CA Process Automation

Production User Guide

Release 04.1.00

CA Technologies Product References

This document references the following CA Technologies products:

- CA Catalyst for CA Service Desk Manager (CA Catalyst Connector for CA SDM)
- CA Client Automation (formerly CA IT Client Manager)
- CA Configuration Automation (formerly CA Cohesion® Application Configuration Manager)
- CA Configuration Management Database (CA CMDB)
- CA eHealth®
- CA Embedded Entitlements Manager (CA EEM)
- CA Infrastructure Insight (formerly Bundle: CA Spectrum IM & CA NetQoS Reporter Analyzer combined)
- CA NSM
- CA Process Automation (formerly CA IT Process Automation Manager)
- CA Service Catalog
- CA Service Desk Manager (CA SDM)
- CA Service Operations Insight (CA SOI) (formerly CA Spectrum® Service Assurance)
- CA SiteMinder®
- CA Workload Automation AE

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Documentation Changes

The following documentation updates have been made since the last release of this documentation:

- Managing Archived Library Objects— Explains how a Content Administrator can archive and manage library objects in CA Process Automation.

- Purge Archived Instances — Describes an alternate method to purge archived instances using a SOAP operator.

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Chapter 1: Getting Started

This section describes CA Process Automation, provides login information, explains the different access levels of the Content Administrator and Production User, describes the Operations tab.

This section contains the following topics:

About this Guide (see page 11)
Change Your Own Password in CA EEM (see page 13)
Operations (see page 14)

About this Guide

The *Production User Guide* focuses on the tasks that users in the following roles perform in a production environment:

- Administrator

- Production User

The CA EEM administrator assigns the application group PAMAdmins to administrators in the production environment. Administrators have full rights in CA Process Automation. Administrators perform the following setup and configuration tasks:

- Set up and configure a production environment.

- Set up and configure the production Orchestrator.

- Configure production targets for the new process.

Note: For more information about setting up and configuring a production environment, and production Orchestrator, see the Configuration section in the CA Process Automation *Online Help*.

The CA EEM administrator assigns the application group Production Users to users who monitor processes, update resources, and work with tasks in the production environment. The production user has permissions to do the following tasks:

- Log in to CA Process Automation and use the Home tab.

- View the Library, Operations, Configurations, and Reports tabs in the CA Process Automation web interface.

- Read access to the Library tab.

- Navigate the folder structure in the Library tab and view automation objects listed in each folder.

- Control the schedules displayed in the Operations tab.

- Inspect any dataset displayed in the Dataset palette of the Operations tab.

- Monitor or start any process displayed in the Operations tab.

- Start and dequeue the start request form displayed in the Operations tab.

- View all the palettes in the Configuration Browser.

- Generate reports, add new reports.

Notes:

For work flows related to setup tasks for a new content design environment or a new production environment, see the Online Help.

For details about how installers install Orchestrators and agents used in the production environment, see the *Installation Guide*.

For details about how administrators add the production environment and its Orchestrators, see the *Content Administrator Guide*. For details about how administrators release new processes to run on targets in the production environment, see the *Content Administrator Guide*.

For details about how content designers use web services methods, see the *Web Services Reference*.

For details about how content designers create processes and other automation objects, see the *Content Designer Guide.* For details on operators, see the *Content Designer Reference.*
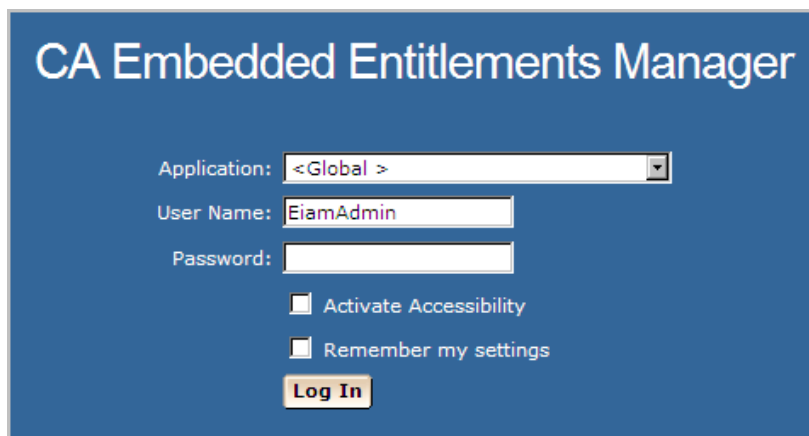
Change Your Own Password in CA EEM

CA Process Automation users can change their own passwords in CA EEM.
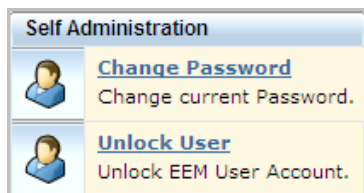
Follow these steps:

1. Open a browser and enter the URL for the CA EEM server used by CA Process Automation. For example:

   `https://hostname_or_IPaddress:5250/spin/eiam/`

   The CA Embedded Entitlements Manager (CA EEM) Log In dialog appears.

2. For Application, select <Global>.

3. Delete EiamAdmin if this default User Name appears.

4. Enter your CA Process Automation user name and password, and then click Log In.

5. Click Change Password.

6. Enter your CA Process Automation user name and old password. Then enter your new password in both the New password and Confirm password fields and click OK.

7. Browse to CA Process Automation and log in with your new credentials.

Operations

The Operations page functions as a dashboard that provides an overview of the automation objects created in the CA Process Automation application. The Operation page lets you view, manage, start, and run instances of the automation objects available in CA Process Automation application. The following figure displays the Process Instances link in the Links palette.

The Operations tab has the following palettes which let you view and manage the instances of the automation objects available in the folders as defined in the automation library:

- Links

- Process Watch

- Start Request Forms

- Datasets

- Resources

The Links palette further provides links to the following elements to view and manage the instances of automation objects that are running on the Orchestrator:

- Process Instances

- Operators

- Tasks

- Active Schedules

- Global schedules

- Start Requests

The right pane in the Operation page lists the running instances, and displays a graphical view of the instances. In the chart view, each bar represents instance of a particular state. Clicking a graphical bar of a particular state displays instances in that state. You can click again on the same bar to remove the filter. You can filter the instances as per the available instances in the pane.

Chapter 2: Working with Links

The Links palette in the Operations tab lets you manage instances of the automation objects that are running on the Orchestrator.

This section contains the following topics:

Process Instances

The Process Instances tab lets you monitor processes that are running on an Orchestrator, and act on single or multiple process instances.

Follow these steps:

1. Log in to the CA Process Automation web interface.

2. Select the Operations tab then click Links, Process Instances.

   The Process Instances pane displays the current process instances running on an Orchestrator, and a graphical view that is based on the instance states.

3. Select the Archived option button to view the archived instances.

The Process Instances pane displays the following information:

- Process instance name

- State

- Progress

- Duration status

- Start date

- End date

- The ID of the user who created the instance

The Touchpoint on which the instance runs

Each column has a filter to sort, view required columns, and view process instances that are based on the following information:

- Instance

- State

- Progress

- Duration Status

- Start Date or Time

- End Date or Time

You can work with one or more process instances simultaneously. The product displays available options for each process instance. Which options are displayed depends on the process instance state. The product displays all actions that apply to at least one of the selected instances when you select instances in different states.

Process instances in the Completed, Failed, or Aborted state display the end time of the process. You can resume process instances that are in the Suspended, Waiting, or Blocked state.

In the chart view, each bar represents a process instance in a specific state. Click the bar that corresponds to a specific state to display the process instances that are in that state. Click the same bar again to remove the filter.

View Process Instances

The Process Instances tab lets you monitor processes that are running on an Orchestrator and work with one or more process instances simultaneously.

Follow these steps:

1. Log in to the CA Process Automation web interface.

2. Select the Operations tab, Links, Process Instances.

   The Process Instances pane displays the current process instances running on an Orchestrator, and a graphical view that is based on the instances state.

3. Select the Archived option button to view the archived instances.

The Process Instances pane displays the following information:

- Process instance name

- State

- Progress

- Duration status

- Start date

- End date

- The ID of the user who created the instance

- The Touchpoint on which the instance runs

The Duration Status indicates the status of the runtime process instance for which the duration is defined. The Operations tab displays one of the following indicators of the duration status for a process instance:

- **Red:** The process run has exceeded the expected duration.

- **Yellow:** The process is running but is near the end of the expected duration.

- **Green:** The process ran during the expected duration. The status is green while a process is completed, or running and not in yellow or red range.

- **No indicator:** No expected duration is set for the process.

Each column has a filter to sort, view required columns, and view process instances that are based on the following information:

- Instance

- State

- Progress

- Duration Status

- Start Date or Time

- End Date or Time

You can work with one or more process instances simultaneously. The product displays available options for each process instance. Which options are displayed is based on the process instance state. The product displays all actions that apply to at least one of the selected instances when you select instances in different states.

Process instances in the Completed, Failed, or Aborted state display the end time of the process. You can resume a process instance that is in the Suspended, Waiting, or Blocked state.

In the chart view, each bar represents a process instance in a specific state. Click the bar that corresponds to a specific state to display the process instances that are in that state. Click the same bar again to remove the filter.

Take Action on a Process Instance

You can do the following functionalities on single process instances displayed in the Process Instances pane:

- View the status of the running instances of processes.

- Drill down to view detailed information for particular elements.

- Abort, suspend, resume execution of instances of processes.

- Open process instances and edit in the design mode.

- Edit suspended instances of processes and change values for operator parameters.

- Export the instance definition.

- Archive the instances.

- View the process dataset.

Take Action on Multiple Process Instances Simultaneously

When you view instances of processes with any filter in Process Instances pane, you can take a selected action on multiple instances simultaneously. When you select instances in different states, actions that apply to the state of at least one of the selected instances are displayed for selection. Consider the following example:

When you select the process instances in the Completed, Blocked, and Waiting states, the right-click menu displays the following actions:

■   Archive

■   Abort

■   Suspend

Refresh is available in all multiselect cases. The actions that are displayed are based on applicability to at least one of the states; for example:

■   Archive applies to objects in Completed state.

■   Abort and Suspend apply to objects in Blocked state and Waiting state.

If you select Suspend in this example, the objects currently in Blocked and Waiting states would change to the Suspended state. The object in Completed state would be unaffected.

Consider the case where you are denied permission to run the Abort command for a process instance such as process_1514.

■   If you right-click process_1514 alone, the Abort command is disabled.

■   If you select multiple rows and you have permission to use Abort on at least one instance, the Abort command is enabled.

■   If you select Abort, the action applies only to the instances for which you have permissions to use the abort action.

Export instance definition is the exception to the multiselect rule. This action is available only when you select a single row.

Use standard Windows multiselect procedures to select such rows in a block or select multiple rows individually. Most multiselect options are available in the Process Instances pane. Client.

- To select a block of rows, click the block start row, then hold down the Shift key while you click the block end row.

- To select discontinuous rows, click a row, then press and hold the Ctrl key while you click additional rows.

- To select contiguous rows following a selected row, hold down the Shift key while you press the down arrow key for each row to select.

- To select contiguous rows preceding a selected row, hold down the Shift key while you press the up arrow key for each row to select.

Select multiple instances in the detail pane of process Instances and then right-click and select one of the available commands.

