

Jobs

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Jobs

After completing the instructions described in Initial setup, you are ready to start executing workflows.

In the CWM application, a particular execution of workflow definition is called a job, and by following guidelines in this chapter, you can:

- start a job immediately, or
- create a schedule to run planned jobs in the future.

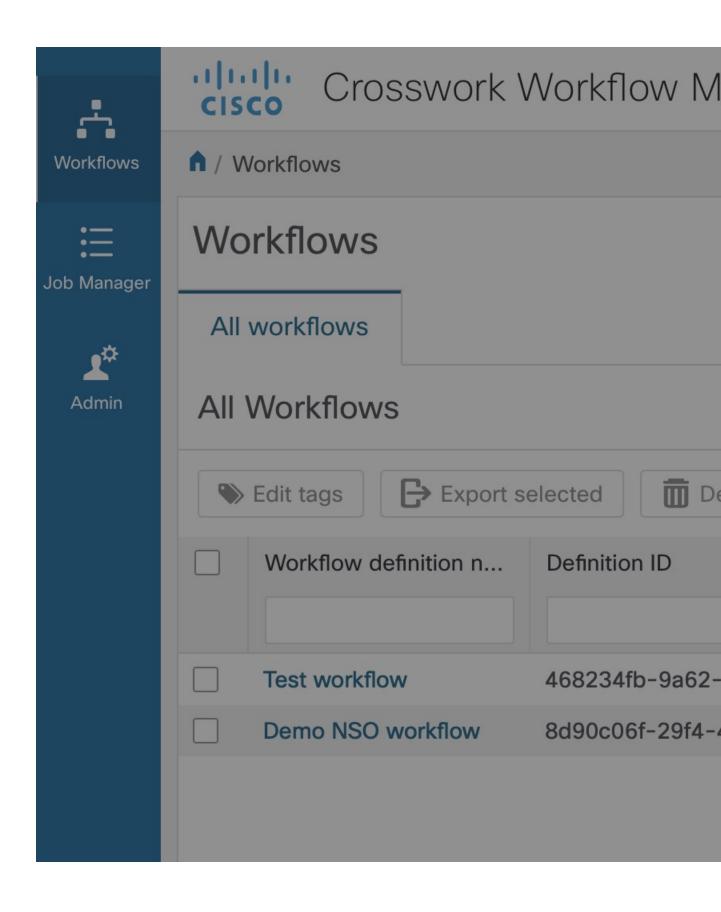
Run job

This section explains how to run a job (workflow execution) via CWM.

Prerequisites: A workflow definition stored in CWM and listed in the **All Workflows** tab; uploaded adapter(s) with workers.

Step 1 In CWM, go to the Workflows -> All Workflows tab. Select the workflow you want to execute and click Run under the Actions column.

Figure 1: Run job button



- **Step 2** In the **Run job** modal, insert the initial workflow data input in the Input variables field.
- **Step 3** By default, your job's name is the same as your workflow definition, but you can change it in the Job name field.
- **Step 4** Optionally, you can assign tags to your job. To insert more than one tag, separate them with a comma.

Note Tags are case-sensitive. Once added to the job, you cannot edit them.

- **Step 5** Leave the radio button *Start directly* selected to run your job immediately. If you want to create a schedule for the future run, follow the Schedule Job instructions.
- **Step 6** Click **Run job** to start the workflow execution.

Figure 2: Run job

Check job status

- Step 1 Go to the Job Manager -> All Jobs tab.
- Step 2 In the All jobs table, find your job and check the status of the workflow execution in the Status column.
 - a) If the workflow was executed correctly, a green round icon with the tick and the status *Completed* is displayed.
 - b) If the workflow execution is still in progress or the workflow engine is retrying an action, a blue round icon with three dots and the status *Running* is displayed.
 - c) If the workflow execution fails, a red round icon with the exclamation mark and the status Failed is displayed.

