SiteScope Adapter for HP OpenView Operations

for the UNIX® and Windows® Operating System

Software Version: 1.00, 1.01

User's Guide

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http://search.cpan.org/~kawasaki/XML-TreePP-0.19/lib/XML/TreePP.pm

Audience

This guide is intended for software installers and administrators of HP OpenView Operations and SiteScope environments.

Documentation Updates

This guide's title page contains the following identifying information:

- Software Version number, which indicates the software version
- Document release date, which changes each time the document is updated
- Software release date, which indicates the release date of this version of the software

To check for recent updates or to verify that you are using the most recent edition, visit the following URL:

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h20229.www2.hp.com/passport-registration.html

Contents

1 Introduction to the SiteScope Adapter

> The product name HP OpenView Operations (OVO) has been changed recently to HP Operations Manager (HPOM). This document still refers to the old names OVO for UNIX, and OVO for Windows. Where no distinction is made between the product versions, just OVO is used.

Overview

The HP OpenView SiteScope Adapter provides visibility of SiteScope servers and monitors to HP OpenView Operations (OVO). The SiteScope Adapter is initially installed on the OVO Server, and subsequently deployed to OVO managed nodes that are also SiteScope servers. The SiteScope Adapter provides SiteScope tool capability from the OVO Server system, and provides for alert messages based on SiteScope monitor status to be sent to the OVO Server message browser. The SiteScope Adapter environment is depicted below.
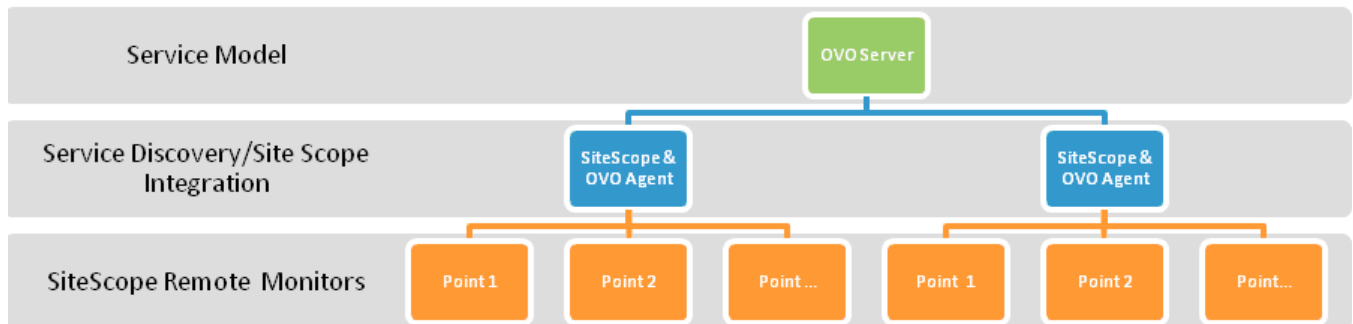
Service Discovery

The SiteScope Adapter leverages the embedded service discovery and modeling technology native to OVO. This allows for automatic and dynamic mapping of service models – including the ongoing maintenance and updating of the service map and its dependencies. The service discovery component of the SiteScope Adapter runs hourly on each managed node to which it has been deployed. SiteScope monitor groups, and monitors within each monitor group, are recognized by the discovery process and made available to the OVO console for presentation in service map form. The following OVO for Windows example shows the service map representation of Monitor Group Test with two monitors, one of which is in a Major (orange) alert state.
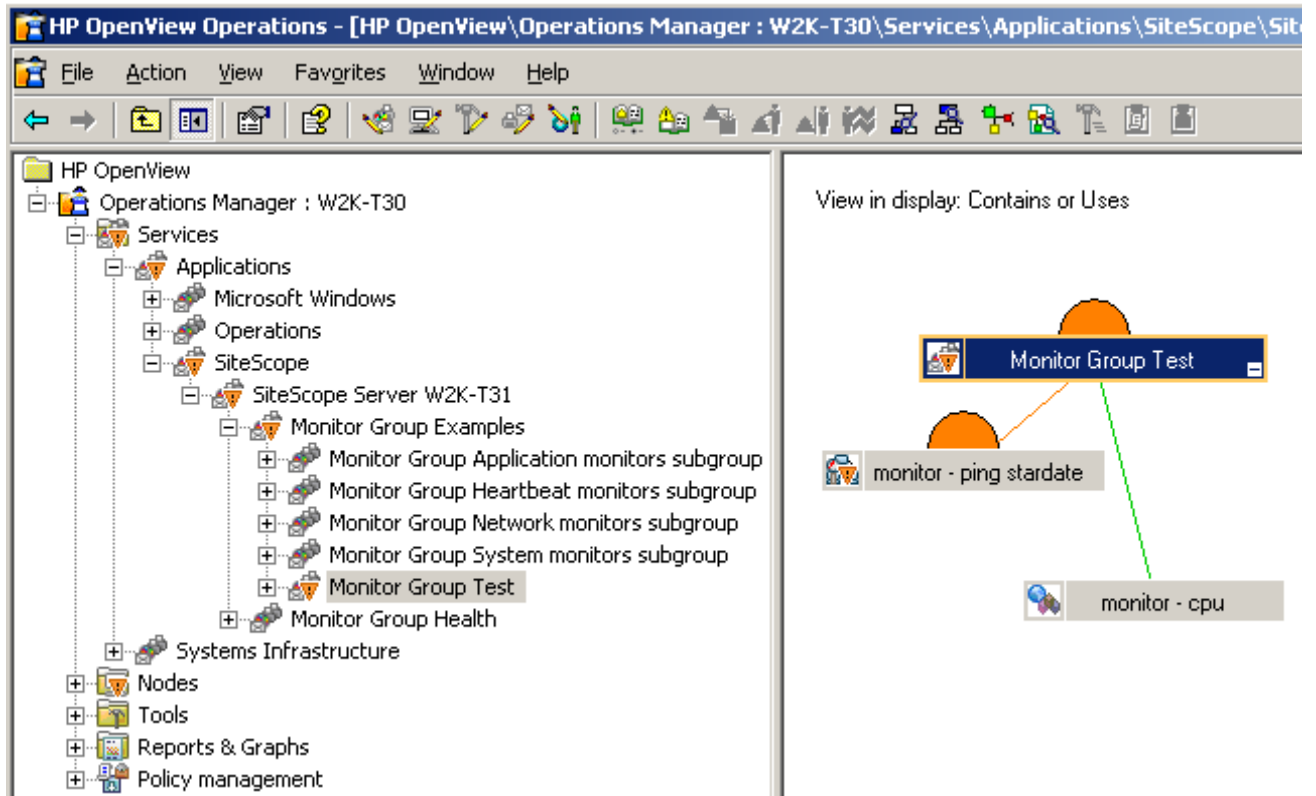
Tools Available from the OVO for Windows Server

The SiteScope Adapter provides the following tools for execution from the OVO for Windows console.

SiteScope Tools Folder

The following tools are available from the SiteScope Tool folder. The tools in the SiteScope tool folder may be run directly for a selected node.

- **Start SiteScope**. Starts the SiteScope service on the selected nodes.

- **Stop SiteScope**. Stops the SiteScope service on the selected nodes.

- **Configure SiteScope Directory (Unix)**. The default directory location for installation of SiteScope on Solaris or LINUX is `/opt/SiteScope`. However, it is possible to install SiteScope at a non-default location. When deploying the SiteScope Adapter to Solaris or LINUX managed nodes on which SiteScope is installed in a non-default directory, this tool must be run prior to running the **Copy Alert Scripts to SiteScope** tool. This is only necessary for UNIX nodes, as on Windows managed nodes the SiteScope installation directory is obtained directly from the registry.

- **Copy Alert Scripts to SiteScope**. Copies the `SendOVO*` alert scripts to the SiteScope `scripts` directory. This tool must not be run until deployment of the SiteScope Adapter from OVO for Windows has copied files to the managed node, as described in *Chapter 3*.

- **SiteScope Configuration**. This tool is run by right-clicking on a service in OVO for Windows that has been created for a SiteScope server or monitor group. The tool launches the SiteScope interface on the system the OVO for Windows console is running on. It opens SiteScope with the default top level view.

Monitor Group Tools Folder

The following tools are available from the Monitor Group Tools tool folder. The tools in the Monitor Group Tools folder must be run from within the service map context.

- **View Monitor Dashboard**. This tool is run by right-clicking on a service in OVO for Windows that has been created for a SiteScope monitor. (You cannot run this tool on a SiteScope monitor group.) The tool launches the SiteScope user interface on the system the OVO for Windows console is running on. It opens SiteScope at the corresponding SiteScope Monitor view.

- **View Group Dashboard**. This tool is run by right-clicking on a service in OVO for Windows that has been created for a SiteScope monitor group. The tool launches the SiteScope user interface on the system the OVO for Windows console is running on. It opens SiteScope at the corresponding SiteScope monitor group view.

The examples below show the SiteScope Adapter tools available from the OVO for Windows console for the SiteScope Tools folder and the Monitor Group Tools folder. The tools in the SiteScope Tools folder may be run directly for a selected node. The tools in the Monitor Group folder must be run from within the service map context.
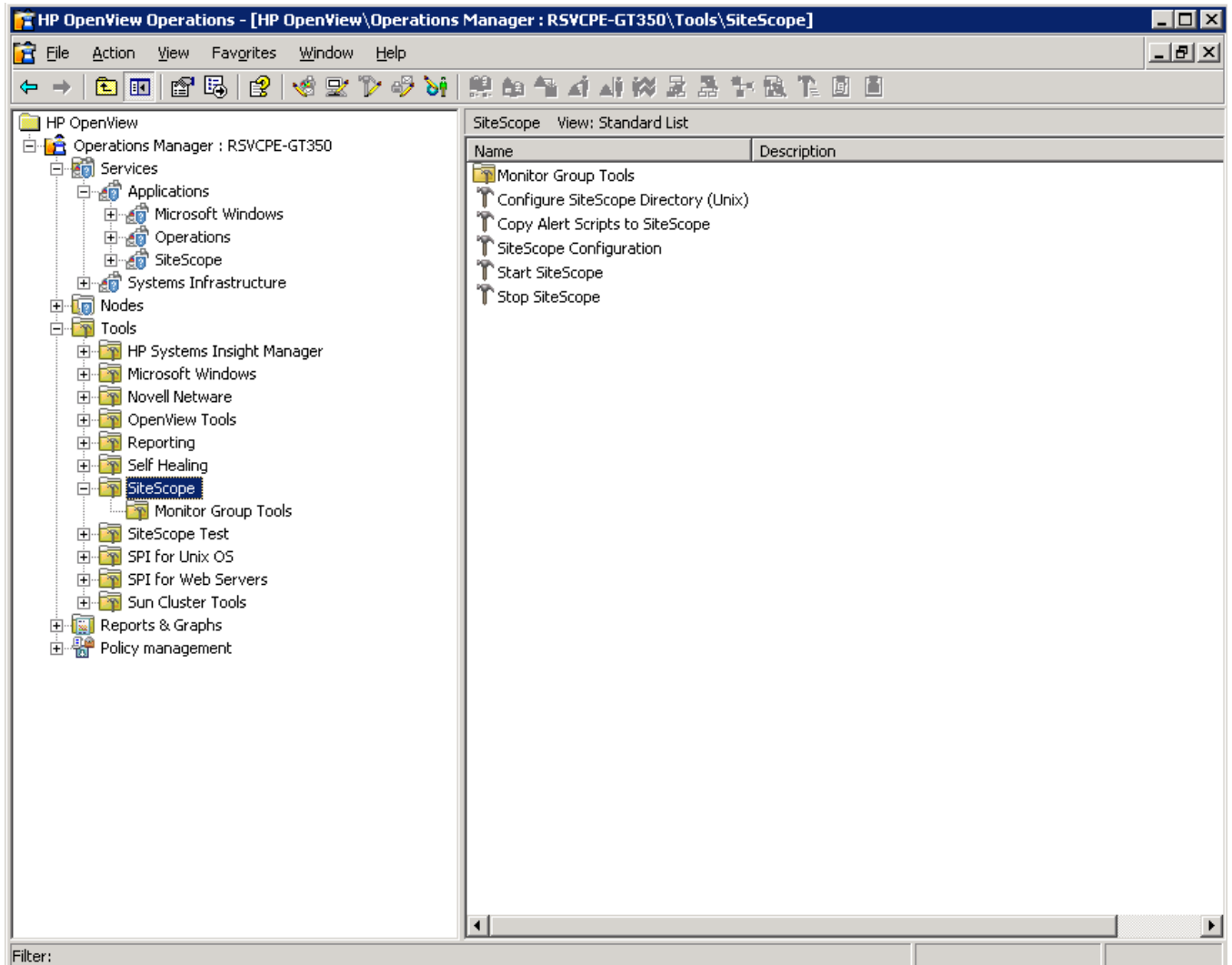
HP OpenView Operations - [HP OpenView\Operations Manager : RSVCPE-GT350\Tools\SiteScope\Monitor Group Tools]

