CHAPTER 1

Getting Started Using the Automation Pack

Before you begin using the content that ships with the automation pack, you must create the objects in Process Orchestrator that are referenced in the processes. These objects include targets, runtime users, task rules for assignments and notifications, target properties, and global variables.

This chapter provides basic information on defining the objects. It includes the following sections:

For additional information about the objects discussed in this chapter, refer to the following documentation:

Document	Description
Cisco Process Orchestrator User Guide	General information about Core product features.
Cisco Process Orchestrator Online Help	Information about the objects specific to Cisco Process Orchestrator Adapter for SAP ABAP (runtime user, target, and activities).
Intelligent Automation for SAP 3.0 Installation Guide	Information about configuring and managing the objects in Process Orchestrator specific to SAP.

Creating an SAP User

The Runtime Users feature is used to create a runtime user record to store the information about the user security context. The SAP User runtime user account is used for connecting to SAP ABAP system targets.

Note For additional information on creating and managing runtime users, *see* the *Process Orchestrator User Guide.*

Perform the following procedure to create an SAP User runtime user account.

Step 1 In the Definitions workspace, right-click **Runtime Users** and choose **New > SAP User** to open the New SAP User Properties dialog box.

Step 2 On the General tab, specify the following information:

Note The **Required Value** icon displayed on a tab or page indicates that the field is required and is either missing a value or contains an invalid value.

Field	Description
Display name	Name for the user account. This field can populated with the information specified in the Domain and User name text fields, or you can enter a different name to display for the user account.
User name	User name assigned to the user account that connects to the target.
Password	Check the check box and enter the password assigned to the user account. **Note** No password verification is done for the simple (generic) runtime user.
Client	SAP client number assigned to the user account.
Description	A description of the user account.

Note The Used By tab displays objects used by the runtime user and will remain blank until used by an object.

The History tab displays the history of actions taken against the runtime user and will remain blank until after the initial creation.

Step 3 Click **OK** to close the dialog box.

Creating SAP System Targets

Before you can create or run processes, you must create the targets on which the processes will run. You use the New SAP System Wizard to create a target for an SAP system.

Note Before you can configure an SAP ABAP system target, the dll files for SAP .NET 3.0 Connector for .NET 4.0 on x64 version 3.0.6.4 or higher must be copied to the Process Orchestrator server. *See* the *Cisco Process Orchestrator Online Help* for instructions on installing these files.

Step 1 In the Definitions view, right-click **Targets** and choose **New > SAP System** from the submenus to open the New SAP System Wizard Welcome panel.

Step 2 Click **Next**.

Note The **Required Value** icon displayed on a tab or page indicates that the field is required and is either missing a value or contains an invalid value.

Note You can only create one target for each SAP system. However, for multi-tenant environments, you can create targets for different SAP systems with the same system ID (SID).

When using the same SID for different SAP systems, you must enter the organization for each SAP system so Process Orchestrator can differentiate the alerts and incidents for each system.

Step 3 On the System Setup panel, specify the following information:

Field	Description
Display name	Enter a name for the SAP system. This is the name that will be displayed in the Targets pane.
System Components	
ABAP application servers	Check this check box if the SAP system uses an ABAP connection to the application servers.
Java application servers	*This option is not used for IT Task Automation.*
SAP database	*This option is not used for IT Task Automation.*
Monitor as production system	The check box is checked by default. Certain processes will run only on production systems. If you want to monitor the system as a non-production system (development or sandbox), uncheck the check box.
Organization	Enter the group or organization within the company that owns the target. **Note** If you are configuring multiple SAP systems with the same SID, you must specify the organization for each SAP system target.

Step 4 Click **Next**.

Step 5 On the ABAP Connection panel, specify the connection information for connecting to the SAP ABAP application server.

Note The system information entered on this panel must be unique.

