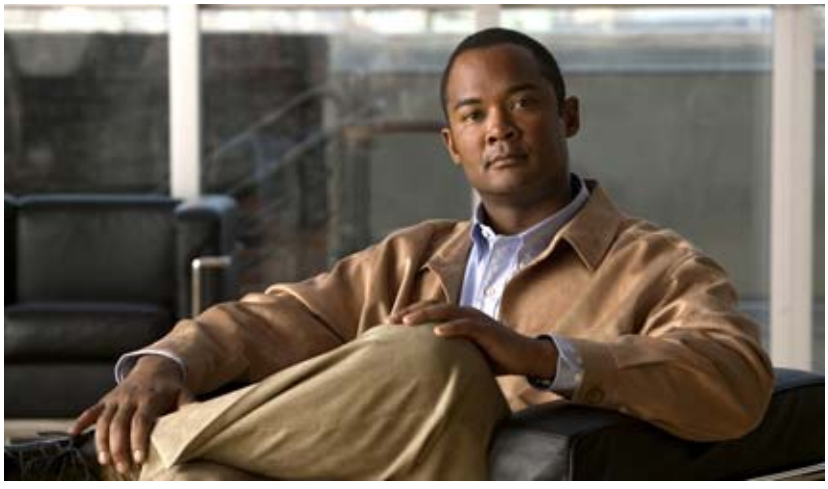


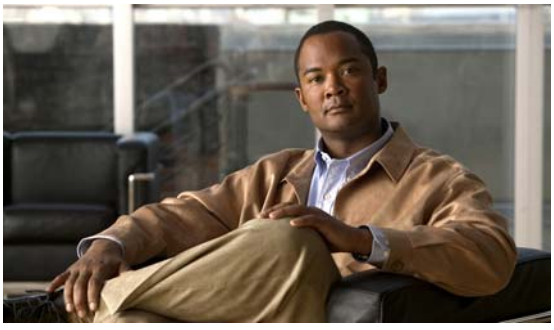
Process Automation Guide for IT Task Automation for SAP

Release 3.0
December 2013

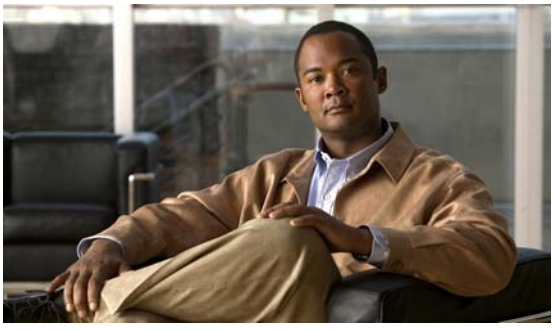
Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
http://www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Text Part Number: OL-30856-01

Process Automation Guide for IT Task Automation for SAP



CONTENTS



New and Changed Information

New and changed information for the most recent releases of the Process Automation Guide for IT Task Automation for SAP is as follows:

- Latest Release
- Previous Release

Latest Release

Table 1 December 2013— Process Automation Guide for IT Task Automation for SAP 3.0 Changes

Feature	Location
Renamed document and revised Text Part Number (-01 to -02)	Front cover, footers
Updated Trademark and Copyright date	Inside cover page
Renamed the Product Name	All Chapters

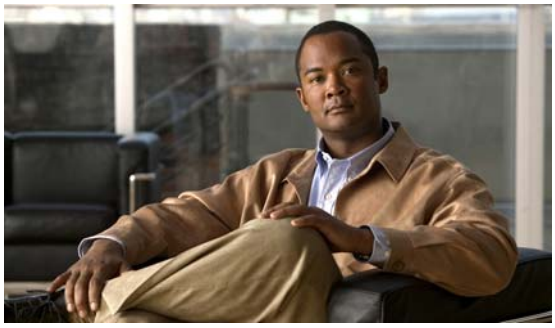
Previous Release

Table 2 April 2012—Cisco TEO Process Automation Guide for IT Task Automation for SAP 2.3 Changes

Feature	Location
Renamed document and revised Text Part Number (-01 to -02)	Front cover, footers
Updated Trademark and Copyright date	Inside cover page
Revised automation pack name	All
Updated “Importing ABAP Transport or Cisco Add-On” section	Chapter 1, “Importing Automation Packs”

Table 2 April 2012—Cisco TEO Process Automation Guide for IT Task Automation for SAP 2.3 Changes

Feature	Location
Added content from restructuring of automation packs	Chapter 2, “Understanding the Automation Pack Content”
New feature for supporting duplicate SAP system IDs	Chapter 3, “Getting Started Using the Automation Pack”
Modified “Configuring Target Properties” section	Chapter 3, “Getting Started Using the Automation Pack”
Removed Common Activities Appendix	Appendix A, “Understanding the Common Activities Content”



Preface

The SAP automation pack files are a collection of Cisco Process Orchestrator processes (workflows) authored by subject matter experts that work out-of-the-box to automate best practices for a particular technology. The tap files also include configuration objects that are used in the processes, such as variables, categories, target groups, target properties, task rules and knowledge base articles.

The SAP Automation Pack for IT Task Automation for SAP contains the content used to automate best practices for resolving performance problems within your SAP environment. Cisco Process Orchestrator provides event correlation and root cause analysis capabilities, and intelligently manages the flood of incoming incidents by analyzing them in the context of the other incidents, events and metrics. When certain incidents are raised from the processes in the Intelligent Automation for SAP Pack for Incident Response for SAP, the processes in this automation pack automatically resolve them.

This guide is intended to provide information on importing and using the IT Task Automation for SAP automation pack in Cisco Process Orchestrator.

Organization

This guide includes the following sections:

Chapter 1	Importing Automation Packs	Provides instructions for installing the automation pack during or after the initial installation of Cisco Process Orchestrator.
Chapter 2	Understanding the Automation Pack Content	Provides information on the objects included in the automation pack.
Chapter 3	Getting Started Using the Automation Pack	Provides information on configuring the objects in Process Orchestrator that are referenced by the content in the automation pack—runtime users, targets, task rules, and target properties that are included in the automation pack.
Chapter 4	Managing IT Task Automation for SAP Processes	Provides information on using and managing the SAP processes.
Appendix A	Understanding the Core Automation for SAP Content	Provides information on the content included in the Core Automation for SAP automation pack.

Conventions

This guide uses the following conventions:

Convention	Indication
bold font	Commands and keywords and user-entered text appear in **bold** font.
italic font	Document titles, new or emphasized terms, and arguments for which you supply values are in *italic* font.
[ ]	Elements in square brackets are optional.
{ x | y | z }	Required alternative keywords are grouped in braces and separated by vertical bars.
[x | y | z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
`courier` font	Terminal sessions and information the system displays appear in `courier` font.
< >	Nonprinting characters such as passwords are in angle brackets.
[ ]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.

Note Means *reader take note*.

Tip Means *the following information will help you solve a problem*.

Caution Means *reader be careful*. In this situation, you might perform an action that could result in equipment damage or loss of data.

Timesaver Means *the described action saves time*. You can save time by performing the action described in the paragraph.

Warning **Means *reader be warned*. In this situation, you might perform an action that could result in bodily injury.**

Product Documentation

Documentation Formats

Documentation is provided in the following electronic formats:

- Adobe® Acrobat® PDF files
- Online help

You must have Adobe® Reader® installed to read the PDF files. Adobe Reader installation programs for common operating systems are available for free download from the Adobe Web site at www.adobe.com.

Guides and Release Notes

You can download the Cisco Process Orchestrator product documentation from Cisco.com. Release Notes can be found on Cisco.com and the product CD.

