HP Operations Manager

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UNIX and Linux operating systems

Administration UI Help

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This document is a PDF version of the online help. This PDF file is provided so you can easily print multiple topics from the help information or read the online help in PDF format. Because this content was originally created to be viewed as online help in a web browser, some topics may not be formatted properly. Some interactive topics may not be present in this PDF version. Those topics can be successfully printed from within the online help.

Contents

HP Operations Manager Administration UI

In the HPOM Administration UI, you use the icons in the toolbar to set the data context in which you want to work. The Online Help available reflects the data context you have set by providing information about the menus and menu options displayed; menus and menu options differ according to the data context in which you are working.

Note: The rights and the responsibilities granted to the user role you use determine the level of access you have to the displayed objects.

The HPOM Administration UI Online Help provides information about the following data contexts:

HPOM Administration UI Navigation Icons

Icon	Data Context	Description
	Home	Click the Home icon in the tool bar to return to the HP Operations Manager Administration UI start page.
	HPOM	The information in the HPOM for UNIX Configuration section describes the user interface displayed when you are working in the HPOM data context. In the HPOM context, you manage all HPOM related objects, for example: nodes, policies, applications, HPOM users, and message groups. Click the HPOM icon in the tool bar to display a list of the HP Operations Manager for UNIX objects, for example: nodes, templates, applications. Note that the rights and responsibilities granted to the user in whose name you log on determine the access you have to the displayed objects.
	Server	The information in the Server section describes the user interface displayed when you are working in the server data context. In the server context, you can manage tasks, and browse details of log files on the HP Operations management server.
	Admin	The information in Admin section describes the user interface displayed when you are working in the HPOM Administration UI Administration (Admin) data context. In the Admin context, you configure and manage the admin users who log on to HPOM Administration UI, the servers that you manage with HPOM Administration UI. Click the Admin icon in the tool bar to display a selection of administration options for HPOM Administration UI itself, for example: Users, User Groups, and User Roles.
	Help	Click the Help icon to display the Online Help system for the HPOM Administration UI.

Chapter 1: Online Help Home Page

Welcome to the Online Help Home page. The "Home" data context provides an overview of and insight into IT management information by making configuration data accessible to Administrators and Application Managers. You can use it to administer your IT environment by tracking changes to configuration data and generating snapshots of the data, which you can store, publish, and reuse. The user interface provides menus and icons to help you navigate. The menus you see depend on the type of user you are, where you are in the user interface, and the task you are performing.

List of Home Objects

Column Title	Description
My Shopping Cart	A snapshot of objects you have chosen to save for future use on HP Operations management server.

Related Topics

- Home Menus and Options
- Home Edit Menu
- Home Browse Menu
- Home Servers Menu

Home Menus and Options

The menus and the menu options that you see, such as My User Settings and Notifications, are related only to you.

List of Home Menus

Menu Title	Description
Edit	The **Edit** menu provides you an option for editing your user settings and also enables you to quickly log out from the Administration UI.
Browse	The **Browse** menu enables you to access the shopping cart and to view your notifications.
Servers	The **Servers** menu shows the currently selected and active HP Operations management server.

Related Topics

- Home Page

Edit Menu

The Home Edit menu provides options that enables you to manage your user settings and to quickly log out from the Administration UI. The Edit menu contains the following options:

Home Menu: Edit

Menu Title	Description
My User Settings	In My User Settings you can modify your user-related information.
Logout	To log out quickly you can use the white X in the top right-hand corner.

Related Topics

- Home Page
- "Home Menus and Options" on the previous page
- Home Browse Menu
- Home Servers Menu

Browse Menu

The Home Browse menu enables you to access the shopping cart and to view your notifications. The Home Browse menu contains the following options:

Home Menu: Browse

Menu Title	Description
Shopping Cart	In the shopping cart you can temporarily keep your configuration data before downloading it to a file. The shopping cart menu provides options that enable you to browse for or to delete the current contents of your shopping cart. The content of the shopping cart is lost when you log out from the HPOM Administration UI. You can access the shopping cart also from the HPOM module, by selecting HPOM menu -> Browse -> Shopping Cart.
Notifications	Lists all the notification messages that you receive during the current browser session. You can access the Notifications also from the Admin module, by selecting Admin menu -> Browse -> Notifications.

Related Topics

- Home Page
- "Home Menus and Options" on the previous page
- Home Edit Menu
- Home Servers Menu

Servers Menu

The Home **Servers** menu enables you to view and maintain the HP Operations management server, which is available as a data source for the web application you are logged on to. The following configuration option is available in the Home Servers menu:

Home Menu: Servers

Menu Option	Description
< *ServerHostName* >_server	Shows the currently selected and active HP Operations management server. The Administration UI supports only one HP Operations management server session at a time.

Related Topics

- Home Page
- "Home Menus and Options" on page 14
- Home Edit Menu
- Home Browse Menu

Chapter 2: Online Help for HPOM Objects

Welcome to the Online Help for HPOM (HP Operations Manager for UNIX). You are here because you clicked the **HPOM** icon in the toolbar to set the data context to "HPOM for UNIX Configuration". In the HPOM context, you can configure and manage HPOM objects such as nodes, policies, applications, and HPOM users. Note that the menus and menu options that you see are determined not only by the data context you set when you start the session (in this case HPOM) but also by the roles and responsibilities granted to the user in whose name you logged on. For example, if you select HPOM as the data context you want to browse, an administrative user with global rights will see *all* menu options in all menus. Menu options which the logged-on user does not have permission to perform are gray to indicate that they are unavailable. For more information about HPOM menus and menu options, see All HPOM Menus and Options.

List of HPOM Objects

Column Title	Description
All Objects	A list of all the different HPOM object types, for example: nodes, policies, applications, and so on.
Flexible-Management Configuration	A list of all the different object types for HPOM Flexible-Management configuration, for example: templates, scheduled outages, selected distribution settings, active flexible-management files, and so on.
Object Banks	A list of the top level groups of HPOM objects. HPOM banks contain all the physical objects to which the object title refers. For example, the Node Bank contains all the nodes known to HPOM, regardless of logical group.
Server Configuration	A list of all the different HP Operations management server configuration object types, for example: settings for the instruction text interface, trouble ticket, and notification services and, in addition, server and database configuration settings.

In the All Object Types page, you can view and modify HPOM objects and apply the changes to the HPOM installation, use HP Operations Manager to perform administrative tasks on the displayed (or any other HPOM) objects. For more information about how to use the information displayed on the All HPOM Object Types page, see the following topics:

- Display Details of HPOM Objects
- Perform Administrator Tasks on HPOM Objects
- Print the Help topic related to an HPOM Object

Related Topics

- All HPOM Menus and Options

HPOM Menus and Options

In the HPOM context, you can configure and manage HPOM objects such as nodes, policies, tools, users and so on.

The menus and the menu options that you see are determined by the data context you set when you start the session, and, in addition, by the roles and responsibilities granted to the user account that you used for logging in. For example, if you select HPOM as the data context you want to browse, you will see the menus listed below. Menu options which the logged-on user does not have permission to perform are gray to indicate that they are unavailable.

