditionally defines the HAS_FSEEKO symbol, which
```

```
?S: indicates to the C program that the fseeko() routine is available.
```

```
?S:.
```

```
?C:HAS_FSEEKO:
```

```
?C: This symbol, if defined, indicates that the fseeko routine is
```

```
?C: available to fseek beyond 32 bits (useful for ILP32 hosts).
```

```
?C:.
```

```
?H:#$d_fseeko HAS_FSEEKO /**/
```

```
?H:.
```

```
?LINT:set d_fseeko
```

```
: see if fseeko exists
```

```
set fseeko d_fseeko
```

```
eval $inlibc
```

```
case "$longsize" in
```

```
8) echo "(Your long is 64 bits, so you could use fseek.)" ;;
```

```
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_fseeko.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

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?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Copyright (c) 1998 Andy Dougherty  
?RCS:  
?RCS: Original author Jarkko Hietaniemi <jhi@iki.fi>  
?RCS: Merged into dist by Andy Dougherty July 13, 1998  
?RCS:  
?MAKE:trnl: Nothing  
?MAKE: -pick add \$@ %<  
?S:trnl:  
?S: This variable contains the value to be passed to the tr(1)  
?S: command to transliterate a newline. Typical values are  
?S: '\012' and '\n'. This is needed for EBCDIC systems where  
?S: newline is not necessarily '\012'.  
?S:.  
?T: DJGPP  
: Find the appropriate value for a newline for tr  
?X: We can't  
use \$tr since that would cause a circular dependency via Myread  
?X: dos djgpp uses '\015\012', but reportedly is happy with '\012' in the  
?X: tr command. I don't know why it passes the '\n' test but later  
?X: refuses to work correctly with it. --AD 6/14/98  
if test -n "\$DJGPP"; then  
trnl='\012'  
fi  
if test X"\$trnl" = X; then  
case "`echo foo | tr '\n' x 2>/dev/null`" in  
foox) trnl='\n' ;;  
esac  
fi  
if test X"\$trnl" = X; then  
case "`echo foo | tr '\012' x 2>/dev/null`" in  
foox) trnl='\012' ;;  
esac  
fi  
if test X"\$trnl" = X; then  
case "`echo foo | tr '\r\n' xy 2>/dev/null`" in  
fooxy) trnl='\n\r' ;;  
esac  
fi  
if test X"\$trnl" = X; then  
cat <<EOM >&2

\$me: Fatal Error: cannot figure out how to translate newlines with 'tr'.

EOM



```
exit 1
fi
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/trnl.U
```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_ erf: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_ erf:

?S: This variable conditionally defines the HAS\_ERF symbol, which

?S: indicates to the C program that the erf() routine is available.

?S:.

?C:HAS\_ERF:

?C: This symbol, if defined, indicates that the erf routine is

?C: available to do the error function.

?C:.

?H:#\$d\_ erf HAS\_ERF /\*\*/

?H:.

?LINT:set d\_ erf

: see if erf exists

set erf d\_ erf

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_ erf.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_ endhostent\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_ endhostent\_r endhostent\_r\_proto: Inlibc Protochk Hasproto i\_ systypes \  
 usethreads i\_ netdb extern\_C

?MAKE: -pick add \$@ %<

?S:d\_ endhostent\_r:

?S: This variable conditionally defines the HAS\_ENDHOSTENT\_R symbol,

?S: which indicates to the C program that the endhostent\_r()

?S: routine is available.

?S:  
?S:endhostent\_r\_proto:  
?S: This variable encodes the prototype of endhostent\_r.  
?S: It is zero if d\_endhostent\_r is undef, and one of the  
?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_endhostent\_r  
?S: is defined.  
?S:  
?C:HAS\_ENDHOSTENT\_R:  
?C: This symbol, if defined, indicates that the endhostent\_r routine  
?C: is  
available to endhostent re-entrantly.  
?C:  
?C:ENDHOSTENT\_R\_PROTO:  
?C: This symbol encodes the prototype of endhostent\_r.  
?C: It is zero if d\_endhostent\_r is undef, and one of the  
?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_endhostent\_r  
?C: is defined.  
?C:  
?H:#\$d\_endhostent\_r HAS\_ENDHOSTENT\_R /\*\*/  
?H:#define ENDHOSTENT\_R\_PROTO \$endhostent\_r\_proto /\*\*/  
?H:  
?T:try hdrs d\_endhostent\_r\_proto  
: see if endhostent\_r exists  
set endhostent\_r d\_endhostent\_r  
eval \$inlibc  
case "\$d\_endhostent\_r" in  
"\$define")  
hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_netdb netdb.h"  
case "\$d\_endhostent\_r\_proto:\$usetthreads" in  
":define") d\_endhostent\_r\_proto=define  
set d\_endhostent\_r\_proto endhostent\_r \$hdrs  
eval \$hasproto ;;  
\*) ;;  
esac  
case "\$d\_endhostent\_r\_proto" in  
define)  
case "\$endhostent\_r\_proto" in  
"|0) try='int endhostent\_r(struct hostent\_data\*);'  
./protochk "\$extern\_C \$try" \$hdrs && endhostent\_r\_proto=I\_D ;;  
esac  
case "\$endhostent\_r\_proto" in  
"|0) try='void endhostent\_r(struct  
hostent\_data\*);'  
./protochk "\$extern\_C \$try" \$hdrs && endhostent\_r\_proto=V\_D ;;  
esac  
case "\$endhostent\_r\_proto" in  
"|0) d\_endhostent\_r=undef  
endhostent\_r\_proto=0

```

echo "Disabling endhostent_r, cannot determine prototype." >&4 ;;
*) case "$endhostent_r_proto" in
REENTRANT_PROTO*) ;;
*) endhostent_r_proto="REENTRANT_PROTO_$endhostent_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "endhostent_r has no prototype, not using it." >&4 ;;
esac
d_endhostent_r=undef
endhostent_r_proto=0
;;
esac
;;
*) endhostent_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_endhostent_r.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_tcgetpgrp.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_tcgetpgrp.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:12:08 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_tcgetpgrp: Inlibc
?MAKE:-pick add $@ %<
?S:d_tcgetpgrp:
?S: This variable conditionally defines the HAS_TCGETPGRP symbol, which
?S: indicates to the C program that the tcgetpgrp() routine is available.
?S: to get foreground process group ID.
?S:..

```

?C:HAS\_TCGETPGRP

:

?C: This symbol, if defined, indicates that the tcgetpgrp routine is

?C: available to get foreground process group ID.

?C:.

?H:#\$d\_tcgetpgrp HAS\_TCGETPGRP /\*\*/

?H:.

?LINT:set d\_tcgetpgrp

: see if tcgetpgrp exists

set tcgetpgrp d\_tcgetpgrp

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_tcgetpgrp.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: errnolist.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:48:01 ram

?RCS: patch61: replaced .a with \$\_a all over the place

?RCS: patch61: likewise for .o replaced by \$\_o

?RCS:

?RCS: Revision 3.0.1.1 1994/01/24 14:10:54 ram

?RCS: patch16: created

?RCS:

?MAKE:errnolist errnolist\_SH errnolist\_a errnolist\_c errnolist\_o: cat +cc \

+ccflags +libs +d\_sysernlst\_a\_o

?MAKE: -pick add \$@ %<

?S:errnolist:

?S: This variable holds the base name of a file containing the

?S: definition of the sys\_errnolist

array, if the C library

?S: doesn't provide it already. Otherwise, its value is empty.

?S: The following lines should be included in your Makefile.SH:

?S:

?S: case "\$errnolist" in

?S: ") ;;

?S: \*)

```

?S: $spitshell >>Makefile <<!GROK!THIS!
?S: $errnolist_c: $errnolist_SH $errnolist_a
?S: sh ./$errnolist_SH
?S:
?S: !GROK!THIS!
?S: ;;
?S: esac
?S:
?S: You may define the 'errnolist' variable in your Myinit.U if you
?S: wish to override its default value "errnolist".
?S:.
?S:errnolist_SH:
?S: This is the name of a file which will generate errnolistic.
?S:.
?S:errnolist_a:
?S: This is the name of the awk script called by errnolist_SH.
?S:.
?S:errnolist_c:
?S: This is the name of a generated C file which provides the
?S: definition of the sys_errnolist array.
?S:.
?S:errnolist_o:
?S: This is the name of the object file which provides the
?S: definition of the sys_errnolist array, if the C library
?S: doesn't provide it already. Otherwise, its value is empty.
?S:.
?INIT:errnolist=errnolist
:
check for sys_errnolist
@if d_sysernlst || HAS_SYS_ERRNOLIST
case "$d_sysernlst" in
"$define")
errnolist="
errnolist_SH="
errnolist_a="
errnolist_c="
errnolist_o="
;;
*)
echo " "
echo "I'll make sure your Makefile provides sys_errnolist in $errnolist.c"
errnolist_SH=$errnolist.SH
errnolist_a=$errnolist$_a
errnolist_c=$errnolist.c
errnolist_o=$errnolist$_o
;;
esac
@else

```

```

echo " "
$cat <<EOM
Checking to see if your C library provides us with sys_errnolist[...]
EOM
$cat >errnolist.c <<'EOCP'
extern char *sys_errnolist[];
int main() {
 char *p0 = sys_errnolist[0];
 char *p1 = sys_errnolist[1];

 return (p0 == p1); /* Make sure they're not optimized away */
}
EOCP
if $cc $ccflags -o errnolist errnolist.c $libs >/dev/null 2>&1 ; then
 echo "It does."
 errnolist="
 errnolist_SH="
 errnolist_a="
 errnolist_c="
 errnolist_o="
else
 echo "I'll make sure your Makefile provides sys_errnolist in $errnolist.c"

 errnolist_SH=$errnolist.SH
 errnolist_a=$errnolist$_a
 errnolist_c=$errnolist.c
 errnolist_o=$errnolist$_o
fi
@end

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/errnolist.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_getpent.U,v 3.0 1993/08/18 12:06:09 ram Exp $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: d_getpent.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:06:09 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```

?RCS:
?MAKE:d_getpent: Inlibc
?MAKE: -pick add $@ %<
?S:d_getpent:
?S: This variable conditionally defines HAS_GETPROTOENT if getprotoent() is
?S: available to look up protocols in some data base or another.
?S:.
?C:HAS_GETPROTOENT:
?C: This symbol, if defined, indicates that the getprotoent() routine is
?C: available to look up protocols in some data base
or another.
?C:.
?H:#$d_getpent HAS_GETPROTOENT /**/
?H:.
?LINT:set d_getpent
: see if getprotoent exists
set getprotoent d_getpent
eval $inlibc

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/modified/d_getpent.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: Setprefixvar.U,v 3.0 2006/04/01 17:25:29 hmbrand $
?RCS:
?RCS: Copyright (c) 2006-2006, H.Merijn Brand & Nicholas Clark
?RCS:
?RCS: This file is included with or a derivative work of a file included
?RCS: with the metaconfig program of Raphael Manfredi's "dist" distribution.
?RCS: In accordance with clause 7 of dist's modified Artistic License:
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?X:
?X: This unit sets up the scripts installprefix and setprefixvar, so code
?X: in other parts can be more simple and maintainable
?X:
?MAKE:Setprefixvar: Myread Getfile startsh eunicefix test \
prefix prefixexp installprefix installprefixexp
?MAKE: -pick add $@ %<
?LINT:extern prefixvar
?X: metalint still sees "`\${prefixvar}exp`" as variable :(
?T:prefixvarexp
?F:./setprefixvar
?F:./installprefix
: Perform

```

```

the prefixexp/installprefixexp correction if necessary
cat <<EOS >installprefix
$startsh
EOS
cat <<'EOESC' >>installprefix
: Change installation prefix, if necessary.
if $test X"$prefix" != X"$installprefix"; then
 eval "install${prefixvar}=\`echo \${$prefixvar}exp | sed \"s#^\${prefixexp#\$installprefixexp#\"`\"
else
 eval "install${prefixvar}=\\"$${prefixvar}exp\"
fi
EOESC
chmod +x installprefix
$eunicefix installprefix

```

```

: Set variables such as privlib and privlibexp from the output of ./getfile
: performing the prefixexp/installprefixexp correction if necessary.

```

```

cat <<EOS >setprefixvar
$startsh
EOS
cat <<'EOESC' >>setprefixvar
eval "${prefixvar}=\\"$ans\"
eval "${prefixvar}exp=\\"$ansexp\"
. ./installprefix
EOESC
chmod +x setprefixvar
$eunicefix setprefixvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/Setprefixvar.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: Myinit.U,v 3.0 1993/08/18 12:05:07 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: This file is included with or a derivative work of a file included
?RCS: with the metaconfig program of Raphael Manfredi's "dist" distribution.
?RCS: In accordance with clause 7 of dist's modified Artistic License:
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?RCS: $Log: Myinit.U,v $
?RCS: Revision 3.0 1993/08/18 12:05:07 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:

```



?X:  
?X: If you want to initialize any default values, copy this unit to your  
?X: personal U directory and add the assignments to the end. This file  
?X: is included after variables are initialized but before any old  
?X: config.sh file is read in and before any Configure switch processing.  
?X:  
?MAKE:Myinit  
libswanted: Init  
?MAKE: -pick add \$@ %<  
?S:libswanted:  
?S: This variable holds a list of all the libraries we want to  
?S: search. The order is chosen to pick up the c library  
?S: ahead of ucb or bsd libraries for SVR4.  
?S:.  
?LINT:extern usevfork glibpth  
?LINT:change usevfork glibpth  
: List of libraries we want.  
?X: Put crypt here, even though I should really fix d\_crypt.U to look  
?X: for it correctly, including possible shared library versions.  
: If anyone needs extra -lxxx, put those in a hint file.  
libswanted="cl pthread socket bind inet nsl ndbm gdbm dbm db malloc dl ld"  
libswanted="\$libswanted sun m crypt sec util c posix posix ucb bsd BSD"  
: We probably want to search /usr/shlib before most other libraries.  
: This is only used by the lib/ExtUtils/MakeMaker.pm routine extliblist.  
glibpth=`echo " \$glibpth " | sed -e 's! /usr/shlib ! !`  
glibpth="/usr/shlib \$glibpth"  
: Do not use vfork unless overridden by a hint file.  
usevfork=false

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Myinit.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_endsent.U,v 3.0 1993/08/18 12:06:09 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: d\_endsent.U,v \$

?RCS: Revision 3.0 1993/08/18 12:06:09 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_endsent: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_endsent:  
?S: This variable conditionally defines HAS\_ENDSERVENT if endservent() is  
?S: available to close whatever was being used for service queries.  
?S:.  
?C:HAS\_ENDSERVENT:  
?C: This symbol, if defined, indicates that the endservent() routine is  
?C: available to close whatever was being used for  
service queries.  
?C:.  
?H:#\$d\_endsent HAS\_ENDSERVENT /\*\*/  
?H:.  
?LINT:set d\_endsent  
: see if endservent exists  
set endservent d\_endsent  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_endsent.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:usemultiplicity: useithreads Myread Oldconfig Setvar

?MAKE: -pick add \$@ %<

?Y:TOP

?S:usemultiplicity:

?S: This variable conditionally defines the MULTIPLICITY symbol,

?S: and indicates that Perl should be built to use multiplicity.

?S:.

?C:MULTIPLICITY:

?C: This symbol, if defined, indicates that Perl should

?C: be built to use multiplicity.

?C:.

?H:?%<:#ifndef MULTIPLICITY

?H:?%<:#\$usemultiplicity MULTIPLICITY /\*\*/  
?H:?%<:#endif

?H:.

?H:.

?LINT:set usemultiplicity

?INIT:: set usemultiplicity on the Configure command line to enable multiplicity.

: Check if multiplicity is required

?X: We should really have some explanatory text here, and some

?X: automatic setting of sensible defaults.

cat <<EOM

Perl

can be built so that multiple Perl interpreters can coexist

within the same Perl executable.

EOM

```
case "$useithreads" in
```

```
$define)
```

```
cat <<EOM
```

This multiple interpreter support is required for interpreter-based threads.

EOM

```
val="$define"
```

```
::
```

```
*) case "$usemultiplicity" in
```

```
$define|true|[yY]*) dflt='y';;
```

```
*) dflt='n';;
```

```
esac
```

```
echo " "
```

```
echo "If this doesn't make any sense to you, just accept the default '$dflt'."
```

```
rp='Build Perl for multiplicity?'
```

```
. ./myread
```

```
case "$ans" in
```

```
y|Y) val="$define" ;;
```

```
*) val="$undef" ;;
```

```
esac
```

```
::
```

```
esac
```

```
set usemultiplicity
```

```
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/usemultiplicity.U
```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_trunc: Inlibc

?MAKE:-pick add \$@ %<

?S:d\_trunc:

?S: This variable conditionally defines the HAS\_TRUNC symbol, which

?S: indicates to the C program that the trunc() routine is available

?S: to round doubles towards zero.

?S:.

?C:HAS\_TRUNC:

?C: This symbol, if defined, indicates that the trunc routine is

?C: available to round doubles towards zero.

?C:.

?H:#\$d\_trunc HAS\_TRUNC /\*\*/

?H:.

?LINT:set d\_trunc

: see if trunc exists

set trunc d\_trunc

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_trunc.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_crypt\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_crypt\_r crypt\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
usethreads i\_crypt extern\_C

?MAKE: -pick add \$@ %<

?S:d\_crypt\_r:

?S: This variable conditionally defines the HAS\_CRYPT\_R symbol,

?S: which indicates to the C program that the crypt\_r()

?S: routine is available.

?S:.

?S:crypt\_r\_proto:

?S: This variable encodes the prototype of crypt\_r.

?S: It is zero if d\_crypt\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_crypt\_r

?S: is defined.

?S:.

?C:HAS\_CRYPT\_R:

?C: This symbol, if defined, indicates that the crypt\_r routine

?C: is available to crypt re-entrantly.

?C:.

?C:CRYPT\_R\_PROTO:

?C: This

symbol encodes the prototype of crypt\_r.

?C: It is zero if d\_crypt\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_crypt\_r

?C: is defined.

```

?C:.
?H:#$d_crypt_r HAS_CRYPT_R /**/
?H:#define CRYPT_R_PROTO $crypt_r_proto /**/
?H:.
?T:try hdrs d_crypt_r_proto
: see if crypt_r exists
set crypt_r d_crypt_r
eval $inlibc
case "$d_crypt_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_crypt crypt.h"
case "$d_crypt_r_proto:$usethreads" in
":define") d_crypt_r_proto=define
set d_crypt_r_proto crypt_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_crypt_r_proto" in
define)
case "$crypt_r_proto" in
"|0) try='char* crypt_r(const char*, const char*, struct crypt_data*);'
./protochk "$extern_C $try" $hdrs && crypt_r_proto=B_CCS ;;
esac
case "$crypt_r_proto" in
"|0) try='char* crypt_r(const char*, const char*, CRYPTD*);'
./protochk "$extern_C $try" $hdrs && crypt_r_proto=B_CCD ;;
esac
case "$crypt_r_proto" in
"|0) d_crypt_r=undef
crypt_r_proto=0
echo
"Disabling crypt_r, cannot determine prototype." >&4 ;;
*) case "$crypt_r_proto" in
REENTRANT_PROTO*) ;;
*) crypt_r_proto="REENTRANT_PROTO_$crypt_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usethreads" in
define) echo "crypt_r has no prototype, not using it." >&4 ;;
esac
d_crypt_r=undef
crypt_r_proto=0
;;
esac
;;
*) crypt_r_proto=0

```

```
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_crypt_r.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_setlocale.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_setlocale.U,v $
?RCS: Revision 3.0.1.1 1994/06/20 06:57:51 ram
?RCS: patch30: created
?RCS:
?MAKE:d_setlocale: Inlibc
?MAKE: -pick add $@ %<
?S:d_setlocale:
?S: This variable conditionally defines HAS_SETLOCALE if setlocale() is
?S: available to handle locale-specific ctype implementations.
?S:.
?C:HAS_SETLOCALE:
?C: This symbol, if defined, indicates that the setlocale
?C: routine is
?C: available to handle locale-specific ctype implementations.
?C:.
?H:#$d_setlocale HAS_SETLOCALE /**/
?H:.
?LINT:set d_setlocale
: see if setlocale exists
set setlocale d_setlocale
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_setlocale.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_sysvfs.U,v $
```

?RCS:  
?RCS: Copyright (c) 1999 Jarkko Hietaniemi  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:i\_sysvfs: Inhdr Hasfield  
?MAKE: -pick add \$@ %<  
?S:i\_sysvfs:  
?S: This variable conditionally defines the I\_SYSVFS symbol,  
?S: and indicates whether a C program should include <sys/vfs.h>.  
?S:.  
?C:I\_SYS\_VFS:  
?C: This symbol, if defined, indicates that <sys/vfs.h> exists and  
?C: should be included.  
?C:.  
?H:#\$i\_sysvfs I\_SYS\_VFS /\*\*/  
?H:.  
?LINT:set i\_sysvfs  
: see if this is a sys/vfs.h system  
set sys/vfs.h i\_sysvfs  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_sysvfs.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1997, Chip Salzenberg  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: sh.U,v \$  
?RCS: Revision 3.0.1.1 1997/02/28 16:20:13 ram  
?RCS: patch61: created  
?RCS:  
?MAKE:sh: Head  
?MAKE: -pick wipe \$@ %<  
?S:sh:  
?S: This variable contains the full pathname of the shell used  
?S: on this system to execute Bourne shell scripts. Usually, this will be

?S: /bin/sh, though it's possible that some systems will have /bin/ksh,

?S: /bin/pdksh, /bin/ash, /bin/bash, or even something such as

?S: D:/bin/sh.exe.

?S: This unit comes before Options.U,

so you can't set sh with a -D

?S: option, though you can override this (and startsh)

?S: with -O -Dsh=/bin/whatever -Dstartsh=whatever

?S:.

?C:SH\_PATH:

?C: This symbol contains the full pathname to the shell used on this

?C: on this system to execute Bourne shell scripts. Usually, this will be

?C: /bin/sh, though it's possible that some systems will have /bin/ksh,

?C: /bin/pdksh, /bin/ash, /bin/bash, or even something such as

?C: D:/bin/sh.exe.

?C:.

?H:#define SH\_PATH "\$sh" /\*\*/

?H:.

?T:xxx try pth p SYSTYPE

?LINT:extern maintloc maintname

?X:

?X: Be quiet unless something unusual happens because this gets

?X: loaded up even before options are processed.

?X: Can't use ./loc because that depends on startsh, which, in turn

?X: depends on this unit.

?X:

: Find the basic shell for Bourne shell scripts

case "\$sh" in

)

?X: SYSTYPE is for some older MIPS systems.

?X: I do not know if it is still needed.

case "\$SYSTYPE" in

\*bsd\*|sys5\*) xxx="/\$SYSTYPE/bin/sh";;

\*) xxx='/bin/sh';;

esac

if

test -f "\$xxx"; then

sh="\$xxx"

else

: Build up a list and do a single loop so we can 'break' out.

pth=`echo \$PATH | sed -e "s/\$p\_/ /g"`

for xxx in sh bash ksh pdksh ash; do

for p in \$pth; do

try="\$try \${p}/\${xxx}"

done

done

for xxx in \$try; do

if test -f "\$xxx"; then

sh="\$xxx"



```
break
elif test -f "xxx_exe"; then
sh="$xxx"
break
elif test -f "$xxx.exe"; then
sh="$xxx"
break
fi
done
fi
;;
esac
```

?X: fd 4 isn't open yet...

```
case "$sh" in
```

```
) cat >&2 <<EOM
```

\$me: Fatal Error: I can't find a Bourne Shell anywhere.

Usually it's in /bin/sh. How did you even get this far?

Please contact me (<\$maintname>) at <\$maintloc> and

we'll try to straighten this all out.

```
EOM
```

```
exit 1
```

```
::
```

```
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/sh.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2001 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_socketmark: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_socketmark:

?S: This variable conditionally defines the HAS\_SOCKETMARK symbol, which

?S: indicates to the C program that the socketmark() routine is available.

?S:.

?C:HAS\_SOCKETMARK:

?C: This symbol, if defined, indicates that the socketmark routine is

?C: available to test whether a socket is at the out-of-band mark.

?C:.

```
?H:#$d_socketmark HAS_SOCKETMARK /**/
```

```
?H:.
```

```
?LINT:set d_socketmark
```

```
: see if socketmark exists
```

```
set socketmark d_socketmark
```

```
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_socketmark.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Copyright (c) 2005-2007 H.Merijn Brand
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:d_libm_lib_version: Compile cat run rm_try
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_libm_lib_version:
```

```
?S: This variable conditionally defines the LIBM_LIB_VERSION symbol,
```

```
?S: which indicates to the C program that math.h defines _LIB_VERSION
```

```
?S: being available in libm
```

```
?S:.
```

```
?C:LIBM_LIB_VERSION:
```

```
?C: This symbol, if defined, indicates that libm exports _LIB_VERSION
```

```
?C: and that math.h defines the enum to manipulate it.
```

```
?C:.
```

```
?H:#$d_libm_lib_version LIBM_LIB_VERSION /**/
```

```
?H:.
```

```
?T:foo
```

```
?F:!try
```

```
: check to see if math.h defines _LIB_VERSION
```

```
d_libm_lib_version="$undef"
```

```
echo " "
```

```
echo "Checking to see if your libm supports _LIB_VERSION...">&4
```

```
$cat >try.c <<EOCP
```

```
#include <unistd.h>
```

```
#include <math.h>
```

```
int main (int argc, char *argv[])
```

```
{
```

```
 printf ("%d\n", _LIB_VERSION);
```

```
 return (0);
```

```
 } /* main */
```

```
EOCP
```

```
set try
```

```
if eval $compile; then
```

```
 foo=`$run ./try`
```

```
echo "Yes, it does ($foo)" >&4
d_libm_lib_version="$define"
else
echo "No, it does not (probably harmless)" >&4
fi
$rm_try
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_libm_lib_version.U
```

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?RCS:

?RCS: \$Log: i\_time.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:45 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit finds which "time" include to use. If 'timezone' is used by the

?X: program, we also try to find which header should be included. Eventually,

?X: we look for <sys/select.h> if I\_SYSSSELECT is used, to get struct timeval.

?X:

?MAKE:i\_time i\_systime i\_systimek timeincl: cat cc cflags contains rm\_try \

echo n c +i\_sysselect Findhdr

?MAKE: -pick add \$@ %<

?S:i\_time:

?S: This

variable conditionally defines I\_TIME, which indicates

?S: to the C program that it should include <time.h>.

?S:.

?S:i\_systime:

?S: This variable conditionally defines I\_SYS\_TIME, which indicates

?S: to the C program that it should include <sys/time.h>.

?S:.

?S:i\_systimek:

?S: This variable conditionally defines I\_SYS\_TIME\_KERNEL, which

?S: indicates to the C program that it should include <sys/time.h>

?S: with KERNEL defined.

?S:.

```

?S:timeincl:
?S: This variable holds the full path of the included time header(s).
?S:.
?C:I_TIME (USE_TIME_H):
?C: This symbol, if defined, indicates to the C program that it should
?C: include <time.h>.
?C:.
?C:I_SYS_TIME (I_SYSTIME USE_SYS_TIME_H NO_TIME_WITH_SYS_TIME):
?C: This symbol, if defined, indicates to the C program that it should
?C: include <sys/time.h>.
?C:.
?C:I_SYS_TIME_KERNEL (I_SYSTIMEKERNEL):
?C: This symbol, if defined, indicates to the C program that it should
?C: include <sys/time.h> with KERNEL defined.
?C:.
?H:#$i_time I_TIME /**/
?H:#$i_systime
I_SYS_TIME /**/
?H:#$i_systimek I_SYS_TIME_KERNEL /**/
?H:.
?W::timezone
?T:xselect flags sysselect s_timeval s_timezone
?LINT:change i_sysselect
: see if we should include time.h, sys/time.h, or both
echo " "
echo "Testing to see if we should include <time.h>, <sys/time.h> or both." >&4
$echo $n "I'm now running the test program...$c"
$cat >try.c <<'EOCP'
#include <sys/types.h>
#ifdef I_TIME
#include <time.h>
#endif
#ifdef I_SYSTIME
#ifdef SYSTIMEKERNEL
#define KERNEL
#endif
#include <sys/time.h>
#endif
#ifdef I_SYSSELECT
#include <sys/select.h>
#endif
int main()
{
 struct tm foo;
#ifdef S_TIMEVAL
 struct timeval bar;
#endif
#ifdef S_TIMEZONE

```

```

struct timezone tzp;
#endif
if (foo.tm_sec == foo.tm_sec)
 exit(0);
#endif S_TIMEVAL
if (bar.tv_sec == bar.tv_sec)
 exit(0);
#endif
exit(1);
}
EOCP
flags="
@if I_SYSSELECT
if $contains 'timeval.*{' `./findhdr sys/select.h` >/dev/null 2>&1; then
 xselect='-DI_SYSSELECT'
else
 xselect="
fi
@end
@if timezone
for s_timezone
in '-DS_TIMEZONE' "; do
@else
s_timezone="
@end
?X: Every package is given a try with 'struct timeval'
@if I_SYSSELECT
for sysselect in $xselect "; do
@else
sysselect="
@end
for s_timeval in '-DS_TIMEVAL' "; do
for i_systimek in "-DSYSTEMEKERNEL"; do
for i_time in "-DI_TIME"; do
for i_systime in '-DI_SYSTIME' "; do
case "$flags" in
") $echo $n ". $c"
if $cc $ccflags \
 $i_time $i_systime $i_systimek $sysselect $s_timeval $s_timezone \
-o try try.c >/dev/null 2>&1 ; then
 set X $i_time $i_systime $i_systimek $sysselect $s_timeval
 shift
 flags="$*"
 echo " "
 $echo $n "Succeeded with $flags$c"
fi
;;
esac

```

```

done
done
done
done
@if I_SYSSELECT
done
@end
@if timezone
done
@end
timeincl="
echo " "
case "$flags" in
SYSTIMEKERNEL) i_systimek="$define"
timeincl=`./findhdr sys/time.h`
echo "We'll include <sys/time.h> with KERNEL defined." >&4;;
*) i_systimek="$undef";;
esac
case "$flags" in
I_TIME) i_time="$define"
timeincl=`./findhdr time.h`" $timeincl"
echo
"We'll include <time.h>." >&4;;
*) i_time="$undef";;
esac
case "$flags" in
I_SYSTIME) i_systime="$define"
timeincl=`./findhdr sys/time.h`" $timeincl"
echo "We'll include <sys/time.h>." >&4;;
*) i_systime="$undef";;
esac
@if I_SYSSELECT
case "$flags" in
I_SYSSELECT) i_syssselct="$define"
timeincl=`./findhdr sys/select.h`" $timeincl"
echo "We'll also include <sys/select.h> to get struct timeval." >&4;;
*) case "$i_syssselct" in
") i_syssselct="$undef";;
esac
esac
@end
$rm_try

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_time.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_keypad.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_keypad.U,v $
?RCS: Revision 3.0 1993/08/18 12:05:50 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_keypad: cat cc termlib Setvar
?MAKE: -pick add $@ %<
?S:d_keypad:
?S: This variable controls the definition of HAS_CURSES_KEYPAD,
?S: which tells the application that the keypad() curses function
?S: is available.
?S:.
?C:HAS_CURSES_KEYPAD:
?C: This symbol indicates the availability of the keypad() function
?C: of the curses library.
?C:.
?H:#$d_keypad
HAS_CURSES_KEYPAD /**/
?H:.
?LINT:set d_keypad
: check for the "keypad()" function in the curses library
echo " "
case "$termlib" in
")
echo "You don't have a curses library, so I won't waste time looking" >&4
echo "to see if has the keypad() function." >&4
*)
echo "Checking the curses library ($termlib) for the keypad() function..." >&4
$cat >c_keypad.c <<'EOCP'
#include <curses.h>
int main() {
keypad(stdscr, TRUE);
exit(0);
}
EOCP
if $cc c_keypad.c >c_keypad.out 2>&1 ; then
val=$define
echo "It appears to have the keypad() function."
else

```

```
val=$undef
echo "Your curses library doesn't appear to have the keypad() function."
fi
esac
set d_keypad
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_keypad.U
```

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?RCS:

?MAKE:d\_socks5\_init: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_socks5\_init:

?S: This variable conditionally defines the HAS\_SOCKS5\_INIT symbol, which

?S: indicates to the C program that the socks5\_init() routine is available.

?S:.

?C:HAS\_SOCKS5\_INIT:

?C: This symbol, if defined, indicates that the socks5\_init routine is

?C: available to initialize SOCKS 5.

?C:.

?H:#\$d\_socks5\_init HAS\_SOCKS5\_INIT /\*\*/

?H:.

?LINT:set d\_socks5\_init

: see if socks5\_init exists

set socks5\_init d\_socks5\_init

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_socks5_init.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getservbyport\_r.U,v 0RCS:

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?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.



```

?RCS:
?MAKE:d_getservbyport_r getservbyport_r_proto: Inlibc Protochk Hasproto \
i_systypes usethreads i_netdb extern_C
?MAKE: -pick add $@ %<
?S:d_getservbyport_r:
?S: This variable conditionally defines the HAS_GETSERVBYPORTR symbol,
?S: which indicates to the C program that the getservbyport_r()
?S: routine is available.
?S:.
?S:getservbyport_r_proto:
?S: This variable encodes the prototype of getservbyport_r.
?S: It is zero if d_getservbyport_r is undef, and one of the
?S: REENTRANT_PROTO_T_ABC macros of reentr.h if d_getservbyport_r
?S: is defined.
?S:.
?C:HAS_GETSERVBYPORTR:
?C: This symbol, if defined, indicates
that the getservbyport_r routine
?C: is available to getservbyport re-entrantly.
?C:.
?C:GETSERVBYPORTR_PROTO:
?C: This symbol encodes the prototype of getservbyport_r.
?C: It is zero if d_getservbyport_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_getservbyport_r
?C: is defined.
?C:.
?H:#$d_getservbyport_r HAS_GETSERVBYPORTR /**/
?H:#define GETSERVBYPORTR_PROTO $getservbyport_r_proto /**/
?H:.
?T:try hdrs d_getservbyport_r_proto
: see if getservbyport_r exists
set getservbyport_r d_getservbyport_r
eval $inlibc
case "$d_getservbyport_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_netdb netdb.h"
case "$d_getservbyport_r_proto:$usethreads" in
":define") d_getservbyport_r_proto=define
set d_getservbyport_r_proto getservbyport_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_getservbyport_r_proto" in
define)
case "$getservbyport_r_proto" in
"|0) try='int getservbyport_r(int, const char*, struct servent*, char*, size_t,
struct servent**);'
./protochk "$extern_C $try" $hdrs && getservbyport_r_proto=I_ICSBWR ;;

```

```

esac
case "$getservbyport_r_proto" in
"|0) try='struct servent* getservbyport_r(int, const char*, struct servent*, char*, int);'
./protochk "$extern_C $try" $hdrs && getservbyport_r_proto=S_ICCSBI ;;
esac
case "$getservbyport_r_proto" in
"|0) try='int getservbyport_r(int, const char*, struct servent*, struct servent_data*);'
./protochk "$extern_C $try" $hdrs && getservbyport_r_proto=I_ICSD ;;
esac
case "$getservbyport_r_proto" in
"|0) d_getservbyport_r=undef
getservbyport_r_proto=0
echo "Disabling getservbyport_r, cannot determine prototype." >&4 ;;
*) case "$getservbyport_r_proto" in
REENTRANT_PROTO*) ;;
*) getservbyport_r_proto="REENTRANT_PROTO_${getservbyport_r_proto}" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "getservbyport_r has no prototype, not using it." >&4 ;;
esac
d_getservbyport_r=undef
getservbyport_r_proto=0
;;
esac
;;
*) getservbyport_r_proto=0
;;
esac

```

Found

in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_getservbyport\_r.U

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?RCS: \$Id: d\_getnbyad.U,v \$

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?RCS:

?MAKE:d\_getnbyname: Inlibc

?MAKE:-pick add \$@ %<

?S:d\_getnbyname:

?S: This variable conditionally defines the HAS\_GETNETBYNAME symbol, which  
?S: indicates to the C program that the getnetbyname() routine is available  
?S: to look up networks by their names.  
?S:.  
?C:HAS\_GETNETBYNAME:  
?C: This symbol, if defined, indicates that the getnetbyname() routine is  
?C: available to look up networks by their names.  
?C:.  
?H:#\$d\_getbyname HAS\_GETNETBYNAME /\*\*/  
?H:.  
?LINT:set d\_getbyname  
: see if getnetbyname exists  
set getnetbyname d\_getbyname  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_getbynym.U

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?RCS:

?RCS: \$Log: d\_safebcpy.U,v \$

?RCS: Revision 3.0.1.4 1997/02/28 15:40:58 ram

?RCS: patch61: improved overlapping copy check

?RCS: patch61: comfort them if they have memmove

?RCS: patch61: added ?F: metalint hint

?RCS:

?RCS: Revision 3.0.1.3 1995/07/25 13:58:40 ram

?RCS: patch56: re-arranged compile line to include ldflags before objects

?RCS:

?RCS: Revision 3.0.1.2 1995/01/11 15:29:23 ram

?RCS: patch45: added 'ldflags' to the test compile line (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/05/06 14:49:03

ram

?RCS: patch23: ensure string is not optimized in read-only memory (ADO)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:06:58 ram

?RCS: Baseline for dist 3.0 netwide release.

```

?RCS:
?MAKE:d_safebcopy: cat d_bcopy +cc +optimize +ccflags +ldflags +libs rm \
d_memmove i_memory i_stdlib i_string i_unistd Oldconfig Setvar
?MAKE: -pick add $@ %<
?S:d_safebcopy:
?S: This variable conditionally defines the HAS_SAFE_BCOPY symbol if
?S: the bcopy() routine can do overlapping copies.
?S:.
?C:HAS_SAFE_BCOPY (SAFE_BCOPY):
?C: This symbol, if defined, indicates that the bcopy routine is available
?C: to copy potentially overlapping memory blocks. Otherwise you should
?C: probably use memmove() or memcpy(). If neither is defined, roll your
?C: own version.
?C:.
?H:#$d_safebcopy HAS_SAFE_BCOPY /**/
?H:.
?F:!safebcopy
?LINT: set d_safebcopy
: can bcopy handle overlapping blocks?
?X: assume the worst
val="$undef"
case "$d_bcopy" in
"$define")
echo " "
echo "Checking to see if your bcopy() can do overlapping
copies..." >&4
$cat >foo.c <<EOCP
#$i_memory I_MEMORY
#$i_stdlib I_STDLIB
#$i_string I_STRING
#$i_unistd I_UNISTD
EOCP
$cat >>foo.c <<'EOCP'
#include <stdio.h>
#ifdef I_MEMORY
include <memory.h>
#endif
#ifdef I_STDLIB
include <stdlib.h>
#endif
#ifdef I_STRING
include <string.h>
#else
include <strings.h>
#endif
#ifdef I_UNISTD
include <unistd.h> /* Needed for NetBSD */
#endif

```

```

int main()
{
char buf[128], abc[128];
char *b;
int len;
int off;
int align;

?X: Copy "abcde..." string to char abc[] so that gcc doesn't
?X: try to store the string in read-only memory.
bcopy("abcdefghijklmnopqrstuvwxy0123456789", abc, 36);

```

```

for (align = 7; align >= 0; align--) {
for (len = 36; len; len--) {
b = buf+align;
bcopy(abc, b, len);
for (off = 1; off <= len; off++) {
bcopy(b, b+off, len);
bcopy(b+off, b, len);
if (bcmp(b, abc, len))
exit(1);
}
}
}
exit(0);
}

```

EOCP

```

if $cc $optimize $ccflags $ldflags \
-o safebcpy foo.c $libs >/dev/null 2>&1; then
if ./safebcpy
2>/dev/null; then
echo "Yes, it can."
val="$define"
else
echo "It can't, sorry."
case "$d_memmove" in
"$define") echo "But that's Ok since you have memmove()." ;;
esac
fi
else
echo "(I can't compile the test program, so we'll assume not...)"
case "$d_memmove" in
"$define") echo "But that's Ok since you have memmove()." ;;
esac
fi
;;
esac
$rm -f foo.* safebcpy core

```

```
set d_safebcpy
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_safebcpy.U
```

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```
?RCS: $Id: Begin.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: Begin.U,v $
```

```
?RCS: Revision 3.0.1.3 1997/02/28 14:56:35 ram
```

```
?RCS: patch61: added Extractall dependency
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.2 1995/01/30 14:25:08 ram
```

```
?RCS: patch49: avoid an empty rmlist: systems might choke on it (WED)
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.1 1994/10/31 09:32:20 ram
```

```
?RCS: patch44: created
```

```
?RCS:
```

```
?X:
```

```
?X: This file comes after option processing had been done and after all
```

```
?X: the default values have been set up. It marks the beginning
```

```
of questions.
```

```
?X: It is important that Options be listed *after* Myinit to ensure that the
```

```
?X: default initializations performed by Init and Myinit will not clobber
```

```
?X: any setting done on the command line via -D or -U.
```

```
?X:
```

```
?MAKE:Begin: Myinit Options package Extractall
```

```
?MAKE: -pick add $@ %<
```

```
: Eunice requires " " instead of "'", can you believe it
```

```
echo " "
```

```
: Here we go...
```

```
echo "Beginning of configuration questions for $package."
```

```
?X: Make sure the rm below is given a non-empty list for some systems.
```

```
?X: This is run only when within the UU directory, hence we can safely
```

```
?X: attempt to rm a non-existent 'X' file...
```

```
trap 'echo " "; test -d ../UU && rm -rf X $rmlist; exit 1' 1 2 3 15
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Begin.U

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?RCS: \$Id\$

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: man3dir.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 16:10:34 ram

?RCS: patch61: created

?RCS:

?X:

?X: This was originally specific to perl5. Since perl5 has man pages that

?X: go in both man1/ and man3/ directories, we need both man1dir

?X: and man3dir. This unit is basically dist's mansrc.U with

?X: man3 used instead of man everywhere.

?X: I then added various tests because perl5 has \*lots\* of man3

?X: pages with long file names. -- ADO

?X:

?MAKE:man3dir

man3direxp man3ext installman3dir: afs cat nroff Loc Oldconfig \  
sed man1dir package package Getfile prefix Prefixit Prefixup \  
d\_flexfnam privlib Myread

?MAKE: -pick add \$@ %<

?Y:TOP

?S:man3dir:

?S: This variable contains the name of the directory in which manual

?S: source pages are to be put. It is the responsibility of the

?S: Makefile.SH to get the value of this into the proper command.

?S: You must be prepared to do the ~name expansion yourself.

?S:.

?S:man3direxp:

?S: This variable is the same as the man3dir variable, but is filename

?S: expanded at configuration time, for convenient use in makefiles.

?S:.

?S:installman3dir:

?S: This variable is really the same as man3direxp, unless you are using

?S: AFS in which case it points to the read/write location whereas

?S: man3direxp only points to the read-only access location. For extra

?S: portability, you should only use this variable within your makefiles.

?S:.

?S:man3ext:

?S: This variable contains the extension that the manual page should

?S: have: one of 'n', 'l', or '3'. The Makefile must supply the 'l'.

?S: See man3dir.

?S:.

: determine where library module manual pages go

set man3dir man3dir none

eval \$prefixit

\$cat <<EOM

\$spackage has manual pages for many of the library modules.

EOM

case "\$nroff" in

nroff)

\$cat <<'EOM'

However, you don't have nroff, so they're probably useless to you.

EOM

case "\$man3dir" in

") man3dir="none";;

esac;;

esac

case "\$d\_flexfnam" in

undef)

\$cat <<'EOM'

However, your system can't handle the long file names like File::Basename.3.

EOM

case "\$man3dir" in

") man3dir="none";;

esac;;

esac

echo "If you don't want the manual sources installed, answer 'none'."

?X: We dont use /usr/local/man/man3 because some man programs will

?X: only show the /usr/local/man/man3 contents, and not the system ones,

?X: thus man less will show the perl module less.pm, but not the system

?X: less command. We might also conflict with TCL man pages.

?X: However, something like /opt/perl/man/man3

is fine.

case "\$man3dir" in

") case "\$prefix" in

\*\$package\*) dflt=`echo \$man1dir |

\$sed -e 's/man1/man3/g' -e 's/man\./man\./3/g'` ;;

\*) dflt="\$privlib/man/man3" ;;



```

esac
;;
') dflt=none;;
*) dflt="$man3dir" ;;
esac
echo " "

fn=dn+~
rp="Where do the $package library man pages (source) go?"
./getfile
if test "X$man3direxp" != "X$ansexp"; then
installman3dir="
fi

man3dir="$ans"
man3direxp="$ansexp"
case "$man3dir" in
") man3dir=' '
installman3dir=";;
esac
if $afs; then
$cat <<EOM

```

Since you are running AFS, I need to distinguish the directory in which manual pages reside from the directory in which they are installed (and from which they are presumably copied to the former directory by occult means).

```

EOM
case "$installman3dir" in
") dflt=`echo $man3direxp | sed 's#^/afs/#/afs/.#`";;
*) dflt="$installman3dir";;
esac
fn=de~
rp='Where will man pages be installed?'
./getfile
installman3dir="$ans"
else
installman3dir="$man3direxp"
fi

```

: What suffix  
to use on installed man pages

```

case "$man3dir" in
')
man3ext='0'
;;
*)

```

```

rp="What suffix should be used for the $package library man pages?"
case "$man3ext" in
") case "$man3dir" in
*3) dflt=3 ;;
*3p) dflt=3p ;;
*3pm) dflt=3pm ;;
*1) dflt=1;;
*n) dflt=n;;
*o) dflt=o;;
*p) dflt=p;;
*C) dflt=C;;
*L) dflt=L;;
*L3) dflt=L3;;
*) dflt=3;;
esac
;;
*) dflt="$man3ext";;
esac
./myread
man3ext="$ans"
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/man3dir.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_gmtime\_r.U,v ORCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_gmtime\_r gmtime\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
 usethreads i\_time i\_system extern\_C

?MAKE: -pick add \$@ %<

?S:d\_gmtime\_r:

?S: This variable conditionally defines the HAS\_GMTIME\_R symbol,

?S: which indicates to the C program that the gmtime\_r()

?S: routine is available.

?S:.

?S:gmtime\_r\_proto:

?S: This variable encodes the prototype of gmtime\_r.

