



Cisco TEO Adapter Guide for SAP Solution Manager

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Preface

The Cisco TEO Adapter for SAP Solution Manager provides the functionality in Tidal Enterprise Orchestrator (TEO) to manage alerts triggered by the alert management solution on SAP Solution Manager 7.1 systems. The Cisco add-on that is installed on the SAP Solution Manager provides the functionality in TEO to retrieve and close the open alerts in the SAP Solution Manager interface.

This guide provides information on the objects provided by the SAP Solution Manager Adapter in TEO.

Organization

This guide includes the following sections:

Chapter 1	Understanding the Adapter Objects	Provides information on accessing and viewing the objects provided by the adapter.
Chapter 2	Managing SAP Solution Manager Targets	Provides information on accessing, creating and managing SAP Solution Manager targets.
Chapter 3	Managing Triggers	Provides information on creating and managing the triggers provided by the adapter.
Chapter 4	Using the SAP Solution Manager Activities	Provides information on defining the SAP Solution Manager activities that are used in processes that run against the SAP Solution Manager systems.

Conventions

This guide uses the following conventions:

Convention	Indication
bold font	Commands and keywords and user-entered text appear in bold font .
<i>italic font</i>	Document titles, new or emphasized terms, and arguments for which you supply values are in <i>italic font</i> .
[]	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.
<code>courier font</code>	Terminal sessions and information the system displays appear in <code>courier font</code> .
< >	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 TEO 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 Tidal Enterprise 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.

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

Understanding the Adapter Objects

The Cisco TEO Adapter for SAP Solution Manager provides the functionality in Tidal Enterprise Orchestrator (TEO) to support task automation and manage alerts triggered by an SAP Solution Manager system.

This chapter provides information on accessing and viewing the objects provided by the SAP Solution Manager Adapter. It contains the following sections:

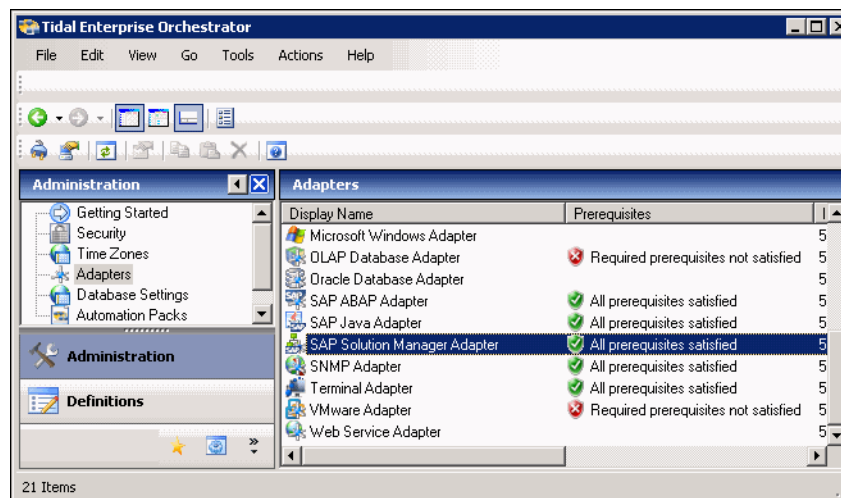
- [Accessing the SAP Solution Manager Adapter Properties, page 1-1](#)
- [Viewing SAP Solution Manager Adapter Properties, page 1-2](#)

Accessing the SAP Solution Manager Adapter Properties

You can view the SAP Solution Manager Adapter properties from the Administration—Adapters view in the Console. This view displays general information about the functionality provided by the adapter, version number, release date and install date.

- Step 1** On the Administration workspace, click **Adapters** to display the installed adapters in the Adapters pane.

Figure 1-1 Administration—Adapters View



- Step 2** Select **SAP Solution Manager Adapter** and use one of the following methods to open the SAP Solution Manager Properties dialog box:
- Right-click and choose **Properties**.
 - In the Details pane, click any of the hyperlinks on the General tab.

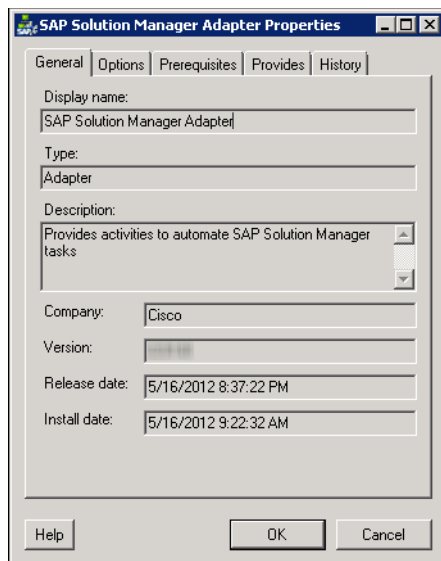
Viewing SAP Solution Manager Adapter Properties

You use the SAP Solution Manager Adapter properties dialog box to view the functionality provided by the adapter.

Viewing General Information

Use the General tab on the SAP Solution Manager Adapter Properties dialog box to view general information about the adapter.

Figure 1-2 SAP Solution Manager Adapter Properties—General Tab



The fields on the General tab are *display only* and provide the following information about the adapter:

Field	Description
Display name	Name of the adapter that displays in the Adapters view.
Type	Object type.
Description	Text description of the adapter.
Company	Name of company that created or supplied the adapter (Cisco).
Version	Version number of the adapter.

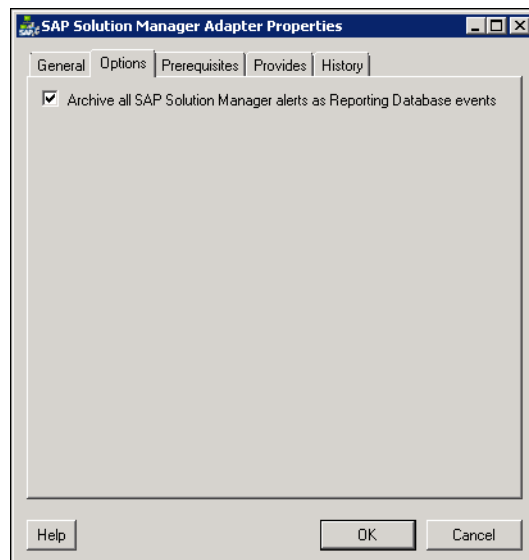
Field	Description
Release date	Date and time the adapter was available in the product.
Install date	Date and time the adapter was installed.

Configuring Adapter Options

Use the Options tab to configure archiving Solution Manager alerts as Reporting Database events.

- Step 1** On the SAP Solution Manager Adapter Properties dialog box, click the **Options** tab.

Figure 1-3 SAP Solution Manager Adapter Properties—Options Tab



- Step 2** The Archive all SAP Solution Manager alerts as Reporting Database events check box is checked by default. If you do not want SAP Solution Manager alerts to be archived, uncheck the check box.

Viewing Adapter Prerequisites

Use the Prerequisites tab to view the objects that are required by the adapter on the automation server. The following prerequisites are required by the SAP Solution Manager Adapter:

- SAP .NET Connector 3.0 for .NET 4.0 on x64 version 3.0.7.0 or higher. The following dll files must be copied to the TEO server:
 - sapnco.dll
 - sapnco_utils.dll

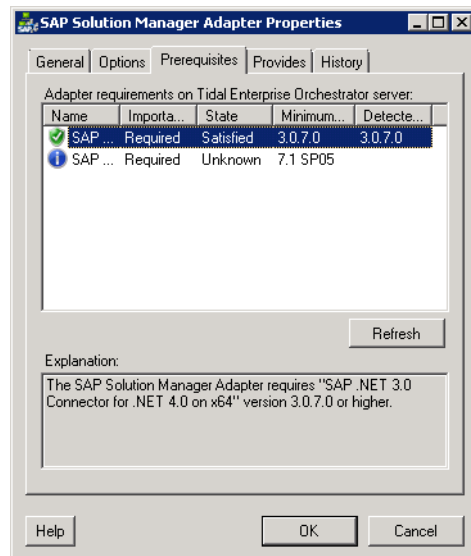
Before you can configure an SAP Solution Manager target, these files must be installed on the TEO server. See [Installing SAP .NET Connector Files, page 1-5](#) for instructions on installing these files.

