



# APPENDIX **A**

## CTC Information and Shortcuts

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This appendix describes the Cisco Transport Controller (CTC) views, menu and tool options, shortcuts, and table display options. This appendix also describes the shelf inventory data presented in CTC. For more information about CTC, refer to the *Cisco ONS 15310-CL and Cisco ONS 15310-MA Reference Manual*.



### Note

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If network discovery is enabled on the node, CTC searches each node in the network for more recent versions of the CTC software. If a more recent version is discovered, CTC gives you the option of downloading the Java archive (JAR) files to your PC.

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## Display Node, Card, and Network and Views

CTC provides three views of the ONS 15310-CL or ONS 15310-MA and ONS network:

- Node view appears when you first log into an ONS 15310-CL or ONS 15310-MA. This view shows a graphic of the ONS 15310-CL or ONS 15310-MA shelf and provides access to tabs and subtabs that you use to manage the node.
- Card view provides access to individual ONS 15310-CL or ONS 15310-MA cards. This view provides a graphic of the card and access to tabs and subtabs that you use to manage the card.
- Network view shows all the nodes in a ring. A Superuser can set up this feature so each user will see the same network view, or the user can create a custom view with maps. This view provides access to tabs and subtabs that you use to manage the network. Network view can contain domains. A domain is used to isolate nodes or groups of nodes for easier maintenance. Double-clicking a domain shows all the nodes in the domain; nodes connected to the domain are grayed out.

[Table A-1](#) lists different actions for changing CTC views.

**Table A-1** Change CTC Views

To display:	Perform one of the following:
Node view	<ul style="list-style-type: none"> <li>Log into a node; node view is the default view.</li> <li>In network view, double-click a node icon, or right-click the node and choose <b>Open Node</b> from the shortcut menu.</li> <li>In network view, single-click a node icon, then choose <b>Go To Selected Object View</b> from the View menu.</li> <li>From the View menu, choose <b>Go To Other Node</b>, then choose the node you want from the shortcut menu.</li> <li>Use the arrows on the CTC toolbar to navigate up or down from one view to another. For example, in network view, click a node, then click the down arrow.</li> </ul>
Network view	<ul style="list-style-type: none"> <li>In node view, click the up arrow or the Network View tool on the CTC toolbar.</li> <li>From the View menu, choose <b>Go To Network View</b>.</li> </ul>
Card view	<ul style="list-style-type: none"> <li>In node view, double-click a card or right-click the card and choose <b>Open Card</b>.</li> <li>In node view, single-click a card icon, then choose <b>Go To Selected Object View</b> from the View menu.</li> <li>Use the arrows on the CTC toolbar to navigate up or down views. For example, in node view, click a card, then click the down arrow.</li> </ul>

## Manage the CTC Window

Different navigational methods are available within the CTC window to access views and perform management actions. You can double-click and right-click objects in the graphic area and move the mouse over nodes, cards, and ports to view popup status information.

## CTC Menu and Toolbar Options

The CTC window menu bar and toolbar provide primary CTC functions. [Table A-2](#) shows the actions that are available from the CTC menu and toolbar.