Abort

Aborts the selected Process instances that are in one or more of the following states:

- Blocked

- Running

- Suspended

- Waiting

Archive

Archives the selected Process instances that are in one or more of the following states:

- Aborted

- Completed

- Failed

Suspend

Suspends execution of the selected process instances that are in one or more of the following states:

- Blocked

- Running

- Waiting

About CA Process Automation Processes

Some processes are appropriately run on a schedule while other are run on an needed basis. For example, a process that is designed to back up databases is best run on a regular schedule. A process that is designed to restore a database would be run only when needed. Content designers create agendas to start processes that are designed to run on a schedule. Content designers create start request forms to start on-demand processes that require users to specify settings at run time.

For on-demand processes with static settings, a start request form is not needed. You initiate the execution directly, from the process itself. Processes designed to be run at the discretion of users are in appropriate to schedule or start with triggers.

Processes run on an Orchestrator that is running the process control. When you start a process, the process control creates an instance of the process in memory. Operators in a process are then processed according to the logical order icons and the links between them in the process defines.

When error conditions arise, a process can perform corrective actions or can notify users with email alerts. You can open a suspended process to change parameter settings or edit the flow itself before restarting the flow. A suspended instance of a process can be re initialized and started from the beginning or restarted from where it left off.

Monitor Process Instances

Use the Process Instances pane to view process instances on an Orchestrator. You can use either the Process Instances pane or a Process Watch object to monitor and edit an instance. The Process Instances pane filters instances on an Orchestrator by state.

Follow these steps:

1. Log in to the CA Process Automation web interface.

2. Click the Operations tab, then click Links, Process Instances.

   The Process Instances pane displays the instances. The State filter is enabled by default and displays instances in the following states:

   ■ Running

   ■ Blocked

   ■ Waiting

   ■ Suspended

   ■ Queued

3. Take one of the following actions to set the state filter:

- To display all instances in a single state, click State, Filters in the drop-down menu and select the appropriate state. The drop-down menu lists the following states in addition to the default states listed in Step 2:

  – Completed

  – Failed

  – Aborted

  The Process Instance pane displays the instances in the selected states.

- To filter process instances by their names, click Instance, Filters in the drop-down menu and enter the filter text.

4. Set the date filter.

   a. Click Start time, Filters in the drop-down menu.

   b. Select the start of the date range.

   c. Click End Time, Filters in the drop-down menu.

   d. Select the end of the date range.

   The selected date range displays for the instance filter.

5. Review the filter results.

Instance

Displays instances that result from the specified process filter.

State

Displays the state of each instance.

Progress

Displays the progress of each process.

Duration Status

Indicates the status of each runtime process instance for which the duration is defined.

Start Time

Displays the start time of each process.

End Time

Displays the end time of each process, if applicable.

User

Identifies the user who started each process.

Touchpoint

Displays the Touchpoint on which each process instance in the selected state resides.

6. (Optional) Right-click a process instance and select an action that is applicable to the status of the selected object:

Open

Opens the Process Designer in debug mode so you can monitor and control how the instance runs. You can also double-click the instance to open it.

You can change a suspended process instance. Your changes affect only the current instance. To save the changes, export the instance and then import it to a Library.

Abort

Stops the selected process instance. You can stop a process instance when it is blocked, breakpoint suspended, running, suspended, or waiting.

Suspend

Suspends the selected process instance. You can resume a process instance when it in suspended state.

Resume

Resumes running the selected process instance. You can resume a process instance when it is suspended or breakpoint suspended.

Export

Exports the selected process instance to an object export file. Use the Export command to save changes to a process instance. Later, you can use the import option in the context menu of a folder in the Library Browser to create a process object. You can export a process instance when it is blocked, suspended, running, or waiting.

Dataset

Displays additional information about the selected process instance.

You can also use the toolbar to access all of the options that are available for a process.

About Process States

The Process Instances pane displays the predefined groups of instances. Process Watch objects display predefined groups for selected objects. To view instances of a process, select the predefined group, select a range of dates in the Start and End time. The following predefined groups of instances are displayed.

Note: You can open all instances of processes to review values of parameters for the processes and operators within the processes. Open a process when troubleshooting or debugging issues or to examine the values in history.

Queued

Display all the process instances which are queued through detached process and waiting for the execution.

Running

Displays running instances of processes on the Touchpoint. This filter does not fetch Waiting, Suspended, or Breakpoint suspended instances.

Suspended

Displays process instances that a user suspends or the process control suspends on a Touchpoint.

Waiting

Displays instances of processes with an inactive run state where all the active operators are waiting for an external asynchronous event. The event could be a user interaction, target date and time, or other long running operation. For example, the process enters the Waiting state if it cannot continue until the User Interaction operator completes. The Waiting state is Inactive when returned as a response to the getProcess Status web service method. Execution of long-running operators that cause a process instance to go into Waiting state follow:

- Invoke SOAP Method Async

- Date time wait

- Delay

- Get Directory Content

- Run PAM Process (if the process is a child process)

- Assign User Task operator

- Monitor Event operator

- Wait for Resource operator

- Monitor File operator

- Monitor SNMP operator

Blocked

Displays instances of processes which are blocked because there is no another path to take. For a blocked process instance to complete, suspend the process and provide a path that permits the process to complete. The Blocked Instances state can mean that user intervention is required or that the process instance cannot proceed because it met an unexpected condition.

Completed

Displays all instances of processes that completed without any issues.

Failed

Displays ended instances of processes on the Touchpoint.

Aborted

Displays abnormally ended instances of processes on the Touchpoint. Examine this folder to quickly identity the processes with problems. Open the abnormally ended instance of a process to troubleshoot the process.

Open an Instance of a Process

Use the following procedure to open an instance of a process in the process designer.

Follow these steps:

1. In the CA Process Automation web interface, open the Process Instances from the Links pane or the Process Watch in the Operations tab.

2. To open a process watch object, expand the folder containing the object, and double-click the process.

Any changes that are made to an instance of a process affect only the execution of that instance. Changes are not saved to the process object in the library. The changes are lost when the process control drops the workflow instance on the Touchpoint. To save changes to an instance of a process permanently, export the instance and then import it. When you import an exported process instance, that update becomes the new process object. Importing creates a version of the process object in the library that incorporates any changes you made to the process instance before the export.

Access the Process State

When the process designer displays a running or completed instance of a process, the display is periodically updated to show the current state of the process. The operator color coding scheme indicates the state of operators in an instance. A small indicator also appears on the top left corner of an icon when its operator is running, completed, or failed.

You can suspend a running process instance for editing. Once a process has completed or aborted, you can no longer change the process instance.

Monitor Operators

The operator shows a module that is currently executing operators.

Follow these steps:

1. Launch the CA Process Automation web interface, then click the Operations tab.

2. Under Links, click Operators.

3. Examine the displayed data, using the following field definitions.

   Instance

   Lists all active operators. To limit the display, set the date filter or instance filter or state filter.

State

   Specifies the state of the operators.

Type

   Specifies the underlying module to which the operator belongs.

Start Time

   The start time of the operator.

Caller

   Specifies the actual process or agenda to which the operator is associated.

Caller Node

   Applies to Active operators.

Caller Type

   Applies to Active operators.

User

   Identifies the user who started the operator.

Note: Expand the drop-down arrow next to each field to sort, view specific columns, and apply different filters.

4. To display properties, right-click an operator instance and Properties.

5. To open the process instance that invoked the operator, right-click a selected operator and select Open.

6. Select the drop-down arrow for all the field definitions to set the Filter option.

7. To display all the operator instances with a specific state, select the right drop-down filter next to State. By default only Running operator instances are displayed. In addition to the default states, you can select one or more of the following filters to view operator instances with other states.

   ■ Timeout

   ■ Completed

   ■ Failed

   ■ Aborted

   ■ On Hold

   ■ Idle

8. To update the displayed data, click the Refresh button in the toolbar.

Manage Tasks

The Task List displays a list of tasks that are assigned to a user, or to a group. When a user takes and completes a task, CA Process Automation archives the task after 2 minutes.

The Task List does not display the completed tasks. The Task List provides the following views:

My Tasks

Displays tasks that are explicitly assigned to a production user or that a production user takes.

Group Tasks

Displays all tasks that are assigned to groups to which the production user belong. The production user can filter tasks that are based on a group. The content administrator can view the tasks of a group in the All Groups filter.

All Tasks

Displays the list of tasks for all the users (in the pamadmin and PAMUsers groups). The content administrator can use this filter to view all the tasks, and transfer or delegate tasks to the production users or groups.

Each pending task in the Task List requires a reply. A content administrator and the task owner can reply to a pending request.

Manage tasks in the following ways:

■ Transfer a task to a new set of production users or groups. The task owner or the content administrator can transfer a task.

■ Delegate a task. A content administrator can delegate a task to additional production users and groups.

■ Remove a delegate from a task. A production user or a group member who is assigned to a task can remove one or more delegates or groups from the task.

■ Take a task, or return it. The production user or a content administrator can take and reply to a task. Only the task owner or a content administrator can release the ownership of a task.

Note: After a task is taken, a content administrator can delegate it. After the task is delegated, only the following users can complete the task:

■ Production user (who has taken the task)

■ Delegated user

■ Content administrator

How to Manage Task Lists

Production administrators analyze task details and view the pending task to determine whether it has already been assigned or delegated. Administrators views assignees and delegates and either transfer the task to a user or delegate the task to a group. Administrators can also remove a delegate from a task.

The following diagram illustrates how an administrator manages the tasks:
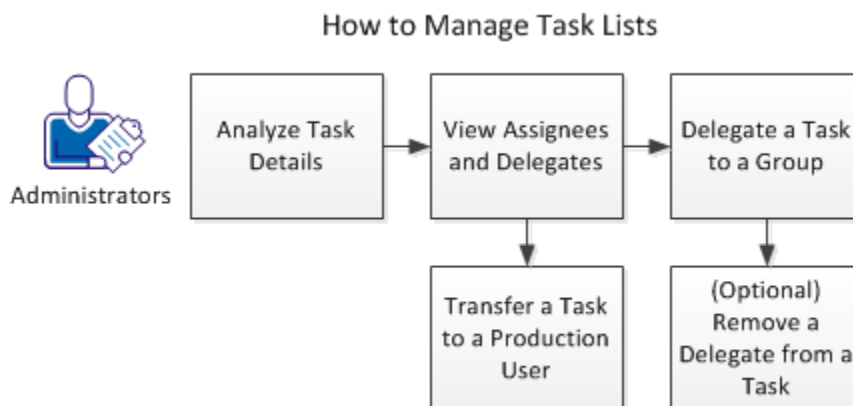
Follow these procedures:

1. Analyze Task Details (see page 31).

2. View Assignees and Delegates (see page 32).

3. Transfer a Task to a Production User (see page 34).

4. Delegate a Task to a Production User or Group (see page 34).

5. Remove a delegate from a task (see page 35).

Note: The administrator can take or return a task on behalf of the production user.

Analyze Task Details

If different groups handle different types of tasks, the content administrator first reviews information about the underlying request. This information can indicate the correct group or production user to receive the task assignment.

Follow these steps:

1. Log in to the CA Process Automation web interface.

   CA Process Automation dashboard opens.

2. Click the Operations tab.

   The Task List panel appears in the Links panel. The Task List displays the pending tasks on the right-pane.