File   Action   View   Favorites   Window   Help

HP OpenView
Operations Manager : RSVCPE-GT350
  Services
    Applications
      Microsoft Windows
      Operations
      SiteScope
    Systems Infrastructure
  Nodes
  Tools
    HP Systems Insight Manager
    Microsoft Windows
    Novell Netware
    OpenView Tools
    Reporting
    Self Healing
    SiteScope
      Monitor Group Tools
    SiteScope Test
    SPI for Unix OS
    SPI for Web Servers
    Sun Cluster Tools
  Reports & Graphs
  Policy management

Monitor Group Tools   View: Standard List

Name	Description
View Group Dashboard	Use against SiteScope Monitor Group Services
View Monitor Dashboard	Used against a SiteScopeMonitor service type

Filter:

Tools Available from the OVO for UNIX Server

SiteScope Adapter provides the same tool functionality to OVO for UNIX Server as provided to OVO for Windows Server. In the OVO for UNIX environment, the View Monitor Dashboard and View Group Dashboard tools must be run from the Java GUI. An example of launching the Dashboard tools from the Java GUI is shown below. Refer to OVO for UNIX documentation for additional details regarding use of the Java GUI.
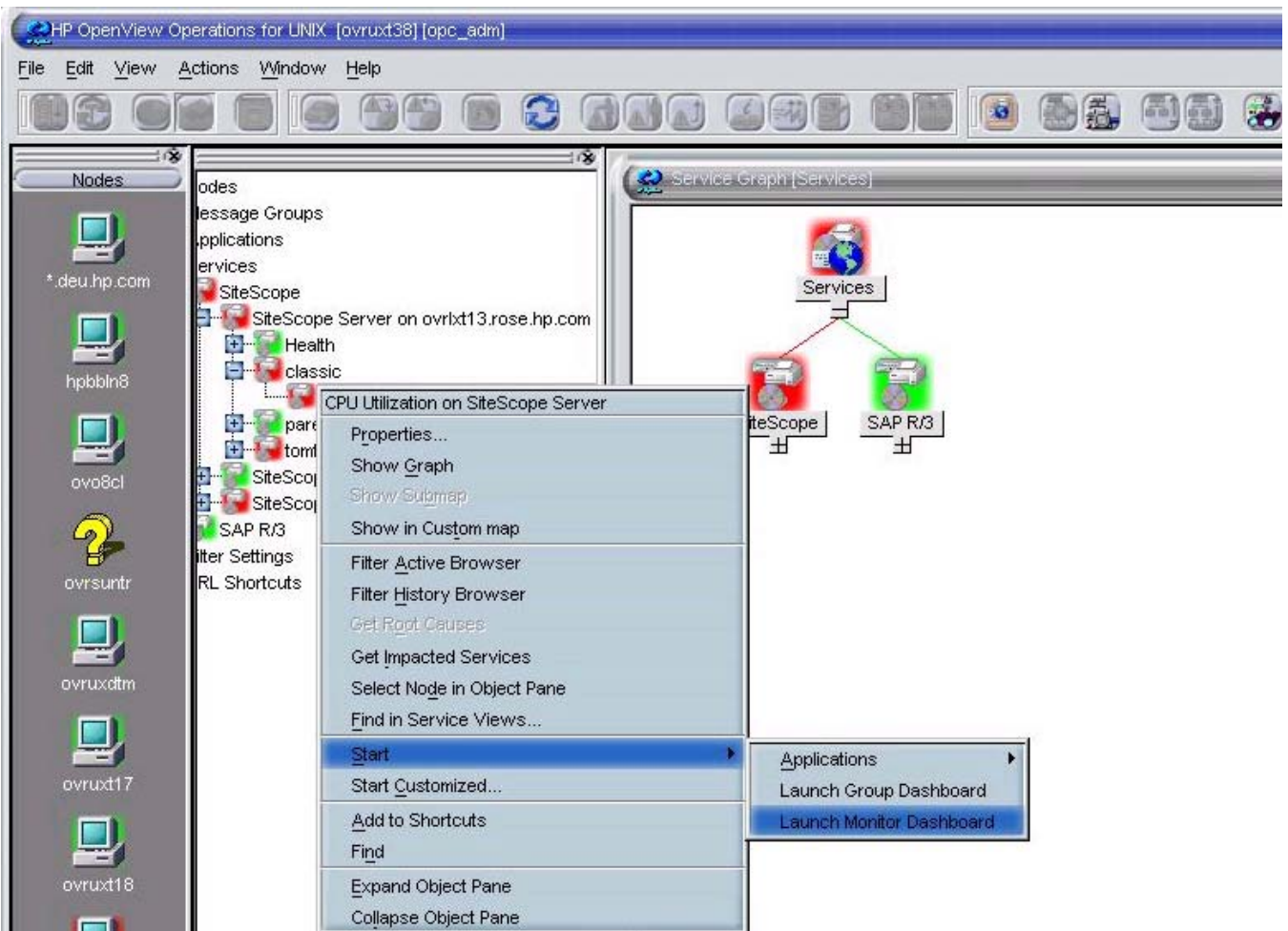
Script Alerts

The SiteScope Adapter provides five applications to the managed node available for use as SiteScope script alerts.. These script alerts can be attached to SiteScope monitors or monitor groups. The alerts send messages, using the opcmsg interface, to the OVO console based on the status of the associated SiteScope monitor or monitor group. The applications provided for use as SiteScope script alerts are:

- SendOVONormal
- SendOVOWarning
- SendOVOMinor
- SendOVOMajor
- SendOVOCritical

The SendOVONormal alert is typically used as a reset after a SiteScope monitor has returned to a normal state from an abnormal state. SendOVONormal does not trigger a message on the OVO console. Instead, it performs message acknowledgement against a matching message, which results in clearing of an earlier abnormal alert message. The other alerts are used to send an indication to the OVO console that a monitor is in an abnormal state. An example of configuring SiteScope to use the script alerts is shown in *Chapter 4*.

Message Rules and Field Mappings

The example windows shown below for message rules are from OVO for Windows. Similar message rules (templates) exist for OVO for UNIX.

The SiteScope Adapter installs OpenMessage interface rules on the OVO console that match the opcmsg parameters sent by the script alerts, resulting in the appropriate message being sent to the OVO console. Messages from SendOVONormal script alert match the following AllClear message rule.

The AllClear rule specifies the following action for sending the matched message to the message browser and acknowledging a matching message from an earlier alert.
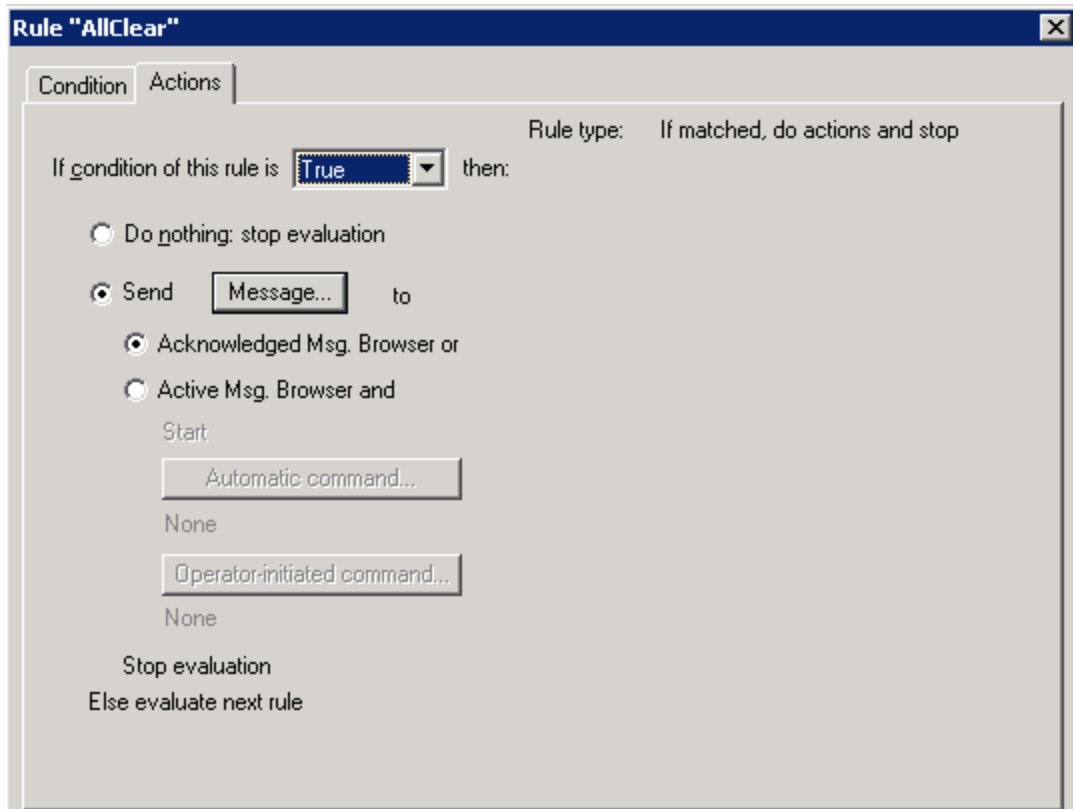
Messages sent by SendOVOWarning, SendOVOMinor, SendOVOMajor, and SendOVOCritical match the SiteScope NonNormal rule below.