- SAP Solution Manager 7.1 SP05 or later

Perform the following steps to view the adapter prerequisites.

- Step 1** On the SAP Solution Manager Properties dialog box, click the **Prerequisites** tab.

Figure 1-4 SAP Solution Manager Adapter Properties—Prerequisites Tab



Step 2 Review the following information about the adapter prerequisites:

Column	Description
Name	Name of the required hardware or software for the supported adapter.
Importance	Indicates whether the item is Required or Optional for the adapter.
State	Indicates whether the system has the required hardware or software installed (Satisfied or Not satisfied).
Minimum Value	Indicates the minimum value required for the item.
Detected Value	Displays the software or hardware version on the system.
Explanation	<i>Display only.</i> Information related to the selected adapter requirement.

Installing SAP .NET Connector Files

The SAP Solution Manager Adapter requires the SAP .NET Connector 3.0 for .NET 4.0 on x64 version 3.0.7.0 or higher. Before you can create an SAP Solution Manager target, the dll files must be installed on the TEO server.

SAP .NET Connector 3.0 for .NET 4.0 on x64 version 3.0.7.0 or higher can be downloaded from the SAP web site.

Step 1 From the SAP .NET Connector 3.0 for .NET 4.0 on x64 program files folder on the server where NCo is installed, locate the following files:

- sapnco.dll
- sapnco_utils.dll

Step 2 Copy the files to the following folder on the TEO server:

<Install drive>:\Program Files\Cisco\Tidal Enterprise Orchestrator\Adapters

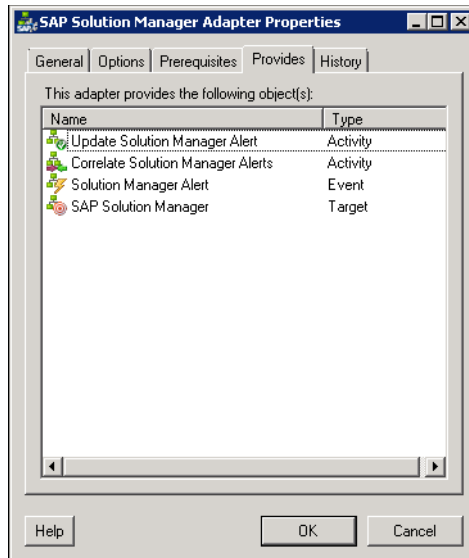
Step 3 Restart the *Tidal Enterprise Orchestrator Server* service.

Viewing Adapter-Supported Objects

Use the Provides tab to view the name and type of object provided by the adapter.

- Step 1** On the SAP Solution Manager Adapter Properties dialog box, click the **Provides** tab.

Figure 1-5 SAP Solution Manager Adapter Properties—Provides Tab



- Step 2** Review the following information about the objects provided by the adapter:

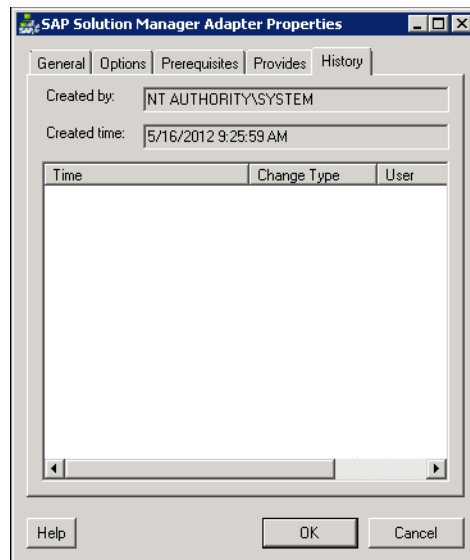
Column	Description
Name	Name of the activities, processes, and objects for which the adapter provides support.
Type	Object type (Target, Runtime User, Activity, Event).

Viewing Adapter History

Use the History tab to view a history of changes that have been made to the adapter.

- Step 1** On the SAP Solution Manager Adapter Properties dialog box, click the **History** tab.

Figure 1-6 SAP Solution Manager Adapter Properties—History Tab



- Step 2** View the following information:

Field	Description
Created by	<i>Display only.</i> User name of the person who created the object.
Created time	<i>Display only.</i> Date and time the object was created.
Time	Date and time the action occurred.
Change Type	Action that occurred.
User	User name of the person that performed the action.
Description	Information about the action that was performed.

- Step 3** To view the audit history for a specific action, select the time, right-click and choose **Properties**.

- Step 4** Click **OK** to close the dialog box.



CHAPTER 2

Managing SAP Solution Manager Targets

The SAP Solution Manager target enables you to run processes on a specific SAP Solution Manager system. The target can be defined once and reused in several processes.

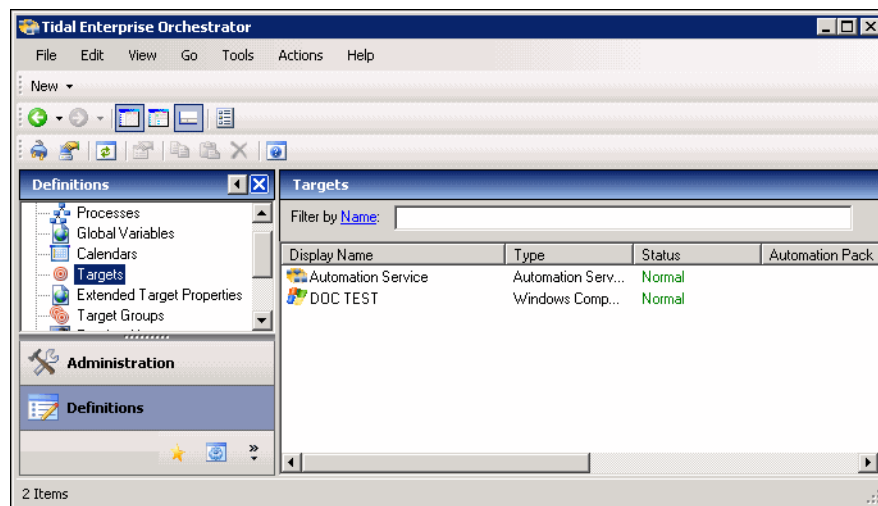
This chapter guides you through accessing, creating and managing SAP Solution Manager targets. It includes the following sections:

- [Accessing Targets View, page 2-1](#)
- [Creating SAP Solution Manager Targets, page 2-2](#)
- [Managing SAP Solution Manager Targets, page 2-7](#)

Accessing Targets View

You use the Definitions—Targets view to create, manage and delete targets. Information about the configured targets display in the Targets pane, including the type of target, its status, the automation pack it is associated with, and the date and time modifications were made to it.

Figure 2-1 Definitions—Targets View



Creating SAP Solution Manager Targets

Before you can create or run processes in your SAP Solution Manager environment, you must create the targets on which the processes will run. You use the New SAP Solution Manager wizard to create SAP Solution Manager targets.



Note

The SAP Solution Manager Adapter requires the dll files for SAP .NET 3.0 Connector for .NET 4.0 on x64 version 3.0.6.4 or higher. Before you can configure an SAP Solution Manager target, these files must be installed on the TEO server.