3. Right-click a pending task and select Open Process Instance.

The process design diagram opens.

4. Identify the production user or group who handles this type of request.

After the content administrator analyzes the task details, the content administrator transfers the task to a production user or a group that handles the request.

View Assignees and Delegates

The content administrator reviews the pending tasks in the All Tasks pane to identify any task that has not yet been delegated or assigned.

Typically, a content administrator assigns tasks to a group composed of users who handle a specific type of request. The content administrator can view the pending task to determine whether it has already been delegated or assigned. Delegated and assigned tasks are displayed with a list of delegated or assigned users or groups.

The task property lets you view the delegates and assignees as shown in the following illustration:
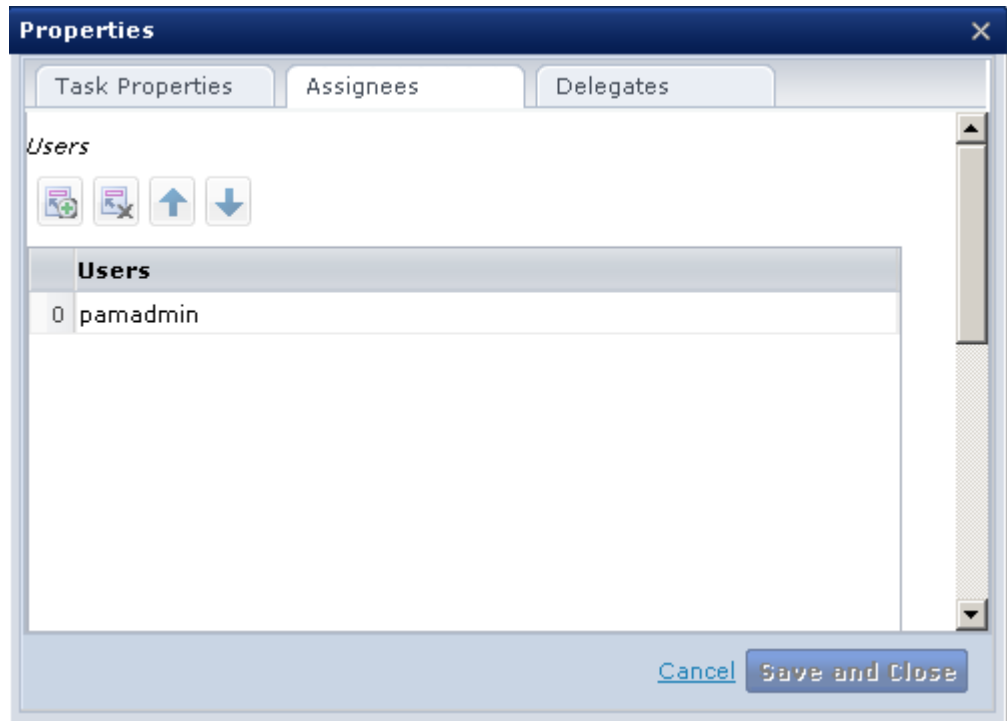
Click the ![icon] icon under Assignees from CA Process Automation to view the assigned users or group:
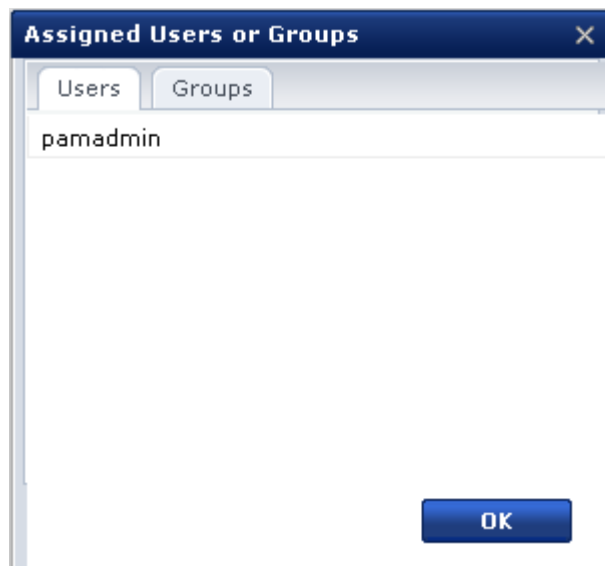
The Delegates Users or Groups dialog is similar to the Assigned Users or Groups dialog. If the task is assigned to the wrong group, transferring that task typically follows viewing.

Follow these steps:

1. Log in to the CA Process Automation web interface.

   CA Process Automation dashboard opens.

2. Click the Operations tab.

   The Task List panel appears in the Links panel. The Task List displays the pending tasks on the right-pane.

3. Select All Tasks to display both My Tasks and Group Tasks.

4. Perform one of the following tasks to view the assignees or delegates:

   ■ Click the icon in the Assignees column to view the assigned Users and Groups. Click the icon for Delegates to view the delegated Users and Groups.

   ■ Right-click a task and select Properties. Click the Assignees palette, click the Delegates palette, and determine whether there are any assignees or delegates.

   You have determined the tasks that are assigned and the ones that are not.

Transfer Task to a Production User

The content administrator can transfer a task (set the list of assignees) to a new set of users or groups. Once ownership is transferred, the current set of assigned users or groups is no longer associated with the task.

Follow these steps:

1. Log in to the CA Process Automation web interface.

    CA Process Automation dashboard opens.

2. Click the Operations tab.

    The Task List panel appears in the Links panel. The Task List displays the pending tasks on the right-pane.

3. Select the task on the Task List pane, right-click to select Transfer.

4. Select either the Users or the Groups tab.

5. Enter a search criteria in the Search field.

    For example, enter the first letter or first three letters of the user name or group name to display for selection in the search field.

6. Select one or more members in the available list and click the right arrow to move the selected member to Selected Users or Selected Groups.

7. Repeat the search and selection steps until all of the appropriate users or groups appear in the Selected list.

8. Click OK.

    Once the task is transferred, it no longer remains in the list of current assignees; it moves to the list of new assignees.

Delegate a Task to a Production User or Group

Content administrator delegates tasks to production users or groups. After the task is delegated to a production user or a group, the task can be acted on only by the production user or production users of a group. The content administrator can also take a task and reply to it.

Follow these steps:

1. Select the task on the Task List pane, right-click to select Delegate.

2. Select either the Users or Groups tab.

3. Enter search criteria in the Search field.

    For example, enter the first letter or first three letters of the production user name or group name to display for selection in the search field.

4. Select one or more members in the available list and click the right arrow to move the selected member to Selected Users or Selected Groups.

5. Repeat the search and selection steps until all of the appropriate production users or groups appear in the Selected list.

6. Click OK.

    The delegated task now appears in the list of both assignees and delegated production users.

Remove a Delegate from a Task

The content administrator can remove one or more delegated production user or production users belonging to groups who are assigned to a task. Once the production user or group is deleted, they are no more listed in the delegate users list.

Follow these steps:

1. Log in to the CA Process Automation web interface as a content administrator.

2. Select the task on the Task List, right-click to select Delegate.

3. Select the production user or group to remove as a delegate.

4. Select the delegate that you want to remove on the Selected List and click the left arrow to move that user or group to the Available List.

5. Click OK.

    The task is no longer assigned to the delegate. The task status changes to pending.

How to Use Task Lists

After an administrator transfers or delegates a task, the My Tasks view lists assigned tasks for production users. Production users can filter the tasks displayed by the group to which the user belongs.

The following illustration describes how to use the task list:

How to Use Task Lists
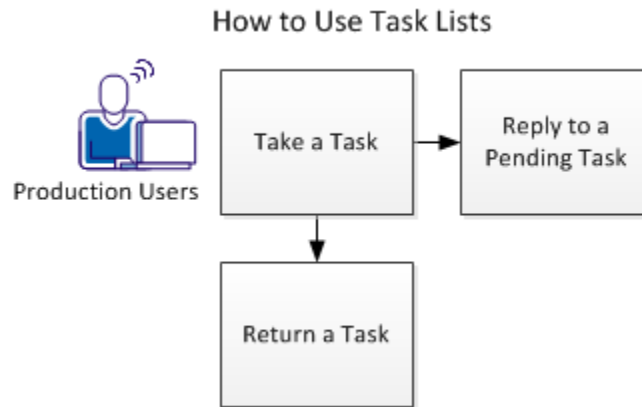
Follow these procedures:

1. Take a task (see page 36).

2. Reply to a pending task (see page 36).

3. Return a task (see page 38).

Take a Task

The Take action lets the production user or production user belonging to a group to take ownership of a task. Once task ownership is taken, only the task owner or a content administrator can act on that task.

Follow these steps:

1. Click the Operations tab in the CA Process Automation web interface.

2. Select Task List from the Links panel.

3. Select My Tasks from the Task List pane.

   My Tasks palette is displayed with all the tasks that have been assigned to you.

4. Right-click the task to take, and select Take.

   Taking a task changes its status from *Pending* to *Taken*. The task owner can only reply to the taken task.

Reply to a Pending Task

All the pending tasks wait for a user to respond before continuing to the next Operator in the process. When the generated notifications are not opened and completed within a specified time interval, the notification times out.

In any case if a production user is not able to reply to a pending request, the content administrator can reply to a task.

Follow these steps:

1. Log in to the CA Process Automation web interface.

   CA Process Automation dashboard opens.

2. Select the Operations tab.

   The Task List panel appears in the Links panel.

3. Select one of the following views:

   My Tasks

   > Displays tasks that are explicitly assigned to a production user, or the task that a production user takes.

   Group Tasks

   > Displays all tasks that are assigned to groups to which a production user belongs to. The production user can filter the tasks that are based on the group.

4. Right-click a pending task and click Reply.

   The Reply dialog opens.

5. On each page of the prompt, do the following steps to edit the parameter value:

   a. (Optional) Click Back to change parameters on previous pages.

   b. Enter the requested information, and click Next.

6. Click Finish. One of the following results occurs:

   ■ Approval initiates the process control module to process the Prompt Completed exit link on the Assign User Task operator in the Process.

   - The State column shows Approved for the accepted user prompt.

   - The End column shows the date and time that the user prompt was accepted.

   - Subsequent actions that a process performs depend on the logic that is built into the Prompt Completed branch of the process.

   ■ Rejection interrupts the normal processing of a Process. Rejection discards any input from the form. Rejection signals the process control module to process the Prompt Aborted exit link on the Assign User Task operator in the process.

   - The State column shows Rejected for the rejected user prompt.

   - The End Time column shows the date and time that the user prompt was rejected.

   - Subsequent actions that a process performs depend on the logic that is built into the Prompt Aborted branch of the process.

Return a Task

When a production user returns a task, the task ownership is released. The production user no longer owns the task and the released task appears in the Task List as a pending task. A content administrator can also return a task on behalf of the production user and reply to the task.

Follow these steps:

1. Select a task and right-click.

2. Click Return.

    Returning a task changes its status from *Taken* to *Pending.*

Work with Active Schedules

Activate Schedules

To execute scheduled tasks, activate the schedule object on the Orchestrator first. The Orchestrator interprets all active schedules. Once a schedule is active, the Orchestrator evaluates the scheduling conditions for its tasks every minute to determine which tasks must be started. Each task in a schedule is started at its scheduled dates and times on the Touchpoint that the Service Parameters setting specifies in the task properties.