Check job result

- **Step 1** Click the job name to enter its details.
- **Step 2** In the **Job Event Log** table, you can expand every event entry by clicking on the :material-plus-box-outline: icon.
- Step 3 To check the result of the execution, expand the WorkflowExecution entry at the bottom of the table. Depending on the result, the Job Event Type may differ, for example: WorkflowExecutionCompleted or WorkflowExecutionFailed.

Check parent-child workflow relation

Identify child workflow runs

If a job run has been triggered as a child workflow, its job name is created following the schema below:

parent_job_run_name. + child_workflow_def_name. + child_workflow def_version.

For example, if a parent job run name is "Parent", and the child workflow definition name is "Child", the job run executed as child workflow is named "Parent.Child.1.0".

Find child workflow runs from the Job Event Log

If a given job run triggers child workflow executions, you can check them under the **Job Even Log** table of the parent run.

- **Step 1** Click the job name to enter its details.
- Step 2 In the Job Event Log table, under the Job Event Type entry, search for the ChildWorkflowExecutionStarted or ChildWorkflowExecutionCompleted entry. Click on its Job Event Name you will get redirected to the job details page of this child workflow execution.

Figure 3: Child workflow event log

Job Event Log	
Job Event Name	Job Event Type
WorkflowExecution	WorkflowExecutionStarted
★ WorkflowTask	WorkflowTaskCompleted
MarkerRecorded	MarkerRecorded
■ UpsertWorkflowSearchAttribute	UpsertWorkflowSearchAttribut
MarkerRecorded	MarkerRecorded
Parent.Child.1.0 (sync)	StartChildWorkflowExecutionIr
→ Parent.Child.1.0 (sync)	ChildWorkflowExecutionStarte
₩ WorkflowTask ■ ■ ■ ■ ■ ■ ■	WorkflowTaskCompleted
Parent.Child.1.0 (sync)	ChildWorkflowExecutionComp
₩ WorkflowTask ■ ■ ■ ■ ■ ■ ■	WorkflowTaskCompleted
₩ WorkflowExecution ■ The State	WorkflowExecutionCompleted

Step 3 On the child job **Details** page, besides standard fields, you can find the Parent Run ID that redirects to the details of the parent job run.

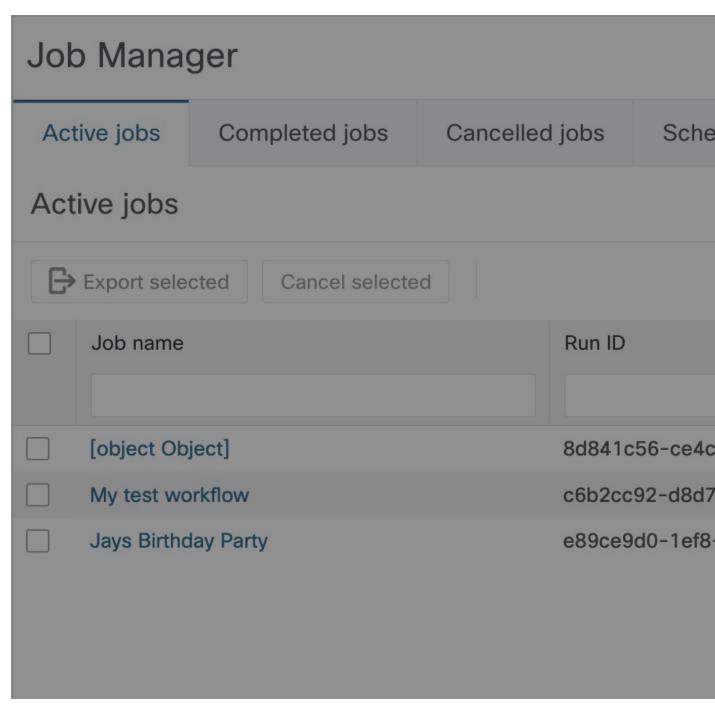
Figure 4: Parent run ID

Note Child workflow runs do not inherit the parent job run tags.