Table A-2 CTC Menu and Toolbar Options







Menu	Menu Option	Toolbar	Description
File	Add Node		Adds a node to the current session. See the “ <a href="#">DLP-C32 Add a Node to the Current Session or Login Group</a> ” task on page 17-48.
	Delete Selected Node		Deletes a node from the current session.
	Lock CTC		Locks CTC without closing the CTC session. A user name and password are required to open CTC.
	Print		Prints CTC data. See the “ <a href="#">DLP-C222 Print CTC Data</a> ” task on page 19-18.
	Export		Exports CTC data. See the “ <a href="#">DLP-C223 Export CTC Data</a> ” task on page 19-20.
	Exit	—	Closes the CTC session.
Edit	Preferences		<p>Displays the Preferences dialog box:</p> <ul style="list-style-type: none"> <li>• General—Allows you to change event defaults and manage preferences.</li> <li>• Login Node Groups—Allows you to create login node groups. See the “<a href="#">DLP-C31 Create Login Node Groups</a>” task on page 17-47.</li> <li>• Map—Allows you to customize the network view. See the “<a href="#">DLP-C131 Change the Network View Background Color</a>” task on page 18-38 and the “<a href="#">DLP-C133 Apply a Custom Network View Background Map</a>” task on page 18-39.</li> <li>• Circuit—Allows you to change the color of circuit spans. See the “<a href="#">DLP-C113 Change Active and Standby Span Color</a>” task on page 18-19.</li> <li>• Firewall—Sets the Internet Inter-ORB Protocol (IIOP) listener ports for access to the ONS 15310-CL or ONS 15310-MA through a firewall. See the “<a href="#">NTP-C22 Set Up the ONS 15310-CL or ONS 15310-MA for Firewall Access</a>” procedure on page 4-8.</li> <li>• JRE—Allows you to select another Java Runtime Environment (JRE) version. See the “<a href="#">DLP-C35 Change the JRE Version</a>” task on page 17-50.</li> </ul>

Table A-2 CTC Menu and Toolbar Options (continued)











Menu	Menu Option	Toolbar	Description
View	Go to Previous View		Displays the previous CTC view.
	Go to Next View		Displays the next CTC view. Available only after you navigate to a previous view. Go to Previous View and Go to Next View are similar to forward and backward navigation in a web browser.
	Go to Parent View		References the CTC view hierarchy: network view, node view, and card view. In card view, this command displays the node view; in node view, the command displays network view. Not available in network view.
	Go to Selected Object View		Displays the object selected in the CTC window.
	Go to Home View		Displays the login node in node view.
	Go to Network View		Displays the network view.
	Go to Other Node		Displays a dialog box allowing you to choose the node name of a network node that you want to view.
	Show Status Bar	—	Click this item to display or hide the status bar at the bottom of the CTC window.
	Show Tool Bar	—	Click this item to display or hide the CTC toolbar.
—	—		Zooms out the network view area (toolbar only).
—	—		Zooms in the network view area (toolbar only).
—	—		Zooms in a selected network view area (toolbar only).

Table A-2 CTC Menu and Toolbar Options (continued)