Field	Description
Connect using	Choose the connection method from the drop-down list. The fields that display depend on the connection method selected.
Application server	Choose this option to connect to the SAP system using the SAP application server connection information. Specify the information in the following fields: • Server name—Name of the SAP application server. • System number—SAP system number.
Logon group	Choose this option to establish a connection using a logon group, which contains a group of SAP system instances. When a user logs on to a logon group, the message server directs the users to the server of this group that currently has the lightest load. Specify the information in the following fields: • System ID—SAP system ID (SID). • Message server—Determines which server a user logs on to and handles the communication between the application servers. For example, transport of update requests and lock requests. • Group name—Name of the Logon Group to be accessed. The name entered in this field is case-sensitive.
Router string (optional)	Enter the router string for accessing the SAP systems via SAPRouter. If you do not specify a router string, Process Orchestrator accesses the SAP system directly. The router string must be formatted as: /H/host01/H/host02/H/ where host01 and host02 are the SAP systems that you want to access through the SAPRouter.
Default runtime user	Choose the user account that contains the credentials to connect to the target from the drop-down list. • To view the properties for the selected runtime user, click the **Properties** tool. • To create a new SAP User, click **New > SAP User**. *See* Creating an SAP User, page 1-2 for instructions.

Step 6 Click **Next**.

Step 7 On the Server Availability panel, specify the ABAP application servers that you want to monitor for availability and the ability to log in a user:

Field	Description
Servers available for monitoring	All detected servers are checked by default. Verify that the check box next to each server that you want to monitor is checked.
Add	If a server is offline during configuration, it will not be displayed in the list of available servers. To manually add the server, click **Add** and enter the name of the server.
Remove	If you want to remove a server from the list, select the server and click **Remove**.
Select All	If the check boxes have been unchecked and you want all servers to be monitored, click **Select All**.
Deselect All	If all the check boxes are checked and you want to uncheck all of them, click **Deselect All**.

Step 8 Click **Next**.

Step 9 On the Database Connection panel, click **Next**.

Step 10 On the Completing the New SAP System Wizard panel, verify that the information is correct and click **Finish** to complete the procedure.

Using Task Rules for Assignments and Notifications

Task rules are used to manage task assignments and notifications for tasks, such as incidents and alerts, that are generated from processes. When you import the Core Automation for SAP automation pack, you are prompted to specify the default user or group who should be assigned SAP incidents. By default, this person will receive all assignments unless task rules are created to specify alternate users or groups for specific tasks.

This section guides you through configuring the task rule that ships with the Core Automation for SAP automation packs and provides instructions for creating and managing task rules.

Note If you do not want to create task rules for email notifications, you can use the default notification based on assignment processes that ship with the Core automation pack. These processes are disabled by default and must be enabled if you want notifications to be sent (*see* Enabling Notification Based on Assignment Processes, page 1-19).

Accessing Task Rules View

The task rule that ships with the Core Automation for SAP automation pack can be accessed from the Definitions—Task Rules view.

Step 1 On the Console, select the Definitions workspace and click **Task Rules** in the navigation pane. By default, all the rules display in the Task Rules pane.

Step 2 Click the **Filter by** link and choose **Automation Pack > [Automation Pack Name]** to filter for only the task rules that ship with the specific automation pack.

The following information about the task rules displays by default:

Column	Description
Display Name	The name assigned to the task rule.
Enabled	Indicates whether the task rule is enabled (*True*) or disabled (*False*). A disabled task rule is unavailable for execution.
Type	Type of task.
Owner	User name of the person or group who assigned the task rule.
Last Modified Time	The date and time the task rule was last modified.
Last Modified By	The object or user name that last modified the task rule.
Id	Unique ID of the task rule.
Description	Brief description of the task rule.
Type Description	Brief overview of the task rule type.
Created Time	Time at which the task rule was created.
Created By	Name of the user who created the task.
Automation Pack	Name of the automation pack associated with the task rule.

Configuring Task Rules

Use the Task Rules view to configure the task rule that ships with the Core Automation for SAP automation pack.

SAP Default Assignment

The Core Automation for SAP automation pack ships with the Default SAP Assignment task rule, which is used to specify the default user or group who will be assigned all SAP-related incidents unless otherwise specified in task rules. This task rule can be configured during the import process on the Default Incidents Assignee Setup panel or from the Task Rules view in the Console.