Online Help

Online help is available and can be accessed using the following methods:

- Click the **Help** button on any dialog in the application to open the help topic in a pane to the right of the dialog.
- In the Cisco Process Orchestrator console:
  - Click the **Help Pane** tool on the toolbar to open the help topic in a pane to the right of the console results pane.
  - Click **Help** on the menu bar.

Open Source License Acknowledgements

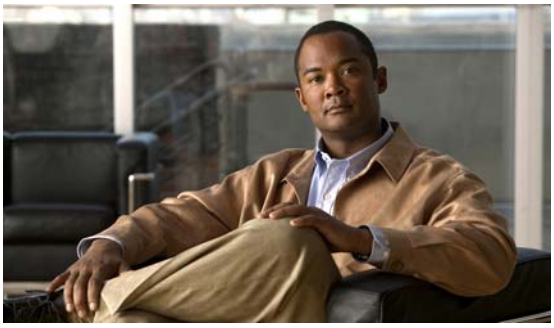
Licenses and notices for open source software used in Cisco Process Orchestrator can be found in the Open Source License Acknowledgements found on Cisco.com. If you have any questions about the open source contained in this product, please email external-opensource-requests@cisco.com.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Subscribe to the *What's New in Cisco Product Documentation* as a RSS feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS Version 2.0.



CHAPTER 1

Importing Automation Packs

The *Cisco Process Orchestrator Installation Guide* provides instructions for installing Cisco Process Orchestrator and the core components. During the initial installation of Cisco Process Orchestrator, you can choose to import the automation packs, or import them later from within the Console.

The Intelligent Automation for SAP Pack for IT Task Automation for SAP has a dependency on the Common Activities and Core Automation for SAP automation packs. Therefore, these automation packs must be imported before the IT Task Automation for SAP automation pack.

This chapter guides you through importing the automation packs. It includes the following sections:

Note It is recommended that you review the system requirements and prerequisites before importing automation packs. *See* the *Intelligent Automation for SAP 3.0 Installation Guide*.

Accessing the Automation Pack Import Wizard

You use the Automation Pack Import Wizard to import the automation packs (tap files). You can open the wizard immediately after installing Process Orchestrator or from within the Console.

Opening the Import Wizard After Running Setup Wizard

Step 1 After running the Setup wizard to install the product, ensure that the **Launch automation pack import wizard now** check box is checked before closing the wizard.

Step 2 On the Select Automation Packs dialog box, ensure that the following check boxes are checked and then click **OK** to launch the Automation Pack Import Wizard:

- Common Activities
- Core Automation for SAP
- IT Task Automation for SAP

Note *See* the *Cisco Process Orchestrator Installation Guide* for instructions on importing and configuring the Core components for the product.

Proceed to Importing the Common Activities.tap, page 1-3.

Opening the Import Wizard from Console

You can open the Automation Pack Import Wizard from within the Console after installing the product. When importing automation packs from within the Console, you must re-open the Automation Pack Import Wizard for each automation pack that you are importing.

Because the IT Task Automation for SAP automation pack has dependencies on the Common Activities and Core Automation for SAP automation packs, you must first import these automation packs.

Step 1 In the Administration workspace on the Console, click **Automation Packs** in the navigation pane.

Step 2 Use one of the following methods to open the Automation Pack Import Wizard:

- In the navigation pane, right-click **Automation Packs** and choose **Import**.
- On the Menu bar, choose **Actions > Import**.

Step 3 On the Windows Open dialog box, select the **Common Activities.tap** file and click **Open** to launch the Automation Pack Import Wizard.

Proceed to Importing the Common Activities.tap.

Importing the Common Activities.tap

You must first import the Common Activities automation pack (Common Activities.tap). If you opened the Automation Pack Import Wizard from the Setup Completed panel, the wizard will guide you through importing each automation pack.

Step 1 On the Automation Pack Import Wizard Welcome panel, click **Next**.

Note If you do not want to display the Welcome panel the next time the wizard is opened, check the **Do not show this page next time** check box.

Step 2 On the General Information panel, review the information about the automation pack.

Step 3 If you want to disable all the processes that are imported with the automation pack, check the **Disable all imported processes** check box.

Note If you disable all the imported processes, you will need to manually enable the processes in the Console before they can execute.

Step 4 Click **Next** to continue.

The Review Prerequisites panel displays the prerequisites for the automation pack being imported. The green check mark indicates that the prerequisite was found on the computer.

The red X indicates that the prerequisite was not found on the computer. When this occurs, the import process is stopped and cannot continue until all prerequisites have been met.

If all prerequisites are passed, the wizard automatically continues to the next panel.

Note If you opened the Automation Pack Import Wizard from the Setup Completed panel, the wizard displays the General Information panel for the next automation pack.

Step 5 After the objects have been imported, review the information on the Completing the Automation Pack Import Wizard panel to verify that it is correct and then click **Close** to close the wizard.

Importing the Core Automation for SAP.tap

If you are importing the automation packs from within the Console, you must re-open the Automation Pack Import Wizard to import the Core Automation for SAP automation pack.

Step 1 Use one of the following methods to open the Import Automation Pack Wizard:

- In the navigation pane, right-click **Automation Packs** and choose **Import**.
- On the Menu bar, choose **Actions > Import**.

Step 2 On the Windows Open dialog box, select the **Core Automation for SAP.tap** file and click **Open** to launch the Automation Pack Import Wizard.

Note If you do not want to display the Welcome panel the next time the wizard is opened, check the **Do not show this page next time** check box.

Step 3 On the Welcome panel, click **Next**.

Step 4 On the General Information panel, review the information about the automation pack.

Step 5 If you want to disable all the processes that are imported with the automation pack, check the **Disable all imported processes** check box.

Note If you disable all the imported processes, you will need to manually enable the processes in the Console before they can execute.

Step 6 Click **Next** to continue.

Use the Default Incidents Assignee Setup panel to specify the default person who should be assigned SAP-related incidents.

Step 7 Click the **Browse** button to specify the user.

Step 8 On the Select User or Group dialog box, click **Location** and choose the location from which the user will be selected.

Step 9 In the text box, enter the user name and click **Check Names**.

If the name is found, the box will be populated with the appropriate email address.

Step 10 Click **OK** to close the Select User or Group dialog box.

Step 11 On the Default Incidents Assignee Setup panel, click **Next**.

The Review Prerequisites panel displays the prerequisites for the automation pack being imported. The green check mark indicates that the prerequisite was found on the computer.

The red X indicates that the prerequisite was not found on the computer. When this occurs, the import process is stopped and cannot continue until all prerequisites have been met.

If all prerequisites are passed, the wizard automatically continues to the next panel.

Note If you opened the Automation Pack Import Wizard from the Setup Completed panel, the wizard displays the General Information panel for the next automation pack.

Step 12 After the objects have been imported, review the information on the Completing the Automation Pack Import Wizard panel to verify that it is correct and then click **Close** to close the wizard.

Importing the IT Task Automation for SAP.tap

If you are importing the automation packs from within the Console, you must re-open the Automation Pack Import Wizard to import the IT Task Automation for SAP automation pack.

Step 1 Use one of the following methods to open the Import Automation Pack Wizard:

- In the navigation pane, right-click **Automation Packs** and choose **Import**.

- On the Menu bar, choose **Actions > Import**.

Step 2 On the Windows Open dialog box, select the **IT Task Automation for SAP.tap** file and click **Open** to launch the Automation Pack Import Wizard.

Step 3 On the Welcome panel, click **Next**.

Step 4 On the General Information panel, review the information about the automation pack.

Step 5 If you want to disable all the processes that are imported with the automation pack, check the **Disable all imported processes** check box.

Note If you disable all the imported processes, you will need to manually enable the processes in the Console before they can execute.

Step 6 Click **Next** to continue.