?S: It is zero if d\_gmtime\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_gmtime\_r

```

?S: is defined.
?S:.
?C:HAS_GMTIME_R:
?C: This symbol, if defined, indicates that the gmtime_r routine
?C: is available to gmtime re-entrantly.
?C:.
?C:GMTIME_R_PROTO:
?C: This
symbol encodes the prototype of gmtime_r.
?C: It is zero if d_gmtime_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_gmtime_r
?C: is defined.
?C:.
?H:#$d_gmtime_r HAS_GMTIME_R /**/
?H:#define GMTIME_R_PROTO $gmtime_r_proto /**/
?H:.
?T:try hdrs d_gmtime_r_proto
: see if gmtime_r exists
set gmtime_r d_gmtime_r
eval $inlibc
case "$d_gmtime_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_time time.h $i_systime sys/time.h"
case "$d_gmtime_r_proto:$susetheads" in
":define") d_gmtime_r_proto=define
set d_gmtime_r_proto gmtime_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_gmtime_r_proto" in
define)
case "$gmtime_r_proto" in
"|0) try='struct tm* gmtime_r(const time_t*, struct tm*);'
./protochk "$extern_C $try" $hdrs && gmtime_r_proto=S_TS ;;
esac
case "$gmtime_r_proto" in
"|0) try='int gmtime_r(const time_t*, struct tm*);'
./protochk "$extern_C $try" $hdrs && gmtime_r_proto=I_TS ;;
esac
case
"$gmtime_r_proto" in
"|0) d_gmtime_r=undef
gmtime_r_proto=0
echo "Disabling gmtime_r, cannot determine prototype." >&4 ;;
*) case "$gmtime_r_proto" in
REENTRANT_PROTO*) ;;
*) gmtime_r_proto="REENTRANT_PROTO_$gmtime_r_proto" ;;
esac

```

```

echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "gmtime_r has no prototype, not using it." >&4 ;;
esac
d_gmtime_r=undef
gmtime_r_proto=0
;;
esac
;;
*) gmtime_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_gmtime_r.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getnetbyaddr\_r.U,v 0RCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_getnetbyaddr\_r getnetbyaddr\_r\_proto: Inlibc Protochk Hasproto \  
i\_systypes usethreads i\_netdb extern\_C

?MAKE: -pick add \$@ %<

?S:d\_getnetbyaddr\_r:

?S: This variable conditionally defines the HAS\_GETNETBYADDR\_R symbol,

?S: which indicates to the C program that the getnetbyaddr\_r()

?S: routine is available.

?S:.

?S:getnetbyaddr\_r\_proto:

?S: This variable encodes the prototype of getnetbyaddr\_r.

?S: It is zero if d\_getnetbyaddr\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getnetbyaddr\_r

?S: is defined.

?S:.

?C:HAS\_GETNETBYADDR\_R:

?C: This symbol, if defined, indicates that

the getnetbyaddr\_r routine

?C: is available to getnetbyaddr re-entrantly.

?C:.

?C:GETNETBYADDR\_R\_PROTO:

```

?C: This symbol encodes the prototype of getnetbyaddr_r.
?C: It is zero if d_getnetbyaddr_r is undef, and one of the
?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_getnetbyaddr_r
?C: is defined.
?C:.
?H:#$d_getnetbyaddr_r HAS_GETNETBYADDR_R /**/
?H:#define GETNETBYADDR_R_PROTO $getnetbyaddr_r_proto /**/
?H:.
?T:try hdrs d_getnetbyaddr_r_proto
: see if getnetbyaddr_r exists
set getnetbyaddr_r d_getnetbyaddr_r
eval $inlibc
case "$d_getnetbyaddr_r" in
"$define")
hdrs="$i_systypes sys/types.h define stdio.h $i_netdb netdb.h"
case "$d_getnetbyaddr_r_proto:$susethreads" in
":define") d_getnetbyaddr_r_proto=define
set d_getnetbyaddr_r_proto getnetbyaddr_r $hdrs
eval $hasproto ;;
*) ;;
esac
case "$d_getnetbyaddr_r_proto" in
define)
case "$getnetbyaddr_r_proto" in
"|0) try='int getnetbyaddr_r(unsigned long, int, struct netent*, char*, size_t, struct netent**, int*);'
./protochk
"$extern_C $try" $hdrs && getnetbyaddr_r_proto=I_UISBWRE ;;
esac
case "$getnetbyaddr_r_proto" in
"|0) try='int getnetbyaddr_r(long, int, struct netent*, char*, int);'
./protochk "$extern_C $try" $hdrs && getnetbyaddr_r_proto=I_LISBI ;;
esac
case "$getnetbyaddr_r_proto" in
"|0) try='struct netent* getnetbyaddr_r(in_addr_t, int, struct netent*, char*, int);'
./protochk "$extern_C $try" $hdrs && getnetbyaddr_r_proto=S_TISBI ;;
esac
case "$getnetbyaddr_r_proto" in
"|0) try='struct netent* getnetbyaddr_r(long, int, struct netent*, char*, int);'
./protochk "$extern_C $try" $hdrs && getnetbyaddr_r_proto=S_LISBI ;;
esac
case "$getnetbyaddr_r_proto" in
"|0) try='int getnetbyaddr_r(in_addr_t, int, struct netent*, struct netent_data*);'
./protochk "$extern_C $try" $hdrs && getnetbyaddr_r_proto=I_TISD ;;
esac
case "$getnetbyaddr_r_proto" in
"|0) try='int getnetbyaddr_r(long, int, struct netent*, struct netent_data*);'
./protochk "$extern_C $try" $hdrs && getnetbyaddr_r_proto=I_LISD

```

```

;;
esac
case "$getnetbyaddr_r_proto" in
"|0) try='int getnetbyaddr_r(int, int, struct netent*, struct netent_data*);'
./prochk "$extern_C $try" $hdrs && getnetbyaddr_r_proto=I_IISD ;;
esac
case "$getnetbyaddr_r_proto" in
"|0) try='int getnetbyaddr_r(uint32_t, int, struct netent*, char*, size_t, struct netent**, int*);'
./prochk "$extern_C $try" $hdrs && getnetbyaddr_r_proto=I_uISBWRE ;;
esac
case "$getnetbyaddr_r_proto" in
"|0) d_getnetbyaddr_r=undef
getnetbyaddr_r_proto=0
echo "Disabling getnetbyaddr_r, cannot determine prototype." >&4 ;;
*) case "$getnetbyaddr_r_proto" in
REENTRANT_PROTO*) ;;
*) getnetbyaddr_r_proto="REENTRANT_PROTO_$getnetbyaddr_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$susetthreads" in
define) echo "getnetbyaddr_r has no prototype, not using it." >&4 ;;
esac
d_getnetbyaddr_r=undef
getnetbyaddr_r_proto=0
;;
esac
;;
*) getnetbyaddr_r_proto=0
;;
esac

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d\_getnetbyaddr\_r.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_link.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_link.U,v \$  
?RCS: Revision 3.0.1.1 1993/08/25 14:01:13 ram  
?RCS: patch6: created for completeness  
?RCS:  
?MAKE:d\_link: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_link:  
?S: This variable conditionally defines HAS\_LINK if link() is  
?S: available to create hard links.  
?S:.  
?C:HAS\_LINK:  
?C: This symbol, if defined, indicates that the link routine is  
?C: available to create hard links.  
?C:.  
?H:#\$d\_link HAS\_LINK /\*\*/  
?H:.  
?LINT:set d\_link  
: see if link exists  
set  
link d\_link  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_link.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: \$Log: i\_grp.U,v \$  
?RCS: Revision 3.0 1993/08/18 12:08:20 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:i\_grp: Inhdr  
?MAKE: -pick add \$@ %<  
?S:i\_grp:  
?S: This variable conditionally defines the I\_GRP symbol, and indicates  
?S: whether a C program should include <grp.h>.  
?S:.  
?C:I\_GRP:

?C: This symbol, if defined, indicates to the C program that it should

?C: include <grp.h>.

?C:.

?H:#\$i\_grp I\_GRP /\*\*/

?H:.

?LINT:set i\_grp

: see if this is an grp system

set grp.h i\_grp

eval \$inhdr

Found

in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_grp.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_NOFILE.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:08:38 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:39 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:nofile d\_gettblsz tablesize: Myread Guess cat +cc +ccflags +libs \  
test rm Csym

?MAKE: -pick add \$@ %<

?S:nofile:

?S: This variable contains the number of file descriptors available to the

?S: process.

?S:.

?S:d\_gettblsz:

?S: This variable conditionally handles remapping  
of the getdtablesize()

?S: subroutine to ulimit(4,0), or the NOFILE manifest constant.

?S:.

?S:tablesize:

?S: This variable contains either the 'NOFILE' constant or 'ulimit(4, 0L)'

?S: and is used as the remapped value for the getdtablesize() macro.



```

?S:.
?C:getdtablesize:
?C: This catches use of the getdtablesize() subroutine, and remaps it
?C: to either ulimit(4,0) or NOFILE, if getdtablesize() isn't available.
?C:.
?C:VAL_NOFILE:
?C: This symbol contains the number of file descriptors available to the
?C: process, as determined at configuration time. Unless a static constant
?C: is needed, you should rely on getdtablesize() to obtain that number.
?C:.
?H:#$d_gettblsz getdtablesize() $tablesize /**/
?H:#define VAL_NOFILE $nofile /* Number of file descriptors */
?H:.
?F:!nofile
?T:d_ulimit4 val
: see if getdtablesize exists
echo " "
?X: Revert logical value (d_gettblsz is undef iff getdtablesize is present)
case "$d_gettblsz" in
$define) d_gettblsz="$undef";;
$undef) d_gettblsz="$define";;
esac
if
set getdtablesize val -f d_gettblsz; eval $sym; $val; then
echo 'getdtablesize() found.' >&4
d_gettblsz="$undef"
tablesize="
@if VAL_NOFILE || nofile
$cat >nofile.c <<'EOCP'
#include <stdio.h>
int main()
{
printf("%d\n", getdtablesize());
}
EOCP
nofile="
if $cc $ccflags -o nofile nofile.c $libs >/dev/null 2>&1; then
nofile=`./nofile 2>/dev/null`
fi
if $test "$nofile"; then
echo "(You have $nofile file descriptors available per process.)"
else
nofile='20'
if ./bsd; then
nofile='64'
fi
echo "(Hmm... Let's say you have $nofile file descriptors available.)"
fi

```

```

@end
else
echo 'getdtablesize() NOT found...' >&4
if set ulimit val -f; eval $csym; $val; then
echo 'Maybe ulimit(4,0) will work...'
$cat >nofile.c <<'EOCP'
#include <stdio.h>
#ifdef GETPARAM_H
#include <sys/param.h>
#endif
int main()
{
printf("%d %d\n",
#ifdef NOFILE
NOFILE,
#else
0,
#endif
ulimit(4,0));
exit(0);
}
EOCP
if $cc $ccflags -DGETPARAM_H -o nofile nofile.c $libs
>/dev/null 2>&1 \
|| $cc $ccflags -o nofile nofile.c $libs >/dev/null 2>&1 ; then
set `./nofile`
d_gettblsz=$1
d_ulimit4=$2
if $test "$d_ulimit4" -lt 0; then
echo "Your ulimit() call doesn't tell me what I want to know."
echo "We'll just use NOFILE in this case."
nofile=$d_gettblsz
d_gettblsz="$define"
tablesize='NOFILE'
else
if $test "$d_gettblsz" -gt 0; then
echo "Your system defines NOFILE to be $d_gettblsz, and" >&4
else
echo "I had trouble getting NOFILE from your system, but" >&4
fi
echo "ulimit returns $d_ulimit4 as the number of available file descriptors." >&4
dflt='y';
echo " "
rp='Should I use ulimit to get the number of available file descriptors?'
./myread
case "$ans" in
y*)
nofile=$d_ulimit4

```

```

d_gettblsz="$define"
tablesize='ulimit(4, 0L)'
echo "Using ulimit(4,0)."
;;
*)
nofile=$d_gettblsz
d_gettblsz="$define"
tablesize='NOFILE'
echo "Using NOFILE."
;;
esac
fi
else
echo
"Strange, I couldn't get my test program to compile."
echo "We'll just use NOFILE in this case."
d_gettblsz="$define"
tablesize='NOFILE'
nofile=""
fi
else
echo 'Using NOFILE instead.'
d_gettblsz="$define"
tablesize='NOFILE'
nofile=""
fi
fi
@if VAL_NOFILE || nofile
case "$nofile" in
")
$cat >nofile.c <<'EOCP'
#include <stdio.h>
#ifdef GETPARAM_H
#include <sys/param.h>
#endif
int main()
{
printf("%d\n",
#ifdef NOFILE
NOFILE,
#else
0,
#endif
);
exit(0);
}
EOCP
if $cc $ccflags -DGETPARAM_H -o nofile nofile.c $libs >/dev/null 2>&1 \

```

```

|| $cc $ccflags -o nofile nofile.c $libs >/dev/null 2>&1 ; then
nofile=`./nofile 2>/dev/null`
fi
if $test "$nofile"; then
echo "(You have $nofile file descriptors available per process.)"
else
nofile='20'
if ./bsd; then
nofile='64'
fi
echo "(Hmm... Let's say you have $nofile file descriptors available.)"
fi
;;
esac
@end
$rm -f nofile*

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_NOFILE.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: perl5.U,v \$

?RCS:

?RCS: Copyright (c) 2000 Andrew Dougherty

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: perl5.U,v \$

?RCS:

?X:

?X: The purpose of this unit is to locate a previously installed

?X: version of perl5 suitable for running inc\_version\_list.U.

?X: We check for 5.005 and later because inc\_version\_list is

?X: irrelevant for earlier versions.

?X:

?MAKE:perl5: path\_sep binexp test sed exe\_ext

?MAKE: -pick add \$@ %<

?Y:TOP

?S:perl5:

?S: This variable contains the full path (if any) to a previously

?S: installed perl5.005 or later suitable for running the script

?S: to determine inc\_version\_list.

?S:.

?T: tdir

: Find perl5.005 or later.

echo "Looking for a previously installed perl5.005 or later... "

```

case "$perl5" in
") for tdir in `echo "$binexp$path_sep$PATH" | $sed "s/$path_sep/
/g"; do
: Check if this perl is recent and can load a simple module
if $test -x $tdir/perl5$exe_ext && $tdir/perl -Mless -e 'use 5.005;' >/dev/null 2>&1; then
perl5=$tdir/perl
break;
elif $test -x $tdir/perl5$exe_ext && $tdir/perl5 -Mless -e 'use 5.005;' >/dev/null 2>&1; then
perl5=$tdir/perl5
break;
fi
done
;;
*) perl5="$perl5"
;;
esac
case "$perl5" in
") echo "None found. That's ok.";;
*) echo "Using $perl5." ;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/installdirs/perl5.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: libperl.U,v \$

?RCS:

?RCS: Copyright (c) 1996-1998, Andy Dougherty

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:libperl useshrplib shrpenv ldlibpthname: \

Myread Oldconfig archlibexp awk cat libc \

\_a osname osvers so patchlevel subversion usedl ld \

ccdlflags installarchlib userlocatableinc

?MAKE: -pick wipe \$@ %<

?S:libperl:

?S: The perl executable is obtained by linking perlmain.c with

?S: libperl, any static extensions (usually just DynaLoader),

?S: and any other libraries needed on this system. libperl

?S: is usually libperl.a, but can also be libperl.so.xxx if

?S: the user wishes to build a perl executable with a shared

?S: library.

?S:.

?S:useshrplib:

?S: This variable is set to 'true' if the user wishes

?S: to build a shared libperl, and 'false' otherwise.

?S:.

?S:shrpenv:

?S: If

the user builds a shared libperl.so, then we need to tell the

?S: 'perl' executable where it will be able to find the installed libperl.so.

?S: One way to do this on some systems is to set the environment variable

?S: LD\_RUN\_PATH to the directory that will be the final location of the

?S: shared libperl.so. The makefile can use this with something like

?S: \$shrpenv \$(CC) -o perl perlmain.o \$libperl \$libs

?S: Typical values are

?S: shrpenv="env LD\_RUN\_PATH=\$archlibexp/CORE"

?S: or

?S: shrpenv="

?S: See the main perl Makefile.SH for actual working usage.

?S:

?S: Alternatively, we might be able to use a command line option such

?S: as -R \$archlibexp/CORE (Solaris) or -Wl,-rpath

?S: \$archlibexp/CORE (Linux).

?S:.

?S:ldlibpthname:

?S: This variable holds the name of the shared library

?S: search path, often LD\_LIBRARY\_PATH. To get an empty

?S: string, the hints file must set this to 'none'.

?S:.

?T:shrpdir majonly majmin also xxx tmp\_shrpenv

?X: metalint gets confused and thinks we're

actually setting LDOPTS

?X: and LD\_RUN\_PATH.

?LINT:extern LDOPTS

?LINT:change LDOPTS

?LINT:extern LD\_RUN\_PATH

?LINT:change LD\_RUN\_PATH

?LINT:change ccdlflags

?LINT:extern maintloc maintname

?Y:top

: Do we want a shared libperl?

also="

case "\$usedl" in

\$undef)

# No dynamic loading being used, so don't bother even to prompt.

useshrplib='false'

;;

\*) case "\$useshrplib" in

") case "\$osname" in

svr4\*|nonstopux|dgux|dynixptx|esix|powerux|haiku|cygwin\*)

dflt=y

also='Building a shared libperl is required for dynamic loading to work on your system.'

```

;;
*) dflt=n
;;
esac
;;
$define|true|[Yy]*)
dflt=y
;;
*) dflt=n
;;
esac
$cat << EOM

```

The perl executable is normally obtained by linking perlmain.c with libperl\${\_a}, any static extensions (usually just DynaLoader), and any other libraries needed on this system (such as -lm, etc.). Since your system supports dynamic loading, it is probably possible to build a shared libperl.\$so. If you will have more than one executable linked to libperl.\$so, this will significantly reduce the size of each executable, but it may have a noticeable effect on performance. The default is probably sensible for your system.

\$also

EOM

```

rp="Build a shared libperl.$so (y/n)"
./myread
case "$ans" in
true|$define|[Yy]*)
useshrplib='true' ;;
*) useshrplib='false' ;;
esac
;;
esac

case "$useshrplib" in
true)
case "$userelocatableinc" in
true|define)
echo "Cannot build with both -Duserelocatableinc and -Duseshrplib" >&4
echo "See INSTALL for an explanation why that won't work." >&4
exit 4
;;
esac
case "$libperl" in
")
Figure out a good name for libperl.so. Since it gets stored in
a version-specific architecture-dependent library, the version

```

```

number isn't really that important, except for making cc/ld happy.
#
A name such as libperl.so.10.1
majmin="libperl.$so.$patchlevel.$subversion"
A name such as libperl.so.100
majonly=`echo $patchlevel $subversion |
 $awk '{printf
"%d%02d", $1, $2}`
majonly=libperl.$so.$majonly
I'd prefer to keep the os-specific stuff here to a minimum, and
rely on figuring it out from the naming of libc.
case "${osname}${osvers}" in
linux|gnu*) # ld won't link with a bare -lperl otherwise.
 dflt=libperl.$so
 ;;
cygwin*) # ld links now against the dll directly
 majmin="cygperl5_${patchlevel}_${subversion}.${so}"
 majonly=`echo $patchlevel $subversion |
 $awk '{printf "%03d%03d", $1, $2}`
 majonly=cygperl5.$majonly.$so
 dflt=$majmin
 ;;
*) # Try to guess based on whether libc has major.minor.
 case "$libc" in
libc.$so.[0-9].[0-9]*) dflt=$majmin ;;
libc.$so.[0-9]) dflt=$majonly ;;
*) dflt=libperl.$so ;;
esac
;;
esac
;;
*) dflt=$libperl
;;
esac
cat << EOM

```

I need to select a good name for the shared libperl. If your system uses library names with major and minor numbers, then you might want something like \$majmin. Alternatively, if your system uses a single version number for shared libraries, then you might want to use \$majonly. Or, your system might be quite happy with a simple libperl.\$so.

Since the shared libperl will get installed into a version-specific architecture-dependent directory, the version number of the shared perl library probably isn't important, so the default should be o.k.

EOM



```

rp='What name do you want to give to the shared libperl?'
. ./myread
libperl=$ans
echo "Ok, I'll use $libperl"
;;
*)
libperl="libperl${_a}"
;;
esac

Detect old use of shrpdir via undocumented Configure -Dshrpdir
case "$shrpdir" in
") ;;
*) $cat >&4 <<EOM
WARNING: Use of the shrpdir variable for the installation location of
the shared $libperl is not supported. It was never documented and
will not work in this version. Let me (<$maintloc>)
know of any problems this may cause.

EOM
case "$shrpdir" in
"$sarchlibexp/CORE")
$cat >&4 <<EOM
But your current setting of $shrpdir is
the default anyway, so it's harmless.
EOM
;;
*)
$cat
>&4 <<EOM
Further, your current attempted setting of $shrpdir
conflicts with the value of $sarchlibexp/CORE
that installperl will use.
EOM
;;
esac
;;
esac

How will the perl executable find the installed shared $libperl?
Add $xxx to ccdlflags.
If we can't figure out a command-line option, use $shrpenv to
set env LD_RUN_PATH. The main perl makefile uses this.
shrpdir=$sarchlibexp/CORE
xxx=""
tmp_shrpenv=""
if "$Suseshrplib"; then
case "$osname" in

```

```

aix)
We'll set it in Makefile.SH...
;;
solaris)
xxx="-R $shrpdir"
;;
freebsd|minix|mirbsd|netbsd|openbsd|interix|dragonfly|bitrig)
xxx="-Wl,-R$shrpdir"
;;
bsdos|linux|irix*|dec_osf|gnu*|haiku)
xxx="-Wl,-rpath,$shrpdir"
;;
hpux*)
hpux doesn't like the default, either.
tmp_shrpenv="env LDOPTS=\'+s +b${shrpdir}\""
;;
cygwin)
cygwin needs only ldlibpth
;;
*)
tmp_shrpenv="env LD_RUN_PATH=$shrpdir"
;;
esac
case "$xxx" in
") ;;
*)
Only add $xxx if it isn't already in ccdlflags.
case
"$ccdlflags" in
" $xxx ") ;;
*) ccdlflags="$ccdlflags $xxx"
cat <<EOM >&4

```

Adding \$xxx to the flags  
passed to \$ld so that the perl executable will find the  
installed shared \$libperl.

```

EOM
;;
esac
;;
esac
fi
Fix ccdlflags in AIX for building external extensions.
(For building Perl itself bare -bE:perl.exp is needed,
Makefile.SH takes care of this.)
case "$osname" in
aix) ccdlflags="$ccdlflags -bE:$installarchlib/CORE/perl.exp" ;;

```

```

esac
Respect a hint or command-line value.
case "$shrpenv" in
") shrpenv="$tmp_shrpenv" ;;
esac
case "$ldlibpthname" in
") ldlibpthname=LD_LIBRARY_PATH ;;
none) ldlibpthname="" ;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/libperl.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_symlink.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_symlink.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:41 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_symlink: Inlibc
?MAKE: -pick add $@ %<
?S:d_symlink:
?S: This variable conditionally defines the HAS_SYMLINK symbol, which
?S: indicates to the C program that the symlink() routine is available
?S: to create symbolic links.
?S:.
?C:HAS_SYMLINK (SYMLINK):
?C: This symbol, if defined, indicates that the symlink routine is available
?C: to
create symbolic links.
?C:.
?H:#$d_symlink HAS_SYMLINK /**/
?H:.
?LINT:set d_symlink
: see if symlink exists
set symlink d_symlink
eval $inlibc

```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_symlink.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_PRIId64 d\_PRIi64 d\_PRIu64 d\_PRIo64 d\_PRIx64 d\_PRIXU64 \

sPRIId64 sPRIi64 sPRIu64 sPRIo64 sPRIx64 sPRIXU64: \

quadtype i\_inttypes test cat rm\_try Setvar Compile run

?MAKE: -pick add \$@ %<

?S:d\_PRIId64:

?S: This variable conditionally defines the PERL\_PRIId64 symbol, which

?S: indicates that stdio has a symbol to print 64-bit decimal numbers.

?S:.

?S:d\_PRIi64:

?S: This variable conditionally defines the PERL\_PRIi64 symbol, which

?S: indicates that stdio has a symbol to print 64-bit decimal numbers.

?S:.

?S:d\_PRIu64:

?S: This variable conditionally defines the PERL\_PRIu64 symbol, which

?S: indicates that stdio has a symbol to print 64-bit unsigned decimal

?S: numbers.

?S:.

?S:d\_PRIo64:

?S: This variable

conditionally defines the PERL\_PRIo64 symbol, which

?S: indicates that stdio has a symbol to print 64-bit octal numbers.

?S:.

?S:d\_PRIx64:

?S: This variable conditionally defines the PERL\_PRIx64 symbol, which

?S: indicates that stdio has a symbol to print 64-bit hexadecimal numbers.

?S:.

?S:d\_PRIXU64:

?S: This variable conditionally defines the PERL\_PRIXU64 symbol, which

?S: indicates that stdio has a symbol to print 64-bit hEXADEcImAl numbers.

?S: The 'U' in the name is to separate this from d\_PRIx64 so that even

?S: case-blind systems can see the difference.

?S:.

?S:sPRIId64:

?S: This variable, if defined, contains the string used by stdio to

?S: format 64-bit decimal numbers (format 'd') for output.

?S:.

?S:sPRIi64:

?S: This variable, if defined, contains the string used by stdio to

?S: format 64-bit decimal numbers (format 'i') for output.

?S:.

?S:sPRIu64:

?S: This variable, if defined, contains the string used by stdio to

?S: format 64-bit unsigned decimal numbers (format 'u')  
for output.

?S:.

?S:sPRIo64:

?S: This variable, if defined, contains the string used by stdio to

?S: format 64-bit octal numbers (format 'o') for output.

?S:.

?S:sPRIx64:

?S: This variable, if defined, contains the string used by stdio to

?S: format 64-bit hexadecimal numbers (format 'x') for output.

?S:.

?S:sPRIXU64:

?S: This variable, if defined, contains the string used by stdio to

?S: format 64-bit hExADECimAl numbers (format 'X') for output.

?S: The 'U' in the name is to separate this from sPRIx64 so that even

?S: case-blind systems can see the difference.

?S:.

?C:PERL\_PRIi64:

?C: This symbol, if defined, contains the string used by stdio to

?C: format 64-bit decimal numbers (format 'd') for output.

?C:.

?C:PERL\_PRIi64:

?C: This symbol, if defined, contains the string used by stdio to

?C: format 64-bit decimal numbers (format 'i') for output.

?C:.

?C:PERL\_PRIu64:

?C: This symbol, if defined, contains the string used by stdio to

?C: format 64-bit unsigned decimal numbers (format 'u')  
for output.

?C:.

?C:PERL\_PRIo64:

?C: This symbol, if defined, contains the string used by stdio to

?C: format 64-bit octal numbers (format 'o') for output.

?C:.

?C:PERL\_PRIx64:

?C: This symbol, if defined, contains the string used by stdio to

?C: format 64-bit hexadecimal numbers (format 'x') for output.

?C:.

?C:PERL\_PRIXU64:

?C: This symbol, if defined, contains the string used by stdio to

?C: format 64-bit hExADECimAl numbers (format 'X') for output.

?C:.

```

?H:#$d_PRIId64 PERL_PRIId64 $sPRIId64 /**/
?H:#$d_PRIi64 PERL_PRIi64 $sPRIi64 /**/
?H:#$d_PRIu64 PERL_PRIu64 $sPRIu64 /**/
?H:#$d_PRIo64 PERL_PRIo64 $sPRIo64 /**/
?H:#$d_PRIx64 PERL_PRIx64 $sPRIx64 /**/
?H:#$d_PRIx64 PERL_PRIXU64 $sPRIXU64 /**/
?H:
?T:yyy
?F:!try
: Check 64bit sizes
echo " "

```

```

if $test X"$quadtype" != X; then

```

```

echo "Checking how to print 64-bit integers..." >&4

```

```

if $test X"$sPRIId64" = X -a X"$quadtype" = Xint; then

```

```

$cat >try.c <<'EOCP'
#include <sys/types.h>
#include <stdio.h>
int main() {
int q = 12345678901;

printf("%ld\n", q);
}
EOCP
set try
if eval $compile; then
yyy=`$run ./try`
case "$yyy" in
12345678901)
sPRIId64="d"; sPRIi64="i"; sPRIu64="u";
sPRIo64="o"; sPRIx64="x"; sPRIXU64="X";
echo "We will use %d."
;;
esac
fi
fi

```

```

if $test X"$sPRIId64" = X -a X"$quadtype" = Xlong; then

```

```

$cat >try.c <<'EOCP'
#include <sys/types.h>
#include <stdio.h>
int main() {
long q = 12345678901;
printf("%ld\n", q);
}
EOCP

```

```

set try
if eval $compile; then
yyy=`$run ./try`
case "$yyy" in
12345678901)
sPRId64="ld"; sPRIi64="li"; sPRIu64="lu";
sPRIo64="lo"; sPRIx64="lx"; sPRIXU64="IX";
echo "We will use %ld."
;;
esac
fi
fi

if $test X"$sPRId64" = X -a X"$i_inttypes" = X"$define" -a X"$quadtype" = Xint64_t; then
$cat >try.c <<'EOCP'
#include <sys/types.h>
#include <inttypes.h>
#include <stdio.h>
int main() {
int64_t q = 12345678901;
printf("%" PRId64 "\n", q);
}
EOCP
set try
if eval $compile; then
yyy=`$run ./try`
case "$yyy" in
12345678901)
sPRId64=PRId64;
sPRIi64=PRIi64; sPRIu64=PRIu64;
sPRIo64=PRIo64; sPRIx64=PRIx64; sPRIXU64=PRIXU64;
echo "We will use the C9X style."
;;
esac
fi
fi

if $test X"$sPRId64" = X -a X"$quadtype" != X; then
$cat >try.c <<'EOCP'
#include <sys/types.h>
#include <stdio.h>
int main() {
$quadtype q = 12345678901;
printf("%Ld\n", q);
}
EOCP
set try
if eval $compile; then

```

```

yyy=`$run ./try`
case "$yyy" in
12345678901)
sPRId64="Ld"; sPRi64="Li"; sPRi64="Lu";
sPRIo64="Lo"; sPRIx64="Lx"; sPRIXU64="LX";
echo "We will use %Ld."
;;
esac
fi
fi

if $test X"$sPRId64" = X -a X"$squadtype" = X"long long"; then
$cat >try.c <<'EOCP'
#include <sys/types.h>
#include <stdio.h>
int main() {
long long q = 12345678901LL; /* AIX cc requires the LL suffix. */
printf("%lld\n", q);
}
EOCP
set try
if eval $compile; then
yyy=`$run ./try`
case "$yyy" in
12345678901)
sPRId64="lld"; sPRi64="lli"; sPRi64="llu";
sPRIo64="llo"; sPRIx64="llx";
sPRIXU64="llX";
echo "We will use the %lld style."
;;
esac
fi
fi

if $test X"$sPRId64" = X -a X"$squadtype" != X; then
$cat >try.c <<'EOCP'
#include <sys/types.h>
#include <stdio.h>
int main() {
$squadtype q = 12345678901;
printf("%qd\n", q);
}
EOCP
set try
if eval $compile; then
yyy=`$run ./try`
case "$yyy" in
12345678901)

```



```

sPRId64="qd"; sPRIi64="qi"; sPRIu64="qu";
sPRIo64="qo"; sPRIx64="qx"; sPRIXU64="qX";
echo "We will use %qd."
;;
esac
fi
fi

if $test X"$sPRId64" = X; then
echo "Cannot figure out how to print 64-bit integers." >&4
fi
$rm_try

fi

case "$sPRId64" in
*) d_PRIId64="$undef"; d_PRIi64="$undef"; d_PRIu64="$undef";
d_PRIo64="$undef"; d_PRIx64="$undef"; d_PRIXU64="$undef";
;;
*) d_PRIId64="$define"; d_PRIi64="$define"; d_PRIu64="$define";
d_PRIo64="$define"; d_PRIx64="$define"; d_PRIXU64="$define";
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/quadio.U

```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_truncl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_truncl:

?S: This variable conditionally defines the HAS\_TRUNCL symbol, which

?S: indicates to the C program that the truncl() routine is available

?S: to round long doubles towards zero. If copysignl is also present,

?S: we can emulate modfl.

?S:.

?C:HAS\_TRUNCL :

?C: This symbol, if defined, indicates that the truncl routine is

?C: available. If copysignl is also present we can emulate modfl.

?C:.

?H:#\$d\_truncl HAS\_TRUNCL /\*\*/

?H:.

?LINT:set d\_truncl

: see if truncl exists

```
set trunc d_trunc
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_trunc.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: charsize.U,v 3.0.1.1 1994/10/29 16:07:13 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: charsize.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:07:13 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:34 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:charsize charbits: cat rm_try Myread Compile run
?MAKE: -pick add $@ %<
?S:charsize:
?S: This variable contains the value of the CHARSIZE symbol, which
?S: indicates to the C program how many bytes there are in a character.
?S:.
?S:charbits:
?S: This
variable contains the value of the CHARBITS symbol, which
?S: indicates to the C program how many bits there are in a character.
?S:.
?C:CHARSIZE:
?C: This symbol contains the size of a char, so that the C preprocessor
?C: can make decisions based on it.
?C:.
?C:CHARBITS:
?C: This symbol contains the size of a char, so that the C preprocessor
?C: can make decisions based on it.
?C:.
?H:#define CHARSIZE $charsize /**/
?H:#define CHARBITS $charbits /**/
?H:.
?F:!try
```

: length of character in bytes. Is always 1, otherwise it is not C

: This used to be a test using sizeof

```
charsize=1
```

: Check for the number of bits in a character

```
case "$charbits" in
```

```
) echo "Checking how long a character is (in bits)..." >&4
```

```
$cat >try.c <<EOCP
```

```
#include <stdio.h>
```

```
int main ()
```

```
{
```

```
 int n;
```

```
 unsigned char c;
```

```
 for (c = 1, n = 0; c <= 1, n++);
```

```
 printf ("%d\n", n);
```

```
 return (0);
```

```
}
```

```
EOCP
```

```
set try
```

```
if eval $compile_ok; then
```

```
 dflt=`$run ./try`
```

```
else
```

```
 dflt='8'
```

```
 echo "(I
```

```
can't seem to compile the test program. Guessing...)"
```

```
fi
```

```
::
```

```
*)
```

```
 dflt="$charbits"
```

```
::
```

```
esac
```

```
rp="What is the length of a character (in bits)?"
```

```
./myread
```

```
charbits="$ans"
```

```
$rm_try
```

```
case "$charbits" in
```

```
8) ;;
```

```
*) cat >&4 << EOM
```

Your system has an unsigned character size of \$charbits bits, which is rather unusual (normally it is 8 bits). Perl likely will not work correctly on your system, with subtle bugs in various places.

```
EOM
```

```
rp='Do you really want to continue?'
```

```
dflt='n'
```

```
./myread
```

```
case "$ans" in
```

```
[yY]) echo >&4 "Okay, continuing." ;;
```

```
*) exit 1 ;;
```

esac  
esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/charsize.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_setpgrp.U,v 3.0.1.3 1997/02/28 15:44:16 ram Exp \$  
?RCS:  
?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: d\_setpgrp.U,v \$  
?RCS: Revision 3.0.1.3 1997/02/28 15:44:16 ram  
?RCS: patch61: obsoleted USE\_BSDGRP in favor of USE\_BSD\_SETPGRP  
?RCS: patch61: another unit now also defines a USE\_BSD\_GETPGRP  
?RCS: patch61: fallback for test program failure improved  
?RCS:  
?RCS: Revision 3.0.1.2 1995/07/25 13:59:30 ram  
?RCS: patch56: re-arranged compile line to include ldflags before objects  
?RCS:  
?RCS: Revision 3.0.1.1 1994/10/29 16:15:37 ram  
?RCS: patch36: added  
'ldflags' to the test compile line (ADO)  
?RCS: patch36: call ./usg explicitly instead of relying on PATH  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:07:09 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:d\_setpgrp d\_bsdsetpgrp: cat rm\_try +cc +libs +ccflags \  
+ldflags Inlibc Guess Setvar i\_unistd i\_stdlib run  
?MAKE: -pick add \$@ %<  
?S:d\_setpgrp:  
?S: This variable conditionally defines HAS\_SETPGRP if setpgrp() is  
?S: available to set the current process group.  
?S:.  
?S:d\_bsdsetpgrp (d\_bsdpggrp):  
?S: This variable conditionally defines USE\_BSD\_SETPGRP if  
?S: setpgrp needs two arguments whereas USG one needs none.  
?S: See also d\_setpgid for a POSIX interface.  
?S:.  
?C:HAS\_SETPGRP (SETPGRP):

?C: This symbol, if defined, indicates that the setpgrp routine is  
 ?C: available to set the current process group.  
 ?C:.  
 ?C:USE\_BSD\_SETPGRP (USE\_BSDPGRP BSDPGRP):  
 ?C: This symbol, if defined, indicates that setpgrp needs two  
 ?C: arguments whereas USG one needs none. See also HAS\_SETPGID  
 ?C: for  
 a POSIX interface.  
 ?C:.  
 ?H:#\$d\_setpgrp HAS\_SETPGRP /\*\*/  
 ?H:#\$d\_bsdsetpgrp USE\_BSD\_SETPGRP /\*\*/  
 ?H:.  
 ?T:xxx  
 ?F:!try  
 ?LINT:set d\_setpgrp d\_bsdsetpgrp  
 : see if setpgrp exists  
 set setpgrp d\_setpgrp  
 eval \$inlibc

```
@if USE_BSD_SETPGRP || d_bsdsetpgrp
case "$d_setpgrp" in
"$define")
echo " "
echo "Checking to see which flavor of setpgrp is in use..."
$cat >try.c <<EOP
#$i_unistd I_UNISTD
#include <sys/types.h>
#ifdef I_UNISTD
include <unistd.h>
#endif
#$i_stdlib I_STDLIB
#ifdef I_STDLIB
#include <stdlib.h>
#endif
int main()
{
if (getuid() == 0) {
printf("(I see you are running Configure as super-user...)\n");
setuid(1);
}
#ifdef TRY_BSD_PGRP
if (-1 == setpgrp(1, 1))
exit(0);
#else
if (setpgrp() != -1)
exit(0);
#endif
exit(1);
```

```

}
EOP
if $cc -o try -DTRY_BSD_PGRP $ccflags $ldflags try.c $libs >/dev/null 2>&1 && $run ./try; then
 echo 'You have to use setpgrp(pid,pgrp) instead of setpgrp().' >&4
 val="$define"
elif $cc -o try $ccflags $ldflags try.c $libs >/dev/null 2>&1 &&
 $run ./try; then
 echo 'You have to use setpgrp() instead of setpgrp(pid,pgrp).' >&4
 val="$undef"
else
 echo "(I can't seem to compile and run the test program.)"
 if ./usg; then
 xxx="a USG one, i.e. you use setpgrp()."
 else
 # SVR4 systems can appear rather BSD-ish.
 case "$i_unistd" in
 $undef)
 xxx="a BSD one, i.e. you use setpgrp(pid,pgrp)."
 val="$define"
 ;;
 $define)
 xxx="probably a USG one, i.e. you use setpgrp()."
 val="$undef"
 ;;
 esac
 fi
 echo "Assuming your setpgrp is $xxx" >&4
fi
;;
*) val="$undef";;
esac
set d_bsdsetpgrp
eval $setvar
$rm_try
@end

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_setpgrp.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: vaproto.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

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?RCS: of the source tree for dist 4.0.  
?RCS:  
?RCS: Original Author: Graham Stoney <greyham@research.canon.oz.au>  
?RCS:  
?RCS: \$Log: vaprotov \$  
?RCS: Revision 3.0.1.1 1994/01/24 14:17:16 ram  
?RCS: patch16: definition of \_V now appears only when needed  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:09:59 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?MAKE:vaprotov: prototype i\_stdarg Setvar  
?MAKE: -pick add \$@ %<  
?S:vaprotov:  
?S: This variable conditionally defines CAN\_VAPROTO on systems supporting  
?S: prototype  
declaration of functions with a variable number of  
?S: arguments. See also prototype.  
?S:.  
?C:CAN\_VAPROTO ~ %<:  
?C: This variable is defined on systems supporting prototype declaration  
?C: of functions with a variable number of arguments.  
?C:.  
?C:\_V:  
?C: This macro is used to declare function parameters in prototypes for  
?C: functions with a variable number of parameters. Use double parentheses.  
?C: For example:  
?C:  
?C: int printf \_V((char \*fmt, ...));  
?C:  
?C: Remember to use the plain simple \_() macro when declaring a function  
?C: with no variable number of arguments, since it might be possible to  
?C: have a non-effect \_V() macro and still get prototypes via \_().  
?C:.  
?H:%<:#\$vaprotov CAN\_VAPROTO /\*\*/  
?H:?\_V:#ifdef CAN\_VAPROTO  
?H:?\_V:#define \_V(args) args  
?H:?\_V:#else  
?H:?\_V:#define \_V(args) ()  
?H:?\_V:#endif  
?H:.  
?LINT:set vaprotov  
: see if prototypes support variable argument declarations  
echo " "  
case "\$prototype\$i\_stdarg" in  
\$define\$define)  
echo "It appears we'll be able

```

to prototype varargs functions." >&4
val="$define"
;;
*)
echo "Too bad... We won't be using prototyped varargs functions..." >&4
val="$undef"
;;
esac
set vaproto
eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/vaproto.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: prefix.U,v 3.1 1999/07/08 18:27:51 doughera Exp doughera $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
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?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: prefix.U,v $
?RCS: Revision 3.1 1999/07/08 18:27:51 doughera
?RCS: 5.005_5x version -- Andy Dougherty
?RCS:
?RCS: Revision 3.0.1.2 1995/01/30 14:44:05 ram
?RCS: patch49: new prefixexp variable holding a fully expanded prefix
?RCS: patch49: save off previous prefix value in oldprefix if changed (WED)
?RCS: patch49: added the INSTALLPREFIX define for C programs to use (WED)
?RCS:
?RCS:
Revision 3.0.1.1 1994/08/29 16:31:34 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:prefix prefixexp +oldprefix: Getfile Loc Oldconfig cat package
?MAKE: -pick add $@ %<
?S:prefix:
?S: This variable holds the name of the directory below which the
?S: user will install the package. Usually, this is /usr/local, and
?S: executables go in /usr/local/bin, library stuff in /usr/local/lib,
?S: man pages in /usr/local/man, etc. It is only used to set defaults

```



?S: for things in bin.U, mansrc.U, privlib.U, or scriptdir.U.  
 ?S:.  
 ?S:prefixexp:  
 ?S: This variable holds the full absolute path of the directory below  
 ?S: which the user will install the package. Derived from prefix.  
 ?S:.  
 ?S:oldprefix:  
 ?S: This variable is set non-null if the prefix was previously defined  
 ?S: and gets set to a new value. Used internally by Configure only.  
 ?S:.  
 ?C:INSTALLPREFIX:  
 ?C: This symbol contains the name of the install prefix for this package.  
 ?C:.  
 ?H:#define INSTALLPREFIX "\$prefix" /\*\*/  
 ?H:.  
 :  
 determine root of directory hierarchy where package will be installed.  
 case "\$prefix" in  
 ")  
 dflt=`./loc . /usr/local /usr/local /local /opt /usr`  
 ;;  
 \*)  
 dflt=`echo "\$prefix" | sed 's/./`  
 ;;  
 \*)  
 dflt="\$prefix"  
 ;;  
 esac  
 \$cat <<EOM

By default, \$package will be installed in \$dflt/bin, manual pages under \$dflt/man, etc..., i.e. with \$dflt as prefix for all installation directories. Typically this is something like /usr/local. If you wish to have binaries under /usr/bin but other parts of the installation under /usr/local, that's ok: you will be prompted separately for each of the installation directories, the prefix being only used to set the defaults.

EOM  
 fn=d~  
 rp='Installation prefix to use?'  
 ./getfile  
 oldprefix="  
 case "\$prefix" in  
 ") ;;  
 \*)  
 case "\$ans" in  
 "\$prefix") ;;

```
*) oldprefix="$prefix";;
esac
;;
esac
prefix="$ans"
prefixexp="$ansexp"
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/prefix.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: siteprefix.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1999 Andy Dougherty
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
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```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: siteprefix.U,v $
```

```
?RCS: Revision 1.1 1999/07/08 18:32:57 doughera
```

```
?RCS: Initial revision
```

```
?RCS:
```

```
?MAKE:siteprefix siteprefixexp +oldsiteprefix: Getfile Loc Oldconfig cat package prefix
```

```
?MAKE: -pick add $@ %<
```

```
?S:siteprefix:
```

```
?S: This variable holds the full absolute path of the directory below
```

```
?S: which the user will install add-on packages.
```

```
?S: See INSTALL for usage and examples.
```

```
?S:.
```

```
?S:siteprefixexp:
```

```
?S: This variable holds the full absolute path of the
```

```
directory below
```

```
?S: which the user will install add-on packages. Derived from siteprefix.
```

```
?S:.
```

```
?S:oldsiteprefix:
```

```
?S: This variable is set non-null if the siteprefix was previously defined
```

```
?S: and gets set to a new value. Used internally by Configure only.
```

```
?S:.
```

```
: Set the siteprefix variables
```

```
$cat <<EOM
```

After \$package is installed, you may wish to install various add-on modules and utilities. Typically, these add-ons will be installed under \$prefix with the rest

of this package. However, you may wish to install such add-ons elsewhere under a different prefix.

If you do not wish to put everything under a single prefix, that's ok. You will be prompted for the individual locations; this siteprefix is only used to suggest the defaults.

The default should be fine for most people.

EOM

fn=d~+

rp='Installation prefix to use for add-on modules and utilities?'

: XXX Here might be another good place for an installstyle setting.

case "\$siteprefix" in

") dflt=\$prefix ;;

\*) dflt=\$siteprefix

;;

esac

./getfile

: XXX Prefixit unit does not yet support siteprefix and vendorprefix

oldsiteprefix="

case "\$siteprefix" in

") ;;

\*) case "\$ans" in

"\$prefix") ;;

\*) oldsiteprefix="\$prefix";;

esac

;;

esac

siteprefix="\$ans"

siteprefixexp="\$ansexp"

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/siteprefix.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Myinit.U,v \$

?RCS: Revision 3.0.1.1 1994/10/31 09:47:29 ram  
?RCS: patch44: leading comment states this unit comes before option processing  
?RCS:  
?RCS: Revision 3.0 1993/08/18 12:05:07 ram  
?RCS: Baseline for dist 3.0 netwide release.  
?RCS:  
?X:  
?X: If you want to initialize any default values, copy this unit to your  
?X: personal U directory and add the assignments to the end. This file  
?X: is included after variables are initialized but before any old  
?X: config.sh file is read in and before  
any Configure switch processing.  
?X:  
?MAKE:Myinit: Init  
?MAKE: -pick add \$@ %<  
?LINT: nocomment

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Myinit.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$  
?RCS:  
?RCS: Copyright (c) 2000 Jarkko Hietaniemi  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:d\_qgcvt: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_qgcvt:  
?S: This variable conditionally defines the HAS\_QGCVT symbol, which  
?S: indicates to the C program that the qgcvt() routine is available.  
?S:.  
?C:HAS\_QGCVT:  
?C: This symbol, if defined, indicates that the qgcvt routine is  
?C: available to convert long doubles ("quad doubles") to strings.  
?C: This is a low-level routine hopefully faster than sprintf.  
?C:.  
?H:#\$d\_qgcvt HAS\_QGCVT /\*\*/  
?H:.  
?LINT:set d\_qgcvt  
: see if qgcvt exists  
set qgcvt d\_qgcvt  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_qgcvt.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2001 Jarkko Hietaniemi

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_sresuproto: Hasproto i\_unistd

?MAKE: -pick add \$@ %<

?S:d\_sresuproto:

?S: This variable conditionally defines the HAS\_SETRESUID\_PROTO symbol,

?S: which indicates to the C program that the system provides

?S: a prototype for the setresuid() function. Otherwise, it is

?S: up to the program to supply one.

?S:.

?C:HAS\_SETRESUID\_PROTO:

?C: This symbol, if defined, indicates that the system provides

?C: a prototype for the setresuid() function. Otherwise, it is up

?C: to the program to supply one. Good guesses are

?C: extern

int setresuid(uid\_t ruid, uid\_t euid, uid\_t suid);

?C:.

?H:#\$d\_sresuproto HAS\_SETRESUID\_PROTO /\*\*/

?H:.

?LINT:set d\_sresuproto

: see if prototype for setresuid is available

echo " "

set d\_sresuproto setresuid \$i\_unistd unistd.h

eval \$hasproto

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_sresuproto.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

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```

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?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_closedir.U,v $
?RCS: Revision 3.0.1.3 1997/02/28 15:31:26 ram
?RCS: patch61: added ?F: metalint hint
?RCS:
?RCS: Revision 3.0.1.2 1994/10/29 16:11:18 ram
?RCS: patch36: added 'ldflags' to the test compile line (ADO)
?RCS:
?RCS: Revision 3.0.1.1 1994/08/29 16:07:21 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_closedir d_void_closedir: Inlibc i_dirent i_sysdir i_sysndir \
cc ccflags ldflags libs Setvar rm
?MAKE: -pick
add $@ %<
?S:d_closedir:
?S: This variable conditionally defines HAS_CLOSEDIR if closedir() is
?S: available.
?S:.
?C:HAS_CLOSEDIR:
?C: This symbol, if defined, indicates that the closedir() routine is
?C: available.
?C:.
?H:#$d_closedir HAS_CLOSEDIR /**/
?H:.
?S:d_void_closedir:
?S: This variable conditionally defines VOID_CLOSEDIR if closedir()
?S: does not return a value.
?S:.
?C:VOID_CLOSEDIR:
?C: This symbol, if defined, indicates that the closedir() routine
?C: does not return a value.
?C:.
?H:#$d_void_closedir VOID_CLOSEDIR /**/
?H:.
?F:!closedir
?LINT:set d_closedir d_void_closedir
: see if closedir exists
set closedir d_closedir
eval $inlibc

@if VOID_CLOSEDIR || d_void_closedir
?X: The following contortions are designed so we can call closedir()

```

?X: and check whether it returns a value. The contortions are designed  
?X: to portably pick up the correct directory header, for those  
?X: systems that support various mutually incompatible directory functions.  
?X: This

```
is from perl5's perl.h
case "$d_closedir" in
"$define")
echo " "
echo "Checking whether closedir() returns a status..." >&4
cat > closedir.c <<EOM
#i_dirent I_DIRENT /**/
#i_sysdir I_SYS_DIR /**/
#i_sysndir I_SYS_NDIR /**/

#if defined(I_DIRENT)
#include <dirent.h>
#if defined(NeXT) && defined(I_SYS_DIR) /* NeXT needs dirent + sys/dir.h */
#include <sys/dir.h>
#endif
#else
#ifdef I_SYS_NDIR
#include <sys/ndir.h>
#else
#ifdef I_SYS_DIR
#ifdef hp9000s500
#include <ndir.h> /* may be wrong in the future */
#else
#include <sys/dir.h>
#endif
#endif
#endif
#endif
#endif
int main() { return closedir(opendir(".")); }
EOM
if $cc $cflags $ldflags -o closedir closedir.c $libs > /dev/null 2>&1; then
if ./closedir > /dev/null 2>&1 ; then
echo "Yes, it does."
val="$undef"
else
echo "No, it doesn't."
val="$define"
fi
else
echo "(I can't seem to compile the test program--assuming it doesn't)"
val="$define"
fi
;;
*)
```

```
val="$undef";
;;
esac
set d_void_closedir
eval $setvar
$rm
-f closedir*
@end
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_closedir.U
```

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?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Signal.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:20:01 ram

?RCS: patch61: created

?RCS:

?X:

?X: This unit produces three files:

?X:

?X: 1- A signal.c file, which, when compiled and run, produces an output like:

?X:

?X: HUP 1

?X: INT 2

?X: QUIT 3

?X: etc...

