



Monitoring Operations

The Operations workspace is used to monitor the processes that are scheduled to execute, view processes that are currently running, and verify that processes have successfully completed. The view also provides auditing information relating to system event history for actions that have occurred within Cisco Process Orchestrator and process information generated when the defined processes are executed.

The Getting Started > Operations view displays task shortcuts to view process instances, process instance activities, and the other system activity in the results pane. The following tasks can be performed from this view:

- **Monitor Operations**—Launches the Activity Views folder which includes the options to display information about the activities that are in progress, scheduled or have been completed. See **Operations—Activity Views** for more information.
- **View Auditing**—Launches the Auditing view which displays the system event history for actions that have occurred within Cisco Process Orchestrator. See **Operations > Auditing View** for more information.
- **Define New Objects**—Launches the Getting Started > Definitions view which displays the options for creating a new process and defining new objects to be associated with a process. See **Getting Started > Definitions** for more information.
- **Launch Web Console**—Launches the Cisco Process Orchestrator Web console to provide users with a web-based view of the scaled-back Operations workspace on the expert Cisco Process Orchestrator console.
- **Launch Timeline View**—Launches the Operational Timeline View of the activities in the form of histogram. The height of the projection corresponds to the number of activities in the interval represented. You can zoom the Timeline with mouse wheel scroll or a pinch-zoom gesture on a track pad or a touch screen device.

- **Track Current Time**—Check this checkbox to scroll the Timeline automatically, when the current time indicator goes out of scope.

This checkbox will be unchecked automatically if you scroll manually with the scrollbar, and in case you zoom closer than one minute interval.

- **Display activities**—Check this check box to display the activities in tree view along with the processes.

Tree view is a railroad diagram, with circles denoting process instances, and short horizontal bars denoting process instances. The tree view has text coloring that denotes the following:

Blue: Running instance.

Black: Succeeded instance.

Light blue: Instance which has not been started yet.

Orange: Canceled

Red: Failed

On the tree itself instances are colored randomly, one color for a process instance and its child activities. Two process instances are not guaranteed to get a different color, but there is a guarantee that they get the same color each time you see them, even after the view is reopened.

- Histogram level of details—This scrollbar allows you to adjust the level of detail of the histogram display of activity counts in the measured time intervals. With lower level of detail, more individual activity instances will fall into the longer intervals represented by the histogram bars.

You can filter by individual process instances. Click on the plus button in front of the process instance name in the tree view to add the filter for a process instance. The process instances that are selected for filtering are listed above the tree view. You can turn off the filtering temporary with the checkbox in front of the individual process instance filters or remove them. The plus button on the specific process instance becomes highlighted when there is such a filter. Clicking the plus button again will remove the filter.

These filters can be useful to drill down the hierarchy of the process instances. If an individual process instance is selected in the filters and is active, all of the child process instances will be displayed. You can also turn off individual filters, which is useful if you want to scope to specific child process instance.

When you scroll down a large tree view, some parent process instances would go out of scope, but if you see a child process instance or child activity of such an instance on screen, all of its parents will be displayed anyway in hatched color, so you always see all of the parents of every item you currently see on screen. A hatched color item could indicate that the parents are out of scope either by the vertical scroll position, either by the timeline view scroll position, and there is possibility something between them, which you could discover by scrolling.

The Operations workspace displays:

- The status of processes and activities executing, scheduled, or recently executed by the application.
- Alerts, incidents, and approvals in the product.
- System messages about status and errors within the Process Orchestrator server or adapters.

The options provided by this workspace include:

Navigation Item	Function
Getting Started	Displays task shortcuts to view process instances, process instance activities, and the other system activity in the results pane. For more information, see Filtering Views .
Search Work	Displays the results of the query for processes and activities based on the specified filter options. For more information, see Searching Tasks .
Target Views	Displays the defined targets and their associated process instances that are in progress, scheduled or have been completed. For more information, see Monitoring Target Views .
Process Views	Includes all the defined processes and their associated activity instances that are in progress, scheduled or have been completed. For more information, see Monitoring Process Views .