Rerun job

- Step 1 Go to the Job Manager -> All jobs tab.
- **Step 2** In the **All jobs** table, find a job that you want to rerun and click the **Rerun** button in the same row under the Actions column.

Figure 5: Rerun job button



Step 3 In the **Rerun job** modal, you can edit the Job name, Tags and Input variables (data input) or use the same values from the previous run.

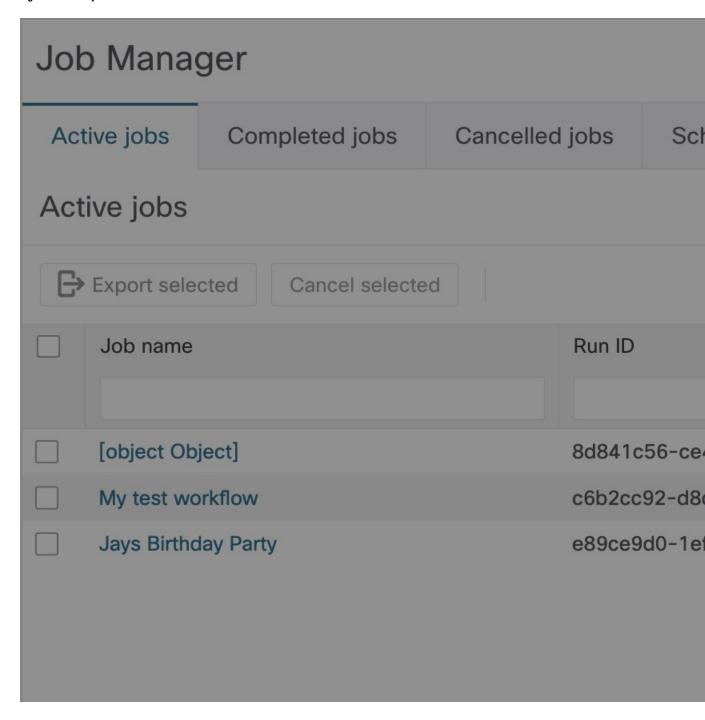
Figure 6: Rerun job

Step 4 Click Run job.

Cancel job

- Step 1 Go to the Job Manager -> Active jobs tab.
- **Step 2** In the **Active jobs** table, find a job that you want to cancel and click the **Cancel** button in the same row under the Actions column.

Figure 7: Cancel job button



- **Step 3** In the Cancel job modal, you can enter an optional Reason for cancelling.
- **Step 4** Tick **Force terminate** checkbox if you want to cancel the running job immediately. If you leave this checkbox unticked, the workflow worker will complete the ongoing task execution from the workflow definition and then cancel the job.

Cancel job

Figure 8: Cancel Job

Step 5 Click Cancel Job. Details tab.

Note You can cancel the job also from the job's **Details** tab.