See [Installing SAP .NET Connector Files, page 1-5](#) for instructions on installing these files.



Note

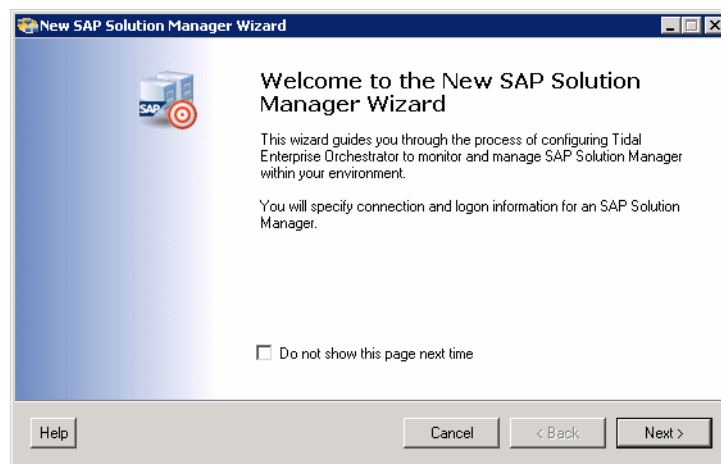
When you create an SAP Solution Manager target, you must map the SAP systems that are monitored in Solution Manager to the SAP System targets configured in TEO. Therefore, you must create SAP System targets in TEO for the systems that are monitored in Solution Manager prior to creating an SAP Solution Manager target.

See the *Cisco TEO Getting Started Guide for SAP* for instructions on creating SAP System targets.

This section guides you through creating an SAP Solution Manager target.

- Step 1** On the Definitions workspace, right-click **Targets** and choose **New > SAP Solution Manager** to open the New SAP Solution Manager wizard.

Figure 2-2 Welcome to the New SAP Solution Manager Wizard



- 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.

Figure 2-3 System Setup

Step 3 Specify the following information to connect to the SAP Solution Manager system:

Field	Description
Display name	Enter a name for the SAP Solution Manager system. This is the name that will display in the Targets pane.
Organization	Enter the group or organization within the company that owns the target.

Step 4 Click **Next**.


Figure 2-4 Connection



Note The system information entered on this panel must be unique. Otherwise, an error message displays informing you that the wizard detected another system already registered with the same information.

Step 5 Specify the following information to connect to the SAP Solution Manager target:

Field	Description
Connect using	Choose the connection method from the drop-down list. The fields that display on the panel depend on the connection method selected.
Application server	Choose this option to connect to the SAP Solution Manager target using the SAP application server connection information. Specify the information in the following fields: <ul style="list-style-type: none"> • Server name—Enter the name of the SAP Solution Manager application server. • System number—Enter the SAP Solution Manager system number.

Field	Description
Logon group	<p>Choose this option to establish a connection using a logon group, which contains a group of SAP Solution Manager 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.</p> <p>Specify the information in the following fields:</p> <ul style="list-style-type: none"> • System ID—Enter the SAP Solution Manager system ID (SID). • Message server—Enter the name of the server a user logs on to and that handles the communication between the application servers. For example, transport of update requests and lock requests. • Group name—Enter the name of the Logon Group to be accessed. The name entered in this field is case-sensitive.
Router string (optional)	<p>Enter the router string for accessing the SAP Solution Manager systems via SAPRouter. If you do not specify a router string, TEO accesses the SAP Solution Manager system directly.</p> <p>The router string must be formatted as:</p> <p>/H/host01/H/host02/H/</p> <p>where host01 and host02 are the SAP Solution Manager systems that you want to access through the SAPRouter.</p>
Default runtime user	<p>Choose the user account that contains the credentials to connect to the target from the drop-down list.</p> <ul style="list-style-type: none"> • To view the properties for the selected runtime user, click the Properties  tool. • To create a new SAP User, click New > SAP User. See the <i>Cisco TEO Getting Started Guide for SAP</i>.

Step 6 Click **Next**.

Figure 2-5 Options

The Options panel is used to specify polling intervals and to map the systems that are being monitored by the Solution Manager target to the SAP System targets configured in TEO. The list box displays the systems that are mapped.



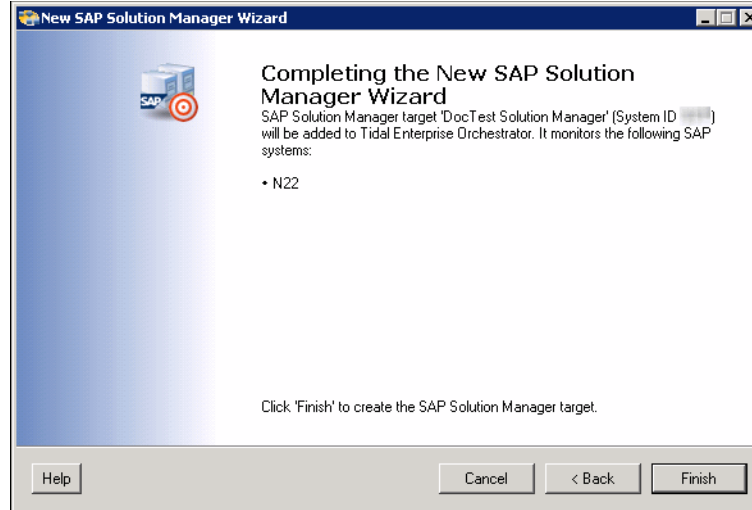
Note The matching SAP System targets must already be created in TEO.

Step 7 Specify the following information:

Field	Description
Poll Solution Manager alert not older than	Specify the value (in minutes, hours or days) to indicate which SAP Solution Manager alerts to retrieve. Any alerts older than the specified value will be ignored.
Select a system monitored by Solution Manager	Choose the SAP system that is monitored by Solution Manager from the drop-down list.
Select a matching system monitored by TEO	Choose the SAP system target that is configured in TEO from the drop-down list. This target must already be defined in TEO.
Add to List	Click this button to add the mapped configuration to the list of systems to be monitored.
Refresh	Click this button to refresh the list of systems to be monitored.

Step 8 Click **Next**.

Figure 2-6 Completing the SAP Solution Manager Wizard




- Step 9** Verify that the information is correct and click **Finish** to complete the procedure. The SAP Solution Manager target displays in the Targets pane.

Managing SAP Solution Manager Targets

Use the Definitions—Targets view to manage the SAP Solution Manager targets. From this view, you can enable and disable the target, delete the target, and view and modify the target properties.


Enabling a Target

A target is enabled by default after it is created. If a target is manually disabled, it must be enabled before it is available for execution.

- Step 1** On the Definitions—Targets view, use one of the following methods to enable the target:
- In the Targets pane, right-click the target and choose **Enable**.
 - In the Targets pane, select the target and then click the **Click here** link in the Details pane.
- Step 2** Verify that the status in the Enabled column in the Targets pane is True. If necessary, click the **Refresh**  tool to update the view.

Disabling a Target

Disabling a target prevents it from being available for execution. However, a disabled target is not removed from the list of targets in the Targets pane.

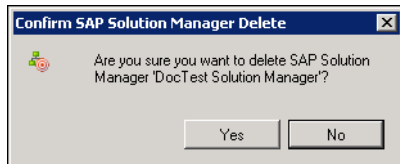
-
- Step 1** On the Definitions—Targets view, use one of the following methods to disable the target:
- In the Targets pane, right-click the target and choose **Disable**.
 - In the Targets pane, select the target and then click the **Click here** link in the Details pane.
- Step 2** Verify that the status in the Enabled column in the Targets pane is False. If necessary, click the **Refresh**  tool to update the view.
-

Deleting a Target

Before deleting a target, open the SAP Solution Manager Target Properties dialog box and click the **Used By** tab to view where objects are being used by the target. This ensures that deleting the target does not affect any processes or activities.