The Data Extraction panel is used to specify the destination where the ABAP Transport files will be extracted. The ABAP Transport files must be installed on the SAP systems on which some remote function calls that are used in this automation pack will be executed.

Note If you uncheck the ABAP Transport check box, the files will not be extracted.

Step 7 Accept the default location or click the **Browse** ... tool to specify a different location to extract the files and then click **Next**.

The Review Prerequisites panel displays the prerequisites for the automation pack being imported. The green check mark indicates that the prerequisite was found on the computer.

The red X indicates that the prerequisite was not found on the computer. When this occurs, the import process is stopped and cannot continue until all prerequisites have been met.

If all prerequisites are passed, the wizard automatically continues to the next panel.

Step 8 After the objects have been imported, review the information on the Completing the Automation Pack Import Wizard panel to verify that it is correct and then click **Close** to close the wizard.

Importing ABAP Transport or Cisco Add-On

The IT Task Automation for SAP automation pack contains processes that execute RFC calls on the SAP system targets. These RFCs require that either the *ABAP Transport files* or the *Cisco Add-On file* to be installed on the SAP system targets where the RFCs will be used.

After you have imported the IT Task Automation for SAP automation pack, you must import *one* of the following on the SAP systems where the RFCs will be used:

- ABAP Transport Files (SAP 4.7, 7.0 and 7.1 systems)
- Cisco Add-On File (SAP 7.0 and 7.1 systems)

Importing the ABAP Transport Files On SAP Systems

You can use the ABAP Transport files that ship with the automation pack on SAP 4.7, 7.0 and 7.1 systems.

Perform the following procedure to import the ABAP Transport files on all the SAP System targets where the RFCs will be used.

Step 1 Navigate to the location where the ABAP Transport data was extracted for the SAP version of the systems in your environment. The default location is:

C:\Users\[username]\Documents\Cisco\Cisco Process Orchestrator\Extracted Data\ABAP Transports\Task Automation\Transports\

4.7

7.0

7.1

Step 2 Copy the files to the following locations on the SAP server:

- K files should be copied to usr\sap\trans\cofiles
- R files should be copied to usr\sap\trans\data

Step 3 Log onto the SAP system and run T-code STMS.

Step 4 Follow SAP procedures for performing the transport.

Importing the Cisco Add-On On SAP Systems

Perform the following procedure to import the Cisco add-on file on all SAP System targets where the RFCs will be used.

Step 1 Navigate to the location where the ABAP Transport data was extracted for the SAP version of the systems in your environment. The default location is:

C:\Users\[username]\Documents\Cisco\Cisco Process Orchestrator\Extracted Data\ABAP Transports\Task Automation\Add-on\

7.0

7.1

Step 2 Copy the SAP Add-On Package file(s) to the following location on the SAP server:

usr\sap\trans\EPS\in

Step 3 Log onto client 000 of the SAP system using an administrator account (DDIC or SAP* are not valid accounts) and run the SAP transaction code *SAINT*.

Step 4 Follow the standard SAP procedures for performing an add-on product installation using *SAINT*.

Note To verify whether the add-on is on the SAP system, use the SAP menu path **System > Status** and review the software component versions for the Cisco software component add-on.

Error Handling, Logging and Tracing for ABAP Add-on

The ABAP Add-On contains API enabled ABAP function modules (RFC's) that are called by the Cisco Process Orchestrator application. This is performed in Process Orchestrator by defining an ABAP adapter step and specifying a method for the SAP Target system in a process. Process Orchestrator ABAP custom methods perform individual tasks such as updating RFC destinations, configuring printers, and so on.

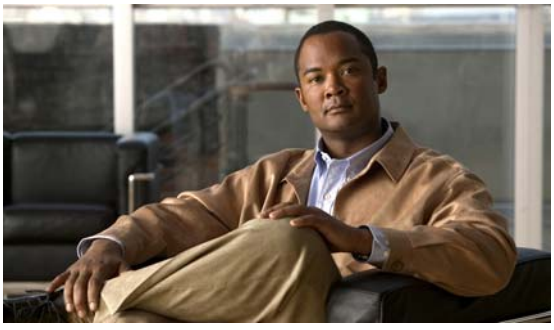
In the event the method encounters an error, such as attempting to modify an RFC destination that does not exist, an error result is returned to the Process Orchestrator process. This can then be modeled as an outcome to the activity, and then subsequent actions based on the error returned may be performed.

All RFC activity performed by Process Orchestrator may be traced through SAP Standard RFC tracing functionality. Refer to SAP online help for enabling the trace level for RFC communication on the SAP target system using SAP transaction SM59. The SAP methods that are called may either write log entries to the SAP System Log (SAP Transaction SM21) or to the Application log (SAP Transaction SLG1) depending on the SAP standard application functionality. For instance, the SAP Application log is updated during the BDLS process scenario as this part of the SAP standard application functionality.

Support Desk Management for ABAP Add-on

SAP Root Cause Analysis ABAP tools can be used to review the performance and execution of the RFC calls performed by the Process Orchestrator system. A read-only SAP Administrator user is used to review the functionality performed by the ABAP methods. The following roles are to be the basis for a composite role that can be adapted to the customer environment:

- SAP_BC_BASIS_MONITORING,
- SAP_BC_SEC_USER_DISPLAY,
- SAP_BC_BTC_DISPLAY,
- SAP_BC_MID_ALE_DISPLAY



CHAPTER 2

Understanding the Automation Pack Content

The IT Task Automation for SAP automation pack includes the content to automate tasks for resolving performance problems within your SAP environment. Cisco Process Orchestrator provides event correlation and root cause analysis capabilities, and intelligently manages the flood of incoming incidents by analyzing them in the context of the other incidents, events and metrics. When incidents are raised by the processes in the Incident Response for SAP automation pack, the processes in the IT Task Automation for SAP automation pack resolve them.

This chapter provides information about the content included in the IT Task Automation for SAP automation pack. It contains the following sections:

Note *See* Appendix A, "Understanding the Core Automation for SAP Content" for information on the content included in the Core Automation for SAP automation pack.

Accessing Automation Pack Properties

Users can access the automation pack properties from the Administration—Automation Packs view in the console. The automation pack properties dialog box displays general information about the content provided by the automation pack, version number, publish date, the provided objects, the dependencies of the automation pack, and the history of changes made to the automation pack.

Step 1 On the Administration workspace, click **Automation Packs** in the navigation pane to display the installed automation packs in the Automation Packs pane.

Information about the automation packs display in the following columns:

Column	Description
Company Name	Name of the company that released the automation pack.
Publish Date	Date the automation pack was created or exported to a file.
Version	Version number of the automation pack.
Display Name	Name of the automation pack.
ID	Identification number of the automation pack.
Import Date	Date the automation pack was imported into the product.
Licenses	Indicates whether the automation is a licensed product in Process Orchestrator.
Description	Text description of the automation pack.

Step 2 Select the automation pack in the Automation Packs pane, right-click and choose **Properties**.

Step 3 On the Properties dialog box, click the appropriate tab to view the automation pack properties:

Tab	Description
General	Displays general information about the automation pack.
Objects	Displays a list of the content included in the automation pack.
Dependencies	Displays a list of automation packs and adapters referenced by the objects in the automation pack.
History	Displays when the automation pack was created or modified, and audit log entries that are relevant to the automation pack.

Step 4 Click **Close** to close the dialog box.

Viewing Automation Pack Content and Dependencies

Use the automation pack Properties dialog box to view the content (objects) included in the automation packs and the dependencies associated with the automation pack.

Viewing Automation Pack Content

Use the Objects tab to view a list of the content provided by the automation pack.

Step 1 On the Administration—Automation Packs view, select **IT Task Automation for SAP**, right-click and choose **Properties**.

Step 2 On the IT Task Automation for SAP Properties dialog box, click the **Objects** tab.