Step 1 In the Definitions workspace, click **Task Rules** in the navigation pane to display the task rules in the results pane.

Step 2 Click the **Filter by** link and choose **Automation Pack**, and then choose **Core Automation for SAP** from the drop-down list to display the task rules that ship with the automation pack.

Step 3 Right-click the **SAP Default Assignment** task rule and choose **Properties** to open the SAP Default Assignment Properties dialog box.

Step 4 Click the **Assign** tab to specify the user or group that should receive assignments for incidents and alerts generated by the processes.

Step 5 On the Assign tab, click **Add** to open the Select Assignee to Add dialog box.

Step 6 On the Select Assignee to Add dialog box, specify the assignees using one of the following methods:

- Click the **Reference** tool to select the appropriate variable reference containing the assignee or list of assignees from the Insert Variable Reference dialog box.
- Click the **Browse** tool to launch the Select User or Group dialog box to add user to the list of assignees.

Step 7 Click **OK** to add the assignee to the task rule.

Step 8 When you have completed adding assignees to the task rule, click **OK** to close the dialog box.

Creating a New Task Rule

Use the Task Rules view to create a new task rule. The procedure is the same for all types of task rules with the exception of the task-specific tab (Assign, Notify, Update) for the type of task rule you are creating.

Note Only users with administrative rights can create task rules in Process Orchestrator.

You can create the following types of task rules:

Task Rules	Description
Assign Task Rule	Assigns users to a task.
Notify Task Rule	Notifies users that a task has been created.
Update Task Rule	Specifies the properties to be updated in a task.

Step 1 In the Definitions workspace, right-click **Task Rules** and choose **New > [Task Rule Type]** to open the New Rule Properties dialog box.

Step 2 On the General tab, enter the following information:

Field	Description
Display Name	Name of the task.
Type	*Display only.* Shows the type of object.
Trigger	*Display only.* Type of trigger associated with the task rule.
Owner	User name of the owner of the task rule. This is typically the person who created the task rule. Click the **Browse** tool to launch the Select User or Group dialog box to change the owner.
Description	A brief description of the task rule.
Enabled	The check box is checked by default to indicate that the task rule is available for execution. Uncheck the check box to disable the task rule. If the check box is unchecked, the task rule is disabled and will be unavailable for execution.

Step 3 Click the **Task Types** tab to specify the types of tasks to be executed by the rule.

Note The **Required Value** icon displayed on a tab or page indicates that the field is required and is either missing a value or contains an invalid value.

Step 4 Check the check box for the type of task that will execute the rule.

Task Type	Description
Alert	Alerts reflect potential problems that a user may want to investigate and possibly diagnose the problem.
Approval Request	Specifies the message and choices for the assignee who is approving the task.
Guided Operation	Details the steps a user takes to complete an assigned task.
Incident	Task requires an operator to take action in order to resolve an issue.
Input Request	Task requires input from an individual or group.
Review	Task assigns a document for review.

Step 5 Click the **Conditions** tab to specify the conditions of when the task rule action is to be taken based on an evaluation of the defined conditions.

Step 6 On the Conditions tab, define the conditions that must be met for the rule to execute.

Defining a Basic Condition:

a. On the Basic page, click **New** to add a new property for the condition that must be met.

b. In the Property text field, click the **Reference** tool to choose a defined variable or reference an object on the Insert Variable Reference dialog box.

c. Choose the condition expression from the drop-down list.

d. Enter the condition description in the text box or click the **Reference** tool to choose a defined variable or reference an object on the Insert Variable Reference dialog box.

e. Click **New** to define additional properties, if necessary.

Defining an Advanced Condition:

a. Click the **Advanced** tab to define a specific type of condition (Compound, Prior Process Instance, Time, or Variable).

b. Modify the option for the condition equation.

Option	Description
AND condition (all conditions must be met)	Click this option if an action is to be taken only when all conditions in the list are *true*.
OR condition (one condition must be met)	Click this option if an action is to be taken when one condition in the list is *true*.

c. Click **New** and choose the type of condition from the drop-down list.

d. Specify the relevant information for the type of condition selected.