Activity Views	Includes a set of predefined views that displays information about processes, including the status of activities within the processes. For more information, see Monitoring Activity Views .
Search Tasks	Displays the results of queried tasks based on the specified filter option. For more information, see Searching Tasks .
Search IT Records	Displays only the alerts, incidents, and change requests created in Process Orchestrator. For more information, see Searching IT Records .
Task Views	Displays all task activities and tasks that have been assigned to a specific user or group. Only users with administrative rights can create tasks from this view in Process Orchestrator. For more information, see Monitoring Task Views .
Auditing	Displays the system logs for system events that have occurred within Cisco Process Orchestrator. For more information, see Monitoring Auditing Information .

The Process Views folder includes all the defined processes and their associated activity instances that are in progress, scheduled or have been completed. From this view, you can see detailed information about all processes that have been triggered, executed adhoc, or are scheduled for execution.

You can review both process and activity instances in the Process Views folders when querying the properties and status of process instances. Each Process View has two separate results panes:

- The top results pane displays the process definitions for the selected view. This view also allows you, if you have the appropriate rights, to access the Process Editor to modify the configuration of the process, to start the process, and enable or disable the process.
- The bottom results pane is automatically filtered to show *only* the instances of the process whose definition is selected in the top panel.

The Definitions > Processes view displays all defined processes that are in the application. This includes all processes that have been authored in the Process Editor and the processes that have been imported in automation packs.

Monitoring Target Views

Target views allow you to view ongoing automation in the context of the targets or services on which it acts. You can filter the list of all targets to focus in on a specific type, or by the name of a target such as an Cisco Intelligent Automation for Cloud service request. After selecting a target, you can see the processes that act on that target type and all process activity related to that target.

The Operations > Target Views folder displays the defined targets and their associated activity instances that are in progress, scheduled or have been completed.

Monitoring Target Information

Step 1 Choose **Operations > Target Views > View All**.

From this view, you can see detailed information about all targets, regardless of whether processes have or have not been executed against these targets. This view contains the following information:

- The Target Process Actions pane (top right) contains items that perform specific actions associated with the target selected in the Targets pane.
- The Target Activity pane (bottom) displays the processes that ran or are scheduled to run against the target selected in the Targets pane.

- Step 2** Select a target (in the top pane) for which you are interested in viewing the target activity. The list of processes appears in the Target Activity pane.
- Step 3** You can filter the results by process name, a range of dates, by a start or end period, by days to offset, by a specific time period, and so on.
- Step 4** To view additional (read-only) information about a process, highlight it and use one of the following methods to launch the Process Viewer:
- From the Target Activity pane, double-click the appropriate process instance.
 - From the Details pane, click any hyperlink (see [Details Pane, page 2-10](#)).

Monitoring Process Views

The Operations > Process View folders display all processes that have been started, scheduled to start, started by a trigger, or started ad hoc. Each Process view display can be filtered to display by the name, category, or column view.

Use the Definitions > Processes View to display the defined processes.



Note

To add, remove, or sort column headings on the display, see [Configuring Columns](#).

Monitoring Process Information

The Process View displays all the defined processes and their associated activity instances that are in progress, scheduled or have been completed. From this view you can view detailed information about all the processes that have been triggered, executed ad hoc, or are scheduled for execution.

- Step 1** Choose **Operations > Process Views**, then choose one of the following options.

Process View	Description
View Adhoc	Displays all process or activity instances that were executed manually and are in progress, have successfully completed, or failed
View All	Displays all process, activity, and scheduled process and activity instances that are in progress, have successfully completed, or failed
View Scheduled	Displays all process or activity instances that are in progress, have successfully completed, or failed and are also scheduled to execute

Process View	Description
View Started	Displays all process or activity instances that were executed (manually or automatically) and are in progress, have successfully completed, or failed
View Triggered	Displays only processes that were “triggered” (not processes that were manually executed or scheduled).