Step 3 On the Objects tab, review the information about the content included in the IT Task Automation for SAP automation pack.

Columns	Description
Display Name	Name of the object (processes, global variables, target groups, categories).
Type	Object type.
Action Required	Action required to successfully import or export the objects.
Description	Text description of the object.
Version	Object version.

Step 4 Click **Close** to close the dialog box.

IT Task Automation for SAP Processes

The following table contains the processes that are imported by the IT Task Automation for SAP automation pack and whether they are disabled by default. The processes that are disabled depend on Incident Response for SAP processes. You must evaluate which resolutions to automate and enable the processes.

Process Name	Description	Disabled by Default
ADHoc – Cancel Selected Running Jobs	Used to cancel the execution of a background job.	No
ADHoc – Delete tRFC Destinations ABAP	Used to delete an ABAP tRFC destination.	No
APO LiveCache Properties	Periodically gathers the configuration attributes of LiveCache APO systems such as current state, last restart, data and log space.	No

Process Name	Description	Disabled by Default
Application Server Properties	Periodically gathers the system configuration attributes of SAP servers (instances) such as Kernel version, OS, host name, and number of work processes.	No
Background Job Duration Monitor	Every hour the process “Background Job Duration Monitor” compares running background jobs against thresholds defined in the global variable “Background Job Maximum Duration” to determine which background jobs are running longer than expected. A threshold may be defined for each background job to monitor.	No
Background Job Schedule Monitor	Compares SM37 results with global variable “Background Job Schedule Monitor” to determine if background jobs started and ended in the time boundaries defined in the variable.	No
Buffer Swap Check	Detects object swaps in the application buffers.	No
Check Space (MSSQL)	Detects when the database file system utilization is over the threshold.	No
Cluster Management – Process Time	Analyzes the J2EE cluster's average waiting time for data to be transferred from the dispatcher to the server to detect possible communication performance problems.	No
Configuration Manager – Cache	Analyzes the hit rate of the J2EE configuration manager cache, an indication J2EE engine modules are retrieving data from disk too frequently.	No
Database Lock (Oracle)	Detects and analyzes SAP process waiting on database lock. This process examines the system work processes, and the Oracle locks table to accurately identify the cause of the locks potentially impacting response time.	No
Database Lock (DB2)	Detects and analyzes SAP process waiting on database lock.	No
Database Locks (MSSQL)	Detects and analyzes SAP process waiting on database lock.	No
Enqueue Table Size	Analyzes the number of lock entries in the enqueue table. This process examines the size of the enqueue table to detect lock backlogs.	No
IDoc Inbound Backlog (ALE)	Examines the inbound IDoc queue and detects backlogs of inbound IDocs that have not been processed or are in an error state.	No
IDoc Outbound Backlog (ALE)	Examines the outbound IDoc queue and detects backlogs of outbound IDocs that have not been sent or are in an error state.	No
Installed Components (adhoc)	Lists the installed components, releases and patch levels.	No

Process Name	Description	Disabled by Default
IView Response Time	Samples IView response time for a custom defined set of IViews. This process analyzes the sample averages to detect the potential cause of slow response time.	No
Location Availability Alert	Raises an incident when a location is unavailable.	No
Location Availability Data Collection for Reports	Collects data for location availability reports.	No
Location Availability Execution	Starts the process that monitors location availability. This process will be executed in the targets included in the Location Availability Monitors target group.	No
Long Running Background Work Process	Detects if any background job runtime has exceeded 12 hours. This process examines the system work processes to identify such background processes.	No
Long Running Dialog Process	Detects when an update process is running longer than the threshold defined on variable "Long Running Dialog Process".	No
Long Running Update	Detects when an update process is running longer than the threshold defined on variable "Update Maximum Duration".	No
Memory Constraint (MSSQL)	Analyzes the database buffer cache hit rate. This process examines the database to detect low buffer hit rate, an indication the server is retrieving data from disk too frequently.	No
Old Enqueue Entries	Analyzes lock entries in the enqueue table over four hours old. This process examines enqueue locks properties to help identify potentially orphaned enqueues.	No
PI Application Error Monitor	Detects XI messsage processing errors. It is similar to the SXMB_MONI transaction.	No
PI FTP Destination Availability	Proactively checks connectivity of selected FTP Destinations. This process is disabled by default and will not work if enabled because it has an invalid runtime user to connect to the FTP Server. You will need to make a copy of the process for each different runtime user that will connect to the FTP Server and update the activity "Test FTP Destination".	Yes
PI Queue Monitor	Detects errors in the XI queues.	No
PI tRFC Destination Availability	Proactively checks connectivity of selected RFC Destinations. This process issues an RFC connection test and identifies which RFC destinations have lost connectivity.	No

Process Name	Description	Disabled by Default
Portal Availability	Proactively checks connectivity of selected portals. This process issues a connection test (SM59 - HTTP) and identifies which destinations have lost connectivity.	No
Portal Checklist – 7.10 and Higher	Automates the most important and frequent tasks for monitoring SAP portal health.	No
Portal Checklist – Pre 7.1x	Automates the most important and frequent tasks for monitoring SAP portal health.	No
Resolve Destination Failed – Restart Windows Service	This process is triggered by an RFC destination failed incident from the Incident Response for SAP tap; it attempts to resolve the incident by restarting the destination Windows service.	Yes
Resolve Dialog Work Processes Over Threshold – Turn on spare server on Cisco UCS	This process is triggered by a dialog work process over threshold incident from the Incident Response for SAP tap; it attempts to resolve the incident by turning on a spare application server.	Yes
Resolve Long Running Background Jobs	This process is triggered by an incident from the Incident Response for SAP tap; it attempts to resolve the incident by canceling the background job.	Yes
Resolve Long Running Update	This process is triggered by an incident from the Incident Response for SAP tap; it attempts to resolve the incident by stopping the Windows or Unix process.	Yes
Resolve Server Unavailable	This process is triggered by an incident from the Incident Response for SAP tap; it attempts to resolve the incident by starting the application server.	Yes
Resolve Update Service not Active	This process is triggered by an incident from the Incident Response for SAP tap; it attempts to resolve the incident by activating the update service.	Yes
RFC Destination Availability	Proactively checks connectivity of selected RFC Destinations. This process issues an RFC connection test and identifies which RFC destinations have lost connectivity.	No
RFC Destination Availability – HTTP	Proactively checks connectivity of selected RFC Destinations. This process issues a connection test and identifies which destinations have lost connectivity.	No
SAP Administrator Checklist	Automates the most important and frequent SAP administration tasks for monitoring SAP system health. This process detects and analyzes common error conditions that typically need to be addressed by system administrators.	No

Process Name	Description	Disabled by Default
SAP Connection Errors	Monitors Process Orchestrator connection errors to SAP systems.	No
SAP System Properties	Periodically gathers the system configuration attributes of SAP systems, such as license information, installed SAP components, release and patch levels and DB platform information.	No
SAP Task Automation Execution Error	Raises an incident when there are errors in the execution of approved Task Automation.	No
SAPConnect monitoring – per Status	Detects transmission errors reported by transaction SCOT. **Note** The process is disabled by default because it calls function "SX_SNDREC_SELECT" and it is not available in all SAP versions/sp levels.	Yes
SAPConnect monitoring – per Type	Detects transmission errors reported by transaction SCOT. **Note** The process is disabled by default because it calls function "SX_SNDREC_SELECT" and it is not available in all SAP versions/sp levels.	Yes
Server Queue Monitor – Application	Monitors the Server System and Application Thread Manager queues. It monitors the WaitingTaskQueue (number of tasks for which there are no threads available) and number of tasks that are not receiving any more space in the WaitingTaskQueue.	No
Shared Pool Memory (Oracle)	Detects analyzes low shared pool memory. This process examines the row cache hit ratio, library cache hit rate, and free memory to identify the cause of the shared pool memory shortage.	No
SMQ1 – Outbound Queue Error Monitor	Detects errors in the outbound queues.	No
SMQ1 – Outbound Queue Hanging Monitor	Detects queues on states set for monitoring on global variable "SMQ1 – Outbound Queues to Monitor for Hanging – Status to Monitor".	No
SMQ2 – Inbound Queue Error Monitor	Detects errors in the inbound queues.	No
SMQ2 – Inbound Queue Hanging Monitor	Detects queues on states set for monitoring on global variable "SMQ2 – Inbound Queues to Monitor for Hanging – Status to Monitor".	No
System Queue Monitor – 7.10 and Higher	Monitors the Dispatcher and Server System Thread Manager queues. It monitors the WaitingTaskQueue (number of tasks for which there are no threads available) and number of tasks that are not receiving any more space in the WaitingTaskQueue.	No