Note Click New. Click the **Reference** tool to choose a defined variable or reference an object on the Insert Variable Reference dialog box.

e. Click **New** to define additional properties, if necessary.

Step 7 Click the task rule specific tab (**Assign**, **Notify**, or **Update**) and specify the relevant information for the specific type of rule.

Assign Task Rule

If you are creating an Assign Task Rule, the Assign tab displays on the New Rule Properties dialog box.

On the Assign tab, specify the assignees for task rule.

Field	Description
Add	Click this button to launch the Select Assignee to Add dialog box to specify the assignees. On the Select Assignee to Add dialog box, use one of the following methods to specify the assignee: • Click the **Reference** tool to select the appropriate variable reference containing the assignee or list of assignees from the Insert Variable Reference dialog box. • Click the **Browse** tool to launch the Select User or Group dialog box and add user to the list of assignees.
Edit	Select the appropriate assignee in the list and click this button to view or modify the assignee of the task rule.
Remove	Select the appropriate assignee and click this button to remove the assignee from the list.
Remove All	Click this button to remove all specified assignees from the list.

Notify Task Rule

If you are creating a Notify Task Rule, the Notify tab displays on the New Rule Properties dialog box.

On the Notify tab, specify the recipients of the notification that the task rule has executed. You can add individual recipients or include a notification recipient list.

Field	Description
Add notification recipients	Displays list of users to be notified by the task rule. • Add—Click this button to launch the Select Notification Recipient to Add dialog box to specify the recipients. On the dialog box, enter the email address for the recipient or click the **Reference** tool to select the appropriate variable reference containing the recipient or list of recipients from the Insert Variable Reference dialog box and then click **OK**. • Edit—Select the appropriate recipient in the list and click this button to view or modify the recipient of the task rule. • Remove—Select the appropriate recipient in the list and click this button to remove the recipient from the list. • Remove All—Click this button to remove all specified recipients from the list.
Add notification recipient list	Click the **Reference** tool to select the appropriate variable reference containing list of recipients from the Insert Variable Reference dialog box.

Update Task Rule

If you are creating an Update Task Rule, the Update tab displays on the New Rule Properties dialog box.

On the Update tab, specify the properties to be updated after the task rule has executed.

Field	Description
Add	Click this button to add a new property to the Properties to update area.
Remove	Click this button to remove the last property added to the Properties to update area.
Property	From the Property drop-down list, choose the item to update within the task. The properties displayed depend on the selected item.

Field	Description
List action	Choose the appropriate item from the drop-down list to determine which action to take with the selected property: • Add Item—Adds item to task. • Remove item—Removes item from task. • Clear—Removes property value from task.
Value	Enter new value for the property.

Step 8 Click **OK** to save the task rule definition and close the dialog box.

Managing Task Rule Definitions

This section provides instructions on modifying task rules in the Definitions—Task Rule view. Only users with administrative rights can modify task rules in Process Orchestrator.

Note For additional information on managing task rules, see the *Process Orchestrator User Guide*.

Enabling a Task Rule

A task rule is enabled by default. If a task rule is manually disabled, the task rule must be enabled before it is available for execution.

On the Definitions—Task Rules view, select the task rule and then use one of the following methods to enable it:

- On the Results pane, right-click and choose **Enable**.

  -or-
- On the Details pane, select **Click here to enable**.

The Enabled column on the Results pane changes to True. If necessary, click the **Refresh** tool to update the view.

Disabling a Task Rule

Disabling a task rule prevents the item from being available for execution. The disabled task rule is not removed from the list of task rules on the Definitions—Task Rules Results pane.

On the Definitions—Task Rule view, select the task rule and then use one of the following methods to disable it:

- On the Results pane, right-click and choose **Disable**.

-or-

- On the Details pane, select **Click here to disable**.

The Enabled column on the results pane changes to False. If necessary, click the **Refresh** tool to update the view.

Creating a Copy of a Task Rule

The copy option is used when the user wants to leverage an existing task rule to define a new task rule using existing properties.

Step 1 On the Definitions—Task Rules view, select the appropriate task rule, right-click and choose **Copy**.