List of HPOM Configuration Menus

Menu Title	Description
Analyze	The **Analyze** menu provides a range of options that enables you to list specific parts of lists of objects that are defined on the HP Operations management server, for example: a list of all nodes that have not been assigned to any user, and so on.
Browse	The **Browse** menu provides a range of options that enables you to display and browse through lists of all the HPOM elements that are available on the HP Operations management server you selected when setting the data context, for example: Nodes, Policies, users, User Profiles, Tool Group and so on.
Deployment	The **Deployment** menu provides a range of options that enables you to perform HPOM administration tasks related to the installation of the HP Operations Agent and Configuration or Server Policies deployment. For example, you can install or remove the HP Operations Agent, distribute a configuration package to the managed nodes, and check if any HPOM Certificate Request is pending.
Edit	The **Edit** menu provides a range of options that enables you to create new and edit existing HPOM elements, for example: nodes, policies, tool group and so on.
Find	The **Find** menu provides a range of options that enables you to search and locate all the HPOM elements that are available on the HP Operations management server you selected when setting the data context, for example: nodes, policies, users, user profiles, Tool groups and so on.
Integrations	The **Integrations** menu provides a range of options that enables you to manage additional tools that you have already installed or plan to install, for example: HP Operations Manager add-ons and plug ins or the Java GUI for HPOM.

List of HPOM Configuration Menus, continued

Server Configuration	The **Server Configuration** menu provides a range of options that enables you to configure a selection of services that are defined on the HP Operations management server, for example:Instruction Text Interfaces, Regroup Conditions, Notification Services, DB Maintenance Settings, Management Server Configuration, and so on.
Servers	The **Servers** menu shows the currently selected and active HP Operations management server.
Tasks	The **Tasks** menu provides a range of options that enables you to perform specific tasks on the HPOM management server, for example: send a message to any HPOM users, who are logged on, view the current server status, or browse server log files, view Server or HBP statuses, download configuration elements, check Categories.

Related Topics

- Creating Users
- Creating User Groups
- Creating User Roles

Working on HPOM Objects

In the **All Object** page, you can view and modify HPOM objects and apply the changes to the HPOM installation, use HP Operations Manager to perform administrative tasks on the displayed (or any other HPOM) objects.

To display details of the HPOM object you want to view or modify:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. Locate the object you want to view or modify in the **All objects by object type** list.
3. Click the object link.

To perform an administrative task on an HPOM object:

HP Operations Manager provides a selection of menus and menu options that provide you with administrator access to the HPOM objects displayed. To list, edit, or create HPOM objects:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. Browse through the menus in the menu bar.
3. Select the option that reflects the administrative task you want to perform; note that detailed help is available for each of the tasks listed.

Related Topics

- All HPOM Menus and Options

Configuration Data Download and Upload

You can download and upload configuration data by using the Administration UI as described in this topic.

Configuration Data Download

To download all the configuration, follow these steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. From the HPOM for UNIX Configuration **Actions** menu, select the **Download All** option.
3. Optional: Type the comment for the download session and click **OK**.

To download all items of a particular object type, for example, all policies or nodes, follow these steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. Depending on which kind of data you want to download, click the appropriate link from the All Objects list.
3. From the object type **Actions** menu, select the **Download All** *<object_type>...* option. In this instance, *<object_type>* can be Policies, Nodes, and so on.
4. Optional: Type the comment for the download session. From the DSF file only drop-down list, choose whether you want to download this item completely or only the DSF file. Click **OK**.

To download a particular item, such as a policy or a node, follow these steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. Depending on which kind of data you want to download, click the appropriate link from the All Objects list.
3. From the **Actions** menu of your chosen item, select the **Download...** option.
4. Optional: Type the comment for the download session. From the DSF file only drop-down list, choose whether you want to download this item completely or only the DSF file. Click **OK**.

> **Note:** You cannot download policies together with the related instrumentation by using the Administration UI. For more information on how to download policies with categories, see the *HPOM Administrator's Reference*.

Configuration Data Upload

To upload the downloaded data, follow these steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. From the **Browse** menu, select the **Downloads** option.
3. From the **Actions** menu of the item you want to upload, select the **Upload...** option.

4. From the Add/Replace drop-down list, choose whether you want this item to replace the existing one.

5. From the With sub entity drop-down list, choose whether you want to include subentities of this item.

6. Click **OK** to confirm your selections.

> **Caution:** The Administration UI configuration upload works only if the name of an archive starts with opccfg_. You cannot use the Administration UI menu to upload the configuration with an archive name different from opccfg_XXXXXXX.

Related Topics

- "Online Help for HPOM Objects" on page 18
- "HPOM Menus and Options" on page 19
- "Working on HPOM Objects" on page 20

Renaming an Object

When renaming an HPOM object, consider the HPOM object listing the rename operation is initiated from.

The following are examples of the possible process flows:

- **Recommended:**

  HPOM object listing -> edit -> initial HPOM object listing is displayed.

- **Not recommended:**

  HPOM object listing -> view object() -> edit (inclusive policy/user rename) -> two messages are displayed.
  Editing in such a way is possible, however it results in displaying an error message about the missing HPOM object listing.

The process logic behind these different outcomes is the following: after any edit operation is completed, the page from where the edit operation was initiated is automatically displayed again. This page is often some (filtered) HPOM object class listing (for example, for policies or users).

For example, you use a policy filter that lists all policies where "bad" is the part of the name. When you select Edit from the Action menu for one of these policies, change the policy, and then click **Save** or **Cancel**, the previously opened page where the filter "bad" was still enabled is displayed again.

If you completely rename the policy during the edit operation (for example, from "bad" to "good"), the page displayed after the edit is finished still lists all policies that use the old name ("bad"). Consequently the newly renamed policy ("good") is not visible because it does not match the filter with the old name ("bad"), which is still enabled.

In case you use the not recommended scenario (HPOM object listing -> view object() -> edit (inclusive policy/user rename)), the edit operation is started while viewing an object. When this object is renamed the URL mechanism that brings the user back to his initial listing fails to list the HPOM object with its old name.

For this reason it is recommended to perform the rename operations from a common object listing, and not from within a view of that object.

Sorting Object Lists

The **Sort** feature is available in all pages that display lists of objects and enables you to display the information in the lists according to the contents of the columns, for example: Name, Type, Label, and so on. The number and type of columns available in a table depends on the type of object in the list, for example: nodes, policies, tools, tasks, users, and so on. To sort the list of objects in descending order according to the name of the object, click the Name title at the top of the Name column; an up arrow (^) indicates which column is active for sorting. If you want to sort the list of objects according to **label**, click the Label title at the top of the Label column. Note that not all columns titles respond to the sort feature.

If the list of objects is too long to display on one page, HP Operations Manager displays the list on several pages and indicates that there are more pages to view by displaying navigation icons and a series of numbers in the table header. You can use the **Paging** feature to cycle through the list. For example, if the list of objects is enough to fill three pages, HP Operations Manager displays the numbers 1, 2, and 3 in the table header and links them to the appropriate page. Click one of the numbers to jump directly to the indicated page.

Using the Paging Feature

Icon	Action	Description
⏮	**Start**	Return to the first page in the list
◀	**Previous**	Return to the previous page in the list
1, 2, 3	**Page Number**	Jump to indicated page number in the list, for example: one, two, or three
▶	**Next**	Proceed to the next page in the list
⏭	**End**	Proceed to the last page in the list
	Show all	Show all items, if there are more than one page with listed elements

To sort a list of HPOM objects:

To display selected HPOM objects according to the object name, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Browse** menu, select a list option. For example, click **All Nodes** to display a list of all managed nodes known to the HP Operations management server.
3. At the top of the list of nodes displayed, click the **Name** column title.