Process Name	Description	Disabled by Default
System Queue Monitor – Pre 7.1 Versions	Monitors the Dispatcher and Server System Thread Manager queues. It monitors the WaitingTaskQueue (number of tasks for which there are no threads available) and number of tasks that are not receiving any more space in the WaitingTaskQueue.	No
Table Space (DB2)	Detects when a DB2 tablespace is over the threshold.	No
Table Space (Oracle)	Detects when the Oracle tablespace size is approaching its capacity and must be increased to prevent service disruption.	No
Transaction Response Time Monitoring	Samples system-wide dialog response time for a custom defined set of transactions. This process analyzes the sample averages for work process, wait time, CPU time, database time, and load time to detect the potential cause of slow system-wide dialog response time.	No
tRFC Error Monitoring for Customized Targets	Monitors tRFC errors (CPICERR or SYSFAIL) for specific targets. It compares SM58 results with the list of targets on parameter "Targets for tRFC error check".	No
URL Ping	Analyzes availability and response time of a specified URL and detects connection or HTTP protocol failures.	No
Work Process Analysis	Detects when the number of work processes in Hold or Stopped state for a selected reason is reaching a threshold defined on parameter "Work Processes Status Analysis".	No

For information on managing the processes, *see* Chapter 4, “Managing IT Task Automation for SAP Processes.”

IT Task Automation for SAP Target Properties

The following table contains the target properties that are imported by the IT Task Automation for SAP automation pack. The target properties that do not have a value defined must be configured by the user prior to using them in processes.

Target Properties	Description	Value Defined?
Background Job Long Running – Programs To Ignore	Monitors long-running background processes. Enter the list of programs that can be ignored when running longer than the threshold entered on variable "Background Job Long-Running – Threshold." Wildcards are not accepted.	No
Background Job Long Running – Threshold	Monitors long-running background processes. Enter the threshold value (seconds).	Yes
Background Long Running – Work Process Type	Background work process type. This property value is necessary to support non-English SAP systems.	Yes
Background Job Maximum Duration	Specify a list of background jobs to monitor and their maximum duration in seconds.	No
Background Job Schedule Monitor	Specify a list of background jobs to monitor the start time and end time. Process Orchestrator will raise an incident when the job does not execute and it is over the start time threshold or job is executing and it is over the end time threshold. Format for start time and end time is HH:mm:ss (24 hours format), for example, 18:00:00 for 6:00 PM.	No
Buffer Hit Ratio Threshold	Threshold (percentage) for buffer hit ratio. Buffer Swap Check process will raise alerts when values are under the threshold.	Yes
Buffer Swaps Threshold	Threshold for number of swaps in the application buffers.	Yes
Database Free Space	Threshold for minimum database free space (percentage). This is the file system free space in SQL Server databases and the table space free space in Oracle databases.	Yes
Enqueue Lock Age	Threshold for how long an object can be held by an enqueue lock. Enter the value in minutes.	Yes
Enqueue Locks – Maximum Number	Threshold for number of locks.	Yes
IDOC Monitoring – Inbound	Monitors the number of Inbound IDocs received but not yet processed in the last 24 hours. Enter a list of Inbound IDoc types and the threshold to raise an incident.	No

Target Properties	Description	Value Defined?
IDOC Monitoring – Outbound	Monitors the number of Outbound IDocs submitted but not yet sent in the last 24 hours. Enter a list of Outbound IDoc types and the threshold to raise an alert.	No
J2EE Buffer Cache HitRate	Threshold for buffer cache hit rate.	Yes
J2EE Cluster Management AverageProcessTime	Threshold for Cluster Management AverageProcessTime (High Average MS Process Time indicates a long waiting period for the data to be transferred from the dispatcher to the server). The unit is milliseconds.	Yes
J2EE Data Source	Datasource is normally SAP<SystemID>DB but can be overriden in this target property.	No
J2EE Dispatcher Thresholds	Thresholds for dispatcher queues (number of runnable tasks waiting for available thread in the threads pool).	Yes
J2EE Server Thresholds – Application	Thresholds for server queues (number of runnable tasks waiting for available thread in the threads pool). It monitors the Application Thread Manager queues.	Yes
J2EE Server Thresholds – System	Thresholds for server queues (number of runnable tasks waiting for available thread in the threads pool). It monitors the System Thread Manager queues.	Yes
Long Running Dialog Process	Monitors long-running dialog processes. Enter the threshold value (seconds).	Yes
PI Application Error – Period to Monitor	Enter the number of minutes to check for PI application errors. (Last X minutes)	Yes
PI Application Error – Receiver Interfaces to Monitor	List of PI Receiver Components and Interfaces. Process Orchestrator will match components and interfaces as seen on transaction SXMB_MONI. Wildcard expressions are accepted (for example, if you want to match all sender interfaces that start with MI_SALES, enter MI_SALES*).	No
PI Application Error – Sender Interfaces to Monitor	List of PI Sender Components and Interfaces. Process Orchestrator will match components and interfaces as seen on transaction SXMB_MONI. Wildcard expressions are accepted (for example, if you want to match all sender interfaces that start with MI_SALES, enter MI_SALES*).	No

Target Properties	Description	Value Defined?
PI FTP Destination Availability	Monitors the availability of an FTP destination. Enter the FTP destinations to be monitored by Process Orchestrator for availability. Destination is the IP address of the FTP server. Account is the user account for connecting to the FTP server. The PI FTP Destination Availability process is disabled by default. You will need to make a copy of the process for each runtime user that will connect to the FTP server.	No
PI Queues to Monitor	Queue name to be compared to the errors on SMQ2. Matches will raise incidents with queue owner in the incident description. Wildcard expressions are accepted (for example, if you want to match all queues that begin with PI_TEST, enter PI_TEST).	No
PI tRFC Destination Availability	Monitors the availability of specific destinations. Enter a list of destinations to be monitored by Process Orchestrator for availability.	No
Portal – IView Response Time	Monitors the average response time for specific iViews. Enter a list of iViews to be monitored and the average response time threshold (milliseconds). Process Orchestrator monitors average response time in 10-minute intervals. Wildcard expressions are accepted (for example, if you want to match all iViews starting with EP:PRT_init:com.sap.portal, enter EP:PRT_init:com.sap.portal*.	No
Portal – List of Backends	List of SAP ABAP backends that will be accessed by Portal applications. Enter SystemID (for example, enter PRD).	No