Menu	Menu Option	Toolbar	Description
Tools	Circuits	—	<p>Displays the following options:</p> <ul style="list-style-type: none"> <li>Repair Circuits—(Cisco ONS 15454 only) Repairs incomplete circuits following replacement of the ONS 15454 alarm interface panel (AIP). Refer to the <i>Cisco ONS 15454 Troubleshooting Guide</i> for more information.</li> <li>Reconfigure Circuits—Allows you to reconfigure circuits. Refer to the “<a href="#">NTP-C76 Reconfigure Circuits</a>” procedure on page 7-11.</li> <li>Set Path Selector Attributes—Allows you to edit path protection circuit path selector attributes. See the “<a href="#">DLP-C114 Edit Path Protection Circuit Path Selectors</a>” task on page 18-20.</li> <li>Set Circuit State—Allows you to change a circuit service state. See the “<a href="#">DLP-C111 Change a Circuit Service State</a>” task on page 18-17.</li> <li>Roll Circuit—Allows you to reroute live traffic without interrupting service. See the “<a href="#">NTP-C129 Bridge and Roll Traffic</a>” procedure on page 7-10.</li> <li>Delete Rolls—Allows you to delete roll circuits. See the “<a href="#">NTP-C129 Bridge and Roll Traffic</a>” procedure on page 7-10.</li> <li>Upgrade OCHNC—(ONS 15454 only) Upgrades OCHNCs created in earlier software releases to OCHCCs. Refer to the <i>Cisco ONS 15454 DWDM Procedure Guide</i> for more information.</li> <li>Show RPR Circuit Ring—(ONS 15454 only) Shows the RPR ring for the circuit selected on the Circuits window. Refer to the <i>Cisco ONS 15454 Procedure Guide</i>.</li> </ul>
	Overhead Circuits	—	(ONS 15454 only) Displays the Repair IP Tunnels option, which fixes circuits that are in the PARTIAL status as a result of node IP address changes. Refer to the <i>Cisco ONS 15454 Procedure Guide</i> .
	Topology Upgrade	—	<p>Displays the following options:</p> <ul style="list-style-type: none"> <li>Convert Path Protection to BLSR—(ONS 15454 only) Converts a path protection configuration to a bidirectional line switch ring (BLSR). Refer to the <i>Cisco ONS 15454 Procedure Guide</i> for more information.</li> <li>Convert Unprotected to Path Protection option—Converts a point-to-point or linear add/drop multiplexer (ADM) to path protection. See the “<a href="#">NTP-C96 Convert an Unprotected Point-to-Point or Linear ADM to a Path Protection Configuration Automatically</a>” procedure on page 13-6.</li> </ul>
	Manage VLANs	—	Displays a list of VLANs that have been created and allows you to delete VLANs. Refer to the <i>Cisco ONS 15310-CL and Cisco ONS 15310-MA Ethernet Card Software Feature and Configuration Guide</i> .
	Open TL1 Connection		Displays the TL1 session dialog box so you can create a TL1 session to a specific node. Refer to the <i>Cisco ONS SONET TL1 Command Guide</i> .
	Open IOS Connection		(ONS 15454 only) Displays the Cisco IOS command line interface dialog box if a Cisco IOS capable card (ML-100T-8, CL-100T-8) is installed in the node. Refer to the <i>Cisco ONS 1310-CL and Cisco ONS 15310-MA Ethernet Card Software Feature and Configuration Guide</i> .
	Update CTC	—	Allows you to update CTC to a newer version if a newer version was found during network discovery.

Table A-2 CTC Menu and Toolbar Options (continued)

Menu	Menu Option	Toolbar	Description
Help	Contents and Index	—	Displays the online help window.
	User Manuals	—	Displays the Cisco ONS 15310-CL and Cisco ONS 15310-MA documentation.
	About CTC	—	Displays the software version and the nodes in the CTC session.
—	Network Scope	—	Displays the selected network scope (applies to ONS 15454 nodes only). The network scope drop-down list has three options: DWDM, TDM, or All. If you choose DWDM, DWDM and hybrid nodes appear on the network view map. If you choose TDM, TDM and hybrid nodes appear on the network view map. If you choose All, every node on the network appears on the network view map.
—	Link Filter		<p>Opens the Link Filter dialog box, which allows you to choose which link classes appear on the non-detail network map. The available classes vary according to the selected network scope.</p> <ul style="list-style-type: none"> <li>• ALL—DCC, GCC, OTS, PPC, server trail</li> <li>• DWDM—(ONS 15454 nodes only) GCC, OTS, PPC</li> <li>• TDM—DCC, PPC, server trail</li> </ul>
—	—		Opens the Collapse/Expand Links dialog box, which allows you to globally expand or consolidate network view links based on link type.
—	—	 	<p>Opens the CTC Alerts dialog box, which shows the status of certain CTC background tasks. When the CTC Alerts toolbar icon contains a red triangle, unread notifications exist. When there are no unread notifications, the CTC Alerts toolbar icon contains a gray triangle (see the Toolbar column left for comparison). Notifications include:</p> <ul style="list-style-type: none"> <li>• Network disconnection</li> <li>• Send-PDIP inconsistency—CTC discovers a new node that does not have a SEND-PDIP setting consistent with the login node</li> <li>• Circuit deletion status—Reports when the circuit deletion process completes if you choose “Notify when complete” as described in the <a href="#">“DLP-C115 Delete Circuits” task on page 18-21</a>. The CTC Alerts window always reports circuit deletion errors.</li> <li>• Conditions retrieval error</li> <li>• Software download failure</li> </ul> <p>You can save a notification by clicking the Save button in the CTC Alerts dialog box and navigating to the directory where you want to save the text file.</p> <p>By default, the CTC Alerts dialog box opens automatically. To disable automatic popup, see the <a href="#">“DLP-C36 Configure the CTC Alerts Dialog for Automatic Popup” task on page 17-51</a>.</p>

## CTC Mouse Options

In addition to the CTC menu bar and toolbar, you can invoke actions by double-clicking CTC window items with your mouse, or by right-clicking an item and selecting actions from shortcut menus.