- Step 2** Select a process definition (in the top panel) for which you are interested in viewing the instances. The process information appears in the View Results pane.
- Step 3** Filter the results as necessary (see [Monitoring Process Views, page 8-4](#)).
- Step 4** To view additional information about an instance, highlight it and use one of the following methods to launch the Process Viewer:
- From the View Results pane, double-click the appropriate process instance.
 - From the Details pane, click any hyperlink (see [Details Pane, page 2-10](#)).

Viewing Process Instance Workflows

A graphical view of a process workflow can be viewed from the Process Views area after a process has been launched. The information displayed on the Process Workflow Viewer is display-only.

- Step 1** Choose any of the four process views to display the process and activity instances in the Results pane.
- Step 2** From the Process Instance results pane, use *one* of the following methods to launch the Process Viewer:
- Double-click the appropriate process instance.
 - Highlight the appropriate process instance on the Process Views Details pane, then click any link in the General or Run Options tabs.
- Step 3** From the Activity Instance results pane, highlight the appropriate process instance, right-click and choose **Observe**.

Canceling Running Process Instances

You can only cancel running process instances from the bottom View Results pane on any of the Process Views. You cannot cancel processes from the top Process results pane.

Monitoring Activity Views

The Operations > Activity Views folders display processes and their associated activities that have been started, scheduled to start, started by a trigger, or started ad hoc. Each Activity view display can be filtered to display by the date/time of execution, category, or column view.

From this view, detailed information is provided about all the activity instances that are started, running and scheduled to run. If you have the appropriate security rights, you can create and modify tasks from this view.

Activity Views include a set of predefined views that display information about the status of activities within the processes. From this view, you can view activities that have been triggered, executed ad hoc, view all activities, and view all scheduled activities.

Certain activities display additional activity instance information. For example, there will be certain activities that generate information based on the defined properties of the activities. In those situations, the activity instance properties displayed from the Operations > Activity View will show the read-only configuration properties as well as the generated results of the configuration properties.

Step 1 Choose **Operations > Activity Views**, then choose one of the following options:

Views	Descriptions
View Adhoc	Displays all process or activity instances that were executed manually and are in progress, have successfully completed, or failed during the selected time period
View Scheduled	Displays all process or activity instances that are scheduled to execute during the selected time period
View Started	Displays all process or activity instances that are in progress, have successfully completed, or failed during the selected display time period
View Triggered	Displays all process or activity instances that were triggered for execution (manually or automatically) and are in progress, have successfully completed, or failed during the selected time period

The selected view displays in the Results pane.

Step 2 Use the Filter by [Object] drop-down list to display processes or activities according to its assigned category in the Results pane.

The default selection is <No Filter>. After the initial change to the selection, the last selected item displays.

Step 3 Filter the results as necessary (see [Monitoring Process Views, page 8-4](#)).

Step 4 To view additional information about an instance, highlight it and use one of the following methods to launch the Process Viewer:

- From the View Results pane, double-click the appropriate process instance.
- From the Details pane, click any hyperlink (see [Details Pane, page 2-10](#)).

Modifying Activity View Format

To change an Activity View format, highlight an activity instance, right-click, and choose **View > [Format]**. Each of the activity views can display in one of these formats:

Activity View	Description
Flat	Displays all process instances and activity instances on the top-level with no expandable tree view.
Workflow	Displays the process instances and only one workflow instance (even if it has run multiple times) in an expandable tree-view format.
Activity (Default view)	Displays the process instances and all related activity instances (no matter how many times it has run) in an expandable tree-view format.

Understanding Activity View Indicators

The process and activity views have certain indicators that provide status information.

Status Indicators

The State column displays the status of the individual process and activity. The following indicators definitions display in the Results pane.

Status	Description
Succeeded	Process has completed successfully
Running	Process is in progress
Failed (Not Completed)	The process has failed and did not complete the process execution
Failed (Canceled)	The process has been canceled manually

Color Indicators

The colors associated with the individual activities determine the status of the process and activity instances.

Indicator	Description
Blue	Process is in progress
Green	Process has completed successfully
Red	Process has failed and did not complete the process execution
Orange	Process has stopped

To customize these colors, choose **Tools > Customize**. For more information about customizing the color indicators, see [Customizing the Fonts and Colors](#).