-
- Step 1** In the Definitions—Targets view, right-click the target and choose **Delete**.

Figure 2-7 Confirm Delete



- Step 2** Click **Yes** to confirm the deletion. The target will be removed from the product.
-

Modifying Solution Manager Targets

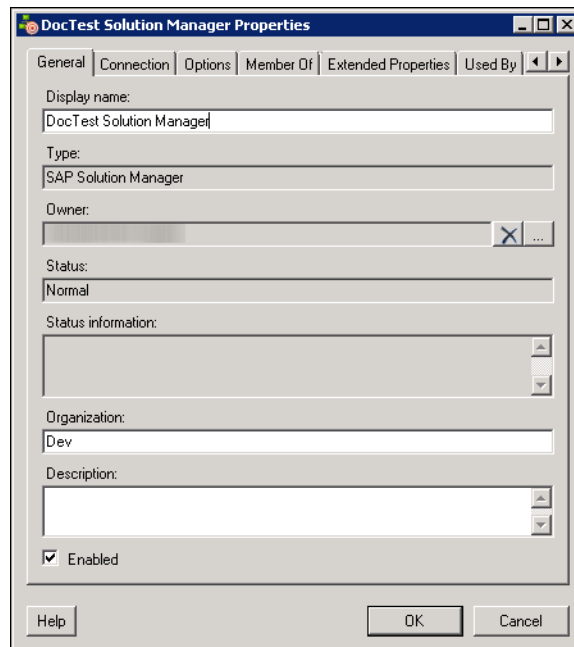
Use the Definitions—Targets view to display and modify the Solution Manager target properties.

Modifying Display Name and Enabling/Disabling Target


Use the General tab on the Solution Manager Target Properties dialog box to modify the display name of the target, and to enable or disable the target

- Step 1** In the Definitions view, click **Targets** to display the defined targets in the Targets pane.
- Step 2** Double-click the **SAP Solution Manager** target, or right-click and choose **Properties**.

Figure 2-8 SAP Solution Manager Target Properties—General Tab



- Step 3** Use the General tab to view or modify the following information:

Field	Description
Display name	Name of the Solution Manager target.
Type	<i>Display only.</i> Type of target.
Owner	User name of the owner of the target. This is typically the person who created the target. Click the Browse  tool to change the owner.
Status	<i>Display only.</i> Current status of the target.
Status information	<i>Display only.</i> Information regarding the target status.
Organization	Name of the group within the company that owns the target.

Field	Description
Description	Text description of the target.
Enabled	Check or uncheck the check box to enable or disable the target. The check box is checked by default to indicate the target is enabled.

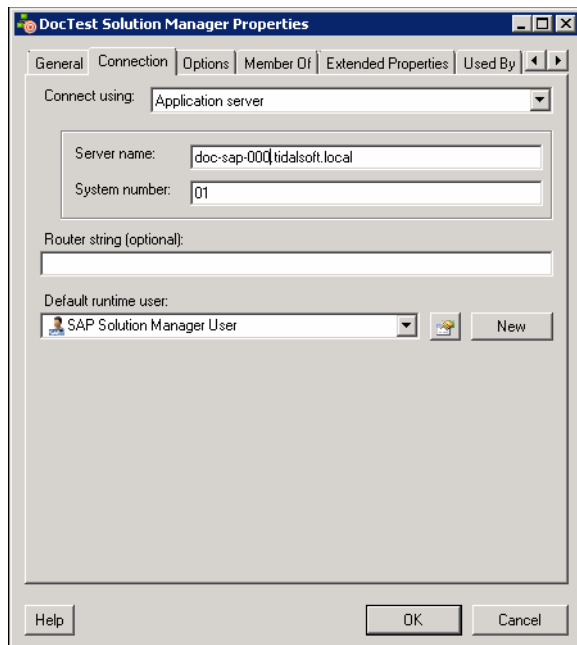
Step 4 Click **OK** to save your changes and close the dialog box.

Modifying Connection Information


You can modify the connection information to the SAP Solution Manager target using the Connection tab on the Solution Manager Target Properties dialog box.

- Step 1 In the Definitions view, click **Targets** to display the defined targets in the Targets pane.
- Step 2 Double-click the **SAP Solution Manager** target or right-click and choose **Properties**.
- Step 3 On the SAP Solution Manager Target Properties dialog box, click the **Connection** tab.

Figure 2-9 SAP Solution Manager Target Properties—Connection Tab



Step 4 Modify any of the following information to connect to the Solution Manager system:

Field	Description
Connect using	Choose the connection method from the drop-down list. The fields that display on the panel depend on the connection method selected.
Application server	Choose this option to connect to the SAP Solution Manager system using the SAP application server connection information. Specify the information in the following fields: <ul style="list-style-type: none"> • Server name—Enter the name of the SAP application server. • System number—Enter the SAP system number.
Logon group	Choose this option to establish a connection using a logon group, which contains a group of SAP Solution Manager 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: <ul style="list-style-type: none"> • System ID—Enter the SAP system ID (SID). • Message server—Enter the name of the server a user logs on to and that handles the communication between the application servers. For example, transport of update requests and lock requests. • Group name—Enter the 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 Solution Manager systems via SAPRouter. If you do not specify a router string, TEO 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. <ul style="list-style-type: none"> • To view the properties for the selected runtime user, click the Properties  tool. • To create a new SAP User, click New > SAP User. See the <i>Cisco TEO Getting Started Guide for SAP</i>.

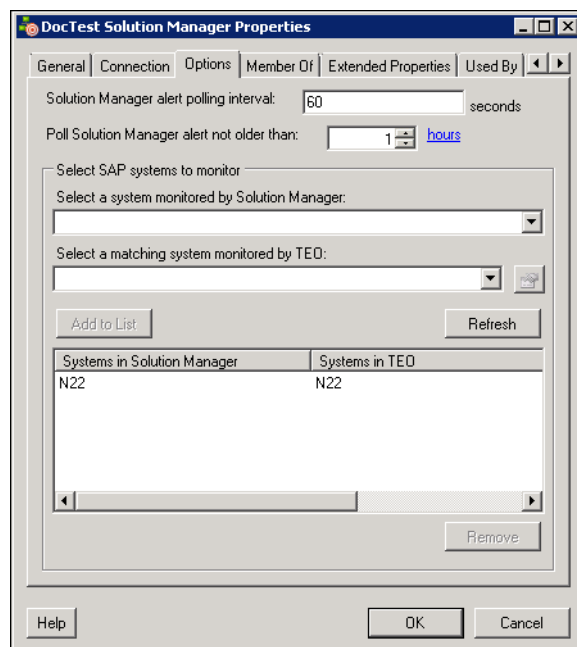
Step 5 Click **OK** to save your modifications and close the dialog box.

Modifying Polling and Mapping Information

You can modify the interval in which the Solution Manager target is polled for alerts using the Options tab on the Solution Manager Target Properties dialog box. You can also view the mappings between systems being monitored by Solution Manager and the SAP systems configured in TEO. You can add or remove systems to be monitored.

- Step 1** In the Definitions view, click **Targets** to display the defined targets in the Targets pane.
- Step 2** Double-click the **SAP Solution Manager** target, or right-click and choose **Properties**.
- Step 3** On the SAP Solution Manager Target Properties dialog box, click the **Options** tab.