[Table A-3](#) lists the CTC window mouse shortcuts.

**Table A-3** *CTC Window Mouse Shortcuts*

<b>Technique</b>	<b>Description</b>
Double-click	<ul style="list-style-type: none"> <li>• Node in network view—Displays the node view.</li> <li>• Domain in network view—Displays the nodes in a domain.</li> <li>• Card in node view—Displays the card view.</li> <li>• Alarm/Event—Displays the alarm or event raising object.</li> <li>• Circuits—Displays the Edit Circuit window.</li> </ul>
Right-click	<ul style="list-style-type: none"> <li>• Network view graphic area—Displays a menu that you can use to create a new domain; change the position and zoom level of the graphic image; save the map layout (if you have a Superuser security level); reset the default layout of the network view; set, change, or remove the background image and color; collapse and expand links; and save or reset the node position.</li> <li>• Domain in network view—Displays a menu that you can use to open a domain, show the domain overview, rename the domain, and delete the domain.</li> <li>• Node in network view—Displays a menu that you can use to open the node, reset the node icon position to the longitude and latitude set on the Provisioning &gt; General tab, delete the node, fix the node position for auto layout, provision circuits, or update circuits with a new node.</li> <li>• Span in network view—Displays a menu that you can use to view information about the span source and destination ports, the protection scheme, and the optical or electrical level. You can display the Circuits on Spans dialog box, which displays additional span information and allows you to perform path protection switching. You can also expand and collapse links.</li> <li>• Card in node view—Displays a menu that you can use to open, delete, and reset cards. The card that you select determines the commands that appear.</li> <li>• Card in card view—Displays a menu that you can use to reset the card or go to the parent view (node view).</li> <li>• Empty slot in node view—Displays a menu with cards that you can choose to preprovision the slot.</li> </ul>
Move mouse cursor	<ul style="list-style-type: none"> <li>• Over node in network view—Displays a summary of node alarms and provides a warning if the node icon has been moved out of the map range.</li> <li>• Over span in network view—Displays circuit (node, slot, port) bandwidth and protection information.</li> <li>• Over domain in network view—Displays domain name and the number of nodes in the domain.</li> <li>• Over card in node view—Displays card type, card status, and alarm profile status.</li> <li>• Over card port in node view—Displays port number and/or name, port service state, and alarm profile status.</li> <li>• Over card port in card view—Displays port name (if applicable), port service state, protection status (if applicable), and alarm profile status.</li> </ul>

## Node View Shortcuts

Table A-4 shows actions on ONS 15310-CL or ONS 15310-MA cards that you can perform by moving your mouse over the CTC window.

**Table A-4** Performing Node View Card Shortcuts

Action	Shortcut
Display card information	Move your mouse over cards in the graphic to display tooltips with the card type, card present or card provisioned but not present, the highest level of alarm (if any), and the alarm profile used by the card.
Open, reset, or delete a card	Right-click a card. Choose <b>Open Card</b> to display the card in card view, <b>Delete Card</b> to delete it, or <b>Reset Card</b> to reset the card.
Preprovision a slot	In node view, right-click an empty slot. Choose the card type that you want to provision in the slot from the shortcut menu. For the ONS 15310-CL, see the <a href="#">“NTP-C10 Preprovision a Card Slot” procedure on page 1-15</a> . For the ONS 15310-MA, see the <a href="#">“NTP-C162 Preprovision a Card Slot” procedure on page 2-31</a> .