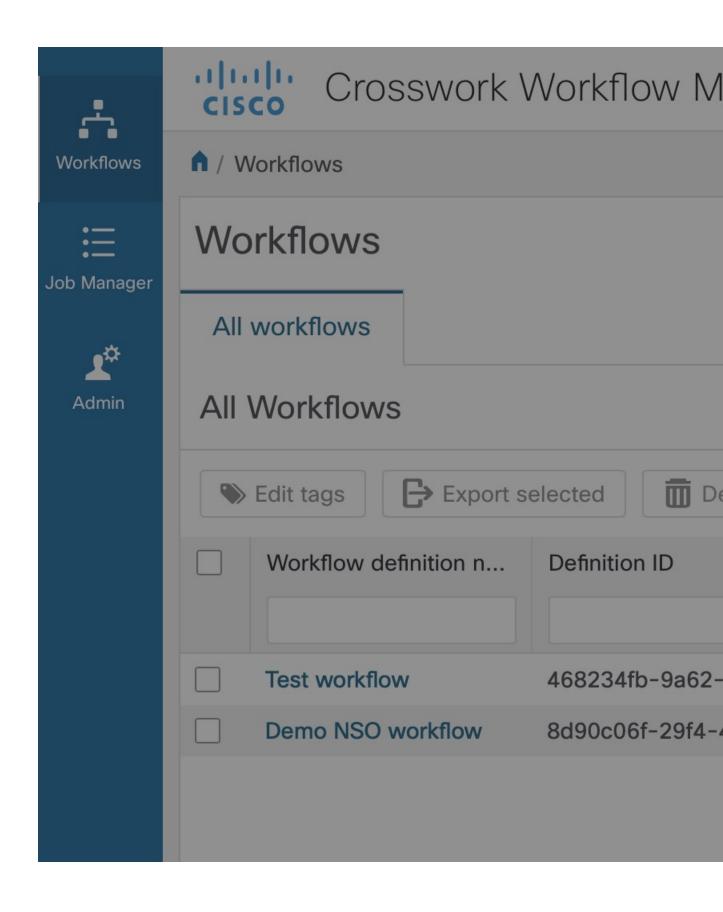
Schedule job

This section explains how to schedule a single job run (workflow execution) or recurring runs that are invoked in the future.

Prerequisites: A workflow definition added to CWM and listed in the **All Workflows** tab; uploaded adapter(s) with workers.

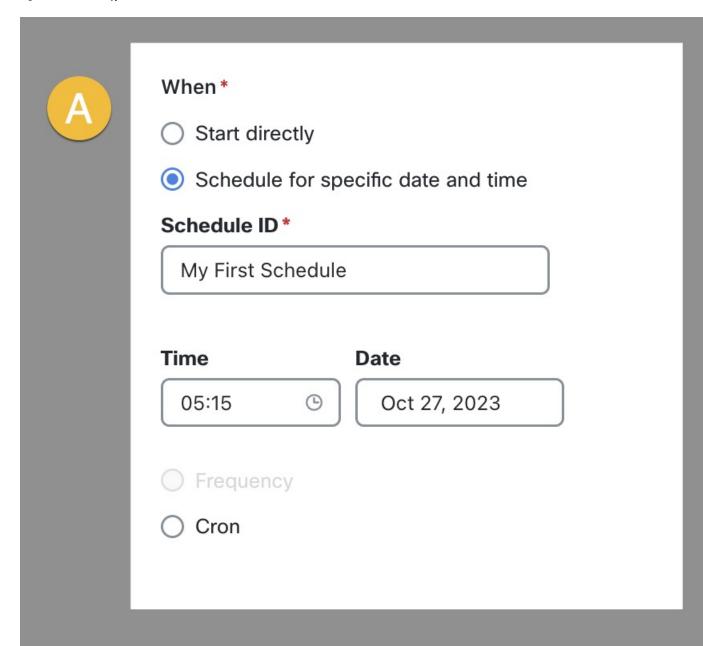
Step 1 In CWM, go to the Workflows -> All Workflows tab. Select the workflow you want to schedule and click Run under the Actions column.

Figure 9: Run Job Button



- Step 2 In the Run job modal, insert the initial workflow data input in the Input variables field. Each scheduled run of a workflow receives identical input variables.
- **Step 3** By default, your job name is the same as your workflow definition name, but you can change it in the Job name field.
- **Step 4** Optionally, you can assign tags to your scheduled job(s). To insert more than one tag, separate them with a comma. All jobs in the schedule will have the same tags set.
- **Step 5** Choose one scheduling option depending on whether you planned a single run in the future or a recurring series of runs.
 - a) A) Schedule for specific date and time: pick a specific time and date for a single run.
 - b) B) Cron: set recurring runs based on cron expressions.

Figure 10: Schedule type



Note Schedule type based on frequency is disabled in the CWM 1.1 UI, but it's available via CWM API.

- **Step 6** Type a unique name for your schedule in the Schedule ID field.
- **Step 7** Click **Schedule Job** to schedule the workflow execution(s).