Rule "SiteScope NonNormal"

Condition | Actions

Rule description* `SiteScope NonNormal`

Specify condition (to match incoming event of type 'Open Message Interface')

Node	equals	`<any node>`
Message group	equals	`<any message group>`
Application	equals	`SiteScope`
Object	equals	`<any object>`

Severity* equals ☑ ⊘ Normal   ☑ △ Warning
 ☑ ⚠ Minor   ☑ ▼ Major
 ☑ ⊗ Critical

Message text matches `Status: <*.status><_>`

The SiteScope NonNormal rule specifies the following action for sending matched messages to the message browser.
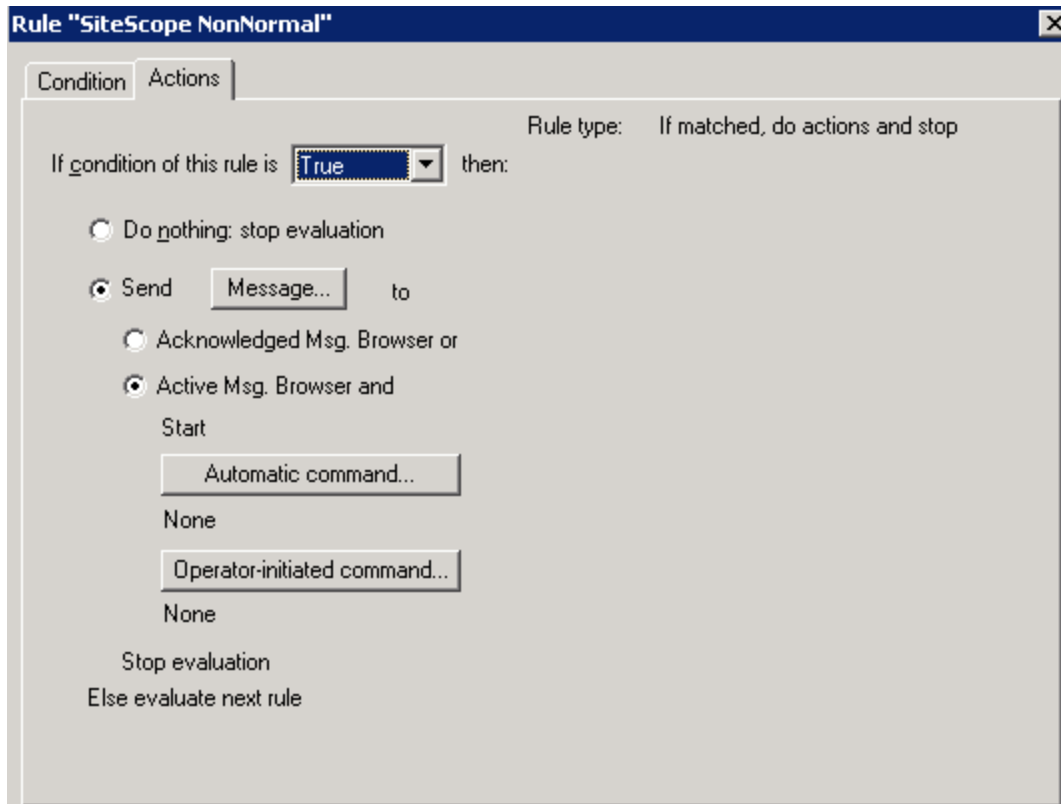
When one of the SendOVO non-normal script alerts is triggered by a SiteScope monitor in an abnormal state, the script alert code calls opcmsg to send information to the OVO console. Each script alert maps SiteScope data to the parameters of opcmsg as shown below.

- **severity**. This is set as indicated by the SendOVO alert name – SendOVOWarning, SendOVOMinor, SendOVOMajor, SendOVOCritical.

- **application**. The string "SiteScope".

- **object**. The SiteScope monitor name.

- **msg_txt**. Detailed information about the SiteScope monitor and status that triggered the alert.

- **service_id**. The string "SiteScopeMonitor:" followed by the SiteScope monitor group name and some additional information.

Support Matrices Information

For up-to-date information on the latest supported platforms and versions, see the SUMA support matrices at the following location:

http://support.openview.hp.com/selfsolve/document/KM323488

> The SUMA support matrices exclude information for OVO 7.50 for Windows.

For up-to-date information on all support matrices, including those relevant for OVO 7.50 for Windows and a link to the SUMA matrices, go to the following location:

http://support.openview.hp.com/sc/support_matrices

You can also search for all support matrices at the following location:

http://support.openview.hp.com/selfsolve/documents

Search for the appropriate support matrix, following the instructions given on the web page.

2 Installing the SiteScope Adapter

▶ HPOM 8.xx for UNIX Server (Patch 8.30 or higher):

If you received the SiteScope Adapter software as part of an integration package for HPOM 8.xx for UNIX (Patch 8.30 or higher), the instructions for installing the SiteScope Adapter in this chapter do not apply.

To install SiteScope Adapter on management servers on HPOM 8.xx for UNIX (Patch 8.30 or higher), see the *HPOM SiteScope Administration Integration Installation Guide* for the UNIX operating system.

▶ HPOM 8.10 for Windows Server (or higher):

If you received the SiteScope Adapter software as part of an integration package for HPOM 8.10 for Windows (or higher), the instructions for installing the SiteScope Adapter in this chapter do not apply.

To install SiteScope Adapter on management servers on HPOM 8.10 for Windows (or higher), see the *HPOM SiteScope Administration Integration Installation Guide* for the Windows operating system.

Full implementation of the SiteScope Adapter requires the following steps:

1 Installation of SiteScope Adapter on an OVO Server. The remainder of this chapter covers installation on OVO for Windows and OVO for UNIX servers.

   To install SiteScope Adapter in a clustered OVO environment, special installation steps are necessary. For more information, see the corresponding sections in the remainder of this chapter.

2 Deployment of SiteScope Adapter to managed nodes, covered in *Chapter 3*.

3 Configuring SiteScope to use the SendOVO script alerts, covered in *Chapter 4*.

Installation on HPOM 8.00 for Windows Servers

▶ To install SiteScope Adapter on HPOM 8.00 for Windows management servers, see the HPOM 8.00 for Windows online help topics under *HP SiteScope Adapter → Installing the HP SiteScope Adapter*. The SiteScope Adapter software for HPOM 8.00 for Windows is included with the HPOM 8.00 for Windows software.

Installation on OVO 7.50 for Windows Servers

Installation requirements for SiteScope Adapter on Windows are:

- OVO for Windows server version 7.50 or greater must be installed on the system.
- Latest applicable patches for OVO for Windows server are recommended.

After ensuring the above requirements have been met, follow the steps below to install SiteScope Adapter.

1   Log on the Windows OVO for Windows server system with Administrator capability.

2   Place the file `HPOvOSiS-01.01.030-WinNT4.0-release.msi` in a temporary directory, such as `C:\temp`.

3   Execute the command:
    `msiexec /I C:\temp\HPOvOSiS-01.01.030-WinNT4.0-release.msi /qn`

Following successful installation of the SiteScope Adapter on the OVO for Windows server system, you will see the following SiteScope Adapter policy folders within the Policy groups, as shown below:

Installation on Clustered OVO for Windows Server Systems

To install SiteScope Adapter in a cluster environment, complete the following steps.

1. Select a cluster node and designate this system as the first cluster node to be installed. This node must be the owner of the OVO for Windows cluster resource group. Use the Microsoft Cluster Administrator to move the group if necessary.

   When removing SiteScope Adapter from a cluster environment, it is important that the software is removed from the first installed node last.

2. Install SiteScope Adapter on the first cluster node.

3. Move the OVO for Windows resource group to the next cluster node. Use the Microsoft Cluster Administrator to switch the group.

4. Install SiteScope Adapter on the now active cluster node.

5. Repeat steps 2 to 4 on all subsequent cluster nodes.
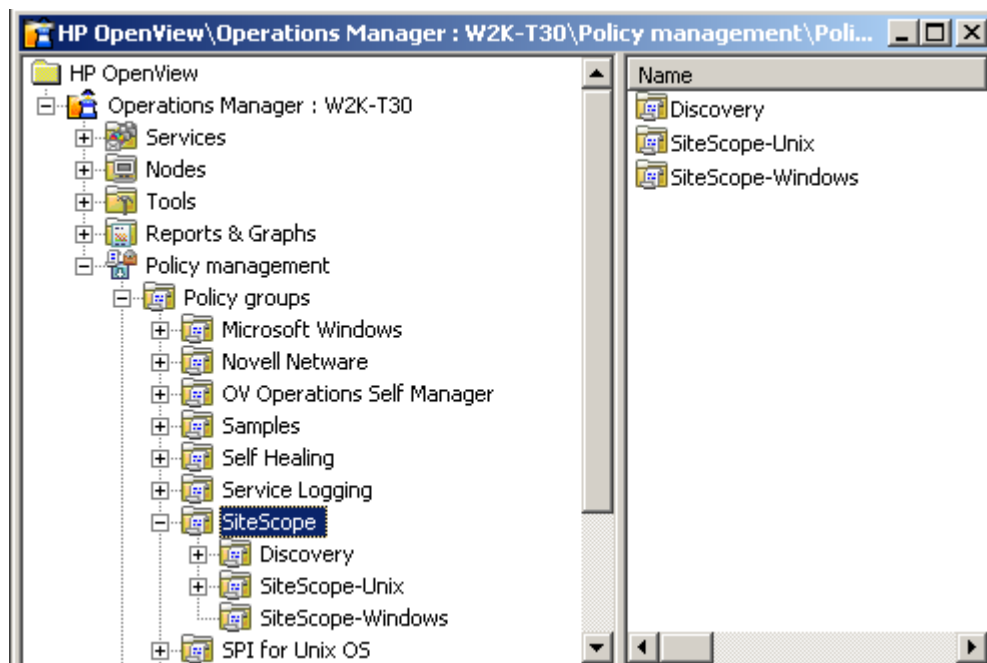
Installation on OVO for UNIX Servers

Installation requirements for SiteScope adapter on UNIX are:

- OVO for UNIX server version 8.20 or greater must be installed on the system.

- Latest applicable patches for OVO for UNIX server are recommended.

Installation on Solaris OVO for UNIX Servers

6 Log on to the OVO for UNIX server system with root capability.

7 Place the file HPOvOSiS-01.00.000-SunOS5.7-release.sparc in the /tmp directory.

8 Execute the command:
```
pkgadd -d /tmp/HPOvOSiS-01.00.000-SunOS5.7-release.sparc HPOvOSiS
```

Installation on HP-UX 11i PA-RISC OVO for UNIX Servers

4 Log on to the OVO for UNIX server system with root capability.

5 Place the file HPOvOSiS-01.00.000-HPUX11.0-release.depot in the /tmp directory.

6 Execute the command:
```
swinstall –s /tmp/HPOvOSiS-01.00.000-HPUX11.0-release.depot \*
```

Installation on HP-UX 11i Itanium OVO for UNIX Servers

1 Log on to the OVO for UNIX server system with root capability.

2 Place the file HPOvOSiS-01.00.000-HPUX11.22_IPF32-release.depot in the /tmp directory.

3 Execute the command:
swinstall –s /tmp/HPOvOSiS-01.00.000-HPUX11.22_IPF32-release.depot *

Following installation of the SiteScope Adapter on the OVO for UNIX server, you will see that the OVO Server windows have been populated with several new objects. These are explained more completely in the discussion of deployment of the SiteScope Adapter in *Chapter 3*.