Step 2 On the Results pane, right-click and choose **Paste**.

A copy of the defined task rule is pasted onto the Results pane.

Step 3 To rename the copied task rule or other properties, right-click and choose **Properties**.

Step 4 Modify the task rule name, as appropriate, and click **OK** to close the dialog box.

Sorting Task Rules

The task rules are executed according to the order they are listed on the Definitions—Task Rules view. You should sort the task rules based on the order in which you want them to execute.

Note All task rules will execute even if there is more than one task rule assigned for the same condition. For example, if you have two assignment rules for the same incident, both rules will be executed in the order listed in the Task Rules view.

On the Definitions—Task Rules view, select the task rule and use one of the following methods to move it to the desired position in the list:

- Drag and drop the task rule into the appropriate position in the list.
- On the Actions toolbar, click **Move Up** or **Move Down**.
- Click the Actions menu and choose **Move Up** or **Move Down**.
- Right-click and choose **Move Up** or **Move Down**.

The list of task rules are sorted according to the selected action.

Deleting a Task Rule

Use the Definitions—Task Rules view to delete task rules that are no longer used.

Step 1 On the Definitions—Task Rules view, select the task rule, right-click and choose **Delete**.

Step 2 On the Confirm Delete dialog box, click **Yes** to confirm the deletion.

Enabling Notification Based on Assignment Processes

If you want to have emails sent to whoever is assigned to a task but do not want to create notification task rules, you can enable the processes that ship with the Core automation pack that send emails based on assignment.

When these processes are enabled, the user or user group who was assigned to tasks will receive the email notification.

Step 1 In the Definitions workspace, click **Processes**.

Step 2 Click the **Filter by** link and choose **Automation Pack > Core** to filter for the processes that ship with the Core automation pack.

Step 3 Right-click the appropriate **Notification Based on Assignment** process and choose **Enable**.

The following processes are for notification based on assignment:

Process Name	Description
Default Alert Notification Based on Assignment	Sends email when an alert gets assigned.
Default Approval Request Notification Based on Assignment	Sends email when an approval request gets assigned.
Default Change Request Notification Based on Assignment	Sends email when an change requests gets assigned.
Default Guided Operation Request Notification Based on Assignment	Sends email when a guide operation request gets assigned.
Default Incident Notification Based on Assignment	Sends email when an incident gets assigned.
Default Input Request Notification Based on Assignment	Sends email when an input request gets assigned.
Default Review Request Notification Based on Assignment	Send email when a review request gets assigned.

Managing Target Properties

The IT Task Automation for SAP processes use target properties to override certain variable properties assigned to targets. For example, target properties can be used to specify a different target when certain conditions occur.

This section provides information on configuring the target properties that ship with the IT Task Automation for SAP automation pack.

Accessing Target Properties

The target properties that ship with the IT Task Automation for SAP automation pack can be accessed from the Definitions—Target Properties view.

Step 1 On the Console, select the Definitions workspace and click **Target Properties** in the navigation pane. By default, all the variables display in the Target Properties pane.

The following information about the target properties displays by default:

Column	Description
Display Name	Name of the target property.
Description	Text description of the target property.
Value	Value assigned to the target property.
Data Type	Type of value being used for the target property (Boolean, Encrypted String, Identity, Numeric, String, Table).
Automation Pack	Name of the automation pack that provides the target property.
Customizable	Indicates the customization setting for the object in the automation pack.
Target Types	Indicates the targets associated with the target property.
Last Modified Time	Date and time the variable was last modified.
Last Modified By	Name of the user who last modified the target property.
Id	Unique ID of the target property.
Owner	User name of the owner of the target property. This is typically the person who created the target property.
Created Time	Date and time the target property was created.
Created By	User name of the person who created the target property.

Step 2 Click the **Filter by** link and choose **Automation Pack > IT Task Automation for SAP** to filter for only the target properties that ship with the specific automation pack.

Configuring Target Properties

You use the Target Properties dialog box to view or modify the target property. You access the properties from the Definitions—Target Properties view.