?X:

?X: 2- A signal.awk script to parse the output of signal.c, fill

?X: in gaps (up to NSIG) and move duplicates to the end.

?X:

?X: 3- A signal\_cmd script to compile signal.c and run it

?X: through sort -n -k 2 | uniq | awk -f signal.awk.

?X:

(we try also sort -n +1 since some old hosts don't grok sort -k)

?X: (This is called signal\_cmd to avoid OS/2 confusion with

?X: signal.cmd vs. signal.

?X: The signal\_cmd script also falls back on checking signals one at a



```

?X: time in case the signal.c program fails. On at least one version of
?X: Linux 2.1.x, the header file #define'd SIGRTMAX to a symbol that
?X: is not defined by the compiler/linker. :-(. Further, on that same
?X: version of Linux, the user had a defective C-shell that gave an
?X: incorrect list for kill -l, so the fall-back didn't work.
?X:
?X: This unit is then used by sig_name.U.
?X:
?MAKE:Signal: test tr rm awk cat grep startsh eunicefix sed sort uniq \
Findhdr cppstdin +cppflags cppminus Compile trnl run
?MAKE: -pick add $@ %<
?X:all files declared as "public" since they're used from other units
?F:signal.c signal_cmd signal.lst signal.signal.awk
?T: xx xxx xxxfiles
?LINT:use rm run
: Trace out the files included by signal.h, then look for SIGxxx
names.
?X: Remove SIGARRAYSIZE used by HPUX.
?X: Remove SIGSTKSIZE used by Linux.
?X: Remove SIGSTKSZ used by Posix.
?X: Remove SIGTYP void lines used by OS2.
?X: Some cpps, like os390, dont give the file name anywhere
if ["X$fieldn" = X]; then
: Just make some guesses. We check them later.
xxx='/usr/include/signal.h /usr/include/sys/signal.h'
else
xxx=`echo '#include <signal.h>' |
$cppstdin $cppminus $cppflags 2>/dev/null |
$grep '^ []*#.*include' |
$awk '{print \\$fieldn}' | $sed 's!'!g' | \
$sed 's!\\\\\\\\\\\\\\\\!g' | $sort | $uniq`
fi
?X: Check this list of files to be sure we have parsed the cpp output ok.
?X: This will also avoid potentially non-existent files, such
?X: as ../foo/bar.h
xxxfiles=""
?X: Add /dev/null in case the $xxx list is empty.
for xx in $xxx /dev/null ; do
$test -f "$xx" && xxxfiles="$xxxfiles $xx"
done
?X: If we have found no files, at least try signal.h
case "$xxxfiles" in
") xxxfiles=`./findhdr signal.h` ;;
esac
xxx=`awk '
$1 ~ /^#define$/ &&
$2 ~ /^SIG[A-Z0-9]*$/ && $2 !~ /SIGARRAYSIZE/ && $2 !~ /SIGSTKSIZE/ && $2 !~ /SIGSTKSZ/ && $3 !~
/void/ {

```

```

print substr($2, 4, 20)
}
$1 == "#" && $2 ~ /^define$/ && $3 ~ /^SIG[A-Z0-9]*$/ && $3 !~ /SIGARRAYSIZE/ && $4 !~ /void/ {
print substr($3, 4, 20)
}' $xxxfiles`
: Append some common names just in case the awk scan failed.
xxx="$xxx ABRT ALRM BUS CANCEL CHLD CLD CONT DIL EMT FPE"
xxx="$xxx FREEZE HUP ILL INT IO IOT KILL LOST LWP PHONE"
xxx="$xxx PIPE POLL PROF PWR QUIT RTMAX RTMIN SEGV STKFLT STOP"
xxx="$xxx SYS TERM THAW TRAP TSTP TTIN TTOU URG USR1 USR2"
xxx="$xxx USR3 USR4 VTALRM WAITING WINCH WIND WINDOW XCPU XFSZ"

```

: generate a few handy files for later

```

$cat > signal.c <<'EOCP'
#include <sys/types.h>
#include <signal.h>
#include <stdio.h>
int main() {

/* Strange style to avoid deeply-nested #if/#else/#endif */
#ifndef NSIG
ifdef _NSIG
define NSIG (_NSIG)
endif
#endif

#ifndef NSIG
ifdef SIGMAX
define NSIG (SIGMAX+1)
endif
#endif

#ifndef NSIG
ifdef SIG_MAX
#
define NSIG (SIG_MAX+1)
endif
#endif

#ifndef NSIG
ifdef MAXSIG
define NSIG (MAXSIG+1)
endif
#endif

#ifndef NSIG
ifdef MAX_SIG
define NSIG (MAX_SIG+1)

```

```

endif
#endif

#ifndef NSIG
ifdef SIGARRAYSIZE
define NSIG (SIGARRAYSIZE+1) /* Not sure of the +1 */
endif
#endif

#ifndef NSIG
ifdef _sys_nsig
define NSIG (_sys_nsig) /* Solaris 2.5 */
endif
#endif

/* Default to some arbitrary number that's big enough to get most
 of the common signals.
*/
#ifndef NSIG
define NSIG 50
#endif

printf("NSIG %d\n", NSIG);

#ifndef JUST_NSIG

EOCP

echo $xxx | $tr ' ' $trnl | $sort | $uniq | $awk '
{
 printf "#ifdef SIG"; printf $1; printf "\n"
 printf "printf(\""; printf $1; printf " %%d\\n\",SIG";
 printf $1; printf ");\n"
 printf "#endif\n"
}
END {
 printf "#endif /* JUST_NSIG *\n";
 printf "exit(0);\n}\n";
}
' >>signal.c
$cat >signal.awk <<'EOP'
BEGIN { ndups = 0 }
$1 ~ /^NSIG$/ { nsig = $2 }
($1 !~ /^NSIG$/) && (NF == 2) {
 if ($2 >
maxsig) { maxsig = $2 }
 if (sig_name[$2]) {
dup_name[ndups] = $1

```

```

dup_num[ndups] = $2
ndups++
}
else {
sig_name[$2] = $1
sig_num[$2] = $2
}
}
END {
if (nsig == 0) {
 nsig = maxsig + 1
}
printf("NSIG %d\n", nsig);
for (n = 1; n < nsig; n++) {
if (sig_name[n]) {
 printf("%s %d\n", sig_name[n], sig_num[n])
}
else {
 printf("NUM%d %d\n", n, n)
}
}
for (n = 0; n < ndups; n++) {
printf("%s %d\n", dup_name[n], dup_num[n])
}
}
}
EOP
$cat >signal_cmd <<EOS
$startsh
if $test -s signal.lst; then
 echo "Using your existing signal.lst file"
 exit 0
fi
xxx="$xxx"
EOS

```

?X: Avoid variable interpolation problems, especially with

?X: xxx, which contains newlines.

```
$cat >>signal_cmd <<'EOS'
```

```

set signal
if eval $compile_ok; then
$run ./signal$_exe | ($sort -n -k 2 2>/dev/null || $sort -n +1) |\
 $uniq | $awk -f signal.awk >signal.lst
else
echo "(I can't seem be able to compile the whole test program)" >&4
echo "(I'll try it in little
pieces.)" >&4
set signal -DJUST_NSIG
if eval $compile_ok; then

```

```

$run ./signal$_exe > signal.nsg
$cat signal.nsg
else
echo "I can't seem to figure out how many signals you have." >&4
echo "Guessing 50." >&4
echo 'NSIG 50' > signal.nsg
fi
: Now look at all the signal names, one at a time.
for xx in `echo $xxx | $tr ' ' $trnl | $sort | $uniq`; do
$cat > signal.c <<EOCP
#include <sys/types.h>
#include <signal.h>
#include <stdio.h>
int main() {
printf("$xx %d\n", SIG${xx});
return 0;
}
EOCP
set signal
if eval $compile; then
echo "SIG${xx} found."
$run ./signal$_exe >> signal.ls1
else
echo "SIG${xx} NOT found."
fi
done
if $test -s signal.ls1; then
$cat signal.nsg signal.ls1 |
$sort -n | $uniq | $awk -f signal.awk >signal.lst
fi

fi
if $test -s signal.lst; then
:
else
echo "(AAK! I can't compile the test programs -- Guessing)" >&4
echo 'kill -l' >signal
set X `csh -f <signal`
$rm -f signal
shift
case $# in
0) set HUP INT QUIT ILL TRAP ABRT
EMT FPE KILL BUS SEGV SYS PIPE ALRM TERM;;
esac
echo $@ | $tr ' ' $trnl | \
$awk '{ printf "%s %d\n", $1, ++s; }
END { printf "NSIG %d\n", ++s }' >signal.lst
fi

```

```
$rm -f signal.c signal$_exe signal$_o signal.nsg signal.ls1
```

```
EOS
```

```
chmod a+x signal_cmd
```

```
$unicefix signal_cmd
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Signal.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Copyright (c) 2016 Tony Cook
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:dtraceobject dtracexnolib: usedtrace dtrace cc cflags optimize \
```

```
Compile cat rm_try
```

```
?MAKE: -pick add $@ %<
```

```
?S:dtraceobject:
```

```
?S: Whether we need to build an object file with the dtrace tool.
```

```
?S:.
```

```
?S:dtracexnolib:
```

```
?S: Whether dtrace accepts -xnolib. If available we call dtrace -h
```

```
?S: and dtrace -G with -xnolib to allow dtrace to run in a jail on
```

```
?S: FreeBSD.
```

```
?S:.
```

```
?F: !perldtrace.h
```

```
?T:xnolib
```

```
: Probe whether dtrace builds an object, as newer Illumos requires an input
```

```
: object file that uses at least one of the probes defined in the .d file
```

```
case "$usedtrace" in
```

```
$define)
```

```
case "$dtracexnolib" in
```

```
$define|true|[yY]*)
```

```
dtracexnolib=$define
```

```
$dtrace -h -xnolib -s ../perldtrace.d -o perldtrace.h
```

```
::
```

```
'|')
```

```
if $dtrace -h -xnolib -s ../perldtrace.d -o perldtrace.h 2>&1 ; then
```

```
dtracexnolib=$define
```

```
echo "Your dtrace accepts -xnolib"
```

```
elif $dtrace -h -s ../perldtrace.d -o perldtrace.h 2>&1 ; then
```

```
dtracexnolib=$undef
```

```
echo "Your dtrace doesn't accept -xnolib"
```

```
else
```

```
echo "Your dtrace doesn't work at all, try building without dtrace support" >&4
```

```
exit 1
```

```
fi
```

```

;;
*)
 dtracexnolibs=$undef
$dtrace -h -s ../perldtrace.d -o perldtrace.h
;;
esac
case $dtracexnolibs in
$define) xnolibs=-xnolibs ;;
*) xnolibs= ;;
esac

case "$dtraceobject" in
$define|true|[yY]*)
 dtraceobject=$define
 ;;
'|")
 $cat >try.c <<EOM
#include "perldtrace.h"
int main(void) {
 PERL_LOADED_FILE("dummy");
 return 0;
}
EOM
 dtraceobject=$undef
 if $cc -c -o try.o $optimize $ccflags try.c \
 && $dtrace -G $xnolibs -s ../perldtrace.d try.o >/dev/null 2>&1; then

 dtraceobject=$define
 echo "Your dtrace builds an object file"
 fi
 ;;
*) dtraceobject=$undef ;;
esac
$rm_try perldtrace.o perldtrace.h
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/dtraceobject.U

```

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?RCS:

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_sqrtl: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_sqrtl:  
?S: This variable conditionally defines the HAS\_SQRTL symbol, which  
?S: indicates to the C program that the sqrtl() routine is available.  
?S:.  
?C:HAS\_SQRTL:  
?C: This symbol, if defined, indicates that the sqrtl routine is  
?C: available to do long double square roots.  
?C:.  
?H:#\$d\_sqrtl HAS\_SQRTL /\*\*/  
?H:.  
?LINT:set d\_sqrtl  
: see if sqrtl exists  
set sqrtl d\_sqrtl  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_sqrtl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_bfd.U,v \$  
?RCS:  
?RCS: Copyright (c) 2014 H.Merijn Brand  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:i\_bfd: Inhdr Hasfield  
?MAKE: -pick add \$@ %<  
?S:i\_bfd:  
?S: This variable conditionally defines the I\_BFD symbol, and  
?S: indicates whether a C program can include <bfd.h>.  
?S:.  
?C:I\_BFD:  
?C: This symbol, if defined, indicates that <bfd.h> exists and  
?C: can be included.  
?C:.  
?H:#\$i\_bfd I\_BFD /\*\*/  
?H:.  
?LINT:set i\_bfd  
: see if this is a bfd.h system  
set bfd.h i\_bfd  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-



5.30.0/U/perl/i\_bfd.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_fd\_set.U,v 3.0.1.3 1997/02/28 15:33:16 ram Exp \$

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: d\_fd\_set.U,v \$

?RCS: Revision 3.0.1.3 1997/02/28 15:33:16 ram

?RCS: patch61: added ?F: metalint hint

?RCS:

?RCS: Revision 3.0.1.2 1994/06/20 06:57:23 ram

?RCS: patch30: extended scope for fd\_set checks (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/01/24 14:06:27 ram

?RCS: patch16: comments for HAS\_FD\_\* symbols were not consistent

?RCS:

?RCS: Revision 3.0 1993/08/18 12:06:02 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_fd\_set d\_fd\_macros

d\_fds\_bits: Compile cat rm\_try Oldconfig \

d\_socket i\_systime i\_sysselect i\_stdlib run

?MAKE: -pick add \$@ %<

?S:d\_fd\_set:

?S: This variable contains the eventual value of the HAS\_FD\_SET symbol,

?S: which indicates if your C compiler knows about the fd\_set typedef.

?S:.

?S:d\_fd\_macros:

?S: This variable contains the eventual value of the HAS\_FD\_MACROS symbol,

?S: which indicates if your C compiler knows about the macros which

?S: manipulate an fd\_set.

?S:.

?S:d\_fds\_bits:

?S: This variable contains the eventual value of the HAS\_FDS\_BITS symbol,

?S: which indicates if your fd\_set typedef contains the fds\_bits member.

?S: If you have an fd\_set typedef, but the dweebs who installed it did

?S: a half-fast job and neglected to provide the macros to manipulate

?S: an fd\_set, HAS\_FDS\_BITS will let us know how to fix the gaffe.

?S:.

?C:HAS\_FD\_SET:

?C: This symbol, when defined, indicates presence of the fd\_set typedef

```

?C: in <sys/types.h>
?C:.
?C:HAS_FD_MACROS:
?C: This symbol, when defined,
 indicates presence of the macros used to
?C: manipulate an fd_set.
?C:.
?C:HAS_FDS_BITS:
?C: This symbol, when defined, indicates presence of the fds_bits member in
?C: fd_set. This knowledge is useful if fd_set is available but the macros
?C: aren't.
?C:.
?H:#$d_fd_set HAS_FD_SET /**/
?H:#$d_fd_macros HAS_FD_MACROS /**/
?H:#$d_fds_bits HAS_FDS_BITS /**/
?H:.
?F:!try
: check for fd_set items
$cat <<EOM

```

Checking to see how well your C compiler handles fd\_set and friends ...

EOM

?X: The FD\_SET macros can be in strange places. On some SysV-based

?X: systems, they are in <sys/bsdtypes.h>, which is included (perhaps)

?X: by <sys/socket.h>. We won't force people to include

?X: <sys/bsdtypes.h> because it might introduce other

?X: incompatibilities.

```
$cat >try.c <<EOCP
```

```
#$i_stdlib I_STDLIB
```

```
#ifdef I_STDLIB
```

```
#include <stdlib.h>
```

```
#endif
```

```
#$i_systime I_SYS_TIME
```

```
#$i_sysselect I_SYS_SELECT
```

```
#$d_socket HAS_SOCKET
```

```
#include <sys/types.h>
```

```
#ifdef HAS_SOCKET
```

```
#include <sys/socket.h> /* Might include <sys/bsdtypes.h>
```

```
*/
```

```
#endif
```

```
#ifdef I_SYS_TIME
```

```
#include <sys/time.h>
```

```
#endif
```

```
#ifdef I_SYS_SELECT
```

```
#include <sys/select.h>
```

```
#endif
```

```
int main() {
```

```
 fd_set fds;
```

```

#ifdef TRYBITS
 if(fds.fds_bits);
#endif

#if defined(FD_SET) && defined(FD_CLR) && defined(FD_ISSET) && defined(FD_ZERO)
 exit(0);
#else
 exit(1);
#endif
}
EOCP
set try -DTRYBITS
if eval $compile; then
 d_fds_bits="$define"
 d_fd_set="$define"
 echo "Well, your system knows about the normal fd_set typedef..." >&4
 if $run ./try; then
 echo "and you have the normal fd_set macros (just as I'd expect)." >&4
 d_fd_macros="$define"
 else
 $cat >&4 <<'EOM'
but not the normal fd_set macros! Gaaack! I'll have to cover for you.
EOM
 d_fd_macros="$undef"
 fi
else
 $cat <<'EOM'
Hmm, your compiler has some difficulty with fd_set. Checking further...
EOM
 set try
 if eval $compile; then
 d_fds_bits="$undef"
 d_fd_set="$define"
 echo "Well, your system has some sort of fd_set available..." >&4
 if $run ./try; then
 echo "and you have the normal
fd_set macros." >&4
 d_fd_macros="$define"
 else
 $cat <<'EOM'
but not the normal fd_set macros! Gross! More work for me...
EOM
 d_fd_macros="$undef"
 fi
 else
 echo "Well, you got zip. That's OK, I can roll my own fd_set stuff." >&4
 d_fd_set="$undef"

```

```
d_fds_bits="$undef"
d_fd_macros="$undef"
fi
fi
$rm_try
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_fd_set.U
```

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_getpagsz.U,v \$

?RCS: Revision 3.0.1.1 1994/10/29 16:13:10 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:

?RCS: Revision 3.0 1993/08/18 12:06:14 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_getpagsz pagesize: Oldconfig Myread Inlibc cat contains +cc +ccflags \  
libs rm Findhdr

?MAKE: -pick add \$@ %<

?S:d\_getpagsz:

?S: This variable conditionally defines HAS\_GETPAGESIZE if getpagesize()

?S: is available to get the system page size.

?S:.

?S:pagesize (pagesize):

?S: This

variable holds the size in bytes of a system page.

?S:.

?C:HAS\_GETPAGESIZE (GETPAGESIZE):

?C: This symbol, if defined, indicates that the getpagesize system call

?C: is available to get system page size, which is the granularity of

?C: many memory management calls.

?C:.

?X: Don't name it PAGESIZE, this is sometimes used by <sys/param.h>

?C:PAGESIZE\_VALUE (PAGESIZE):

?C: This symbol holds the size in bytes of a system page (obtained via

?C: the getpagesize() system call at configuration time or asked to the

```

?C: user if the system call is not available).
?C:.
?H:#$d_getpagsz HAS_GETPAGESIZE /**/
?H:#define PAGESIZE_VALUE $pagesize /* System page size, in bytes */
?H:.
?F:!page
?T:guess
?LINT:set d_getpagsz
: see if getpagesize exists
set getpagesize d_getpagsz
eval $inlibc

@if pagesize || PAGESIZE_VALUE
: determine the system page size
echo " "
guess=' (OK to guess)'
case "$pagesize" in
")
$cat >page.c <<EOP
extern int getpagesize();
int main()
{
printf("%d\n", getpagesize());
}
EOP
echo
"Computing the granularity of memory management calls..." >&4
dflt='4096'
case "$d_getpagsz" in
"$define")
if $cc $ccflags -o page page.c $libs >/dev/null 2>&1; then
dflt=`./page`
guess="
else
echo "(I can't seem to compile the test program--guessing)"
fi
;;
*)
if $cc $ccflags -o page page.c $libs -IPW >/dev/null 2>&1; then
dflt=`./page`
guess="
echo "(For your eyes only: I used the getpagesize() from -IPW.)"
else
if $contains PAGESIZE `./findhdr sys/param.h` >/dev/null 2>&1; then
$cat >page.c <<EOP
#include <sys/param.h>
int main()
{

```

```

printf("%d\n", PAGESIZE);
}
EOP
if $cc $ccflags -o page page.c $libs >/dev/null 2>&1; then
 dflt=`./page`
 guess="
 echo "(Using value of PAGESIZE found in <sys/param.h>.)"
 fi
fi
fi
;;
esac
;;
*) dflt="$pagesize"; guess="";
esac
rp="What is the system page size, in bytes$guess?"
./myread
pagesize=$ans
$rm -f page.c page

@end

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_getpagsz.U

```

No license file was found, but licenses were detected in source scan.

```

case $CONFIG in
")
 if test -f config.sh; then TOP=.;
 elif test -f ../config.sh; then TOP=..;
 elif test -f ../../config.sh; then TOP=../../;
 elif test -f ../../../config.sh; then TOP=../../../;
 elif test -f ../../../../config.sh; then TOP=../../../../;
 else
 echo "Can't find config.sh."; exit 1
 fi
 . $TOP/config.sh
 ;;
esac
case "$0" in
/) cd `expr X$0 : 'X\(.*/\)'` ;;
esac
echo "Extracting makedepend (with variable substitutions)"
$spitshell >makedepend <<!GROK!THIS!
$startsh
$Id: makedepend.sh,v 3.0.1.1 1994/01/24 14:00:05 ram Exp ram $
#

```

```

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#
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as specified in the README file that comes with the distribution.
You may reuse parts of this distribution only within the terms of
that same Artistic Licence; a copy of which may be found at the root
of the source tree for dist 4.0.
#
#
Original Author: Larry Wall <lwall@netlabs.com>
#
$Log: makedepend.sh,v $
Revision 3.0.1.1 1994/01/24 14:00:05 ram
patch16: changed top ln-style config.sh lookup into test-style one
#
Revision 3.0 1993/08/18 12:04:37 ram
Baseline for dist 3.0 netwide release.
#

export PATH || (echo "OOPS, this isn't sh. Desperation time. I will feed myself to sh."; sh \${0}; kill \${0})

cat='Scat'
cppflags='Scppflags'
cp='Scp'
cpp='Scppstdin'
echo='Secho'
egrep='Segrep'
expr='Sexpr'
mv='Smv'
rm='Rm'
sed='Sed'
sort='Sort'
test='Stest'
tr='Str'
uniq='Suniq'
!GROK!THIS!

$spitshell >>makedepend <<!NO!SUBS!

Scat /dev/null >.deptmp
Rm -f *.c.c c/*.c.c
if test -f Makefile; then
 mf=Makefile
else
 mf=makefile
fi
if test -f $mf; then
 defrule=`<$mf sed -n \

```

```

-e '/^\.c\.o:.*;/{' \
-e 's/^\$*\c//' \
-e 's/^[^;]*;[]*//p' \
-e q \
-e '}' \
-e '/^\.c\.o: *$/{' \
-e N \
-e 's/^\$*\c//' \
-e 's/^\.*\n[]*//p' \
-e q \
-e '^'
fi
case
"$defrule" in
") defrule='$(CC) -c $(CFLAGS)' ;;
esac

make clist || ($echo "Searching for .c files..."; \
$echo *.c | $tr ' ' '\012' | $egrep -v '*' >.clist)
gotnone=true
for file in `Scat .clist`; do
for file in `cat /dev/null`; do
case "$file" in
*.c) filebase=`basename $file .c` ;;
*.y) filebase=`basename $file .c` ;;
") continue ;;
esac
gotnone=false
$echo "Finding dependencies for $filebase.o."
$sed -n <$file >$file.c \
-e "/^${filebase}_init(/q" \
-e '/^#/{' \
-e 's/^\.*$||' \
-e 's\\$||' \
-e p \
-e '}'
$cpp -I/usr/local/include -I. $cppflags $file.c | \
$sed \
-e '/^#*[0-9]/!d' \
-e 's/^\.*"(.*)"*.*/$filebase'.o: \1/' \
-e 's|: \./: |' \
-e 's|\.c\.c|.c|' | \
$uniq | $sort | $uniq >> .deptmp
done

$sed <Makefile >Makefile.new -e '1,/^# AUTOMATICALLY!/d'

make shlist || ($echo "Searching for .SH files..."; \

```



```

$echo *.SH | $tr ' ' '\012' | $grep -v '*' >.shlist)
if $gotnone || $test -s .deptmp; then

 for file in `cat .shlist`; do
$echo `$expr X$file : 'X\(.*)\.SH` : $file config.sh \; \
 /bin/sh $file >> .deptmp
 done
 $echo "Updating Makefile..."
 $echo "# If this runs make out of memory, delete /usr/include lines." \
>> Makefile.new
 $sed 's|^\(.*\o:)\ *(.*/.*.c) *$|1 \2; ""$defrule \2|" .deptmp \
 >>Makefile.new
else
 make hlist || ($echo "Searching for .h files..."; \
$echo *.h | $tr ' ' '\012' | $grep -v '*' >.hlist)
 $echo "You don't seem to have a proper C preprocessor. Using grep instead."
 $grep '^#include ' `cat .clist` `cat .hlist` >.deptmp
 $echo "Updating Makefile..."
 <.clist $sed -n \
-e '/\{ ' \
-e 's|^\(.*)^\(.*)\.c|2.o: \1\2.c; ""$defrule \1\2.c|p' \
-e d \
-e '}' \
-e 's|^\(.*)\.c|1.o: \1.c|p' >> Makefile.new
 <.hlist $sed -n 's|(\.*/)\(.*)|s= \2= \1\2=|p' >.hsed
 <.deptmp $sed -n 's|c:#include "\(.*)".*|o: \1|p' | \
 $sed 's|^[^;]*|'| \
 $sed -f
.hsed >> Makefile.new
 <.deptmp $sed -n 's|c:#include <(\.*)>.*|o: /usr/include/\1|p' \
 >> Makefile.new
 <.deptmp $sed -n 's|h:#include "\(.*)".*|h: \1|p' | \
 $sed -f .hsed >> Makefile.new
 <.deptmp $sed -n 's|h:#include <(\.*)>.*|h: /usr/include/\1|p' \
 >> Makefile.new
 for file in `cat .shlist`; do
$echo `$expr X$file : 'X\(.*)\.SH` : $file config.sh \; \
 /bin/sh $file >> Makefile.new
 done
fi
$rm -f Makefile.old
$cp Makefile Makefile.old
$cp Makefile.new Makefile
$rm Makefile.new
$echo "# WARNING: Put nothing here or make depend will gobble it up!" >> Makefile
$rm -f .deptmp `sed 's|\c/c/c/' .clist` .shlist .clist .hlist .hsed

```

!NO!SUBS!

```
$eunicefix makedepend
chmod +x makedepend
case `pwd` in
*SH)
 $rm -f ./makedepend
 ln makedepend ./makedepend
 ;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/lib/makedepend.SH
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Init.U,v \$

?RCS: Revision 3.0.1.1 1994/10/31 09:45:59 ram

?RCS: patch44: removed Options from MAKE to prevent Init overrides

?RCS: patch44: option processing now done after Myinit thanks to new Begin.U

?RCS: patch44: moved "Beginning of configuration questions" to Begin.U

?RCS: patch44: moved signal trapping instruction to Begin.U as well

?RCS:

?RCS: Revision 3.0 1993/08/18 12:05:02 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This file initializes certain default variables

used by Configure. They

?X: may be overridden or added to by definitions in Myinit.U.

?X:

?MAKE:Init eunicefix \_exe: Null

?MAKE: -pick add \$@ %<

?MAKE: -pick weed \$@ ./Init

?S:eunicefix:

?S: When running under Eunice this variable contains a command which will

?S: convert a shell script to the proper form of text file for it to be

?S: executable by the shell. On other systems it is a no-op.

?S:.

?S:\_exe (exe\_ext):

?S: This variable defines the extension used for executable files.

?S: For unix it is empty. Other possible values include '.exe'.

?S: DJGPP, Cygwin and OS/2 use '.exe'. Stratus VOS uses '.pm'.

?S: On operating systems which do not require a specific extension

?S: for executable files, this variable is empty.

?S:.

?V:define undef smallmach:rmlist

?X:

?X: Throughout the units, one may make use of \$define and \$undef to reference

?X: a defined symbol or an undefined one. There is no need to add them in

?X: the dependency line since this unit makes them visible via ?V:, and

?X:

everyone inherits from those symbols since by convention Init.U is the

?X: root dependency.

?X:

?T: DJGPP

: Initialize wide constants

define='define'

undef='undef'

smallmach='pdp11 i8086 z8000 i80286 iAPX286'

rmlist="

: We must find out about Eunice early

eunicefix=':'

if test -f /etc/unixtovms; then

    eunicefix=/etc/unixtovms

fi

if test -f /etc/unixtovms.exe; then

    eunicefix=/etc/unixtovms.exe

fi

: Set executable suffix now -- needed before hints available

if test -f "/libs/version.library"; then

    : Amiga OS

    \_exe=""

elif test -f "/system/gnu\_library/bin/ar.pm"; then

    : Stratus VOS

    \_exe=".pm"

elif test -n "\$DJGPP"; then

    : DOS DJGPP

    \_exe=".exe"

elif test -d c:/ ; then

    : OS/2 or cygwin

    \_exe=".exe"

else

    : All other UNIX systems

    \_exe=""

fi

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Init.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: prefix.U,v \$

?RCS: Revision 3.0.1.2 1995/01/30 14:44:05 ram

?RCS: patch49: new prefixexp variable holding a fully expanded prefix

?RCS: patch49: save off previous prefix value in oldprefix if changed (WED)

?RCS: patch49: added the INSTALLPREFIX define for C programs to use (WED)

?RCS:

?RCS: Revision 3.0.1.1 1994/08/29 16:31:34 ram

?RCS: patch32: created by ADO

?RCS:

?MAKE:prefix prefixexp +oldprefix: Getfile Loc Oldconfig  
cat package

?MAKE: -pick add \$@ %<

?S:prefix:

?S: This variable holds the name of the directory below which the

?S: user will install the package. Usually, this is /usr/local, and

?S: executables go in /usr/local/bin, library stuff in /usr/local/lib,

?S: man pages in /usr/local/man, etc. It is only used to set defaults

?S: for things in bin.U, mansrc.U, privlib.U, or scriptdir.U.

?S:.

?S:prefixexp:

?S: This variable holds the full absolute path of the directory below

?S: which the user will install the package. Derived from prefix.

?S:.

?S:oldprefix:

?S: This variable is set non-null if the prefix was previously defined

?S: and gets set to a new value. Used internally by Configure only.

?S:.

?C:INSTALLPREFIX:

?C: This symbol contains the name of the install prefix for this package.

?C:.

```
?H:#define INSTALLPREFIX "$prefix" /**/
?H:.
: determine root of directory hierarchy where package will be installed.
case "$prefix" in
")
dflt=`./loc ./usr/local /usr/local /local /opt
/usr`
;;
*)
dflt="$prefix"
;;
esac
$cat <<EOM
```

By default, \$package will be installed in \$dflt/bin, manual pages under \$dflt/man, etc..., i.e. with \$dflt as prefix for all installation directories. Typically set to /usr/local, but you may choose /usr if you wish to install \$package among your system binaries. If you wish to have binaries under /bin but manual pages under /usr/local/man, that's ok: you will be prompted separately for each of the installation directories, the prefix being only used to set the defaults.

```
EOM
fn=d~
rp='Installation prefix to use?'
./getfile
oldprefix=""
case "$prefix" in
") ;;
*)
case "$ans" in
"$prefix") ;;
*) oldprefix="$prefix";;
esac
;;
esac
prefix="$ans"
prefixexp="$ansexp"
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/prefix.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:sysroot: Head

?MAKE: -pick add \$@ %<

?S:sysroot:

?S: This variable is empty unless supplied by the Configure user.

?S: It can contain a path to an alternative root directory, under which

?S: headers and libraries for the compilation target can be found. This

?S: is generally used when cross-compiling using a gcc-like compiler.

?S:.

?LINT:extern cc

?LINT:extern cppflags

?LINT:change cppflags

?LINT:extern ccflags

?LINT:change ccflags

?LINT:extern ldflags

?LINT:change ldflags

?LINT:extern cccldflags

?X: \_sysroot is later used in ccflags, but we do not want it in config.sh

?T:var xxx path \_sysroot

: Set 'sysroot' to change the logical root directory to your headers and libraries see man gcc

: This is primarily meant for cross-compile environments, and

may fail to be useful in other cases

if test "X\$sysroot" = X; then

sysroot=""

else

case "\$cc" in

\*gcc\*|\*g++\*)

echo "Using \$sysroot to find your headers and libraries, adding to ccflags"

# \_sysroot is used in places where we need --sysroot=foo

# but using the rest of the flags could cause issues.

\_sysroot="--sysroot=\$sysroot";

case "\$ccflags" in

\*sysroot\*) ;;

'undef'|\*)

ccflags="\$ccflags \$\_sysroot"

esac

case "\$ldflags" in

\*sysroot\*) ;;

'undef'|\*)

ldflags="\$ldflags \$\_sysroot"

esac

case "\$cppflags" in

\*sysroot\*) ;;

'undef'|\*)

cppflags="\$cppflags \$\_sysroot"

esac

# lddflags updated below in lddflags section;

```

same with cccdlflags
;;
esac

Adjust some defaults to also use $sysroot
for var in xlibpth loclibpth locincpth glibpth; do
eval xxx=\$$var
eval $var=""
for path in $xxx; do
 eval $var="\$$var $sysroot$path\"
done
done

fi

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/Sysroot.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: Id
?RCS:
?RCS: Copyright (c) 2000 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_strtold_l: Inlibc
?MAKE: -pick add $@ %<
?S:d_strtold_l:
?S: This variable conditionally defines the HAS_STRTOLD_L symbol, which
?S: indicates to the C program that the strtold_l() routine is available.
?S:
?C:HAS_STRTOLD_L:
?C: This symbol, if defined, indicates that the strtold_l routine is
?C: available to convert strings to long doubles.
?C:
?H:#$d_strtold_l HAS_STRTOLD_L /**/
?H:
?LINT:set d_strtold_l
: see if strtold_l exists
set strtold_l d_strtold_l
eval $inlibc

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_strtold_l.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
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?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_ualarm: Inlibc
?MAKE: -pick add $@ %<
?S:d_ualarm:
?S: This variable conditionally defines the HAS_UALARM symbol, which
?S: indicates to the C program that the ualarm() routine is available.
?S:.
?C:HAS_UALARM:
?C: This symbol, if defined, indicates that the ualarm routine is
?C: available to do alarms with microsecond granularity.
?C:.
?H:#$d_ualarm HAS_UALARM /**/
?H:.
?LINT:set d_ualarm
: see if ualarm exists
set ualarm d_ualarm
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_ualarm.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:d_isless: cat Compile rm_try Setvar
?MAKE: -pick add $@ %<
?S:d_isless:
?S: This variable conditionally defines the HAS_ISLESS symbol, which
?S: indicates to the C program that the isless() routine is available.
?S:.
?C:HAS_ISLESS:
?C: This symbol, if defined, indicates that the isless routine is
?C: available to do the isless function.
?C:.
?H:#$d_isless HAS_ISLESS /**/
?H:.
?LINT:set d_isless
: check for isless
```



```

echo "Checking to see if you have isless..." >&4
$cat >try.c <<EOCP
#include <math.h>
int main() { return isless(0.0); }
EOCP
set try
if eval $compile; then
 val="$define"
 echo "You have isless."
else
 val="$undef"
 echo "You do not have isless."
fi
$rm_try
set d_isless
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_isless.U

```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_tgamma: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_tgamma:

?S: This variable conditionally defines the HAS\_TGAMMA symbol, which

?S: indicates to the C program that the tgamma() routine is available

?S: for the gamma function. See also d\_lgamma.

?S:.

?C:HAS\_TGAMMA:

?C: This symbol, if defined, indicates that the tgamma routine is

?C: available to do the gamma function. See also HAS\_LGAMMA.

?C:.

?H:#\$d\_tgamma HAS\_TGAMMA /\*\*/

?H:.

?LINT:set d\_tgamma

: see if tgamma exists

set tgamma d\_tgamma

eval \$inlibc

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_tgamma.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: installprefix.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera $
?RCS:
?RCS: Copyright (c) 1999 Andy Dougherty
?RCS:
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?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: installprefix.U,v $
?RCS: Revision 1.1 1999/07/08 18:32:57 doughera
?RCS: Initial revision
?RCS:
?RCS:
?MAKE:installprefix installprefixexp: Getfile Loc \
 Oldconfig afs cat package prefix
?MAKE: -pick add $@ %<
?S:installprefix:
?S: This variable holds the name of the directory below which
?S: "make install" will install the package. For most users, this
?S: is the same
 as prefix. However, it is useful for
?S: installing the software into a different (usually temporary)
?S: location after which it can be bundled up and moved somehow
?S: to the final location specified by prefix.
?S:.
?S:installprefixexp:
?S: This variable holds the full absolute path of installprefix
?S: with all ~-expansion done.
?S:.
: determine installation prefix for where package is to be installed.
if $afs; then
$cat <<EOM

```

Since you are running AFS, I need to distinguish the directory in which files will reside from the directory in which they are installed (and from which they are presumably copied to the former directory by occult means).

```

EOM
case "$installprefix" in
 *) dflt=`echo $prefix | sed 's#^/afs/#/afs/.#`;;
 *) dflt="$installprefix";;
esac
else
$cat <<EOM

```

In some special cases, particularly when building \$package for distribution, it is convenient to distinguish the directory in which files should be installed from the directory (\$prefix) in which they will eventually reside. For most users, these two directories are the same.

EOM

```
case "$installprefix" in
 *) dflt=$prefix ;;
 *) dflt=$installprefix;;
esac
fi
fn=d~
rp='What installation prefix should I use for installing files?'
./getfile
installprefix="$ans"
installprefixexp="$ansexp"
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/installprefix.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_passwd.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>

?RCS:

?RCS: \$Log: d\_passwd.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:37:21 ram

?RCS: patch61: useless unit dropped.

?RCS:

?RCS: Revision 3.0.1.1 1994/08/29 16:09:51 ram

?RCS: patch32: created by ADO

?RCS:

?X:

?X: Useless unit dropped.

?X:

?LINT:empty

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_passwd.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_fsetpos.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_fsetpos.U,v \$

?RCS: Revision 3.0.1.1 1994/06/20 06:57:38 ram

?RCS: patch30: created

?RCS:

?MAKE:d\_fsetpos: Inlibc

?MAKE: -pick add @\$ %<

?S:d\_fsetpos:

?S: This variable conditionally defines HAS\_FSETPOS if fsetpos() is

?S: available to set the file position indicator.

?S:.

?C:HAS\_FSETPOS:

?C: This symbol, if defined, indicates that the fsetpos routine is

?C: available to set the file position indicator, similar to fseek().

?C:.

?H:#\$d\_fsetpos

HAS\_FSETPOS /\*\*/

?H:.

?LINT:set d\_fsetpos

: see if fsetpos exists

set fsetpos d\_fsetpos

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_fsetpos.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: usecbacktrace.U,v \$

?RCS:

?RCS: Copyright (c) 2014 H.Merijn Brand

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

```

?RCS:
?RCS: $Log: usebacktrace.U,v $
?RCS:
?MAKE:usebacktrace: Myread Oldconfig Setvar Getfile d_backtrace
?MAKE: -pick add $@ %<
?Y:TOP
?S:usebacktrace:
?S: This variable indicates whether we are compiling with backtrace
?S: support.
?S:.
?C:USE_CBACKTRACE:
?C: This symbol, if defined, indicates that Perl should
?C: be built with support for backtrace.
?C:.
?H:$usebacktrace USE_CBACKTRACE /**/
?H:.
?LINT:extern ccflags
?LINT:change ccflags
: add flags if using c backtrace
case "$usebacktrace" in
"") usebacktrace=$undef ;;
[yY]*|true|$define)
 case "$d_backtrace" in
 [yY]*|true|$define)
 case " $ccflags " in
 " -DUSE_C_BACKTRACE "") ;; # Already there.
 *) ccflags="$ccflags
-DUSE_C_BACKTRACE -g" ;;
 esac
 ;;
*)
 echo "This system does not support backtrace" >&4
 usebacktrace=$undef
 ;;
 esac
 ;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/usebacktrace.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_endgrent.U,v $
?RCS:
?RCS: Copyright (c) 1998 Andy Dougherty
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public

```

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: d\_endgrent.U,v \$

?RCS:

?MAKE:d\_endgrent: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_endgrent:

?S: This variable conditionally defines the HAS\_ENDGRENT symbol, which

?S: indicates to the C program that the endgrent() routine is available

?S: for sequential access of the group database.

?S:.

?C:HAS\_ENDGRENT:

?C: This symbol, if defined, indicates that the getgrent routine is

?C: available for finalizing sequential access of the group database.

?C:.

?H:#\$d\_endgrent HAS\_ENDGRENT /\*\*/

?H:.

?LINT:set d\_endgrent

: see if endgrent exists

set endgrent d\_endgrent

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_endgrent.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_gethostprotos.U,v \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

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?RCS: as specified in the README file that comes with the distribution.

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?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_gethostprotos : Hasproto i\_netdb

?MAKE: -pick add \$@ %<

?S:d\_gethostprotos:

?S: This variable conditionally defines the HAS\_GETHOST\_PROTOS symbol,

?S: which indicates to the C program that <netdb.h> supplies

?S: prototypes for the various gethost\*() functions.

?S: See also netdbtype.U for probing for various netdb types.

?S:.

?C:HAS\_GETHOST\_PROTOS:

?C: This symbol, if defined, indicates that <netdb.h> includes

?C: prototypes for gethostent(), gethostbyname(), and

?C: gethostbyaddr(). Otherwise,  
it is up to the program to guess  
?C: them. See netdbtype.U for probing for various Netdb\_xxx\_t types.  
?C:.  
?H:#\$d\_gethostprotos HAS\_GETHOST\_PROTOS /\*\*/  
?H:.  
?LINT:set d\_gethostprotos  
?X: This test actually only checks for gethostent() and assumes the  
?X: others follow suit. This test fails for ChorusOS, which has  
?X: gethostbyname and gethostbyaddr, but not gethostent.  
: see if prototypes for various gethostxxx netdb.h functions are available  
echo " "  
set d\_gethostprotos gethostent \$\_netdb netdb.h  
eval \$hasproto

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/protos/d\_gethostprotos.U

No license file was found, but licenses were detected in source scan.

?RCS: Copyright (c) 2017, Karl Williamson

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?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d\_wcrtomb: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_wcrtomb:

?S: This variable conditionally defines the HAS\_WCRTOMB symbol if the

?S: wcrtomb() routine is available to be used to convert a wide character

?S: into a multi-byte character.

?S:.

?C:HAS\_WCRTOMB:

?C: This symbol, if defined, indicates that the wcrtomb routine is

?C: available to convert a wide character into a multi-byte character.

?C:.

?H:#\$d\_wcrtomb HAS\_WCRTOMB /\*\*/  
?H:.

?LINT: set d\_wcrtomb

: see if wcrtomb exists

set wcrtomb d\_wcrtomb

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/U/threads/d\_wcrtomb.U

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: fpu.U,v $
?RCS: Revision 3.0 1993/08/18 12:08:10 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:fpu: test cat cc Myread
?MAKE: -pick add $@ %<
?S:fpu (fpunit):
?S: Set to be the compile flag for the local floating point unit.
?S:.
?C:FPU (FPUNIT):
?C: String containing the flags for the local floating point unit.
?C:.
?H:#define FPU "$fpu" /**/
?H:.
: see what floating point compile flags should be used.
fpu="
if $test -r /dev/fpa; then
$cat>fpa.c << GOOP
main(){return(1);}
GOOP
$cc
-ffpa -o fpa fpa.c
fpa > fpa.out 2>&1
if $test ! -s fpa.out; then
dflt='y'
$cat <<'EOM'
```

You seem to have a sun fpa... I can compile the code to use the fpa but it will mean that the code can ONLY run on a machine with a fpa...

```
EOM
rp="Should I compile for fpa?"
. ./myread
if $test $ans = "n"; then
fpu="
```



```
else
 fpu='-ffpa'
fi
else
$cat <<'EOM'
```

You have the fpa device but I can't seem to use it. Maybe you should talk to your sysadmin about this. For now, I am not going to compile it in.

```
EOM
fi
fi
if $test "$fpu" = "; then
 if $test -r /usr/etc/mc68881version; then
 dflt='y'
 $cat <<'EOM'
```

There also seems to be the pieces for a 68881. If I compile this in, it will work on almost all Sun 3's except for a few Sun-3/50s without a 68881...