Target Properties	Description	Value Defined?
Portal Availability	Monitors the availability of Portal Important: Portal will be monitored from an ABAP system. Use overrides to select an ABAP system to monitor the Portal. Enter a list of Portals to monitor: Destination: Portal name (you can enter any name that will make it easy to identify the portal) Host : Portal IP or host name Service: 50x00 (port to connect to portal) Path: /irj/portal Pattern: status_code200	No
SAP Automation – Spare Application Servers	List of spare dialog servers to bring up when SAP system is running out of dialog processes.	No
SAP Automation – Windows Service to Restart on Failed tRFC Destination Check	List of Windows services to be restarted when a tRFC destination is failing on SM59 test.	No
SCOT – Transmission Errors per Status	Monitors the number of transmission errors reported by transaction SCOT. Enter a list of Statuses, the threshold to raise an incident and the description to add to the incident. If you only want to monitor total transmission errors, enter "Total Errors" as the sender type. Note that the process (SAPConnect Monitoring) is disabled by default because it calls function "SX_SNDREC_SELECTwhich is not available in all SAP versions/service pack levels.	Yes
SCOT – Transmission Errors per Type	Monitors the number of transmission errors reported by transaction SCOT in the last 1 hour. Enter a list of Address Types and the threshold to raise an incident. If you only want monitor total transmission errors, enter "Total Errors" as the sender type. Note that the process (SAPConnect Monitoring) is disabled by default because it calls function "SX_SNDREC_SELECT" which is not available in all SAP versions/service pack levels.	Yes
SMQ1 – Outbound Queues to Monitor for Errors	Enter Queue Name to be compared to the errors on SMQ1. Matches will raise incidents with queue owner in the incident description. Wildcard expressions are accepted (for example, if you want to match all queues starting with XI_TEST, enter XI_TEST*).	No

Target Properties	Description	Value Defined?
SMQ1 – Outbound Queues to Monitor for Hanging – Queues to Monitor	Enter Queue Name to be compared to SMQ1 and the status entered on the variable "SMQ1 - Outbound Queues to Monitor for Hanging - Status to Monitor". Matches will raise incidents. Wildcard expressions are accepted (for example, if you want to match all queues starting with TEST, enter TEST*).	No
SMQ1 – Outbound Queues to Monitor for Hanging – Status to Monitor	Enter Status to be compared to queue status in SMQ1 and the threshold for how long (minutes) the queue can be in the status (for example, Status = Ready, Time in Status = 30).	No
SMQ2 – Inbound Queues to Monitor for Errors	Enter Queue Name to be compared to the errors on SMQ2. Matches will raise incidents with queue owner in the incident description. Wildcard expressions are accepted (for example, if you want to match all queues starting with XI_TEST, enter XI_TEST*).	No
SMQ2 – Inbound Queues to Monitor for Hanging – Queues to Monitor	Enter Queue Name to be compared to SMQ2 and the status entered on the variable "SMQ2 - Outbound Queues to Monitor for Hanging - Status to Monitor". Matches will raise incidents. Wildcard expressions are accepted (for example, if you want to match all queues starting with TEST, enter TEST*).	No
SMQ2 – Inbound Queues to Monitor for Hanging – Status to Monitor	Enter Status to be compared to queue status in SMQ2 and the threshold for how long (minutes) the queue can be in the status, like for example Status = Ready, Time in Status = 30.	No
Targets for tRFC error check	Monitors tRFC errors (CPICERR or SYSFAIL) for specific Targets. Enter the list of Targets to be compared with SM58 results. Wildcards are accepted (for example, if you want to match all targets starting with FAX, enter FAX*).	No
Transaction Response Time	Monitors the average response time for specific ABAP transactions. Enter a list of transactions to be monitored and the average response time threshold (milliseconds). Process Orchestrator monitors average response time in 10 minute intervals.	No
tRFC Destination Availability	Monitors the availability of specific destinations. Enter a list of destinations to be monitored by Process Orchestrator for availability.	No

Target Properties	Description	Value Defined?
tRFC Destination Availability – HTTP	Monitors the availability of specific HTTP destinations. Enter a list of destinations to be monitored by Process Orchestrator. The entries are similar to SM59 for HTTP destinations. Pattern can be wildcard or a substring that you are looking for in the report result. Note that it will strip off all the white spaces (blank, tab, new line) and the "|" character from the report before matching it against the pattern. Pattern example: status_code200	No
tRFC Source	The name of the server where the destination check tests are executed. Enter the full name of the server (ServerName_SID_SysNo) where the destination check tests will be executed. The value is case sensitive.	No
tRFC Source – HTTP	The name of the server where the destination check tests are executed. Enter the full name of the server (ServerName_SID_SysNo) where the destination check tests will be executed. The value is case sensitive.	No
Update Maximum Duration	Threshold for the time an update is in state of "running". The process will check time via SM66. Enter the threshold value in seconds.	Yes
URL Ping	Monitors URL availability (HTTP ping). Enter the URL address (for example: http://<ServerName>:50000/irj/portal).	No
Work Processes Analysis	Monitors work processes for HOLD status reasons. Enter a list of work process Hold status reasons to be monitored. Enter thresholds for "Max Number" of working processes in the system running longer than "Max Duration" seconds on the specified "Status".	Yes

For information on configuring target properties, *see* Managing Target Properties, page 3-20.

Viewing Automation Pack Dependencies

Use the Dependencies tab to view the automation packs and adapters referenced by the objects in the automation pack. These object must be installed prior to importing the IT Task Automation for SAP automation pack.

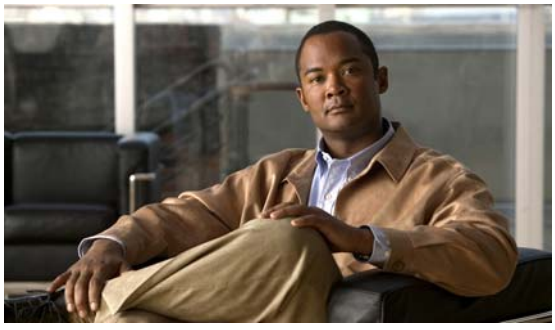
Step 1 On the Administration—Automation Packs view, select **IT Task Automation for SAP**, right-click and choose **Properties**.

Step 2 On the IT Task Automation for SAP Properties dialog box, click the **Dependencies** tab.

Step 3 Review the list of automation packs and adapters referenced by the IT Task Automation for SAP automation pack. These objects must be installed prior to installing the automation pack.

Object Type	Dependency
Automation Packs	• Core Automation for SAP • Common Activities
Adapters	• Core Functions Adapter • SAP ABAP Adapter • Microsoft Windows Adapter • Terminal Adapter • Cisco UCS Software Adapter

Step 4 Click **Close** to close the dialog box.



CHAPTER 3

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 3-2 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 3-19).

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**.

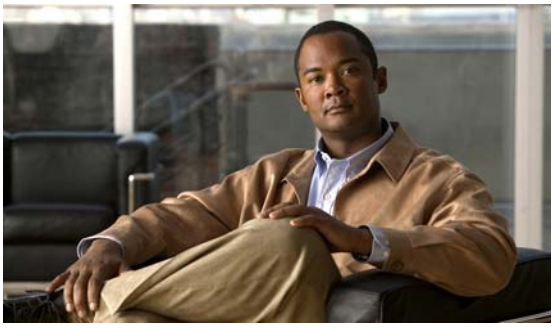
Step 4 In the Value text field, enter the URL to access the Transaction Analyzer reports folder in the following format:

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

For example:

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

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



CHAPTER 4

Managing IT Task Automation for SAP Processes

This chapter provides information on using the product, specific to the IT Task Automation for SAP automation pack. It includes information on accessing the IT Task Automation for SAP processes and filtering for specific processes, managing the SAP processes, starting a process, and viewing a running process, its results, and the automation summary generated by the process.

It includes the following sections:

Note Before you can run the IT Task Automation for SAP processes, you must configure the objects that are referenced by the processes and activities. *See* Chapter 3, "Getting Started Using the Automation Pack" for information on configuring the SAP-related objects in Process Orchestrator.