You can activate a schedule in the Library Browser pane, or Process Watch pane in the Operations tab of the CA Process Automation web interface. An active schedule appears in the Links pane under the Active Schedules for the Orchestrator on which it is activated. In the Process Watch pane, you can view the Touchpoints on which the schedule is active.

Activate a Schedule Using Process Watch

Use the following procedure to activate a schedule object using Process Watch. To use Process Watch to activate an agenda, there must be a Process Watch object for the agenda.

Follow these steps:

1. Log in to the CA Process Automation web interface.

2. Select Process Watch from the Operations tab.

3. Select the schedule object that you want to activate form the respective folders displayed in the left pane.

4. Right-click the schedule object and select Activate.

   The schedule on the Orchestrator in whose repository the schedule resides is activated.

5. Right-click and select Properties for the schedule object in the library browser to view the Orchestrator on which the schedule object is activated.

Deactivate a Schedule Using Process Watch

Follow these steps:

1. Open the Process Watch pane from the Operations tab in the CA Process Automation web interface.

2. Right-click the schedule object from the folders that are displayed on the left pane.

3. Click Deactivate to complete the deactivation.

You can also do the following ways to deactivate the schedule objects:

■ Right-click the schedule objects in the Library Browser pane and click Deactivate.

■ Right-click the schedule object in the Active Schedules pane of the Operations tab and click Deactivate.

Monitor Active Schedules

After you activate a schedule, you can monitor it using Active Schedules. You can view the Orchestrator on which a schedule is active by viewing the schedule properties in the Library Browser pane.

You can use the Active Schedules to view and monitor all active schedule on an Orchestrator. The Links pane in the Operation tab has a container titled Active Schedules. You can deactivate a schedule by right clicking a schedule and selecting Deactivate.

Clicking this container displays active schedule on the Orchestrator. Double-clicking an active schedule opens it in the Schedule Designer, so you can view or manage the tasks that a schedule object schedule. The following procedure describes how to manage an active schedule in a Library.

Follow these steps:

1. On the Operations tab, click Links.

2. Click Active Schedules for the Orchestrator on which you want to view the active schedules.

3. In the Active Schedules pane, double-click the active schedule.

The Schedule Designer opens, in which you can view and manage tasks that the schedule object schedules. The permissions that are assigned to the current user affect whether the user can list, open, or edit a specific schedule object. A content administrator or automation object owner can change permissions of an automation object.

Global Schedules

Global Schedules tab in the Links palette displays runtime tasks that are scheduled on an Orchestrator, Touchpoints, and on all the nodes. The global schedule displays the following information for each task:

Task

The name of the task.

Start Time

The start time for a task.

End Time

The time the task ends.

State

The current state of the task.

Type

The type of operation that the task schedules.

Calendar

The Calendar parameter that is specified for the task.

Exclude

The vacation calendar specified for the task.

Scheduled Time

The time at which the task was scheduled to start.

Schedule

Specifies the path of the schedule object.

The following procedure describes how a content administrator manages the global schedules in the Operations tab.

Follow these steps:

1. Log in to CA Process Automation.

2. In the Operations tab, click Links.

3. Click Global Schedules.

   The Global Schedules pane lists the runtime tasks that are scheduled on all the nodes.

4. You can filter to view the tasks that are based on the start date, running on Orchestrator or Touchpoints.

5. Right click a task, the following option appears:

   Reset

   Resets the start time and the task state changes to the default On hold state.

   Release Hold

   Release the task that is in On hold state and the task state changes to Idle.

   On Hold

   Keeps a task in On Hold state.

   Dataset

   View system and process information for the task.

   Task Properties

   Lets you change the time, program, and execution settings.

   Time — Provide the start time, end time, frequency to repeat the task at regular intervals.

   Program — Specify the program name that you want to execute on the host computer.

   Execution Settings — Provide the target and the timeout details.

6. (optional) Select the Archived option button to view the archived tasks.

Start Requests

Start Requests in the Links palette displays the runtime instances of start requests on the Orchestrator. The Start Requests displays the following information for each start request:

Instance name

Specifies the start request name.

Process Instance

Specifies the process instance name.

Scheduled Time

Specifies the scheduled time.

State

Specifies the current state of the start request. Queued, Running, Failed, and Completed are the available states and you can filter to view to the start request of required states.

Start Time

Specifies the time when the start request instance was started.

End Time

Specifies when the instance got completed or failed or aborted.

User

Specifies the user.

Chapter 3: Creating and Using Process Watch

This section contains the following topics:

Start a Process from Process Watch

The Process Watch allows a content administrator to define and monitor the selected automation objects in CA Process Automation. When you create a process watch, you can add a process to it and sort by filters to monitor the process.

Follow these steps:

1. Log in to the CA Process Automation web interface.

2. Click the Process Watch pane in the Operations to open it.

3. Right-click the process and select Start Process.

   The Process instance that you started appears.

4. View the Touchpoint, state, and start and end times of the process instance you started.

Create a Process Watch

A Process Watch can contain shortcuts for the following objects:

- Orchestrators

- Touchpoint

- Process

- Dataset

- Custom operator

- Schedule

- Resources

- Start Request Form

Follow these steps:

1. Open the library browser in the CA Process Automation web interface form the Library tab.

2. Right-click the target folder and select New Object, Process Watch.

3. A process watch object is added to the selected folder.

4. Right-click the process watch object and select Rename.

5. Enter a name for the process watch in the Name field.

6. To add objects displayed in the Object Browser to the custom Process Watch:

   a. Double-click to open the process watch. The object browser on the left pane displays Orchestrator, Touchpoints, Host Groups, and the folder that contains the Processes, Datasets, Resources, Start Request Forms, Custom operator, and Custom Icon you added.

      You can view the object properties, versions, and audit trial in the process watch window.

   b. Select an Orchestrator, Touchpoint, Host Group, Process, Dataset, Resources, or Start Request Form object, and click Add new.

      The selected object is added to the process watch.

   c. Click Save and Close.

   d. Repeat to add each object.

7. To add keywords:

   a. Right-click the process watch object and select Properties.

      The Properties panel for the process watch opens.

   b. Click the Tags tab.

   c. Click the Edit button.

   d. Enter a Keyword.

   e. Click Save.

8. To assign the process watch to a different owner, do the following steps:

   a. Right-click the process watch object and select Set Owner.

   b. Search users form the available users.

   c. Select the name of the user who is to be the new owner and click Set Owner.

9. To check in the process watch, right-click the object and select Check In/Out, Check in.

   Note: A process watch can be added to CA Process Automation even if it is not checked in.

More information:

Control Process Watches Displayed in CA Process Automation (see page 45)

Control Process Watches Displayed in CA Process Automation

A content administrator gives the list, and read permissions to users on the process watch object. Any user with read and list permissions can add that process watch as a palette in CA Process Automation.

More information:

Chapter 4: Working with Datasets

This section contains the following topics:

Datasets

Datasets let you define and store groups of variables that are used as input parameters. Datasets provide a way to share data across multiple process instances. A dataset object defines a collection of variables that the object name references. You create and manage datasets in the Library Browser just as you do any other automation objects for an Orchestrator. A dataset can contain any number of fields, called *variables*. For more information about Datasets, see "Datasets and Parameters" in the *Content Designer Guide.*

Edit Parameters in Datasets

Dataset palette in the Operations tab lets a content administrator view and edit the datasets defined in CA Process Automation. You cannot use the Dataset palette on the Operations tab to add a dataset.

Follow these steps:

1. Log in to CA Process Automation as a content administrator.

2. Click Operations tab, and select Dataset palette.

3. Make a selection from the expandable list of defined datasets objects.

   The right hand pane displays the parameters name, and value that are defined for the dataset objects.

4. Click the row and then select View Expression to get expression for that variable to use in process definitions.

5. Click the Value field of a parameter, and edit the parameter value and click Save.

6. To edit the indexed field in an array, right click a parameter to select Add Indexed value. A new indexed field value is added to the array.

To delete a parameter, right-click it, select Delete Indexed value, and confirm the deletion.

Note: A user can only view the datasets defined in CA Process Automation dataset objects.

Chapter 5: Working with Resources

This section contains the following topics:

Resources

Use Resource objects to synchronize independent processes that rely on common elements of the infrastructure. Resource objects are models representing elements of your system architecture. Use resources to quantify and control access to particular IT entities. Include multiple resources representing related entities in a single Resource object.

To manage resources, define a resource object that the process consumes. When running processes lock or are consuming the resource, additional requests for the resource must wait until the resource is available or free. Use resources to handle load balancing in your processes.

For more information about Resources, see Resources in the *Content Designer Guide*.

Edit Resource Properties to Handle Load Balancing

Resource palette in the Operations tab lets a content administrator edit resource properties to handle load balancing in CA Process Automation.

Follow these steps:

1. Log in to CA Process Automation as a content administrator.

2. Click Operations tab, and select Resources.

3. Make a selection from the expandable list of defined resource objects.

    The resources pane lists the resources in a Resource object with the following description:

    Name

    Lists the names of individual resources in a resource object.

    Amount

    Lists the total number of units that are assigned to a resource.

Used

Indicates the number of assigned units.

Free

Indicates the number of unassigned units.

State

Specifies whether a resource is locked or unlocked.

% Usage

Specifies the percentage of the resource currently being utilized.

Description

Provides a description of the resource.

4. You can edit the Amount, Used, and Description fields.

5. Right click a resource object to perform Refresh or Clear or Lock or Unlock actions on the resources.

Chapter 6: Responding to User Requests

This section contains the following topics:

Monitor Requests

A production user with sufficient permissions, can use the Start Request panel in the Operations tab to monitor, or control requests. In the Start Request panel, view the active requests for a particular start request form in a folder, and submit the new requests. The requests list displays the history and status of tasks that the current user started, and any tasks to which the user has List permission.

When a start request form is started form the Library Browser or from the Operations tab, the instance state depends on the following criteria:

■   If the start request form is Scheduled for future timing, the state of the instance is in the Queued state.

■   If the start request form is scheduled immediately, the instance is in Completed or Failed state depending on the execution.

■   If the process containing Long running operators for example, delay through Start request form, the instance is in running State.

The Current option button displays the queued, running, completed, aborting, and failed tasks. The length of time a completed tasks remains in this list depends on the policies settings in the Orchestrator configuration pages. For each request, columns in the requests list pane show the request ID, the current state of the request, the start time, and end time. You can filter by state to view the requests of a particular state.

The Archived option button lets you view the failed and completed instances.

You can do the following actions when you select single start request forms in different states:

- If the selected instance is of Running state, then you can open the instance, view its properties, and abort it.

- If the selected instance is of Queued state, then you can view the instance properties and can dequeue it.

- If the selected instance is of Failed or Completed state, then you can open and view the properties.

- If you select all the instances, then Dequeue and Abort options are enabled.

When you select multiple instances of the start request forms in different states, the Open and Properties options are disabled. Depending on the state of selected instances, the Abort and Dequeue options are enabled.

Depending on the state of selected instances, you can take the following actions:

- If combination of instances states like Running and Queued are selected, then the Abort and Dequeue options are enabled.

- If the combination of instances states like Running with other states like Failed and Completed are selected, then only the Abort option is enabled.