```
EOM
rp="Should I compile for a 68881?"
. ./myread
if $test $ans = "y"; then
 fpu='-f68881'
fi
fi
fi
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/fpu.U
```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_acosh: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_acosh:

?S: This variable conditionally defines the HAS\_ACOSH symbol, which

?S: indicates to the C program that the acosh() routine is available.

?S:.

?C:HAS\_ACOSH:

?C: This symbol, if defined, indicates that the acosh routine is

?C: available to do the inverse hyperbolic cosine function.

?C:.

?H:#\$d\_acosh HAS\_ACOSH /\*\*/

```
?H:
?LINT:set d_acosh
: see if acosh exists
set acosh d_acosh
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_acosh.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_dirent.U,v 3.0.1.4 1994/10/29 16:20:01 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: i_dirent.U,v $
?RCS: Revision 3.0.1.4 1994/10/29 16:20:01 ram
?RCS: patch36: failed scanning for 'd_namlen' with missing <dirent.h> (ADO)
?RCS:
?RCS: Revision 3.0.1.3 1994/06/20 07:01:25 ram
?RCS: patch30: added direntrytype for hints, merely for NeXT (ADO)
?RCS: patch30: now checks for both struct dirent and direct (ADO)
?RCS:
?RCS: Revision 3.0.1.2 1994/05/13 15:22:37 ram
?RCS: patch27: new variable direntrytype for proper type setting (ADO)
?RCS:
?RCS:
Revision 3.0.1.1 1994/01/24 14:11:15 ram
?RCS: patch16: added new Direntry_t pseudo-type for directory entries
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:17 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit looks whether there is a dirent system or not
?X:
?MAKE:i_dirent d_dirnamlen direntrytype: test contains Setvar \
Myread Findhdr cppstdin cppflags cppminus rm_try
?MAKE: -pick add $@ %<
?S:i_dirent:
?S: This variable conditionally defines I_DIRENT, which indicates
?S: to the C program that it should include <dirent.h>.
```

?S:.

?S:d\_dirnamlen:

?S: This variable conditionally defines DIRNAMLEN, which indicates  
 ?S: to the C program that the length of directory entry names is  
 ?S: provided by a d\_namelen field.

?S:.

?S:direntrytype:

?S: This symbol is set to 'struct direct' or 'struct dirent' depending on  
 ?S: whether dirent is available or not. You should use this pseudo type to  
 ?S: portably declare your directory entries.

?S:.

?C:I\_DIRENT:

?C: This symbol,  
 if defined, indicates to the C program that it should  
 ?C: include <dirent.h>. Using this symbol also triggers the definition  
 ?C: of the Direntry\_t define which ends up being 'struct dirent' or  
 ?C: 'struct direct' depending on the availability of <dirent.h>.

?C:.

?C:DIRNAMLEN:

?C: This symbol, if defined, indicates to the C program that the length  
 ?C: of directory entry names is provided by a d\_namlen field. Otherwise  
 ?C: you need to do strlen() on the d\_name field.

?C:.

?C:Direntry\_t:

?C: This symbol is set to 'struct direct' or 'struct dirent' depending on  
 ?C: whether dirent is available or not. You should use this pseudo type to  
 ?C: portably declare your directory entries.

?C:.

?H:#\$i\_dirent I\_DIRENT /\*\*/  
 ?H:#\$d\_dirnamlen DIRNAMLEN /\*\*/  
 ?H:?%<:@if I\_DIRENT && Direntry\_t  
 ?H:?%<:#define Direntry\_t \$direntrytype  
 ?H:?%<:@end

?H:.

?T:xinc guess1 guess2

?LINT:set i\_dirent d\_dirnamlen  
 : see if this is a dirent system  
 echo " "  
 if xinc=`./findhdr dirent.h`; \$test "\$xinc"; then  
 val="\$define"  
 echo  
 "<dirent.h> found." >&4  
 else  
 val="\$undef"  
 if xinc=`./findhdr sys/dir.h`; \$test "\$xinc"; then  
 echo "<sys/dir.h> found." >&4  
 echo " "  
 else

```

xinc=`./findhdr sys/ndir.h`
fi
echo "<dirent.h> NOT found." >&4
fi
set i_dirent
eval $setvar

?X: Use struct dirent or struct direct? If we're using dirent.h,
?X: it's probably struct dirent, but apparently not always.
?X: Assume $xinc still contains the name of the header file we're using.
@if direntrytype || Direntry_t
: Look for type of directory structure.
echo " "
$cppstdin $cppflags $cppminus < "$xinc" > try.c

case "$direntrytype" in
'| ')
case "$i_dirent" in
$define) guess1='struct dirent' ;;
*) guess1='struct direct' ;;
esac
;;
*) guess1="$direntrytype"
;;
esac

case "$guess1" in
'struct dirent') guess2='struct direct' ;;
*) guess2='struct dirent' ;;
esac

if $contains "$guess1" try.c >/dev/null 2>&1; then
direntrytype="$guess1"
echo "Your directory entries are $direntrytype." >&4
elif $contains "$guess2"
try.c >/dev/null 2>&1; then
direntrytype="$guess2"
echo "Your directory entries seem to be $direntrytype." >&4
else
echo "I don't recognize your system's directory entries." >&4
rp="What type is used for directory entries on this system?"
dflt="$guess1"
./myread
direntrytype="$ans"
fi
$rm_try

@end

```

```

@if d_dirnamlen || DIRNAMLEN
: see if the directory entry stores field length
echo " "
$cppstdin $cppflags $cppminus < "$xinc" > try.c
if $contains 'd_namlen' try.c >/dev/null 2>&1; then
echo "Good, your directory entry keeps length information in d_namlen." >&4
val="$define"
else
echo "Your directory entry does not know about the d_namlen field." >&4
val="$undef"
fi
set d_dirnamlen
eval $setvar
$rm_try

@end

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i_dirent.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: i_ndbm.U,v 3.0.1.1 1995/05/12 12:16:53 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: i_ndbm.U,v $
?RCS: Revision 3.0.1.1 1995/05/12 12:16:53 ram
?RCS: patch54: made more robust by checking both header and lib (ADO)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:23 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:i_ndbm i_gdbmndbm i_gdbm_ndbm d_ndbm d_ndbm_h_uses_prototypes \
d_gdbmndbm_h_uses_prototypes d_gdbm_ndbm_h_uses_prototypes: \
Inhdr Inlibc Setvar test d_cplusplus extern_C echo Protochk
?MAKE: -pick add $@ %<
?S:i_ndbm:
?S: This
variable conditionally defines the I_NDBM symbol, which
?S: indicates to the C program that <ndbm.h> exists and should
?S: be included.

```

?S:.

?C:I\_NDBM:

?C: This symbol, if defined, indicates that <ndbm.h> exists and should  
?C: be included.

?C:.

?S:i\_gdbmndbm:

?S: This variable conditionally defines the I\_GDBMNDBM symbol, which  
?S: indicates to the C program that <gdbm/ndbm.h> exists and should  
?S: be included. This was the location of the ndbm.h compatibility file  
?S: in RedHat 7.1.

?S:.

?C:I\_GDBMNDBM:

?C: This symbol, if defined, indicates that <gdbm/ndbm.h> exists and should  
?C: be included. This was the location of the ndbm.h compatibility file  
?C: in RedHat 7.1.

?C:.

?S:i\_gdbm\_ndbm:

?S: This variable conditionally defines the I\_GDBM\_NDBM symbol, which  
?S: indicates to the C program that <gdbm-ndbm.h> exists and should  
?S: be included. This is the location of the ndbm.h compatibility file  
?S: in Debian 4.0.

?S:.

?C:I\_GDBM\_NDBM:

?C: This symbol, if defined, indicates  
that <gdbm-ndbm.h> exists and should  
?C: be included. This is the location of the ndbm.h compatibility file  
?C: in Debian 4.0.

?C:.

?S:d\_ndbm:

?S: This variable conditionally defines the HAS\_NDBM symbol, which  
?S: indicates that both the ndbm.h include file and an appropriate ndbm  
?S: library exist. Consult the different i\_\*ndbm variables  
?S: to find out the actual include location. Sometimes, a system has the  
?S: header file but not the library. This variable will only be set if  
?S: the system has both.

?S:.

?C:HAS\_NDBM:

?C: This symbol, if defined, indicates that some form of ndbm.h or compatibility  
?C: include exists, along with the appropriate library.

?C:.

?S:d\_ndbm\_h\_uses\_prototypes:

?S: This variable conditionally defines the NDBM\_H\_USES\_PROTOTYPES symbol,  
?S: which indicates that the ndbm.h include file uses real ANSI C  
?S: prototypes instead of K&R style function declarations. K&R style  
?S: declarations are unsupported in C++, so the include file requires  
?S: special handling  
when using a C++ compiler and this variable is  
?S: undefined. Consult the different d\_\*ndbm\_h\_uses\_prototypes variables

?S: to get the same information for alternative ndbm.h include files.

?S:.

?C:NDBM\_H\_USES\_PROTOTYPES:

?C: This symbol, if defined, indicates that <ndbm.h> uses real ANSI C

?C: prototypes instead of K&R style function declarations without any

?C: parameter information. While ANSI C prototypes are supported in C++,

?C: K&R style function declarations will yield errors.

?C:.

?S:d\_gdbmndbm\_h\_uses\_prototypes:

?S: This variable conditionally defines the NDBM\_H\_USES\_PROTOTYPES symbol,

?S: which indicates that the gdbm/ndbm.h include file uses real ANSI C

?S: prototypes instead of K&R style function declarations. K&R style

?S: declarations are unsupported in C++, so the include file requires

?S: special handling when using a C++ compiler and this variable is

?S: undefined. Consult the different d\_\*ndbm\_h\_uses\_prototypes variables

?S: to get the same information for alternative  
ndbm.h include files.

?S:.

?C:GDBMNDBM\_H\_USES\_PROTOTYPES:

?C: This symbol, if defined, indicates that <gdbm/ndbm.h> uses real ANSI C

?C: prototypes instead of K&R style function declarations without any

?C: parameter information. While ANSI C prototypes are supported in C++,

?C: K&R style function declarations will yield errors.

?C:.

?S:d\_gdbm\_ndbm\_h\_uses\_prototypes:

?S: This variable conditionally defines the NDBM\_H\_USES\_PROTOTYPES symbol,

?S: which indicates that the gdbm-ndbm.h include file uses real ANSI C

?S: prototypes instead of K&R style function declarations. K&R style

?S: declarations are unsupported in C++, so the include file requires

?S: special handling when using a C++ compiler and this variable is

?S: undefined. Consult the different d\_\*ndbm\_h\_uses\_prototypes variables

?S: to get the same information for alternative ndbm.h include files.

?S:.

?C:GDBM\_NDBM\_H\_USES\_PROTOTYPES:

?C: This symbol, if defined, indicates that <gdbm-ndbm.h> uses real ANSI C

?C: prototypes

instead of K&R style function declarations without any

?C: parameter information. While ANSI C prototypes are supported in C++,

?C: K&R style function declarations will yield errors.

?C:.

?H:#\$i\_ndbm I\_NDBM /\*\*/

?H:#\$i\_gdbmndbm I\_GDBMNDBM /\*\*/

?H:#\$i\_gdbm\_ndbm I\_GDBM\_NDBM /\*\*/

?H:#\$d\_ndbm HAS\_NDBM /\*\*/

?H:#\$d\_ndbm\_h\_uses\_prototypes NDBM\_H\_USES\_PROTOTYPES /\*\*/

?H:#\$d\_gdbmndbm\_h\_uses\_prototypes GDBMNDBM\_H\_USES\_PROTOTYPES /\*\*/

?H:#\$d\_gdbm\_ndbm\_h\_uses\_prototypes GDBM\_NDBM\_H\_USES\_PROTOTYPES /\*\*/

?H:.

```

?T:d_dbm_open name hdr ihdr ndbm_hdr_protochk
?LINT:set d_ndbm d_gdbmndbm_h_uses_prototypes d_gdbm_ndbm_h_uses_prototypes
d_ndbm_h_uses_prototypes
: see if ndbm.h is available
set ndbm.h i_ndbm
eval $ihdr
: Compatibility location for RedHat 7.1
set gdbm/ndbm.h i_gdbmndbm
eval $ihdr
: Compatibility location for Debian 4.0
set gdbm-ndbm.h i_gdbm_ndbm
eval $ihdr

val="$undef"
if $test "$i_ndbm" = "$define" -o "$i_gdbmndbm" = "$define" -o "$i_gdbm_ndbm" = "$define"; then
: see if dbm_open exists
set
dbm_open d_dbm_open
eval $inlibc
case "$d_dbm_open" in
$undef)
i_ndbm="$undef"
i_gdbmndbm="$undef"
i_gdbm_ndbm="$undef"
echo "We won't be including <ndbm.h>"
val="$undef"
;;
*) val="$define"
;;
esac
fi
set d_ndbm
eval $setvar

ndbm_hdr_protochk='name=$1; hdr=$2;
eval "ihdr=\${i}_$name";
val="$undef";
if $test "$ihdr" = "$define"; then
$echo "Checking if your <$hdr> uses prototypes..." >&4;
case "$d_cplusplus" in
$define) ./protochk "$extern_C void dbm_close(DBM *);" literal "extern \"C\" { \"$ihdr $hdr literal }" &&
val="$define" ;;
*) ./protochk "$extern_C void dbm_close(int, int);" $ihdr $hdr || val="$define" ;;
esac;
case "$val" in
$define) $echo "Your <$hdr> seems to have prototypes";;
*) $echo "Your <$hdr> does not seem to have prototypes";;
esac;

```



```
fi;
set "d_${name}_h_uses_prototypes";
eval $setvar'
```

```
set ndbm ndbm.h
eval $ndbm_hdr_protochk
set gdbmndbm gdbm/ndbm.h
eval $ndbm_hdr_protochk
set gdbm_ndbm gdbm-ndbm.h
eval $ndbm_hdr_protochk
```

#### Found

in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/i_ndbm.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_tzname.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_tzname.U,v \$

?RCS: Revision 3.0.1.2 1994/08/29 16:14:43 ram

?RCS: patch32: forgot to set proper value in the val variable

?RCS:

?RCS: Revision 3.0.1.1 1994/06/20 06:57:55 ram

?RCS: patch30: created

?RCS:

?MAKE:d\_tzname: Csym Setvar

?MAKE: -pick add \$@ %<

?S:d\_tzname:

?S: This variable conditionally defines HAS\_TZNAME if tzname[] is

?S: available to access timezone names.

?S:.

?C:HAS\_TZNAME:

?C: This symbol, if defined, indicates that the tzname[]

array is

?C: available to access timezone names.

?C:.

?H:#\$d\_tzname HAS\_TZNAME /\*\*/

?H:.

?LINT:set d\_tzname

```

: see if tzname[] exists
echo " "
if set tzname val -a d_tzname; eval $csym; $val; then
 val="$define"
 echo 'tzname[] found.' >&4
else
 val="$undef"
 echo 'tzname[] NOT found.' >&4
fi
set d_tzname
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_tzname.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_fmod.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_fmod.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:12:46 ram
?RCS: patch36: created by ADO
?RCS:
?MAKE:d_fmod: Inlibc
?MAKE: -pick add $@ %<
?S:d_fmod:
?S: This variable conditionally defines the HAS_FMOD symbol, which
?S: indicates to the C program that the fmod() routine is available.
?S: See also d_drem for the drem() routine which does roughly the same.
?S:.
?C:HAS_FMOD
:
?C: This symbol, if defined, indicates that the fmod routine is
?C: available to compute the remainder r=x-n*y where n=trunc(x/y).
?C:.
?H:#$d_fmod HAS_FMOD /**/
?H:.
?LINT:set d_fmod

```

```
: see if fmod exists
set fmod d_fmod
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_fmod.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: myhostname.U,v 3.0.1.3 1997/02/28 16:15:55 ram Exp $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?RCS: $Log: myhostname.U,v $
```

```
?RCS: Revision 3.0.1.3 1997/02/28 16:15:55 ram
```

```
?RCS: patch61: improved hostname lookup by using ypmatch when NIS is used
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.2 1994/10/29 16:25:43 ram
```

```
?RCS: patch36: call ./xenix explicitly instead of relying on PATH
```

```
?RCS: patch36: now uses new Tr unit to convert to/from lowercase
```

```
?RCS:
```

```
?RCS: Revision 3.0.1.1 1994/06/20 07:06:20 ram
```

```
?RCS: patch30: now a little more clever for domain name guessing
```

```
?RCS:
```

```
?RCS:
```

```
Revision 3.0 1993/08/18 12:09:18 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:myhostname phostname mydomain: contains sed test Myread Oldconfig \
```

```
Guess Loc awk echo sort uniq +usrinc rm hostcat Tr
```

```
?MAKE: -pick add $@ %<
```

```
?S:myhostname (hostname):
```

```
?S: This variable contains the eventual value of the MYHOSTNAME symbol,
```

```
?S: which is the name of the host the program is going to run on.
```

```
?S: The domain is not kept with hostname, but must be gotten from mydomain.
```

```
?S: The dot comes with mydomain, and need not be supplied by the program.
```

```
?S:.
```

```
?S:mydomain:
```

```
?S: This variable contains the eventual value of the MYDOMAIN symbol,
```

```
?S: which is the domain of the host the program is going to run on.
```

```
?S: The domain must be appended to myhostname to form a complete host name.
```

```
?S: The dot comes with mydomain, and need not be supplied by the program.
```

?S:.

?S:phostname:

?S: This variable contains the eventual value of the PHOSTNAME symbol,  
 ?S: which is a command that can be fed to popen()  
 to get the host name.

?S: The program should probably not presume that the domain is or isn't  
 ?S: there already.

?S:.

?C:MYHOSTNAME (HOSTNAME):

?C: This symbol contains name of the host the program is going to run on.  
 ?C: The domain is not kept with hostname, but must be gotten from MYDOMAIN.  
 ?C: The dot comes with MYDOMAIN, and need not be supplied by the program.  
 ?C: If gethostname() or uname() exist, MYHOSTNAME may be ignored. If MYDOMAIN  
 ?C: is not used, MYHOSTNAME will hold the name derived from PHOSTNAME.

?C:.

?C:MYDOMAIN:

?C: This symbol contains the domain of the host the program is going to  
 ?C: run on. The domain must be appended to HOSTNAME to form a complete  
 ?C: host name. The dot comes with MYDOMAIN, and need not be supplied by  
 ?C: the program. If the host name is derived from PHOSTNAME, the domain  
 ?C: may or may not already be there, and the program should check.

?C:.

```
?H:#define MYHOSTNAME "$myhostname" /**/
?H:#define MYDOMAIN "$mydomain" /**/
?H:.
```

?LINT:extern osname

?T:cont

```
i tans tmp_re
: now get the host name
echo " "
echo "Figuring out host name..." >&4
case "$myhostname" in
") cont=true
echo 'Maybe "hostname" will work...'
if tans=`sh -c hostname 2>&1` ; then
myhostname=$tans
phostname=hostname
cont=""
fi
;;
*) cont="";;
esac
if $test "$cont"; then
if ./xenix; then
echo 'Oh, dear. Maybe "/etc/systemid" is the key...'
if tans=`cat /etc/systemid 2>&1` ; then
myhostname=$tans
phostname='cat /etc/systemid'
```

```

echo "Whadyaknow. Xenix always was a bit strange..."
cont=""
fi
elif $test -r /etc/systemid; then
echo "(What is a non-Xenix system doing with /etc/systemid?)"
fi
fi
if $test "$cont"; then
echo 'No, maybe "uuname -l" will work...'
if tans=`sh -c 'uuname -l 2>&1` ; then
myhostname=$tans
phostname='uuname -l'
else
echo 'Strange. Maybe "uname -n" will work...'
if tans=`sh -c 'uname -n 2>&1` ; then
myhostname=$tans
phostname='uname -n'
else
echo 'Oh well, maybe I can mine it out of whoami.h...'
if
tans=`sh -c $contains' sysname $usrinc/whoami.h' 2>&1` ; then
myhostname=`echo "$tans" | $sed 's/^\.*\(\.*\)/\1/^`
phostname="sed -n -e ""'/sysname/s/^\.*\(\.*\)/\1/{"" -e p -e q -e }' <$usrinc/whoami.h"
else
case "$myhostname" in
") echo "Does this machine have an identity crisis or something?"
phostname="";
*)
echo "Well, you said $myhostname before..."
phostname='echo $myhostname';;
esac
fi
fi
fi
fi
case "$myhostname" in
") myhostname=noname ;;
esac
: you do not want to know about this
set $myhostname
myhostname=$1

: verify guess
if $test "$myhostname" ; then
dflt=y
rp='Your host name appears to be "$myhostname"." Right?'
./myread
case "$ans" in

```

```

y*) ;;
*) myhostname=";;
esac
fi

```

```

: bad guess or no guess
while $test "X$myhostname" = X ; do
dflt="
rp="Please type the (one word) name of your host:"
./myread
myhostname="$ans"
done

```

```

: translate upper to lower if necessary
case "$myhostname" in
[A-Z])
echo
"(Normalizing case in your host name)"
myhostname=`echo $myhostname | ./tr '[A-Z]' '[a-z]`
;;
esac

```

?X: Do not ask for domain name if this is not used later on. In that

?X: case, the hostname may keep its domain name, but it doesn't matter.

@if MYDOMAIN || mydomain

```

case "$myhostname" in
.)
dflt=`expr "X$myhostname" : "X[^\.]*\(\..*\)"`
myhostname=`expr "X$myhostname" : "X\([^\.]*\)\"`
echo "(Trimming domain name from host name--host name is now $myhostname)"
;;
*) case "$mydomain" in
)

```

?X:

?X: There is currently no way to say we do not want hostcat if mydomain is not

?X: used. One way to achieve that would be to put that code in a mydomain.U

?X: unit. However, we want to stick the sanity checks right after the domain

?X: name computation, or if none is done, right after the hostname computation.

?X:

```
{
```

?X: If we use NIS, try ypmatch.

```

test "X$hostcat" = "Xypcat hosts" &&
ypmatch "$myhostname" hosts 2>/dev/null \
$sed -e 's/[]*#.*//; s/$/ /' > hosts
&& \
$test -s hosts
} || {

```

?X: Extract only the relevant hosts, reducing file size,

?X: remove comments, insert trailing space for later use.

?X: Test to be sure we \*have\* a hostcat command. os390 doesn't.

```
test "X$hostcat" != "X" &&
$hostcat | $sed -n -e "s/[]*#.*//; s^\$/ /
/[]$myhostname[.]/p" > hosts
}
tmp_re="[.]"
if $test -f hosts; then
$stest x`$awk "/[0-9].*[]$myhostname$tmp_re/ { sum++ }
END { print sum }" hosts` = x1 || tmp_re="[]"
dflt=`$awk "/[0-9].*[]$myhostname$tmp_re/ {for(i=2; i<=NF;i++) print \\$i} \
hosts | $sort | $uniq | \
$sed -n -e "s/$myhostname\\.([a-zA-Z0-9_])^1/p"
case ` $echo X$dflt` in
X*\ *) echo "(Several hosts in the database matched hostname)"
dflt=.
;;
X.) echo "(You do not have fully-qualified names in the hosts database)"
;;
esac
else
echo "(I cannot locate a hosts database anywhere)"
dflt=.
fi
case "$dflt" in
.)
tans=`./loc resolv.conf X /etc /usr/etc`
if
$stest -f "$tans"; then
echo "(Attempting domain name extraction from $tans)"
?X: Look for either a search or a domain directive.
dflt=`$sed -n -e 's// /g' \
-e 's/^search *([^\]*).*/1/p' $tans \
-e 1q 2>/dev/null`
case "$dflt" in
.) dflt=`$sed -n -e 's// /g' \
-e 's/^domain *([^\]*).*/1/p' $tans \
-e 1q 2>/dev/null`
;;
esac
fi
;;
esac
case "$dflt" in
.) echo "(No help from resolv.conf either -- attempting clever guess)"
dflt=`sh -c domainname 2>/dev/null`
case "$dflt" in
") dflt='.';;
```

```

.nis.*|.yp.*|.main.*) dflt=`echo $dflt | $sed -e 's/^\.[^.]*/^/';
esac
;;
esac
case "$dflt$sosname" in
.os390) echo "(Attempting domain name extraction from //SYS1.TCPPARMS(TCPDATA))"
dflt=`awk '/^DOMAINORIGIN/ {print $2}' "//SYS1.TCPPARMS(TCPDATA)" 2>/dev/null`
;;
esac
case "$dflt" in
.) echo "(Lost all hope -- silly guess then)"
dflt='.nonet'
;;
esac
$rm -f hosts
;;
*)
dflt="$mydomain";
esac;;
esac
echo " "
rp="What is your domain name?"
./myread
tans="$ans"
case "$ans" in
") ;;
.*) ;;
*) tans=".${ans}";
esac
mydomain="$tans"

: translate upper to lower if necessary
case "$mydomain" in
[A-Z])
echo "(Normalizing case in your domain name)"
mydomain=`echo $mydomain | ./tr '[A-Z]' '[a-z]`
;;
esac

@end
: a little sanity check here
case "$phostname" in
") ;;
*)
case ` $phostname | ./tr '[A-Z]' '[a-z]^` in
$myhostname$mydomain|$myhostname) ;;
*)
case "$phostname" in

```



```

sed*)
echo "(That doesn't agree with your whoami.h file, by the way.)"
;;
*)
echo "(That doesn't agree with your $phostname command, by the way.)"
;;
esac
;;
esac
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/myhostname.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_bsdjmp.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_bsdjmp.U,v $
?RCS: Revision 3.0.1.2 1997/02/28 15:31:10 ram
?RCS: patch61: added ?F: metalint hint
?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 16:09:09 ram
?RCS: patch36: call ./usg explicitly instead of relying on PATH
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:45 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_bsdjmp: Guess Setvar cat +cc libs rm
?MAKE: -pick add $@ %<
?S:d_bsdjmp:
?S: This variable conditionally defines USE_BSDJMP
if BSD _setjmp and
?S: _longjmp routines are available to do non-local gotos without saving
?S: or restoring the signal mask flag.
?S:.
?C:USE_BSDJMP (BSDJMP):
?C: This symbol, if defined, indicates that the BSD _setjmp and _longjmp
?C: routines are available to do non-local gotos without saving or restoring

```

```

?C: the signal mask flag.
?C:.
?H:#$d_bsdjmp USE_BSDJMP /**/
?H:.
?F:!set
?LINT:set d_bsdjmp
: see if _setjmp and _longjmp exists
?X: We can't check for these symbols with Inlibc because of the leading "_"
echo " "
case "$d_bsdjmp" in
")
$cat >set.c <<EOP
#include <setjmp.h>
jmp_buf env;
int set = 1;
int main()
{
if (_setjmp(env))
exit(set);
set = 0;
_longjmp(env, 1);
exit(1);
}
EOP
if $cc -o set set.c $libs >/dev/null 2>&1; then
if ./set >/dev/null 2>&1; then
echo "Good! You have BSD _setjmp and _longjmp routines." >&4
val="$define"
else
$cat <<EOM
Uh-Oh! You have BSD _setjmp and _longjmp, but they do not work properly!!
EOM
val="$undef"
fi
else
if
./usg; then
echo "You do not have _setjmp and _longjmp, but that's fine." >&4
else
cat <<EOM
It sounds strange for a BSD system to miss _setjmp and _longjmp, but that's ok.
EOM
fi
val="$undef"
fi
;;
*) val="$d_bsdjmp"
case "$d_bsdjmp" in

```

```
$define) echo "Good! You have BSD _setjmp and _longjmp routines." >&4;;
$undef) echo "You do not have _setjmp and _longjmp, but that's fine." >&4;;
esac
;;
esac
set d_bsdjmp
eval $setvar
$rm -f set.c set
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_bsdjmp.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_stdlib.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: i_stdlib.U,v $
?RCS: Revision 3.0 1993/08/18 12:08:27 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:i_stdlib: Inhdr
?MAKE: -pick add $@ %<
?S:i_stdlib:
?S: This variable conditionally defines the I_STDLIB symbol, which
?S: indicates to the C program that <stdlib.h> exists and should
?S: be included.
?S:.
?C:I_STDLIB:
?C: This symbol, if defined, indicates that <stdlib.h> exists and should
?C: be included.
?C:.
?H:#$i_stdlib I_STDLIB /**/
?H:.
?LINT:set
i_stdlib
: see if stdlib is available
set stdlib.h i_stdlib
eval $inhdr
```

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i\_stdlib.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_aintl: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_aintl:

?S: This variable conditionally defines the HAS\_AINTL symbol, which

?S: indicates to the C program that the aintl() routine is available.

?S: If copysignl is also present we can emulate modfl.

?S:.

?C:HAS\_AINTL:

?C: This symbol, if defined, indicates that the aintl routine is

?C: available. If copysignl is also present we can emulate modfl.

?C:.

?H:#\$d\_aintl HAS\_AINTL /\*\*/

?H:.

?LINT:set d\_aintl

: see if aintl exists

set aintl d\_aintl

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_aintl.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getpwuid\_r.U,v ORCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d\_getpwuid\_r getpwuid\_r\_proto: Inlibc Protochk Hasproto i\_systypes \  
usethreads i\_pwd extern\_C

?MAKE: -pick add \$@ %<

?S:d\_getpwuid\_r:

?S: This variable conditionally defines the HAS\_GETPWUID\_R symbol,

?S: which indicates to the C program that the getpwuid\_r()

?S: routine is available.

?S:.

?S:getpwuid\_r\_proto:

?S: This variable encodes the prototype of getpwuid\_r.

?S: It is zero if d\_getpwuid\_r is undef, and one of the

?S: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getpwuid\_r

?S: is defined.

?S:.

?C:HAS\_GETPWUID\_R:

?C: This symbol, if defined, indicates that the getpwuid\_r routine

?C: is available to

getpwuid re-entrantly.

?C:.

?C:GETPWUID\_R\_PROTO:

?C: This symbol encodes the prototype of getpwuid\_r.

?C: It is zero if d\_getpwuid\_r is undef, and one of the

?C: REENTRANT\_PROTO\_T\_ABC macros of reentr.h if d\_getpwuid\_r

?C: is defined.

?C:.

?H:#\$d\_getpwuid\_r HAS\_GETPWUID\_R /\*\*/

?H:#define GETPWUID\_R\_PROTO \$getpwuid\_r\_proto /\*\*/

?H:.

?T:try hdrs d\_getpwuid\_r\_proto

: see if getpwuid\_r exists

set getpwuid\_r d\_getpwuid\_r

eval \$inlibc

case "\$d\_getpwuid\_r" in

"\$define")

hdrs="\$i\_systypes sys/types.h define stdio.h \$i\_pwd pwd.h"

case "\$d\_getpwuid\_r\_proto:\$usetthreads" in

":define") d\_getpwuid\_r\_proto=define

set d\_getpwuid\_r\_proto getpwuid\_r \$hdrs

eval \$hasproto ;;

\*) ;;

esac

case "\$d\_getpwuid\_r\_proto" in

define)

case "\$getpwuid\_r\_proto" in

"|0) try='int getpwuid\_r(uid\_t, struct passwd\*, char\*, size\_t, struct passwd\*\*);'

./protochk "\$extern\_C \$try" \$hdrs && getpwuid\_r\_proto=I\_TSBWR ;;

esac

case "\$getpwuid\_r\_proto" in

"|0) try='int getpwuid\_r(uid\_t, struct passwd\*, char\*, int,

struct passwd\*\*);'

./protochk "\$extern\_C \$try" \$hdrs && getpwuid\_r\_proto=I\_TSBIR ;;

esac

case "\$getpwuid\_r\_proto" in

"|0) try='int getpwuid\_r(uid\_t, struct passwd\*, char\*, int);'

```

./prochck "$extern_C $try" $hdrs && getpwuid_r_proto=I_TSBI ;;
esac
case "$getpwuid_r_proto" in
"|0) try='struct passwd* getpwuid_r(uid_t, struct passwd*, char*, int);'
./prochck "$extern_C $try" $hdrs && getpwuid_r_proto=S_TSBI ;;
esac
case "$getpwuid_r_proto" in
"|0) d_getpwuid_r=undef
getpwuid_r_proto=0
echo "Disabling getpwuid_r, cannot determine prototype." >&4 ;;
*) case "$getpwuid_r_proto" in
REENTRANT_PROTO*) ;;
*) getpwuid_r_proto="REENTRANT_PROTO_${getpwuid_r_proto}" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "getpwuid_r has no prototype, not using it." >&4 ;;
esac
d_getpwuid_r=undef
getpwuid_r_proto=0
;;
esac
;;
*) getpwuid_r_proto=0
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_getpwuid_r.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_time.U,v 3.0.1.2 1995/07/25 14:07:43 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: d\_time.U,v \$

?RCS: Revision 3.0.1.2 1995/07/25 14:07:43 ram

?RCS: patch56: typo fix, sytem -> system

?RCS:

```

?RCS: Revision 3.0.1.1 1994/10/29 16:16:38 ram
?RCS: patch36: now uses new Typedef unit to compute type information (ADO)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:07:45 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X: Maybe <sys/types.h> should be included?
?X:INC: i_systypes
?MAKE:d_time timetype: Csym Setvar Findhdr Myread Typedef
?MAKE: -pick
add $@ %<
?S:d_time:
?S: This variable conditionally defines the HAS_TIME symbol, which indicates
?S: that the time() routine exists. The time() routine is normally
?S: provided on UNIX systems.
?S:.
?S:timetype:
?S: This variable holds the type returned by time(). It can be long,
?S: or time_t on BSD sites (in which case <sys/types.h> should be
?S: included). Anyway, the type Time_t should be used.
?S:.
?C:HAS_TIME (TIMER):
?C: This symbol, if defined, indicates that the time() routine exists.
?C:.
?C:Time_t (TIMETYPE):
?C: This symbol holds the type returned by time(). It can be long,
?C: or time_t on BSD sites (in which case <sys/types.h> should be
?C: included).
?C:.
?H:#$d_time HAS_TIME /**/
?H:#define Time_t $timetype /* Time type */
?H:.
?LINT:set d_time
: see if time exists
echo " "
?X: MPE/iX needs this protection of hint values.
?X: See d_sterror.U for more explanation.
if test "$d_time" = X -o "$timetype" = X; then
 if set time val -f d_time; eval $csym; $val;
then
 echo 'time() found.' >&4
 val="$define"
 rp="What is the type returned by time() on this system?"
 set time_t timetype long stdio.h sys/types.h
 eval $typedef_ask
 else
 echo 'time() not found, hope that will do.' >&4
 val="$undef"

```

```
timetype='int';
fi
set d_time
eval $setvar
fi
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/d_time.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, 2012 Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?MAKE:ptrsize: cat rm\_try Myread +cc +ccflags

?MAKE: -pick add \$@ %<

?S:ptrsize:

?S: This variable contains the value of the PTRSIZE symbol, which

?S: indicates to the C program how many bytes there are in a pointer.

?S:.

?C:PTRSIZE:

?C: This symbol contains the size of a pointer, so that the C preprocessor

?C: can make decisions based on it.

?C:.

?H:#define PTRSIZE \$ptrsize /\*\*/

?H:.

?F:!try

: check for length of pointer

echo " "

case "\$ptrsize" in

")

echo "Checking to see how big your pointers are..."

>&4

\$cat >try.c <<'EOCP'

#include <stdio.h>

int main()

{

printf("%d\n", sizeof(char \*));

}

EOCP

if \$cc \$ccflags -o try try.c >/dev/null 2>&1 ; then



```

dflt=`./try`
else
dflt='4'
echo "(I can't seem to compile the test program. Guessing...)"
fi
;;
*)
dflt="$ptrsize"
;;
esac
rp="What is the size of a pointer (in bytes)?"
./myread
ptrsize="$ans"
$rm_try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/ptrsize.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_endhent.U,v 3.0 1993/08/18 12:06:09 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
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?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: d_endhent.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:09 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_endhent: Inlibc
?MAKE: -pick add $@ %<
?S:d_endhent:
?S: This variable conditionally defines HAS_ENDHOSTENT if endhostent() is
?S: available to close whatever was being used for host queries.
?S:.
?C:HAS_ENDHOSTENT:
?C: This symbol, if defined, indicates that the endhostent() routine is
?C: available to close whatever was being used for host
queries.
?C:.
?H:#$d_endhent HAS_ENDHOSTENT /**/
?H:.
?LINT:set d_endhent

```

```
: see if endhostent exists
set endhostent d_endhent
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_endhent.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 1999, Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
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```
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```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```

```
?MAKE:d_madvise: Inlibc
```

```
?MAKE: -pick add @$ %<
```

```
?S:d_madvise:
```

```
?S: This variable conditionally defines HAS_MADVISE if madvice() is
```

```
?S: available to map a file into memory.
```

```
?S:.
```

```
?C:HAS_MADVISE:
```

```
?C: This symbol, if defined, indicates that the madvice system call is
```

```
?C: available to map a file into memory.
```

```
?C:.
```

```
?H:#$d_madvise HAS_MADVISE /**/
```

```
?H:.
```

```
?LINT:set d_madvise
```

```
: see if madvice exists
```

```
set madvice d_madvise
```

```
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_madvise.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: Id
```

```
?RCS:
```

```
?RCS: Copyright (c) 2000 Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?MAKE:d\_getprpwnam: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_getprpwnam:  
?S: This variable conditionally defines HAS\_GETPRPWNAM if getprpwnam() is  
?S: available to retrieve protected (shadow) password entries by name.  
?S:.  
?C:HAS\_GETPRPWNAM:  
?C: This symbol, if defined, indicates that the getprpwnam system call is  
?C: available to retrieve protected (shadow) password entries by name.  
?C:.  
?H:#\$d\_getprpwnam HAS\_GETPRPWNAM /\*\*/  
?H:.  
?LINT:set d\_getprpwnam  
: see if getprpwnam exists  
set getprpwnam d\_getprpwnam  
eval \$inlibc

#### Found

in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d\_getprpwnam.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

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?RCS:

?RCS: Copyright (c) 2000, Jarkko Hietaniemi

?RCS:

?X:

?X: This unit allows the duplication of the source tree to the current

?X: directory via symbolic links. This must be requested explicitly

?X: by them issuing a -Dmkysmlinks on the command line.

?X:

?MAKE:Mkysmlinks: Mkdirp lns issymlink src rsrc pkgsrc

?MAKE: -pick add \$@ %<

?F:!UU

?T: dir filename tmppwd filelist

?LINT:extern mkysmlinks

```

@if {test -f ../MANIFEST}
: Duplicate the tree with symbolic links if -Dmksymlinks was supplied
case "$mksymlinks"
in
$define|true|[yY]*)
echo " "
case "$src" in
|.|.') echo "Cannot create symlinks in the original directory." >&4
exit 1
;;
*) case "$lns:$issymlink" in
"ln" -s:"*"test -"?)
echo "Creating the symbolic links..." >&4
echo "(First creating the subdirectories...)" >&4
cd ..
awk '{print $1}' $src/MANIFEST | grep / | sed 's:[^/]*$::' | \
sort -u | while true
do
read dir
test -z "$dir" && break
./UU/mkdirp $dir 2>/dev/null
if test -d $dir; then
: ok
else
echo "Failed to create '$dir'. Aborting." >&4
exit 1
fi
done
echo "(Now creating the symlinks...)" >&4
awk '{print $1}' $src/MANIFEST | while true; do
read filename
test -z "$filename" && break
if test -f $filename; then
if $issymlink $filename; then
rm -f $filename
fi
fi
if test -f $filename; then
echo "$filename already exists, not symlinking."
else
?X: Note that the following works because "$pkgsrc" is absolute
ln
-s $pkgsrc/$filename $filename
fi
done
?X: Check that everything was correctly copied
echo "(Checking current directory...)" >&4
cd UU

```

```

awk '$1 !~ /PACK[A-Z]+/ {print $1}' "$src/MANIFEST" | \
(split -l 50 2>/dev/null || split -50)
rm -f missing
tmppwd=`pwd`
for filelist in x??; do
(cd ..; ls `cat "$tmppwd/$filelist" ` \
>/dev/null 2>>"$tmppwd/missing")
done
if test -s missing; then
echo "Failed duplication of source tree. Aborting." >&4
exit 1
fi
;;
*) echo "(I cannot figure out how to do symbolic links, ignoring!)" >&4
;;
esac
;;
esac
;;
esac
@end

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Mksymlinks.U
```

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```

?RCS: $Id: maildir.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: maildir.U,v $
?RCS: Revision 3.0.1.1 1993/12/15 08:21:56 ram
?RCS: patch15: now also looks under /var/mail for BSD/386
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:09 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:maildir maildirexp: Getfile Loc Oldconfig
?MAKE: -pick add $@ %<
?S:maildir:

```

?S: This variable contains the name of the directory in which mail is  
 ?S: spooled. Programs using this variable must be prepared to deal with  
 ?S: ~name  
 substitutions.  
 ?S:.  
 ?S:maildirexp:  
 ?S: This is the same as the maildir variable, but is filename expanded  
 ?S: at configuration time, for programs not willing to deal with it at  
 ?S: run-time.  
 ?S:.  
 : determine where mail is spooled  
 case "\$maildir" in  
 ") dflt=`./loc . /usr/spool/mail /usr/spool/mail /usr/mail /var/mail`;;  
 \*) dflt="\$maildir";;  
 esac  
 echo " "  
 fn=d~  
 rp="Where is yet-to-be-read mail spooled?"  
 ./getfile  
 maildir="\$ans"  
 maildirexp="\$ansexp"

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/maildir.U

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?RCS: of the source tree for dist 4.0.

?RCS:

?MAKE:d\_dup3: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_dup3:

?S: This variable conditionally defines HAS\_DUP3 if dup3() is

?S: available to duplicate file descriptors.

?S:.

?C:HAS\_DUP3:

?C: This symbol, if defined, indicates that the dup3 routine is

?C: available to duplicate file descriptors.

?C:.

?H:#\$d\_dup3 HAS\_DUP3 /\*\*/

?H:.

?LINT:set d\_dup3

```
: see if dup3 exists
set dup3 d_dup3
eval $inlibc
```

Found in path(s):

```
*/opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_dup3.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: charorder.U,v 3.0.1.1 1994/10/29 16:07:08 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
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?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: charorder.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:07:08 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:33 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:chorder_int chorder_short chorder_long: Myread cat Compile rm
?MAKE: -pick add $@ %<
?S:chorder_short (d_cos d_bos):
?S: Holds the value describing the byte ordering of characters in a short.
?S: On a Big-Endian machine, that
?S: would be "c0c1".
?S:.
?S:chorder_int (charoder):
?S: Holds the value describing the byte ordering of characters in an int.
?S: For instance, on a Big-Endian machine, this would be: "c0c1c2c3".
?S:.
?S:chorder_long (d_col d_bol):
?S: Holds the value describing the byte ordering of characters in a long.
?S: On a 64 bits Big-Endian machine, that would yield: "c0c1c2c3c4c5c6c7".
?S:.
?C:CHAR_ORDER_SHORT:
?C: Holds the byte ordering of characters in a short. It's a string
?C: value like "c0c1" on a Big-Endian machine.
?C:.
?C:CHAR_ORDER_INT:
?C: Holds the byte ordering of characters in an int. It's a string
?C: value like "c0c1c2c3" on a Big-Endian machine.
```

?C:.

?C:CHAR\_ORDER\_LONG:

?C: Holds the byte ordering of characters in a long. It's a string

?C: value like "c0c1c2c3c4c5c6c7" on a 64 bits Big-Endian machine.

?C:.

?H:#define CHAR\_ORDER\_SHORT "\$chorder\_short" /\* byte order in a short \*/

?H:#define CHAR\_ORDER\_INT "\$chorder\_int" /\* byte order in an int \*/

?H:#define CHAR\_ORDER\_LONG "\$chorder\_long"

/\* byte order in a long \*/

?H:.

?F:!byteorder

: check for character ordering

echo " "

echo "Checking out byte order..." >&4

\$cat >byteorder.c <<'EOCP'

#include <stdio.h>

```
int main(argc, argv)
```

```
int argc;
```

```
char *argv[]; {
```

```
int i;
```

```
int max;
```

```
union {
```

```
short u_s;
```

```
int u_i;
```

```
long u_l;
```

```
char u_c[sizeof(long)];
```

```
} u;
```

```
switch (argv[1][0]) {
```

```
case 'l':
```

```
u.u_l = 0L;
```

```
/* HMS: ASSERT: sizeof(long) < 10. */
```

```
for(i = 0; i < sizeof(long); ++i) {
```

```
u.u_l *= 0x100L;
```

```
u.u_l += (0xc0 + i);
```

```
}
```

```
max = sizeof(long);
```

```
break;
```

```
case 's':
```

```
u.u_s = 0;
```

```
/* HMS: ASSERT: sizeof(short) < 10. */
```

```
for(i = 0; i < sizeof(short); ++i) {
```

```
u.u_s *= 0x100L;
```

```
u.u_s += (0xc0 + i);
```

```
}
```

```
max = sizeof(short);
```

```
break;
```

```
case 'i':
```



```

u.u_i = 0;
/* RAM: ASSERT: sizeof(int) < 10. */
for(i = 0; i < sizeof(int); ++i) {
 u.u_l *= 0x100L;
 u.u_l += (0xc0 + i);
}
max = sizeof(int);
break;
default:
 max = 0;
 break;
}
for(i = 0; i < max; i++) {
 printf("%x", u.u_c[i] & 0x00FF);
}
printf("\n");
exit(0);
}
EOCP
set
byteorder
if eval $compile_ok ; then
: null statement
@if chorder_short
 chorder_short=`./byteorder s`
@end
@if chorder_int
 chorder_int=`./byteorder i`
@end
@if chorder_long
 chorder_long=`./byteorder l`
@end
else
$cat <<EOM
(I can't seem to get my test program to work. Guessing 32 bits big-endian.)
EOM
 chorder_short="c0c1"
 chorder_int="c0c1c2c3"
 chorder_long="c0c1c2c3"
fi
@if chorder_short
dflt=$chorder_short
rp="What is the order of characters in a short?"
./myread
chorder_short="$ans"
@end
@if chorder_int
dflt=$chorder_int

```

```
rp='What is the order of characters in an int?'
./myread
chorder_int="$ans"
@end
@if chorder_long
dflt=$chorder_long
rp='What is the order of characters in a long?'
./myread
chorder_long="$ans"
@end
$rm -f byteorder* core
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/charorder.U
```

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?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_eaccess: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_eaccess:

?S: This variable conditionally defines the HAS\_EACCESS symbol, which

?S: indicates to the C program that the eaccess() routine is available.

?S:.

?C:HAS\_EACCESS :

?C: This symbol, if defined, indicates that the eaccess routine is

?C: available to do extended access checks.

?C:.

?H:#\$d\_eaccess HAS\_EACCESS /\*\*/

?H:.

?LINT:set d\_eaccess

: see if eaccess exists

set eaccess d\_eaccess

eval \$inlibc

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/acl/d_eaccess.U
```

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?RCS: \$Id: d\_scannl.U,v 3.0.1.2 1997/02/28 15:41:27 ram Exp \$

?RCS:

```

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?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: d_scannl.U,v $
?RCS: Revision 3.0.1.2 1997/02/28 15:41:27 ram
?RCS: patch61: added ?F: metalint hint
?RCS:
?RCS: Revision 3.0.1.1 1995/07/25 13:59:12 ram
?RCS: patch56: made cc and ccflags optional dependencies
?RCS:
?RCS: Revision 3.0 1993/08/18 12:07:00 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: Does the scanf routine read "\n" correctly ? This is was not
?X: the case on AIX...
?X:
?MAKE:d_scannl: cat rm Setvar Compile run
?MAKE: -pick
add $@ %<
?S:d_scannl:
?S: This variable conditionally defines SCAN_NL, which indicates
?S: whether the C library routines scanf() and friends can deal with
?S: a '\n' in the input correctly. They do most of the time.
?S:.
?C:SCAN_NL:
?C: This symbol is defined if the C library routines scanf() and friends
?C: can deal with a '\n' in the input correctly, so that you can say
?C: scanf("%d\n"); instead of scanf("%d"); getc(c); to handle the '\n'.
?C:.
?H:#$d_scannl SCAN_NL /* scanf("%d\n") works */
?H:.
?F:!try
?LINT:set d_scannl
: does scanf handle "\n" correctly ?
echo " "
val="$define"
?X: I really want to say "\n" instead of '\n', because I am referring
?X: to the string given as argument to scanf().
echo 'Let''''s see if scanf() handles "\\n" correctly...' >&4
$cat >try.c <<'EOCP'
int main()
{

```

```

int i = 0, j = 0;
scanf("%d\n%d", &i, &j);
if (j != 3)
 exit(1);
exit(0);
}
EOCP
set try
if eval $compile_ok; then
if $run ./try <<'EOD'
2
3
EOD
then
echo "Yes, it does."
else
echo
"No, it doesn't."
val="$undef"
fi
else
echo "(I can't seem to compile the test program. Assuming it does.)"
fi
set d_scannl
eval $setvar
$rm -f try.* try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_scannl.U

```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_nextafter: Inlibc

?MAKE: -pick add \$@ %<

?S:d\_nextafter:

?S: This variable conditionally defines HAS\_NEXTAFTER if nextafter()

?S: is available to return the next machine representable double from

?S: x in direction y.

?S:.

?C:HAS\_NEXTAFTER:

?C: This symbol, if defined, indicates that the nextafter routine is

?C: available to return the next machine representable double from

?C: x in direction y.

?C:.

?H:#\$d\_nextafter HAS\_NEXTAFTER /\*\*/

```
?H:
?LINT:set d_nextafter
: see if nextafter exists
set nextafter d_nextafter
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_nextafter.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_getwd.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
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```

```
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```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_getwd.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:06:18 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_getwd: Csym Setvar
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_getwd:
```

```
?S: This variable conditionally defines HAS_GETWD if getwd() is
```

```
?S: available to get working directory. If not, you should
```

```
?S: probably use getcwd().
```

```
?S:.
```

```
?C:HAS_GETWD (GETWD):
```

```
?C: This symbol, if defined, indicates that the getwd routine is
```

```
?C: available to get working directory.
```

```
 If not, you should
```

```
?C: probably use getcwd().
```

```
?C:.
```

```
?H:#$d_getwd HAS_GETWD /**/
```

```
?H:
```

```
?LINT:set d_getwd
```

```
: see if getwd exists
```

```
echo " "
```

```
if set getwd val -f d_getwd; eval $csym; $val; then
```

```
echo 'getwd() found.' >&4
```

```
val="$define"
```

```
else
```

```
echo 'getwd() not found. Assuming getcwd() exists.' >&4
```

```
val="$undef"
fi
set d_getwd
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_getwd.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: Obsol_sh.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: Obsol_sh.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:05:11 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?X:
```

```
?X: This file is prepended to .MT/Obsol_sh if that file is not empty. That file
```

```
?X: contains the necessary mappings of new symbols to obsolete ones.
```

```
?X:
```

```
?MAKE:Obsol_sh:
```

```
?MAKE: -pick prepend $@ ./Obsol_sh
```

```
?LINT:nocomment
```

```
#
```

```
The following symbols are obsolete. They are mapped to the the new
```

```
symbols only to ease the transition process.
```

```
The sources should be
```

```
updated so as to use the new symbols only, since supporting of those
```

```
obsolete symbols may end without notice.
```

```
#
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Obsol_sh.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: otherlibdirs.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1999-2000, Andy Dougherty
```

```
?RCS:
```

?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: otherlibdirs.U,v \$  
?RCS: Revision 1.1 1999/07/08 18:32:57 doughera  
?RCS: Initial revision  
?RCS:  
?RCS: Revision 1.1 1999/07/08 18:20:26 doughera  
?RCS: Initial revision  
?RCS:  
?RCS:  
?MAKE:otherlibdirs d\_perl\_otherlibdirs: Myread cat sitelib sitearch \  
vendorarch vendorlib Setvar  
?MAKE: -pick add \$@ %<  
?Y:TOP  
?S:otherlibdirs:  
?S: This variable contains a colon-separated set of paths for the perl  
?S: binary to search for additional library files  
or modules.  
?S: These directories will be tacked to the end of @INC.  
?S: Perl will automatically search below each path for version-  
?S: and architecture-specific directories. See inc\_version\_list  
?S: for more details.  
?S: A value of ' ' means 'none' and is used to preserve this value  
?S: for the next run through Configure.  
?S:.  
?S:d\_perl\_otherlibdirs:  
?S: This variable conditionally defines PERL\_OTHERLIBDIRS, which  
?S: contains a colon-separated set of paths for the perl binary to  
?S: include in @INC. See also otherlibdirs.  
?S:.  
?C:PERL\_OTHERLIBDIRS:  
?C: This variable contains a colon-separated set of paths for the perl  
?C: binary to search for additional library files or modules.  
?C: These directories will be tacked to the end of @INC.  
?C: Perl will automatically search below each path for version-  
?C: and architecture-specific directories. See PERL\_INC\_VERSION\_LIST  
?C: for more details.  
?C:.  
?H:#\$d\_perl\_otherlibdirs PERL\_OTHERLIBDIRS "\$otherlibdirs" /\*\*/  
?H:.  
?LINT: set d\_perl\_otherlibdirs  
:  
Final catch-all directories to search  
\$cat <<EOM

Lastly, you can have perl look in other directories for extensions and modules in addition to those already specified.