Figure 2-10 SAP Solution Manager Target Properties—Options Tab



- Step 4** Modify any of the following information:

Field	Description
Solution Manager alert polling interval	Enter the number of seconds in the Solution Manager alert polling interval field that indicates how often the Solution Manager target should be polled for alerts. Note If you change the alert polling interval, you must restart the Tidal Enterprise Orchestrator service before the changes are implemented.
Poll Solution Manager alert not older than	Specify the value (in minutes, hours or days) to indicate which SAP Solution Manager alerts to retrieve. Any alerts older than the specified value will be ignored.
Select a system monitored by Solution Manager	Choose the SAP system that is monitored by Solution Manager from the drop-down list.

Field	Description
Select a matching system monitored by TEO	Choose the SAP system target that is configured in TEO from the drop-down list. This target must already be defined in TEO.
Add to List	Click this button to add the mapped configuration to the list of systems to be monitored.
Refresh	Click this button to refresh the list of systems to be monitored.
Remove	To remove a system from being monitored, select the name of the system in the list box and click Remove .

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

Viewing Member Of Properties

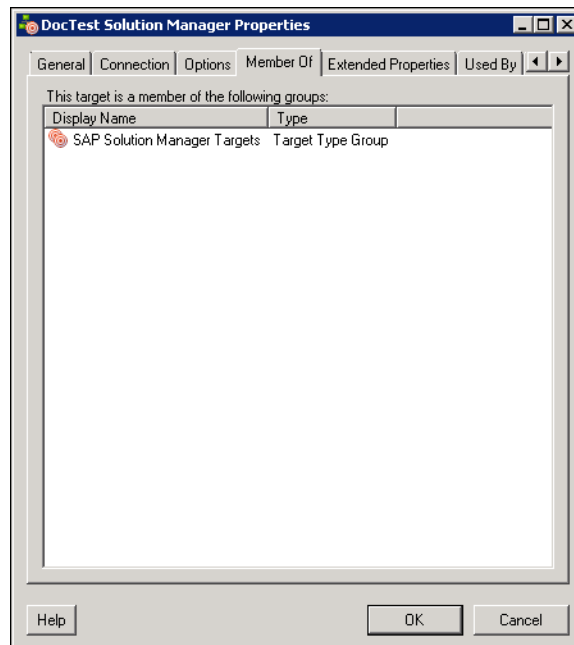
You can view the target groups to which a target belongs using the Member Of tab on the SAP Solution Manager Target Properties dialog box.

Step 1 In the Definitions view, click **Targets** to display the defined targets in the Targets pane.

Step 2 Double-click the **SAP Solution Manager** target, or right-click and choose **Properties**.

Step 3 On the SAP Solution Manager Target Properties dialog box, click the **Member Of** tab.

Figure 2-11 SAP Solution Manager Target Properties—Member Of Tab



Step 4 In the list box, view the target groups that the target is a member.

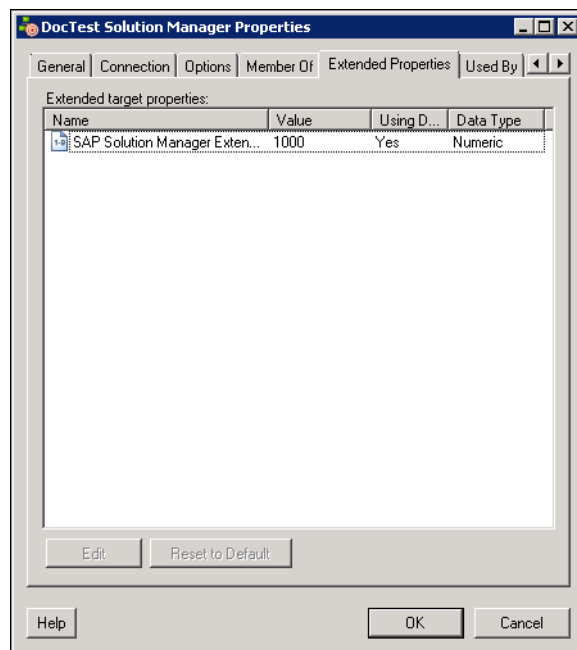
- Step 5** To view the properties of a specific target group, right-click and choose **Properties**.
- Step 6** Click **OK** to close the dialog box.

Viewing Extended Properties

You can view the list of extended target properties defined for a specific target type using the Extended Properties tab on the Solution Manager Target Properties dialog box.

- Step 1** In the Definitions view, click **Targets** to display the defined targets in the Targets pane.
- Step 2** Double-click the **Solution Manager** target, or right-click and choose **Properties**.
- Step 3** On the Solution Manager Target Properties dialog box, click the **Extended Properties** tab.

Figure 2-12 Solution Manager Target Properties—Extended Properties Tab



- Step 4** In the list box, view the extended target properties that are assigned to the target.
- Step 5** To modify a target property, right-click and choose **Edit**.



Note For additional information on Extended Target Properties, see the *Tidal Enterprise Orchestrator Reference Guide*.

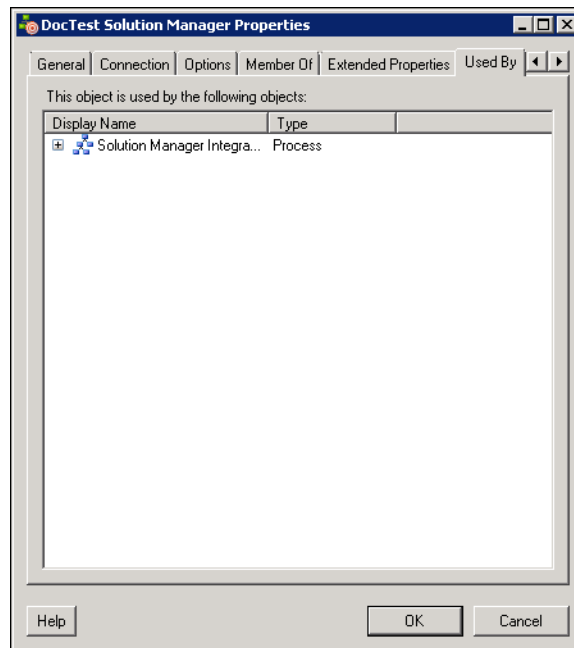
- Step 6** Click **OK** to close the dialog box.

Viewing Used By Properties

You can view the objects that are directly associated with the selected target (for example, an SAP system or process) using the Used By tab on the SAP Solution Manager Target Properties dialog box.

-
- Step 1** In the Definitions view, click **Targets** to display the defined targets in the Targets pane.
 - Step 2** Double-click the **SAP Solution Manager** target, or right-click and choose **Properties**.
 - Step 3** On the SAP Solution Manager Target Properties dialog box, click the **Used By** tab.

Figure 2-13 SAP Solution Manager Target Properties—Used By Tab



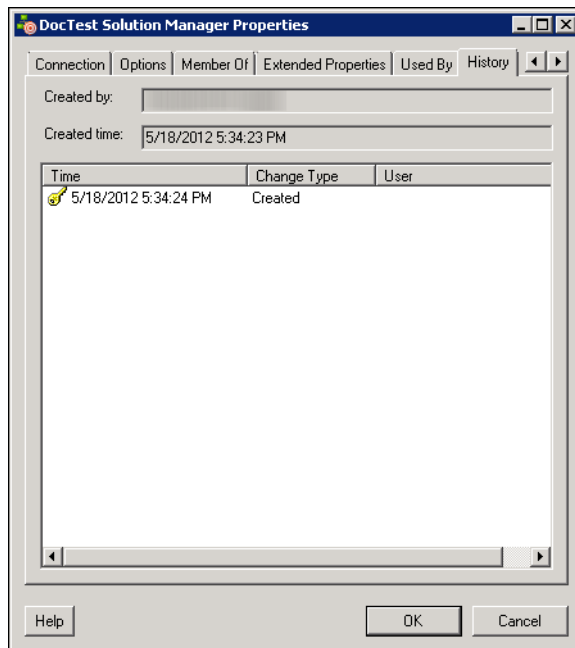
- Step 4** View the objects that are used by the target in the list box.
 - Step 5** To view the properties of a specific object, right-click and choose **Properties**.
 - Step 6** Click **OK** to close the dialog box.
-

Viewing Target History

You can view the history of changes that have been made to the target using the History tab on the SAP Solution Manager Target Properties dialog box.