- If the combination of instances states like Queued state with other states like Failed and Completed are selected, then only the Dequeue option is enabled.

- If the combination of instances states like failed state and Completed are selected, then no options are available.

You can view the running, queued, and other recently submitted requests in the Start Requests link in the *Links* panel. If the current user is logged on as a content administrator, the request list displays the history and status for that tasks that all the user starts.

View Information About an Active Request

You can view information for an active request by right-clicking an instance, and then click Properties. The Queue Properties dialog displays the request information.

The fields on the Queue Properties tab of the Queue Properties dialog are updated to show the status of the request each time you open it.

If a request has output parameters, the Queue Properties dialog displays the parameters and their values as the process control is processed. Some parameters can show an initial input value and then change after the task changes their values. Other parameters can be used only for output and display a value until the task assigns output values to them.

Open an Instance of a Process that is in the Start Request Form

After the process control module starts running an instance that is associated with a start request form, you can open the instance in the process designer or viewer. For a running, paused, or interrupted process, you can view or control execution of the process. For a completed or aborted process, you can view the results for operators in the process. You must have sufficient permissions to list, open, or control execution for a particular request.

Follow these steps:

1. In the CA Process Automation web interface, click the Operations and the Start Request palette.

2. In the Start Requests palette, click the root folder to view all active requests in the requests lists.

3. To view active requests for a particular Start Requests Form object, expand the folder containing the object, and click the particular object.

4. Right-click the request that you want to open, and click Open.

   The instance of the process that is associated with the request in the process designer opens.

The debug mode functionality of the process designer lets you do the following tasks:

- Reset operators

- Suspend or abort operators

- Restart processing at a breakpoint

- Add or remove breakpoints

- Suspend or abort a process

You can also look at dataset variables of the process and examine parameters for the operators in a process workflow.

Note: For more information about using the process designer in debug mode, see Run Processes Interactively in the *Content Designer Guide*.

Dequeue a Pending Request

A request in the Queued state can be removed from the queue before it enters the Running state. To remove a queued request, right-click the instance with a Queued state in the request list of Start Request pane, and click the Dequeue command.

The task State changes to Failed. The Start Time and End Time columns remain empty because processing never started for the associated process.

Abort a Running Request

A request in the Running state can be aborted.

To abort a running request, right-click the instance on the request pane of Start Request pane, and click the Abort command.

The task state then changes to Failed, and processing of the process instance is ended. The Start Time column shows the time when the process control module starts processing the instance of the process. The End Time column shows the time when the processing is aborted.

Given the right permissions, you can open an aborted process instance to view the processing status for icons in the process.

About the Start Request Form

The content designer uses start request form objects to define prompts for parameter values to initialize dataset variables in a process. The production user who starts the process uses the start request form to set the values for the current execution of the process. The content designer controls the setting whether the user who starts the request, and has the options to queue it. Because most start requests are initiated with the intent to run them right away, most start request forms are designed to start running immediately.

The production users or content administrators can start a start request form from the following locations:

■ Click the Operations and the Start Request pane in the CA Process Automation web interface. Navigate to the folder containing a start request form, right-click the start request form, and select Start.

■ Open the Library Browser in the CA Process Automation web interface. Navigate to the folder containing a start request form, right-click the start request form, and select Start to open the Start Request wizard.

■ Open the Process Watch palette for a process watch to which you added a start request form.

You can right-click any start request form object, and click Properties to view the following information:

■ Name

■ Reference — path is the path to the start request form object in the library.

■ Process name — the process that a request starts.

■ Touchpoint — the Touchpoint on which the form is located.

A start request form object specifies the following elements:

- A process object.

- Prompts for values that are required to start the process.

- Automation object permissions.

  If CA EEM manages CA Process Automation security, create a custom policy with the start request form resource class to grant the ability to start the start request form. In the custom policy, add identities to grant access, select StartRequestForm (Start) as the action, and add /Job Start Forms/* as the resource. Create a custom policy for objects to grant access to the folder with forms, including the Start Request Form. In the custom objects policy, add identities to grant access, select Object_List (List) and Object_Read (Read) as the actions, and add / as the resource.

Users with access to a process watch can monitor all requests in all states. Users can create a process watch to monitor specific requests.

Submit a Start Request from CA Process Automation

If you have the required permissions, you can submit a start request from the Start Request pane in the Operations tab. In CA EEM, you are granted Start permission on the start request form object through a custom policy on the start request form.

If you check out and modify one or more automation objects used in the process invoked with the start request form, your private checked-out copy is loaded and executed. That is, you can execute and test your own checked out version of objects in a process without first checking them in or making them current.

Follow these steps:

1. Log in to the CA Process Automation web interface.

2. Open the Start Request pane in the Operations tab.

3. Navigate to the target start request form, right-click the form, and select Start.

4. Set the parameters on the first page and click Finish, if this button is displayed. Otherwise, click Next.

   - If you clicked Finish, the process is queued to run immediately. Continue with Step 7.

   - If you clicked Next, the next page of the start request wizard appears.

5.   If the page does not include the Queue request immediately setting, set the parameters, and click Finish, if the button is displayed. Otherwise, click Next.

■   If you clicked Finish, the process is queued to run immediately. Continue with Step 7.

■   If you clicked Next, the next page of the start request form wizard appears. Repeat this step, if applicable. Otherwise, continue.

6.   If the page displays the Queue request immediately setting, take one of the following actions:

■   Accept the default settings and click Finish.

The request is queued to run immediately.

■   Clear the Queue request immediately check box, set a future date and time, and click Finish.

The process stays in queued state until the specified date and time. At the scheduled time, the request starts running unless it is dequeued.

7.   (Optional) When processing begins, monitor the Process instance in Process Watch.

Chapter 7: Viewing Schedules

The Schedules palette in the Operations tab displays the running instances of the tasks that are scheduled. The schedule displays the following information columns for each task:

Task

> The name of the task.

Start Time

> The start time for a task.

End Time

> The time the task ends.

State

> The current state of the task.

Type

> The type of operation that the task schedules.

Calendar

> The Calendar parameter that is specified for the task.

Exclude

> The vacation calendar that is specified for the task.

Scheduled Time

> The time at which the task was scheduled to start.

Schedule

> Specifies the path of the schedule object.

This section contains the following topics:

Manage Schedules

The following procedure describes how you can manage the schedules from the Operations tab.

Follow these steps:

1. Log in to CA Process Automation.

2. In the Operations tab, click Schedules.

3. Expand the folders and select the target task.

    The Schedules pane lists the tasks that are scheduled.

4. You can filter to view the tasks that are based on the start date or the other available fields.

5. Right click a task, the following option appears:

    Reset

    Resets the start time and the task state changes to the default On hold state.

    Release Hold

    Release the task that is in On hold state and the task state changes to Idle.

    On Hold

    Keeps a task in On Hold state.

    Dataset

    View system and process information for the task.

    Task Properties

    Lets you change the time, program, and execution settings.

    Time — Provide the start time, end time, frequency to repeat the task at regular intervals.

    Program — Specify the program name that you want to execute on the host computer.

    Execution Settings — Provide the target and the timeout details.

6. (optional) Select the Archived option button to view the archived tasks.

Chapter 8: Manage Archive Library Instances

CA Process Automation supports archiving library instances to a secondary historical database or table. Archiving keeps the historical instances without necessarily presenting them to the users. Instead of purging them, CA Process Automation moves archived instances to the secondary database or table for analysis and purges them when they are no longer required.

A content administrator configures the archived instances of interaction request forms at the Domain level. The content administrator configures the archived instances for processes, Schedules, and start requests at the Orchestrator level.

Managing Archived Library Objects

Define the archival policy for the schedule, process, or start request form in the Library Browser pane form on the Configuration Browser.

Override the Orchestrator Archive Policy at the Object Level

A content designer defines the object-based policy for specific objects to override the default archival policy that is inherited from an Orchestrator. Define the object-specific policy to specify the minimum days of process history to archive and the minimum number of failed and completed instances.

Follow these steps:

1. Click the Library tab.

2. In the Library Browser pane, open the target folder and right-click an object of one of the following types:

   ■ Process

   ■ Schedule

   ■ Start request form

3. Select Properties.

4. On the Properties pane, click the Archival Policy tab.

5. Clear the Inherit Archival Policy from Orchestrator check box. Clearing the check box lets you edit associated fields.

6. Specify values for the following fields:

   ■ Minimum Days of Process History

   ■ Minimum number of Failed Instances

   ■ Minimum number of Completed Instances

7. Click Save.

   The archive policy is defined for the selected object.

Configuring Archiving for Interaction Request Forms

You can override the minimum days of process history to retain for completed interaction request forms. By default, the process control at the Domain level sets the archive interval for interaction request form objects to 2 minutes.

Define the archival policy for the interaction request form from the Configuration Browser.

Define Domain Level Setting for Archiving

You can define the default interval to retain interaction request form instances at the Domain level.

Follow these steps:

1. Click the Configuration tab.

2. On the Configuration Browser pane, right-click Domain and select Lock.

3. Click the Modules tab, right-click a process control module, and select Edit.

4. On the process control module Properties tab, type a value in the Time to Keep Completed User Interaction field. The default value is 2 minutes.

5. Click Apply.

6. Click Save.

7. Right-click Domain and select Unlock.

Accept or Override Policy at Environment Level

You can override the setting for archiving completed Interaction Request Form objects at the Environment level.

Follow these steps:

1. Click the Configuration tab.

2. On the Configuration Browser pane, right-click the target Environment and select Lock.

3. Click the Modules tab, right-click a process control module, and select Edit.

4. On the Properties tab, clear the Inherit settings check box.

5. In the Time to Keep Completed User Interaction field, type a new value.

6. Click Apply, then click Save.

7. On the Configuration Browser pane, right-click the target Environment and select Unlock.

Accept or Override Policy at Orchestrator Level

You can override the setting for archiving completed Interaction Request Form objects at the Orchestrator level.

Follow these steps:

1. Click the Configuration tab.

2. On the Configuration Browser pane, right-click the target Environment and select Lock.

3. Click the target Orchestrator.

4. Click the Modules tab, right-click a process control module, and select Edit.

5. On the Properties tab, clear the Inherit settings check box.

6. In the Time to Keep Completed User Interaction field, type a new value.

7. Click Apply, then click Save.

8. On the Configuration Browser pane, right-click the target Environment and select Unlock.

View Archived Instances

Use the following automation objects to view the archived instances in the Operations tab:

Process Instances

Displays the archived instances of various processes.

Process Watch

Displays the archived instances of the Orchestrator and the process.

Add an Orchestrator, process, or both in a process watch document to retrieve all archived instances.

Global Schedule

Displays all archived instances of all active schedules. Open a global schedule and select the Archived Instance option to display only archived instances of all active schedules.

Follow these steps:

1. Click the Operations tab.

2. From the Links menu on the Operations tab, select the automation objects for which to view archived instances.

3. Select the Archived option button in the upper right of the Operations tab.

    CA Process Automation retrieves the archived Instances from the database.