Related Topics

- Locate HPOM Objects
- Filter HPOM Objects

Filter Object Lists

The **Filter** feature is available at the top of all pages that display lists of objects and allows you to set rules and conditions to restrict the objects that you want to display in the list according to the name, the label, the type, and so on. The selection of fields and drop-down menus that are available to help you define the filter rules and conditions depends on the type of object you want to list, for example: nodes, policies, tools, tasks, and so on. If you want to apply a filter to a list of tasks, you can use the task name, label, or the context in which the task runs. You can also reset the filter by using the **Reset Filter** option. For more information on locating the HPOM objects, see the Locate HPOM Objects table.

Choosing the Filter Method

You can define the way in which the filter string you enter is evaluated by choosing one of the available filter methods, for example: "contains", "is", or "matches pattern". The way the string is evaluated determines what results are displayed. The following table explains what the differences between the filter methods are and describes the results you can expect when using them to display filtered lists. For more information on methods for filter and locate objects, see the Object Location Methods table.

To apply a filter to a list of HPOM objects:

To display only selected HPOM objects according to a defined filter, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, select a list option. For example, click **All nodes** to display a list of all managed nodes known to the HP Operations management server.

3. At the top of the list of nodes displayed, click the **Filter** option.

4. Use the drop-down menus to define the way in which the filter string is evaluated, for example: "contains", "is", or "matches pattern".

5. Enter a filter string in the adjacent box; this is the filter you want to evaluate.

6. Click the **Apply Filter** button to finish the task.

Related Topics

- Sorting Object Lists
- Locate HPOM Objects
- List all Managed Nodes
- List all Node Groups
- List all Message Groups
- List all Tools
- List all Policies

Editors

The following two forms of editors exist in the Administration UI:

- A fully-functional editor that enables you to edit objects by using the UI fields
- A simple RAW file editor

UI-based Editors

The Administration UI contains tabs for the different areas. The following also applies:

- Fields that are mandatory are marked with a blue asterisk (*).
- Field-based help information is available by using the question mark (?) icon.
- At the bottom of each editor screen there are the following buttons:
  - **Save**: saves all modifications (a syntax check is also performed) to HPOM.
  - **Cancel**: quits the editor without saving.
  - **Restore**: resets any modified fields to their original states when the editor for an object is opened.
- Every time you click **Save**, a syntax check is performed for all mandatory fields. In case a syntax error is found, a red mark appears on the tab that contains the empty or the incorrect field entry. An error message is also displayed with the problem details.

Raw Editors

Raw editors are available for policies, and for files or scripts. You can access them from the Actions menu for policies (Edit (Raw Mode) option). There are two types of raw editors:

- Standard

  The standard raw editor offers some basic syntax highlighting. In a standard raw editor, the following two tabs are available:
  - Properties

    For the properties of a policy the raw editor is UI-based.
  - Content

    The content is displayed in the raw format. You can enable, disable or reset the syntax highlighting. From the syntax selector, you can also define another syntax. By default, HPOM is selected.

    Search and Go-to-line functions are also available.

- Advanced

  In addition to offering the features of the standard raw editor, the advanced raw editor enables you to:
  - Edit policies with a large number of conditions (over 700) in the raw mode.
  - Edit text in the full screen mode.

  By default, the standard raw editor is used. For instructions on how to enable the advanced raw editor, see the *HPOM Administrator's Reference Guide.*

Note: Some policies can be edited only with a raw editor. To copy these policies, copy policy text from the target to the source policy.

Editor Invocation

You can find the HPOM object you want to edit by using one of the following:

- one of the filtering or the sorting techniques available with the custom filter function
- the Locate function

To invoke the editor for the chosen HPOM object, consider the following ways:

- Select Edit from the Action menu.
- While viewing the object, select Edit from the Global Action menu.

   Tip: It is not recommended to use this approach for the rename operations. For more information about renaming objects, see "Renaming an Object" on page 22.

- For adding new objects you can use the Edit menu of the HPOM data context. You can select the following options: Add Node, Add Policy, Add Policy Group, and so on.
- When you are inside of a particular object class, for example, a node or a policy group, you can use the Actions menu of that object class.

   The advantage of this approach is that the hierarchical context of your object is taken into account. This means that if a policy, for example, is added by using the Actions menu of a particular policy group, it is automatically added to this policy group.

Exiting an Editor

When you edit an object in the Administration UI, a lock is created for this object. This is because of the locking mechanism provided with the Administration UI that prevent other users from modifying this object.

To exit an editor, use the Save or the Cancel button. By doing so, you automatically remove the lock from the edited object.

Caution: Never use the Back button of your web browser to exit from any editor, because this button functionality is not integrated into the Administration UI. If you exit an editor by using the web browser's Back button, the editing process remains unfinished and the lock on the edited object still exists. As a result, the warning message is displayed to the user who tries to edit this object in the future.

For more information about the locking mechanism and the unlocking instructions, see "All Locks" on page 341.

Selectors

Selectors are used in different forms throughout the Administration UI for assignment operations or for filling in a required field in an editor. For example, the selector is used when you want to assign a policy or policy group to a node.

The following practices help you to understand selectors:

1. From the Administrative menu select Browse -> All Nodes.
2. For a node of your choice select Assign Policies / Policy Groups from its Action menu.

By selecting this, the selector window opens. There are two types of selectors:

- **simple** (only a Close button)
- **multiple** (with an OK button and a Cancel button).

Simple Selector

The simple type of the selector is demonstrated in the following practices:

1. From the Administrative menu select Browse -> All Policies.
2. For a policy of your choice select Edit from the Action menu.
3. In the policy editor select the Message Defaults tab.
4. Click the **[...]** browse button in the Message Group field.
   By doing so, you open the selector.

   > **Note:** This practice shows a simple selector. With single selector you can select only single objects with a double-click.
   > With the double-click you can insert the item in the corresponding editor field.

5. Click **Close** to close the selector.
6. Quit the policy editor by using the Cancel button.

Multiple Selector

In a multiple selector, you can select an item with a mouse click (the item becomes highligthed in blue). Multiple selections are also possible.

From the top menu you can use an individual Filter, as well as you can browse Policy Bank, All Policy Groups, or All Policies (this listing can take a while).

If you do not want to make any assignments yet, click **Cancel** to close the selector window.

If the selector window is not fully visible, you can move the yellow selector boxes. Hover with your mouse pointer the top section of the window (colored green) and the mouse pointer changes to a cross. While holding the left mouse button you can reposition the window according to your needs.