These directories will be searched after

```
$sitearch
```

```
$sitelib
```

```
EOM
```

```
test X"$vendorlib" != "X" && echo ' ' $vendorlib
```

```
test X"$vendorarch" != "X" && echo ' ' $vendorarch
```

```
echo ' '
```

```
case "$otherlibdirs" in
```

```
"|' ') dflt='none' ;;
```

```
*) dflt="$otherlibdirs" ;;
```

```
esac
```

```
$cat <<EOM
```

Enter a colon-separated set of extra paths to include in perl's @INC search path, or enter 'none' for no extra paths.

```
EOM
```

```
rp='Colon-separated list of additional directories for perl to search?'
```

```
./myread
```

```
case "$ans" in
```

```
'|'|none) otherlibdirs=' ' ;;
```

```
*) otherlibdirs="$ans" ;;
```

```
esac
```

```
case "$otherlibdirs" in
```

```
' ') val=$undef ;;
```

```
*) val=$define ;;
```

```
esac
```

```
set d_perl_otherlibdirs
```

```
eval $setvar
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/otherlibdirs.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_socket.U,v 3.0.1.2 1997/02/28 15:46:00 ram Exp $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 3.0.
```

```
?RCS:
```



?RCS: \$Log: d\_socket.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 15:46:00 ram

?RCS: patch61: replaced .a with \$\_a all over the place

?RCS:

?RCS: Revision 3.0.1.1 1994/01/24 14:08:04 ram

?RCS: patch16: can now safely declare private nm\_extract in dependencies

?RCS:

?RCS: Revision 3.0 1993/08/18 12:07:26 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d\_socket d\_oldsock d\_sockpair socketlib sockethdr \  
d\_msg\_ctrunc d\_msg\_dontroute d\_msg\_oob d\_msg\_peek  
d\_msg\_proxy \  
d\_scm\_rights d\_sockaddr\_sa\_len d\_sockaddr\_in6 d\_sin6\_scope\_id \  
d\_ip\_mreq d\_ip\_mreq\_source d\_ipv6\_mreq d\_ipv6\_mreq\_source: \  
contains echo n c ar nm nm\_opt nm\_extract Inlibc Csym \_a \  
Compile cat rm\_try Setvar Hasfield sysroot

?MAKE: -pick add \$@ %<

?S:d\_socket:

?S: This variable conditionally defines HAS\_SOCKET, which indicates  
?S: that the BSD socket interface is supported.

?S:.

?S:d\_sockpair:

?S: This variable conditionally defines the HAS\_SOCKETPAIR symbol, which  
?S: indicates that the BSD socketpair() is supported.

?S:.

?S:d\_oldsock:

?S: This variable conditionally defines the OLDSOCKET symbol, which  
?S: indicates that the BSD socket interface is based on 4.1c and not 4.2.

?S:.

?S:d\_msg\_ctrunc:

?S: This variable conditionally defines the HAS\_MSG\_CTRUNC symbol,  
?S: which indicates that the MSG\_CTRUNC is available. #ifdef is  
?S: not enough because it may be an enum, glibc has been known to do this.

?S:.

?S:d\_msg\_dontroute:

?S: This variable conditionally defines  
the HAS\_MSG\_DONTRROUTE symbol,  
?S: which indicates that the MSG\_DONTRROUTE is available. #ifdef is  
?S: not enough because it may be an enum, glibc has been known to do this.

?S:.

?S:d\_msg\_oob:

?S: This variable conditionally defines the HAS\_MSG\_OOB symbol,  
?S: which indicates that the MSG\_OOB is available. #ifdef is  
?S: not enough because it may be an enum, glibc has been known to do this.

?S:.

?S:d\_msg\_peek:

?S: This variable conditionally defines the HAS\_MSG\_PEEK symbol,

?S: which indicates that the MSG\_PEEK is available. #ifdef is  
?S: not enough because it may be an enum, glibc has been known to do this.  
?S:.  
?S:d\_msg\_proxy:  
?S: This variable conditionally defines the HAS\_MSG\_PROXY symbol,  
?S: which indicates that the MSG\_PROXY is available. #ifdef is  
?S: not enough because it may be an enum, glibc has been known to do this.  
?S:.  
?S:d\_scm\_rights:  
?S: This variable conditionally defines the HAS\_SCM\_RIGHTS symbol,  
?S: which indicates that the SCM\_RIGHTS is available. #ifdef is  
?S: not  
enough because it may be an enum, glibc has been known to do this.  
?S:.  
?S:d\_sockaddr\_sa\_len:  
?S: This variable conditionally defines the HAS\_SOCKADDR\_SA\_LEN symbol,  
?S: which indicates that a struct sockaddr structure has the sa\_len  
?S: member.  
?S:.  
?S:d\_sockaddr\_in6:  
?S: This variable conditionally defines the HAS\_SOCKADDR\_IN6 symbol, which  
?S: indicates the availability of a struct sockaddr\_in6.  
?S:.  
?S:d\_sin6\_scope\_id:  
?S: This variable conditionally defines the HAS\_SIN6\_SCOPE\_ID symbol, which  
?S: indicates that a struct sockaddr\_in6 structure has the sin6\_scope\_id  
?S: member.  
?S:.  
?S:d\_ip\_mreq:  
?S: This variable conditionally defines the HAS\_IP\_MREQ symbol, which  
?S: indicates the availability of a struct ip\_mreq.  
?S:.  
?S:d\_ip\_mreq\_source:  
?S: This variable conditionally defines the HAS\_IP\_MREQ\_SOURCE symbol,  
?S: which indicates the availability of a struct ip\_mreq\_source.  
?S:.  
?S:d\_ipv6\_mreq:  
?S: This variable conditionally defines the HAS\_IPV6\_MREQ symbol, which  
?S: indicates  
the availability of a struct ipv6\_mreq.  
?S:.  
?S:d\_ipv6\_mreq\_source:  
?S: This variable conditionally defines the HAS\_IPV6\_MREQ\_SOURCE symbol,  
?S: which indicates the availability of a struct ipv6\_mreq\_source.  
?S:.  
?S:socketlib:  
?S: This variable has the names of any libraries needed for socket support.  
?S:.

?S:sockethdr:

?S: This variable has any cpp '-I' flags needed for socket support.

?S:.

?C:HAS\_SOCKET (SOCKET):

?C: This symbol, if defined, indicates that the BSD socket interface is

?C: supported.

?C:.

?C:HAS\_SOCKETPAIR (SOCKETPAIR):

?C: This symbol, if defined, indicates that the BSD socketpair() call is

?C: supported.

?C:.

?C:USE\_OLD\_SOCKET (OLDSOCKET):

?C: This symbol, if defined, indicates that the 4.1c BSD socket interface

?C: is supported instead of the 4.2/4.3 BSD socket interface. For instance,

?C: there is no setsockopt() call.

?C:.

?C:HAS\_MSG\_CTRUNC:

?C: This symbol, if defined, indicates that the MSG\_CTRUNC is supported.

?C: Checking just with #ifdef might not be enough

because this symbol

?C: has been known to be an enum.

?C:.

?C:HAS\_MSG\_DONTROUTE:

?C: This symbol, if defined, indicates that the MSG\_DONTROUTE is supported.

?C: Checking just with #ifdef might not be enough because this symbol

?C: has been known to be an enum.

?C:.

?C:HAS\_MSG\_OOB:

?C: This symbol, if defined, indicates that the MSG\_OOB is supported.

?C: Checking just with #ifdef might not be enough because this symbol

?C: has been known to be an enum.

?C:.

?C:HAS\_MSG\_PEEK:

?C: This symbol, if defined, indicates that the MSG\_PEEK is supported.

?C: Checking just with #ifdef might not be enough because this symbol

?C: has been known to be an enum.

?C:.

?C:HAS\_MSG\_PROXY:

?C: This symbol, if defined, indicates that the MSG\_PROXY is supported.

?C: Checking just with #ifdef might not be enough because this symbol

?C: has been known to be an enum.

?C:.

?C:HAS\_SCM\_RIGHTS:

?C: This symbol, if defined, indicates that the SCM\_RIGHTS is supported.

?C: Checking just with #ifdef might not be enough

because this symbol

?C: has been known to be an enum.

?C:.

?C:HAS\_SOCKADDR\_SA\_LEN:  
?C: This symbol, if defined, indicates that the struct sockaddr  
?C: structure has a member called sa\_len, indicating the length of  
?C: the structure.  
?C:.

?C:HAS\_SOCKADDR\_IN6:  
?C: This symbol, if defined, indicates the availability of  
?C: struct sockaddr\_in6;  
?C:.

?C:HAS\_SIN6\_SCOPE\_ID:  
?C: This symbol, if defined, indicates that the struct sockaddr\_in6  
?C: structure has a member called sin6\_scope\_id.  
?C:.

?C:HAS\_IP\_MREQ:  
?C: This symbol, if defined, indicates the availability of  
?C: struct ip\_mreq;  
?C:.

?C:HAS\_IP\_MREQ\_SOURCE:  
?C: This symbol, if defined, indicates the availability of  
?C: struct ip\_mreq\_source;  
?C:.

?C:HAS\_IPV6\_MREQ:  
?C: This symbol, if defined, indicates the availability of  
?C: struct ipv6\_mreq;  
?C:.

?C:HAS\_IPV6\_MREQ\_SOURCE:  
?C: This symbol, if defined, indicates the availability of  
?C: struct ipv6\_mreq\_source;  
?C:.

?H:#\$d\_socket HAS\_SOCKET /\*\*/  
?H:#\$d\_socketpair HAS\_SOCKETPAIR /\*\*/  
?H:#\$d\_sockaddr\_sa\_len HAS\_SOCKADDR\_SA\_LEN /\*\*/  
?H:#\$d\_oldsock USE\_OLD\_SOCKET /\*\*/  
?H:#\$d\_msg\_ctrunc HAS\_MSG\_CTRUNC /\*\*/  
?H:#\$d\_msg\_dontroute HAS\_MSG\_DONTROUTE /\*\*/  
?H:#\$d\_msg\_oob HAS\_MSG\_OOB /\*\*/  
?H:#\$d\_msg\_peek HAS\_MSG\_PEEK /\*\*/  
?H:#\$d\_msg\_proxy HAS\_MSG\_PROXY /\*\*/  
?H:#\$d\_scm\_rights HAS\_SCM\_RIGHTS /\*\*/  
?H:#\$d\_sockaddr\_in6 HAS\_SOCKADDR\_IN6 /\*\*/  
?H:#\$d\_sin6\_scope\_id HAS\_SIN6\_SCOPE\_ID /\*\*/  
?H:#\$d\_ip\_mreq HAS\_IP\_MREQ /\*\*/  
?H:#\$d\_ip\_mreq\_source HAS\_IP\_MREQ\_SOURCE /\*\*/  
?H:#\$d\_ipv6\_mreq HAS\_IPV6\_MREQ /\*\*/  
?H:#\$d\_ipv6\_mreq\_source HAS\_IPV6\_MREQ\_SOURCE /\*\*/  
?H:.  
?T:val

```

net ENUM enum
?LINT:set d_sockpair d_sockaddr_sa_len
?LINT:set d_msg_trunc d_msg_dontroute d_msg_oob d_msg_peek d_msg_proxy
?LINT:set d_scm_rights d_sockaddr_in6 d_sin6_scope_id d_ip_mreq
?LINT:set d_ip_mreq_source d_ipv6_mreq d_ipv6_mreq_source
: see whether socket exists
socketlib=""
sockethdr=""
echo " "
$echo $n "Hmm... $c" >&4
if set socket val -f d_socket; eval $csym; $val; then
 echo "Looks like you have Berkeley networking
support." >&4
 d_socket="$define"
?X: now check for advanced features
 if set setsockopt val -f; eval $csym; $val; then
d_oldsock="$undef"
 else
echo "...but it uses the old BSD 4.1c interface, rather than 4.2." >&4
d_oldsock="$define"
 fi
else
?X: HP-UX, for one, puts all the socket stuff in socklib.o. Note that if we
?X: come here on HP-UX, then we must have used nm to get symbols, or we really
?X: don't have sockets anyway...
 if $contains socklib libc.list >/dev/null 2>&1; then
echo "Looks like you have Berkeley networking support." >&4
d_socket="$define"
: we will have to assume that it supports the 4.2 BSD interface
d_oldsock="$undef"
 else
echo "You don't have Berkeley networking in libc$_a..." >&4
?X: look for optional networking libraries
if test "X$d_socket" = "X$define"; then
 echo "...but you seem to believe that you have sockets." >&4
else
 for net in net socket
 do
if test -f $sysroot/usr/lib/lib$net$_a; then
?X: space between two
'(' needed for ksh
 (($nm $nm_opt $sysroot/usr/lib/lib$net$_a | eval $nm_extract) || \
 $ar t $sysroot/usr/lib/lib$net$_a 2>/dev/null >> libc.list
 if $contains socket libc.list >/dev/null 2>&1; then
d_socket="$define"
socketlib="-l$net"
case "$net" in
net)

```

```

 echo "...but the Wollongong group seems to have hacked it in." >&4
 sockethdr="-I$sysroot/usr/netinclude"
 ;;
esac
echo "Found Berkeley sockets interface in lib$net." >&4
?X: now check for advanced features
if $contains setsockopt libc.list >/dev/null 2>&1; then
 d_oldsock="$undef"
else
 echo "...using the old BSD 4.1c interface, rather than 4.2." >&4
 d_oldsock="$define"
fi
break
fi
fi
done
if test "X$d_socket" != "X$define"; then
 echo "or anywhere else I see." >&4
 d_socket="$undef"
 d_oldsock="$undef"
fi
fi
fi
fi

@if HAS_SOCKETPAIR || d_socketpair
: see if socketpair exists
set socketpair d_socketpair
eval
$inlibc

@end

echo " "
?X: ...
echo "Checking the availability sa_len in the sock struct ..." >&4
$cat >try.c <<EOF
#include <sys/types.h>
#include <sys/socket.h>
int main() {
struct sockaddr sa;
return (sa.sa_len);
}
EOF
val="$undef"
set try; if eval $compile; then
 val="$define"
fi

```

```

set d_sockaddr_sa_len; eval $setvar
$rm_try

echo " "
?X: ...
echo "Checking the availability struct sockaddr_in6 ..." >&4
$cat >try.c <<EOF
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
int main() {
struct sockaddr_in6 sin6;
return (sin6.sin6_family);
}
EOF
val="$undef"
set try; if eval $compile; then
 val="$define"
fi
set d_sockaddr_in6; eval $setvar
$rm_try

echo " "
?X: ...
echo "Checking the availability sin6_scope_id in struct sockaddr_in6 ..." >&4
$cat >try.c <<EOF
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
int main() {
struct sockaddr_in6 sin6;
return (sin6.sin6_scope_id);
}
EOF
val="$undef"
set try; if eval $compile; then
 val="$define"
fi
set
d_sin6_scope_id; eval $setvar
$rm_try

echo " "
?X: ...
echo "Checking the availability struct ip_mreq ..." >&4
$cat >try.c <<EOF
#include <sys/types.h>
#include <sys/socket.h>

```

```

#include <netinet/in.h>
int main() {
struct ip_mreq mreq;
return (mreq.imr_multiaddr.s_addr);
}
EOF
val="$undef"
set try; if eval $compile; then
 val="$define"
fi
set d_ip_mreq; eval $setvar
$rm_try

echo " "
?X: ...
echo "Checking the availability struct ip_mreq_source ..." >&4
$cat >try.c <<EOF
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
int main() {
struct ip_mreq_source mreq;
return (mreq.imr_multiaddr.s_addr);
}
EOF
val="$undef"
set try; if eval $compile; then
 val="$define"
fi
set d_ip_mreq_source; eval $setvar
$rm_try

echo " "
?X: ...
echo "Checking the availability struct ipv6_mreq ..." >&4
$cat >try.c <<EOF
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
int main() {
struct ipv6_mreq mreq;
return (mreq.ipv6mr_interface);
}
EOF
val="$undef"
set
try; if eval $compile; then
 val="$define"

```



```

fi
set d_ipv6_mreq; eval $setvar
$rm_try

echo " "
?X: ...
echo "Checking the availability struct ipv6_mreq_source ..." >&4
$cat >try.c <<EOF
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
int main() {
struct ipv6_mreq_source mreq;
return (mreq.imr_multiaddr.s_addr);
}
EOF
val="$undef"
set try; if eval $compile; then
 val="$define"
fi
set d_ipv6_mreq_source; eval $setvar
$rm_try

echo " "
?X: these constants are known to be troublesomely defined as enums
?X: so that ifdef will not work for detecting their presence.
echo "Checking the availability of certain socket constants..." >&4
for ENUM in MSG_CTRUNC MSG_DONTROUTE MSG_OOB MSG_PEEK MSG_PROXY SCM_RIGHTS; do
 enum=`$echo $ENUM|./tr '[A-Z]' '[a-z]'`
 $cat >try.c <<EOF
#include <sys/types.h>
#include <sys/socket.h>
int main() {
 int i = $ENUM;
}
EOF
 val="$undef"
 set try; if eval $compile; then
 val="$define"
 fi
 set d_${enum};
 eval $setvar
 $rm_try
done

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_socket.U

```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: h_sysfile.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: h_sysfile.U,v $
?RCS: Revision 3.0 1993/08/18 12:08:13 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:h_sysfile: Nothing
?MAKE: -pick add $@ %<
?S:h_sysfile:
?S: This is variable gets set in various places to tell i_sys_file that
?S: <sys/file.h> should be included.
?S:.
: Initialize h_sysfile
h_sysfile=false
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/h_sysfile.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_rmdir.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_rmdir.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:56 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_rmdir: Inlibc
?MAKE: -pick add $@ %<
?S:d_rmdir:
?S: This variable conditionally defines HAS_RMDIR if rmdir() is
```

?S: available to remove directories.

?S:.

?C:HAS\_RMDIR (RMDIR):

?C: This symbol, if defined, indicates that the rmdir routine is

?C: available to remove directories. Otherwise you should fork off a

?C: new process to exec

/bin/rmdir.

?C:.

?H:#\$d\_rmdir HAS\_RMDIR /\*\*/

?H:.

?LINT:set d\_rmdir

: see if rmdir exists

set rmdir d\_rmdir

eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d\_rmdir.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_string.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic Licence; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: i\_string.U,v \$

?RCS: Revision 3.0.1.2 1993/10/16 13:50:12 ram

?RCS: patch12: special units Loc and Guess were missing from dependencies

?RCS:

?RCS: Revision 3.0.1.1 1993/09/13 16:07:26 ram

?RCS: patch10: removed "(Actually, this looks more like...)" messages (WAD)

?RCS:

?RCS: Revision 3.0 1993/08/18 12:08:28 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: See if we should include <string.h> or <strings.h>

?X:

?MAKE:i\_string strings:

test Setvar Findhdr Warn

?MAKE: -pick add \$@ %<

?S:i\_string:

?S: This variable conditionally defines the I\_STRING symbol, which

?S: indicates that <string.h> should be included rather than <strings.h>.

?S:.

?S:strings:

?S: This variable holds the full path of the string header that will be

?S: used. Typically /usr/include/string.h or /usr/include/strings.h.

?S:.

?C:I\_STRING:

?C: This symbol, if defined, indicates to the C program that it should

?C: include <string.h> (USG systems) instead of <strings.h> (BSD systems).

?C:.

?H:#\$i\_string I\_STRING /\*\*/

?H:.

?LINT:set i\_string

: see which of string.h or strings.h is needed

echo " "

strings=`./findhdr string.h`

if \$test "\$strings" && \$test -r "\$strings"; then

echo "Using <string.h> instead of <strings.h>." >&4

val="\$define"

else

val="\$undef"

strings=`./findhdr strings.h`

if \$test "\$strings" && \$test -r "\$strings"; then

echo "Using <strings.h> instead of <string.h>." >&4

else

./warn "No string header found -- You'll surely

have problems."

fi

fi

set i\_string

eval \$setvar

case "\$i\_string" in

"\$undef") strings=`./findhdr strings.h`;;

\*) strings=`./findhdr string.h`;;

esac

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-

5.30.0/dist/U/i\_string.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d\_getgrent.U,v \$

?RCS:

?RCS: Copyright (c) 1998 Andy Dougherty

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: d\_getgrent.U,v \$  
?RCS:  
?MAKE:d\_getgrent: Inlibc  
?MAKE: -pick add \$@ %<  
?S:d\_getgrent:  
?S: This variable conditionally defines the HAS\_GETGRENT symbol, which  
?S: indicates to the C program that the getgrent() routine is available  
?S: for sequential access of the group database.  
?S:.  
?C:HAS\_GETGRENT:  
?C: This symbol, if defined, indicates that the getgrent routine is  
?C: available for sequential access of the group database.  
?C:.  
?H:#\$d\_getgrent HAS\_GETGRENT /\*\*/  
?H:.  
?LINT:set d\_getgrent  
: see if getgrent exists  
set getgrent d\_getgrent  
eval \$inlibc

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d\_getgrent.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i\_mntent.U,v \$  
?RCS:  
?RCS: Copyright (c) 1999 Jarkko Hietaniemi  
?RCS:  
?RCS: You may distribute under the terms of either the GNU General Public  
?RCS: License or the Artistic License, as specified in the README file.  
?RCS:  
?MAKE:i\_mntent: Inhdr Hasfield  
?MAKE: -pick add \$@ %<  
?S:i\_mntent:  
?S: This variable conditionally defines the I\_MNTENT symbol, and indicates  
?S: whether a C program should include <mntent.h>.  
?S:.  
?C:I\_MNTENT:  
?C: This symbol, if defined, indicates that <mntent.h> exists and  
?C: should be included.  
?C:.  
?H:#\$i\_mntent I\_MNTENT /\*\*/  
?H:.  
?LINT:set i\_mntent  
: see if this is a mntent.h system  
set mntent.h i\_mntent  
eval \$inhdr

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i\_mntent.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: Finish.U,v \$

?RCS: Revision 3.0.1.6 1995/02/15 14:09:30 ram

?RCS: patch51: now clearer about how to edit config.sh at the prompt (WED)

?RCS:

?RCS: Revision 3.0.1.5 1994/10/29 15:53:14 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:

?RCS: Revision 3.0.1.4 1994/05/06 14:19:37 ram

?RCS: patch23: added blank lines around 'End of Configure'

?RCS:

?RCS: Revision 3.0.1.3 1993/10/16 13:46:09 ram

?RCS: patch12: replaced Config\_h by Magic\_h in the dependency line

?RCS:

?RCS:

Revision 3.0.1.2 1993/09/13 15:45:26 ram

?RCS: patch10: fixed shell evaluation w/o shell escape while in silent mode

?RCS:

?RCS: Revision 3.0.1.1 1993/08/30 08:55:59 ram

?RCS: patch8: prevents myread from blocking on empty answers, exceptionally

?RCS:

?RCS: Revision 3.0 1993/08/18 12:04:55 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit is the very last one in the Configure script. It runs all the

?X: SH files, which among other things produce config.h and (usually) Makefile.

?X: It offers to do a make depend if the Makefile contains that target.

?X:

?MAKE:Finish: Chk\_MANI Extract Myread Oldsym Magic\_h cat rm contains \  
test package make

?MAKE: -pick add \$@ %<

?F: !config.sh

```

?T:pwd
: Finish up by extracting the .SH files
case "$alldone" in
exit)
?X: They supplied the -E switch
echo "Stopping at your request, leaving temporary files around."
exit 0
;;
cont)
;;
")
dflt="
nostick=true
$cat <<EOM

```

If you'd like to make any changes to the config.sh file before I begin to configure things, do it as a shell escape now (e.g. !vi config.sh).

```

EOM
rp="Press return or use a shell escape to edit config.sh:"
. UU/myread
nostick="
case "$ans" in
") ;;
*) : in case they cannot read
sh 1>&4 -c "$ans";;
esac
;;
esac

```

: if this fails, just run all the .SH files by hand  
./config.sh

```

?X:
?X: Turn silent mode off from now on (we want a verbose file extraction).
?X: This means we have to explicitly test for '$silent' from now on to
?X: strip off any verbose messages.
?X:
echo " "
exec 1>&4
pwd=`pwd`
. ./UU/extract
cd "$pwd"

```

```

if $contains '^depend:' [Mm]akefile >/dev/null 2>&1; then
dflt=y
case "$silent" in

```

```
true) ;;
*)
$cat <<EOM
```

Now you need to generate make dependencies by running "\$make depend".  
You might prefer to run it in background: "\$make depend > makedepend.out &"  
It can take a while, so you might not want to run it right now.

```
EOM
;;
esac
rp="Run $make depend now?"
. UU/myread
case "$ans" in
y*)
$make depend
&& echo "Now you must run '$make'."
;;
*)
echo "You must run '$make depend' then '$make'."
;;
esac
elif test -f [Mm]akefile; then
echo " "
echo "Now you must run a $make."
else
echo "Configure done."
fi

if $test -f Policy.sh; then
$cat <<EOM
```

If you compile \$package on a different machine or from a different object directory, copy the Policy.sh file from this object directory to the new one before you run Configure -- this will help you with most of the policy defaults.

```
EOM
fi
if $test -f UU/config.msg; then
echo "Hmm. I also noted the following information while running:"
echo " "
$cat UU/config.msg >&4
fi
?X:
?X: kit*isdone files are left over by shell archives built using the makedist
?X: script which comes from dist, while ark*isdone files are left over by
?X: the cshar archive maker.
```



?X:  
\$rm -f kit\*isdone ark\*isdone  
\$rm -rf UU

: End of Configure

Found in path(s):

\* /opt/cola/permits/2040574603\_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Finish.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: usethreads.U,v \$

?RCS:

?RCS: Copyright (c) 1998-2000 Andy Dougherty

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: \$Log: usethreads.U,v \$

?RCS:

?MAKE:usethreads useithreads use5005threads d\_oldpthreads usereentrant: \  
Myread Oldconfig Setvar test cat patchlevel

?MAKE: -pick add \$@ %<

?Y:TOP

?S:usethreads:

?S: This variable conditionally defines the USE\_THREADS symbol,

?S: and indicates that Perl should be built to use threads.

?S:.

?S:useithreads:

?S: This variable conditionally defines the USE\_ITHREADS symbol,

?S: and indicates that Perl should be built to use the interpreter-based

?S: threading implementation.

?S:.

?S:use5005threads:

?S: This variable conditionally defines the USE\_5005THREADS symbol,

?S: and indicates that Perl should be built to use the 5.005-based

?S: threading implementation.

Only valid up to 5.8.x.

?S:.

?X: I'm putting old\_pthreads in this unit because it might eventually

?X: be part of an automatic determination to see if we can use threads

?X: at all.

?S:d\_oldpthreads:

?S: This variable conditionally defines the OLD\_PTHREADS\_API symbol,

?S: and indicates that Perl should be built to use the old

?S: draft POSIX threads API. This is only potentially meaningful if

?S: usethreads is set.

?S:.

?S:usereentrant:  
 ?S: This variable conditionally defines the USE\_REENTRANT\_API symbol,  
 ?S: which indicates that the thread code may try to use the various  
 ?S: \_r versions of library functions. This is only potentially  
 ?S: meaningful if usethreads is set and is very experimental, it is  
 ?S: not even prompted for.  
 ?S:.  
 ?C:USE\_ITHREADS:  
 ?C: This symbol, if defined, indicates that Perl should be built to  
 ?C: use the interpreter-based threading implementation.  
 ?C:.  
 ?C:USE\_5005THREADS:  
 ?C: This symbol, if defined, indicates that Perl should be built to  
 ?C: use the 5.005-based  
 ?C: threading implementation.  
 ?C: Only valid up to 5.8.x.  
 ?C:.  
 ?C:USE\_THREADS:  
 ?C: This symbol, if defined, indicates that Perl should  
 ?C: be built to use threads. At present, it is a synonym for  
 ?C: USE\_5005THREADS for perl older than 5.8 and USE\_ITHREADS  
 ?C: for 5.8.x and newer, but eventually the source ought to be  
 ?C: changed to use this to mean \_any\_ threading implementation.  
 ?C:.  
 ?C:OLD\_PTHREADS\_API:  
 ?C: This symbol, if defined, indicates that Perl should  
 ?C: be built to use the old draft POSIX threads API.  
 ?C:.  
 ?C:USE\_REENTRANT\_API:  
 ?C: This symbol, if defined, indicates that Perl should  
 ?C: try to use the various \_r versions of library functions.  
 ?C: This is extremely experimental.  
 ?C:.  
 ?H:#\$use5005threads USE\_5005THREADS /\*\*/  
 ?H:#\$useithreads USE\_ITHREADS /\*\*/  
 ?H:%<:#if defined(USE\_5005THREADS) && !defined(USE\_ITHREADS)  
 ?H:%<:#define USE\_THREADS /\* until src is revised\*/  
 ?H:%<:#endif  
 ?H:#\$d\_oldpthreads OLD\_PTHREADS\_API /\*\*/  
 ?H:#\$usereentrant USE\_REENTRANT\_API /\*\*/  
 ?H:.  
 ?X:  
 [hmb] Removed LINT for use5005threads, useithreads, and  
 ?X: usereentrant, as LINT is only run on blead  
 ?LINT:set usethreads d\_oldpthreads  
 ?INIT:: set usethreads on the Configure command line to enable threads.  
 ?INIT:usereentrant='undef'  
 ?F:!usethreads.cbu

```

: Do we want threads support and if so, what type
?X: We should really have some explanatory text here, and some
?X: automatic setting of sensible defaults.
case "$usetthreads" in
$define|true|[yY]*) dflt='y';;
*) # Catch case where user specified itthreads or 5005threads but
forgot -Dusetthreads (A.D. 4/2002)
case "$useithreads$use5005threads" in
$define) dflt='y';;
*) dflt='n';;
esac
;;
esac
cat <<EOM

```

Perl can be built to offer a form of threading support on some systems  
To do so, Configure can be run with -Dusetthreads.

Note that Perl built with threading support runs slightly slower  
and uses slightly more memory than plain Perl.

If this doesn't make  
any sense to you, just accept the default '\$dflt'.

EOM

```

rp='Build a threading Perl?'
./myread
case "$ans" in
y|Y) val="$define" ;;
*) val="$undef" ;;
esac
set usethreads
eval $setvar

```

```

if $test $patchlevel -lt 9; then
case "$usetthreads" in
$define)
: Default to itthreads unless overridden on command line or with
: old config.sh
dflt='y'
case "$use5005threads" in
$define|true|[yY]*)
echo "5.005 threads are no longer supported"
exit 1
;;
esac
case "$useithreads" in
$undef|false|[nN]*) dflt='n';;
esac

```

```

rp='Use the newer interpreter-based ithreads?'
. ./myread
case "$ans" in
y|Y) val="$define" ;;
*) val="$undef" ;;
esac
set useithreads
eval $setvar
: Now set use5005threads to the opposite value.
case "$useithreads" in
$define) val="$undef" ;;
*) val="$define" ;;
esac
set use5005threads
eval $setvar
;;
*)
useithreads="$undef"
use5005threads="$undef"
;;
esac

```

?X: This is not supposed to be possible but with some trickery, maybe.

```

case "$useithreads$use5005threads" in
"$define$define")
$cat >&4 <<EOM

```

You cannot have both the ithreads and the 5.005 threads enabled at the same time. Disabling the 5.005 threads since they are much less stable than the ithreads.

```

EOM
use5005threads="$undef"
;;
esac

```

else  
: perl-5.9.x and later

```

if test X"$setthreads" = "X$define"; then
case "$use5005threads" in
$define|true|[yY]*)
$cat >&4 <<EOM

```

5.005 threads has been removed for 5.10. Perl will be built using ithreads.

EOM

```

;;
esac
fi

use5005threads="$undef"
useithreads="$usetthreads"
fi

```

```

?X: Check out what kind of threads API we have
case "$d_oldpthreads" in
*) : Configure tests would be welcome here. For now, assume undef.
val="$undef" ;;
*) val="$d_oldpthreads" ;;
esac
set d_oldpthreads
eval $setvar

```

```

?X: In general, -lpthread needs to come before -lc but after other
?X: libraries such as -lgdbm and such like. We assume here that -lc
?X: is present in libswanted. If that
fails to be true, then this
?X: can be changed to add pthread to the very end of libswanted.

```

```

: Look for a hint-file generated 'call-back-unit'. If the
: user has specified that a threading perl is to be built,
: we may need to set or change some other defaults.
if $test -f usethreads.cbu; then
 echo "Your platform has some specific hints regarding threaded builds, using them..."
 . ./usethreads.cbu
else
 case "$usetthreads" in
"$define"|true|[yY]*)
 $cat <<EOM
(Your platform does not have any specific hints for threaded builds.
Assuming POSIX threads, then.)
EOM
;;
esac
fi

```

```

Found in path(s):
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/usethreads.U
No license file was found, but licenses were detected in source scan.

```

```

?RCS: $Id: d_bcmp.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

```

```

?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_bcmp.U,v $
?RCS: Revision 3.0.1.2 1993/10/16 13:47:52 ram
?RCS: patch12: added magic support for bcmp()
?RCS:
?RCS: Revision 3.0.1.1 1993/09/13 16:00:44 ram
?RCS: patch10: now only defines HAS_BCMP, no macro remap on memcmp (WAD)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:42 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_bcmp: Inlibc
?MAKE:-pick add $@ %<
?S:d_bcmp:
?S: This variable conditionally defines the HAS_BCMP symbol
if
?S: the bcmp() routine is available to compare strings.
?S:.
?C:HAS_BCMP:
?C: This symbol is defined if the bcmp() routine is available to
?C: compare blocks of memory.
?C:.
?H:#$d_bcmp HAS_BCMP /**/
?H:.
?M:bcmp: HAS_BCMP
?M:#ifndef HAS_BCMP
?M:#ifndef bcmp
?M:#define bcmp(s,d,l) memcmp((s),(d),(l))
?M:#endif
?M:#endif
?M:.
?LINT:set d_bcmp
: see if bcmp exists
set bcmp d_bcmp
eval $inlibc

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_bcmp.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: errnolist.U,v 3.0.1.2 1997/02/28 15:48:01 ram Exp $
```

?RCS:  
?RCS: Copyright (c) 1991-1993, Raphael Manfredi  
?RCS:  
?RCS: You may redistribute only under the terms of the Artistic License,  
?RCS: as specified in the README file that comes with the distribution.  
?RCS: You may reuse parts of this distribution only within the terms of  
?RCS: that same Artistic License; a copy of which may be found at the root  
?RCS: of the source tree for dist 3.0.  
?RCS:  
?RCS: \$Log: errnolist.U,v \$  
?RCS: Revision 3.0.1.2 1997/02/28 15:48:01 ram  
?RCS: patch61: replaced .a with \$\_a all over the place  
?RCS: patch61: likewise for .o replaced by \$\_o  
?RCS:  
?RCS: Revision 3.0.1.1 1994/01/24 14:10:54 ram  
?RCS: patch16: created  
?RCS:  
?MAKE:errnolist errnolist\_SH errnolist\_a errnolist\_c errnolist\_o: cat \  
Compile +d\_sysernlst \_a \_o  
?MAKE: -pick add \$@ %<  
?S:errnolist:  
?S: This variable holds the base name of a file containing the  
?S: definition  
of the sys\_errnolist array, if the C library  
?S: doesn't provide it already. Otherwise, its value is empty.  
?S: The following lines should be included in your Makefile.SH:  
?S:  
?S: case "\$serrnolist" in  
?S: ") ;;  
?S: \*)  
?S: \$spitshell >>Makefile <<!GROK!THIS!  
?S: \$serrnolist\_c: \$serrnolist\_SH \$serrnolist\_a  
?S: sh ./serrnolist\_SH  
?S:  
?S: !GROK!THIS!  
?S: ;;  
?S: esac  
?S:  
?S: You may define the 'errnolist' variable in your Myinit.U if you  
?S: wish to override its default value "errnolist".  
?S:.  
?S:errnolist\_SH:  
?S: This is the name of a file which will generate errnolistic.  
?S:.  
?S:errnolist\_a:  
?S: This is the name of the awk script called by errnolist\_SH.  
?S:.  
?S:errnolist\_c:

```

?S: This is the name of a generated C file which provides the
?S: definition of the sys_errnolist array.
?S:.
?S:errnolist_o:
?S: This is the name of the object file which provides the
?S: definition of the sys_errnolist array, if the C library
?S: doesn't provide it already. Otherwise, its value is
empty.
?S:.
?INIT:errnolist=errnolist
: check for sys_errnolist
@if d_sysernlst || HAS_SYS_ERRNOLIST
case "$d_sysernlst" in
"$define")
 errnolist="
 errnolist_SH="
 errnolist_a="
 errnolist_c="
 errnolist_o="
;;
*)
echo " "
echo "I'll make sure your Makefile provides sys_errnolist in $errnolist.c"
 errnolist_SH=$errnolist.SH
 errnolist_a=$errnolist$_a
 errnolist_c=$errnolist.c
 errnolist_o=$errnolist$_o
;;
esac
@else
echo " "
$cat <<EOM
Checking to see if your C library provides us with sys_errnolist[...]
EOM
$cat >errnolist.c <<'EOCP'
extern char *sys_errnolist[];
int main() {
 char *p0 = sys_errnolist[0];
 char *p1 = sys_errnolist[1];

 return (p0 == p1); /* Make sure they're not optimized away */
}
EOCP
set errnolist
if eval $compile; then
 echo "It does."
 errnolist="
 errnolist_SH="

```



```

errnolist_a="
errnolist_c="
errnolist_o="
else
echo "I'll make sure your Makefile provides sys_errnolist in $errnolist.c"
errnolist_SH=$errnolist.SH
errnolist_a=$errnolist$_a
errnolist_c=$errnolist.c
errnolist_o=$errnolist$_o
fi
@end

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/errnolist.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d\_statfs\_s: \

Hasstruct i\_sysparam i\_sysmount i\_systypes \

i\_sysvfs i\_sysstatfs Setvar

?MAKE: -pick add \$@ %<

?S:d\_statfs\_s:

?S: This variable conditionally defines the HAS\_STRUCTURE\_STATFS symbol,

?S: which indicates that the struct statfs is supported.

?S:.

?C:HAS\_STRUCTURE\_STATFS:

?C: This symbol, if defined, indicates that the struct statfs

?C: to do statfs() is supported.

?C:.

?H:#\$d\_statfs\_s HAS\_STRUCTURE\_STATFS /\*\*/

?H:.

?LINT:set d\_statfs\_s

: Check for statfs\_s

echo " "

echo "Checking to see if your system supports struct statfs..." >&4

set d\_statfs\_s statfs \$i\_systypes sys/types.h \$i\_sysparam sys/param.h \$i\_sysmount sys/mount.h \$i\_sysvfs sys/vfs.h

\$i\_sysstatfs sys/statfs.h

eval \$hasstruct

case "\$d\_statfs\_s"

in

"\$define") echo "Yes, it does." ;;

```
*) echo "No, it doesn't." ;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_staffs_s.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d\_portable.U,v \$

?RCS: Revision 3.0.1.2 1995/01/11 15:28:52 ram

?RCS: patch45: executable path stripping moved to the end in Config\_sh.U

?RCS:

?RCS: Revision 3.0.1.1 1993/12/15 08:21:17 ram

?RCS: patch15: did not strip variables properly when needed

?RCS: patch15: now also strips down variables from trylist

?RCS:

?RCS: Revision 3.0 1993/08/18 12:06:48 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: The Loc unit is wanted to get the definition of all the locating variables.

?X:

?MAKE:d\_portable:

```
cat Loc Myread Oldconfig
```

?MAKE: -pick add \$@ %<

?S:d\_portable:

?S: This variable conditionally defines the PORTABLE symbol, which

?S: indicates to the C program that it should not assume that it is

?S: running on the machine it was compiled on.

?S:.

?C:PORTABLE:

?C: This symbol, if defined, indicates to the C program that it should

?C: not assume that it is running on the machine it was compiled on.

?C: The program should be prepared to look up the host name, translate

?C: generic filenames, use PATH, etc.

?C:.

?H:#\$d\_portable PORTABLE /\*\*/

?H:.

```
?D:d_portable="
: decide how portable to be
case "$d_portable" in
"$define") dflt=y;;
*) dflt=n;;
esac
$cat <<'EOH'
```

I can set things up so that your shell scripts and binaries are more portable, at what may be a noticable cost in performance. In particular, if you ask to be portable, the following happens:

- 1) Shell scripts will rely on the PATH variable rather than using the paths derived above.
  - 2) ~username interpretations will be done at run time rather than by Configure.
- ```
@if PHOSTNAME
3) The system name will be determined at run time, if at all possible.
@end
```

```
EOH
rp="Do you expect to run these scripts and binaries on multiple machines?"
./myread
case "$ans" in
y*) d_portable="$define"
?X:
?X: Paths will be stripped down (/usr/bin/vi -> vi) in Config_sh.U if needed.
?X:
;;
*) d_portable="$undef" ;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_portable.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id$
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
```

?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: \$Log: i_db.U,v \$
?RCS: Revision 3.0.1.3 1995/07/25 14:10:22 ram
?RCS: patch56: conditionally use const in test programs (ADO)
?RCS:
?RCS: Revision 3.0.1.2 1995/05/12 12:14:42 ram
?RCS: patch54: extended for more intimate DB probing (ADO)
?RCS:
?RCS: Revision 3.0.1.1 1994/08/29 16:21:50 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:i_db db_hashtype db_prefixtype: Inhdr +cc +ccflags rm_try contains cat \
d_const
?MAKE: -pick
add \$@ %<
?S:i_db:
?S: This variable conditionally defines the I_DB symbol, and indicates
?S: whether a C program may include Berkeley's DB include file <db.h>.
?S:.
?S:db_hashtype:
?S: This variable contains the type of the hash structure element
?S: in the <db.h> header file. In older versions of DB, it was
?S: int, while in newer ones it is u_int32_t.
?S:.
?S:db_prefixtype:
?S: This variable contains the type of the prefix structure element
?S: in the <db.h> header file. In older versions of DB, it was
?S: int, while in newer ones it is size_t.
?S:.
?C:I_DB:
?C: This symbol, if defined, indicates to the C program that it should
?C: include Berkeley's DB include file <db.h>.
?C:.
?C:DB_Prefix_t:
?C: This symbol contains the type of the prefix structure element
?C: in the <db.h> header file. In older versions of DB, it was
?C: int, while in newer ones it is u_int32_t.
?C:.
?C:DB_Hash_t:
?C: This symbol contains the type of the prefix structure element
?C: in the <db.h> header
file. In older versions of DB, it was
?C: int, while in newer ones it is size_t.
?C:.
?H:#\$i_db I_DB /**/
?H:#define DB_Hash_t \$db_hashtype /**/
?H:#define DB_Prefix_t \$db_prefixtype /**/

```

?H:
?LINT:set i_db
: see if this is a db.h system
set db.h i_db
eval $inhdr

@if DB_Hash_t
case "$i_db" in
define)
: Check the return type needed for hash
echo " "
echo "Checking return type needed for hash for Berkeley DB ..." >&4
$cat >try.c <<EOCP
#$d_const HASCONST
#ifndef HASCONST
#define const
#endif
#include <sys/types.h>
#include <db.h>
u_int32_t hash_cb (ptr, size)
const void *ptr;
size_t size;
{
}
HASHINFO info;
int main()
{
info.hash = hash_cb;
}
EOCP
if $cc $ccflags -c try.c >try.out 2>&1 ; then
if $contains warning try.out >>/dev/null 2>&1 ; then
db_hashtype='int'
else
db_hashtype='u_int32_t'
fi
else
echo "I can't seem to compile the test program." >&4
db_hashtype=int
fi
$rm_try
echo "Your version of Berkeley DB uses $db_hashtype for hash."
;;
*) db_hashtype=int
;;
esac

@end

```

```

@if
DB_Prefix_t
case "$i_db" in
define)
: Check the return type needed for prefix
echo " "
echo "Checking return type needed for prefix for Berkeley DB ..." >&4
cat >try.c <<EOCP
#$d_const HASCONST
#ifndef HASCONST
#define const
#endif
#include <sys/types.h>
#include <db.h>
size_t prefix_cb (key1, key2)
const DBT *key1;
const DBT *key2;
{
}
BTREEINFO info;
int main()
{
info.prefix = prefix_cb;
}
EOCP
if $cc $ccflags -c try.c >try.out 2>&1 ; then
if $contains warning try.out >>/dev/null 2>&1 ; then
db_prefixtype='int'
else
db_prefixtype='size_t'
fi
else
echo "I can't seem to compile the test program." >&4
db_prefixtype='int'
fi
$rm_try
echo "Your version of Berkeley DB uses $db_prefixtype for prefix."
;;
*) db_prefixtype='int'
;;
esac

@end

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_db.U

```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_setregid.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_setregid.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:12 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_setregid d_setresgid: Inlibc
?MAKE: -pick add $@ %<
?S:d_setregid:
?S: This variable conditionally defines HAS_SETREGID if setregid() is
?S: available to change the real and effective gid of the current
?S: process.
?S:.
?S:d_setresgid:
?S: This variable conditionally defines HAS_SETRESGID if setresgid() is
?S: available to change
?S: the real, effective and saved gid of the current
?S: process.
?S:.
?C:HAS_SETREGID (SETREGID):
?C: This symbol, if defined, indicates that the setregid routine is
?C: available to change the real and effective gid of the current
?C: process.
?C:.
?C:HAS_SETRESGID (SETRESGID):
?C: This symbol, if defined, indicates that the setresgid routine is
?C: available to change the real, effective and saved gid of the current
?C: process.
?C:.
?H:#$d_setregid HAS_SETREGID /**/
?H:#$d_setresgid HAS_SETRESGID /**/
?H:.
?LINT: set d_setregid d_setresgid
: see if setregid exists
set setregid d_setregid
eval $inlibc
set setresgid d_setresgid
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_setregid.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: newsspool.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: newsspool.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:09:24 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:newsspool newsspoolexp: Getfile Oldconfig
```

```
?MAKE: -pick add $@ %<
```

```
?S:newsspool:
```

```
?S: This variable contains the eventual value of the NEWSSPOOL symbol,
```

```
?S: which is the directory name where news articles are spooled. It
```

```
?S: may have a ~ on the front of it.
```

```
?S:.
```

```
?S:newsspoolexp:
```

```
?S: This is the same as the newsspool variable, but is
```

```
filename expanded
```

```
?S: at configuration time, for programs not wanting to deal with it at
```

```
?S: run-time.
```

```
?S:.
```

```
?C:NEWSSPOOL:
```

```
?C: This symbol contains the directory name where news articles are
```

```
?C: spooled. The program must be prepared to do ~ expansion on it.
```

```
?C:.
```

```
?C:NEWSSPOOL_EXP:
```

```
?C: This is the same as NEWSSPOOL, but is filename expanded at
```

```
?C: configuration time, for use in programs not willing to do so
```

```
?C: at run-time.
```

```
?C:.
```

```
?H:#define NEWSSPOOL "$newsspool" /**/
```

```
?H:#define NEWSSPOOL_EXP "$newsspoolexp" /**/
```

```
?H:.
```

```
: locate news spool directory
```

```
case "$newsspool" in
```

```
")
```



```
dflt=/usr/spool/news
;;
*) dflt="$newsspool";;
esac
echo " "
fn=d~
rp='Where are news spooled?'
./getfile
newsspool="$ans"
newsspoolexp="$ansexp"
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/newsspool.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_siglist.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_siglist.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:22 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_siglist: Csym Setvar
?MAKE: -pick add $@ %<
?S:d_siglist:
?S: This variable conditionally defines HAS_SYS_SIGLIST if sys_siglist[] is
?S: available to translate signal numbers to strings.
?S:.
?C:HAS_SYS_SIGLIST (SYS_SIGLIST):
?C: This symbol, if defined, indicates that the sys_siglist array is
?C: available to translate signal numbers
to strings.
?C:.
?H:#$d_siglist HAS_SYS_SIGLIST /**/
?H:.
?LINT:set d_siglist
: see if sys_siglist[] exist
echo " "
if set sys_siglist val -a d_siglist; eval $csym; $val; then
echo "You have sys_siglist[] for signal description." >&4
```

```
val="$define"  
else  
echo "You don't have sys_siglist[]." >&4  
val="$undef"  
fi  
set d_siglist  
eval $setvar
```

Found in path(s):

```
*/opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-  
5.30.0/dist/U/d_siglist.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: kernel.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: kernel.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:08:54 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:kernel: Getfile test
```

```
?MAKE: -pick add $@ %<
```

```
?S:kernel:
```

```
?S: This variable becomes the (fully rooted) path name of the kernel.
```

```
?S:.
```

```
: find the name of the kernel.
```

```
echo " "
```

```
case "$kernel" in
```

```
)
```

```
if $test -r /unix; then
```

```
  dflt=/unix
```

```
elif $test -r /vmunix; then
```

```
  dflt=/vmunix
```

```
elif $test -r /xenix; then
```

```
  dflt=/xenix
```

```
elif $test -r /mach; then
```

```
  dflt=/mach
```

```
elif
```

```
$test -r /dgux; then
```

```
  dflt=/dgux
```

```
elif $test -r /hp-ux; then
```

```

dflt=/hp-ux
elif $test -r /syst; then
dflt=/syst
elif $test -r /arix; then
dflt=/arix
elif $test -r /irix; then
dflt=/arix
else
dflt='unknown'
set X /*x
shift
case $# in
1)
if $test -r "$1"; then
dflt="$1"
fi
;;
esac
fi
;;
*)
dflt="$kernel"
;;
esac
fn=f
rp='What is the name of your kernel?'
./getfile
kernel="$ans"

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/kernel.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: inc.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic Licence,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: inc.U,v \$

?RCS: Revision 3.0 1993/08/18 12:08:51 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

```

?MAKE:inc incexp: Loc Oldconfig Getfile us rinc
?MAKE: -pick add $@ %<
?S:inc:
?S: This variable holds the name of the directory in which the user wants
?S: to put public header files for the package in question. It is most
?S: often a local directory such as /usr/local/include.
?S:..
?S:incexp:
?S: This is the same as the inc variable, but is filename
    expanded
?S: at configuration time for convenient use in your makefiles.
?S:..
: determine where public header files go
case "$inc" in
")
    dflt=`./loc . ." /usr/local/include /usr/include/local $usrinc`
    ;;
*) dflt="$inc"
    ;;
esac
fn=d~
rp="Where do you want to put the public header files?"
./getfile
inc="$ans"
incexp="$ansexp"

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/inc.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: floatsize.U,v 3.0.1.1 1994/10/29 16:17:09 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: floatsize.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:17:09 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:09 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:

```

```

?MAKE:floatsize: cat rm Myread Compile run
?MAKE: -pick add $@ %<
?S:floatsize:
?S: This variable contains the value of the FLOATSIZE symbol, which
?S: indicates to the C program how many bytes there are in a float.
?S:.
?C:FLOATSIZE:
?C: This
symbol contains the size of a float, so that the C preprocessor
?C: can make decisions based on it.
?C:.
?H:#define FLOATSIZE $floatsize /**/
?H:.
?F:!try
: check for length of float
echo " "
case "$floatsize" in
")
echo "Checking to see how big your floating point numbers are..." >&4
$cat >try.c <<'EOCP'
#include <stdio.h>
int main()
{
printf("%d\n", (int)sizeof(float));
exit(0);
}
EOCP
set try
if eval $compile_ok; then
floatsize=`$run ./try`
else
dflt='4'
echo "(I can't seem to compile the test program. Guessing...)"
rp="What is the size of a floating point number (in bytes)?"
./myread
floatsize="$ans"
fi
;;
esac
$rm -f try.c try

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/floatsize.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: lex.U 1 2006-08-24 12:32:52Z rmanfredi $

```

```

?RCS:

```

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

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?RCS: You may reuse parts of this distribution only within the terms of
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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: Original Author: Graham Stoney <greyham@research.canon.oz.au>

?RCS:

?RCS: \$Log: lex.U,v \$

?RCS: Revision 3.0.1.3 1994/10/29 16:22:50 ram

?RCS: patch36: spurious single quote could cause Configure to crash
?RCS: patch36: (reported by Xavier Le Vouch <xavierl@eiffel.com>.)

?RCS:

?RCS: Revision 3.0.1.2 1994/08/29 16:27:09 ram

?RCS: patch32: added lexflags variable for lex flags setting

?RCS:

?RCS: Revision 3.0.1.1 1994/05/06 15:06:01 ram

?RCS: patch23: added
trailing blank line for metalint

?RCS:

?RCS: Revision 3.0 1993/08/18 12:08:55 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:lex lexflags: Guess Myread Oldconfig flex test

?MAKE: -pick add \$@ %<

?S:lex:

?S: This variable holds the name of the lexical analyser generator we
?S: want to use in the Makefile. It can be lex or flex.

?S:.

?S:lexflags:

?S: This variable holds any flags that should be passed to the lexical
?S: analyzer. It is up to the Makefile to use it.

?S:.

: determine lexical analyser generator
case "\$lex" in
")
dflt=lex;;
*)
dflt="\$lex";;
esac
echo " "
if \$test -f "\$flex"; then
rp='Which lexical analyser generator (lex or flex) shall I use?'
else
rp='Which lexical analyser generator shall I use?'
fi

```

./myread
lex="$ans"

@if lexflags
: if using lex this will normally be useless, but flex frequently takes args
echo " "
case "$lexflags" in
") dflt='none';;
*) dflt="$lexflags";;
esac
rp="What flags should be given to $lex?"
./myread
case "$ans"
in
none) lexflags="";;
*) lexflags="$ans";;
esac

@end

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/lex.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 2003, Jarkko Hietaniemi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d_pthread_attr_setscope: Inlibc

?MAKE: -pick add \$@ %<

?S:d_pthread_attr_setscope:

?S: This variable conditionally defines HAS_PTHREAD_ATTR_SETSCOPE if

?S: pthread_attr_setscope() is available to set the contention scope

?S: attribute of a thread attribute object.