4. Select a Start and End Time filter to view the archived instances for the specified date range.

Purge Archived Instances

Purge archived instances to increase dashboard efficiency and performance. Purging archived instances requires content administrator permission. You can use a SOAP operator or the Configuration Browser policies to purge the archived instances.
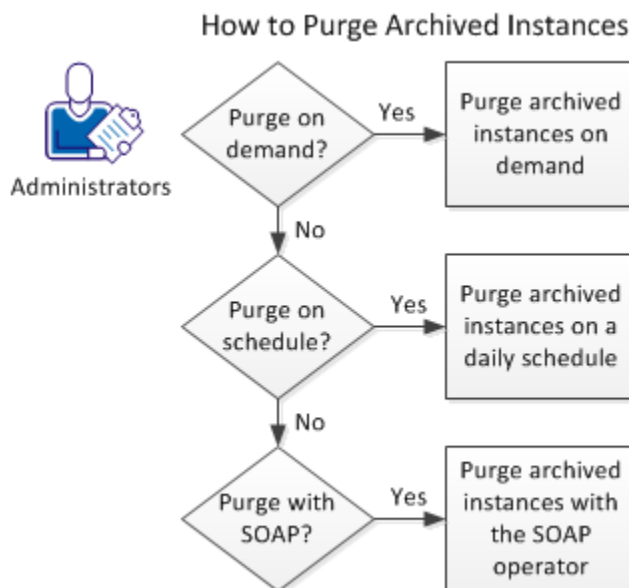
Content administrators can purge archived instances in the following ways:

- Purge archived instances on demand (see page 63).
- Purge archived instances on a daily schedule (see page 64).
- Purge archived instances with the SOAP operator (see page 65)

Purge Archived Instances On Demand

You can delete archived process instances on demand. On demand purging deletes all process instances that ran during the date range you specify.

Follow these steps:

1. Click the Configuration tab and expand the Orchestrators node in the Configuration Browser.

   The expanded node displays all the Orchestrators in the Domain.

2. Right-click the Orchestrator that contains the archived process instances to purge, and click Lock.

3. Click the Policies tab.

4. Click Delete Archived Instance at the bottom of the pane.

5. In the Delete Archived Instance dialog, define the date range in which to purge archived instances.

    a. Click the From Date calendar button, then select Today or a start date that precedes today.

    b. Click the To Date calendar button, then select Today or an end date that precedes today.

    c. Click OK.

6. On the confirmation message, click Yes.

    The purge process deletes all archived instances that ran during the specified date range.

7. Right-click the Orchestrator, and click Unlock.

Purge Archived Instances on a Daily Schedule

Administrators can configure a policy to purge archived process instances from a selected Orchestrator automatically as a scheduled task.

Follow these steps:

1. Click the Configuration tab.

2. Expand the Orchestrators palette.

3. Select the Orchestrator to configure, and click Lock.

4. Click the Policies tab.

5. Select Purge Archived Data Daily from the Option to Purge Archived Data drop-down list.

6. Set the Number of Days to Keep Archived Data field to the number of days to retain the archived process instances. CA Process Automation purges an archived instance at the specified time after the configured number of days. The default value is 10.

7. Set the Start Time to Purge Archived Data Daily field to the time (in hh:mm format) to purge instances that reach the configured age limit. The default value is 00:01 (1 minute after midnight).

8. Click Save.

9. Click Unlock.

Purge Archived Instances with the SOAP Operator

Purge the archived CA Process Automation Orchestrator instances to increase dashboard efficiency. Content administrator permission is required to purge archived instances that are no longer used. You can use a Simple Object Access Protocol (SOAP) Operator or the Configuration Browser to purge archived instances.

Follow these steps:

1. Click the Library tab.

   The Library Browser pane opens.

2. Select a folder in the Library Browser folders pane.

3. In the toolbar, click New and then click Process.

   A new process object appears with a default name.

4. Click the default process name and change it to a unique name.

5. Double-click the process in the Library.

   The Process Designer opens with a default set of start and stop operators.

6. Drag an *Invoke SOAP Method* operator (from Web Services) in the Operators palette to the process layout.

7. In the SOAP Call Data properties palette, click WSDL Wizard.

8. On the WSDL explorer window, enter the WSDL URL and click Load.

   You can access the Web Services Description Language (WSDL) for the CA Process Automation Web services interface at the following URL:

   ```
   http(s)://<CA Process Automation Server Name>:CA
   Portal/itpam/soap?wsdl
   ```

   WSDL Services, WSDL ports values are populated.

9. Select the *deleteArchivedInstances* web services method from the drop-down list and click Apply.

10. Click Yes to confirm if you want to delete the previously generated variables.

11. Click Inline text in the SOAP Call Data properties palette.

12. Modify the Input text source to provide the user name, the password, and the dates values and click OK.

   You can provide the token value, the user name, or the password. Specify the date range in which to delete archived instances in the <fromDate> and <toDate> tags. Use the standard XSD format 2002-05-30T09:00:00.

   Consider the following examples, where the date range is specified in standard XSD format.

   ```
   <deleteArchivedInstances xmlns="http://www.ca.com/itpam">
   <auth>
   <user>Joe</ user >
   <password>thisismypassword</ password >
   <auth>
   <dateRange>
   <fromDate>2012-02-02T02:00:00.320+05:30</fromDate>
   <toDate>2012-02-02T03:00:00.320+05:30</toDate>
   </dateRange>
   </deleteArchivedInstances>
   ```

13. Click Call Results and select the appropriate options to view the results.

14. Save and run the process.

15. Verify that you want to save the changes and that you want to monitor the new instance.

   The process runs and displays the completion or failure state.

16. In the process design, select the Operational Results folder in the Dataset tab to view the deletion status.

17. Select Operations, Process Instances and select the Archived option to verify the deletion.

   The product deletes instances that were archived in the specified date range.

Chapter 9: Handling Operators Recovery

This section contains the following topics:

About Operators Recovery

In Properties configurations, Operators Auto Recovery has the following default settings:

- Environment Level: All new and existing Environments *enable* Operators Auto Recovery.

- Touchpoint Level: All new and existing Touchpoints inherit the Environment setting.

- Host Group Level: All Host Groups inherit the Environment setting.

- Orchestrator Level: All new and existing Orchestrators inherit the Environment setting.

The Properties settings for Operators Auto Recovery are for automatic recovery and have no impact on manual recovery. Manual recovery is always enabled. You can invoke Recover Operators even if the target level Operator Autorecovery option is set to True, False, or Inherit in the Environment.

To use manual operators recovery, you must have Content Administrator access. Whether recovery is invoked manually or automatically, it bypasses processes for which Operator recovery was disabled at the process level when the instance started. The default setting for Enable Operator Recovery is based on whether the process was created before or after the CA Process Automation Version 03.0.00 upgrade.

- New processes, created with CA Process Automation Version 4.0.00 or later, have operator recovery is enabled.

- Existing processes, created before CA Process Automation Version 4.0.00, have operator recovery is *disabled*.

Recovery processing is the same, whether automated or invoked manually for a process or from the Configuration Browser. Regardless of whether the Operator recovery process runs, CA Process Automation recovers and resumes running Process instances that meet the following criteria:

- The instance is in Blocked, Running, or Waiting state.

- The instance contains one or more operators in System_Error that executed on the Orchestrator, Touchpoint, or Host Group that is being recovered.

- The Enable Operator Recovery setting of the process instance is selected.

  Note: CA Process Automation takes preparation steps before running a process instance. CA Process Automation verifies the setting for Enable Operator Recovery in Library Object Properties and uses this setting to define whether the process instance is recoverable. If the Library Object Properties setting is changed after the instance is run, the change has no effect on that instance.

How a Process is Recovered

When recovering a process, CA Process Automation resets the operators in System_Error that executed on the Orchestrator, Touchpoint, or Host Group being recovered, and then resumes the entire process. When resetting operators in System_Error within a process, CA Process Automation proceeds as follows:

If the Process instance is currently in ... lane	CA Process Automation resets System_Error Operators in ... lanes	Notes
Main	Main	The Lane Change Handler and Exception Handler lanes are reset upon re-entry.
Lane Change Handler	Main Lane Change Handler	The Exception Handler lane is reset upon re-entry.
Exception Handler	Main Lane Change Handler Exception Handler	

Note: CA Process Automation exits an Exception Handler lane and a Lane Change Handler lane when there are no more operators to execute, even if some of the operators are in System_Error.

Recover Operators from Process Watch Objects

By default, manual recovery is always enabled. You can run Recover Operators even if you set the target-level Operator Auto Recovery option to True, False, or Inherit from Environment.

Create a process watch and create shortcuts to the targets you want to monitor, such as the Orchestrators, Touchpoints, and Proxy Touchpoints.

You can run Recover Operators from the process watch in the following circumstances:

- The previously inactive agent or Orchestrator becomes active. Activity of a target is indicated when the icon turns a color that is not red. The icon can be for an Orchestrator, a Touchpoint, a Proxy Touchpoint, or a Host Group that is associated with an agent.

- The target Orchestrator, Touchpoint, Proxy Touchpoint, or Host Group is enabled.

    Note: You cannot run Operators recovery on a target that is disabled.

Process watch enables you to view processes that are only in Blocked state or only in Running state. For example, expand the Orchestrator node and select Blocked Instances.

If you notice a number of blocked processes when the desired target is active, run Recover Operators on that target. Recovery affects blocked, running, waiting processes that have operators in system_error. Recover Operators resets affected operators and resumes the processes. The target can be an Orchestrator, a Touchpoint, a Proxy Touchpoint, or a Host Group.

Note: When you run Recover Operators through the process watch, recovery acts on targets that are blocked, running, or waiting on *any* Orchestrator in the Environment. Recovery is not limited to the Orchestrator of the current library. Recovery is performed only on processes for which Enable Operator Recovery is set.

Follow these steps:

1. Log in to the CA Process Automation web interface as a Content Administrator.

2. Click Operations tab, Process Watch pane.

3. Open a Process Watch object.

    The Process Watch displays the predefined groups of instances. Process Watch objects display predefined groups for selected objects.

4. To view instances of a process, select the predefined group, filter by the Date.

    The process instances in Blocked, Running, or Waiting state are listed.

5. Right-click the Orchestrator or Touchpoint on which one or more processes are displayed in Blocked, Running, or Waiting state, and select Refresh or Reload.

6. Examine the Orchestrator or Touchpoint and determine whether it is enabled and active. If it is active, the associated icon is not red.

    The Recover Operators option is available when these two conditions exist.

7. Right-click that Orchestrator or Touchpoint and select Recover Operators.

    Recovery is initiated on each failed Operator in SYSTEM_ERROR that is part of a blocked, running, or waiting process that is configured with Enable Operator Recovery. Recovery includes operators in process that is configured with Enable Operator Recovery set and on *any* Orchestrator within the Environment. Recovery is not limited to the current library Orchestrator.

8. Repeat Step 3.

    The processes previously in Blocked state begin running when the recovery request completes execution.

Example: Manual Operator Recovery

The following example scenario is built on these assumptions:

■   Operators were running on a host mapped to the Touchpoint, TP_ainmo01_w500.

■   This host became inactive and then became active again.

■   The Touchpoint, TP_ainmo01_w500, is not set to run operator recovery automatically.