Accessing IT Task Automation for SAP Processes

The processes that ship with the product can be accessed from the Definitions—Processes view.

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

If you have multiple automation packs installed, you can filter the processes to display the processes specific to the automation pack.

Step 2 In the upper portion of the Processes pane, click the **Filter by** link and choose **Automation Pack**.

Step 3 In the drop-down list, choose **IT Task Automation for SAP**.

The processes display in the Processes pane.

Managing SAP Processes

This section provides information on managing the IT Task Automation for SAP processes, including:

- Enabling and disabling processes
- Enabling and disabling the process archival feature
- Modifying a process schedule
- Creating an automation pack for new processes

Enabling a Process

Some of the processes that ship with the automation packs are disabled by default to reduce the load on the server. These processes must be enabled before they can execute.

Perform the following steps to enable a process.

Step 1 In the Processes view, navigate to the process that you want to enable (disabled processes appear dimmed).

Step 2 Use one of the following methods to enable the process:

- Right-click the process and choose **Enable** from the submenu.
- In the Process Editor, click the **General** tab and then check the **Enabled** check box. Click the **Save** tool to save your changes to the process and close the Process Editor.

Disabling a Process

Disabling a process prevents the process from executing. You may want to disable some processes to reduce the load on your server or while you are modifying the process definition.

Perform the following steps to disable a process.

Step 1 In the Processes view, navigate to the process that you want to disable.

Step 2 Use one of the following methods to disable the process:

- Right-click the process and choose **Disable** from the submenu.
- In the Process Editor, click the **General** tab and then uncheck the **Enabled** check box. Click the **Save** tool to save your changes to the process and close the Process Editor.

Modifying Process Instance Archival

Cisco Process Orchestrator provides an option in the process definition that allows you choose whether or not to archive process and activity execution in the Cisco Process OrchestratorProcess database. Disabling the archive option helps improve performance and minimize the size of the database. It is also useful when debugging the execution of processes.

The automation packs shipped by Cisco normally have the archival functionality enabled by default for the IT Task Automation for SAP processes. If you do not want to view the execution of a process and its activities, or view the process instances after a process has completed, you can disable the archival functionality in the process definition.

Perform the following steps to enable or disable the archival feature.

Step 1 In the Processes view, navigate to the process you want to flag for archival.

Step 2 Right-click the process and choose **Edit** from the submenu.

Step 3 On the process Properties dialog box, click the **Options** tab.

Step 4 On the **Options** tab, click one of the following radio buttons to indicate how you want to archive the process instance.

Field	Description
Never archive any instances	Click this radio button to indicate that the process should not be stored upon completion.
Only archive failed instances	Click this radio button to indicate that only failed instances should be archived.
Archive all completed instances	Click this radio button to indicate that the process should be stored upon completion.
Archive based on condition	Click this radio button to indicate that the process should be stored based on the condition (True/False) selected. Click the **Browse** ... tool to launch the Archive Condition dialog box and select the condition.

Running Processes

The processes that ship with the product will run based on the trigger that was defined in the process definition. These processes can be used to automate the resolution of problems detected by incident analysis, as well as update the execution of some manual tasks using the adhoc processes. This section guides you through starting an adhoc process and viewing its progress as it runs.

Note You can only view a running process and the process instances for processes that have the Archive completed instances feature enabled. See Modifying Process Instance Archival, page 4-4 for information on enabling the archival feature on a specific process.

Starting a Process

Step 1 In the Processes view, right-click the process and choose **Start Process** from the submenu.

The Confirm Start Process dialog box displays.

Step 2 In the Start the process with the following parameters list box, select the parameter in the list and click **Edit**.

Step 3 Enter the appropriate value in the Value text field and then click **OK**.

Step 4 Repeat Step 2 through Step 3 for each parameter listed in the text field.

Step 5 On the Confirm Start Process dialog box, click the **Target** or **Target Group** radio button and then click the **Browse** ... tool to open the Select Target dialog box.

Step 6 Select the target in the list and then click **OK**.

Step 7 On the Confirm Start Process dialog box, click **OK** to start the process.

The Start Process Results dialog box displays. Proceed to Viewing Running Process, page 4-6.

Viewing Running Process

After starting the process, you can use the Process Viewer to view the process as it runs through each activity.

Note You can only view a running process and the process instances for processes that have the **Archive completed instances** feature enabled. See Modifying Process Instance Archival, page 4-4 for information on enabling the archival feature on a specific process.

Step 1 On the Start Process Results dialog box, right-click the process and choose **Observe**.

The Process Viewer displays the process workflow.

Step 2 View the process as it proceeds through the workflow. The activities within the process workflow will change to green as they complete (succeed). If an activity fails, an incident is created.

Step 3 When the process completes, close the Process Viewer and proceed to Viewing Process Results, page 4-7.

Viewing Process Results

After a process completes, you can view the results in the Operations workspace. This section guides you through viewing the results from running the process.

Note You can only view a running process and the process instances for processes that have the Archive completed instances feature enabled. See Modifying Process Instance Archival, page 4-4 for information on enabling the archival feature on a specific process.

Accessing Process View

Step 1 On the Operations workspace, expand **Process Views** in the navigation pane and click **View Adhoc** (since the process was manually executed).

Step 2 Using the **Filter by** link, choose **Automation Pack** and then choose **IT Task Automation for SAP** from the drop-down list.

Step 3 Scroll to the process and select it.

Step 4 In the View Results pane, expand the process to view each activity in the process workflow.

Step 5 Review the status of the process and each activity within the process to verify that it has succeeded.

Viewing Activity Results

You can view the results of a specific activity within the process using the Activity Instance Properties dialog box.

Step 1 In the View Results pane, scroll to the activity.

Step 2 Right-click the activity and choose **Properties**.

Step 3 On the Properties General tab, review the status of the activity in the State text field.

Step 4 Click the **Results** tab to view information about the activity results.

Step 5 When you have completed reviewing the results, click **Close** to close the dialog box.

Viewing Approval Requests

Some processes require an approval to continue executing once it gets to a certain phase in the process. You can view these approval requests in the Operations workspace.

Step 1 On the Operations workspace, expand **Task Views** in the navigation pane and click **View All**.

Step 2 In the View Results pane, right-click the **Approval Request** and choose **Select Choice**.

The Approval Request displays in the Web Console.

Step 3 Review the information in the Message field to determine how you want to process this request.

Step 4 Click the appropriate radio button to indicate how to proceed. In the above example, the following options are available:

- Cancel Jobs
- Do Not Cancel Jobs

Step 5 Click **Complete** to submit the approval and close the Web Console.

Step 6 If the process was waiting for an approval before continuing, you can view the process as it continues to execute.

Viewing Automation Summary

In some processes, Cisco Process Orchestrator delivers an online Automation Summary that details the analysis that was performed to identify a situation that may require action. It also shows relevant diagnostic and state information captured while performing the situation analysis, and provides a recommended resolution for the situation.

You can access the Automation Summary from the Tasks View on the Operations workspace.

Step 1 On the Operations workspace, expand **Task Views** in the navigation pane and click **View All**.

Step 2 In the View All pane, choose **View all tasks** from the Task Assignee drop-down list to display the tasks in the View Results pane.

Step 3 Right-click the object and choose **View Automation Summary**.

The Automation Summary displays in your web browser.

Customizing a Process

The processes that ship with the IT Task Automation for SAP automation pack can also be used as examples to create custom processes specific to your environment. For example, the automation pack ships a process that resolves a failed destination by restarting the Windows service. You may want to create a process for restarting a Unix service using this process as an example.

Copying a Process

You must first create a copy of the process and then you can modify the process definition.

Step 1 On the Processes pane, navigate to the process you want to copy, right-click and choose **Copy**.