-
- Step 1** In the Definitions view, click **Targets** to display the defined targets in the Targets pane.
 - Step 2** Double-click the **SAP Solution Manager** target, or right-click and choose **Properties**.
 - Step 3** On the SAP Solution Manager Target Properties dialog box, click the **History** tab.

Figure 2-14 SAP Solution Manager Target Properties—History Tab



- Step 4** View the changes that have been made to the target.
 - Step 5** To view the audit history for a specific action in the list box, right-click the item and choose **Properties**.
 - Step 6** Click **OK** to close the dialog box.
-



CHAPTER 3

Managing Triggers

Triggers are used to determine how or when the process will be executed. The SAP Solution Manager Adapter provides the Solution Manager Alert, which is used to trigger a process.

This chapter guides you through accessing, creating and managing triggers. It includes the following sections:

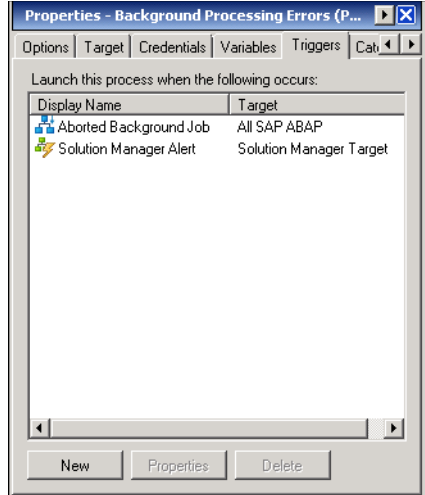
- [Accessing Trigger Properties, page 3-1](#)
- [Creating Solution Manager Alert Trigger, page 3-3](#)
- [Managing Triggers, page 3-7](#)

Accessing Trigger Properties

You access triggers from within the Process Editor. The Trigger tab displays all triggers associated with the process and the target on which the trigger executes.

-
- Step 1** On the Definitions—Processes view, use one of the following methods to open the Process Editor:
- Select an existing process, right-click and choose **Edit**.
 - Right-click **Processes** in the navigation pane and choose **New > Process**.
- Step 2** On the Process Editor properties, click the **Triggers** tab.

Figure 3-1 Process Properties—Triggers Tab



Information about the triggers display in the following columns:

Column	Description
Display name	Name assigned to the trigger.
Target	Name of the target that is executed by the trigger.

Step 3 On the Triggers tab, select the trigger and click **Properties**.

Step 4 The Properties dialog box for the trigger displays.

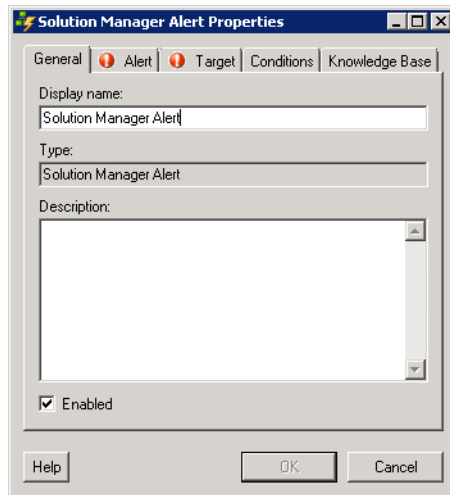
Refer to [Managing Triggers, page 3-7](#) for information on the triggers that are provided by the SAP Solution Manager Adapter.

Creating Solution Manager Alert Trigger

Use the Solution Manager Alert trigger to specify the properties in the monitoring tree element (MTE) that must be matched before an alert is generated. When the specified alert is generated, the process is executed.

- Step 1** On the Definitions—Processes view, use one of the following methods to open the Process Editor:
- Select an existing process, right-click and choose **Edit**.
 - Right-click **Processes** in the navigation pane and choose **New > Process**.
- Step 2** On the Process Editor properties, click the **Triggers** tab.
- Step 3** On the Triggers tab, click **New > Solution Manager Alert**.

Figure 3-2 Solution Manager Alert Properties—General Tab



- Step 4** On the General tab, enter the following general information about the trigger:

Field	Description
Display name	Name of the trigger that displays in the Processes pane.
Type	<i>Display only.</i> Type of trigger.
Description	Text description of the trigger.
Enabled	Check or uncheck the check box to enable or disable the trigger. The check box is checked by default. If you uncheck the check box, the trigger is disabled and will be unavailable.

- Step 5** Click the **Alert** tab to specify the alert criteria.

Figure 3-3 Solution Manager Alert Properties—Alert Tab

The screenshot shows the 'Solution Manager Alert Properties' dialog box with the 'Alert' tab selected. The 'Solution Manager Alert' section includes the following fields, all with checked checkboxes and associated text boxes with selection icons:

- Category:
- Managed object name:
- Managed object type:
- System Id:
- Alert name:
- Alert technical name:
- Description:

The 'Alert Rating' section contains four radio buttons:

- Red
- Green
- Yellow
- Unknown


Buttons for 'Help', 'OK', and 'Cancel' are located at the bottom of the dialog.

Step 6 On the Alert tab, check the check box for the criteria to match and then specify the relevant information:

Field	Description
Category	Specify the category in Solution Manager to be matched.
Managed object name	Specify the managed object name in Solution Manager to be matched.
Managed object type	Specify the managed object type in Solution Manager to be matched.
System Id	Specify the SAP system ID for the system that generated the alert.
Alert name	Specify the name of the alert in Solution Manager.
Alert technical name	Specify the technical name of the alert in Solution Manager.

Field	Description
Description	Specify a text description of the alert.
Alert Rating	Check the check box next to the severity level of the alerts to be monitored: <ul style="list-style-type: none"> • Red • Yellow • Green • Unknown

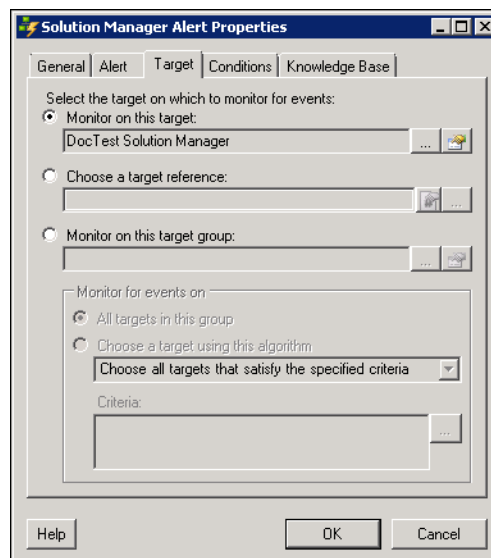


Note Click the **Reference**  tool to choose a defined variable or reference an object on the Insert Variable Reference dialog box.



Click the **Insert Wildcard**  tool to choose a wildcard.





Step 7 Click the **Targets** tab.