■   The Environment contains the following three Orchestrators:

    –   Orchestrator

    –   OrchestratorD610b

    –   Orchestrator2

Consider the following procedure and their outcome:

1. Click Configuration tab in the CA Process Automation web interface.

2. Open the Configuration Browser, and expand the All Touchpoints node.

3. Right-click the Touchpoint, TP_ainmo01_w500, and select Recover Operators.

   Messages appear from each Orchestrator:
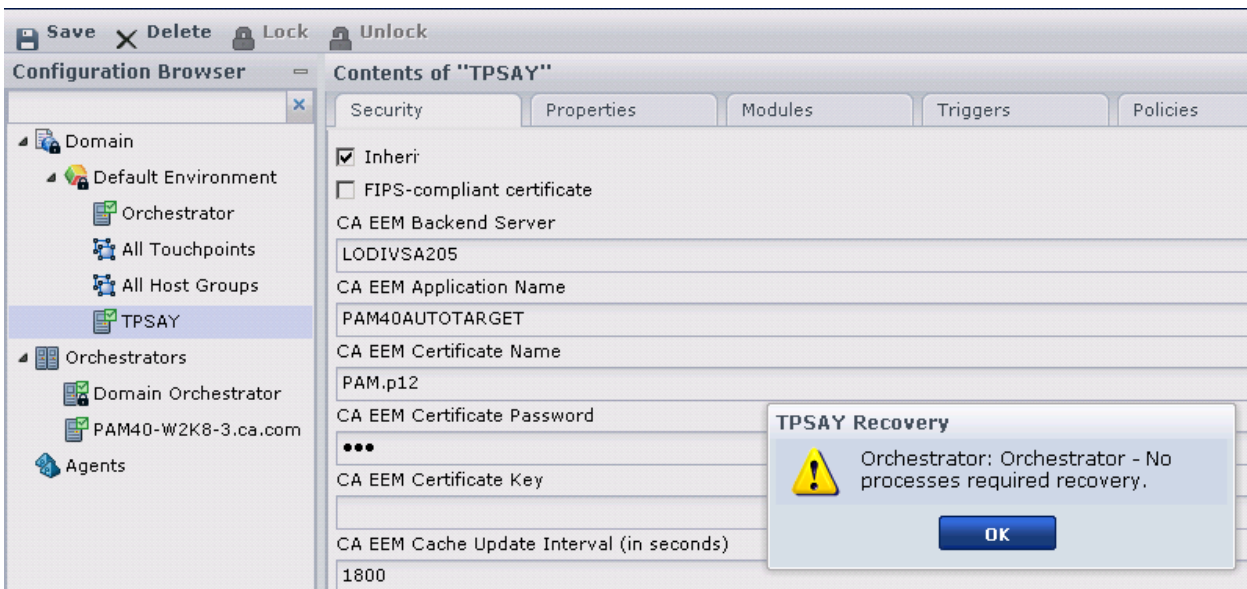
4. Interpret these messages as follows:

   Orchestrator: Orchestrator - Queued recovery of Processes with ROID: 2846, 2603

   Orchestrator: CA Process Automation found two process instances with ROID **2846** and **2803** to recover for TP_ainmo01-w500. Operator recovery does not run right away. CA Process Automation briefly queues the Processes. If the Process instance completes or aborts due to modification by a user while queued, Operator recovery ignores the Process instance.

   Orchestrator: OrchestratorD610b - No Process required recovery

   OrchestratorD610b: CA Process Automation did not find any process to recover for TP_ainmo01-w500.

   Orchestrator: Orchestrator2 - Unable to communicate with the server. The server may be unavailable or the connection may have timed out.

   Orchestrator2: This Orchestrator is currently not running as stated in the error message.

5. Open the Library Browser and locate the process Inactive TpRecovery_2846. This Process has ROID: 2846. The green Operators indicate that the process finished executing successfully after the recovery.

6. View the Logs panel of the Process instance 2846. The log displays when the recovery was triggered and by whom it was triggered.

	Time	Event Description	Category
	Logs		
⊞	03/06/2012 10:46:48 AM	"Touchpt_recovery_540" instance was created.	Process
⊞	03/06/2012 10:46:48 AM	"Touchpt_recovery_540" is in "Queued" state.	Process
⊞	03/06/2012 10:46:50 AM	Process started at "03/06/2012 10:46:50 AM" by "pamadmin".	Process
⊞	03/06/2012 10:46:50 AM	"corun_1" is enabled following "Start_1".	Operator
⊞	03/06/2012 10:46:50 AM	"Start_1" is "Completed" on "Current Server".	Operator
⊞	03/06/2012 10:46:51 AM	"corun_1" service request	Operator
⊞	03/06/2012 10:46:51 AM	"corun_1" is "Running" on "ORC_TP".	Operator
⊞	03/06/2012 10:46:57 AM	"corun_1" encountered system error	Response
⊞	03/06/2012 10:46:57 AM	The process is in Blocked state.	Process
⊞	03/06/2012 10:52:33 AM	Recovering process "Touchpt_recovery_540" for touchpoint "ORC_TP". Recovery initiated by "Engine".	Process
⊞	03/06/2012 10:52:33 AM	"corun_1" is enabled following "Start_1".	Operator
⊞	03/06/2012 10:52:33 AM	"corun_1" was reset.	Operator
⊞	03/06/2012 10:52:33 AM	"corun_1" is enabled following "Start_1".	Operator
⊞	03/06/2012 10:52:33 AM	Process resumed by "Engine".	Process
⊞	03/06/2012 10:52:33 AM	"corun_1" service request	Operator
⊞	03/06/2012 10:52:33 AM	"corun_1" is "Running" on "ORC_TP".	Operator
⊞	03/06/2012 10:52:35 AM	"corun_1" is "Completed"	Operator
⊞	03/06/2012 10:52:35 AM	"Stop_1" is enabled following "corun_1".	Operator
⊞	03/06/2012 10:52:35 AM	"Stop_1" is "Completed" on "Current Server".	Operator

The log shows that operator recovery reset the Operators with System_Error and resumed the process execution.

Note: Automated Operator recovery produces a log message similar to the one highlighted in the previous example, except it says (Initiated by 'Engine').

Chapter 10: Auditing User Actions

CA Process Automation provides audit trails to trace and record activity for configuration objects (Domain, environments, agents, and Orchestrators), and Library objects (folders and automation objects). The product provides an audit trail browser for viewing audit records on any of these objects. A Domain administrator can view the audit trail for the Domain. An Environment configuration administrator can view the audit trail for an Environment. A production user with read permission can view the audit trail for an object.

This section contains the following topics:

View the Audit Trail for an Orchestrator

Users with read permissions on a configuration object can view the associated audit trail. Required access rights for viewing the audit trail for configuration objects include Environment User and View Configuration Browser.

Examples of actions on objects that are displayed on the audit trail for an Orchestrator are as follow:

- Orchestrator locked or unlocked

- Orchestrator property changed

- Orchestrator quarantined or unquarantined

- Orchestrator mapped to a Touchpoint or unmapped from a Touchpoint

- Orchestrator renamed

Follow these steps:

1. Click the Configuration tab from the CA Process Automation web interface.

   The Configuration Browser pane opens.

2. Expand the Orchestrators node and select the target Orchestrator host.

3. Click the Audit Trail tab.

   All records are displayed by default. Column descriptions follow:

   Object Name

   Identifier for the Orchestrator object.

   Last Updated

   The date and time that the action occurred.

   Username

   User that invoked the action.

   Action Type

   The type of action.

   Description

   Describes the action, including new values for changed properties.

4. (Optional) To customize the display, filter by the fields.

5. Examine the records in the audit trail. If there are multiple pages of audit records, use the navigation buttons on the toolbar to display the first page, previous page, next page, or last page.

   Each page displays the configured rows per page.

View the Audit Trail for an Agent

Users with read permissions on a configuration object can view the associated audit trail. Required access rights for viewing the audit trail for configuration objects include Environment User and View Configuration Browser.

Examples of actions on objects that are displayed on the audit trail for an agent are as follow:

- Enabling an operator category on the Modules tab and changing a configured value.
- Agent quarantined or unquarantined
- Agent locked or unlocked.

For example, the following audit trail was recorded for associating a new agent with a touchpoint.

Follow these steps:

1. Click the Configuration tab.
2. Expand Agents.
3. Select the agent with the audit trail to examine.
4. Click the Audit Trails tab.

   All records are displayed by default. Column descriptions follow:

   Object Name

   Specifies the name of the object to which the action pertains.

   Last Updated

   The date and time that the action occurred.

   Username

   User ID of the user that invoked the action.

   Action Type

   The type of action. For example, Locked or Unlocked.

   Description

   Describes the action that occurred at the specified time.

5. (Optional) To customize the display, filter by the fields.

6. Examine the records in the audit trail. If there are multiple pages of audit records, use the navigation buttons on the toolbar to display the first page, previous page, next page, or last page.

   Each page displays the configured rows per page.

View the Audit Trail for a Touchpoint, Touchpoint Group, or Host Group

Users with read permissions on a configuration object can view the associated audit trail. Required access rights for viewing the audit trail for configuration objects include Environment User and View Configuration Browser.

Examples of actions on objects that are displayed on the audit trail for a Touchpoint, Touchpoint Group, or Host Group follow:

- Touchpoint was created

- Agent assigned to Touchpoint

- Touchpoint group was created

- Touchpoint added to group

- Touchpoint group renamed

- Host Group was created

- Agent assigned to Host Group

Follow these steps:

1. Click the Configuration tab.

   The Configuration Browser panes opens.

2. Select one of the following objects:

   – A Touchpoint.

   – A Host Group.

   – A Touchpoint Group.

   This selection specifies the level at which the audit trail data is fetched.

3. Click the Audit Trail tab.

   All records are displayed by default. Column descriptions follow:

   Object Name

   Identifier of the selected object. For example, Touchpoint name, Host Group name, or Touchpoint Group name.

   Last Updated

   The date and time that the action occurred.

   Username

   User that invoked the action.

   Action Type

   The type of action.

   Description

   Describes the action including new values for changed properties.

4. (Optional) To customize the display, filter by the fields.

5. Examine the records in the audit trail. If there are multiple pages of audit records, use the navigation buttons on the toolbar to display the first page, previous page, next page, or last page.

   Each page displays the configured rows per page.

Chapter 11: Administering Reports

This section contains the following topics:

About Reporting

Orchestrators collect data about process executions. The collected data is stored in a library that is dedicated to reporting and includes information about:

- Process definitions

- Process instances (specific runs)

- Tasks that are involved within a process instance

- Location of execution in terms of Environments/Touchpoints

The reporting database is configured at the Domain level and can use any supported underlying RDBMS (such as MySQL or Microsoft SQL Server).

Reports/dashboards can be defined using plain SQL queries or any third-party reporting tool, such as the SAP Crystal Reports and IBM Cognos.

CA Process Automation comes with an embedded version of Business Intelligence and Reporting Tools (BIRT), an Open Source reporting system within the Eclipse Foundation. CA Process Automation provides several predefined reports using BIRT and allows users to upload their own report definitions to any Domain Orchestrator, with the option of making them available to other users.

The Reports tab the CA Process Automation web interface displays all the available reports information along with a switch icon to share or unshare the report with the other users. From the All Reports pane, you can perform the following actions on reports:

- View standard reports, or can download them to print or email

- Create reports, upload them to CA Process Automation

- Share or unshare the reports

- Rename or delete the reports that you create

The All Reports is the default mode in the report pane. To view reports that you created, click My Reports from the drop-down list at the top right corner in the All Reports pane. Select the drop-down arrow to apply filters on reports to view the required fields.