The Application Bank contains a new SiteScope folder, shown below.
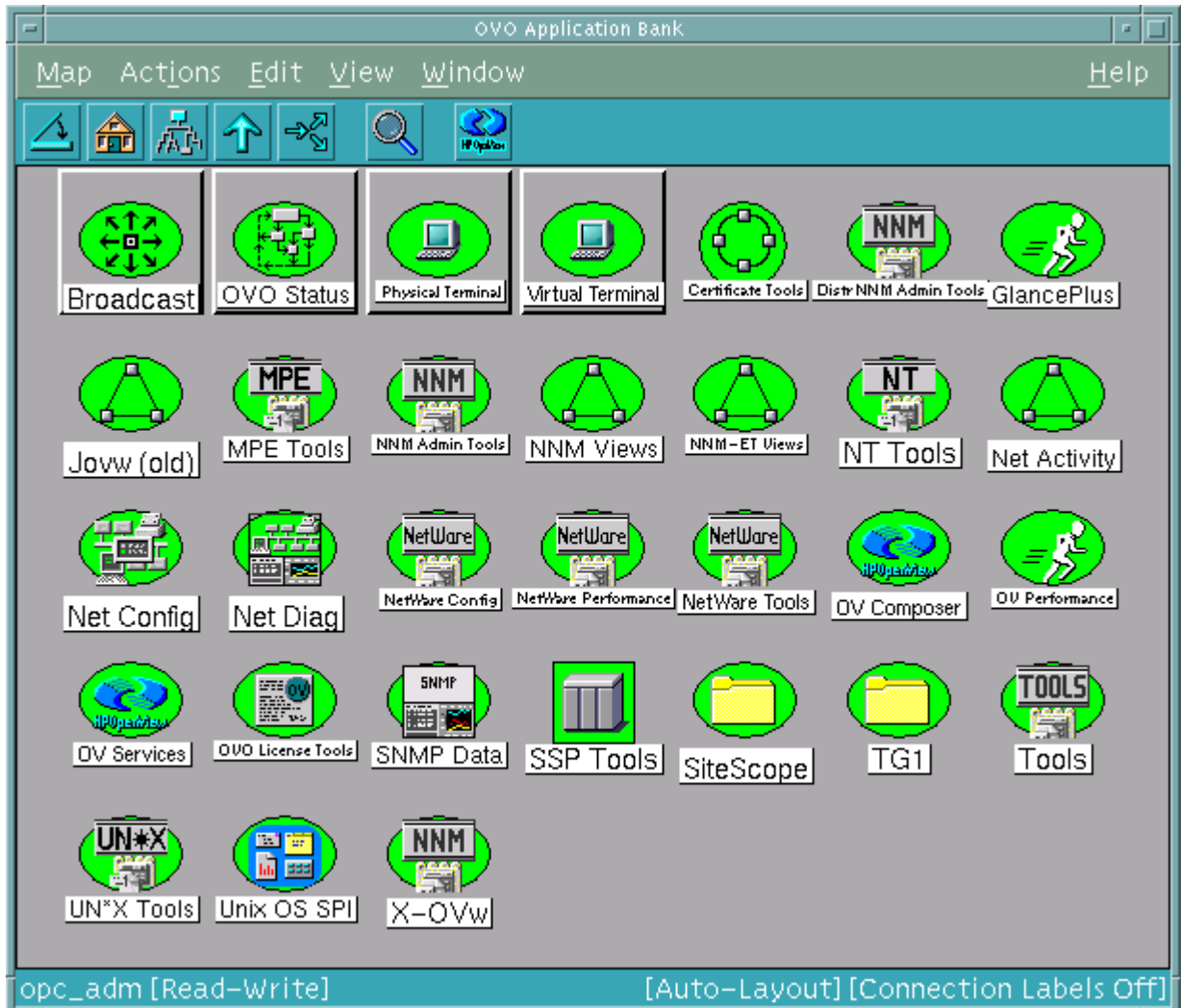
The OVO Node Group Bank window contains a new SiteScope node group, shown below.
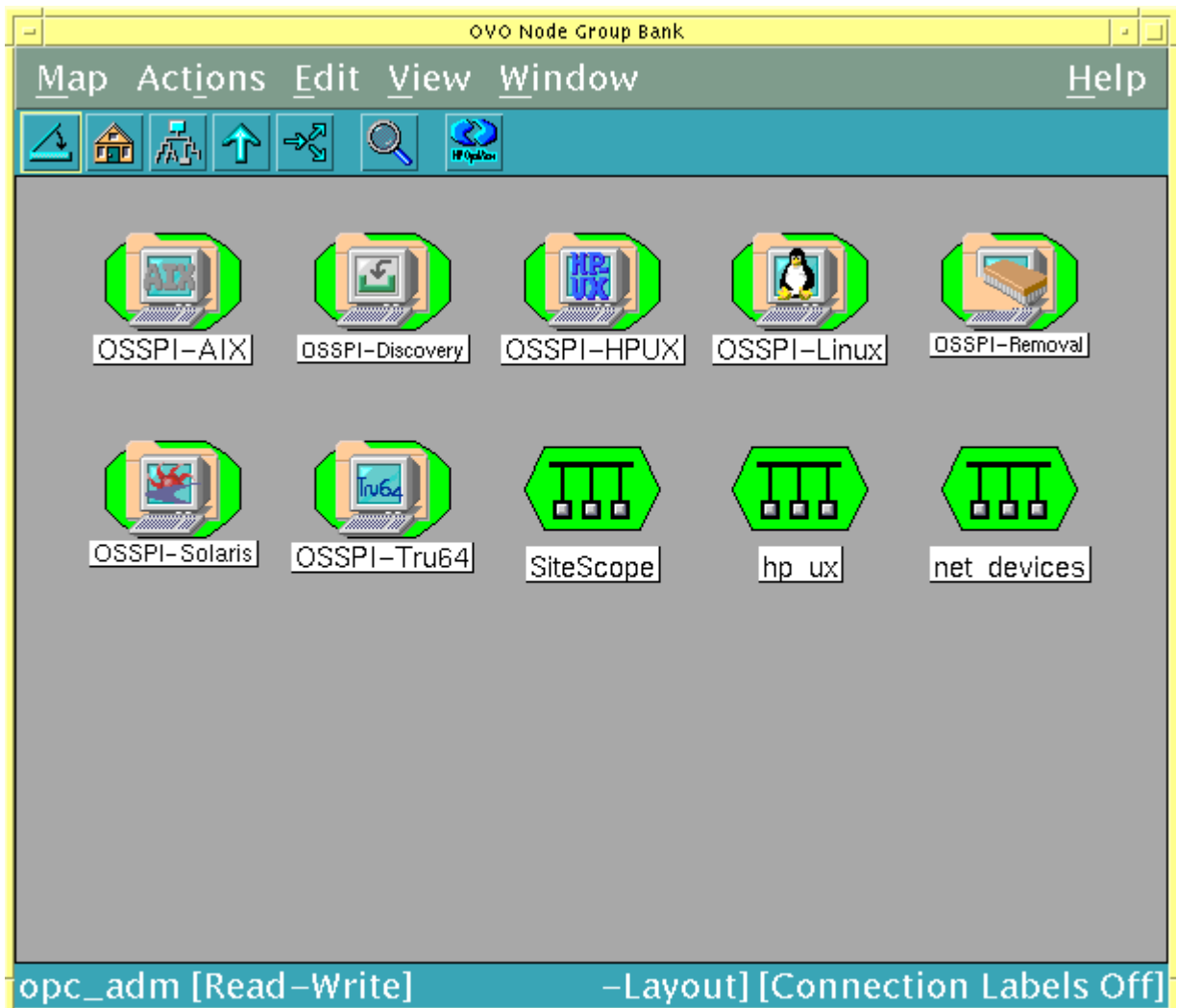
The Message Source Templates window contains a new **SiteScope** group, shown below:
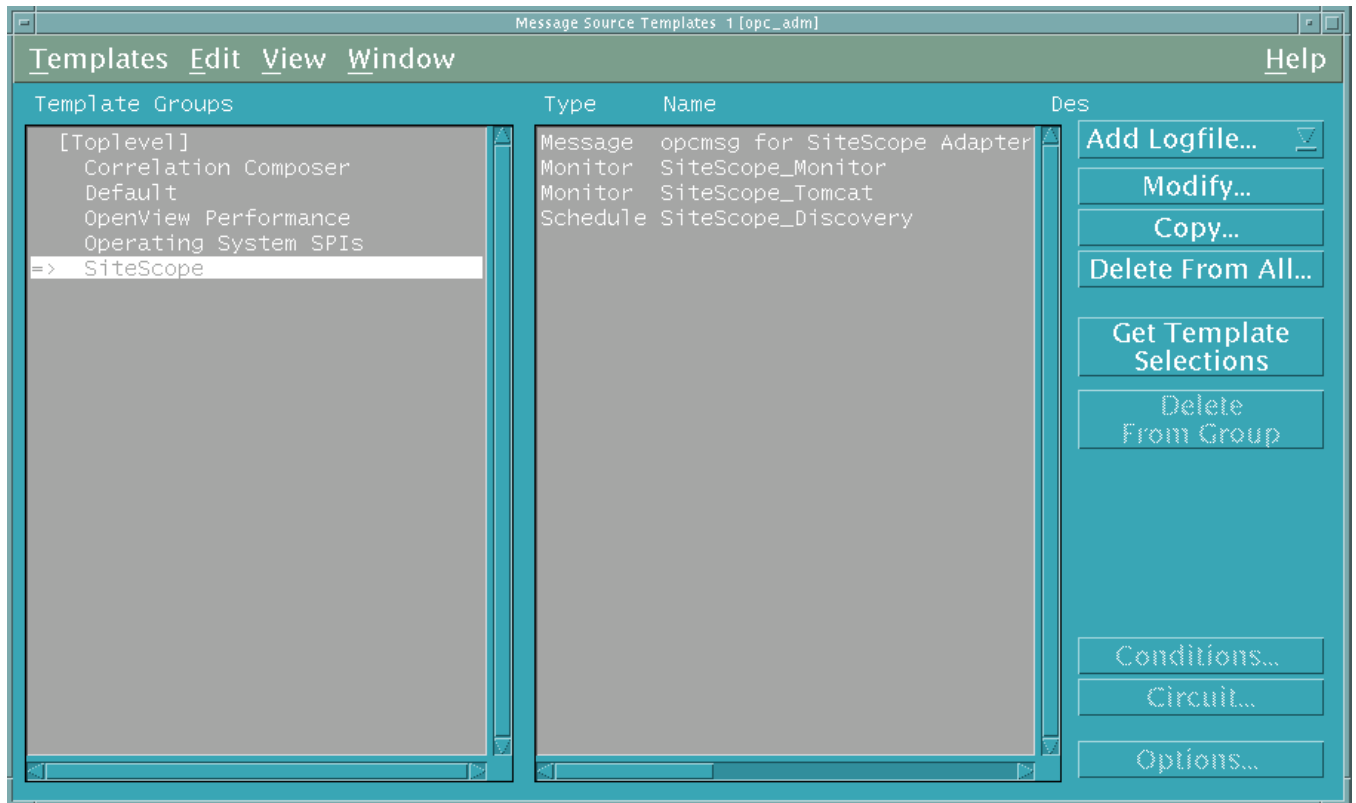
Installation on Clustered OVO for UNIX Server Systems

To install SiteScope Adapter in a cluster environment, complete the following steps.

1 Select a cluster node and designate this system as the first cluster node to be installed. The OVO for UNIX HA Resource Group must be active on this node.

   When removing SiteScope Adapter from a cluster environment, it is important that the software is removed from the first installed node last.

2 Install SiteScope Adapter on the first cluster node.

3 Switch the OVO for UNIX HA Resource Group to the next cluster node.

4 Install SiteScope Adapter on the now active cluster node.

5 Repeat steps 2 to 4 on all subsequent cluster nodes.

Determining SiteScope Adapter Version on the OVO Server

After installation, it may be necessary to determine the version of SiteScope Adapter installed on the OVO server for support, patch installation, or other reasons. Follow the instructions below for the appropriate OS of your OVO Server to determine SiteScope Adapter version.

Windows

Log on with Administrator capability. Run the Control Panel. Select **Add or Remove Programs**. Select **HPOM SiteScope Adapter**. Click **Click here for support information**.

Solaris

Log on with root capability. Execute the command:

```
/usr/sbin/pkginfo -l HPOvOSiS
```

HP-UX

Log on with root capability. Execute the command:

```
/usr/sbin/swlist -l fileset HPOvOInt.HPOVOSIS
```

Upgrading SiteScope Adapter

To upgrade SiteScope Adapter, follow the instructions below.