Figure 3-4 Solution Manager Alert Properties—Target Tab



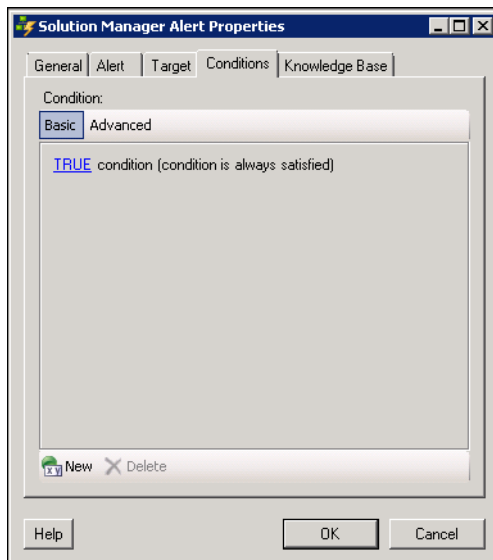
Step 8 On the Targets tab, specify the target on which to monitor for alerts that will trigger the process:

Field	Description
Monitor on this target	Click this radio button and then click the Browse  tool to launch the Select Targets dialog box and select a specific target to be monitored for the fault. To view the properties for the target, click the Properties  tool.

Field	Description
Choose a target reference	<p>Click this radio button and then click the Reference  tool to choose a target reference property.</p> <p>You can also click the Browse  tool to launch the Select Target Group dialog box and select a specific target to be monitored for the alert.</p>
Monitor on this target group	<p>Click this radio button and then click the Browse  tool to launch the Select Target Group dialog box and select a specific target group to be monitored for the alert.</p> <p>To view the properties for the target group, click the Properties  tool.</p> <p>If this option is selected, you must also specify which targets to monitor for events:</p> <ul style="list-style-type: none"> • All targets in this group—Click this radio button to monitor events on all targets in the target group. • Choose a target using this algorithm—Click this radio button to choose a target from the eligible target group members and specify the criteria to be met.


Step 9 Click the **Conditions** tab.


Figure 3-5 Solution Manager Alert Properties—Conditions Tab




Step 10 On the Conditions tab, specify the conditions when the trigger should execute based on an evaluation of the defined conditions.

Defining a Basic Condition:

- On the Basic page, click **New** to add a new property for the condition that must be met.
- 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. Click the AND/OR link to modify the option for the condition equation.
- 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.
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.



Note For additional information on creating Conditions, see the *Tidal Enterprise Orchestrator Reference Guide*.

- Step 11** Click **OK** to complete the trigger definition and close the dialog box.
-

Managing Triggers

This section provides information on managing trigger properties. Use the Triggers tab on the process Properties dialog box to manage the triggers.

Enabling a Trigger

A trigger is enabled by default after it is created. If a trigger is manually disabled, it must be enabled before it is available for execution.

-
- Step 1** On the process Properties dialog box, click the **Triggers** tab.
- Step 2** Select the trigger in the list, right-click and choose **Enable**.
-

Disabling a Trigger

Disabling a trigger prevents it from being available for execution but does not remove it from the process definition.

-
- Step 1 On the process Properties dialog box, click the **Triggers** tab.
 - Step 2 Select the trigger in the list, right-click and choose **Disable**.
-

Modifying a Trigger

You can modify the properties of a Solution Manager alert trigger from the Triggers tab on the process Properties dialog box.

-
- Step 1 On the process Properties dialog box, click the **Triggers** tab.
 - Step 2 Select the trigger in the list, right-click and choose **Properties**.
 - Step 3 Click the **Alerts** tab to modify the alert criteria.
 - Step 4 Click **OK** to save your changes and close the dialog box.
-

Deleting a Trigger

Deleting a trigger, removes it completely from the process definition.

-
- Step 1 On the process Properties dialog box, click the **Triggers** tab.
 - Step 2 Select the trigger in the list and click **Delete**.
-



CHAPTER 4

Using the SAP Solution Manager Activities

The SAP Solution Manager activities enable you to create processes specific to your SAP Solution Manager environment. When defining an activity in the process workflow, the properties pane contains property pages that are specific to the selected activity.

This chapter provides instructions for defining an activity using the SAP Solution Manager activities, instructions for completing the property pages for each specific SAP Solution Manager activity, and instructions on viewing the activity results. It includes the following sections:

- [SAP Solution Manager Activities, page 4-1](#)
- [Defining an SAP Solution Manager Activity, page 4-2](#)
- [Defining Correlate Solution Manager Alerts Activity, page 4-5](#)
- [Defining Update Solution Manager Alert Activity, page 4-8](#)

SAP Solution Manager Activities

The SAP Solution Manager Adapter provides activities for managing and monitoring your SAP Solution Manager environment. The following table displays the activities that are available in the product.

Activity Name	Description
Correlate Solution Manager Alerts	Specifies the properties of the Solution Manager alerts that should be correlated. <i>See</i> Defining Correlate Solution Manager Alerts Activity, page 4-5 .
Update Solution Manager Alert	Acknowledges a Solution Manager alert, specified by its unique number and other SAP properties. <i>See</i> Defining Update Solution Manager Alert Activity, page 4-8 .


Defining an SAP Solution Manager Activity


Use the following steps to define an SAP Solution Manager activity in the Process Editor. The property pages that display depend on the activity. Refer to the appropriate section for instructions on completing the activity property pages.

- Step 1** On the Toolbox pane, navigate to the appropriate SAP Solution Manager section, click the activity and drag it onto the Workflow pane.

The Activity Properties dialog box displays.



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.


Click the **Reference**  tool to select a defined variable or reference within the process. For additional information, see the *Tidal Enterprise Orchestrator Reference Guide*.



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

Field	Description
Display name	Name of the activity.
Type	<i>Display only.</i> Displays the type of activity.
Description	Text description of the activity.


- Step 3** Click the **Activity-specific** tab and enter the required information. See the appropriate section in this chapter for instructions on completing the fields on the activity-specific tab.

- Step 4** Click the **Target** tab to specify the process target. You can use the process target or override it and specify a different target for the specific activity.

Field	Description
Execute on the process target	Click this radio button to use the same target that was specified for the process.
Execute on activity target	Click this radio button to indicate that the activity should execute against a target selected in an activity within the process. Choose the activity from the drop-down list.
Execute on this target	Click this radio button and choose a specific target from the drop-down list. <ul style="list-style-type: none"> To view the properties for the selected target, click the Properties  tool. To create a new target for this process, click New and see Creating SAP Solution Manager Targets, page 2-2.


Field	Description
Execute on this target reference	<p>Click this radio button and then click the Reference  tool to select the target reference property on which to execute the activity.</p> <p>On the Insert Variable Reference dialog box, expand Process > Target > Properties, select the appropriate target reference property, and click OK.</p> <p>The selected target reference property displays in the text field.</p>
Execute on the target selected by this algorithm	<p>Click this radio button to execute the target selected by one of the target algorithms displayed in the drop-down menu.</p> <p>Note The available algorithms that display depend on the selected activity.</p>
Execute on this target group	<p>Click this radio button to choose a target group from the drop-down list.</p> <ul style="list-style-type: none"> To view the properties for the selected target group, click the Properties  tool. To create a new target group for this process, click New and see the <i>Tidal Enterprise Orchestrator Reference Guide</i>. <p>Use the Choose a target using this algorithm drop-down list to choose the algorithm that will determine the target to execute from the eligible target group.</p> <p>Note The available algorithms that display depend on the selected activity.</p>

Step 5 Click the **Credentials** tab to specify the runtime user whose credentials should be used for process execution:

Field	Description
Use target's default runtime user	Click this radio button to use the default runtime user for the target that is specified in the activity.
Use Process runtime user	Click this radio button to use the credentials for the runtime user that was specified for the process.
Override process runtime user	<p>Click this radio button to specify different credentials than what are used for the process. The selected runtime user overrides the runtime user that was specified for the process.</p> <ul style="list-style-type: none"> To view the properties for the selected runtime user, click the Properties  tool. To create a runtime user record for the process, click New. <p>For additional information on creating a runtime users, see the <i>Tidal Enterprise Orchestrator Reference Guide</i>.</p>

- Step 6** Click the **Knowledge Base** tab to specify a knowledge base article for the activity. The following information displays:

Field	Description
Knowledge base	Knowledge base article associated with the activity.
Summary	Brief description of the issue.
Possible Cause	Explanation of the condition that may be causing the issue.
Possible resolution	List of actions that can be performed to attempt to resolve the issue.
Related information	Additional information related to the issue.