## Network View Tasks

Right-click the network view graphic area or a node, span, or domain to display shortcut menus.

Table A-5 lists the actions that are available from the network view.

**Table A-5** Network Management Tasks in Network View

Action	Task
Open a node	Any of the following: <ul style="list-style-type: none"> <li>• Double-click a node icon.</li> <li>• Right-click a node icon and choose <b>Open Node</b> from the shortcut menu.</li> <li>• Click a node and choose <b>Go to Selected Object View</b> from the CTC View menu.</li> <li>• From the View menu, choose <b>Go To Other Node</b>. Choose a node from the Select Node dialog box.</li> <li>• Double-click a node alarm or event in the Alarms or History tabs.</li> </ul>
Move a node icon	Press the <b>Ctrl</b> key and the left mouse button simultaneously and drag the node icon to a new location.
Consolidate links	Right-click on a link and choose <b>Consolidate/Expand</b> from the shortcut menu. For more detailed instructions, refer to <a href="#">Chapter 11, “Change Node Settings.”</a>
Save a node icon position	On the network view map, right-click and choose <b>Save Node Position</b> . Click <b>Yes</b> on the Save Node Position dialog box.
Reset node icon position	Right-click a node and choose <b>Reset Node Position</b> from the shortcut menu. The node icon moves to the position defined by the longitude and latitude fields on the Provisioning > General tab in node view.



**Table A-5** Network Management Tasks in Network View (continued)

Action	Task
Provision a circuit	Right-click a node. From the shortcut menu, choose <b>Provision Circuit To</b> and select the node where you want to provision the circuit. For circuit creation procedures, see <a href="#">Chapter 6, “Create Circuits and VT Tunnels.”</a>
Update circuits with new node	Right-click a node and choose <b>Update Circuits With New Node</b> from the shortcut menu. Use this command when you add a new node and want to pass circuits through it.
Display a link end point	Right-click a span. From the shortcut menu, choose <b>Go To</b> [<node>   <port>   <slot>] for the drop port you want to view. CTC displays the card in card view.
Display span properties	Any of the following: <ul style="list-style-type: none"> <li>Move your mouse over a span; the properties appear near the span.</li> <li>Click a span; the properties appear in the upper left corner of the window.</li> <li>Right-click a span; the properties appear at the top of the shortcut menu.</li> </ul>
Perform a path protection switch for an entire span	Right-click a network span and click <b>Circuits</b> . In the Circuits on Span dialog box, switch options appear in the Path Protection Span Switching field. See also the “ <a href="#">DLP-C166 Initiate a Path Protection Force Switch on a Span</a> ” task on <a href="#">page 18-60</a> .
Upgrade a span	Right-click a span and choose <b>Upgrade Span</b> from the shortcut menu. <b>Note</b> Span upgrades do not upgrade SONET topologies, for example, a 1+1 group to a path protection configuration. See <a href="#">Chapter 13, “Convert Network Configurations”</a> for topology upgrade procedures.
Upgrade terminal to linear	Right-click a span and choose <b>Upgrade Protection &gt; Terminal to Linear</b> from the shortcut menu. See the “ <a href="#">NTP-C136 Convert a Point-to-Point to a Linear ADM Automatically</a> ” procedure on <a href="#">page 13-2</a> .

## Table Display Options

Right-clicking a table column displays a menu. [Table A-6](#) shows table display options, which include rearranging or hiding CTC table columns and sorting table columns by primary or secondary keys.