OVO for Windows Server

1   Back up the OVO for Windows server system as described in the OVO for Windows online help.

2   Install the latest version of SiteScope Adapter on the OVO for Windows management server. See page 20 for more information.

3   Deploy the updated SiteScope Adapter to the managed nodes. See page 32 for more information.

Removing SiteScope Adapter

▶ **HPOM 8.xx for UNIX Server (Patch 8.30 or higher):**

If you received the SiteScope Adapter software as part of an integration package for HPOM 8.xx for UNIX (Patch 8.30 or higher), the instructions for removing the SiteScope Adapter in this chapter do not apply.

To uninstall SiteScope Adapter on management servers on HPOM 8.xx for UNIX (Patch 8.30 or higher), see the *HPOM SiteScope Administration Integration Installation Guide* for the UNIX operating system.

▶ **HPOM 8.10 for Windows Server (or higher):**

If you received the SiteScope Adapter software as part of an integration package for HPOM 8.10 for Windows (or higher), the instructions for removing the SiteScope Adapter in this chapter do not apply.

To uninstall SiteScope Adapter on management servers on HPOM 8.10 for Windows (or higher), see the *HPOM SiteScope Administration Integration Installation Guide* for the Windows operating system.

To remove SiteScope Adapter from the OVO environment, follow the instructions below.

▶ If you plan to remove your entire OVO installation from the management server system, make sure to remove SiteScope Adapter before uninstalling OVO.

OVO for Windows Server

1 Uninstall the SiteScope Adapter policies from the managed nodes.
   In the console tree, right-click the policy group **SiteScope** and select **All Tasks →
   Uninstall from**.

2 Log on with Administrator capability. Run the Control Panel. Select **Add or Remove
   Programs**. Select **HPOM SiteScope Adapter**. Click **Remove**.

3 Delete the SiteScope Adapter tools and policies.
   After the uninstallation, delete the SiteScope Adapter tools and policy groups manually
   in the OVO for Windows console.

OVO for UNIX Server - Solaris

1 Deassign the SiteScope templates from the OVO for UNIX management server and
   managed nodes, and distribute the updated configuration with the **Force Update** option.

2 Log on with root capability. Execute the following command:
   `/usr/sbin/pkgrm HPOvOSiS`

3 During software removal, the SiteScope template group is removed. The SiteScope node
   group and SiteScope application folder are not removed. Refer to OVO for UNIX Server
   documentation for information regarding removal of node groups and application folders.

OVO for UNIX Server - HP-UX

1 Deassign the SiteScope templates from the OVO for UNIX management server and managed nodes, and distribute the updated configuration with the **Force Update** option.

2 Log on with root capability. Execute the following command:
   `/usr/sbin/swremove HPOvOInt.HPOVOSIS`

3 During software removal, the SiteScope template group is removed. The SiteScope node group and SiteScope application folder are not removed. Refer to OVO for UNIX Server documentation for information regarding removal of node groups and application folders.

OVO Managed Node

After SiteScope Adapter has been removed from the OVO Server system, it is recommended that SiteScope monitors on managed nodes be detached from the SendOVO script alerts. This will prevent undefined messages from being sent to the message browser on the OVO Server system.

To completely remove SiteScope Adapter from the managed nodes, delete the script alerts from the SiteScope scripts directory on the SiteScope servers.

3 Deploying the SiteScope Adapter

Following installation of the SiteScope Adapter on the OVO for UNIX or OVO for Windows server, the templates and policies associated with SiteScope Adapter must be deployed to OVO managed nodes. The following prerequisites must be satisfied prior to deploying the SiteScope Adapter templates and policies.

- Managed nodes must be SiteScope server systems.

- Each managed node must contain OVO agent software. The agent software version must be greater than or equal to versions listed in the *Support Matrix Information section*.

- If the managed node is Solaris or LINUX, /usr/bin/perl must exist as explained in the following note.

  ▶ Note that the SiteScope Adapter on LINUX and Solaris managed nodes requires perl, version 5.6.1 or greater, installed at `/usr/bin/perl`. During installation of the OVO agent to Solaris or LINUX managed nodes, an acceptable version of perl is installed at `/opt/OV/contrib/perl/bin/perl` for DCE agents, or `/opt/OV/nonOV/perl/a/bin/perl` for HTTPS agents. If an appropriate version of perl does not already exist at `/usr/bin/perl`, a link must be created at `/usr/bin/perl` to reference the agent-installed perl. The link must be created prior to deployment of the SiteScope Adapter to the managed node.

Deploying from OVO for Windows

Deployment of the SiteScope Adapter to managed nodes consists of policy deployment, followed by moving the script alerts to the proper directory location on the SiteScope server. The steps below provide details for completion of these tasks.

Policy Deployment

Follow the steps below to deploy the SiteScope Adapter policies to managed nodes from the OVO for Windows console.

1 In the console tree pane of the OVO for Windows console, open **Policy Management** → **Policy Groups** → **SiteScope**.

2 In the console tree pane, right click on **Discovery**, select **All Tasks**. The Console window will appear as shown below.
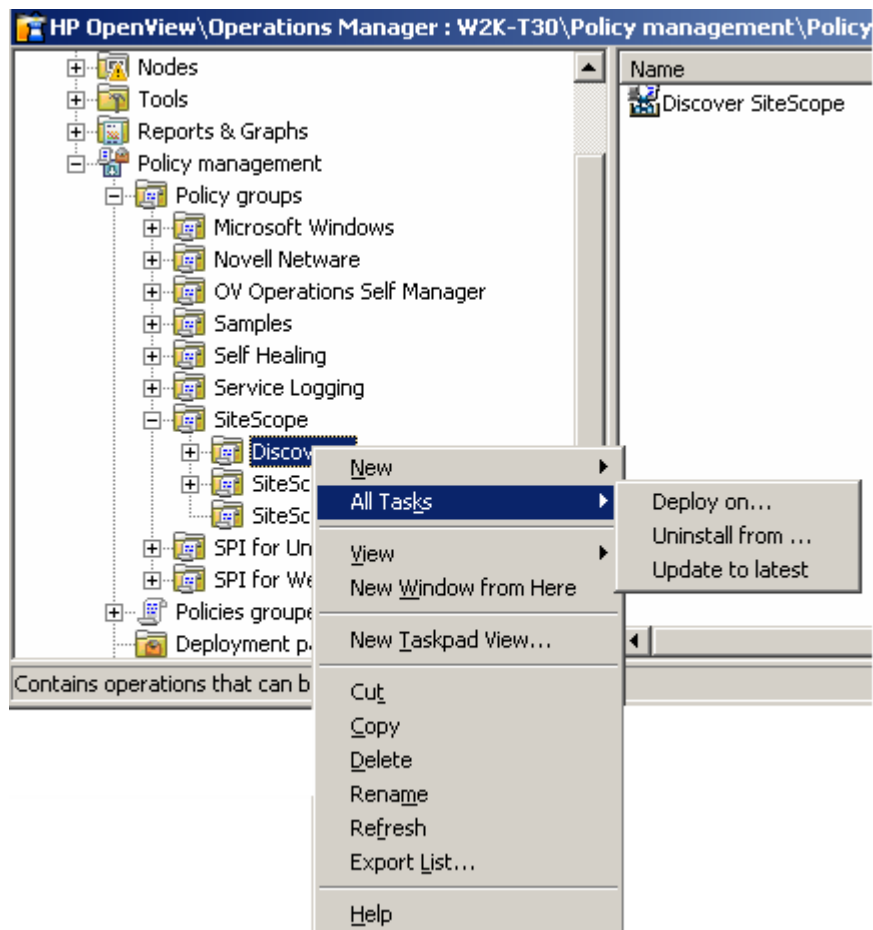
3   Deploy the Discovery policy to the managed node(s) running SiteScope. The Discovery policy provides information from the managed node that allows the SiteScope service map to be updated hourly. Select **Deploy on**. The Deploy policies on... window will appear. From the Deploy policies on... window, select nodes running the SiteScope server. The Deploy policies on... window now appears as shown below.

Click **OK**. The Discovery policy is deployed and the Deploy policies on... window closes.

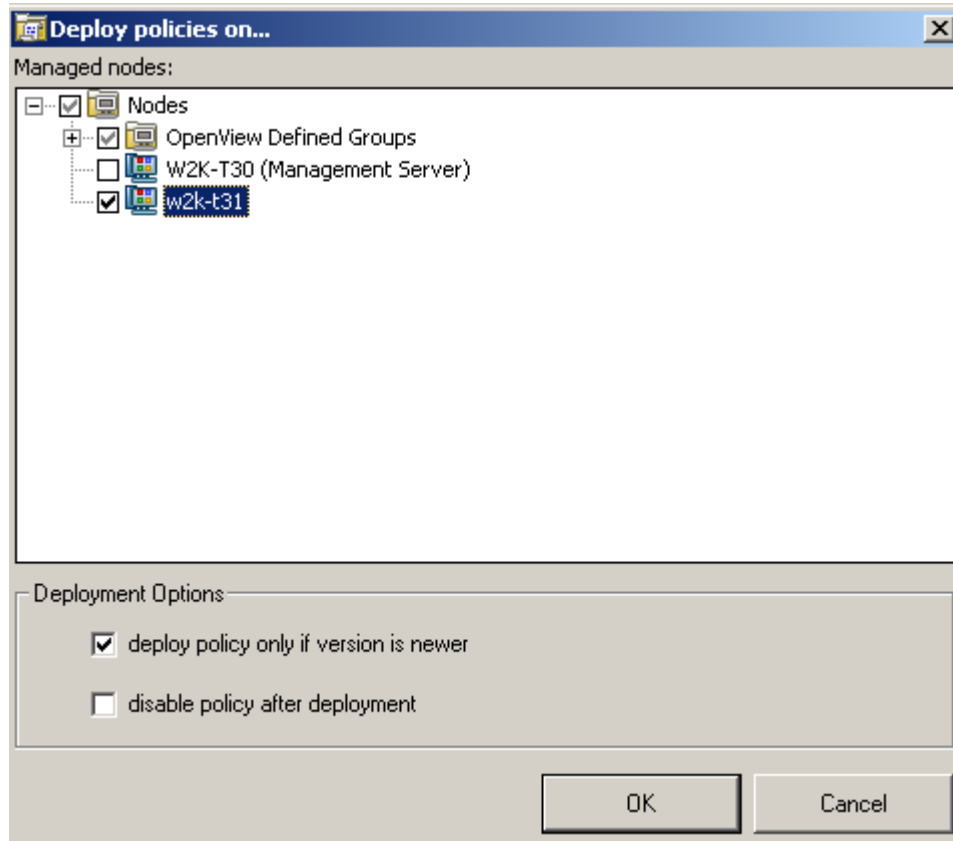4   Deploy additional policies for intercepting SiteScope alerts, monitoring the Tomcat process for SiteScope, and monitoring the SiteScope Service. Under **SiteScope** in the console tree pane, click on the appropriate OS for the SiteScope server / managed node system, for example **SiteScope-Windows**. Right click on your selection, select **All Tasks** → **Deploy On**. The Deploy policies on... window appears again.

5   From the Deploy policies on... window, select nodes running the SiteScope server and click **OK**. The additional policies are deployed and the Deploy policies on... window closes.