- Step 7** If the knowledge base article is not displayed by default, click the **Browse**  tool in the Knowledge Base field.


- Step 8** On the Select Knowledge Base dialog box, select the appropriate knowledge base article in the list and click **OK**.



Note Click **New** to create a new knowledge base article. For additional information on knowledge base articles, see the *Tidal Enterprise Orchestrator Reference Guide*.

- Step 9** Click the **Result Handlers** tab to specify condition branches for the activity.

Button	Description
Add	Adds a condition branch.
Remove	Removes the condition branch from the activity.
Move Up	Moves the condition up one position in the list of conditions.
Move Down	Moves the condition down one position in the list of conditions.

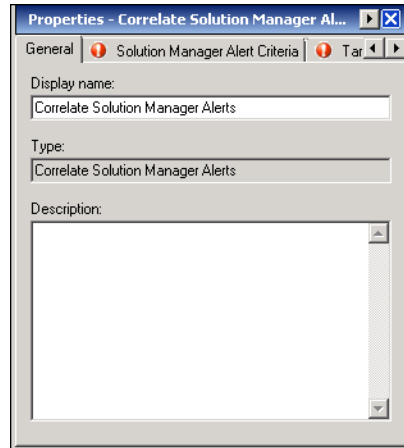
- Step 10** Click the **Save**  tool to save the activity definition.

Defining Correlate Solution Manager Alerts Activity

Use the Correlate Solution Manager Alerts activity to specify the properties of alerts that should be correlated.

- Step 1** On the Toolbox, click the **Correlate Solution Manager Alerts** activity and drag it onto the Workflow pane.

Figure 4-1 Correlate Solution Manager Alerts Properties—General Tab



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

Field	Description
Display name	Name of the activity.
Type	<i>Display only.</i> Type of activity generated.
Description	Text description of the activity.


- Step 3** Click the **Solution Manager Alert Criteria** tab.

Figure 4-2 Correlate Solution Manager Alerts Properties—Solution Manager Alert Criteria Tab

Step 4 Specify the following information:

Field	Description
Correlate Solution Manager alerts that occur within	Enter a value and select the time unit to indicate the length of time to wait before or after the process start time.
Number of Solution Manager alerts to correlate	Click the radio button to specify which alerts to wait for before the process continues.
All Solution Manager alerts in the above time frame	Click this radio button to wait for all alerts that match the specified criteria before the process continues.
Number of Solution Manager alerts	Click this radio button to wait for the specified number of alerts to occur before the process continues. Enter the number of alerts to wait for in the text field.

Field	Description
Solution Manager Alert criteria	Check the check box for the criteria to be matched and the specify the relevant information in the corresponding text field.
Category	Application server for the Solution Manager system that will be monitored by this process. Enter the (*) wildcard to monitor all servers.
Managed object name	Object in Solution Manager that will be managed by this process (for example, CPU in the host system, database, or SAP services, such as background processing). Enter the (*) wildcard to monitor all objects.
Managed object type	Object type in Solution Manager that will be managed by this process.
System ID	Specify the Solution Manager system ID for the system that generated the alert.
Alert name	Specify the name of the alert in Solution Manager.
Alert technical name	Specify the technical name of the alert in Solution Manager.
Description	Enter a text description to be matched.
Alert Rating	Check the check box for the alert severities that should be monitored (Red, Yellow, Green, Unknown).

- Step 5** Complete the appropriate information in the following tabs:
- Target—Specify whether the defined process target should be used or overridden.
 - Knowledge Base—Select the appropriate knowledge base article to associate with the process.
 - Result Handlers—Click the appropriate buttons to manage the condition branches on the workflow.
- Step 6** Click the **Save**  tool to complete the activity definition.

Viewing Correlate Solution Manager Alerts Activity Results

When the Correlate Solution Manager Alerts activity is executed, results are displayed in the Operations workspace activity instance view.

- Step 1** In the Operations workspace, expand the **Activity Views** folder and then click the view that represents how the process was executed (for example, View Adhoc if the process was manually executed).
- Step 2** In the View Results pane, expand the process, and double-click the activity instance or right-click and choose **Properties**.
- Step 3** On the Correlate Solution Manager Alerts Properties dialog box, click the **Solution Manager Alert Criteria** tab to view the activity properties.
- Step 4** Click the **Correlated Alerts** tab to view the alerts that were found when the activity ran.

The following information displays for each alert:

Column	Description
Name	Name of the alert.
Occurred	Time the alert occurred.
Type	Type of alert (Information, Warning, Error, Success audit, or Failure audit).

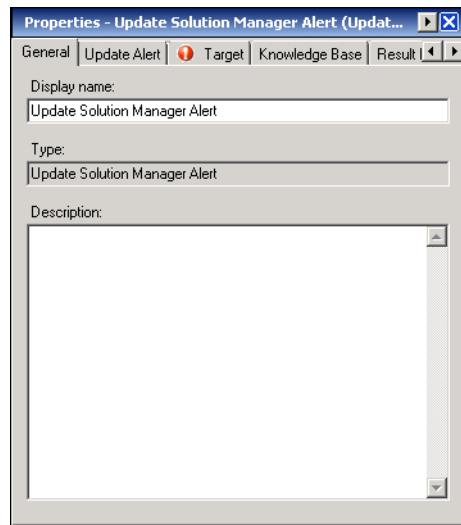
Step 5 Click **Close** to close the dialog box.

Defining Update Solution Manager Alert Activity

Use the Update Solution Manager Alert activity to acknowledge a Solution Manager alert, specified by its unique number and other SAP properties.

Step 1 On the Toolbox, click the **Update Solution Manager Alert** activity and drag it onto the Workflow pane.

Figure 4-3 Update Solution Manager Alert Properties—General Tab



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

Field	Description
Display name	Name of the activity.
Type	<i>Display only.</i> Type of activity generated.
Description	Text description of the activity.


Step 3 Click the **Update Alert** tab.

Figure 4-4 Update Solution Manager Alert Properties—Update Alert Tab

Step 4 Specify the information in the following fields:


Field	Description
Alert id	Unique number of the alert within the SAP system.
Complete alert	Check the check box to acknowledge the alert.
Comment	Text information about the alert and the acknowledgement.



Note Click the **Reference**  tool to select a variable or reference another property within the process.

Step 5 Complete the appropriate information in the following tabs:

- **Target**—Specify whether the defined process target should be used or overridden.
- **Knowledge Base**—Select the appropriate knowledge base article to associate with the process.
- **Result Handlers**—Click the appropriate buttons to manage the condition branches on the workflow.

Step 6 Click the **Save**  tool to complete the activity definition.

Viewing Update Solution Manager Alert Activity Results

When the Update Solution Manager Alert activity is executed, results are displayed in the Operations workspace activity instance view.

-
- Step 1** In the Operations workspace, expand the **Activity Views** folder and then click the view that represents how the process was executed (for example, View Adhoc if the process was manually executed).
 - Step 2** In the View Results pane, expand the process, and double-click the activity instance or right-click and choose **Properties**.
 - Step 3** On the Update Solution Manager Alert Properties dialog box, view the status of the activity in the State field on the General tab.
 - Step 4** Click the **Update Alert** tab to view the activity properties.
 - Step 5** Click **Close** to close the dialog box.
-



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