Step 2 Right-click in a white area on the pane and choose **Paste**.

Note A copy of the process will be available when you filter by **Name** since it is no longer associated with the IT Task Automation for SAP automation pack.

Modifying a Process

You can now open the copy of the process and modify it for your environment.

Step 1 On the Process pane, click the **Filter by** link and choose **Name** to filter the processes alphabetically.

Step 2 Scroll to the copied process (it will be named Copy of [process name]).

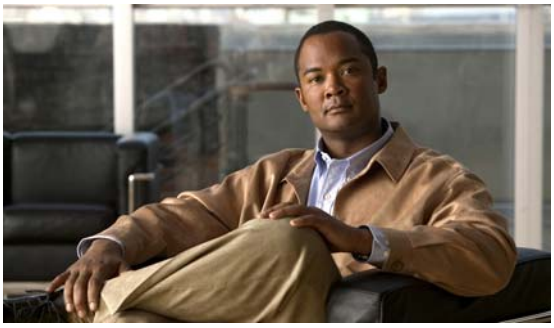
Step 3 Right-click the process and choose **Edit** to open the Process Editor.

The process displays in the Process Editor.

Step 4 Rename the process and modify the properties for the new process.

Step 5 Click the **Save** icon on the toolbar to save the process.

Step 6 Exit the Process Viewer to complete the procedure.



APPENDIX A

Understanding the Core Automation for SAP Content

The Intelligent Automation for SAP Pack for Core Automation for SAP contains content that is used in the other SAP-related automation packs.

This appendix contains the content included in the Core Automation for SAP automation pack. It contains the following sections:

Automation Pack Content

Use the automation pack Properties dialog box to view the content (objects) included in the automation pack. For instructions on accessing the automation pack properties, *see* Accessing Automation Pack Properties, page 2-2.

Core Automation for SAP Task Rules

The following table contains the task rule that is imported by the Core Automation for SAP automation pack.

Task Rule	Description
SAP Default Assignment	Default user or group who will be assigned all SAP-related incidents.

For information on configuring Task Rules, *see* Using Task Rules for Assignments and Notifications, page 3-6.

Core Automation for SAP Global Variables

The following table contains the global variables that are imported by the Core Automation for SAP automation pack.

Global Variable Name	Description
SAP Alert Suppression Time	Used to specify the time SAP alerts will be suppressed when duplicated. After this time, a new alert and incident will be created. Enter the time in seconds.
Transaction Analyzer Report Location	If you have Cisco Transaction Analyzer installed, you use this URL to access Transaction Analyzer reports folder.

For instructions on configuring global variables, *see* Managing Target Properties, page 3-20.

Core Automation for SAP Processes

The Core Automation for SAP automation pack contains support processes that may be triggered by alerts and incidents from processes in the other SAP automation packs. You must enable the processes that will be used in your environment before the other processes can be successfully executed.

For instructions on enabling processes, *see* Chapter 4, "Managing IT Task Automation for SAP Processes."

The following table contains the processes that are imported by the Core Automation for SAP automation pack.

Process Name	Description
Disable SAP System Monitoring	Allows users to disable the SAP system in Process Orchestrator. This process can be used as an example to create custom processes to disable/enable SAP system monitoring during scheduled downtime.
Enable SAP System Monitoring	Allows users to enable the SAP system in Process Orchestrator. This process can be used as an example to create custom processes to disable/enable SAP system monitoring during scheduled downtime.
Example – Transaction Analyzer Link	Example process for linking to Transaction Analyzer.
Publish SAP Alerts on Windows Event Log	Alerts created by processes in the Automation for SAP BW and BWA automation pack will create events in the Windows event log in the Process Orchestrator server. This is necessary for integration with management frameworks such as Microsoft SCOM 2007 and HP OpenView for Windows. **Note** This process must be enabled if you have integrated Process Orchestrator with SCOM 2007 or HP OpenView.
Reset SAP System Alerts and Incidents	Closes all the alerts and incidents for the selected SAP system in Process Orchestrator.

Process Name	Description
SAP Adapter Connection Issue	Monitors the health of Process Orchestrator connection to SAP systems.
SAP Process Execution Error	Raises an incident when there are errors in activities executed in SAP processes.

Core Automation for SAP Target Groups

The Core Automation for SAP automation pack provides the target groups that are used by the SAP processes. Most of the target groups are automatically populated with members when the targets are configured. For those that are not automatically populated, you must manually add the members. For information on adding members to target groups, *see* the *Process Orchestrator User Guide*.

The following table contains the target groups that are imported by the Core Automation for SAP automation pack.

Target Group Name	Description	Automatically Populated with Members
All Cisco UCS Managers (SAP)	All UCS Managers.	Yes
All SAP ABAP	All SAP systems configured with component ABAP.	Yes
All SAP ABAP 46C	All SAP systems configured with component ABAP and version 46C.	Yes
All SAP ABAP non 46C	All SAP systems configured with component ABAP and not version 46C.	Yes
All SAP BI Warehouse	All SAP BI Warehouse targets.	Yes
All SAP Java	All SAP systems configured with component Java.	Yes
All SAP Systems	All SAP systems.	Yes
All SAP Systems – DB2 Mainframe	All SAP systems configured with database DB2 Mainframe.	Yes
All SAP Systems – DB2 UDB	All SAP systems configured with database DB2 UDB.	Yes
All SAP Systems – Oracle	All SAP systems configured with database Oracle.	Yes
All SAP Systems – SQL Server Database	All SAP systems configured with database SQL Server.	Yes
All Unix Servers (SAP)	All Unix servers.	Yes
All Windows Computers (SAP)	All Windows server.	Yes
Location Availability Monitors	Windows computers that have Availability Monitor Utility installed. Availability Monitor is used to monitor location availability. Contact Cisco Systems support to download the utility.	No

Core Automation for SAP Categories

The Core Automation for SAP automation pack ships with categories that are used by the SAP processes. The following categories are imported by the Core Automation for SAP automation pack.

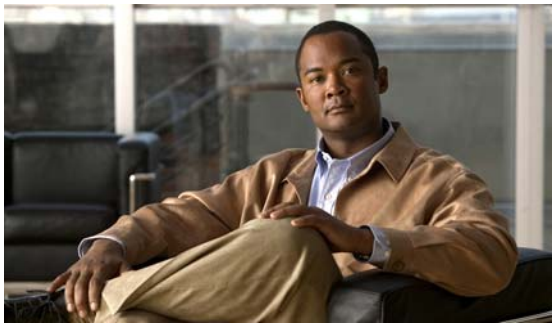
- SAP
- SAP APO
- SAP Application Layer
- SAP Availability
- SAP Background Processing
- SAP BW
- SAP Communication
- SAP Configuration
- SAP Database DB2
- SAP Database DB2 Mainframe
- SAP Database Informix
- SAP Database MS SQL Server
- SAP Database Oracle
- SAP Database SAP DB
- SAP Infrastructure ABAP
- SAP Infrastructure J2EE
- SAP Operating System
- SAP Performance Metrics
- SAP PI
- SAP Resolution
- SAP Spool System
- SAP System Errors
- SAP Update
- SAP VM
- SAP Examples
- SAP Operations
- SAP Self Monitoring

Automation Pack Dependencies

Use the Dependencies tab on the automation pack Properties dialog box to view the automation packs and adapters referenced by the objects in the automation pack. These objects must be installed prior to importing the Core Automation for SAP automation pack.

For instructions on accessing the automation pack properties, *see* Accessing Automation Pack Properties, page 2-2.

Object Type	Dependency
Automation Packs	• Core
Adapters	• Core Functions Adapter • Microsoft Windows Adapter



INDEX

G

I

M

N

O

P

R

S

T

U

V