Moving Script Alerts to the Correct Directory on the SiteScope Server

Follow the steps below to copy the script alerts to the SiteScope scripts directory on the managed nodes. Note that in step 3 below there is some special handling for UNIX nodes if SiteScope is installed at a non-default directory location (the default is `/opt/SiteScope`). The steps below require that multiple selected UNIX nodes all have SiteScope installed at the same directory location. If multiple selected UNIX nodes have more than one SiteScope installation directory, the deployment will fail; in this situation, you need to execute the five steps below multiple times, once for each unique UNIX SiteScope installation directory.

1   In the console tree pane, open **Tools**.

2   In the console tree pane, click the **SiteScope** folder to highlight it.

3   If you are deploying to a Solaris or LINUX managed node on which SiteScope is installed at a non-default directory location:

   a   Double-click **Configure SiteScope Directory (Unix)**. The Select where to launch this tool window appears.

   b   In the Select where to launch this tool window, select the node that runs the SiteScope server.

   c   Click **Launch…**. The Edit Parameters window appears.

   d   In the Parameters field of the Edit Parameters window, assign a value for the directory path to which the alert scripts should be copied and click **Launch…**. The Tool Status window appears.

   e   Click **Close** in the Tool Status window.

4   In the details pane, double-click on **Copy Alert Scripts to SiteScope**.

5   In the Select where to launch this tool window, select the node running the SiteScope server. The windows will appear similar to the example below.
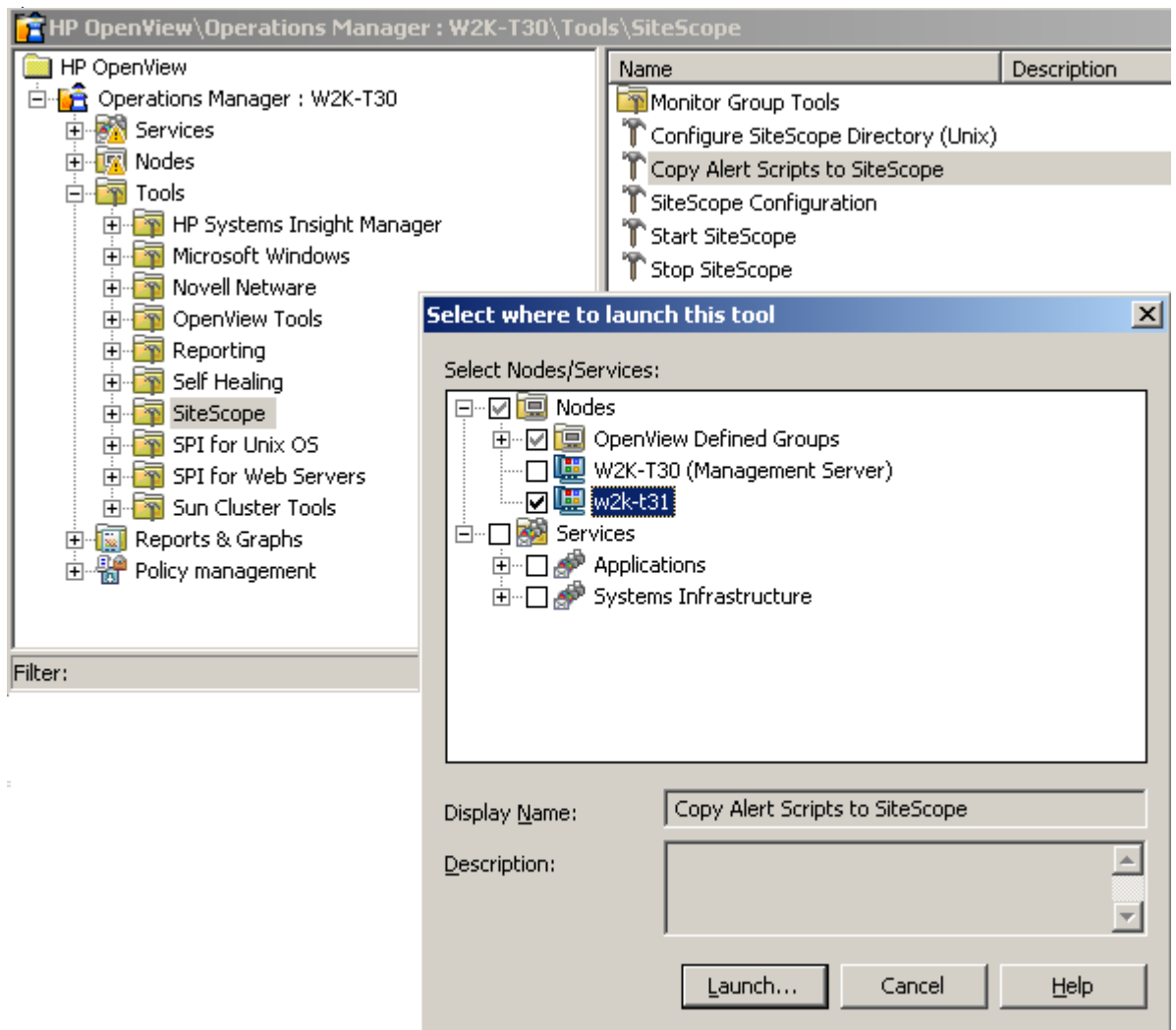
9   Click the **Launch** button. You will be notified in the **Tool Status** window when the move has completed; click **Close** to close the **Tool Status** window.

Deploying from OVO for UNIX

Deployment of the SiteScope Adapter to managed nodes from OVO for UNIX consists of assigning templates, copying the SiteScope Adapter files to the managed nodes, and copying the script alerts to the SiteScope scripts directory. The information below provides detailed instructions for completing these tasks

Assignment of Template to the OVO for UNIX Server

Follow the steps below to deploy the Schedule SiteScope_Discovery template to the OVO for UNIX Server system. This template is used for scheduling discovery of SiteScope server systems.

1   In the OVO Node Bank window, select the OVO for UNIX Server system. **Click Action →
    Agents → Assign Templates**. The Define Configuration window appears.

2   In the Define Configuration window, click **Add**. The Add Configuration window appears.

3   In the Add Configuration window, click **Open Template Window**. The Message Source
    Templates window appears.

4   In the left pane of the Message Source Templates window, select **Group SiteScope**.

5   In the right pane of the Message Source Templates window, select
    Schedule SiteScope_Discovery.

6   In the Add Configuration window click **Get Template Selections**. The windows appear as shown below. Click **OK** in the Add Configuration window.
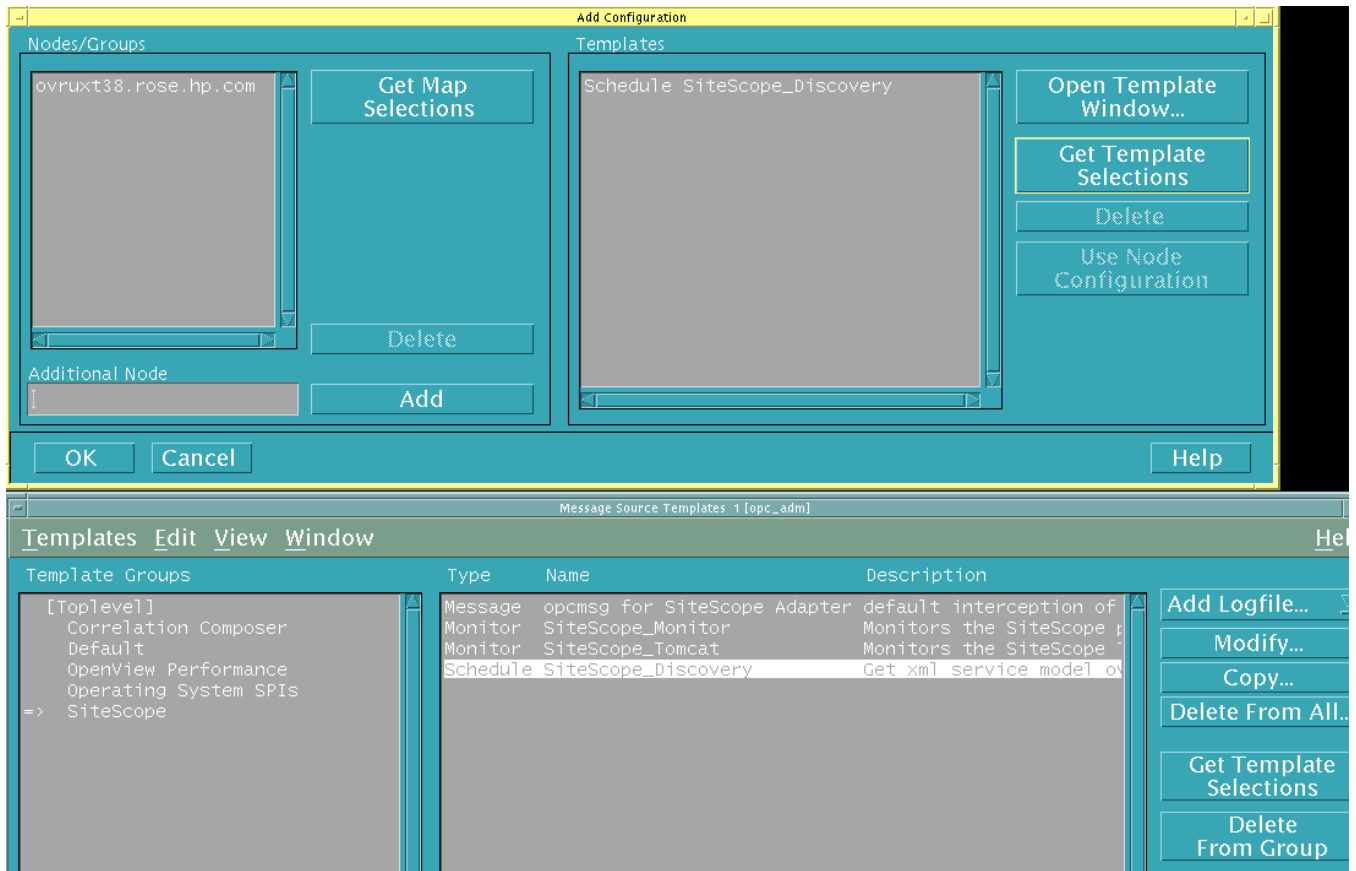
7   The Define Configuration now contains the Schedule SiteScope_Discovery template for the OVO for UNIX server system as shown below. Click **OK** in the Define Configuration window.
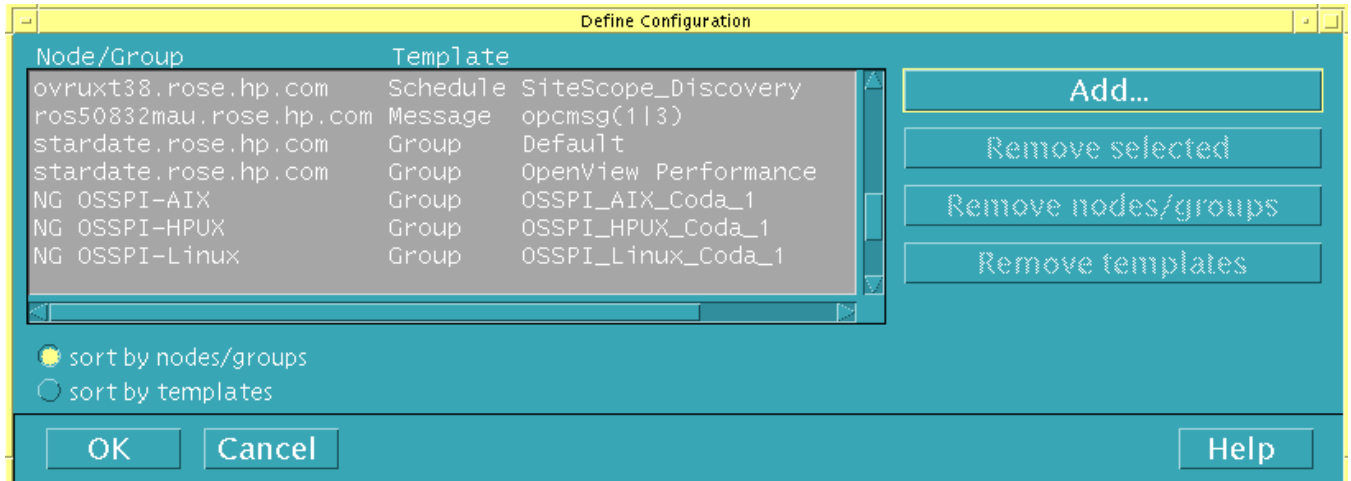
8   Make sure the OVO Server for UNIX system is still selected in the OVO Node Bank window. Select **Actions → Agents → Install / Update SW & Config...**. In the Install / Update OVO Software and Configuration window select **Templates**, **Actions**, **Monitors**, and **Commands**. The window appears as shown below. Click **OK**.
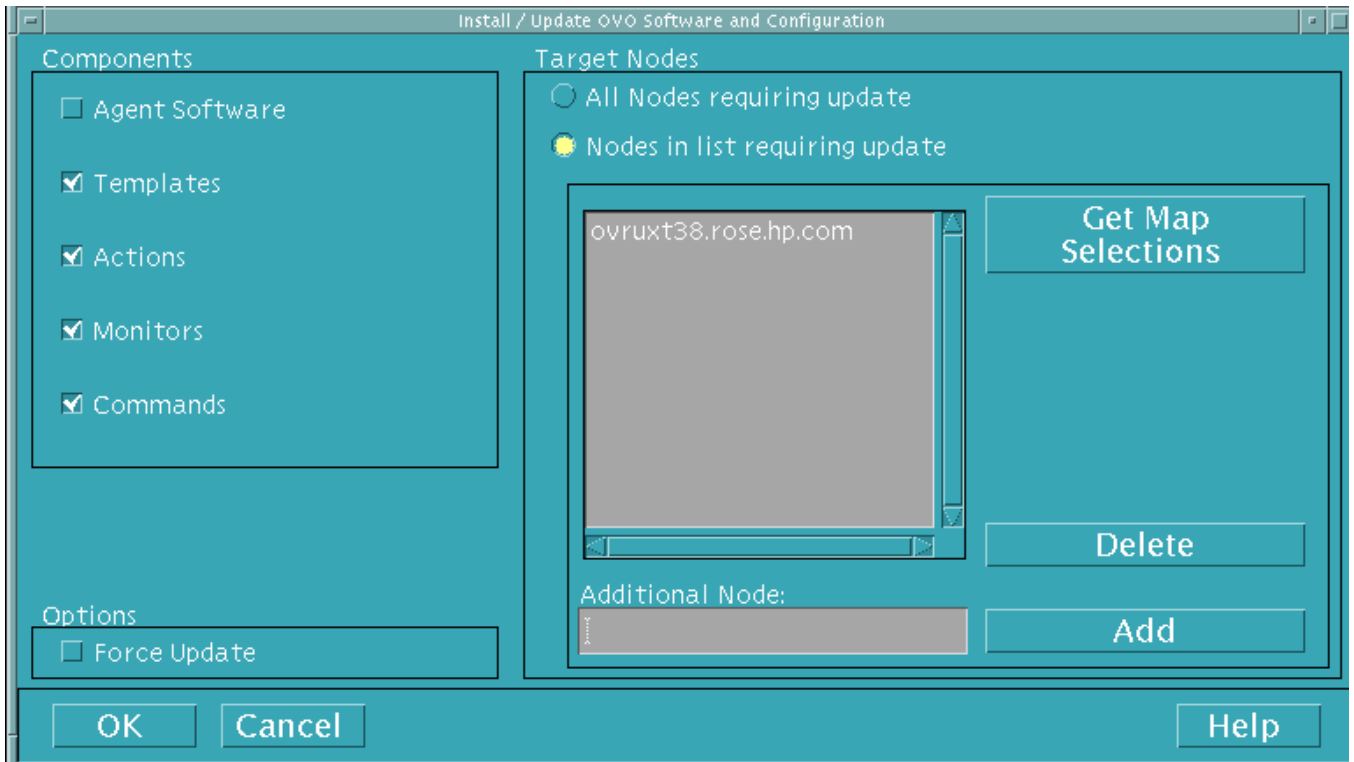
This completes deployment of the Schedule SiteScope_Discovery template to the OVO for UNIX server.