Filtering Views

You can filter the results by a range of dates, by a start or end period, by days to offset, by a specific time period, and so on.

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- Step 1** Choose **Operations** > **[Operation]** > **[Views option]**.
- Step 2** Use the Filter by [Object] drop-down list to display processes or activities according to its assigned category in the Results pane.

The default selection is *<No Filter>*. After the initial change to the selection, the last selected item displays.

- Step 3** On the [Views option] subheader, choose the appropriate category and time period to display.

For example, you can filter the results by:

- Object (category, name, description, automation pack, trigger name or type, or lock option)
- Date range (from and to)
- Start time or end time period



Note To use the current time as the Start Time or End Time period in which the activities are displayed, do not make any changes to Time menu options.

To modify the start and end times, choose:

- Start—Default option uses the current time on the Console
 - Back—Adjusts the number of hours that precede the current Console time
 - Forward—Adjusts the number of hours ahead of the current Console time
 - Current time period
- The navigation arrows located on each side of the Calendar icon select the next day on the Back and Forward options on the Start Date and End Date submenu.
- The Back arrow chooses the previous day prior to the currently selected day on the Back submenu for the starting and ending dates. For example, if *Yesterday* is currently selected, then clicking the **Back** arrow changes the display selection to *2 days before today*.
 - The Forward arrow chooses the day after the currently selected day. For example, if *Tomorrow* is currently selected, then clicking the **Forward** arrow changes the display selection to *2 days after today*.
- Calendar date
 - A specific date
 - Days to offset—Use the More option on the Before today and After today submenus to enter a specific number of days for the start date. Use **Select Day Offset** when the appropriate number of days to offset is not on the predefined list.

To specify days before the displayed value, select or enter a negative number.

- Time period to offset—Use the More option on the Back and Forward submenus to enter the specific hours and minutes for the end and start time. Click **Select Time Offset** when the number of hours and minutes to offset is not on the predefined list.

To specify hours or minutes before the displayed value, select or enter a negative number.

Searching Work

The Operations > Search Work view displays the results of the query for processes and activities based on the specified filter options. The Search Work view displays all processes and activities that are scheduled to be performed during the selected display time period.

On the Operations workspace, choose **Search Work**.

Monitoring Scheduled Work

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- Step 1** Choose **Operations > Search Work**.
- Step 2** To customize the information to be displayed in the Search Results table:
- Click **Customize Options**.
 - In the Select Search Filters dialog box, click the check boxes to the left of the appropriate options. If a check box remains unchecked, the results for that filter option will not display in the Search Results table. Click **OK**.
- Step 3** Filter the results as necessary (see [Monitoring Process Views](#)).
- Step 4** To view additional information about an instance, highlight it and use one of the following methods to launch the Process Viewer:
- From the View Results pane, double-click the appropriate process instance.
 - From the Details pane, click any hyperlink (see [Details Pane, page 2-10](#)).
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Monitoring Task Views

Tasks allow a process to create an IT record or perform human interaction, and provide ownership and a lifecycle. Process Orchestrator enables the user to act on tasks within the operator console, which managers can use to set or change assignments to those on their staff. Assignment changes, state changes, and all other changes are audited, so you can keep track of exactly who did what in the system.

The Operations > Tasks view displays all tasks or all tasks that have been assigned to a specific user or group.

The Tasks display can be filtered to display by category, task type, and status. You can also decide which task view to display.

From this view, detailed information is provided about all the alerts, incidents, and other tasks that are assigned, in progress, or have been completed. If you have the appropriate security rights, you can create and modify tasks from this view.

Step 1 Choose **Operations > Task Views**.

Step 2 To access detailed information about a task view, click the **Task Views** folder and choose one of the following options.

Task View	Description
View Alerts	Displays all alerts
View All	Displays all tasks that are assigned, in progress, or have successfully completed
View Change Requests	Displays all change requests
View Incidents	Displays all incidents
View User Interactions	Displays all tasks that require user action

Step 3 On the Task Views Header, choose the appropriate filtering options to display.