?S:.

?C:HAS_PTHREAD_ATTR_SETSCOPE:

?C: This symbol, if defined, indicates that the pthread_attr_setscope

?C: system call is available to set the contention scope attribute of

?C: a thread attribute object.

?C:.

?H:#\$d_pthread_attr_setscope HAS_PTHREAD_ATTR_SETSCOPE /**/

```
?H:
?LINT:set
d_pthread_attr_setscope
: see if pthread_attr_setscope exists
set pthread_attr_setscope d_pthread_attr_setscope
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_pthread_attr_ss.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_syssock.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic Licence; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: i_syssock.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:08:36 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:i_syssock: Inhdr
```

```
?MAKE: -pick add $@ %<
```

```
?S:i_syssock:
```

```
?S: This variable conditionally defines the I_SYS_SOCKET symbol, and indicates
```

```
?S: whether a C program should include <sys/socket.h> before performing socket
```

```
?S: operations.
```

```
?S:.
```

```
?C:I_SYS_SOCKET:
```

```
?C: This symbol, if defined, indicates to the C program that it should
```

```
?C: include
```

```
<sys/socket.h> before performing socket calls.
```

```
?C:.
```

```
?H:#$i_syssock I_SYS_SOCKET /**/
```

```
?H:.
```

```
?LINT:set i_syssock
```

```
: see if this is a sys/socket.h system
```

```
set sys/socket.h i_syssock
```

```
eval $inhdr
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_syssock.U
```


No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: sitearch.U,v 3.1 1999/07/08 18:32:29 doughera Exp doughera $
?RCS:
?RCS: Copyright (c) 1996-1998, Andy Dougherty
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: sitearch.U,v $
?RCS: Revision 3.1 1999/07/08 18:32:29 doughera
?RCS: Updated for perl5.005_5x
?RCS:
?RCS: Revision 3.0.1.1 1997/02/28 16:21:30 ram
?RCS: patch61: created
?RCS:
?MAKE:sitearch sitearchexp installsitearch d_sitearch: cat sed Getfile \
Oldconfig Setprefixvar Prefixit test archname sitelib
?MAKE: -pick add $@ %<
?Y:TOP
?D:sitearch="
?S:sitearch:
?S: This variable contains the eventual
value of the SITEARCH symbol,
?S: which is the name of the private library for this package. It may
?S: have a ~ on the front. It is up to the makefile to eventually create
?S: this directory while performing installation (with ~ substitution).
?S: The standard distribution will put nothing in this directory.
?S: After perl has been installed, users may install their own local
?S: architecture-dependent modules in this directory with
?S: MakeMaker Makefile.PL
?S: or equivalent. See INSTALL for details.
?S:.
?D:sitearchexp="
?S:sitearchexp:
?S: This variable is the ~name expanded version of sitearch, so that you
?S: may use it directly in Makefiles or shell scripts.
?S:.
?D:installsitearch="
?S:installsitearch:
?S: This variable is really the same as sitearchexp but may differ on
?S: those systems using AFS. For extra portability, only this variable
?S: should be used in makefiles.
?S:.
```

```

?D:d_sitearch="
?S:d_sitearch:
?S: This variable conditionally defines SITEARCH to hold the
pathname
?S: of architecture-dependent library files for $package. If
?S: $sitearch is the same as $sarchlib, then this is set to undef.
?S:.
?C:SITEARCH:
?C: This symbol contains the name of the private library for this package.
?C: The library is private in the sense that it needn't be in anyone's
?C: execution path, but it should be accessible by the world. The program
?C: should be prepared to do ~ expansion.
?C: The standard distribution will put nothing in this directory.
?C: After perl has been installed, users may install their own local
?C: architecture-dependent modules in this directory with
?C: MakeMaker Makefile.PL
?C: or equivalent. See INSTALL for details.
?C:.
?C:SITEARCH_EXP:
?C: This symbol contains the ~name expanded version of SITEARCH, to be used
?C: in programs that are not prepared to deal with ~ expansion at run-time.
?C:.
?H:#$d_sitearch SITEARCH "$sitearch" /**/
?H:#$d_sitearch SITEARCH_EXP "$sitearchexp" /**/
?H:.
?LINT:change prefixvar
?LINT:set installsitearch
?LINT:set
sitearch
?LINT:set sitearchexp
: determine where site specific architecture-dependent libraries go.
: sitelib default is /usr/local/lib/perl5/site_perl/$version
: sitearch default is /usr/local/lib/perl5/site_perl/$version/$sarchname
: sitelib may have an optional trailing /share.
case "$sitearch" in
") dflt=`echo $sitelib | $sed 's,/share$,,'`
dflt="$dflt/$sarchname"
;;
*) dflt="$sitearch"
;;
esac
set sitearch sitearch none
eval $prefixit
$cat <<EOM

```

The installation process will also create a directory for architecture-dependent site-specific extensions and modules.

```

EOM
fn=d~+
rp='Pathname for the site-specific architecture-dependent library files?'
./getfile
prefixvar=sitearch
./setprefixvar
if $test X"$sitearch" = X"$sitelib"; then
  d_sitearch="$undef"
else
  d_sitearch="$define"
fi

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/sitearch.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_endpent.U,v 3.0 1993/08/18 12:06:09 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: $Log: d_endpent.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:09 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_endpent: Inlibc
?MAKE: -pick add $@ %<
?S:d_endpent:
?S: This variable conditionally defines HAS_ENDPROTOENT if endprotoent() is
?S: available to close whatever was being used for protocol queries.
?S:.
?C:HAS_ENDPROTOENT:
?C: This symbol, if defined, indicates that the endprotoent() routine is
?C: available to close whatever was being used
?C: for protocol queries.
?C:.
?H:#$d_endpent HAS_ENDPROTOENT /**/
?H:.
?LINT:set d_endpent
: see if endprotoent exists
set endprotoent d_endpent
eval $inlibc

```

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_endpent.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: End.U,v \$

?RCS: Revision 3.0 1993/08/18 12:04:51 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit serves as the goal which forces make to choose all the units that

?X: ask questions. The \$W on the ?MAKE: line is the list of all symbols wanted.

?X: To force any unit to be included, copy this unit to your private U directory

?X: and add the name of the unit desired to the ?MAKE: dependency line.

?X:

?MAKE:End: \$W

?MAKE: -pick add \$@ %<

?LINT:use \$W

: end of configuration

questions

echo " "

echo "End of configuration questions."

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/End.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1996,1998 Andy Dougherty

?RCS: Copyright (c) 1996, Sven Verdoolaege

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.

?RCS:

?MAKE:d_gnulibc gnulibc_version: Myread Oldconfig Setvar rm_try \
cat Compile run

?MAKE: -pick add \$@ %<

?S:d_gnulibc:

?S: Defined if we're dealing with the GNU C Library.

?S:.

?S:gnulibc_version:

?S: This variable contains the version number of the GNU C library.

?S: It is usually something like '2.2.5'. It is a plain " if this
?S: is not the GNU C library, or if the version is unknown.

?S:.

?C:HAS_GNULIBC ~ %<:

?C: This
symbol, if defined, indicates to the C program that
?C: the GNU C library is being used. A better check is to use
?C: the __GLIBC__ and __GLIBC_MINOR__ symbols supplied with glibc.

?C:.

?H:%<:#\$d_gnulibc HAS_GNULIBC /**/
?H:%<:#if defined(HAS_GNULIBC) && !defined(_GNU_SOURCE)
?H:%<:#define _GNU_SOURCE
?H:%<:#endif

?H:.

?F:!glibc.ver !try.c !try

?LINT: set d_gnulibc

?LINT: usefile try.c

?LINT: known _GNU_SOURCE

?X: gnulibc can be executed by calling __libc_main().
?X: Ulrich Drepper doesn't think any other libc does that,
?X: but we check if it says 'GNU C Library' to be sure.

?X:

?X: Alas, as of 3/1998 glibc 2.0.7 reportedly isn't going to
?X: have __libc_main() anymore. :-(. Fortunately, all released
?X: versions of glibc 2.x.x _do_ have CPP variables. For 2.0.6,
?X: they are:

?X: #define __GLIBC__ 2
?X: #define __GLIBC_MINOR__ 0.

?X: (The '6' isn't available :-(.
?X: glibc2.1 will also have
?X: extern const char * __gnu_get_libc_release(void);
?X: extern const char *
__gnu_get_libc_version(void);

?X: functions. --thanks to Andreas Jaeger. --AD 6/1998.

?X: Although the exact format isn't documented, __gnu_get_libc_version()
?X: returns a simple string '2.1.3' in glibc 2.1.3.

?X:

```

: determine whether we are using a GNU C library
echo " "
echo "Checking for GNU C Library..." >&4
cat >try.c <<'EOCP'
/* Find out version of GNU C library. __GLIBC__ and __GLIBC_MINOR__
   alone are insufficient to distinguish different versions, such as
   2.0.6 and 2.0.7. The function gnu_get_libc_version() appeared in
   libc version 2.1.0. A. Dougherty, June 3, 2002.
*/
#include <stdio.h>
int main(void)
{
#ifdef __GLIBC__
# ifdef __GLIBC_MINOR__
#   if __GLIBC__ >= 2 && __GLIBC_MINOR__ >= 1
#     include <gnu/libc-version.h>
     printf("%s\n", gnu_get_libc_version());
#   else
     printf("%d.%d\n", __GLIBC__, __GLIBC_MINOR__);
#   endif
# else
     printf("%d\n", __GLIBC__);
# endif
     return 0;
#else
     return 1;
#endif
}
EOCP
set
try
if eval $compile_ok && $run ./try > glibc.ver; then
val="$define"
gnulibc_version=`$cat glibc.ver`
echo "You are using the GNU C Library version $gnulibc_version"
else
val="$undef"
gnulibc_version=""
echo "You are not using the GNU C Library"
fi
$rm_try glibc.ver
set d_gnulibc
eval $setvar

Found in path(s):
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/d_gnulibc.U

```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_umask.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_umask.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:14:50 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_umask: Inlibc
?MAKE: -pick add $@ %<
?S:d_umask:
?S: This variable conditionally defines the HAS_UMASK symbol, which
?S: indicates to the C program that the umask() routine is available.
?S: to set and get the value of the file creation mask.
?S:.
?C:HAS_UMASK :
?C: This
symbol, if defined, indicates that the umask routine is
?C: available to set and get the value of the file creation mask.
?C:.
?H:#$d_umask HAS_UMASK /**/
?H:.
?LINT:set d_umask
: see if umask exists
set umask d_umask
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_umask.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_safebcpy.U,v 3.0.1.4 1997/02/28 15:40:58 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
```

?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: \$Log: d_safebcpy.U,v \$
?RCS: Revision 3.0.1.4 1997/02/28 15:40:58 ram
?RCS: patch61: improved overlapping copy check
?RCS: patch61: comfort them if they have memmove
?RCS: patch61: added ?F: metalint hint
?RCS:
?RCS: Revision 3.0.1.3 1995/07/25 13:58:40 ram
?RCS: patch56: re-arranged compile line to include ldflags before objects
?RCS:
?RCS: Revision 3.0.1.2 1995/01/11 15:29:23 ram
?RCS: patch45: added 'ldflags' to the test compile line (ADO)
?RCS:
?RCS:
Revision 3.0.1.1 1994/05/06 14:49:03 ram
?RCS: patch23: ensure string is not optimized in read-only memory (ADO)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:58 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_safebcpy: cat d_bcopy Compile rm_try run \
d_memmove i_memory i_stdlib i_string i_unistd Oldconfig Setvar
?MAKE: -pick add \$@ %<
?S:d_safebcpy:
?S: This variable conditionally defines the HAS_SAFE_BCOPY symbol if
?S: the bcopy() routine can do overlapping copies. Normally, you
?S: should probably use memmove().
?S:.
?C:HAS_SAFE_BCOPY (SAFE_BCOPY):
?C: This symbol, if defined, indicates that the bcopy routine is available
?C: to copy potentially overlapping memory blocks. Normally, you should
?C: probably use memmove() or memcpy(). If neither is defined, roll your
?C: own version.
?C:.
?H:#\$d_safebcpy HAS_SAFE_BCOPY /**/
?H:.
?F:!try
?LINT: set d_safebcpy
: can bcopy handle overlapping blocks?
echo " "
?X: assume the worst.
val="\$undef"
case "\$d_memmove" in
"\$define")


```

echo "I'll use memmove() instead of bcopy() for overlapping copies." ;;
*) case "$d_bcopy" in
"$define")
echo "Checking to see if bcopy() can do overlapping copies..." >&4
$cat >try.c <<EOCP
#$i_memory I_MEMORY
#$i_stdlib I_STDLIB
#$i_string I_STRING
#$i_unistd I_UNISTD
EOCP
$cat >>try.c <<'EOCP'
#include <stdio.h>
#ifdef I_MEMORY
# include <memory.h>
#endif
#ifdef I_STDLIB
# include <stdlib.h>
#endif
#ifdef I_STRING
# include <string.h>
#else
# include <strings.h>
#endif
#ifdef I_UNISTD
# include <unistd.h> /* Needed for NetBSD */
#endif
int main()
{
char buf[128], abc[128];
char *b;
int len;
int off;
int align;

/* Copy "abcde..." string to char abc[] so that gcc doesn't
try to store the string in read-only memory. */
bcopy("abcdefghijklmnopqrstuvwxy0123456789", abc, 36);

for (align = 7; align >= 0; align--) {
for (len = 36; len; len--) {
b = buf+align;
bcopy(abc, b, len);
for (off = 1; off <= len; off++) {
bcopy(b, b+off, len);
bcopy(b+off,
b, len);
if (bcmp(b, abc, len))
exit(1);

```

```

}
}
}
exit(0);
}
EOCP
set try
if eval $compile_ok; then
if $run ./try 2>/dev/null; then
echo "Yes, it can."
val="$define"
else
echo "It can't, sorry."
fi
else
echo "(I can't compile the test program, so we'll assume not...)"
fi
;;
esac
$rm_try
;;
esac
set d_safebcpy
eval $setvar

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_safebcpy.U
```

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?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d_j0 d_j0l: Inlibc

?MAKE: -pick add \$@ %<

?S:d_j0:

?S: This variable conditionally defines the HAS_J0 symbol, which

?S: indicates to the C program that the j0() routine is available.

?S:.

?S:d_j0l:

?S: This variable conditionally defines the HAS_J0L symbol, which

?S: indicates to the C program that the j0l() routine is available.

?S:.

?C:HAS_J0:

?C: This symbol, if defined, indicates to the C program that the

?C: j0() function is available for Bessel functions of the first

?C: kind of the order zero, for doubles.

?C:.

?C:HAS_J0L:
?C: This symbol, if defined, indicates to the C program that the
?C: j0l() function is available for Bessel functions of the first
?C: kind of the order zero, for long doubles.

?C:.
?H:#\$d_j0 HAS_J0 /**/
?H:#\$d_j0l HAS_J0L /**/

?H:.
?LINT:set
d_j0
?LINT:set d_j0l
: see if j0 exists
set j0 d_j0
eval \$inlibc

: see if j0l exists
set j0l d_j0l
eval \$inlibc

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_j0.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d_sanemcmp.U,v 3.0.1.1 1997/02/28 15:41:19 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: d_sanemcmp.U,v \$

?RCS: Revision 3.0.1.1 1997/02/28 15:41:19 ram

?RCS: patch61: created

?RCS:

?RCS:

?MAKE:d_sanemcmp: Compile cat d_memcmp rm_try run \
i_memory i_stdlib i_string i_unistd Oldconfig Setvar

?MAKE: -pick add \$@ %<

?S:d_sanemcmp:

?S: This variable conditionally defines the HAS_SANE_MEMCMP symbol if

?S: the memcpy() routine is available and can be used to compare relative

?S: magnitudes of chars with their high bits set.

?S:.

?C:HAS_SANE_MEMCMP:

```

?C: This
symbol, if defined, indicates that the memcmp routine is available
?C: and can be used to compare relative magnitudes of chars with their high
?C: bits set. If it is not defined, roll your own version.
?C:.
?H:#$d_sanemcmp HAS_SANE_MEMCMP /**/
?H:.
?F:!try
?LINT: set d_sanemcmp
: can memcmp be trusted to compare relative magnitude?
?X: assume the worst
val="$undef"
case "$d_memcmp" in
"$define")
echo " "
echo "Checking if your memcmp() can compare relative magnitude..." >&4
$cat >try.c <<EOCP
#$i_memory I_MEMORY
#$i_stdlib I_STDLIB
#$i_string I_STRING
#$i_unistd I_UNISTD
EOCP
$cat >>try.c <<'EOCP'
#include <stdio.h>
#ifdef I_MEMORY
# include <memory.h>
#endif
#ifdef I_STDLIB
# include <stdlib.h>
#endif
#ifdef I_STRING
# include <string.h>
#else
# include <strings.h>
#endif
#ifdef I_UNISTD
# include <unistd.h> /* Needed for NetBSD */
#endif
int main()
{
char a = -1;
char b = 0;
if ((a < b) && memcmp(&a, &b, 1) < 0)
exit(1);
exit(0);
}
EOCP
set try

```

```

if eval
$compile_ok; then
if $run ./try 2>/dev/null; then
echo "Yes, it can."
val="$define"
else
echo "No, it can't (it uses signed chars)."

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_sanemcmp.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1998, Jarkko Hietaniemi

?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:i_machcth: Inhdr usethreads

?MAKE: -pick add \$@ %<

?S:i_machcth:

?S: This variable conditionally defines the I_MACH_CTHREADS symbol,

?S: and indicates whether a C program should include <mach/threads.h>.

?S:.

?C:I_MACH_CTHREADS:

?C: This symbol, if defined, indicates to the C program that it should

?C: include <mach/threads.h>.

?C:.

?H:#\$i_machcth I_MACH_CTHREADS /**/

?H:.

: see if mach cthreads are available

if test "X\$usethreads" = "X\$define"; then

set mach/threads.h i_machcth

eval \$inhdr

```
else
i_machctr="$undef"
fi
```

Found

in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/i_machctr.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_flexfnam.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic License,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

```
?RCS: that same Artistic License; a copy of which may be found at the root
```

```
?RCS: of the source tree for dist 4.0.
```

```
?RCS:
```

```
?RCS: $Log: d_flexfnam.U,v $
```

```
?RCS: Revision 3.0 1993/08/18 12:06:04 ram
```

```
?RCS: Baseline for dist 3.0 netwide release.
```

```
?RCS:
```

```
?MAKE:d_flexfnam: cat rm test Setvar
```

```
?MAKE: -pick add $@ %<
```

```
?S:d_flexfnam:
```

```
?S: This variable conditionally defines the FLEXFILENAMES symbol, which
```

```
?S: indicates that the system supports filenames longer than 14 characters.
```

```
?S:.
```

```
?C:FLEXFILENAMES:
```

```
?C: This symbol, if defined, indicates that the system supports filenames
```

```
?C: longer than 14
```

```
characters.
```

```
?C:.
```

```
?H:#$d_flexfnam FLEXFILENAMES /**/
```

```
?H:.
```

```
?T:first
```

```
?LINT:set d_flexfnam
```

```
: see if we can have long filenames
```

```
echo " "
```

```
?X:
```

```
?X: We have to test in both /tmp and . because of NFS (remote server may allow
```

```
?X: long filenames while the local filesystem cannot support them). If at least
```

```
?X: one of those file systems cannot support long filenames, then we assume the
```

```
?X: whole system can't.
```

```
?X:
```

```
first=123456789abcdef
```

```

$rm -f $first
if (echo hi >$first) 2>/dev/null; then
if $test -f 123456789abcde; then
    echo 'You cannot have filenames longer than 14 characters. Sigh.'>&4
    val="$undef"
else
    echo 'You can have filenames longer than 14 characters.'>&4
    val="$define"
fi
else
$cat <<'EOM'
You can't have filenames longer than 14 chars.
You can't even think about them!
EOM
    val="$undef"
fi
set d_flexfnam
eval $setvar
$rm -rf 123456789abcde*

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_flexfnam.U
```

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?RCS: \$Id\$

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d_keepsig.U,v \$

?RCS: Revision 3.0.1.4 1995/07/25 13:57:56 ram

?RCS: patch56: made cc and cflags optional dependencies

?RCS:

?RCS: Revision 3.0.1.3 1995/01/11 15:26:25 ram

?RCS: patch45: protected "sh -c" within backquotes for Linux and SGI

?RCS:

?RCS: Revision 3.0.1.2 1994/10/29 16:13:59 ram

?RCS: patch36: call ./bsd explicitly instead of relying on PATH

?RCS:

?RCS: Revision 3.0.1.1 1993/10/16 13:48:47 ram

?RCS: patch12: comment for SIGNALS_KEPT was the other way round

?RCS:

```

?RCS:
Revision 3.0 1993/08/18 12:06:26 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_keepsig: cat Compile rm Guess contains echo n c Setvar run
?MAKE: -pick add $@ %<
?S:d_keepsig:
?S: This variable contains the eventual value of the SIGNALS_KEPT symbol,
?S: which indicates to the C program if signal handlers need not reinstated
?S: after receipt of a signal.
?S:.
?C:SIGNALS_KEPT (PERSISTENT_SIGNAL):
?C: This symbol is defined if signal handlers needn't be reinstated after
?C: receipt of a signal.
?C:.
?H:#$d_keepsig SIGNALS_KEPT /**/
?H:.
?F:!try !try.out
?LINT:set d_keepsig
: see if signals are kept
val="$undef";
echo " "
echo "Checking to see if signal handlers stick around..." >&4
$cat >try.c <<'EOCP'
foo() {}

int main()
{
    signal(2, foo);
    kill(getpid(), 2);
    kill(getpid(), 2);
    printf("abc\n");
}
EOCP
set try
if eval $compile_ok; then
?X: On AIX a single ./try will not work (with ksh)
?X: Backquotes required on Linux and SGI (prevents "ambiguous output redirect")
?X:
    (reported by Xavier LeVouch <xavierl@eiffel.com>)
`sh -c $run ./try >try.out 2>/dev/null`
if $contains abc try.out >/dev/null 2>&1; then
    echo "Yes, they do."
    val="$define";
else
    echo "No, they don't."
fi
else

```



```
$echo $n "(I can't seem to compile the test program. Assuming $c"
if ./bsd; then
  echo "they do.)"
  val="$define"
else
  echo "they don't.)"
fi
fi
set d_keepsig
eval $setvar
$rm -f try*
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_keepsig.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: i_ieeefp.U,v $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1998 Jarkko Hietaniemi
```

```
?RCS:
```

```
?RCS: You may distribute under the terms of either the GNU General Public
```

```
?RCS: License or the Artistic License, as specified in the README file.
```

```
?RCS:
```

```
?MAKE:i_ieeefp: Inhdr Hasfield
```

```
?MAKE: -pick add $@ %<
```

```
?S:i_ieeefp:
```

```
?S: This variable conditionally defines the I_IEEEFP symbol, and indicates
```

```
?S: whether a C program should include <ieeefp.h>.
```

```
?S:.
```

```
?C:I_IEEEFP:
```

```
?C: This symbol, if defined, indicates that <ieeefp.h> exists and
```

```
?C: should be included.
```

```
?C:.
```

```
?H:#$i_ieeefp I_IEEEFP /**/
```

```
?H:.
```

```
?LINT:set i_ieeefp
```

```
: see if this is a ieeefp.h system
```

```
case "$i_ieeefp" in
```

```
" ) set ieeefp.h i_ieeefp
```

```
    eval $inhdr
```

```
    ;;
```

```
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_ieeefp.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id$
?RCS:
?RCS: Copyright (c) 1999 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:gidformat: gidsize gidsign ivsize uvsize longsize intsize shortsize \
ivdformat uvuformat test echo
?MAKE: -pick add $@ %<
?S:gidformat:
?S: This variable contains the format string used for printing a Gid_t.
?S:.
?C:Gid_t_f:
?C: This symbol defines the format string used for printing a Gid_t.
?C:.
?H:#define Gid_t_f $gidformat /**/
?H:.
: Check format string for GID
```

```
echo " "
$echo "Checking the format string to be used for gids..." >&4
```

```
case "$gidsign" in
-1) if $test X"$gidsize" = X"$ivsize"; then
    gidformat="$ivdformat"
    else
    if $test X"$gidsize" = X"$longsize"; then
        gidformat=""ld""
    else
    if $test X"$gidsize" = X"$intsize"; then
        gidformat=""d""
    else
    if $test X"$gidsize"
= X"$shortsize"; then
        gidformat=""hd""
    fi
    fi
    fi
    fi
;;
*) if $test X"$gidsize" = X"$uvsize"; then
    gidformat="$uvuformat"
    else
    if $test X"$gidsize" = X"$longsize"; then
        gidformat=""lu""
```

```

else
if $test X"$gidsize" = X"$intsize"; then
gidformat="u"
else
if $test X"$gidsize" = X"$shortsize"; then
gidformat="hu"
fi
fi
fi
fi
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/typedefs/gidf.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_perror.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
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?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_perror.U,v $
?RCS: Revision 3.0.1.1 1994/08/29 16:11:38 ram
?RCS: patch32: always define HAS_PERROR even when not used in C code
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:45 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_perror: Inlibc
?MAKE: -pick add $@ %<
?S:d_perror:
?S: This variable conditionally remaps perror to a null action and
?S: defines the symbol HAS_PERROR, which indicates to the C program
?S: that the perror()
routine is not available to print system
?S: error messages.
?S:.
?C:HAS_PERROR ~ %<:
?C: This symbol, if defined, indicates that the perror() routine is
?C: available to print system error messages. If not defined, you should
?C: use your own diagnostic routine...

```

```
?C:.
?C:perror ~ %<:
?C: This symbol is mapped to null if the perror() routine is not
?C: available to print system error messages.
?C:.
?H:%<:#$d_perror HAS_PERROR /**/
?H:%<:#ifndef HAS_PERROR
?H:%<:#define perror(s) ; /* mapped to a null statement */
?H:%<:#endif
?H:.
?LINT:set d_perror
: see if perror exists
set perror d_perror
eval $inlibc
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_perror.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id$
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: i_ndbm.U,v $
?RCS: Revision 3.0.1.1 1995/05/12 12:16:53 ram
?RCS: patch54: made more robust by checking both header and lib (ADO)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:23 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:i_ndbm: Inhdr Inlibc Setvar
?MAKE: -pick add $@ %<
?S:i_ndbm (d_ndbm):
?S: This variable conditionally defines the I_NDBM symbol, which
?S: indicates to the C program that <ndbm.h> exists and should
?S: be included.
?S:.
?C:I_NDBM (HAS_NDBM NDBM):
?C: This
symbol, if defined, indicates that <ndbm.h> exists and should
?C: be included.
```

```

?C:.
?H:#$i_ndbm I_NDBM /**/
?H:.
?T:t_ndbm d_dbm_open
?LINT:set i_ndbm
: see if ndbm.h is available
?X: t_ndbm is a tentative check. We might just have the .h, not the lib -- ADO
set ndbm.h t_ndbm
eval $inhdr
case "$t_ndbm" in
$define)
: see if dbm_open exists
set dbm_open d_dbm_open
eval $inlibc
case "$d_dbm_open" in
$undef)
t_ndbm="$undef"
echo "We won't be including <ndbm.h>"
;;
esac
;;
esac
val="$t_ndbm"
set i_ndbm
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_ndbm.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: d_shmat.U,v \$

?RCS: Revision 3.0.1.3 1995/07/25 14:04:23 ram

?RCS: patch56: use findhdr to find <sys/shm.h>, to get the right one (ADO)

?RCS:

?RCS: Revision 3.0.1.2 1994/05/13 15:18:56 ram

?RCS: patch27: added new symbol HAS_SHMAT_PROTOTYPE (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/05/06 14:54:18 ram

?RCS: patch23: new Shmat_t symbol to declare return type of shmat()

?RCS:

?RCS: Revision 3.0 1993/08/18 12:07:18 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d_shmat shmattype

d_shmatprototype: Inlibc cat +cc +ccflags \
 rm cppstdin cppflags cppminus Findhdr Setvar contains

?MAKE: -pick add \$@ %<

?S:d_shmat:

?S: This variable conditionally defines the HAS_SHMAT symbol, which
 ?S: indicates to the C program that the shmat() routine is available.

?S:.

?S:shmattype:

?S: This symbol contains the type of pointer returned by shmat().
 ?S: It can be 'void *' or 'char *'.

?S:.

?S:d_shmatprototype:

?S: This variable conditionally defines the HAS_SHMAT_PROTOTYPE
 ?S: symbol, which indicates that sys/shm.h has a prototype for
 ?S: shmat.

?S:.

?C:HAS_SHMAT:

?C: This symbol, if defined, indicates that the shmat() routine is
 ?C: available to attach a shared memory segment to the process space.

?C:.

?C:Shmat_t:

?C: This symbol holds the return type of the shmat() system call.
 ?C: Usually set to 'void *' or 'char *'.

?C:.

?C:HAS_SHMAT_PROTOTYPE:

?C: This symbol, if defined, indicates that the sys/shm.h includes
 ?C: a prototype for shmat(). Otherwise, it is up to the program
 to
 ?C: guess one. Shmat_t shmat_((int, Shmat_t, int)) is a good guess,
 ?C: but not always right so it should be emitted by the program only
 ?C: when HAS_SHMAT_PROTOTYPE is not defined to avoid conflicting defs.

?C:.

?H:#\$d_shmat HAS_SHMAT /**/
 ?H:#define Shmat_t \$shmattype /**/
 ?H:#\$d_shmatprototype HAS_SHMAT_PROTOTYPE /**/
 ?H:.

?LINT:set d_shmat d_shmatprototype

?T:xxx

: see if shmat exists

set shmat d_shmat

eval \$inlibc

```

: see what shmat returns
case "$d_shmat" in
"$define")
$cat >shmat.c <<'END'
#include <sys/shm.h>
void *shmat();
END
if $cc $ccflags -c shmat.c >/dev/null 2>&1; then
shmattype='void *'
else
shmattype='char *'
fi
echo "and it returns ($shmattype)." >&4
: see if a prototype for shmat is available
xxx=`./findhdr sys/shm.h`
$cppstdin $cppflags $cppminus < $xxx > shmat.c 2>/dev/null
if $contains 'shmat.*(' shmat.c >/dev/null 2>&1; then
val="$define"
else
val="$undef"
fi
$rm -f shmat.[co]
;;
*)
val="$undef"
;;
esac
set d_shmatprototype
eval $setvar

```

Found

in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_shmat.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d_endservent_r.U,v ORCS:

?RCS: Copyright (c) 2002,2003 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS: Generated by the reentr.pl from the Perl 5.8 distribution.

?RCS:

?MAKE:d_endservent_r endservent_r_proto: Inlibc Protochk Hasproto i_systypes \
usethreads i_netdb extern_C

?MAKE: -pick add \$@ %<

?S:d_endservent_r:

?S: This variable conditionally defines the HAS_ENDSERVENT_R symbol,
 ?S: which indicates to the C program that the endservent_r()
 ?S: routine is available.
 ?S:.
 ?S:endservent_r_proto:
 ?S: This variable encodes the prototype of endservent_r.
 ?S: It is zero if d_endservent_r is undef, and one of the
 ?S: REENTRANT_PROTO_T_ABC macros of reentr.h if d_endservent_r
 ?S: is defined.
 ?S:.
 ?C:HAS_ENDSERVENT_R:
 ?C: This symbol, if defined, indicates that the endservent_r routine
 ?C: is
 available to endservent re-entrantly.
 ?C:.
 ?C:ENDSERVENT_R_PROTO:
 ?C: This symbol encodes the prototype of endservent_r.
 ?C: It is zero if d_endservent_r is undef, and one of the
 ?C: REENTRANT_PROTO_T_ABC macros of reentr.h if d_endservent_r
 ?C: is defined.
 ?C:.
 ?H:#\$d_endservent_r HAS_ENDSERVENT_R /**/
 ?H:#define ENDSERVENT_R_PROTO \$endservent_r_proto /**/
 ?H:.
 ?T:try hdrs d_endservent_r_proto
 : see if endservent_r exists
 set endservent_r d_endservent_r
 eval \$inlibc
 case "\$d_endservent_r" in
 "\$define")
 hdrs="\$i_systypes sys/types.h define stdio.h \$i_netdb netdb.h"
 case "\$d_endservent_r_proto:\$usetthreads" in
 ":define") d_endservent_r_proto=define
 set d_endservent_r_proto endservent_r \$hdrs
 eval \$hasproto ;;
 *) ;;
 esac
 case "\$d_endservent_r_proto" in
 define)
 case "\$endservent_r_proto" in
 "|0) try='int endservent_r(struct servent_data*);'
 ./protochk "\$extern_C \$try" \$hdrs && endservent_r_proto=I_D ;;
 esac
 case "\$endservent_r_proto" in
 "|0) try='void endservent_r(struct
 servent_data*);'
 ./protochk "\$extern_C \$try" \$hdrs && endservent_r_proto=V_D ;;
 esac


```

case "$endservent_r_proto" in
"|0) d_endservent_r=undef
endservent_r_proto=0
echo "Disabling endservent_r, cannot determine prototype." >&4 ;;
* ) case "$endservent_r_proto" in
REENTRANT_PROTO*) ;;
*) endservent_r_proto="REENTRANT_PROTO_$endservent_r_proto" ;;
esac
echo "Prototype: $try" ;;
esac
;;
*) case "$usetthreads" in
define) echo "endservent_r has no prototype, not using it." >&4 ;;
esac
d_endservent_r=undef
endservent_r_proto=0
;;
esac
;;
*) endservent_r_proto=0
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/threads/d_endservent_r.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_shmget.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_shmget.U,v $
?RCS: Revision 3.0 1993/08/18 12:07:20 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_shmget: Inlibc
?MAKE: -pick add $@ %<
?S:d_shmget:
?S: This variable conditionally defines the HAS_SHMGET symbol, which
?S: indicates to the C program that the shmget() routine is available.
?S:.

```

?C:HAS_SHMGET:

?C: This symbol, if defined, indicates that the shmget() routine is

?C: available to request a shared memory segment from
the kernel.

?C:.

?H:#\$d_shmget HAS_SHMGET /**/

?H:.

?LINT:set d_shmget

: see if shmget exists

set shmget d_shmget

eval \$inlibc

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_shmget.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: sitelib.U,v 1.1 1999/07/08 18:32:57 doughera Exp doughera \$

?RCS:

?RCS: Copyright (c) 1996-1998, Andy Dougherty

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: sitelib.U,v \$

?RCS: Revision 1.1 1999/07/08 18:32:57 doughera

?RCS: Initial revision

?RCS:

?RCS: Revision 3.0.1.1 1997/02/28 16:21:35 ram

?RCS: patch61: created

?RCS:

?MAKE:sitelib sitelibexp installsitelib sitelib_stem: cat Getfile Oldconfig \

Setprefixvar Prefixit package version sed installstyle siteprefix

?MAKE: -pick add \$@ %<

?Y:TOP

?D:sitelib="

?S:sitelib:

?S: This variable contains the
eventual value of the SITELIB symbol,

?S: which is the name of the private library for this package. It may

?S: have a ~ on the front. It is up to the makefile to eventually create

?S: this directory while performing installation (with ~ substitution).

?S: The standard distribution will put nothing in this directory.

?S: After perl has been installed, users may install their own local

?S: architecture-independent modules in this directory with
 ?S: MakeMaker Makefile.PL
 ?S: or equivalent. See INSTALL for details.
 ?S:.
 ?D:sitelibexp="
 ?S:sitelibexp:
 ?S: This variable is the ~name expanded version of sitelib, so that you
 ?S: may use it directly in Makefiles or shell scripts.
 ?S:.
 ?D:installsitelib="
 ?S:installsitelib:
 ?S: This variable is really the same as sitelibexp but may differ on
 ?S: those systems using AFS. For extra portability, only this variable
 ?S: should be used in makefiles.
 ?S:.
 ?S:sitelib_stem:
 ?S: This variable is \$sitelibexp with any trailing version-specific component
 ?S: removed.
 The elements in inc_version_list (inc_version_list.U) can
 ?S: be tacked onto this variable to generate a list of directories to search.
 ?S:.
 ?C:SITELIB:
 ?C: This symbol contains the name of the private library for this package.
 ?C: The library is private in the sense that it needn't be in anyone's
 ?C: execution path, but it should be accessible by the world. The program
 ?C: should be prepared to do ~ expansion.
 ?C: The standard distribution will put nothing in this directory.
 ?C: After perl has been installed, users may install their own local
 ?C: architecture-independent modules in this directory with
 ?C: MakeMaker Makefile.PL
 ?C: or equivalent. See INSTALL for details.
 ?C:.
 ?C:SITELIB_EXP:
 ?C: This symbol contains the ~name expanded version of SITELIB, to be used
 ?C: in programs that are not prepared to deal with ~ expansion at run-time.
 ?C:.
 ?C:SITELIB_STEM:
 ?C: This define is SITELIB_EXP with any trailing version-specific component
 ?C: removed. The elements in
 inc_version_list (inc_version_list.U) can
 ?C: be tacked onto this variable to generate a list of directories to search.
 ?C:.
 ?H:#define SITELIB "\$sitelib" /**/
 ?H:#define SITELIB_EXP "\$sitelibexp" /**/
 ?H:#define SITELIB_STEM "\$sitelib_stem" /**/
 ?H:.
 ?T:prog
 ?LINT:change prefixvar

```

?LINT:set installsitelib
?LINT:set sitelib
?LINT:set sitelibexp
: determine where site specific libraries go.
: Usual default is /usr/local/lib/perl5/site_perl/$version
: The default "style" setting is made in installstyle.U
: XXX No longer works with Prefixit stuff.
?X: remove any trailing -3.0 or other version identification
prog=`echo $package | $sed 's/-*[0-9.]*$//^'
case "$sitelib" in
") case "$installstyle" in
*lib/perl5*) dflt=$siteprefix/lib/$package/site_$prog/$version ;;
*) dflt=$siteprefix/lib/site_$prog/$version ;;
esac
;;
*) dflt="$sitelib"
;;
esac
$cat <<EOM

```

The installation process will create a directory for site-specific extensions and modules. Most users find it convenient to place all site-specific files in this directory rather than in the main distribution directory.

```

EOM
fn=d~+
rp='Pathname for the site-specific library files?'
./getfile
prefixvar=sitelib
./setprefixvar
sitelib_stem=`echo "$sitelibexp" | sed "s,/$version$,,"`

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/sitelib.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: sig_name.U 1 2006-08-24 12:32:52Z rmanfredi $

```

```

?RCS:

```

```

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

```

```

?RCS:

```

```

?RCS: You may redistribute only under the terms of the Artistic License,

```

```

?RCS: as specified in the README file that comes with the distribution.

```

```

?RCS: You may reuse parts of this distribution only within the terms of

```

```

?RCS: that same Artistic License; a copy of which may be found at the root

```

```

?RCS: of the source tree for dist 4.0.

```

?RCS:
?RCS: \$Log: sig_name.U,v \$
?RCS: Revision 3.0.1.5 1997/02/28 16:21:25 ram
?RCS: patch61: brand new algorithm for sig_name and (new!) sig_num
?RCS:
?RCS: Revision 3.0.1.4 1995/07/25 14:14:54 ram
?RCS: patch56: added <asm/signal.h> lookup for Linux
?RCS:
?RCS: Revision 3.0.1.3 1995/05/12 12:24:11 ram
?RCS: patch54: now looks for <linux/signal.h> too (ADO)
?RCS:
?RCS: Revision 3.0.1.2 1994/06/20 07:06:57 ram
?RCS: patch30: final echo was missing to close
awk-printed string
?RCS:
?RCS: Revision 3.0.1.1 1994/05/06 15:17:55 ram
?RCS: patch23: signal list now formatted to avoid scroll-ups (ADO)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:47 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:sig_name sig_name_init sig_num sig_num_init sig_count sig_size: \
awk Signal Oldconfig rm
?MAKE: -pick add \$@ %<
?S:sig_name:
?S: This variable holds the signal names, space separated. The leading
?S: SIG in signal name is removed. A ZERO is prepended to the list.
?S: This is currently not used, sig_name_init is used instead.
?S:.
?S:sig_name_init:
?S: This variable holds the signal names, enclosed in double quotes and
?S: separated by commas, suitable for use in the SIG_NAME definition
?S: below. A "ZERO" is prepended to the list, and the list is
?S: terminated with a plain 0. The leading SIG in signal names
?S: is removed. See sig_num.
?S:.
?S:sig_num:
?S: This variable holds the signal numbers, space separated. A ZERO is
?S: prepended
to the list (corresponding to the fake SIGZERO).
?S: Those numbers correspond to the value of the signal listed
?S: in the same place within the sig_name list.
?S: This is currently not used, sig_num_init is used instead.
?S:.
?S:sig_num_init:
?S: This variable holds the signal numbers, enclosed in double quotes and
?S: separated by commas, suitable for use in the SIG_NUM definition
?S: below. A "ZERO" is prepended to the list, and the list is

?S: terminated with a plain 0.

?S:.

?S: sig_count (sig_name.U):

?S: This variable holds a number larger than the largest valid

?S: signal number. This is usually the same as the NSIG macro.

?S:.

?S: sig_size:

?S: This variable contains the number of elements of the sig_name

?S: and sig_num arrays.

?S:.

?C: SIG_NAME:

?C: This symbol contains a list of signal names in order of

?C: signal number. This is intended

?C: to be used as a static array initialization, like this:

?C: char *sig_name[] = { SIG_NAME };

?C: The signals in the list are separated
with commas, and each signal

?C: is surrounded by double quotes. There is no leading SIG in the signal

?C: name, i.e. SIGQUIT is known as "QUIT".

?C: Gaps in the signal numbers (up to NSIG) are filled in with NUMnn,

?C: etc., where nn is the actual signal number (e.g. NUM37).

?C: The signal number for sig_name[i] is stored in sig_num[i].

?C: The last element is 0 to terminate the list with a NULL. This

?C: corresponds to the 0 at the end of the sig_name_init list.

?C: Note that this variable is initialized from the sig_name_init,

?C: not from sig_name (which is unused).

?C:.

?C: SIG_NUM:

?C: This symbol contains a list of signal numbers, in the same order as the

?C: SIG_NAME list. It is suitable for static array initialization, as in:

?C: int sig_num[] = { SIG_NUM };

?C: The signals in the list are separated with commas, and the indices

?C: within that list and the SIG_NAME list match, so it's easy to compute

?C: the signal name from a number or vice versa at the price of a small

?C: dynamic

linear lookup.

?C: Duplicates are allowed, but are moved to the end of the list.

?C: The signal number corresponding to sig_name[i] is sig_number[i].

?C: if (i < NSIG) then sig_number[i] == i.

?C: The last element is 0, corresponding to the 0 at the end of

?C: the sig_name_init list.

?C: Note that this variable is initialized from the sig_num_init,

?C: not from sig_num (which is unused).

?C:.

?C: SIG_COUNT:

?C: This variable contains a number larger than the largest

?C: signal number. This is usually the same as the NSIG macro.