**Table A-6** Table Display Options

Task	Click	Right-Click Shortcut Menu
Resize column	Click while dragging the column separator to the right or left.	—
Rearrange column order	Click while dragging the column header to the right or left.	—
Reset column order	—	Choose <b>Reset Columns Order/Visibility</b> .
Hide column	—	Choose <b>Hide Column</b> .
Show column	—	Choose <b>Show Column &gt; column_name</b>

**Table A-6** Table Display Options (continued)

Task	Click	Right-Click Shortcut Menu
Display all hidden columns	—	Choose <b>Reset Columns Order/Visibility</b> .
Sort table (primary)	Click a column header; each click changes the sort order (ascending or descending).	Choose <b>Sort Column</b> .
Sort table (secondary sorting keys)	Press the <b>Shift</b> key and simultaneously click the column header.	Choose <b>Sort Column (incremental)</b> .
Reset sorting	—	Choose <b>Reset Sorting</b> .
View table row count	—	View the number listed next to “Row Count”; it is the last item on the shortcut menu.

## Equipment Inventory

In node view, the Inventory tab displays information about the ONS 15310-CL or ONS 15310-MA equipment, including:

- **Delete Button**—After highlighting a card with your mouse, use this button to delete the card from node view.
- **Hard-Reset Button**—After highlighting a card with your mouse, use this button to hard-reset a card. A hard reset temporarily removes power and clears all buffer memory. Before you hard-reset a 15310-CL-CTX card and CTX2500 card, put the card in standby mode by completing a soft-reset.
- **Soft-Reset Button**—After highlighting a card with your mouse, use this button to soft-reset a card. A soft reset reboots the card and reloads the operating system and the application software.
- **Location**—Identifies where the equipment is installed, either chassis or slot number.
- **Eqpt Type**—Displays the type of equipment but not the specific card name, for example, CE-100T-8 or CTX-CL600.
- **Actual Eqpt Type**—Displays the specific card name.
- **Admin State**—Changes the card service state unless network conditions prevent the change.
  - **IS**—Puts the card in the In-Service and Normal (IS-NR) service state.
  - **OOS,MA**—Puts the card in the Out-of-Service and Autonomous,Maintenance (OOS-AU,MT) service state.
- **Service State**—Displays the current card service state, which is an autonomously generated state that gives the overall condition of the card. Service states appear in the format: Primary State-Primary State Qualifier, Secondary State. Card service states include:
  - **IS-NR** (In-Service and Normal)
  - **OOS-AU,AINS & MEA** (Out-of-Service and Autonomous,Auto In-Service and Mismatched Equipment)
  - **OOS-AU,AINS & SWDL** (Out-of-Service and Autonomous,Auto In-Service and Software Download)
  - **OOS-AU,AINS & UEQ** (Out-of-Service and Autonomous,Auto In-Service and Unequipped)

- OOS-AU,MEA (Out-of-Service and Autonomous,Mismatched Equipment)
- OOS-AU,SWDL (Out-of-Service and Autonomous,Software Download)
- OOS-AU,UEQ (Out-of-Service and Autonomous,Unequipped)
- OOS-AUMA,MEA & MT (Out-of-Service and Autonomous Management,Mismatched Equipment and Maintenance)
- OOS-AUMA,MEA & UAS (Out-of-Service and Autonomous Management,Mismatched Equipment and Unassigned)
- OOS-AUMA,MT & SWDL (Out-of-Service and Autonomous Management,Maintenance and Software Download)
- OOS-AUMA,MT & UEQ (Out-of-Service and Autonomous Management,Maintenance and Unequipped)
- OOS-AUMA,UAS (*Out-of-Service and Autonomous Management,Unassigned*)
- OOS-AUMA,UAS & UEQ (Out-of-Service and Autonomous Management,Unassigned and Unequipped)
- OOS-MA,MT (Out-of-Service and Management,Maintenance)
- HW Part #—Displays the hardware part number; this number is printed on the top of the card or equipment piece.
- HW Rev—Displays the hardware revision number.
- Serial #—Displays the equipment serial number; this number is unique to each card.
- CLEI Code—Displays the Common Language Equipment Identifier code.
- Bootroom Rev—Displays the boot read-only memory (ROM) revision number.
- Product ID—Displays the manufacturing product identifier for a hardware component, such as a fan tray, chassis, or card.
- Version ID—Displays the manufacturing version identifier for a fan tray, chassis, or card.