Acting on Tasks

The following table summarizes some of the types of changes you can make to a task.

Table 8-1 Summary of Actions

Action	Purpose
Changing a task state	See Resolving a Task .
Adding a related task	Related tasks could be duplicates of one another or the resolution of the task that depends on the solution of the existing task. Choose Operations > Task Views , highlight the appropriate task, right-click and choose Properties > Related > Add .
Adding a option to the input request select question	Create options for the input request select question.
Assigning a category to a task	Choose Operations > Task Views , highlight the appropriate task, right-click and choose Properties > Categories . For information about managing categories, see Authoring Categories
Assign a duplicate alert	Indicate that the task is a duplicate of an existing task. Choose Operations > Task Views , highlight the appropriate task, right-click and choose Properties > Related .

Table 8-1 Summary of Actions (continued)

Action	Purpose
Modifying the assignment properties for a task	Change the assignee or other assignment properties for the task. This includes taking ownership of the task, if necessary. Choose Operations > Task Views , highlight the appropriate task, right-click and choose Properties > Assignment > Assigned to
Adding parameters for a task	Adding parameters for a task. A single task can include up to ten parameters. Choose Operations > Task Views , highlight the appropriate task, right-click and choose Properties > Parameters > Add .

Resolving a Task

Most users cannot resolve a task from the Process Orchestrator console because they do not have the rights to modify the task. In general, the user will launch the web console (see [Resolving a Task](#)) when attempting to resolve a task.

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- Step 1** Choose **Operations > Task Views**, highlight the appropriate task, right-click and choose one of the following:
- Resolve
 - Select a choice
- Step 2** Review the details of the task.
- Step 3** From the Status drop-down list, choose the appropriate status for the task resolution.
- Step 4** In the Add Notes text box, enter any notes related to the task resolution or status update.
- Step 5** Click **Submit** to resolve the task.

The Task details page is updated and displays the user name of who resolved or updated the task.

Searching Tasks

The Operations > Search Tasks view displays all tasks created or defined in Process Orchestrator. The results of the query are based on the specified filter options. The following topics describe the available search options:

- [Customizing the Search Tasks Header](#)
- [Filtering Search Results](#)
- [Filtering Display by \[Objects\]](#)

Customizing the Search Tasks Header

Use the Select Search Filters dialog box to customize the query header options. If the check box to the left of the option remains unchecked, then the filter option will not display on the designated Search header.

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- Step 1** Choose **Operations > Search Tasks > Customize Options**.
- Step 2** In the Select Search Filters dialog box, choose one of the following options, then click **OK**.
- Task Assignee—Displays the list of task assignee options
 - Created Time—Displays the time options to determine the time period for which item to display
 - Modified Time—Displays the time options to determine the time frame for which tasks to display
 - Task Status—Displays the available status values to filter
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Filtering Search Results

Use the Filter pane in the Task Views header to display selected tasks in the results pane.

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- Step 1** Choose **Operations > Search Tasks**.
- Step 2** The **Filter by** drop-down list in the Task Views header contains several options that can be used to filter the results. Enter the search query information, then click **Search** to query the tasks.
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Filtering Display by [Objects]

Use the Filter by [Object] drop-down list to display processes or activities according to its assigned category in the Results pane.

The default selection is <No Filter>. After the initial change to the selection, the last selected item displays.

To filter the display, choose the appropriate object from the Filter by drop-down list:

- Category—Choose the appropriate category from the list
- Name—Enter the names of process or activity
- Description—Enter description of process or activity
- Automation Pack—Enter the name of the automation pack for the process
- Trigger Name—Enter the name of a trigger
- Trigger Type—Choose a trigger type from the list
- Lock—Choose one of the following Lock options:
 - Locked by me
 - Locked by another user
 - Locked by anyone

- Unlocked

The results display in the Results pane.

Defining Task Rules

Task rules provide a list of rules that act on new tasks or task changes to handle cases such as assignments, changing alert or incident severities, or setting customer-specific categories on tasks.