The following section provides information on configuring the target properties that ship with the IT Task Automation for SAP automation pack.

Step 1 On the Target Properties pane, right-click **[Target Property]** and choose **Properties**.

Step 2 On the General tab, review the information in the Description field to determine the values that need to be specified for the target property.

Step 3 Click the **Value** tab to specify, view or modify the default value for all targets.

> **Note** The tab in the second position will depend on the variable type. See the *Cisco Process Orchestrator User Guide* for instructions on configuring the different types of target properties.

Step 4 Click in the cell to specify the default value or change the default value for all SAP targets.

Step 5 Click the **Target Values** tab to specify the targets that should be used to override the default values.

Step 6 Click **New** to add a new target override.

Step 7 On the Target Property Value dialog box, click **Add** to choose the target (SAP system) to be used for the target property. This is the SAP system that will be monitored for a value other than the default value.

Step 8 Select the SAP system and click **OK**.

Step 9 On the Target Property Value dialog box, enter the information in the Value area for the specified target and then click **OK**.

The target override displays on the Target Values tab.

Step 10 Click **OK** to close the dialog box and save your changes.

> **Note** The Target Types tab is only available if you have explicit rights to the object. See the *Cisco Process Orchestrator User Guide* for information on using this property page.

Managing Global Variables

The processes use global variables for information that is used on a regular basis to avoid having to specify the same information in several processes or activities. Some of the variables that ship with the automation packs are configured with default values but can be modified to meet the requirements for your specific environment. Other variables do not have default values defined and must be defined by the user before it can be used in the processes.

The Core Automation for SAP automation pack ships with the global variables that must be configured before they can be used in the processes.

Accessing Global Variables

The global variables that ship with the Core Automation for SAP automation pack can be accessed from the Definitions—Global Variables view.

Step 1 On the Console, select the Definitions workspace and click **Global Variables** in the navigation pane. By default, all the variables display in the Global Variables pane.

Step 2 Click the **Filter by** link and choose **Automation Pack > Core Automation for SAP** to filter for only the global variables that ship with the specific automation pack.

The following information about the variables displays by default:

Column	Description
Display Name	Name of the global variable.
Description	Brief overview of the global variable.
Value	Value of the variable.
Data Type	Type of value being used for the variable (Boolean, Encrypted String, Identity, Numeric, String, Table).
Automation Pack	Name of the automation pack that provides the object.
Last Modified Time	Time the global variable was last modified.
Last Modified By	Name of the user who last modified the global variable.

Configuring Global Variables

SAP Alert Suppression Time Properties

The SAP Alert Suppression Time global variable contains the length of time (in seconds) that SAP alerts will be suppressed when duplicated. After this time, a new alert and incident will be created.

Step 1 In the Definitions view, click **Global Variables** in the navigation pane to display the variables in the Global Variables pane.

Step 2 Click the **Filter by** link and choose **Automation Pack > Core Automation for SAP** to filter for only the global variables that ship with the Core Automation for SAP automation pack.

Step 3 In the Global Variables pane, right-click the **SAP Alert Suppression Time** global variable and choose **Properties**.

Step 4 In the Value text field, enter the number of seconds to suppress duplicate alerts and click **OK**.

Transaction Analyzer Report Location

If you have Cisco Transaction Analyzer installed, you use the Transaction Analyzer Report Location global variable to specify the URL for accessing the Transaction Analyzer reports folder.

Step 1 In the Definitions view, click **Global Variables** in the navigation pane to display the variables in the Global Variables pane.

Step 2 Click the **Filter by** link and choose **Automation Pack > Core Automation for SAP** to filter for only the global variables that ship with the Core Automation for SAP automation pack.

Step 3 In the Global Variables pane, right-click the **Transaction Analyzer Report Location** global variable and choose **Properties**.

Step 4 In the Value text field, enter the URL to access the Transaction Analyzer reports folder in the following format:

http://<RSServerName>/ReportServer?/Transaction Analyzer - <TADatabaseServerName>

For example:

http://RSServer01/ReportServer?/Transaction Analyzer - TADBServer

Step 5 Click **OK** to close the dialog box.