Assignment of Templates for Managed Nodes

Follow the steps below on the OVO for UNIX server to assign the SiteScope Adapter templates for the managed nodes.

1   Move nodes to which the SiteScope Adapter will be deployed to the SiteScope node group.

2   In the SiteScope node group, select the managed nodes to which SiteScope Adapter will be deployed.

3   In the OVO Node Bank window, click **Action → Agents → Assign Templates**. The Define Configuration window appears.

4   In the Define Configuration window click **Add**. The Add Configuration window appears.

5   In the Add Configuration window, click **Open Template Window**. The Message Source Templates window appears.

6   In the left pane of the Message Source Templates window, select **Group SiteScope**.

7   In the right pane of the Message Source Template window, select the following three items:
    Message opcmsg for SiteScope Adapter
    Monitor SiteScope_Monitor
    Monitor SiteScope_Tomcat.

8   In the Add Configuration window, click **Get Template Selections**. The selected entries are moved to the Templates sub-window of the Add Configuration window.

9   Click **OK** in the Add Configuration window. Click **OK** in the Define Configuration window.


Copy SiteScope Adapter Files to Managed Nodes

Follow the steps below to copy the SiteScope Adapter files to managed nodes. Upon completion of these steps the files will be copied to a holding area on the managed nodes, but will not yet be moved to the SiteScope directory.

1   In the SiteScope Node Group window, select the managed nodes to which you will deploy the SiteScope Adapter.

2   In the SiteScope Node Group window, click **Action**, **Agents**, **Install / Update SW & Config**. The Install / Update OVO Software and Configuration window appears.

3   In the Install / Update OVO Software and Configuration window, select **Templates**, **Actions**, **Monitors**, and **Commands**. If this is a re-deployment of the SiteScope Adapter, select **Force Update**. Click **OK**. The files for the SiteScope Adapter are copied to the selected managed nodes.

Copy Script Alerts to the SiteScope Scripts Directory

Follow the steps below to copy the script alerts to the SiteScope scripts directory on the managed nodes. Note that in steps 2 and 3 below there is some special handling for UNIX nodes if SiteScope is installed at a non-default directory location (the default is `/opt/SiteScope`). The steps below require that multiple selected UNIX nodes have SiteScope installed at the same directory location. If multiple selected UNIX nodes have more than one SiteScope installation directory, the deployment will fail; in this situation, you must execute the three steps below multiple times, once for each unique UNIX SiteScope installation directory.

4   In the SiteScope Node Group window, select the managed nodes for which alert scripts should be copied to the SiteScope scripts directory. Open the Application Bank window. Double click on the **SiteScope** folder. The Application Group: SiteScope window opens as shown below.
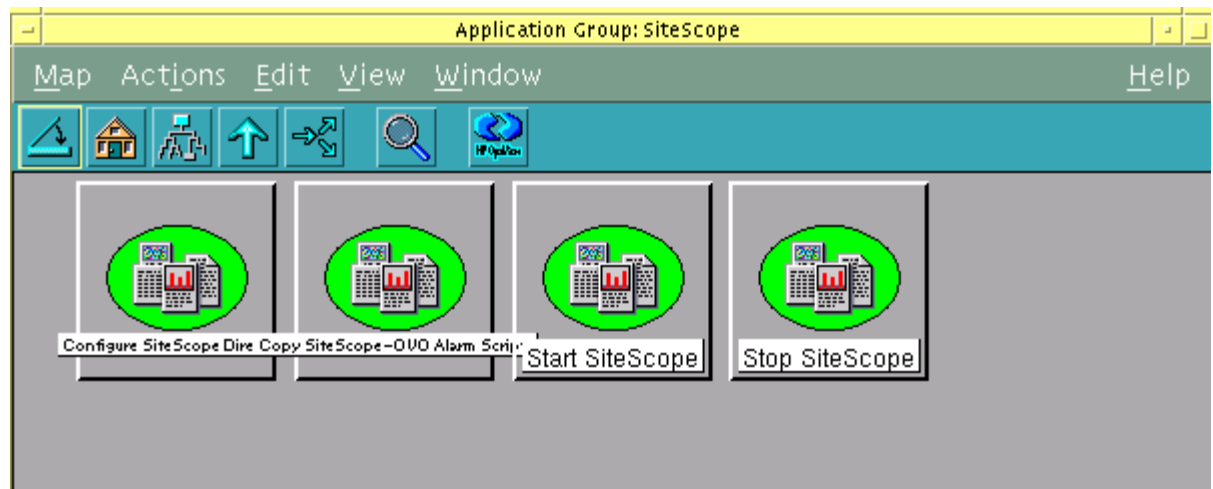
5   If you have selected UNIX managed nodes with SiteScope installed in a non-default directory (default is /opt/SiteScope), right-click on the **Configure SiteScope Directory (Unix)** application and click **Modify...**. The Modify OVO Application window for the Configure SiteScope Directory (Unix) application appears as shown below. In the Modify OVO Application window, change the installation directory for SiteScope in the Additional Parameters field and click **OK**. Double-click on the **Configure SiteScope Directory (Unix)** application to complete configuration of the non-standard directory location.

6   Double-click on the **Copy SiteScope-OVO Alarm Scripts** application. The scripts will be copied to the appropriate subdirectory under the configured directory on the SiteScope server systems.

4   Implementing SiteScope Adapter Alerts

This chapter provides a brief example showing implementation of SiteScope Adapter script alerts. The new SiteScope user interface (not the "SiteScope Classic" interface) is assumed. Refer to SiteScope product documentation for further information on SiteScope configuration.

> ➤ Note: This release of the SiteScope Adapter does not support use of the SiteScope International Version setting on Solaris and LINUX managed nodes. This setting is controlled from the SiteScope user interface within General Preferences. An incorrect setting can result in garbled text within presentation of service data from Solaris and LINUX nodes.

Once you have deployed the SiteScope Adapter to the SiteScope server system, you can configure SiteScope monitors, or monitor groups, to trigger execution of an OVO script alert based on threshold conditions configured for the monitor.

Typically you will configure two or three OVO script alerts for each monitor or monitor group of interest.

- An "error" alert will send a message to the OVO console indicating the failure of a SiteScope monitor. Although errors can be sent to OVO at any severity you wish, typically Major or Critical will be specified by selecting the SendOVOMajor or SendOVOCritical alert.

- A "good" alert will send a message to the OVO console indicating that a monitor error condition has cleared. The SendOVONormal alert is typically used to indicate that a monitor has returned to a normal state. SendOVONormal provides message acknowledgement at the OVO console, but does not generate a new console message.

- You can also configure a "warning" alert. In many cases the "error" alert will provide adequate information. However, if used, the warning indicates a non-error condition on a SiteScope monitor at the appropriate OVO severity. Normally, warnings would use the SendOVOWarning alert.

Using the SiteScope user interface (example illustrated below), follow the steps below to add a SiteScope Adapter Script Alert to an individual monitor or monitor group.