Edit Menu

The range and type of menus and menu options displayed is determined by the data context you set when you start the Administration UI. For example, if you select HPOM as the data context you want to browse, the following configuration options are displayed in the Edit menu:

HPOM Menu: Edit Options

Menu Option	Description
Add Category	Displays the **Add Category** page which you use to add a new category of policies to the list of categories available on the HP Operations management server you select from the Server List.
Add Instruction Text Interface	Displays the **Add Instruction Text Interface** page that enables you to define a new instruction text interface, which you can use to provide instruction text to HPOM users by means of an external application such as a web browser. The web browser could be started when a message condition matches and a message is generated.
Add Layout Group	Displays the **Add Layout Groups** page which you use to define and add new node layout groups to the HP Operations management server you select from the Server List. Node layout groups are collapsible hierarchies that enables you to restrict the number of displayed nodes to those that exist in a particular level or hierarchy. Layout groups enables you to organize large numbers of managed nodes into more manageable groups.
Add Message Group	Displays the **Add Message Groups** page which you use to define and add new message groups to the HP Operations management server you select from the Server List. Message groups enables you to define logical sets of messages of a similar type, which you can then assign to users who are responsible for the technical areas which the messages cover.
Add Node	Displays the **Add Node** page which you use to define and add new managed nodes to the currently active HPOM management server. You can then assign the nodes to HPOM users.
Add Node Group	Displays the **Add Node Group** page which you use to define and add new node groups to the currently active HPOM management server. Node groups are logical collections of managed nodes that you can assign to HPOM users.
Add Node Hierarchy	Displays the **Add Node Hierarchy** page which you use to define and add new node hierarchies to the HP Operations management server you select from the Server List. Node hierarchies are the top-level group for nodes and node groups in HPOM. For example, the HPOM node hierarchy bank contains the Node Bank as the default HPOM node hierarchy.

HPOM Menu: Edit Options, continued

Add Notification Service	Displays the **Add Notification Service** page that enables you to configure an external notification service for HPOM. HPOM can use external notification services such as email, paging, or Short Messaging Services (SMS) to inform HPOM operators of important events.
Add Policy	Displays the **All Policy Types** page which you use to define the type of new policy and add new policies to the HPOM for UNIX management server you select from the Server List.
Add Policy Group	Displays the **Add Policy Group** page which you use to define and add new policy groups to the HP Operations management server you select from the Server List.
Add Regroup Condition	Displays the **Add Regroup Condition** page that enables you to define a new regroup condition, which you can use to filter messages that arrive on the HPOM for UNIX management server and reorganize the messages from one message group or service into another.
Add Report	Displays the **Add Report** page which you use to define and add new reports for the HP Operations management server you select from the server List.
Add Tool	Displays the **Add Tool** page which you use to define and add new Tools to the HP Operations management server you select from the Server List.
Add Tool Group	Displays the **Add Tool Group** page which you use to define and add new Tool groups to the HP Operations management server you select from the Server List.
Add User	Displays the **Add User** page which you use to define and add new HPOM users to the HP Operations management server you select from the Server List. HPOM users include operators, administrators, policy administrators, and so on, who are responsible for the nodes managed by the HP Operations management server you select from the Server List.
Add User Profile	Displays the **Add User Profile** page which you use to define profiles that you can then be applied to the new HPOM users that you add to the HP Operations management server.
Edit DB Maintenance Settings	Displays the **Edit DB Maintenance Settings** page that enables you to configure and manage the storage and maintenance of HPOM messages in the HPOM database, for example: specify the maximum number of active, pending, and history messages that HPOM keeps in the database before it sends a warning message to the message browser, or configure the automatic download to a file of acknowledged messages.
Edit Management Server Configuration	Displays the **Edit Management Server Configuration** page that enables you to configure advanced options for the HP Operations management server, for example: define an external message-stream interface, or set global options.

HPOM Menu: Edit Options, continued

Edit Trouble Ticket Interface	Displays the **Edit Trouble Ticket Interface** page that enables you to configure HPOM to use the trouble ticket interface. Use this page to define the system call which starts and stops the trouble ticket interface.

Related Topics

- The HPOM Browse Menu

- The HP Operations management server-configuration Menu

- The HPOM Find Menu

- The HPOM Analyze Menu

- The HPOM Deployment Menu

- The HPOM Tasks Menu

- The HPOM Integrations Menu

- The HP Operations management servers Menu

Add/Modify Node

The **Add Node** or **Edit Node** pages display options that enable you to define new (or modify existing) HPOM managed nodes and apply the new configuration to your HPOM environment. You define a managed node by selecting the node type and entering information in fields in various property tabs. The number and type of tabs which require you to enter information is determined by the type of node you choose to create, for example: standard (IP), or external (non-IP). The following table gives you an overview of what information is required for each network type.

Edit Node: Configuration Tabs

Node Type	Properties	Management	Installation	Communication	Advanced	Virtual
Standard (IP)	✔	✔	✔	✔	✔	--
External (non-IP)	✔	✔	--	--	--	--

When adding or modifying a node, you have to supply a wide variety of information such as: the node's name and IP address, details concerning the management of messages, how (and how often) the node confirms its current status, and software-installation methods. The table above shows what information you need to enter in the node configuration tabs for each node type. Note that when you are entering information, a blue asterisk (*) indicates a field where information is required. For more information about other options and properties for managed nodes, see the list of related topics below.

To create or edit a node

To create a new node or edit an existing node and apply the configuration changes to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. For new nodes: In the **Edit** menu, click **Add Node**.

For existing nodes: In the **Browse** menu, click **All Nodes**, then select the node you want to modify and from actions menu click **Edit…**.

3. Enter information in the fields presented in the following tabs:

   ○ Set Properties for Managed Nodes:

   Define how the new node appears in the user interface. For more information about the values that are allowed in the fields displayed, see the tables above.

   ○ Set Management Options for Managed Nodes:

   Define message management and status information.

   ○ Set Installation Options for Managed Nodes:

   Standard nodes only. Define how to install and update software on the managed node.

   ○ Set Communication Options for Managed Nodes:

   Standard nodes only. Define how the managed node and the management server communicate.

   ○ Set Advanced Options for Managed Nodes:

   Standard nodes only. Set advanced options such as: message processing, logging, terminal settings.

   ○ Set Options for Virtual Cluster Nodes:

   Not for node defaults. Set options for nodes configured in a high-availability cluster, for example: the resource group and the names of the physical hosts configured in the cluster.

4. Save or discard the details of the node using the following buttons:
   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new node definition.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Cancel**

   Discards all the information you have entered about the new node.

Related Topics

- Add a New Node Group
- Add a New Node Hierarchy
- Add a New Node Layout Group

Node Properties Tab

The **Node Properties** tab displays options that enables you to define new (or modify existing) HPOM managed nodes and add them to your HPOM environment. In the Node Properties tab, you will have to supply information such as the node's name and IP address. The following table explains what information you enter in each of the fields in the Node Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required. For more information about other options and properties for managed nodes, see the list of related topics below.