Figure 11: Schedule job

Note

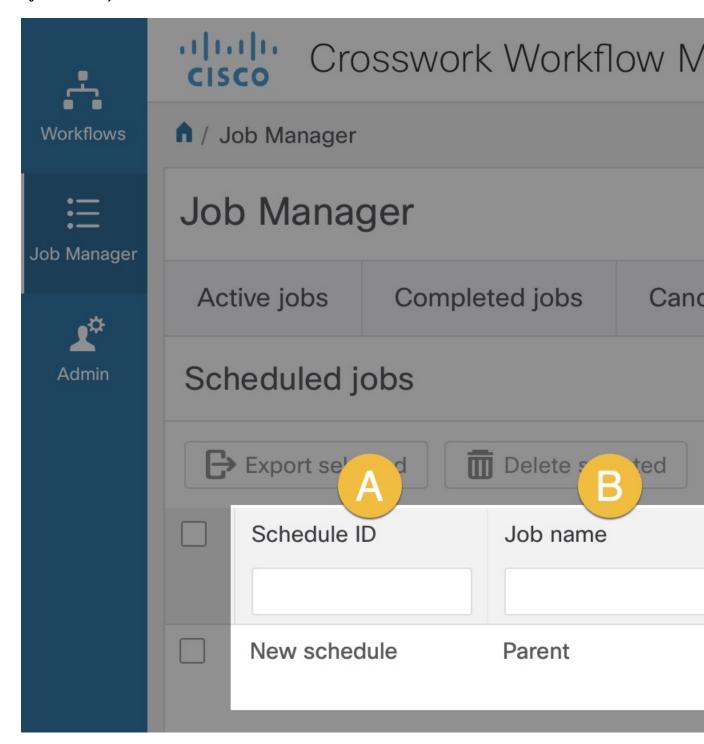
"Overlap policy": By default, the schedule overlap policy prevents overlapping runs in one schedule. If the previous job from a given schedule is still executed when it is time to start the next scheduled job, the next run will be skipped. If you want to allow overlapping runs, you can change the overlap policy via CWM API.

Check scheduled jobs

All schedules are displayed under the **Scheduled jobs** tab.

- Step 1 Go to the Job Manager -> Scheduled jobs tab.
- **Step 2** In the **Scheduled jobs** table, you can find all the schedules with details:
 - a) A) Schedule ID: unique identifier for every schedule
 - b) B) Job Name: name of the scheduled workflow execution; shared between all runs in a schedule
 - c) C) Workflow Definition: name of the workflow definition used to run a scheduled job(s)
 - d) D) Next scheduled run: the date and time of the next upcoming run in the schedule, for example 05-May-2023 03:59:25 PM CEST
 - e) E) **Type**: indicates whether the scheduled run is planned once in the future (*Specific date and time*), whether there are recurring runs (*Cron*) or recurring runs based on frequency (*Frequency*).
 - f) F) **Job tags**: keyword(s) assigned to the scheduled job run
 - g) G) Workflow tags: keyword(s) assigned to the workflow definition used for that planned run plus its version
 - h) H) **Actions**: displays possible actions for the schedule in CWM 1.1, only **Delete** is available in CWM UI When the scheduled job is executed, it will show in the **Active jobs** tab; when completed, it will display in the **Completed jobs** tab.

Figure 12: Schedule jobs tab



Note

A created schedule does not have an expiration date. It means that you can update the schedule anytime and retrieve some of its details. A schedule is displayed on the **Scheduled job** table even if it contains only one scheduled job for a specific date and time that has already been executed. If you don't want the schedule to be displayed anymore in the list, you need to delete it.

Delete schedule

You can delete a whole schedule via CWM UI. This process will delete all future planned jobs in a schedule, but will not terminate or affect a job that is already in execution. Already started scheduled workflow execution can be canceled using the Cancel Job action.

- **Step 1** Go to the **Job Manager** -> **Scheduled Jobs** tab.
- **Step 2** In the **Scheduled Jobs** table, find a schedule that you want to delete and click the **Delete** button in the same row under the Actions column.

Figure 13: Delete schedule