The search functionality lets you search for a specific report using the Search tab. The paging toolbar at the bottom of the reports panel, lets you limit the number of reports per page.

Structure of Collected Data

Orchestrators collect information that is related to:

■ Configuration topology, including the Domain, the Environments in the Domain, the Touchpoints in each Environment, and Agents in the Domain that are mapped to Touchpoints, Proxy Touchpoints, or Host Groups.

■ Automation object definitions for processes, resources, datasets, calendars, and agendas. Information includes a reference to the Orchestrator managing the Library where the objects are defined. Examples of references are object types, object paths, versions, owner, keywords, and creation and modification dates.

■ Runtime Instance objects that are created during the execution of processes include process instances, and individual operator instances that are executed as part of process definitions or agenda evaluations (scheduling). Reported information includes operators, references to execution hosts, data and time of execution, outcome, and invocation parameters.

Data Collection Process

Orchestrators collect and insert relevant information into the reporting database that is configured for the corresponding domain.

To avoid potential database-related performance degradation resulting from the execution of reports, the reporting database is isolated from the execution database that the Orchestrator use.

Similarly, the collection or reporting data is decoupled from its insertion in the reporting database:

■ Orchestrators collect reporting data in staging tables of the main database when the data changes as a result of:

– Configuration Changes

– Modifications to the Library, such as creation of automation objects, check-ins of new/modified versions.

– Execution of processes and operators.

If the reporting database is inline, Orchestrators periodically propagate batches of data from the main database to the reporting database. If there is a failure (such as, reporting database not available), the transfer is retried later.

As a result of the two-step process, there is a lag time between actions that Orchestrators take and the corresponding data being inserted in the reporting database. In normal situations, the delay is a couple of minutes.

BIRT Reports

Reports and dashboards can be defined and viewed using plain SQL queries or any third-party reporting tool. CA Process Automation also includes an embedded version of Business Intelligence and Reporting Tools (BIRT), an Open Source reporting system.

BIRT reports, with design that has been uploaded to the Orchestrator, can be viewed directly in CA Process Automation under Reporting. BIRT reports can include charts and detailed data. The integrated report viewer allows the user to navigate through the loaded report, to print the report, and to export the contents in various formats. For more information, refer to the website for the BIRT project.

Report Types

The report types are as follows:

Predefined Reports

These reports are provided as part of the installation. Only the Domain administrator has the right to upload it, replace, and delete reports in Predefined reports. By default, the Predefined reports are shared.

User-Defined Reports

These reports can be saved versions of predefined reports or can be reports that you designed and uploaded.

Shared Reports

These user-defined reports are shared and are available to all users to view. Upload, replace, and delete functionalities are not available for any user in Shared Reports.

User can share multiple reports at the same time.

Private Reports

These user-defined reports are your personal reports. You are the only user that can see private reports that you uploaded. Upload, replace, and delete functionalities are available for Private Reports.

Reporting DB Views

The database views (DB Views) reside in the reporting database that you provided during domain installation. Use the following DB views to generate user-defined reports:

Process_Instances

Provides information about the run-time instances.

Automation_Objects

Provides information about the automation objects created in the library.

Operator_Instances

Provides information about the operator instances, which the Orchestrator uses to monitor operators.

Note: As a prerequisite, grant user permissions to create DB Views in MySQL Server. For more information, see Add Permissions to create DB Views (see page 86).

Reporting DB Views

The DB views return the following columns that you can use to generate the user-defined reports:

Process_Instances

The Process_Instances View contains the following columns:

Criticality

Displays the criticality level of a process instance.

Duration

Displays the duration of a process in seconds.

End_Time

Displays the time at which the process instance ended.

Expected_Duration

Indicates the expected duration for a process.

Valid Values: Days, Hours, and Minutes

Instance_Name

Displays the instance name of the running process instance.

Instance UUID

Defines the ID of an instance.

Manual_Cost

Displays the baseline manual cost for each hour.

Manual_Execution_Time

Displays the manual run time (in minutes).

Server_UUID

Defines the ID of the Orchestrator where the process is running.

Organization_Group

Defines an organization group name in support of multi-tenancy environments.

Organization_ID

Defines an organization id or name in support of multi-tenancy environments.

Parent_UUID

Defines the ID of the parent process. If the parent process is not triggered by another process, it returns a NULL value.

Path

Indicates the location of the process in the library.

Process_Version

Indicates the version of the process.

Duration_Status

Indicates the status of the runtime process instance for which the duration is defined.

Progress

Displays progress of a process.

Runtime_ROID

Displays the identifier of a row.

Root_UUID

Defines the ID of the root instance that is triggered independently.

Start_Time

Displays the time at which the process instance started.

State

Defines the state of the process.

System_Group_Name

Displays the name of an application or a system group.

User_Name

Displays the name of the user who started the process.

Warning_Threshold

Indicates how long before a process exceeds the expected duration to warn the user.

Valid Values: Days, Hours, and Minutes

Automation_Objects

The Automation_Objects View contains the following columns:

Path

Specifies the location of the Automation Object in the library.

Version

Specifies the version of the Automation Object.

Object_Type

Specifies the type of the Automation Object created.

Owner

Identifies the user who created the Automation Object.

Tags

Specifies the tags that are assigned to the Automation Object.

Creation_Date

Indicates the date on which the Automation Object was created.

Modification_Date

Indicates the date on which the Automation Object was last modified.

Operator_Instances

The Operator_Instances View contains the following columns:

Operator

Specifies the operator instance.

Module

Displays the module name to which operator belongs.

Start_Time

Displays the time at which the operator instance started.

Operator_Name

Displays the name of the operator.

End_Time

Displays the time at which the operator instance ended.

Add Permissions to create DB Views

If you use MySQL as a database, run the following command to grant permissions to the user to create DB views:

```
GRANT CREATE VIEW ON <DatabaseName>.* TO 'root'@'%';
```

DatabaseName

Defines the name of the MySQL database where the user can create views.

Working with Predefined Reports

Use the product to view and download the following predefined reports:

Reference Object Report

Reports the referred objects by category. The report list the objects for example, resources, interactive request forms, custom operators that a process refer. The reports lists what objects, and where the objects are referred in CA Process Automation.

Completed Process Report

Reports the processes that are completed.

Processes By State Report

Reports the state of the executed processes. The process states are as follows:

- Queued
- Running
- Suspended
- Waiting
- Blocked
- Completed
- Failed
- Aborted

Process By Execution Time Report

Reports the execution time of the processes.

Return On Investment Report

Reports the Return on Investments graph.

Note: To view the Return on Investment (ROI) reports, select the Enable ROI check box in the Library Object Properties.

Mean Time To Repair Report

Reports the time saved due to CA Process Automation when compared to a manual process.

Concurrent Processes Report

Reports the average number of concurrent process instances that are running on an Orchestrator.

Process Duration Status Report

Reports the expected duration status for processes. The expected duration is the interval in which a process is expected to run

Note: By default, the predefined reports are shared to all users.

View BIRT Report

You can view BIRT Reports.

Follow these steps:

1. Log in to the CA Process Automation web interface and select the Reports tab.
2. On the All Reports pane, Right-click a report and select View.

   The BIRT Report Viewer window opens. You can set filtering criteria in the Parameter window to view the reports.

Download Report

You can download a report to file, print, or email to other users.

Follow these steps:

1. Right-click any report, and click Download Report.
2. Navigate to a desired location and click Save.

Working with Your Custom Reports

Consider the following process when working with custom reports:

1. Create a report on your local drive.
2. Add the new report.
3. View your report.

4.   (Optional) Rename your report.

5.   (Optional) Share your report.

6.   (Optional) Replace your report with a new version.

7.   (Optional) Unshare your report.

8.   Delete your report.

Create and Upload BIRT Report Definitions to CA Process Automation Services

You can create new BIRT reports and upload them to the Orchestrator so that they can be executed and viewed directly in the Reports tab. You can also allow other users to view such reports. To create a BIRT report, download the BIRT RCP Designer from the BIRT Official website at http://download.eclipse.org/birt/downloads.

The BIRT RCP Designer can be used to edit an existing report or to create new report design files. See the BIRT RCP Designer documentation.

BIRT reports can be uploaded to a CA Process Automation Orchestrator and viewed later.

Follow these steps to upload a new or modified design file

1.   Log in to CA Process Automation.

2.   Click Reports tab.

3.   Select the Add New from the reports tool bar.

4.   Provide the report name, description, and indicate whether the report is viewable by other users.

5.   Click Browse and navigate to the report design file on your system and click Open.You can only upload reports that have the .rptdesign extension.

6.   Click Save.

Follow these steps to replace a design file

1.   Log in to the CA Process Automation web interface.

2.   Click the Report tab.

     The Reports pane opens.

3.   Click the report that you want to replace, then click Replace.

4.   Provide the path of the Report file that you want to upload to an Orchestrator, then click Submit.

Note: A production user can upload or replace reports only in private reports. However, a content administrator can upload or replace predefined reports.

Add Report

Add a report to the reports list that gets added to the default view.

Follow these steps:

1. Click Add New in the reports toolbar.

    Add New Report Panel appears.

2. Enter the following information:

    Report Name

    Define a report name.

    Short Description

    Describes a report.

    Upload the Report Design

    Defines a a report file that you want to up load.

    Add Report as Predefined

    Specifies whether you want to add a predefine report.

    Share report with other users

    Specifies whether you want to share the report with other users.

3. Click Browse to upload a new report file.

4. Click Save.

    A new report is added to the reports list.

Edit Report

Replace an older version of a report with new or modified report from the Reports panel.

Follow these steps:

1. Select a report from the reports list.

2. Right-click reports and select Edit from the pop-up menu.

    An editable form appears below the report.

3. Edit following information and click Save.

Report Name

Defines the report name.

Short Description

Describes the report.

Replace Design File

Edit the report in a design mode.

4. Select Replace Design File check box to upload a new report file to replace an existing report.

The Browse button gets enabled.

5. Select the Share Report with other users check box to share the report with other users.

6. Click Save.

The report is replaced with another report.

Note: A production user can upload or replace reports only in private reports. However, a content administrator can upload or replace predefined reports.

Export Design

You can export report design files (.rptdesign) and share it with other users to include the design file in other reports.

Follow these steps:

1. Right-click a report and click Export Design.

2. Enter your credentials to save the report design file to a desired location.

Share and Unshare Reports

Depending on your access levels, you can share or unshare your reports with other users.

Follow these steps to share reports

1. Right-click a report that you want to share it with other users.

2. Select Yes from the dialog box.

After you share the report, the Share field on the reports panel displays the share icon.

Note: You can share multiple reports simultaneously.

Follow these steps to unshare reports

1. Right-click a report that you want to unshare.

2. Select Yes from the dialog box.

   After you unshare the report, it appears in the Unshared Reports list.

Delete Report

You can permanently delete reports that are no longer needed. You need sufficient permissions to delete reports.

Note: Only a content administrator has permission to delete the predefined.

Follow these steps:

1. Right-click a report from the reporting panel that you want to delete.

2. Select Delete form the pop-up menu and confirm your deletion.

   The report is deleted.

Note: To delete multiple reports, select check boxes next to reports to select multiple reports from the report list and click Delete from toolbar.

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