Node: Properties Tab

Field Label	Description of Contents	Information Required
Node Type	The type of network configured for the managed node, for example: IP, non-IP, external. Note that "non-IP" refers to nodes with limited HPOM functionality, for example: the node has no IP address (SNA, DECnet) or defines a set of IP nodes for a specific hostname pattern or IP address range.	✔
Host Name	For *standard* (IP) nodes: The host name of the new node you want to create. This is the fully-qualified name of the host as resolved by DNS.	✔
IP/Host Pattern	For *external* (non-IP) nodes: Use pattern-matching to specify the range of IP addresses or host-names to be included, for example: 192.168.100.*, or *.domain.com. For Novell names, ^NAME$_* specifies all Novell nodes with the string "NAME" and excludes alternatives such as NAME1_* or FIRSTNAME_*.	✔
Pattern Type	*External (non-IP) nodes only.* Use the drop-down menu to specify the way in which you want to define the external-node pattern, for example: a range of IP addresses, a host-name pattern, or other (e.g. Novell).	✔
Label	The name of the new node you want to create; this is the label you will see in the user interface. If you do not enter a label, the short hostname is used.	--
IP Address	*Standard (IP) nodes only*. The IP address associated with the host name defined in the Host Name field. If the host has multiple IP addresses, the one used for HPOM can be selected by using the drop-down list.	✔
Information	*Optional*. Free-text field for any additional information you think is necessary.	--

Node: Properties Tab, continued

Parent Group	*Optional*. Select from the HPOM node-bank (or node-hierarchy) holding area the layout group that you want the new node to belong to.	--

To create or edit node properties

To create or edit properties for new or existing nodes and apply the configuration changes to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. For new nodes: In the **Edit** menu, click **Add Node**
   For existing nodes: In the **Browse** menu, click **All Nodes**, then select the node you want to modify.

3. Enter information in the fields presented. For more information which fields are mandatory and what values are expected, see the table above.

4. Save or discard the details of the node using the following buttons:

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node properties configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new node definition.

   ○ **Cancel**

   Discards all the information you enter about the new node.

Related Topics

- Set Management Options for Managed Nodes
- Set Installation Options for Managed Nodes
- Set Communication Options for Managed Nodes
- Set Advanced Options for Managed Nodes
- Set Options for Cluster Nodes
- Add a New Node Group
- Add a New Node Hierarchy
- Add a New Node Layout Group

Node Management Tab

The **Node Management** tab displays options that enables you to define the management configuration of new (or existing) HPOM managed nodes and apply the configuration to your HPOM environment. You have to supply details concerning the type of managed node you are creating or modifying, for example: controlled, monitored only, message allowed, or disabled as well as information about how (and how often) the node indicates its current status. The following table explains what information you enter in each of the fields in the Node Management tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required. For more information about other options and properties for managed nodes, see the list of related topics below.

Node: Management Tab

Field Label	Description of Contents	Information Required
Management Type	What (and how much) information you want to receive from the managed node, for example: "controlled" (all messages; all actions), "monitored only" (all messages; no actions), "message allowed" (no HP Operations Agent; messages allowed), "disabled" (temporarily inactive). Note that external (non-IP) nodes can only choose between "message allowed" and "disabled".	✔
Heartbeat Polling Interval	The heartbeat monitoring frequency, for example 0h10m0s (every ten minutes), with which the management server checks that the managed node is still available.	✔
Polling Type	The method used in heartbeat monitoring to indicate to the management server that it a managed node is available, for example: Normal, RPC (for firewalls), the `ping` command, no polling.	✔
Agent sends alive packets	Enable the Agent Sends Alive option to configure the node to inform the management server regularly that it is available.	--

To create or edit node management options

To create or edit management options for new or existing nodes and apply the configuration changes to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. For new nodes: In the **Edit** menu, click **Add Node**
   For existing nodes: In the **Browse** menu, click **All Nodes**, then select the node you want to modify.

3. Enter information in the fields presented. For more information which fields are mandatory and what values are expected, see the table above.

4. Save or discard the details of the node using the following buttons:

○ **Backup**

Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

○ **Restore**

Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node management configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

○ **Save**

Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new node definition.

○ **Cancel**

Discards all the information you enter about the new node.

Related Topics

- Set Properties for Managed Nodes

- Set Installation Options for Managed Nodes

- Set Communication Options for Managed Nodes

- Set Advanced Options for Managed Nodes

- Set Options for Cluster Nodes

- Add a New Node Group

- Add a New Node Hierarchy

- Add a New Node Layout Group

Node Installation Tab

The **Node Installation** tab enables you to define options for the installation and update of the HPOM agent software on new (or existing) HPOM managed nodes. You provide information such as the software installation method and the location of the software package. The following table explains what information you enter in each of the fields in the Node Installation tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required. For more information about other options and properties for managed nodes, see the list of related topics below. Note that the type of managed node you are installing (HP-UX, Linux, Windows) determines which options require an entry.

Node: Installation Tab

Field Label	Description of Contents	Information Required

Node: Installation Tab, continued

Automatic (De) Installation	Enables (or disables) the automatic installation, deinstallation, and update of the HP Operations Agent software.	--
(De)Install as user	The name of the OS user in whose account the installation and deinstallation of the HP Operations Agent software runs.	--
Automatic update of systems resource files	Automatically updates registration and boot files on the managed nodes, for example: creates user/group accounts for the agent and registers the agent for start up at system boot.	--
Use SSH during installation	The option is available if both the managed node and the management server support SSH.	--
Install onto Drive:\directory (Windows only)	Specify the target location for non-standard installation on a node running Windows operating systems. You must use the `Drive:\directory` format (for example, `C:\HPOMW`).	--
Install via Server (Windows only)	Click the **[...]** button to display the node selector window, which you can use to select the Windows installation server.	--
Use Bootstrap installation	Enables (or disables) the Bootstrap installation of the of HP Operations Agent software. **Note:** When adding a larger number of nodes, you can avoid setting this option for each of them respectively. To enable this installation method for all nodes at once, set the `OPC_USE_NEW_ BOOTSTRAP_METHOD` variable to `true` on the HP Operations management server. For more information, see the *HPOM Administrator's Reference*.	--

To create or edit node installation options

To create or edit installation options for new or existing nodes and apply the configuration changes to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. For new nodes: In the **Edit** menu, click **Add Node**
   For existing nodes: In the **Browse** menu, click **All Nodes**, then select the node you want to modify, click the **Installation** tab.

3. Enter information in the fields presented. For more information which fields are mandatory and what values are expected, see the table above.

4. Save or discard the details of the node using the following buttons:

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

○ **Restore**

Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node installation configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

○ **Save**

Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new node definition.

○ **Cancel**

Discards all the information you enter about the new node.

Related Topics

- Set Properties for Managed Nodes

- Set Management Options for Managed Nodes

- Set Communication Options for Managed Nodes

- Set Advanced Options for Managed Nodes

- Set Options for Cluster Nodes

- Add a New Node Group

- Add a New Node Hierarchy

- Add a New Node Layout Group

Node Communication Tab

The **Node Communication** tab displays options which you use to define the way in which new or existing managed nodes communicate with the management server. You have to supply information about communication types, the network security protocol to use, and the desired security level. The following table explains what information you enter in each of the fields in the Node Communication tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required. For more information about other options and properties for managed nodes, see the list of related topics below.

Node Communication Tab

Field Label	Description of Contents	Information Required
Communication Type	The communication method between node and management server, for example: HTTPS…	✔
Core ID	*HTTPS nodes only*. The node's core identification number registered in the HPOM database. If no information for the node exists in the HPOM database, a string of zeros ("000…0000") is displayed.	--

Node Communication Tab, continued

Limit Buffer Size	Enable if you want to limit the disk space used to store messaged locally on the managed node if the management server is temporarily unavailable; the feature is disabled by default, which means all available space is used. Local automatic actions will still be executed, but any action responses are ignored. Stored messages are forwarded to the management server as soon as it becomes available again.	✔

To create or edit node communication options

To create or edit communication options for new or existing nodes and apply the configuration changes to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. For new nodes: In the **Edit** menu, click **Add Node**

   For existing nodes: In the **Browse** menu, click **All Nodes**, then select the node you want to modify.