7   In the Monitors tab, select the monitor or monitor group for the script alert by right-clicking on it.

8   From the drop-down menu, select **New Alert**.

9   From the New Alert pane, select **Script**.

10 In Main Settings, assign a Name to the new alert script.

11 In Main Settings, Script drop-down box, select the appropriate script for the severity of the message you want sent to the OVO server. Choices are:

— SendOVONormal

— SendOVOWarning

— SendOVOMinor

— SendOVOMajor

— SendOVOCritical

12 In Main Settings, Template drop-down box, make sure Default is selected as template for this SiteScope Adapter script alert.

13 Click on the down-arrow for When Settings. Make the When and Alert Category selections appropriate for the new alert.

14 Click **OK**. In the Monitors pane you will see an entry for the new alert.

Repeat the above steps as required to add alerts for error, warning, and good (reset) conditions.

The following depicts the SiteScope user interface window when adding a new SiteScope Adapter script alert to a monitor.
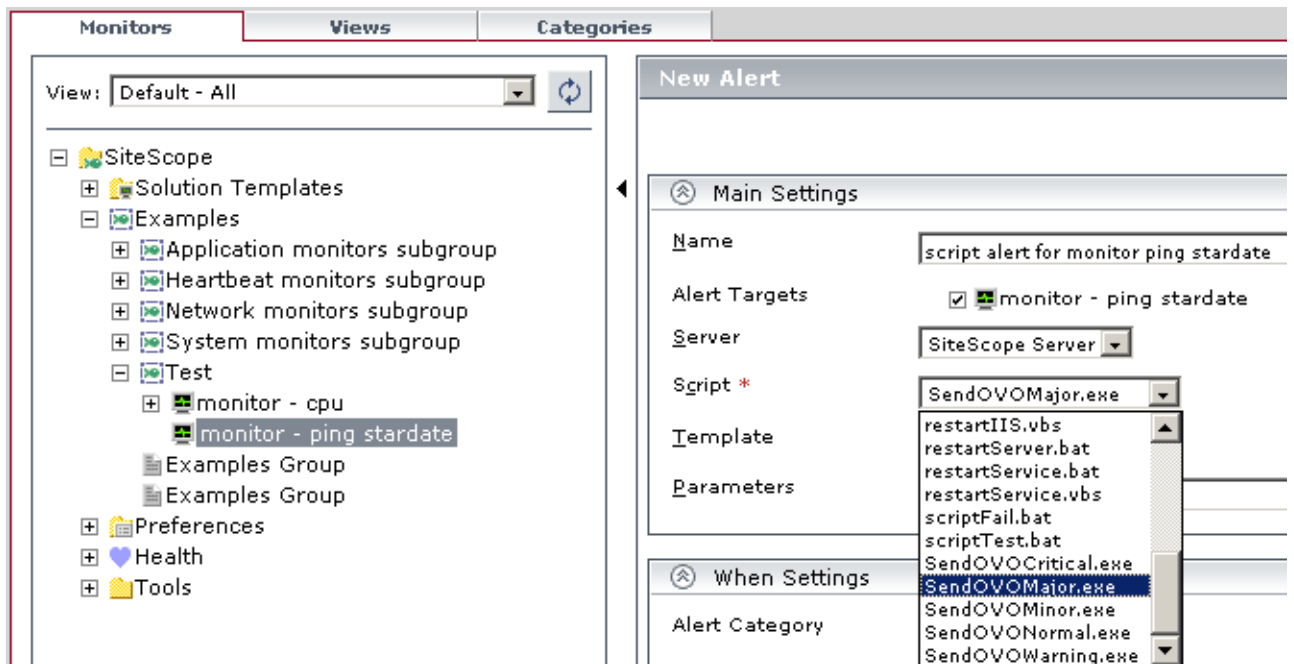
The following depicts SiteScope monitor threshold settings for Error, Warning, and Good conditions, with an appropriate OVO alert for each level.

5 Integrating SiteScope 10.00 with OVO for UNIX 8.3x

To integrate SiteScope version 10.00 or higher with OVO for UNIX version 8.3x, make sure you configure SiteScope and SiteScope service discovery:

- Make sure that the **Enable configuration files** option in SiteScope General Preferences is selected. This option is not selected by default when you install SiteScope 10.10 or higher.
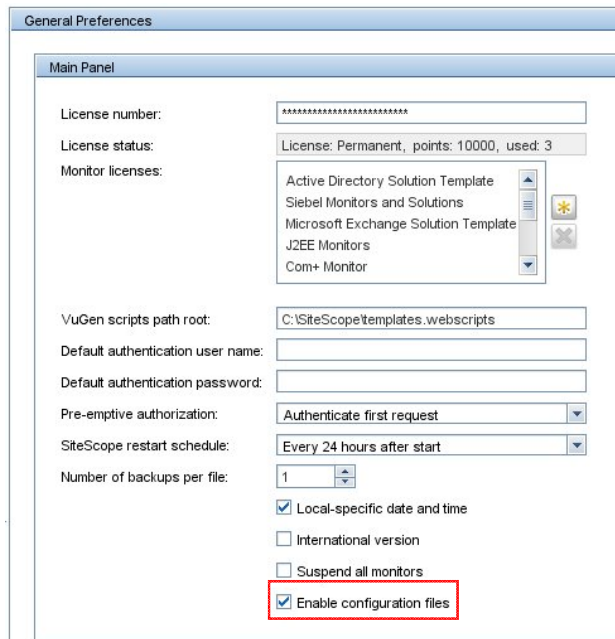
Configuration files are text files that contain monitor and system configuration data, including configuration data for service discovery.

See also *OVO Service Tree Not Updated with SiteScope Monitor or Monitor Group Status* on page 47.

- Make sure that you select the **Default** template for alert actions.
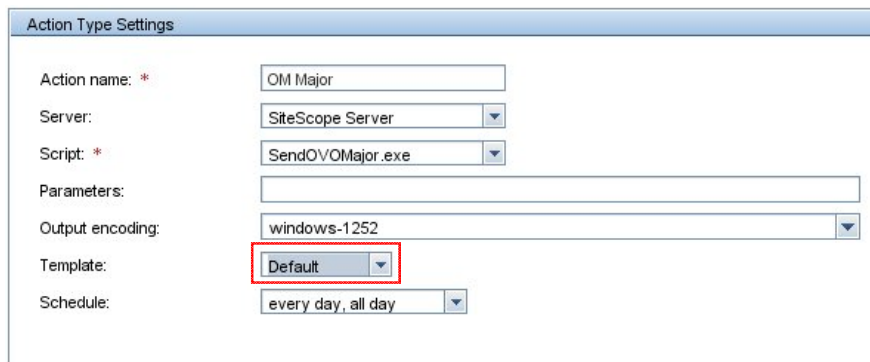
- If SiteScope service discovery fails, perform the workarounds described in *OVO Service Tree Not Created for SiteScope Monitors or Monitor Groups* on page 47.

Troubleshooting the SiteScope Adapter

This chapter contains troubleshooting information for the SiteScope Adapter.

SiteScope Alerts: Known Limitation

Be aware that every SiteScope alert that is sent to the OVO management server is attributed to the SiteScope server, and not to the node (where the alert originated) that SiteScope monitors.

Example: a ping-probe on the SiteScope server cannot reach a node (called "database-server") that it monitors. The resulting critical alert forwarded to the OVO management server is attributed to the SiteScope server, instead of "database-server", where the alert originated.

Service Discovery Troubleshooting

This section contains troubleshooting tips focused on the area of OVO service discovery. Service discovery for SiteScope Adapter consists of regularly scheduled collection of the status of SiteScope monitors and monitor groups, and providing this information to the OVO server for presentation in service tree format. From OVO for Windows Server, the service tree is viewed from the console. From OVO for UNIX Server, the service tree is viewed from the Java GUI.

OVO Service Tree Not Updated with SiteScope Monitor or Monitor Group Status

SiteScope Adapter service discovery runs once per hour. Therefore, it may take an hour for any changes to be reflected in the OVO service tree.

SiteScope must be configured to provide configuration data for service discovery. Use the following steps to verify that SiteScope is properly configured for service discovery:

1 In the SiteScope user interface, select **Preferences**.

2 Select **General Preferences**.

3 In General Preferences, verify that **Enable configuration files** is selected. If not, select **Edit**, select **Enable Configuration Files**, and select **OK**.

OVO Service Tree Not Created for SiteScope Monitors or Monitor Groups

SiteScope service discovery can fail for the following reasons:

- LANG variable is not set

  If the LANG variable is empty, service discovery runs but fails when adding the services on the management server.

- No services are assigned to the user opc_adm.

  If no services are assigned to the user opc_adm, SiteScope service discovery fails. In the following procedure, you temporarily assign a dummy service configuration to the user opc_adm so that SiteScope service discovery can complete successfully. After the discovery has completed, remove the temporary service assignment from the user opc_adm.

1 Make sure that the LANG variable is set on the HPOM management server. If the variable is empty, the SiteScope service discovery script fails.

2 Add a sample service configuration file to the service engine. Execute the following command:

```
opcservice -add /opt/OV/OpC/examples/services/sap.xml
```

3 Assign a service to the user opc_adm. Execute the following command:

```
opcservice -assign opc_adm sapservice
```

4 Make sure that the managed node where SiteScope is installed is a member of the node group SiteScope. Execute the following command:

```
/opt/OV/bin/OpC/utils/opcnode -list_ass_nodes group_name=SiteScope
```

The output should list the managed node that hosts the SiteScope server; node123 in the example below.

```
List of Nodes assigned to 'SiteScope':
======================================================================
Name         = node123.example.com
Label        = node123
======================================================================
Operation successfully completed.
```

5 Run the SiteScope discovery script manually. (SiteScope server discovery is normally done by the Schedule SiteScope_Discovery template.) Execute the following command on the OVO for UNIX management server:

```
sh -x /var/opt/OV/bin/instrumentation/sis_sched_discover.sh > \
/tmp/sis_sched_discover.sh_man.log
```

6 Remove the sample services that you added in step 1, if the discovery command successfully generates the file /tmp/sis_sched_discover.sh_man.log. Execute the following command:

```
opcservice -remove sapservice
```

Service Discovery Log Files

Data in logs is available to assist in troubleshooting service discovery problems, as shown below.

Logs on the OVO for Windows Server

Review the file OvSVCDiscServer.log for error messages. This file is located in the <OvShareDir>\log directory.

Logs on Agents of OVO for Windows Servers

On Windows agents, review the files `javaAgent.log` and `OvSvcDiscAgt.log` for error messages. These files are located at the `<OvAgentDataDir>\log\` directory.

On Solaris or LINUX agents, review the same files for error messages, located at `/var/opt/OV/log/`.

Logs on OVO for UNIX Servers or Agents of OVO for UNIX Servers

Refer to OVO for UNIX documentation for location of logs on the server or agent, how the logs can be used for troubleshooting, and tracing features available for troubleshooting.

Manual Execution of Service Discovery

SiteScope Adapter gathers monitor and monitor group information from SiteScope with the tool `sis_disc.exe`. Note that this tool has the same Windows-like name on both Windows and UNIX nodes.

On Windows nodes, `sis_disc.exe` resides at the `<OvAgentDataDir>\bin\instrumentation\` directory. On UNIX nodes, it resides at `/var/opt/OV/bin/instrumentation/`.

Logging from this tool can be done by running with the –d switch on the command line, as follows

`sis_disc.exe –d`

A log file named `sis_disc.log` is created in the same directory as the `sis_disc.exe` file resides in. Review the log file for any error messages indicating errors encountered while reading the SiteScope configuration files.

Submitting a Support Case

If troubleshooting does not provide a resolution to the problem, please submit a support case. For the case, please note troubleshooting steps you have taken, and collect the logs mentioned above.