?C:.

```

?C:SIG_SIZE:
?C: This variable contains the number of elements of the SIG_NAME
?C: and SIG_NUM arrays, excluding the final NULL entry.
?C:.
?H:#define SIG_NAME $sig_name_init /**/
?H:#define SIG_NUM $sig_num_init /**/
?H:#define SIG_COUNT $sig_count /**/
?H:#define SIG_SIZE $sig_size /**/
?H:.
?T:i doinit
?F:!= !signal_cmd
?X: signal.cmd creates a file signal.lst which has two columns:
?X: NAME number, e.g.
?X: HUP 1
?X: The list is
sorted on signal number, with duplicates moved to
?X: the end..
: generate list of signal names
case "$sig_num_init" in
")
echo " "
case "$sig_name_init" in
") doinit=yes ;;
*) case "$sig_num_init" in
"|*,*) doinit=yes ;;
esac ;;
esac
case "$doinit" in
yes)
echo "Generating a list of signal names and numbers..." >&4
./signal_cmd
sig_count=`$awk '/^NSIG/ { printf "%d", $2 }' signal.lst`
sig_name=`$awk 'BEGIN { printf "ZERO " }
!/^NSIG/ { printf "%s ", $1 }' signal.lst`
sig_num=`$awk 'BEGIN { printf "0 " }
!/^NSIG/ { printf "%d ", $2 }' signal.lst`
sig_name_init=`$awk 'BEGIN { printf "\\ZERO\\", " }
!/^NSIG/ { printf "\\%s\\", " , $1 }
END { printf "0\\n" }' signal.lst`
sig_num_init=`$awk 'BEGIN { printf "0, " }
!/^NSIG/ { printf "%d, ", $2}
END { printf "0\\n" }' signal.lst`
;;
esac
echo "The following $sig_count signals are available:"
echo " "
echo $sig_name | $awk \
'BEGIN { linelen = 0 }

```

```

{
for (i = 1; i <= NF; i++) {
  name
= "SIG" $i " "
  linelen = linelen + length(name)
  if (linelen > 70) {
    printf "\n"
    linelen = length(name)
  }
  printf "%s", name
}
printf "\n"
}'
sig_size=`echo $sig_name | awk '{print NF}'`
$rm -f signal signal.c signal.awk signal.lst signal_cmd
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/sig_name.U
```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_dlopen.U,v 3.0.1.2 1995/07/25 13:52:56 ram Exp $
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:
?RCS: $Log: d_dlopen.U,v $
?RCS: Revision 3.0.1.2 1995/07/25 13:52:56 ram
?RCS: patch56: force compile-link test since symbol might lie in crt0.o (ADO)
?RCS:
?RCS: Revision 3.0.1.1 1994/08/29 16:07:34 ram
?RCS: patch32: created by ADO
?RCS:
?MAKE:d_dlopen: Inlibc runnm d_cplusplus ccflags gccversion
?MAKE: -pick add $@ %<
?S:d_dlopen:
?S: This variable conditionally defines the HAS_DLOPEN
symbol, which
?S: indicates to the C program that the dlopen() routine is available.

```



```

?S:.
?C:HAS_DLOPEN :
?C: This symbol, if defined, indicates that the dlopen routine is
?C: available.
?C:.
?H:#$d_dlopen HAS_DLOPEN /**/
?H:.
?T: xxx_runnm
?T: xxx_ccflags
?LINT:set d_dlopen
?X: We don't permanently change runnm and ccflags, but we do temporarily.
?LINT: change runnm
?LINT: change ccflags
: see if dlopen exists
?X: On NetBSD and FreeBSD, dlopen is available, but it is in
?X: /usr/lib/crt0.o, not in any of the libraries. Therefore, do not
?X: use the nm extraction, but use a real compile and link test instead.
xxx_runnm="$runnm"
xxx_ccflags="$ccflags"
runnm=false
: with g++ one needs -shared to get is-in-libc to work for dlopen
case "$gccversion" in
") ;;
*Clang*) ;;
*) case "$d_cplusplus" in
"$define") ccflags="$ccflags -shared" ;;
esac
;;
esac
set dlopen d_dlopen
eval $inlibc
runnm="$xxx_runnm"
ccflags="$xxx_ccflags"

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_dlopen.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id: d_cbrt.U 1 2006-08-24 12:32:52Z rmanfredi $

```

```

?RCS:

```

```

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

```

```

?RCS:

```

```

?RCS: You may redistribute only under the terms of the Artistic Licence,

```

```

?RCS: as specified in the README file that comes with the distribution.

```

```

?RCS: You may reuse parts of this distribution only within the terms of

```

```

?RCS: that same Artistic Licence; a copy of which may be found at the root

```

```

?RCS: of the source tree for dist 4.0.

```

?RCS:
?RCS: \$Log: d_cbrt.U,v \$
?RCS: Revision 3.0 1993/08/18 12:05:48 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_cbrt: Inlibc
?MAKE: -pick add \$@ %<
?S:d_cbrt:
?S: This variable conditionally defines the HAS_CBRT symbol, which
?S: indicates to the C program that the cbrt() (cube root) function
?S: is available.
?S:.
?C:HAS_CBRT (CBRT):
?C: This symbol, if defined, indicates that the cbrt() (cube root)
?C: function is available.
?C:.
?H:#\$d_cbrt HAS_CBRT /**/
?H:.
?LINT:set
d_cbrt
: see if cbrt exists
set cbrt d_cbrt
eval \$inlibc

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_cbrt.U

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d_log2: Inlibc

?MAKE: -pick add \$@ %<

?S:d_log2:

?S: This variable conditionally defines the HAS_LOG2 symbol, which

?S: indicates to the C program that the log2() routine is available

?S: to compute log base two.

?S:.

?C:HAS_LOG2:

?C: This symbol, if defined, indicates that the log2 routine is

?C: available to do the log2 function.

?C:.

?H:#\$d_log2 HAS_LOG2 /**/
?H:.

?LINT:set d_log2

: see if log2 exists

set log2 d_log2

eval \$inlibc

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_log2.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: bin.U,v \$

?RCS: Revision 3.0.1.4 1995/09/25 09:15:32 ram

?RCS: patch59: unit is now forced to the top of Configure, if possible

?RCS:

?RCS: Revision 3.0.1.3 1995/01/30 14:32:40 ram

?RCS: patch49: can now handle installation prefix changes (from WED)

?RCS:

?RCS: Revision 3.0.1.2 1994/08/29 16:05:28 ram

?RCS: patch32: now uses installation prefix

?RCS:

?RCS: Revision 3.0.1.1 1993/09/13 15:56:51 ram

?RCS: patch10: made prompting more explicit (WAD)

?RCS:

?RCS: Revision 3.0 1993/08/18

12:05:26 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:bin binexp installbin: Prefixit Getfile Oldconfig afs cat test

?MAKE: -pick add \$@ %<

?Y:TOP

?S:bin:

?S: This variable holds the name of the directory in which the user wants

?S: to put publicly executable images for the package in question. It

?S: is most often a local directory such as /usr/local/bin. Programs using

?S: this variable must be prepared to deal with ~name substitution.

?S:.

?S:binexp:

?S: This is the same as the bin variable, but is filename expanded at

?S: configuration time, for use in your makefiles.

?S:.

?S:installbin:

?S: This variable is the same as binexp unless AFS is running in which case
?S: the user is explicitly prompted for it. This variable should always
?S: be used in your makefiles for maximum portability.

?S:.

?C:BIN:

?C: This symbol holds the path of the bin directory where the package will
?C: be installed. Program must be prepared to deal with ~name substitution.

?C:.

?C:BIN_EXP:

?C: This

symbol is the filename expanded version of the BIN symbol, for

?C: programs that do not want to deal with that at run-time.

?C:.

```
?H:#define BIN "$bin" /**/
```

```
?H:#define BIN_EXP "$binexp" /**/
```

?H:.

```
?D:bin='/usr/local/bin'
```

: determine where public executables go

```
echo " "
```

```
set dflt bin bin
```

```
eval $prefixit
```

```
fn=d~
```

```
rp='Pathname where the public executables will reside?'
```

```
./getfile
```

```
if $test "X$sansexp" != "X$binexp"; then
```

```
installbin="
```

```
fi
```

```
bin="$ans"
```

```
binexp="$sansexp"
```

```
if $afs; then
```

```
$cat <<EOM
```

Since you are running AFS, I need to distinguish the directory in which
executables reside from the directory in which they are installed (and from
which they are presumably copied to the former directory by occult means).

EOM

```
case "$installbin" in
```

```
) dflt=`echo $binexp | sed 's#~/afs/#afs/.#`;;
```

```
*) dflt="$installbin";;
```

```
esac
```

```
fn=de~
```

```
rp='Where will public executables be installed?'
```

```
./getfile
```

```
installbin="$ans"
```

```
else
```

```
installbin="$binexp"
```

```
fi
```

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/bin.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Compile.U,v \$

?RCS:

?RCS: Copyright (c) 1998 Andy Dougherty

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?RCS:

?X:

?X: This unit is just a quick shorthand for the compile command

?X: to be used in all the other metaconfig units.

?X:

?MAKE:Compile: +cc +optimize +ccflags +ldflags +libs test

?MAKE: -pick add \$@ %<

?LINT:extern usedevel

?LINT:define compile compile_ok

?V:compile compile_ok mc_file

?S:compile:

?S: This shell variable is used internally by Configure to provide

?S: a convenient shorthand for the typical compile command, namely

?S: \$cc \$optimize \$ccflags \$ldflags -o \$1 \$1.c \$libs > /dev/null 2>&1

?S: Note that the output filename does not include the _exe

?S: extension. Instead we assume that the linker will be

?S: "helpful" and automatically appending the correct suffix.

?S: OS/2 users

will apparently need to supply the -Zexe flag to

?S: get this behavior.

?S:

?S: To use this variable, say something like:

?S: echo 'int main() { exit(0); }' > try.c

?S: set try

?S: if eval \$compile; then

?S: echo "success" # and do whatever . . .

?S: else

?S: echo "failure" # and do whatever . . .

?S: fi

?S: To add extra flags cc flags (e.g. -DWHATEVER) just put them

?S: in \$*, e.g.

?S: set try -DTRY_THIS_FLAG

?S:.

?S:compile_ok:

?S: This shell variable is used internally by Configure to provide

```

?S: a convenient shorthand for the typical compile command that you
?S: expect to work ok. It is the same as $compile, except we
?S: deliberately let the user see any error messages.
?S:.
: define a shorthand compile call
compile='
mc_file=$1;
shift;
case "$usedevel" in $define|true|[yY]*) if $test ! -f "${mc_file}.c"; then
echo "Internal Configure script bug - compiler test file ${mc_file}.c is missing. Please report this to
perlbug@perl.org" >&4;
exit 1;
fi;
esac;
$cc -o ${mc_file}
$optimize $ccflags $ldflags $* ${mc_file}.c $libs > /dev/null 2>&1;'
: define a shorthand compile call for compilations that should be ok.
compile_ok='
mc_file=$1;
shift;
$cc -o ${mc_file} $optimize $ccflags $ldflags $* ${mc_file}.c $libs > /dev/null 2>&1;'

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/compline/Compile.U

```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: sunscanf.U,v \$

?RCS: Revision 3.0 1993/08/18 12:09:54 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:sunscanf: cat rm Myread +cc +ccflags test Setvar

?MAKE: -pick add \$@ %<

?S:sunscanf:

?S: This variable is set if this system runs with the Sun version

?S: of scanf.

?S:.

?C:SUNSCANF:

?C: This variable is set if this system runs with the Sun version

?C: of scanf.

?C:.

?H:#\$sunscanf SUNSCANF /**/

?H:.

?LINT:set sunscanf

: check to see what kinda scanf your using.

echo " "

echo "Checking

to see what flavor of scanf you have..." >&4

\$cat >scanf.c <<'EOCP'

int main()

{

float value;

sscanf("4.5", "%g", &value);

printf("%d\n", value == 4.5);

}

EOCP

if \$cc \$ccflags -o scanf scanf.c >/dev/null 2>&1 ; then

if \$test `scanf` = 0; then

echo "Hmm.. seems your not running the USG flavor.."

val="\$undef"

else

echo "Uh... your running the USG flavor of scanf."

val="\$define"

fi

else

echo "(I can't seem to compile the test program... Guessing)"

val="\$undef"

fi

set sunscanf

eval \$setvar

\$rm -f scanf*

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/sunscanf.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Loc.U 14 2006-08-28 16:51:14Z rmanfredi \$

?RCS:

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?RCS:

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?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: \$Log: Loc.U,v \$
?RCS: Revision 3.0.1.10 1997/02/28 15:04:16 ram
?RCS: patch61: allow users to specify paths on the command line
?RCS: patch61: will now substitute cp for ln if not supported
?RCS:
?RCS: Revision 3.0.1.9 1995/09/25 09:11:24 ram
?RCS: patch59: commented the purpose of the #un-def directive
?RCS: patch59: abort Configure run when mandatory command is missing
?RCS:
?RCS: Revision 3.0.1.8 1995/07/25 13:40:40 ram
?RCS: patch56: now knows about
OS/2 platforms
?RCS:
?RCS: Revision 3.0.1.7 1995/01/11 15:13:37 ram
?RCS: patch45: protected "sh -c" within backquotes for Linux and SGI
?RCS: patch45: added path lookup for the 'comm' program
?RCS:
?RCS: Revision 3.0.1.6 1994/10/29 15:56:14 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS: patch36: be careful and guard against wildcard searching (ADO)
?RCS:
?RCS: Revision 3.0.1.5 1994/06/20 06:54:55 ram
?RCS: patch30: now locates find
?RCS:
?RCS: Revision 3.0.1.4 1994/05/13 15:18:15 ram
?RCS: patch27: added byacc to the trylist (ADO)
?RCS: patch27: lint lines reformatted (ADO)
?RCS:
?RCS: Revision 3.0.1.3 1994/01/24 14:01:44 ram
?RCS: patch16: added metalint hint on changed PATH variable
?RCS:
?RCS: Revision 3.0.1.2 1993/12/15 08:16:52 ram
?RCS: patch15: now set _test variable when test is built-in
?RCS: patch15: fixed rare cases where echo is not needed
?RCS:
?RCS: Revision 3.0.1.1 1993/09/13 15:47:13 ram
?RCS: patch10: test program not always
in /bin/test (WAD)
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:05 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit produces a shell script "loc" which can be used to find out
?X: where in a list of directories something is. It then uses loc to
?X: determine the location of commonly used programs. It leaves loc sitting

?X: around for other Configure units to use, but arranges for its demise

?X: at the end of Configure.

?X:

?X: To add a new program to find, add it both to the ?MAKE: line and to either

?X: the loclist or trylist variable.

?X:

?X: I put startsh at the end of the dependency list, in order to avoid the

?X: loading of the spitshell unit before the instructions.

?X:

```
?MAKE:Loc awk ar bash bison byacc cat chgrp chmod chown \  
comm compress cp cpio cpp csh date echo egrep emacs expr find flex \  
gmake gzip grep inews ksh less line lint ln lp lpr ls mail mailx \  
make mkdir more mv nm nroff perl pg pmake pr rm rmail sed sendmail \  
shar sleep smail sort \  
submit tail tar tbl tee test touch tr troff \  
uname uniq uuname vi zcat zip: eunicefix n c startsh Instruct sysroot
```

```
?MAKE: -pick weed $@ %<
```

```
?LINT:describe awk ar bash bison byacc cat chgrp chmod chown \  
comm compress cp cpio cpp csh date echo egrep emacs expr find flex \  
gmake gzip grep inews ksh less line lint ln lp lpr ls mail mailx \  
make mkdir more mv nm nroff perl pg pmake pr rm rmail sed sendmail \  
shar sleep smail sort submit tail tar tbl tee test touch tr troff \  
uname uniq uuname vi zcat zip
```

```
?V::pth loclist trylist
```

```
?F:./loc test_h
```

```
?T:thisthing thing xxx dir file say _test DJGPP
```

```
?LINT:change PATH _egrep _ln _make _less
```

```
?LINT:extern _exe
```

```
: find out where common programs are
```

```
echo " "
```

```
echo "Locating common programs..." >&4
```

```
cat <<EOOSC >loc
```

```
$startsh
```

```
case $# in
```

```
0) exit 1;;
```

```
esac
```

```
thing=
```

```
shift
```

```
dflt=
```

```
shift
```

```
for dir in $*; do
```

```
case "$thing" in
```

```
.)
```

```
if test -d $dir/$thing; then
```

```
echo $dir
```

```
exit 0
```

```
fi
```

```
::
```

*)

?X: Be careful in case thing includes wildcards that might expand to multiple

?X: files. Choose the last one. This happens when searching for shared

?X: libraries with version numbers. How to choose which one we want is

?X: probably an insoluble problem, in general.

?X: Some folks leave things like libc.so.orig around w/o read

?X: permission. A -r test would handle that, but since ./loc is

?X: also used to find executables (which are installed w/o read

?X: permission on SCO ODT 3.0, we can't include the -r test.

?X: If you need to use an _exe that is different from .exe

?X: you need to set it in Head.U.

```
for thisthing in \${dir}\$thing; do
```

```
  : just loop through to pick last item
```

```
done
```

```
if test -f \${thisthing}; then
```

```
  echo \${thisthing}
```

```
  exit 0
```

```
elif test "X$_exe" != X -a -f \${thisthing}$_exe; then
```

```
  echo \${thisthing}
```

```
  exit 0
```

```
elif test -f \${dir}\$thing.exe; then
```

```
  if test -n "$DJGPP"; then
```

```
    echo \${dir}\$thing.exe
```

```
  elif test "$eunicefix" != ":"; then
```

```
    : on Eunice apparently
```

```
    echo \${dir}\$thing
```

```
  fi
```

```
  exit 0
```

```
fi
```

```
::
```

```
esac
```

```
done
```

```
echo \${dflt}
```

```
exit
```

```
1
```

```
EOSC
```

```
chmod +x loc
```

```
$eunicefix loc
```

```
loclist="
```

```
?awk:awk
```

```
?cat:cat
```

```
?chgrp:chgrp
```

```
?chmod:chmod
```

```
?chown:chown
```

```
?comm:comm
```

```
?cp:cp
```

```
?echo:echo
```

?expr:expr
?find:find
?grep:grep
?ls:ls
?mkdir:mkdir
?mv:mv
?rm:rm
?sed:sed
?sleep:sleep
?sort:sort
?tail:tail
?touch:touch
?tr:tr
?uniq:uniq
"
trylist="
?Mcc:Mcc
?ar:ar
?bash:bash
?bison:bison
?byacc:byacc
?compress:compress
?cpio:cpio
?cpp:cpp
?csh:csh
?date:date
?egrep:egrep
?emacs:emacs
?flex:flex
?gmake:gmake
?gzip:gzip
?inews:inews
?ksh:ksh
?less:less
?line:line
?lint:lint
?ln:ln
?lp:lp
?lpr:lpr
?mail:mail
?mailx:mailx
?make:make
?more:more
?nm:nm
?nroff:nroff
?perl:perl
?pg:pg
?pmake:pmake

```

?pr:pr
?rmail:rmail
?sendmail:sendmail
?shar:shar
?smail:smail
?submit:submit
?tar:tar
?tbl:tbl
?tee:tee
?test:test
?troff:troff
?uname:uname
?uuname:uuname
?vi:vi
?zcat:zcat
?zip:zip
"

?LINT:set awk ar bash bison byacc cat chgrp chmod chown \
comm compress cp cpio cpp csh date echo emacs expr find flex \
gmake gzip grep inews ksh line lint lp lpr ls mail mailx \
mkdir more mv nm nroff perl pg pmake pr rm rmail sed sendmail \
shar sleep smail sort submit tail tar tbl tee touch tr troff \
uname uniq uuname vi zcat zip
pth=`echo $PATH | sed -e "s/$p_/ /g"`
pth="$pth $sysroot/lib $sysroot/usr/lib"
for file in $loclist; do
?X:
?X: Allow them to -Dmake=pmake on the command line for instance...
?X: If the file is not fully qualified, as in -Dmake=pmake, then we
?X: look the for the specified command (pmake here). If they say
?X: -Dmake=/sbin/make for instance, then we make sure the file
?X: exists, or we die...
?X:
eval xxx=\$$file
case "$xxx" in
/*|?:[\\]*)
if test -f "$xxx"; then
: ok
else
echo "WARNING: no $xxx -- ignoring your setting for $file." >&4
xxx=`./loc $file $file $pth`
fi
;;
*) xxx=`./loc $file $file $pth`;
*) xxx=`./loc $xxx $xxx $pth`;
esac
eval $file=$xxx$_exe

```

```

eval _$file=$xxx
case "$xxx" in
/*)
    echo $file is in $xxx.
    ;;
?X: Under OS/2, we have PC-like paths
?:[\\]*)
    echo $file is in $xxx.
    ;;
*)
    echo
    "I don't know where '$file' is, and my life depends on it." >&4
    echo "Go find a public domain implementation or fix your PATH setting!" >&4
    exit 1
    ;;
esac
done
echo " "
echo "Don't worry if any of the following aren't found..."
say=offhand
for file in $trylist; do
?X: Allow them to -Dmake=pmake on the command line for instance (see above)
eval xxx=\\$file
case "$xxx" in
/*|?:[\\]*)
    if test -f "$xxx"; then
        : ok
    else
        echo "WARNING: no $xxx -- ignoring your setting for $file." >&4
        xxx=`./loc $file $file $pth`
    fi
    ;;
") xxx=`./loc $file $file $pth`;
*) xxx=`./loc $xxx $xxx $pth`;
esac
eval $file=$xxx$_exe
eval _$file=$xxx
case "$xxx" in
/*)
    echo $file is in $xxx.
    ;;
?X: Under OS/2, we have PC-like paths
?:[\\]*)
    echo $file is in $xxx.
    ;;
*)
    echo "I don't see $file out there, $say."
    say=either

```

```

;;
esac
done
case "$grep" in
egrep)
echo "Substituting grep for egrep."
egrep=$grep
_egrep=$grep
;;
esac
@if less
case "$less"
in
") ;;
*) if $less -R </dev/null >/dev/null 2>&1; then
echo "Substituting less -R for less."
less="$less -R"
_less=$less
fi
;;
esac
@end
@if ln
case "$ln" in
ln)
echo "Substituting cp for ln."
ln=$cp
_ln=$cp
;;
esac
@end
@if make || gmake
case "$make" in
make)
case "$gmake" in
gmake)
echo "I can't find make or gmake, and my life depends on it." >&4
echo "Go find a public domain implementation or fix your PATH setting!" >&4
exit 1
;;
esac
;;
esac
case "$gmake" in
gmake) ;;
*) # We can't have osname yet.
if test -f "/system/gnu_library/bin/ar.pm"; then # Stratus VOS
# Assume that gmake, if found, is definitely GNU make

```

```

# and prefer it over the system make.
echo "Substituting gmake for make."
make=$gmake
_make=$gmake
fi
;;
esac
@end
case "$test" in
test)
echo "Hopefully test is built into your sh."
;;
*)
if `sh -c "PATH= test true" >/dev/null 2>&1`; then
echo "Using the test built into your sh."
?X:
?X: We need to set both test
and _test, since Oldconfig.U will use the _test
?X: value to systematically restore computed paths, which may be wrong if
?X: we choose to load an old config.sh generated on another platform.
?X:
test=test
_test=test
fi
;;
esac
?LINT:change n c
case "$echo" in
echo)
echo "Hopefully echo is built into your sh."
;;
?X: For those rare cases where we don't need $echo...
") ;;
*)
echo " "
echo "Checking compatibility between $echo and builtin echo (if any)..." >&4
$echo $n "hi there$c" >foo1
echo $n "hi there$c" >foo2
if cmp foo1 foo2 >/dev/null 2>&1; then
echo "They are compatible. In fact, they may be identical."
else
case "$n" in
'-n') n=" c='\c';;
*) n='-n' c="";;
esac
cat <<FOO

```

They are not compatible! You are probably running ksh on a non-USG system.
I'll have to use \$echo instead of the builtin, since Bourne shell doesn't

have echo built in and we may have to run some Bourne shell scripts. That means I'll have to use '\$n\$c' to suppress newlines now.

Life is ridiculous.

FOO

```
$echo $n "The star should be here-->$c"
```

```
$echo "*"
```

```
fi
```

```
$rm -f foo1 foo2
```

```
::
```

```
esac
```

?X: The next part is irrelevant to the real process

This question was auctioned at YAPC::Europe-2007 in Vienna

I never promised you could answer it. I only auctioned the question.

```
cat <<FOO
```

The following message is sponsored by

Dresden.pm<--The stars should be here.

Dear Perl user, system administrator or package maintainer, the Perl community sends greetings to you. Do you (emblematical) greet back [Y/n]? n

FOO

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Loc.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: man1dir.U,v 3.2 1999/07/08 20:57:21 doughera Exp doughera \$

?RCS:

?RCS: Copyright (c) 1996, 1999 Andy Dougherty

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

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?RCS:

?RCS: \$Log: man1dir.U,v \$

?RCS: Revision 3.2 1999/07/08 20:57:21 doughera

?RCS: Used installprefix.

?RCS:

?RCS: Revision 3.1 1999/07/08 20:52:19 doughera

?RCS: Updated for perl5.005_5x


```

?RCS:
?RCS: Revision 3.0.1.1 1997/02/28 16:10:29 ram
?RCS: patch61: created
?RCS:
?X: This was originally specific to perl5. Since perl5 has man pages that
?X: go in both man1/ and man3/ directories, we need both man1 dir
?X: and
man3dir. This unit is basically dist's mansrc.U with
?X: man1 used instead of man everywhere.
?X:
?MAKE:man1dir man1direxp man1ext installman1dir: cat nroff Loc Oldconfig \
spackage test Getfile Setprefixvar Prefixit Prefixup sysman Myread \
prefixexp
?MAKE: -pick add $@ %<
?Y:TOP
?D:man1dir="
?S:man1dir:
?S: This variable contains the name of the directory in which manual
?S: source pages are to be put. It is the responsibility of the
?S: Makefile.SH to get the value of this into the proper command.
?S: You must be prepared to do the ~name expansion yourself.
?S:.
?D:man1direxp="
?S:man1direxp:
?S: This variable is the same as the man1dir variable, but is filename
?S: expanded at configuration time, for convenient use in makefiles.
?S:.
?D:installman1dir="
?S:installman1dir:
?S: This variable is really the same as man1direxp, unless you are using
?S: AFS in which case it points to the read/write location whereas
?S: man1direxp only points to the read-only access location.
For extra
?S: portability, you should only use this variable within your makefiles.
?S:.
?S:man1ext:
?S: This variable contains the extension that the manual page should
?S: have: one of 'n', 'l', or '1'. The Makefile must supply the '!'.
?S: See man1dir.
?S:.
?T:lookpath
?LINT:change prefixvar
?LINT:set man1direxp
: determine where manual pages go
set man1dir man1dir none
eval $prefixit
$cat <<EOM

```

```

$spackage has manual pages available in source form.
EOM
case "$nroff" in
nroff)
echo "However, you don't have nroff, so they're probably useless to you."
case "$man1dir" in
") man1dir="none";;
esac;;
esac
echo "If you don't want the manual sources installed, answer 'none'."
case "$man1dir" in
' ') dflt=none
;;
")
lookpath="$prefixexp/share/man/man1"
lookpath="$lookpath $prefixexp/man/man1 $prefixexp/man/l_man/man1"
lookpath="$lookpath $prefixexp/man/p_man/man1"
lookpath="$lookpath $prefixexp/man/u_man/man1"
lookpath="$lookpath $prefixexp/man/man.1"
?X: Experience has shown people
expect man1dir to be under prefix,
?X: so we now always put it there. Users who want other behavior
?X: can answer interactively or use a command line option.
?X: Does user have System V-style man paths.
case "$sysman" in
*/?_man*) dflt=`./loc . $prefixexp/l_man/man1 $lookpath` ;;
*) dflt=`./loc . $prefixexp/man/man1 $lookpath` ;;
esac
set dflt
eval $prefixup
;;
*) dflt="$man1dir"
;;
esac
echo " "
fn=dn+~
rp="Where do the main $spackage manual pages (source) go?"
./getfile
if $stest "X$man1direxp" != "X$ansexp"; then
installman1dir="
fi
prefixvar=man1dir
./setprefixvar

case "$man1dir" in
") man1dir=' '
installman1dir="";;
esac

```

: What suffix to use on installed man pages

```
case "$man1dir" in
')
man1ext='0'
;;
*)
rp="What suffix should be used for the main $spackage man pages?"
case "$man1ext" in
") case "$man1dir" in
*1) dflt=1 ;;
*1p) dflt=1p ;;
*1pm) dflt=1pm ;;
*l) dflt=l;;
*n) dflt=n;;
*o) dflt=o;;
*p) dflt=p;;
*C) dflt=C;;
*L) dflt=L;;
*L1)
dflt=L1;;
*) dflt=1;;
esac
;;
*) dflt="$man1ext";;
esac
./myread
man1ext="$ans"
;;
esac
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/installdirs/man1dir.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d_shmat.U,v 3.0.1.3 1995/07/25 14:04:23 ram Exp \$

?RCS:

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?RCS:

?RCS: \$Log: d_shmat.U,v \$

?RCS: Revision 3.0.1.3 1995/07/25 14:04:23 ram

?RCS: patch56: use findhdr to find <sys/shm.h>, to get the right one (ADO)

?RCS:

?RCS: Revision 3.0.1.2 1994/05/13 15:18:56 ram

?RCS: patch27: added new symbol HAS_SHMAT_PROTOTYPE (ADO)

?RCS:

?RCS: Revision 3.0.1.1 1994/05/06 14:54:18 ram

?RCS: patch23: new Shmat_t symbol to declare return type of shmat()

?RCS:

?RCS: Revision 3.0 1993/08/18 12:07:18 ram

?RCS: Baseline for dist 3.0 netwide
release.

?RCS:

?MAKE:d_shmat shmattype d_shmatprototype: Inlibc cat +cc +ccflags \
rm cppstdin cppflags cppminus Findhdr Setvar contains

?MAKE: -pick add \$@ %<

?S:d_shmat:

?S: This variable conditionally defines the HAS_SHMAT symbol, which
?S: indicates to the C program that the shmat() routine is available.

?S:.

?S:shmattype:

?S: This symbol contains the type of pointer returned by shmat().
?S: It can be 'void *' or 'char *'.

?S:.

?S:d_shmatprototype:

?S: This variable conditionally defines the HAS_SHMAT_PROTOTYPE
?S: symbol, which indicates that sys/shm.h has a prototype for
?S: shmat.

?S:.

?C:HAS_SHMAT:

?C: This symbol, if defined, indicates that the shmat() routine is
?C: available to attach a shared memory segment to the process space.

?C:.

?C:Shmat_t:

?C: This symbol holds the return type of the shmat() system call.
?C: Usually set to 'void *' or 'char *'.

?C:.

?C:HAS_SHMAT_PROTOTYPE:

?C: This symbol, if defined, indicates that the sys/shm.h includes
?C: a prototype for shmat().
Otherwise, it is up to the program to
?C: guess one. Shmat_t shmat(int, Shmat_t, int) is a good guess,
?C: but not always right so it should be emitted by the program only
?C: when HAS_SHMAT_PROTOTYPE is not defined to avoid conflicting defs.

?C:.

?H:#\$d_shmat HAS_SHMAT /**/
?H:#define Shmat_t \$shmattype /**/
?H:#\$d_shmatprototype HAS_SHMAT_PROTOTYPE /**/

```

?H:
?LINT:set d_shmat d_shmatprototype
?T:xxx
: see if shmat exists
set shmat d_shmat
eval $inlibc
: see what shmat returns
case "$d_shmat" in
"$define")
$cat >shmat.c <<'END'
#include <sys/shm.h>
void *shmat();
END
if $cc $ccflags -c shmat.c >/dev/null 2>&1; then
shmattype='void *'
else
shmattype='char *'
fi
echo "and it returns ($shmattype)." >&4
: see if a prototype for shmat is available
xxx=`./findhdr sys/shm.h`
$cppstdin $cppflags $cppminus < $xxx > shmat.c 2>/dev/null
if $contains 'shmat.*(' shmat.c >/dev/null 2>&1; then
val="$define"
else
val="$undef"
fi
$rm -f shmat.[co]
;;
*)
val="$undef"
;;
esac
set
d_shmatprototype
eval $setvar

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_shmat.U

```

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```

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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: patchlevel.U,v $
?RCS: Revision 3.0.1.1 1997/02/28 16:18:41 ram
?RCS: patch61: added support for src.U
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:31 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:patchlevel: package baserev test rsrc
?MAKE: -pick add $@ %<
?T:Revision
?S:patchlevel:
?S: The patchlevel level of this package.
?S: The value of patchlevel comes from the patchlevel.h file.
?S:.
: get the patchlevel
echo " "
echo "Getting the current patchlevel..." >&4
if $test -r
  $src/patchlevel.h;then
  patchlevel=`awk \
  '/^#[ ]*define[ ][ ]*PATCHLEVEL/ {print $3}' \
  < $src/patchlevel.h`
else
  patchlevel=0
fi
echo "(You have $package $baserev PL$patchlevel.)"

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/U/patchlevel.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id$
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: sysman.U,v $
?RCS: Revision 3.0.1.2 1994/06/20 07:08:43 ram

```

?RCS: patch30: now explicitly states that /usr/man/man1 is the default
?RCS: patch30: added /usr/local/man/man1 to the search list
?RCS:
?RCS: Revision 3.0.1.1 1993/09/13 16:13:50 ram
?RCS: patch10: added support for /local/man/man1 (WAD)
?RCS: patch10: added temporary syspath variable to cut down on line length
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:55 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:

?MAKE:sysman: test

Loc Oldconfig

?MAKE: -pick add \$@ %<

?S:sysman:

?S: This variable holds the place where the manual is located on this

?S: system. It is not the place where the user wants to put his manual

?S: pages. Rather it is the place where Configure may look to find manual

?S: for unix commands (section 1 of the manual usually). See mansrc.

?S:.

?T:syspath

: determine where manual pages are on this system

echo " "

case "\$sysman" in

")

syspath="/usr/share/man/man1 /usr/man/man1"

syspath="\$syspath /usr/man/mann /usr/man/man1 /usr/man/local/man1"

syspath="\$syspath /usr/man/u_man/man1 /usr/share/man/man1"

syspath="\$syspath /usr/catman/u_man/man1 /usr/man/l_man/man1"

syspath="\$syspath /usr/local/man/u_man/man1 /usr/local/man/l_man/man1"

syspath="\$syspath /usr/man/man.L /local/man/man1 /usr/local/man/man1"

sysman=`./loc . /usr/man/man1 \$syspath`

::

esac

if \$test -d "\$sysman"; then

echo "System manual is in \$sysman." >&4

else

echo "Could not find manual pages in source form." >&4

fi

Found

in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/sysman.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d_scandir.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: \$Log: d_scandir.U,v \$
?RCS: Revision 3.0.1.1 1994/01/24 14:06:35 ram
?RCS: patch16: created
?RCS:
?MAKE:d_scandir: Inlibc
?MAKE: -pick add \$@ %<
?S:d_scandir:
?S: This variable conditionally defines HAS_SCANDIR if scandir() is
?S: available to scan a directory.
?S:.
?C:HAS_SCANDIR:
?C: This symbol, if defined, indicates that the scandir routine is
?C: available to scan a directory.
?C:.
?H:#\$d_scandir HAS_SCANDIR /**/
?H:.
?LINT:set d_scandir
: see if
 scandir exists
set scandir d_scandir
eval \$inlibc

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_scandir.U

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?RCS: \$Id\$
?RCS:
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?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: \$Log: d_socket.U,v \$
?RCS: Revision 3.0.1.2 1997/02/28 15:46:00 ram
?RCS: patch61: replaced .a with \$_a all over the place
?RCS:

?RCS: Revision 3.0.1.1 1994/01/24 14:08:04 ram

?RCS: patch16: can now safely declare private nm_extract in dependencies

?RCS:

?RCS: Revision 3.0 1993/08/18 12:07:26 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d_socket d_oldsock d_sockpair socketlib sockethdr: contains libc \

echo n c nm_opt nm_extract Inlibc Csym _a

?MAKE: -pick add \$@ %<

?S:d_socket:

?S: This

variable conditionally defines HAS_SOCKET, which indicates

?S: that the BSD socket interface is supported.

?S:.

?S:d_sockpair:

?S: This variable conditionally defines the HAS_SOCKETPAIR symbol, which

?S: indicates that the BSD socketpair() is supported.

?S:.

?S:d_oldsock:

?S: This variable conditionally defines the OLDSOCKET symbol, which

?S: indicates that the BSD socket interface is based on 4.1c and not 4.2.

?S:.

?S:socketlib:

?S: This variable has the names of any libraries needed for socket support.

?S:.

?S:sockethdr:

?S: This variable has any cpp -I flags needed for socket support.

?S:.

?C:HAS_SOCKET (SOCKET):

?C: This symbol, if defined, indicates that the BSD socket interface is

?C: supported.

?C:.

?C:HAS_SOCKETPAIR (SOCKETPAIR):

?C: This symbol, if defined, indicates that the BSD socketpair() call is

?C: supported.

?C:.

?C:USE_OLDSOCKET (OLDSOCKET):

?C: This symbol, if defined, indicates that the 4.1c BSD socket interface

?C: is supported instead of the 4.2/4.3 BSD

socket interface. For instance,

?C: there is no setsockopt() call.

?C:.

?H:#\$d_socket HAS_SOCKET /**/

?H:#\$d_sockpair HAS_SOCKETPAIR /**/

?H:#\$d_oldsock USE_OLDSOCKET /**/

?H:.

?T:val

?LINT:use libc

```

?LINT:set d_socketpair
: see whether socket exists
socketlib=""
sockethdr=""
echo " "
$echo $n "Hmm... $c" >&4
if set socket val -f d_socket; eval $csym; $val; then
echo "Looks like you have Berkeley networking support." >&4
d_socket="$define"
?X: now check for advanced features
if set setsockopt val -f; eval $csym; $val; then
d_oldsock="$undef"
else
echo "...but it uses the old 4.1c interface, rather than 4.2" >&4
d_oldsock="$define"
fi
else
?X: HP-UX, for one, puts all the socket stuff in socklib.o. Note that if we
?X: come here on HP-UX, then we must have used nm to get symbols, or we really
?X: don't have sockets anyway...
if $contains socklib libc.list >/dev/null 2>&1; then
echo "Looks like you have Berkeley networking support." >&4
d_socket="$define"
: we will have
to assume that it supports the 4.2 BSD interface
d_oldsock="$undef"
else
echo "You don't have Berkeley networking in libc$_a..." >&4
?X: look for an optional networking library
if test -f /usr/lib/libnet$_a; then
?X: space between two '(' needed for ksh
( (nm $nm_opt /usr/lib/libnet$_a | eval $nm_extract) || \
ar t /usr/lib/libnet$_a) 2>/dev/null >> libc.list
if $contains socket libc.list >/dev/null 2>&1; then
echo "...but the Wollongong group seems to have hacked it in." >&4
socketlib="-lnet"
sockethdr="-I/usr/netinclude"
d_socket="$define"
?X: now check for advanced features
if $contains setsockopt libc.list >/dev/null 2>&1; then
d_oldsock="$undef"
else
echo "...using the old 4.1c interface, rather than 4.2" >&4
d_oldsock="$define"
fi
else
echo "or even in libnet$_a, which is peculiar." >&4
d_socket="$undef"

```

```
    d_oldsock="$undef"
fi
else
    echo "or anywhere else I see." >&4
    d_socket="$undef"
    d_oldsock="$undef"
fi
fi
fi
```

@if

```
HAS_SOCKETPAIR || d_socketpair
: see if socketpair exists
set socketpair d_socketpair
eval $inlibc
```

@end

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_socket.U
```

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?RCS:

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?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d_nanosleep: Inlibc

?MAKE:-pick add \$@ %<

?S:d_nanosleep:

?S: This variable conditionally defines HAS_NANOSLEEP

?S: if nanosleep() is available to sleep with 1E-9 sec accuracy.

?S:.

?C:HAS_NANOSLEEP:

?C: This symbol, if defined, indicates that the nanosleep

?C: system call is available to sleep with 1E-9 sec accuracy.

?C:.

?H:#\$d_nanosleep HAS_NANOSLEEP /**/

?H:.

?LINT:set d_nanosleep

: see if nanosleep exists

set nanosleep d_nanosleep

eval \$inlibc

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_nanosleep.U

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Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/metalint

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/mconfig

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/patbase

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/patindex

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/manifake

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/kitpost

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/patsend

*

/opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/patsnap

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/manicheck

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/mlint

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/patcol

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/patmake

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/patclean

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/patcil

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/makedist

*

/opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/bin/patname

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/bindex

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/makegloss

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/bin/manilist
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/bin/patnotify
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/bin/metaconfig
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/bin/pat
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/bin/patdiff
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/bin/jmake
*
/opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/bin/patpost
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/lib/errnolist.mk
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/bin/jmkmf
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/bin/kitsend
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/bin/makeSH
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/dist/files/fixcpp
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/bin/patftp
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/bin/packinit
*
/opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/bin/patlog

```

No license file was found, but licenses were detected in source scan.

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d_log1p: Inlibc

?MAKE: -pick add \$@ %<

?S:d_log1p:

?S: This variable conditionally defines the HAS_LOG1P symbol, which

?S: indicates to the C program that the logp1() routine is available

?S: to compute $\log(1 + x)$ for values of x close to zero.

?S:.

?C:HAS_LOG1P:

?C: This symbol, if defined, indicates that the log1p routine is

?C: available to do the logarithm of 1 plus argument function.

?C:.

?H:#\$d_log1p HAS_LOG1P /**/

?H:.

?LINT:set d_log1p

: see if log1p exists

set log1p d_log1p

eval \$inlibc

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_log1p.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: Extract.U,v 3.0.1.2 1997/02/28 14:58:52 ram Exp \$

?RCS:

?RCS: Copyright (c) 1991-1993, Raphael Manfredi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

?RCS: as specified in the README file that comes with the distribution.

?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?RCS: \$Log: Extract.U,v \$

?RCS: Revision 3.0.1.2 1997/02/28 14:58:52 ram

?RCS: patch61: added support for src.U

?RCS:

?RCS: Revision 3.0.1.1 1994/10/29 15:51:46 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:

?RCS: Revision 3.0 1993/08/18 12:04:52 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?X:

?X: This unit produces a shell script which can be doted in order to extract

?X: .SH files with variable substitutions.

?X:

?X: When running

Configure from a remote directory (\$src is not '.'),

?X: then the files will be created in that directory, so beware!

?X:

?MAKE:Extract: src

?MAKE: -pick add \$@ %<

?F:./extract

?T:PERL_CONFIG_SH dir file name create mkdir_p

: script used to extract .SH files with variable substitutions

cat >extract <<'EOS'

PERL_CONFIG_SH=true

echo "Doing variable substitutions on .SH files..."

```

if test -f MANIFEST; then
  set x `awk '{print $1}' < MANIFEST | grep \.SH$`
else
  echo "(Looking for .SH files under the source directory.)"
  set x `(cd "$src"; find . -name "*.SH" -print)`
fi
shift
case $# in
0) set x `(cd "$src"; echo *.SH)`; shift;;
esac
if test ! -f "$src/$1"; then
  shift
fi
?X: script to emulate mkdir -p
mkdir_p='
name=$1;
create="";
while test $name; do
  if test ! -d "$name"; then
    create="$name $create";
    name=`echo $name | sed -e "s|^[^/]*$||"`;
    name=`echo $name | sed -e "s|(.*).*/.*|1|"`;
  else
    name="";
  fi;
done;
for file in $create; do
  mkdir $file;
done
'
for file in $*;
do
  case "$src" in
  ".")
  case "$file" in
  */*)
    dir=`expr X$file : 'X(.*?)/'`
    file=`expr X$file : 'X.*^(.*?)'`
    (cd "$dir" && ./$file)
    ;;
  *)
  ./$file
  ;;
esac
;;
*)
?X:
?X: When running Configure remotely ($src is not '.'), we cannot source

```

?X: the files directly, since that would wrongly cause the extraction
 ?X: where the source lie instead of withing the current directory. Therefore,
 ?X: we need to 'sh <file' then, which is okay since they will source the
 ?X: existing config.sh file. It's not possible to use:
 ?X: ../src/Configure -S -O -Dsomething
 ?X: unfortunately since no new config.sh with the -Dsomething override
 ?X: will be created before running the .SH files. A minor buglet.
 ?X:
 ?X: Note that we must create the directory hierarchy ourselves if it does
 ?X: not exist already, and that is done through a shell emulation of the
 ?X: 'mkdir -p' command. We don't want to use the \$installdir metaconfig
 ?X: symbol here since that would require too much to
 be configured for
 ?X: this simple extraction task that may happen quickly with 'Configure -S'.
 ?X: -- RAM, 18/03/96

```
?X:
case "$file" in
  */)
    dir=`expr X$file : 'X\(.*)/'`
    file=`expr X$file : 'X.*\(.*)'`
    (set x $dir; shift; eval $mkdir_p)
    sh <"$src/$dir/$file"
    ;;
  *)
    sh <"$src/$file"
    ;;
esac
;;
esac
done
if test -f "$src/config_h.SH"; then
if test ! -f config.h; then
: oops, they left it out of MANIFEST, probably, so do it anyway.
. "$src/config_h.SH"
fi
fi
EOS
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/Extract.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i_whoami.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: \$Log: i_whoami.U,v \$
?RCS: Revision 3.0.1.1 1993/08/25 14:02:21 ram
?RCS: patch6: added default for i_whoami
?RCS:
?RCS: Revision 3.0 1993/08/18 12:08:50 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:i_whoami: Inhdr
?MAKE: -pick add \$@ %<
?S:i_whoami (d_whoami):
?S: This variable conditionally defines the I_WHOAMI symbol, which
?S: indicates to the C program that it should include <whoami.h>.
?S:.
?C:I_WHOAMI (WHOAMI):
?C: This symbol,
if defined, indicates that the program may include
?C: <whoami.h>.
?C:.
?H:#\$i_whoami I_WHOAMI /**/
?H:.
?D:i_whoami="
?LINT:set i_whoami
: see if there is a whoami.h file
set whoami.h i_whoami
eval \$inhdr

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/i_whoami.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: modetype.U,v 3.0.1.1 1994/10/29 16:25:07 ram Exp \$
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
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?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: Original Author: Andy Dougherty <doughera@lafcol.lafayette.edu>
?RCS:

```

?RCS: $Log: modetype.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:25:07 ram
?RCS: patch36: created by ADO
?RCS:
?MAKE:modetype: Myread Typedef
?MAKE: -pick add $@ %<
?S:modetype:
?S: This variable defines modetype to be something like mode_t,
?S: int, unsigned short, or whatever type is used to declare file
?S: modes for system calls.
?S:.
?C:Mode_t:
?C: This symbol holds the type used to declare
file modes
?C: for systems calls. It is usually mode_t, but may be
?C: int or unsigned short. It may be necessary to include <sys/types.h>
?C: to get any typedef'ed information.
?C:.
?H:#define Mode_t $modetype /* file mode parameter for system calls */
?H:.
?LINT:set modetype
: see what type is used for mode_t
rp="What is the type used for file modes for system calls (e.g. fchmod())?"
set mode_t modetype int stdio.h sys/types.h
eval $typedef_ask

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-
5.30.0/U/typedefs/modetype.U

```

No license file was found, but licenses were detected in source scan.

```

?RCS: $Id$
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_getpwent.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:17 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_getpwent: Csym Setvar
?MAKE: -pick add $@ %<
?S:d_getpwent:

```

?S: This variable conditionally defines the HAS_GETPWENT symbol, which

?S: indicates to the C program that it should use the getpwent()

?S: routine instead of the getpw() routine.

?S:.

?C:HAS_GETPWENT (GETPWENT):

?C: This symbol, if defined, indicates that the getpwent() routine

?C: should be used instead of the getpw()

routine.

?C:.

?H:#\$d_getpwent HAS_GETPWENT /**/

?H:.

?LINT:set d_getpwent

: see if there is a getpwent

echo " "

if set getpwent val -f d_getpwent; eval \$csym; \$val; then

echo "getpwent() found." >&4

val="\$define"

else

echo "No getpwent() found -- will use getpw() instead." >&4

val="\$undef"

fi

set d_getpwent

eval \$setvar

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_getpwent.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: mkdep.U 1 2006-08-24 12:32:52Z rmanfredi \$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: of the source tree for dist 4.0.

?RCS:

?RCS: \$Log: mkdep.U,v \$

?RCS: Revision 3.0.1.4 1997/02/28 16:13:07 ram

?RCS: patch61: replaced .o with \$_o all over the place

?RCS:

?RCS: Revision 3.0.1.3 1994/10/29 16:25:02 ram

?RCS: patch36: added ?F: line for metalint file checking

?RCS:

?RCS: Revision 3.0.1.2 1994/01/24 14:15:12 ram

?RCS: patch16: cppflags is now an optional dependency

```

?RCS:
?RCS: Revision 3.0.1.1 1993/12/15 08:22:39 ram
?RCS: patch15: force zero exit status in all mkdep scripts
?RCS:
?RCS:
Revision 3.0 1993/08/18 12:09:16 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: This unit generates the script 'mkdep' in the top-level directory.
?X: It is up to the makefile to use it for automatic dependencies
?X: generation (usage: 'mkdep [cppflags] -- *.c').
?X:
?MAKE:mkdep: spitshell startsh cpp +cppflags grep contains rm sed sort uniq \
Getfile Oldconfig eunicefix cat +cc cppminus test pkgsrc _o
?MAKE: -pick add $@ %<
?S:mkdep:
?S: This variable holds the name of a command to generate makefile
?S: dependencies on the standard output. It is the pathname of the
?S: generated mkdep script.
?S:.
?F:mkdep
?T:IFS arg flags takeflags srcfile toplev filebase inc dir files file dep c
: find out how to generate dependencies
echo " "
echo "Checking how to generate makefile dependencies on your machine..." >&4
?X: We are in the UU directory
toplev=`cd ../pwd`
$cat >dep.c <<'EOCP'
#include "dep.h"
EOCP
?X: Empty dep.h causes RIOS to barf
$cat >dep.h <<'EOCP'

EOCP
takeflags='flags=""'
case
"$@" in
*_**)
for arg
do
shift
case "$arg" in
--) break;;
*) flags="$flags $arg";;
esac
done;;
esac'

```

```

case "$mkdep" in
")
;;
*)
if test -f "$mkdep" &&
$mkdep dep.c >dep.out 2>/dev/null &&
$contains "dep$_o:.*dep\.h" dep.out >/dev/null 2>&1
then
echo "$mkdep works."
?X: If they copied a config.sh from some other place, they'll have a working
?X: mkdep script probably, but not located at the top of the sources. And
?X: the Makefiles generated by jmake expect an mkdep script in the top dir.