3. Enter information in the fields presented. For more information which fields are mandatory and what values are expected, see the table above.

4. Save or discard the details of the node using the following buttons:

   ○ **Backup**

      Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

      Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node communication configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Save**

      Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new node definition.

   ○ **Cancel**

      Discards all the information you enter about the new node.

Related Topics

- Set Properties for Managed Nodes
- Set Management Options for Managed Nodes
- Set Installation Options for Managed Nodes
- Set Advanced Options for Managed Nodes

- Set Options for Cluster Nodes
- Add a New Managed Node

Node Advanced Tab

The **Node Advanced** tab enables you to define the way in which the HP Operations Agent processes messages on the managed node, where it stores logs, the type of terminal to use for remote logons. The following table explains what information you enter in each of the fields in the Node Advanced tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required. For more information about other options and properties for managed nodes, see the list of related topics below.

Node Advanced Tab

Field Label	Description of Contents	Information Required
Virtual Terminal	Specify the terminal type to use when opening a remote terminal session on the node, for example: `dtterm`, `hpterm`, or `xterm`.	--
Physical Terminal Command	The name of the command (or script) to run on the HP Operations management server when establishing a remote terminal connection with the managed node. The command uses the hostname defined for the managed node and requires a user name and password. You can define additional parameter in the Physical Terminal Options fields, too.	--
Physical Terminal Options	Additional options to pass to the command or script that is started when establishing a remote connection with the managed node.	--
Character Set	Select the internal character set to be used by the HP Operations Agents. The character set you choose here must be compatible with the character set configured in the HPOM database installed on the HP Operations management server.	✔
Virtual Terminal Font	The fonts available for the character set defined in the Character Set field.	--
MSI: Enable Output	Copy or divert messages to message-stream interface (MSI) and allow programs access to the MSI application-programming interface (API).	--
MSI: Automatic Actions	Allow external programs to modify automatic actions that are attached to messages during processing by the MSI and before the message is passed on to the HPOM management server.	--

Node Advanced Tab, continued

MSI: Operator Actions	Allow external programs to modify operator-initiated actions that are attached to messages during processing by the MSI and before the message is passed on to the HPOM management server.	--

To create or edit node advanced options

To create or edit advanced options for new or existing nodes and apply the configuration changes to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. For new nodes: In the **Edit** menu, click **Add Node**
   For existing nodes: In the **Browse** menu, click **All Nodes**, then select the node you want to modify, click the **Advanced** tab.

3. Enter information in the fields presented. For more information which fields are mandatory and what values are expected, see the table above.

4. Save or discard the details of the node using the following buttons:

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new node definition.

   ○ **Cancel**

   Discards all the information you enter about the new node.

Related Topics

- Set Properties for Managed Nodes

- Set Management Options for Managed Nodes

- Set Installation Options for Managed Nodes

- Set Communication Options for Managed Nodes

- Set Options for Cluster Nodes

- Add/Edit a Node

Node Virtual Tab

The node **Virtual** tab enables you to set options for nodes configured in a high-availability cluster, for example: the name of the resource group to which the cluster belongs and the names of the physical hosts configured in the cluster. The following table explains what information you enter in each of the fields in the node **Virtual** tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required. For more information about other options and properties for managed nodes, see the list of related topics below.

Node Virtual Tab

Virtual Node	*HTTPS nodes only*. Check this box if you want to configure virtual nodes in a high-availability cluster. If you enable this option, you have to enter information in other fields, too.	✔
HA Resource Group Name	*HTTPS nodes only*. The name of the resource group to which the nodes in the high-availability cluster belong.	✔
Physical Nodes	*HTTPS nodes only*. The fully qualified host names of the physical nodes in the high-availability cluster. The node names you add are displayed in a list below the **Physical Nodes** box.	✔

To create or edit virtual node options

To create or edit virtual node options for new or existing nodes and apply the configuration changes to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. For new nodes: In the **Edit** menu, click **Add Node**.
   For existing nodes: In the **Browse** menu, click **All Nodes**, then select the node you want to modify.
3. Click the **Virtual** tab.
4. Check the Virtual box and enter information in the fields presented. For more information which fields are mandatory and what values are expected, see the table above.
5. Save or discard the details of the node using the following buttons:
   - **Backup**

     Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   - **Restore**

     Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node virtual configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

○ **Save**

Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new node definition.

○ **Cancel**

Discards all the information you enter about the new node.

Related Topics

- Set Properties for Managed Nodes
- Set Management Options for Managed Nodes
- Set Installation Options for Managed Nodes
- Set Communication Options for Managed Nodes
- Add/Edit a Node

Add Node Group

The **Add Node Group** page displays parameters for new HPOM managed node groups and allows you to define the node group quickly and completely. Node groups are logical collections of managed nodes that you can assign to HPOM users. Use the **Add Node Group** page to create new node groups and add them to your HPOM environment. The following table explains what information you enter in each of the fields in the New Node Group Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Add Node Group: Properties Tab

Field Label	Description of Contents	Information Required
Name	The name of the new node group you want to create. The name is used in the HPOM Administration UI if no label is defined in the Label field.	✔
Label	The name of the new node group you want to create; this is the label you will see in the user interface.	--
Description	A short description of the node group to help users understand what type of nodes (or node groups) the new node group contains.	--
Information	A text box that you can use to enter any additional details about the new node group.	--
Hide Node Group from Responsibilities	Indicate whether the new node group should appear in the responsibilities matrix.	--

To create a new node group

To create a new node group and add it to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Edit** menu, click **Add Node Group**.
3. Enter information in the fields presented in the **Properties** tab.

   The **Properties** tab displays details concerning how the new node group appears in the user interface. For more information about what values are allowed in the fields displayed, see the table above.
4. Save or discard the details about the new node group using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new node group definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node group configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged on user, see List all restore points (backups).

   ○ **Cancel**

   Discards all details you enter about the new node group.

Related Topics

- Add a New Node
- Add a New Node Hierarchy
- Add a New Node Layout Group

Add Node Hierarchy

The Add Node Hierarchy page displays parameters for new a HPOM node hierarchy bank and allows you to define parameters for new HPOM node hierarchies quickly and completely. Node hierarchies are the top-level group for nodes and node groups in HPOM. For example, the HPOM node hierarchy bank contains the Node Bank as the default HPOM node hierarchy. Use this page to create new node hierarchies that you want to make available to the users in your IT environment. The following table explains what information you enter in each of the fields in the New Node Hierarchy Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

New Node Hierarchy: Properties Tab

Field Label	Description of Contents	Information Required
Description	A short description of the new node hierarchy to help users understand what type of nodes the new node hierarchy contains.	--
Information	A text box that you can use to enter any additional details about the new node hierarchy.	--
Label	The name of the new node hierarchy you want to create; this is the label you will see in the user interface.	--
Name	The name of the new node hierarchy you want to create. This name is for internal reference.	✔

To create a new node hierarchy

To create a new node hierarchy and add it to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Edit** menu, click **Add Node Hierarchy**.

3. Enter information in the fields presented in the **Properties** tab.

   The **Properties** tab displays details about how the new node hierarchy appears in the user interface. For more information about what values are allowed in the fields displayed, see the table above.

4. Save or discard the details about the new node hierarchy using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new node hierarchy definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node hierarchy configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Cancel**

   Discards all details you enter about the new node hierarchy.