Whenever a task is created, Process Orchestrator goes through the settings and conditions of each task rule that is listed and enabled. If the conditions and settings in the rule are satisfied, the task rule is executed. Task rules are executed according to the order in which they are displayed in the list.

Before You Begin

By default, only users with administrative rights can create and update task rules from the Definitions > Task Rules view. However, the security settings can be changed, if necessary, by the Process Orchestrator administrator.

Step 1 Choose **Definitions > Task Rules**, then on the toolbar, choose **New > [Task Rule]**.

Step 2 On the **[Task Rule]** property pages, define the properties.



Note The property pages might display as display-only if the task rule definition is shipped as part of the product or you do not have the appropriate rights.

- Click the **General** tab and enter the required information.
- Click the **Task Types** tab to select the task types to be executed by the rule.
- Click the **Conditions** tab and click the appropriate panel to indicate the type of condition equation to be used to trigger the task rule.
- Click the **Assign** tab and specify the assignees for task rule.

Step 3 Click **OK** to close the property sheet.

You can create the following task rules:

Table 8-2 Summary of Available Task Rules

Task Rule	Purpose
Assign Task Rule	Specify the users to be assigned to the task after the task rule has executed. To modify this rule, click the Assign tab on the [Task Rule] Properties property sheet.

Table 8-2 Summary of Available Task Rules

Task Rule	Purpose
Notify Task Rule	Specify the recipients to be notified after the task rule is executed. To modify this rule, click the Notify tab on the [Task Rule] Properties property sheet.
Update Task Rule	Specify the properties to be updated on the task after the task rule has executed. To add task properties to update after the task rule is executed: <ol style="list-style-type: none"> 1. Click the Update tab, click Add to add a new Property drop-down list to the Properties to Update section. 2. From the Property drop-down list, select the item to update in the task. To remove this rule, the Remove button removes the last property added to the list. For example, you cannot remove <i>Property 4</i> without removing <i>Property 5</i> from the list. To keep <i>Property 5</i> : <ol style="list-style-type: none"> 1. Update <i>Property 4</i> with the information from <i>Property 5</i>. 2. Click Remove to remove <i>Property 5</i> from the list.

Adding Conditions to a Task Rule

Use the following steps to add a condition to a task rule.

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- Step 1** Choose **Definitions > Task Rules**, highlight the appropriate task, right-click and choose **Properties**.
- Step 2** On the [Task Rule] Properties property sheet, click the **Conditions** tab, then click the appropriate panel to indicate the type of condition equation to be used to trigger the task rule (see [Defining Task Rules](#)).
- Step 3** Click **OK** to close the property sheet.
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Modifying Task Types in a Task Rule

Use the following steps to modify the list of task types affected by the task rule.

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- Step 1** Choose **Definitions > Task Rules**, highlight the appropriate task rule, right-click, and choose **Properties**.
- Step 2** On the [Task Rule] Properties property sheet, click the **Task Type** tab, then use one of the following methods:
- To add a task type to the list, check the check box to the left of the appropriate task type.
 - To remove a task type from the list, uncheck the check box to the left of the appropriate task type.
 - To include all the task types into the task rule, click **Select All**.
 - To exclude all the task types, click **Unselect All**.

Step 3 Click **OK** to close the property sheet.

Searching IT Records

The Operations > Search IT Records view displays only the alerts, incidents, and change requests created in Process Orchestrator. The results of the query are based on the specified filter options. You can search by the assignee, category, task type, and status.

Monitoring Auditing Information

The Auditing View displays the system auditing logs for system events that have occurred within Cisco Process Orchestrator for each Process Orchestrator server in the environment. Use this view to:

- Display detailed information regarding system events that have occurred within Process Orchestrator, such as start and shut down time and error occurrences.
 - Filter the results by Orchestration Server name.
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Step 1 Choose **Operations > Auditing > System**.

Step 2 To view the audit logs for a specific server in your environment, enter the server name in the **Orchestration Server** filter text box.

Step 3 From the Auditing Log Results pane, highlight the appropriate log entry, right-click and choose **Properties**.

Step 4 To add, remove, or sort column headings on the display, see [Configuring Columns](#).