```

```

case "$mkdep" in
"$pkgsrc/mkdep");;
*) echo "(copying it to $pkgsrc)"
cp $mkdep $pkgsrc/mkdep 2>/dev/null
if $pkgsrc/mkdep dep.c >dep.out 2>/dev/null &&
$contains "dep$_o:.*dep\.h" dep.out >/dev/null 2>&1; then
mkdep=$pkgsrc/mkdep
else
echo "Hmm... The copy failed or something... Guessing again..."
mkdep=
fi
;;
esac
else
mkdep=
fi
esac

```

```

case "$mkdep" in
")
?X: have to figure something out: Try cpp
?X: have
to pass source names one by one to cpp...
$spitshell > ../mkdep <<EOM
$startsh
$takeflags
for srcfile
do
$cpp -M $cppflags \ $flags \ $srcfile 2>/dev/null
done
exit 0
EOM
mkdep=$toplev/mkdep
chmod +x $mkdep
$eunicefix $mkdep
if $mkdep dep.c >dep.out 2>/dev/null &&

```

```

$contains "dep$_o:.*dep\.h" dep.out >/dev/null 2>&1
then
echo "Looks like we can use $cpp -M."
else
mkdep=
fi
;;
esac

case "$mkdep" in
")
?X: have to figure something out: on NeXT, use cc -MM
?X: have to pass source names one by one to cc...
$spitshell > ../mkdep <<EOM
$startsh
$takeflags
for srcfile
do
$cc -MM $cppflags \ $flags \ $srcfile 2>/dev/null
done
exit 0
EOM
mkdep=$toplev/mkdep
chmod +x $mkdep
$unicefix $mkdep
if $mkdep dep.c >dep.out 2>/dev/null &&
$contains "dep$_o: dep.h" dep.out >/dev/null 2>&1
then
echo "Looks like we can use $cc -MM."
else
mkdep=
fi
;;
esac

case "$mkdep" in
")
?X: still no luck -- try something fancier.
$spitshell > ../mkdep <<EOS
$startsh
$takeflags
for srcfile
do
case
"\$srcfile" in
*.c) c='.c';;
*.y) c='.y';;
*.l) c='.l';;

```

```

esac
filebase=`basename \${srcfile} \${c}`
<\${srcfile} \${c} \${ppminus} \${ppflags} \${flags} 2>/dev/null | \
$sed -e '/^# *[0-9]!/d' \
-e 's/^\.*(.*).*\$/\${filebase}'_o: \1/' \
-e 's|\.|:|' \
-e 's|:|$|: \${srcfile}' | \
$grep -v '^#' | $sort | $uniq
done
exit 0
EOS
mkdep=$stoplevel/mkdep
chmod +x $mkdep
$eunicefix $mkdep
if $mkdep dep.c >dep.out 2>/dev/null &&
  $contains "dep$_o:.*dep\.h" dep.out >/dev/null 2>&1
then
  echo "A shell script using $c does the trick."
else
  echo "$c doesn't seem to be any use at all."
  $spitshell >./mkdep <<EOS
$startsh
$takeflags
files="$@"
set X \${flags}
shift
inc='.'
while test \${#} -gt 0
do
  case "\${1}" in
  -I)
    shift
    inc="\${inc}\${1}"
    ;;
  -I*)
    dir=`echo \${1} | sed -e 's/^-I//`
    inc="\${inc}\${dir}"
    ;;
  esac
  shift
done
set X \${files}
shift
trap "$rm -f /tmp/mkdep\${c}; exit 1" 1 2 3 15
for srcfile
do
  case "\${srcfile}" in
  *.c) c='.c';;

```

```

*.y) c='.y';;
*.l)
c='.l';;
esac
filebase=\`basename \$srcfile \$c\`
echo \$filebase$_o: \$srcfile
$grep '^#[ ]*include' \$srcfile /dev/null | \
$sed -n -e 's/#[ ]*include[ ]*/' \
-e '<(.*)>/ d' \
-e 's:[^"]*"([^\"]*)"*/: \1/' \
-e "s\\.c:/$_o:/p" > /tmp/mkdep\$$
?X: Deal with directories specified via -I requests to locate files
IFS=' '
while read file dep; do
for dir in \$inc; do
if $test -f "\$dir/\$dep"; then
dep="\$dir/\$dep"
break
fi
done
echo "\$file: \$dep" | $sed -e 's: \./: ,'
done </tmp/mkdep\$$
IFS=' '
$rm -f /tmp/mkdep\$$
done
exit 0
EOS
mkdep=$toplev/mkdep
chmod +x $mkdep
$eunicefix $mkdep
if $mkdep dep.c >dep.out 2>/dev/null &&
$contains "dep$_o:.*dep\.h" dep.out >/dev/null 2>&1
then
cat << EOM

```

I can use a script with grep instead, but it will make some incorrect dependencies, since it doesn't understand about conditional compilation. Moreover, some dependencies may be missing, because scanning won't be a

recursive process.

If you have a program which generates makefile dependencies, you may want to use it. If not, you can use the script and edit the Makefile by hand if you need to.

```

EOM
else
mkdep=
cat << EOM

```


I can't seem to generate makefile dependencies at all! Perhaps you have a program that does? If you don't, you might look at the mkdep script to see if you can create one which works.

EOM

```
fi
fi
esac
echo " "
dflt="$mkdep"
fn=f~/
rp="Name of program to make makefile dependencies?"
./getfile
mkdep="$ans"
$rm -f dep.c dep.h dep$_o dep.out
```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/mkdep.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_gethname.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_gethname.U,v $
?RCS: Revision 3.0.1.1 1994/10/29 16:13:00 ram
?RCS: patch36: call ./xenix explicitly instead of relying on PATH
?RCS:
?RCS: Revision 3.0 1993/08/18 12:06:11 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_gethname d_uname d_phostname ahostname: phostname cat \
myhostname package d_portable Loc echo n c +i_whoami +usrinc \
Myread Guess Oldconfig Csym
?MAKE: -pick add $@ %<
?S:d_gethname:
?S: This variable conditionally
defines the HAS_GETHOSTNAME symbol, which
?S: indicates to the C program that the gethostname() routine may be
?S: used to derive the host name.
?S:.
?S:d_uname:
```

?S: This variable conditionally defines the HAS_UNAME symbol, which
?S: indicates to the C program that the uname() routine may be
?S: used to derive the host name.
?S:.
?S:d_phostname:
?S: This variable conditionally defines the HAS_PHOSTNAME symbol, which
?S: contains the shell command which, when fed to popen(), may be
?S: used to derive the host name.
?S:.
?S:aphostname:
?S: This variable contains the command which can be used to compute the
?S: host name. The command is fully qualified by its absolute path, to make
?S: it safe when used by a process with super-user privileges.
?S:.
?C:HAS_GETHOSTNAME (GETHOSTNAME):
?C: This symbol, if defined, indicates that the C program may use the
?C: gethostname() routine to derive the host name. See also HAS_UNAME
?C: and PHOSTNAME.
?C:.
?C:HAS_UNAME (UNAME):
?C: This symbol,
if defined, indicates that the C program may use the
?C: uname() routine to derive the host name. See also HAS_GETHOSTNAME
?C: and PHOSTNAME.
?C:.
?C:PHOSTNAME:
?C: This symbol, if defined, indicates the command to feed to the
?C: popen() routine to derive the host name. See also HAS_GETHOSTNAME
?C: and HAS_UNAME. Note that the command uses a fully qualified path,
?C: so that it is safe even if used by a process with super-user
?C: privileges.
?C:.
?C:HAS_PHOSTNAME:
?C: This symbol, if defined, indicates that the C program may use the
?C: contents of PHOSTNAME as a command to feed to the popen() routine
?C: to derive the host name.
?C:.
?H:?%<:#\$d_gethname HAS_GETHOSTNAME /**/
?H:?%<:#\$d_uname HAS_UNAME /**/
?H:?%<:#\$d_phostname HAS_PHOSTNAME /**/
?H:?%<:#ifdef HAS_PHOSTNAME
?H:?%<:#define PHOSTNAME "\$aphostname" /* How to get the host name */
?H:?%<:#endif
?H:.
?T:file val call
?LINT:change i_whoami
: see how we will look up host name
echo " "

```

call="
@if HAS_GETHOSTNAME
if
set gethostname val -f d_gethname; eval $csym; $val; then
echo 'gethostname() found.' >&4
d_gethname="$define"
call=gethostname
fi
@end
@if HAS_UNAME
if set uname val -f d_uname; eval $csym; $val; then
if ./xenix; then
$cat <<'EOM'
uname() was found, but you're running xenix, and older versions of xenix
have a broken uname(). If you don't really know whether your xenix is old
enough to have a broken system call, use the default answer.

```

EOM

```

dflt=y
case "$d_uname" in
"$define") dflt=n;;
esac
rp='Is your uname() broken?'
./myread
case "$ans" in
n*) d_uname="$define"; call=uname;;
esac
else
echo 'uname() found.' >&4
d_uname="$define"
case "$call" in
") call=uname ;;
esac
fi
fi
@end
case "$d_gethname" in
") d_gethname="$undef";;
esac
case "$d_uname" in
") d_uname="$undef";;
esac
@if PHOSTNAME || MYHOSTNAME
case "$d_uname$d_gethname" in
*define*)
dflt=n
cat <<EOM

```

```

Every now and then someone has a $call() that lies about the hostname
but can't be fixed
for political or economic reasons. If you wish, I can
@if MYHOSTNAME && PHOSTNAME
pretend $call() isn't there and maybe compile in the hostname or
compute it from the '$phostname' command at run-time.
@elsif MYHOSTNAME
pretend $call() isn't there and maybe compile in the hostname.
@elsif PHOSTNAME
pretend $call() isn't there and maybe compute hostname at run-time
thanks to the '$phostname' command.
@elsif WHOAMI
get the hostname from whomai.h (provided you have one).
@else
simply ignore your host name and use something like "noname" instead.
@end

```

EOM

```

rp="Shall I ignore $call() from now on?"
. ./myread
case "$ans" in
y*) d_uname="$sundef" d_gethname="$sundef"; $echo $n "Okay...$c";;
esac;;
esac
@end
@if PHOSTNAME || aphostname
?X: Compute the full path name for the command
case "$phostname" in
") aphostname="";;
*) case "$aphostname" in
/*) ;;
*) set X $phostname
shift
file=$1
shift
file=`./loc $file $file $pth`
aphostname=`echo $file $*`
;;
esac
;;
esac
@end
@if
PHOSTNAME && MYHOSTNAME
case "$d_uname$d_gethname" in
*define*) ;;
*)
case "$phostname" in

```

```
) ;;  
*)  
$cat <<EOT
```

There is no gethostname() or uname() on this system. You have two possibilities at this point:

- 1) You can have your host name (\$myhostname) compiled into \$package, which lets \$package start up faster, but makes your binaries non-portable, or
- 2) you can have \$package use a

```
popen("$aphostname","r")
```

which will start slower but be more portable.

```
@ if WHOAMI
```

Option 1 will give you the option of using whoami.h if you have one.

```
@ end
```

If you want option 2 but with a different command, you can edit config.sh at the end of this shell script.

```
EOT
```

```
case "$d_phostname" in  
"$define") dflt=n;;  
"$undef") dflt=y;;  
)  
case "$d_portable" in  
"$define") dflt=n ;;  
*) dflt=y ;;  
esac;;  
esac  
rp="Do you want your host name compiled in?"  
./myread  
case "$ans" in  
n*) d_phostname="$define" ;;  
*) aphostname=""; d_phostname="$undef";;  
esac;;  
esac  
case  
"$aphostname" in  
)  
@ if WHOAMI  
case "$i_whoami" in  
"$define")  
dflt=y  
$cat <<EOM
```

No hostname function--you can either use the whoami.h file, which has this line:

```
`grep sysname $usrinc/whoami.h`
```

or you can have the name we came up with earlier (\$myhostname) hardwired in.

EOM

```
rp="Use whoami.h to get hostname?"  
. ./myread  
case "$ans" in  
n*) i_whoami="$undef";;  
esac  
;;  
"$undef")  
$cat <<EOM
```

No hostname function and no whoami.h -- hardwiring "\$myhostname".

EOM

```
;;  
esac;;  
@ else  
echo 'No hostname function -- hardwiring "$myhostname"! '>&4;;  
@ end  
esac;;  
esac  
@elsif PHOSTNAME  
case "$d_uname$d_gethname" in  
*define*) ;;  
*)  
case "$phostname" in  
")  
@ if WHOAMI  
case "$i_whoami" in  
"$define")  
$cat <<EOM
```

No hostname function--we'll use the whoami.h file, which has this line:

```
`grep sysname $usrinc/whoami.h`
```

EOM

```
;;  
*) echo "There will be no way for $package to get your hostname." >&4;;  
esac;;  
@ else  
echo "There will be no way  
for $package to get your hostname." >&4;;  
@ end  
*)  
echo "I'll use 'popen('"'$aphostname"', "r")' to get your hostname." >&4  
;;
```

```

esac;;
esac
@elsif MYHOSTNAME
case "$d_underscore$d_gethostname" in
*define*) ;;
*)
@ if WHOAMI
case "$i_whoami" in
"$define")
dflt=y
$cat <<EOM

```

No hostname function--you can either use the whoami.h file, which has this line:

```
`grep sysname $usrinc/whoami.h`
```

or you can have the name we came up with earlier (\$myhostname) hardwired in.

```

EOM
rp="Use whoami.h to get hostname?"
. ./myread
case "$ans" in
n*) i_whoami="$undef";;
esac
;;
"$undef")
echo 'No whoami.h--hardwiring "$myhostname".' >&4;;
esac;;
@ else
echo 'Hardwiring "$myhostname".' >&4;;
@ end
esac
@end
case "$d_phostname" in
") d_phostname="$undef";;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_gethostname.U
```

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: longsize.U 1 2006-08-24 12:32:52Z rmanfredi $
```

```
?RCS:
```

```
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
```

```
?RCS:
```

```
?RCS: You may redistribute only under the terms of the Artistic Licence,
```

```
?RCS: as specified in the README file that comes with the distribution.
```

```
?RCS: You may reuse parts of this distribution only within the terms of
```

?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: \$Log: longsize.U,v \$
?RCS: Revision 3.0.1.2 1997/02/28 16:09:35 ram
?RCS: patch61: code moved to intsize.U
?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 16:24:31 ram
?RCS: patch36: added ?F: line for metalint file checking
?RCS:
?RCS: Revision 3.0 1993/08/18 12:09:07 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X: 'longsize' is now defined within intsize.U
?X:
?LINT: empty

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/longsize.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: i_sysstatvfs.U,v \$
?RCS:
?RCS: Copyright (c) 1999 Jarkko Hietaniemi
?RCS:
?RCS: You may distribute under the terms of either the GNU General Public
?RCS: License or the Artistic License, as specified in the README file.
?RCS:
?MAKE:i_sysstatvfs: Inhdr Hasfield
?MAKE: -pick add \$@ %<
?S:i_sysstatvfs:
?S: This variable conditionally defines the I_SYSSTATVFS symbol,
?S: and indicates whether a C program should include <sys/statvfs.h>.
?S:.
?C:I_SYS_STATVFS:
?C: This symbol, if defined, indicates that <sys/statvfs.h> exists and
?C: should be included.
?C:.
?H:#\$i_sysstatvfs I_SYS_STATVFS /**/
?H:.
?LINT:set i_sysstatvfs
: see if this is a sys/statvfs.h system
set sys/statvfs.h i_sysstatvfs
eval \$inhdr

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/i_sysstatvfs.U

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_gethid.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: d_gethid.U,v $
?RCS: Revision 3.0 1993/08/18 12:06:10 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_gethid: Inlibc
?MAKE: -pick add $@ %<
?S:d_gethid:
?S: This variable conditionally defines HAS_GETHOSTID if gethostid() is
?S: available to get the host id.
?S:.
?C:HAS_GETHOSTID (GETHOSTID):
?C: This symbol, if defined, indicates that the gethostid system call is
?C: available to get the host id.
?C:.
?H:#$d_gethid HAS_GETHOSTID /**/
?H:.
?LINT:set
d_gethid
: see if gethid exists
set gethostid d_gethid
eval $inlibc
```

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_gethid.U

No license file was found, but licenses were detected in source scan.

```
?RCS: $Id: d_memmove.U 1 2006-08-24 12:32:52Z rmanfredi $
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic Licence,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
```

?RCS: that same Artistic Licence; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: \$Log: d_memmove.U,v \$
?RCS: Revision 3.0 1993/08/18 12:06:35 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_memmove: Inlibc
?MAKE: -pick add \$@ %<
?S:d_memmove:
?S: This variable conditionally defines the HAS_MEMMOVE symbol, which
?S: indicates to the C program that the memmove() routine is available
?S: to copy potentially overlapping blocks of memory.
?S:.
?C:HAS_MEMMOVE:
?C: This symbol, if defined, indicates that the memmove routine
is available
?C: to copy potentially overlapping blocks of memory. This should be used
?C: only when HAS_SAFE_BCOPY is not defined. If neither is there, roll your
?C: own version.
?C:.
?H:#\$d_memmove HAS_MEMMOVE /**/
?H:.
?LINT:set d_memmove
: see if memmove exists
set memmove d_memmove
eval \$inlibc

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/d_memmove.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d_eofpipe.U,v 3.0.1.1 1994/10/29 16:12:40 ram Exp \$
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: \$Log: d_eofpipe.U,v \$
?RCS: Revision 3.0.1.1 1994/10/29 16:12:40 ram
?RCS: patch36: call ./bsd explicitly instead of relying on PATH
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:57 ram

?RCS: Baseline for dist 3.0 netwide release.

?RCS:

?MAKE:d_eofpipe: Compile cat rm Oldconfig Guess echo n c

?MAKE: -pick add \$@ %<

?S:d_eofpipe:

?S: This variable conditionally defines the EOFPIPE symbol, which

?S: indicates to the C program that select will correctly detect

the EOF

?S: condition when pipe is closed from the other end.

?S:.

?C:EOFPIPE:

?C: This symbol, if defined, indicates that EOF condition will be detected

?C: by the reader of the pipe when it is closed by the writing process.

?C: That is, a select() call on that file descriptor will not block when

?C: only an EOF remains (typical behavior for BSD systems).

?C:.

?H:#\$d_eofpipe EOFPIPE /**/

?H:.

?F:!mpipe

: see if pipe correctly gives the EOF condition

```
echo " "
case "$d_eofpipe" in
")
echo "Let's see if your pipes return EOF to select() upon closing..." >&4
$cat >pipe.c <<'EOP'
int main()
{
int pd[2];
int mask;

pipe(pd);
if (0 == fork()) {
close(pd[0]);
close(pd[1]);
exit(0);
}

close(pd[1]);
mask = 1 << pd[0];
alarm(2);
select(32, &mask, (int *) 0, (int *) 0, (char *) 0);
if (0 == read(pd[0], &mask, 1))
exit(0);

exit(1);
}
EOP
set pipe
```

```

if eval $compile_ok; then
?X: Use a script to avoid the possible 'alarm call' message
  echo "./pipe || exit 1" > mpipe
  chmod
+x mpipe
./mpipe >/dev/null 2>&1
case $? in
0) d_eofpipe="$define";;
*) d_eofpipe="$undef";;
esac
else
echo "(The test program did not compile correctly -- Guessing.)"
if ./bsd; then
  d_eofpipe="$define"
else
  d_eofpipe="$undef"
fi
fi
case "$d_eofpipe" in
"$define") echo "Yes, they do.";;
*) echo "No, they don't! (sigh)";;
esac
;;
*)
$echo $n "Your pipes $c"
case "$d_eofpipe" in
"$define") echo "allow select() to see EOF upon closing.";;
*) echo "won't let select() see EOF on closing.";;
esac
;;
esac
$rm -f *pipe* core

```

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/compline/d_eofpipe.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi

?RCS:

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 4.0.

?RCS:

```

?RCS: $Log: Tr.U,v $
?RCS: Revision 3.0.1.2 1994/10/29 18:00:54 ram
?RCS: patch43: forgot to quote $@ to protect against "evil" characters
?RCS:
?RCS: Revision 3.0.1.1 1994/10/29 15:58:35 ram
?RCS: patch36: created
?RCS:
?X:
?X: This unit produces a bit of shell code that must be dotted in in order
?X: to do a character translation. It catches translations to uppercase or
?X: to lowercase, and then invokes the real tr to perform the job.
?X:
?X: This unit is necessary on HP machines (HP strikes again!)
with non-ascii
?X: ROMAN8-charset, where normal letters are not arranged in a row, so a-z
?X: covers not the whole alphabet but lots of special chars. This was reported
?X: by Andreas Sahlbach <a.sahlbach@tu-bs.de>.
?X:
?X: Units performing a tr '[A-Z]' '[a-z]' or the other way round should include
?X: us in their dependency and use ./tr instead.
?X:
?MAKE:Tr: startsh tr eunicefix
?MAKE:-pick add $@ %<
?F:./tr
?T:up low LC_ALL
: see whether [:lower:] and [:upper:] are supported character classes
echo " "
case "`echo AbyZ | LC_ALL=C $tr '[:lower:]' '[:upper:]' 2>/dev/null`" in
ABYZ)
echo "Good, your tr supports [:lower:] and [:upper:] to convert case." >&4
up='[:upper:]'
low='[:lower:]'
;;
*) # There is a discontinuity in EBCDIC between 'I' and 'J'
# (0xc9 and 0xd1), therefore that is a nice testing point.
if test "X$up" = X -o "X$low" = X; then
case "`echo IJ | LC_ALL=C $tr '[I-J]' '[i-j]' 2>/dev/null`" in
ij) up='[A-Z]'
low='[a-z]'
;;
esac
fi
if test "X$up" = X -o "X$low" = X; then
case "`echo IJ | LC_ALL=C $tr I-J i-j 2>/dev/null`" in
ij) up='A-Z'
low='a-z'
;;

```

```

    esac
    fi
if test "X$up" = X -o "X$low" = X; then
    case "`echo IJ | od -x 2>/dev/null`" in
        *C9D1*|*c9d1*)
            echo "Hey, this might be EBCDIC." >&4
if test "X$up" = X -o "X$low" = X; then
    case "`echo IJ | \
LC_ALL=C $tr '[A-IJ-RS-Z]' '[a-ij-rs-z]' 2>/dev/null`" in
        ij) up='[A-IJ-RS-Z]'
            low='[a-ij-rs-z]'
        ;;
    esac
fi
if test "X$up" = X -o "X$low" = X; then
    case "`echo IJ | LC_ALL=C $tr A-IJ-RS-Z a-ij-rs-z 2>/dev/null`" in
        ij) up='A-IJ-RS-Z'
            low='a-ij-rs-z'
        ;;
    esac
fi
;;
esac
fi
;;
esac
fi
esac
case "`echo IJ | LC_ALL=C $tr \"$up\" \"$low\" 2>/dev/null`" in
    ij)
        echo "Using $up and $low to convert case." >&4
        ;;
    *)
        echo "I don't know how to translate letters from upper to lower case." >&4
        echo "Your tr is not acting any way I know of." >&4
        exit 1
        ;;
esac
: set up the translation script tr, must be called with ./tr of course
cat >tr <<EOSC
$startsh
case "$1$2" in
    '[A-Z][a-z]') LC_ALL=C exec $tr '$up' '$low';;
    '[a-z][A-Z]') LC_ALL=C exec $tr '$low' '$up';;
esac
LC_ALL=C exec $tr "$@"
EOSC
chmod +x tr
$unicefix tr

```

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Tr.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999 Jarkko Hietaniemi

?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:d_quad quadtype uquadtype quadkind: \
longsize intsize d_longlong longlongsize d_int64_t \
Inhdr Setvar

?MAKE: -pick add \$@ %<

?S:d_quad:

?S: This variable, if defined, tells that there's a 64-bit integer type,

?S: quadtype.

?S:.

?S:quadtype:

?S: This variable defines Quad_t to be something like long, int,

?S: long long, int64_t, or whatever type is used for 64-bit integers.

?S:.

?S:quadkind:

?S: This variable, if defined, encodes the type of a quad:

?S: 1 = int, 2 = long, 3 = long long, 4 = int64_t.

?S:.

?S:uquadtype:

?S: This variable defines Uquad_t to be something like unsigned long,

?S: unsigned int, unsigned long long, uint64_t, or whatever type is

?S: used for 64-bit integers.

?S:.

?C:HAS_QUAD:

?C: This

symbol, if defined, tells that there's a 64-bit integer type,

?C: Quad_t, and its unsigned counterpart, Uquad_t. QUADKIND will be one

?C: of QUAD_IS_INT, QUAD_IS_LONG, QUAD_IS_LONG_LONG, QUAD_IS_INT64_T,

?C: or QUAD_IS___INT64.

?C:.

?H:#\$d_quad HAS_QUAD /**/

?H:%<:#ifdef HAS_QUAD

?H:%<:# define Quad_t \$quadtype /**/

?H:%<:# define Uquad_t \$uquadtype /**/

?H:%<:# define QUADKIND \$quadkind /**/

?H:%<:# define QUAD_IS_INT 1

?H:%<:# define QUAD_IS_LONG 2

?H:%<:# define QUAD_IS_LONG_LONG 3

?H:%<:# define QUAD_IS_INT64_T 4

```

?H:%<:# define QUAD_IS___INT64 5
?H:%<:#endif
?H:
?LINT:set quadtype
?LINT:set uquadtype
: Check if 64bit ints have a quad type
echo " "
echo "Checking which 64-bit integer type we could use..." >&4
?X: We prefer quad types in order of int, long long, int64_t.

```

```

case "$sintsize" in
8) val=int
  set quadtype
  eval $setvar
  val="unsigned int"
  set uquadtype
  eval $setvar
  quadkind=1
  ;;
*) case "$longsize" in
8)
val=long
  set quadtype
  eval $setvar
  val="unsigned long"
  set uquadtype
  eval $setvar
  quadkind=2
  ;;
*) case "$d_longlong:$longlongsize" in
define:8)
  val="long long"
  set quadtype
  eval $setvar
  val="unsigned long long"
  set uquadtype
  eval $setvar
  quadkind=3
  ;;
*) case "$d_int64_t" in
define)
  val=int64_t
  set quadtype
  eval $setvar
  val=uint64_t
  set uquadtype
  eval $setvar
  quadkind=4

```



```

;;
esac
;;
esac
;;
esac
;;
esac

case "$quadtype" in
) echo "Alas, no 64-bit integer types in sight." >&4
d_quad="$undef"
;;
*) echo "We could use '$quadtype' for 64-bit integers." >&4
d_quad="$define"
;;
esac

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/a_dvisory/quadtype.U
```

No license file was found, but licenses were detected in source scan.

?RCS: \$Id\$

?RCS:

?RCS: Copyright (c) 1999, Jarkko Hietaniemi

?RCS:

?RCS: You may redistribute only under the terms of the Artistic License,

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?RCS: You may reuse parts of this distribution only within the terms of

?RCS: that same Artistic License; a copy of which may be found at the root

?RCS: of the source tree for dist 3.0.

?RCS:

?MAKE:d_ustat: Inlibc

?MAKE: -pick add \$@ %<

?S:d_ustat:

?S: This variable conditionally defines HAS_USTAT if ustat() is

?S: available to query file system statistics by dev_t.

?S:.

?C:HAS_USTAT:

?C: This symbol, if defined, indicates that the ustat system call is

?C: available to query file system statistics by dev_t.

?C:.

?H:#\$d_ustat HAS_USTAT /**/

?H:.

?LINT:set d_ustat

: see if ustat exists

set ustat d_ustat

eval \$inlibc

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/d_ustat.U

No license file was found, but licenses were detected in source scan.

?RCS: \$Id: d_voidsig.U,v 3.0.1.3 1995/05/12 12:12:46 ram Exp \$
?RCS:
?RCS: Copyright (c) 1991-1993, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 3.0.
?RCS:
?RCS: \$Log: d_voidsig.U,v \$
?RCS: Revision 3.0.1.3 1995/05/12 12:12:46 ram
?RCS: patch54: made cppflags dependency optional
?RCS:
?RCS: Revision 3.0.1.2 1994/08/29 16:20:35 ram
?RCS: patch32: now sets signal_t only once d_voidsig is known (WED)
?RCS:
?RCS: Revision 3.0.1.1 1994/06/20 06:59:54 ram
?RCS: patch30: now properly sets signal_t when re-using previous value
?RCS:
?RCS: Revision 3.0 1993/08/18 12:07:56 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?MAKE:d_voidsig
signal_t: rm contains cppstdin cppminus +cppflags test Myread \
Oldconfig Setvar Findhdr
?MAKE: -pick add \$@ %<
?S:d_voidsig:
?S: This variable conditionally defines VOIDSIG if this system
?S: declares "void (*signal(...))()" in signal.h. The old way was to
?S: declare it as "int (*signal(...))()".
?S:.
?S:signal_t:
?S: This variable holds the type of the signal handler (void or int).
?S:.
?C:VOIDSIG:
?C: This symbol is defined if this system declares "void (*signal(...))()" in
?C: signal.h. The old way was to declare it as "int (*signal(...))()". It
?C: is up to the package author to declare things correctly based on the
?C: symbol.
?C:.

```

?C:Signal_t (SIGNAL_T):
?C: This symbol's value is either "void" or "int", corresponding to the
?C: appropriate return type of a signal handler. Thus, you can declare
?C: a signal handler using "Signal_t (*handler())", and define the
?C: handler using "Signal_t handler(sig)".
?C:.
?H:#$d_voidsig VOIDSIG /**/
?H:#define
Signal_t $signal_t /* Signal handler's return type */
?H:.
?T:xxx
?LINT:set d_voidsig
: see if signal is declared as pointer to function returning int or void
echo " "
xxx=`./findhdr signal.h`
$test "$xxx" && $cppstdin $cppminus $cppflags < $xxx >$$.tmp 2>/dev/null
if $contains 'int.*\[ ]*signal' $$$.tmp >/dev/null 2>&1 ; then
echo "You have int (*signal())() instead of void." >&4
val="$undef"
elif $contains 'void.*\[ ]*signal' $$$.tmp >/dev/null 2>&1 ; then
echo "You have void (*signal())()." >&4
val="$define"
elif $contains 'extern[ ]*\[ \]*signal' $$$.tmp >/dev/null 2>&1 ; then
echo "You have int (*signal())() instead of void." >&4
val="$undef"
?X: This next test is kind of sloppy, but it catches Linux
?X: which has a
?X: typedef void (*__sig_handler_t) (int) ;
?X: A better fix would be to compile a C program with the proper
?X: prototype, but since nearly everyone uses void, we'll just go with
?X: this.
elif $contains 'void.*\.*sig' $$$.tmp >/dev/null 2>&1 ; then
echo "You
have void (*signal())()." >&4
val="$define"
else
case "$d_voidsig" in
")
echo "I can't determine whether signal handler returns void or int..." >&4
dflt=void
rp="What type does your signal handler return?"
./myread
case "$ans" in
v*) val="$define";;
*) val="$undef";;
esac;;
"$define")
echo "As you already told me, signal handler returns void." >&4

```

```

val="$define"
;;
*) echo "As you already told me, signal handler returns int." >&4
val="$undef"
;;
esac
fi
set d_voidsig
eval $setvar
case "$d_voidsig" in
"$define") signal_t="void";;
*) signal_t="int";;
esac
$rm -f $$tmp

```

Found in path(s):

```
* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/modified/d_voidsig.U
```

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?RCS: \$Id\$

?RCS:

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?RCS:

?RCS: You may distribute under the terms of either the GNU General Public

?RCS: License or the Artistic License, as specified in the README file.

?RCS:

?MAKE:run to from targetarch targetdir targetmkdir targethost targetport \

usecrosscompile hostperl hostgenerate hostosname targetenv: \

src test rm echo sed mkdir cp chmod make touch

?MAKE: -pick add \$@ %<

?Y:TOP

?S:usecrosscompile:

?S: This variable conditionally defines the USE_CROSS_COMPILE symbol,

?S: and indicates that Perl has been cross-compiled.

?S:.

?S:run:

?S: This variable contains the command used by Configure

?S: to copy and execute a cross-compiled executable in the

?S: target host. Useful and available only during Perl build.

?S: Empty string " if not cross-compiling.

?S:.

?S:from:

?S: This variable contains the command used by Configure

?S: to copy files from the target host. Useful

and available

?S: only during Perl build.

?S: The string ':' if not cross-compiling.

?S:.
?S:to:
?S: This variable contains the command used by Configure
?S: to copy to from the target host. Useful and available
?S: only during Perl build.
?S: The string '.' if not cross-compiling.
?S:.
?S:targetarch:
?S: If cross-compiling, this variable contains the target architecture.
?S: If not, this will be empty.
?S:.
?S:targetdir:
?S: This variable contains a path that will be created on the target
?S: host using targetmkdir, and then used to copy the cross-compiled
?S: executables to. Defaults to '/tmp' if not set.
?S:.
?S:targetmkdir:
?S: This variable contains the command used by Configure to create a
?S: new directory on the target host.
?S:.
?S:targethost:
?S: This variable contains the name of a separate host machine that
?S: can be used to run compiled test programs and perl tests on.
?S: Set to empty string if not in use.
?S:.
?S:targetport:
?S: This variable contains the number
?S: of a network port to be used to
?S: connect to the host in targethost, if unset defaults to 22 for ssh.
?S:.
?S:hostperl:
?S: This variable contains the path to a miniperl binary that can be
?S: run on the host OS when cross-compiling. Useful and available only
?S: during Perl build.
?S: Empty string "" if not cross-compiling.
?S:.
?S:hostgenerate:
?S: This variable contains the path to a generate_uudmap binary that
?S: can be run on the host OS when cross-compiling. Useful and
?S: available only during Perl build.
?S: Empty string "" if not cross-compiling.
?S:.
?S:hostosname:
?S: This variable contains the original value of '\$^O' for hostperl
?S: when cross-compiling. This is useful to pick the proper tools
?S: when running build code in the host.
?S: Empty string "" if not cross-compiling.
?S:.

?S:targetenv:
 ?S: If cross-compiling, this variable can be used to modify the
 ?S: environment on the target system.
 ?S: However, how and where it's used, and even if it's used at all, is
 ?S: entirely
 dependent on both the transport mechanism (targetrun) and
 ?S: what the target system is. Unless the relevant documentation says
 ?S: otherwise, it is generally not useful.
 ?S:.
 ?C:USE_CROSS_COMPILE:
 ?C: This symbol, if defined, indicates that Perl is being cross-compiled.
 ?C:.
 ?C:PERL_TARGETARCH:
 ?C: This symbol, if defined, indicates the target architecture
 ?C: Perl has been cross-compiled to. Undefined if not a cross-compile.
 ?C:.
 ?H:?%<:#ifndef USE_CROSS_COMPILE
 ?H:?%<:#\$usecrosscompile USE_CROSS_COMPILE /**/
 ?H:?%<:#define PERL_TARGETARCH "\$targetarch" /**/
 ?H:?%<:#endif
 ?H:.
 ?D:targetenv="
 ?D:targethost="
 ?D:targetmkdir="
 ?T:croak pwd exe f q cwd file xxx env
 ?LINT:extern usecrosscompile
 ?LINT:extern cc
 ?LINT:extern usrinc
 ?LINT:change ar
 ?LINT:change nm
 ?LINT:change ranlib
 ?LINT:change src
 ?LINT:extern targetenv
 ?LINT:extern targetport
 ?LINT:extern targetdir
 ?LINT:extern targetuser
 ?LINT:change targetuser
 ?LINT:extern targetrun
 ?LINT:extern targetfrom
 ?LINT:extern
 targetto
 ?LINT:change targetrun
 ?LINT:change targetfrom
 ?LINT:change targetto
 ?LINT:extern incpth
 ?LINT:extern libpth
 ?LINT:extern locincpth
 ?LINT:extern loclibpth

```

?LINT:change locincpth
?LINT:change loclibpth
?LINT:extern hostperl
?LINT:extern hostgenerate
?LINT:extern before_host
?LINT:change before_host
?LINT:extern hostosname
?LINT:extern multiarch
: Check for Cross-Compilation
?X: targethost and targetenv mainly set to allow ?S: documentation
?X: otherwise it could have been declared extern
if $test "X$targethost" = "X"; then
    targethost=""
fi
if $test "X$targetenv" = "X"; then
    targetenv=""
fi
case "$usecrosscompile" in
$define|true|[yY]*)
    $echo "Cross-compiling..."
    croak=""
    case "$cc" in
*-gcc*|*-g++*) # A cross-compiling gcc, probably.
        # arm-linux-androideabi-gcc -> arm-linux-androideabi
        # x86_64-w64-mingw32-gcc.exe -> x86_64-w64-mingw32
        targetarch=`$echo $cc|$sed 's/-g[c\+][c\+].*$/^'`
        ar=`$echo $cc|$sed 's/-g[c\+][c\+]/-ar/^'`
        # leave out ld,
choosing it is more complex
        nm=`$echo $cc|$sed 's/-g[c\+][c\+]/-nm/^'`
        ranlib=`$echo $cc|$sed 's/-g[c\+][c\+]/-ranlib/^'`
        # We are in a weird spot. Just before us, some values
        # were 'saved', to be restored after the hints are
        # run. This means that the changes we made to ar,
        # nm and ranlib will get reverted.
        # To avoid that, we hijack the saving mechanism and
        # have it save our new values.
        for file in ar nm ranlib; do
            eval xxx=\$$file
            eval $file=$xxx$_exe
            eval _$file=$xxx
        done
    ;;
esac
case "$targetarch" in
") echo "Targetarch not defined." >&4; croak=y ;;
*) echo "Using targetarch $targetarch." >&4 ;;
esac

```

```

case "$targethost" in
") echo "Targethost not defined." >&4; croak=n ;;
*) echo "Using targethost $targethost." >&4
esac
locincpth=''
loclibpth=''
case "$croak" in
y) echo "Cannot continue, aborting." >&4; exit 1 ;;
esac
: compile a host miniperl and generate_uudmap, unless we got passed them
if
$test "X$hostperl" = X; then
    echo "Building host miniperl and generate_uudmap binaries" >&4
    before_host=`pwd`
    cd ..
    cd $src
    src=`pwd`
    rm -rf $src/host
    mkdir $src/host
    cd $src/host
    $src/Configure -des -Dusedevel -Dmksymlinks
    $make miniperl
    case "$hostgenerate" in
    ") $make generate_uudmap
        hostgenerate=$src/host/generate_uudmap
        ;;
    "$undef") hostgenerate="
        ;;
    esac
    hostperl=$src/host/miniperl
    cd $before_host
fi
hostosname=`$hostperl -le 'print $^O`
;;
*)
    usecrosscompile="$undef"
    ;;
esac

: Define -Dtargethost=somecomputer to run compiled tests on another machine
case "$targethost" in
") echo "Checking for cross-compile" >&4
case "$usecrosscompile$multiarch" in
*$define*) echo "Skipping the try tests in the rest of Configure as no targethost was defined when cross-
compiling" >&4
    if [ -f Makefile ]; then
        echo

```



```

" "
    echo "Now you must ensure config.sh, config.h and the generated headers exist and run a $make."
else
    echo "Configure done."
fi
exit 0
;;
*) echo "No targethost for running compiler tests against defined, running locally" >&4
run="
to=:
from=:
;;
esac
;;
*) echo "Using targethost $targethost." >&4
case "$src" in
/*) run=$src/Cross/run
targetmkdir=$src/Cross/mkdir
to=$src/Cross/to
from=$src/Cross/from
;;
*) pwd=`$test -f ../Configure & cd ..; pwd`
run=$pwd/Cross/run
targetmkdir=$pwd/Cross/mkdir
to=$pwd/Cross/to
from=$pwd/Cross/from
;;
esac
case "$targetrun" in
") targetrun=ssh ;;
esac
case "$targetto" in
") targetto=scp ;;
esac
case "$targetfrom" in
") targetfrom=scp ;;
esac
run=$run-$targetrun
to=$to-$targetto
from=$from-$targetfrom
case "$targetdir" in
") targetdir=/tmp
echo "Guessing targetdir $targetdir."
>&4
;;
esac
case "$targetuser" in
") targetuser=root

```

```

    echo "Guessing targetuser $targetuser." >&4
    ;;
esac
case "$targetport" in
") targetport=22
    echo "Guessing targetport $targetport." >&4
    ;;
esac
case "$targetfrom" in
scp) q=-q ;;
*) q="" ;;
esac
case "$targetrun" in
ssh|rsh)
    cat >$run <<EOF
#!/bin/sh
env=""
case "$1" in
-cwd)
    shift
    cwd=$1
    shift
    ;;
esac
case "$1" in
-env)
    shift
    env=$1
    shift
    ;;
esac
case "$1" in
-cwd)
    shift
    cwd=$1
    shift
    ;;
esac
case "$1" in
) cwd=$targetdir ;;
esac
exe=$1
shift
$to $exe
$targetrun -p $targetport -l $targetuser $targethost "cd $1 && $env $exe $@"
EOF
    ;;
adb)
    $touch $run
    ;;
*) echo "Unknown targetrun '$targetrun'" >&4
    exit 1
    ;;
esac
case "$targetmkdir" in

```

```

*/Cross/mkdir)
  cat >$targetmkdir <<EOF
#!/bin/sh
$targetrun -p $targetport -l $targetuser $targethost "mkdir -p \${@"
EOF
  $chmod a+rx $targetmkdir
  ;;
*) echo "Unknown targetmkdir '$targetmkdir'" >&4
  exit 1
  ;;
esac
case
"$targetto" in
scp|rcp)
  cat >$to <<EOF
#!/bin/sh
for f in \${@"
do
case "\$f" in
/*)
  $targetmkdir \dirname \$f\
  $targetto -P $targetport -r $q \$f $targetuser@$targethost:\$f      2>/dev/null || exit 1
  ;;
*)
  $targetmkdir $targetdir/\dirname \$f\
  $targetto -P $targetport -r $q \$f $targetuser@$targethost:$targetdir/\$f 2>/dev/null || exit 1
  ;;
esac
done
exit 0
EOF
  ;;
cp) cat >$to <<EOF
#!/bin/sh
for f in \${@"
do
case "\$f" in
/*)
  $mkdir -p $targetdir/\dirname \$f\
  $cp \$f $targetdir/\$f || exit 1
  ;;
*)
  $targetmkdir $targetdir/\dirname \$f\
  $cp \$f $targetdir/\$f || exit 1
  ;;
esac
done
exit 0

```

```

EOF
;;
*) echo "Unknown targetto '$targetto'" >&4
  exit 1
;;
esac
case "$targetfrom" in
scp|rcp)
  cat >$from <<EOF
#!/bin/sh
for f in @$@
do
  $rm -f $f
  $targetfrom -P $targetport $q $targetuser@$targethost:$targetdir/$f . || exit 1
done
exit 0
EOF
;;
cp) cat >$from <<EOF
#!/bin/sh
for
f in @$@
do
  $rm -f $f
  cp $targetdir/$f . || exit 1
done
exit 0
EOF
;;
*) echo "Unknown targetfrom '$targetfrom'" >&4
  exit 1
;;
esac
if $test ! -f $run; then
  echo "Target 'run' script '$run' not found." >&4
else
  $chmod a+rx $run
fi
if $test ! -f $to; then
  echo "Target 'to' script '$to' not found." >&4
else
  $chmod a+rx $to
fi
if $test ! -f $from; then
  echo "Target 'from' script '$from' not found." >&4
else
  $chmod a+rx $from
fi

```

```

if $test ! -f $run -o ! -f $to -o ! -f $from; then
    exit 1
fi
cat >&4 <<EOF
Using '$run' for remote execution,
and '$from' and '$to'
for remote file transfer.
EOF
;;
*) run="
to=:
from=:
usecrosscompile="$undef"
targetarch="
;;
esac

```

Found in path(s):

```

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/U/perl/Cross.U

```

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```

?RCS: $Id$
?RCS:
?RCS: Copyright (c) 1991-1997, 2004-2006, Raphael Manfredi
?RCS:
?RCS: You may redistribute only under the terms of the Artistic License,
?RCS: as specified in the README file that comes with the distribution.
?RCS: You may reuse parts of this distribution only within the terms of
?RCS: that same Artistic License; a copy of which may be found at the root
?RCS: of the source tree for dist 4.0.
?RCS:
?RCS: $Log: Instruct.U,v $
?RCS: Revision 3.0.1.3 1997/02/28 15:02:55 ram
?RCS: patch61: logname / whoami sequence rewritten to use case
?RCS:
?RCS: Revision 3.0.1.2 1995/02/15 14:11:34 ram
?RCS: patch51: author name now appears at the end of the paragraph (WED)
?RCS:
?RCS: Revision 3.0.1.1 1995/01/11 15:12:05 ram
?RCS: patch45: now documents the & escape to turn -d on at the read prompt
?RCS:
?RCS: Revision 3.0 1993/08/18 12:05:04 ram
?RCS: Baseline for dist 3.0 netwide release.
?RCS:
?X:
?X:

```

This unit spew out the directions that we want everyone to read. I try to
?X: keep the first "pagefull" much less than a page since they don't know it
?X: isn't going to go shooting off the top of the screen, and we don't want
?X: to panic them yet.

?X:

?MAKE:Instruct: Begin Myread Configdir contains

?MAKE: -pick wipe \$@ %<

?T:user needman firsttime

: general instructions

needman=true

firsttime=true

user=`(logname) 2>/dev/null`

case "\$user" in

") user=`whoami 2>&1`;;

esac

if \$contains "^\$user\$" ../.config/instruct >/dev/null 2>&1; then

firsttime=false

echo " "

rp='Would you like to see the instructions?'

dflt=n

. ./myread

case "\$ans" in

[yY]*) ;;

*) needman=false;;

esac

fi

if \$needman; then

cat <<EOH

This installation shell script will examine your system and ask you questions to determine how the <PACKAGENAME> package should be installed. If you get stuck on a question, you may use a ! shell escape to start a subshell or execute a command. Many of the questions will have default answers in square brackets; typing carriage return will give you the default.

On some of the questions which ask for file or directory names you are allowed to use the ~name construct to specify the login directory belonging to "name", even if you don't have a shell which knows about that. Questions where this is allowed will be marked "(~name ok)".

EOH

rp="

dflt='Type carriage return to continue'

. ./myread

cat <<'EOH'

The prompter used in this script allows you to use shell variables and

backticks in your answers. You may use \$1, \$2, etc... to refer to the words in the default answer, as if the default line was a set of arguments given to a script shell. This means you may also use \$* to repeat the whole default line, so you do not have to re-type everything to add something to the default.

Everytime there is a substitution, you will have to confirm. If there is an error (e.g. an unmatched backtick), the default answer will remain unchanged and you will be prompted again.

If you are in a hurry, you may run 'Configure -d'. This will bypass nearly all the questions and use the computed defaults (or the previous answers if there was already a config.sh file). Type 'Configure -h' for a list of options. You may also start interactively and then answer '& -d' at any prompt to turn on the non-interactive behaviour for the remainder of the execution.

EOH

```
. ./myread  
cat <<EOH
```

Much effort has been expended to ensure that this shell script will run on any Unix system. If despite that it blows up on yours, your best bet is to edit Configure and run it again. If you can't run Configure for some reason, you'll have to generate a config.sh file by hand. Whatever problems you have, let me (<MAINTLOC>) know how I blew it.

This installation script affects things in two ways:

- 1) it may do direct variable substitutions on some of the files included in this kit.
- 2) it builds a config.h file for inclusion in C programs. You may edit any of these files as the need arises after running this script.

If you make a mistake on a question, there is no easy way to back up to it currently. The easiest thing to do is to edit config.sh and rerun all the SH files. Configure will offer to let you do this before it runs the SH files.

EOH

```
?X: In case they played with the promptper...  
dfilt="Type carriage return to continue"  
. ./myread  
case "$firsttime" in  
true) echo $user >>../.config/instruct;;  
esac  
fi
```

Found in path(s):

* /opt/cola/permits/2040574603_1717537163.257628/0/perl-5-30-0-orig-regen-configure-1-tar-gz/metaconfig-5.30.0/dist/U/Instruct.U

1.326 libdebconfclient0 0.251ubuntu1

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1.327 gcc-10-base 10.5.0-1ubuntu1~20.04

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Julian Seward, jseward@bzip.org
bzip2/libbzip2 version 1.0.6 of 6 September 2010

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DRuntime: Runtime Library for the D Programming Language

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1.328 mount 2.34-0.1ubuntu9.6

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1.330 golang 1.21.11

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```

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For the server\util_md5.c component:

```

/*****
* NCSA HTTPd Server
* Software Development Group
* National Center for Supercomputing Applications
* University of Illinois at Urbana-Champaign
* 605 E. Springfield, Champaign, IL 61820
* httpd@ncsa.uiuc.edu
*
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*
*****/
*
* md5.c: NCSA HTTPd code which uses the md5c.c RSA Code

```

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```
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```

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```
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=====
```

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Written by Adam Twiss (adam@zeus.co.uk). March 1996

Thanks to the following people for their input:

Mike Belshe (mbelshe@netscape.com)

Michael Campanella (campanella@stevms.enet.dec.com)

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href="/sitemap.html">Sitemap</a></p>
<p class="apache">Apache HTTP Server Version 2.4</p>
</div>
<div class="up"><a href="."></a></div>
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href="http://httpd.apache.org/docs/">Documentation</a> &gt; <a href=".">Version 2.4</a></div><div id="page-
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<div class="toplang">
<p><span>Available Languages: </span><a href="/en/license.html" title="English">&nbsp;en&nbsp;&nbsp;&nbsp;</a></p>
</div>

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<ol>
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<p>Available Languages: en </p>


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placed here should be pointed towards suggestions on improving the documentation or server, and may be removed
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href="http://httpd.apache.org/lists.html">mailing lists</a>.</div>
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1.334 systemd 245.4-4ubuntu3.24

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x ?"U@,5 @mISmIN<GimCN7g1u|E

43mI,5WEV @@ WEV @mImImIAmImImI0mImImI*mImI

A0mImImI...

lost+found...

;9GimCN7g

!#\$%&'()*+,-

./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~

!#\$%&'()*+,-

./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~

!#\$%&'()*+,-

./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~

!#\$%&'()*+,-

./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~WEV @@
WEV[B "1

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