Related Topics

- Add a New Node
- Add a New Node Group
- Add a New Node Layout Group

Add Layout Group

The **Add Layout Group** page displays parameters for new HPOM layout groups and allows you to define the layout group completely. Layout groups are collapsible hierarchies that allow you to restrict the number of displayed nodes to those that exist in a particular level or hierarchy. Layout groups enables you to organize large numbers of managed nodes into more manageable groups. Use the Add Layout Group page to create new layout groups and add them to your HPOM environment. The following table explains what information you enter in the each of the fields in the Add Layout Group Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Add Layout Group: Properties Tab

Field Label	Description of Contents	Information Required
Name	The name of the new layout group you want to create. The name is used in the HPOM Administration UI if no label is defined in the Label field.	✔
Label	The name of the new layout group you want to create; this is the label you will see in the user interface.	--
Description	A short description of the layout group to help users understand what type of nodes (or layout group) the new layout group contains.	--
Parent Layout Group or Node Hierarchy	The name of the layout group or node hierarchy that contains the layout group you are creating.	✔

To create a new layout group

To create a new layout group and add it to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Edit** menu, click **Add Layout Group**.

3. Enter information in the fields presented in the **Properties** tab.

   The **Properties** tab displays details concerning how the new layout group appears in the HPOM user interface. For more information about what values are allowed in the fields displayed, see the tables above.

4. Save or discard the details about the new layout group using the following buttons:

○ **Save**

Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new layout group definition.

○ **Cancel**

Discards all details you enter about the new layout group.

Related Topics

- Add a New Node
- Add a New Node Group
- Add a New Node Hierarchy

Add Message Group

The Add Message Group page displays parameters that enables you to define for new HPOM message groups. You assign the new message groups to HPOM users in order to ensure that the right users receive the correct messages. Use the New Message Group page to create new message groups and add them to your HPOM environment. The following table explains what information you enter in each of the fields in the New Message Group Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

New Message Group: Properties Tab

Field Label	Description of Contents	Information Required
Name	The name of the new message group you want to create. The name is used in the HPOM Administration UI if no label is defined in the Label field.	✔
Label	The name of the new message group you want to create; this is the label you will see in the user interface.	--
Description	A short description of the message group to help users understand what type of messages the message group contains.	--
Information	A text box that you can use to enter any additional details about the new message group.	--

To create a new message group

To create a new message group and add it to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Edit** menu, click **Add Message Group**.
3. Enter information in the fields presented in the **Properties** tab.

The **Properties** tab displays details about how the new message group appears in the user interface. For more information about what values are allowed in the fields displayed, see the table above.

4. Save or discard the details about the new message group using the following buttons:

   ◦ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new message group definition.

   ◦ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ◦ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the message group configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ◦ **Cancel**

   Discards all details you enter about the new message group.

Related Topics

- Add a New User
- Add a New User Profile

Add Policy

The Add Policy page displays parameters for new HPOM policies. Use this page to create and define new policies and add them to your HPOM environment. You define policies by entering information in fields in various property tabs. The number and type of tabs which require you to enter information is determined by the type of policy you choose to create. The following table gives you an overview of what information is required for each policy type.

Policy: Configuration Tabs

Policy Type	Prop erties	So urc e	Mes sag e Defa ults	Thre shol d	Cond itions	Opt ion s	Monit oring	Sche duled Task	Co nte nt	Servi ce Disc over y	Sch edul e	Deb ugge r (opti onal)
Config File	✔	--	--	--	--	--	--	--	✔	--	--	--

Policy: Configuration Tabs, continued

Event Correlation	✔	✔	--	--	--	✔	--	--	--	--	--
Event Correlation Composer	✔	--	--	--	--	--	--	--	✔	--	--
Flexible-Management	✔	--	--	--	--	--	--	--	✔	--	--
Logfile Entry	✔	✔	✔	--	✔	✔	--	--	--	--	✔
Measurement Threshold	✔	✔	✔	✔	--	✔	--	--	--	--	--
Node Info	✔	--	--	--	--	--	--	--	✔	--	--
Open Message Interface	✔	--	✔	--	✔	✔	--	--	--	--	✔
Scheduled Task	✔	--	--	--	--	--	--	✔	--	--	--
Service Auto Discovery	✔	--	--	--	--	--	--	--	--	✔	✔	--
Service Process Monitoring	✔	--	✔	--	--	--	✔	--	--	--	--

Policy: Configuration Tabs, continued

SNMP Interceptor	✔	--	✔	--	✔	✔	--	--	--	--	--	--
Subagent	✔	--	--	--	--	--	--	--	✔	--	--	--
Windows Management Interface	✔	✔	✔	--	✔	✔	--	--	--	--	--	--
Windows Event Log	✔	✔	✔	--	✔	✔	--	--	--	--	--	✔
Remote Action Security	✔	--	--	--	--	--	--	--	✔	--	--	--
SiteScope	✔	--	--	--	--	--	--	--	✔	--	--	--

To create a new policy

To create a new policy and add it to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Edit** menu, click **Add Policy** and from All Policy Types page choose the type of new policy you want to add.

3. Enter information in the fields presented in the displayed tabs. Note that the type of policy you choose determines the number and type of tabs which appear in the **Add Policy** or **Edit Policy** window:

   ○ Conditions:

     A list of the conditions configured for the message. Use the icons to move up and down the list and cut and paste conditions or parts of conditions.

   ○ Content:

     Modify the configuration file that is written to the managed node when a configuration file policy, agent, or subagent is deployed to the managed node.

   ○ Message Defaults:

Information about the type of message to be generated including the text it contains, the severity level, and the message group to which it belongs. Note that you can also add information such as message instructions, which message-stream interface to use, and whether messages should be considered for correlation.

- Monitoring:

  Information about the Windows service or process that you want to monitor with the Service Process Monitoring policy type.

- Options:

  Information about if matched and unmatched messages should be logged and whether to forward messages to the server or log them locally on the managed node.

- Properties:

  Generic details about the policy you want to create such as the name and type. For more information about what values are allowed in the fields displayed, see the table above.

- Scheduled Task:

  Information about parameters for scheduled task policies that start commands or Visual Basic or Perl scripts.

- Service Auto Discovery:

  Specify the management module that contains the service type definition that you want to use to perform the service discovery.

- Schedule:

  Specify the time interval that you want to use to perform the service discovery.

- Source:

  Information about the information source for the policy, how often the source is to be read, what information is important, and when messages should be generated and sent to HPOM.

- Thresholds:

  A list of the thresholds you want to monitor and measure; you can configure the policy to monitor multiple thresholds (or instances) at the same time. This tab is only available with the measurement threshold policy type.

4. You can use HPOM and user-defined variables in HPOM message source policies, for example, to compose the message generated by the new policy. You can also use variables as parameters in action calls or pass the variables to external applications, by using the instruction text interface. HPOM variables must not be used for any other purpose (such as creating user-defined variables). For more information about using variables in message source policies, see Using variables in new policies.

5. After configuring the new policy, save or discard the details of the policy using the following buttons:

   - **Save**

     Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is

present and correct,HP Operations Manager checks the syntax of the policy and saves the policy. Note that, unless otherwise specified, HP Operations Manager automatically sets the version to the next available number. If you manually enter a new version number that already exists, HP Operations Manager prompts you to choose between overwriting the existing version number, entering a new version number, entering a new policy name, or canceling the save operation.

○ **Backup**

Makes a backup of the data entered so far during the current editor session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

○ **Restore**

Displays a list of the previously saved restore points which you can use to select and recall a backup version of the policy (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

○ **Cancel**

Discards all changes to the policy.

Related Topics

- List all restore points (backups)
- Using variables in new policies
- Using pattern-matching in new policies
- Test patterns in log-file conditions
- New policy groups

Properties Tab

The New Policy **Properties** tab displays generic parameters for new HPOM policies. Use this page to define new policies and add them to your HPOM environment. The following table explains what information you enter in each of the fields in the New Policy Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

New Policy: Properties Tab

Field Label	Description of Contents	Information Required
Name	The name of the new policy you want to create. The name appears in the list of policies in the HPOM All Policies page window.	✔
Type	The type of policy you want to create. The type of the policy is already hardcoded, and reflects the type of the policy based on user selection after the step Add New Policy.	✔

New Policy: Properties Tab, continued

Version	Specify how to manage version numbers; manually, manually with forced overwrite, or automatically on save. Note that the text box is only active if you select one of the manual version management options from the drop-down list.	✔
Latest version	States the latest version of the edited policy. If it is new policy, the value is n/a.	--
Description	A short description of the new policy to help users understand what type of messages it generates.	✔
Information	The information about the new policy regarding usage, functions, and so on.	--
Parent Group	Select the policy group to which you want the new policy to belong; you might have to click the Filter button in the Policy Group dialog to display a list of available policy groups.	--

Policy Versioning

When a policy is modified and saved, a new version of this policy is automatically checked into the version control system. There are no versions for policy groups. Versioning cannot be disabled, but you can manually define the version number if necessary.

Policies have a major version number (before the comma) and a minor version number (after the comma). Both numbers can have up to four digits which are normally not displayed. For example, version 1.1 is actually 0001.0001.

Versioning Control

By default, the Auto-increment on save function is used for versioning. This means that with each policy modification the version number is incremented to the next minor version. For example, 2.9 is incremented to 2.10 and 1.19 to 1.20.

Whenever a policy is modified you can control the versioning mechanism that is used by using the policy editor.

The following options are available for the versioning control:

- **Specify version manually** - By using this option you can access the version field and modify the version number. For example, this way you can define a new major version.

- **Specify version manually + force overwrite if already present** - This feature is useful if you want to reuse an existing version number instead of creating a new one.

- **Auto-increment on save** - This is the default setting. Minor version increments are done each time a policy is modified.

Related Topics

- [Message Policy Content](#)
- [Message Policy Source](#)

- Message Policy Defaults

- Message Policy Conditions

- Message Policy Threshold

- Message Policy Options

- Message Policy Process Monitoring

- Message Policy Task Schedule

- Service Auto Discovery

- Service Discovery Schedule

Conditions Tab

The New Policy Conditions tab enables you to create or modify conditions for the HPOM policies that you plan to deploy to the managed nodes. Use this tab to define new policy conditions and organize the conditions according to priority. If necessary, you can test any pattern matching rules defined in the policy conditions.

On the top of the Conditions tab there is a Filter function available. When this function is selected the filter box opens (marked in red). You can filter the conditions displayed according to the condition type (Match, Suppress Matched, Suppress Unmatched) or the contents of the condition's description.

On the left-hand side all the conditions are listed in blocks of 50. If there are more than 50 conditions, use the < and > to list the next block. The condition contents are not listed by default. Contents are listed (and fetched from HPOM) only when you click the magnifying glass or the condition name (marked green). You can add, delete, copy, and move conditions by using the check boxes and the available commands from the drop-down menu. At the bottom you can test the conditions patterns by using the Test patterns button (marked blue).

> **Tip:** To list more than 50 conditions, perform these two steps:
>
> - Access the filter function without filling in the description field.
>
> - Click the **Filter** button.

When a condition is selected, the conditions contents are listed on the right-hand side of the screen. Each condition must have its own condition number in the upper left-hand corner. Inside the condition there are also several tabs for accessing the different configuration areas.

To create, modify, and delete conditions, use the icons available as described in the following table.

New Policy: Using the Conditions action drop-down menu

Button/Field Name	Action
Add Condition	Opens the condition dialog and enables you to define how, when, and why to generate messages. The new condition appears in the list of conditions along with a short description of the type of condition, for example: "match", "suppress", "suppress unmatched".

New Policy: Using the Conditions action drop-down menu, continued

Delete Condition	Removes the condition from the policy.
Copy Condition (s)	Copies the selected condition(s) to a internal storage so you can place a copy elsewhere in the list of conditions or into another policy. Copying one or more conditions from one policy to another one requires the following steps to be performed: 1. Use the Edit command on the source policy. 2. Tick all check boxes of the conditions you want to copy. 3. Select Copy Conditions from the drop-down menu. 4. Quit the source policy by using the Cancel button. 5. Use the Edit command on the target policy. 6. On the Conditions tab select Paste Conditions from the drop-down menu.The newly created condition is added to the end of the conditions list.
Edit Condition(s)	Edits selected conditions.
Paste Condition (s)	Pastes the condition(s) that were copied before at the end of the list of conditions.
Move Condition up[1]	Move the selected condition up one place in the conditions list.
Move Condition down[1]	Move the selected condition down one place in the conditions list.
Move Condition to ...[1]	Move one condition to an other position in the conditions list. A small dialog will pop up which enables you to enter the new position.

To create a new condition to add to the new policy, you need to provide the information in the following tabs. Note that the type of condition you choose (- Suppress Matched Condition, = Suppress Unmatched Condition, + Message on Matched Condition) determines the number (and type) of tabs that appear, as illustrated in the following list:

- **Condition**

  The Condition tab enables you to define the condition you want incoming messages to match. In the condition, you define the following: message severity, the matching text, the application of the message, the message group to which the incoming message belongs, object of the message, and the name of the managed node sending the message.

- **Message**

  Use message attributes to define the form of the matched messages after interception by HPOM, that is: as the messages appear in the HPOM message browser. For example: message severity, node, application, object, service id, service hosted on, message type, the message text, the message group to which the generated message belongs, and the name of the managed node sending the message. (*Message on matched condition only.*)

[1]It is recommended to use the Move Condition function instead of repeatedly moving conditions manually. The Move Condition function enables you to enter the target condition ID in a pop-up menu.

- **Actions**

  Attach automatic or operator-initiated actions to the message generated by the condition, forward messages to the Trouble Ticket system, or set the automatic acknowledgment of messages and add output as an annotation. (*Message on matched condition only.*)

- **Custom Attributes**

  Use custom attributes to add information to matched messages after interception by HPOM, for example: the customer name, the type of service-level agreement (SLA), or a device type. (*Message on matched condition only.*)

- **Correlation**

  Define details of the message key associated with messages matched by the new condition and any relations that exist with other messages. (*Message on matched condition only.*)

- **Instructions**

  Define whether to use instruction text and, if required, an external interface to generate the message. Define the interface to use to generate and display the instruction text specified in the Instructions tab.(*Message on matched condition only.*)

- **Advanced**

  In the Advanced tab, you can set Pattern Matching in field separators, case sensitiveness, and message-stream Interface for agent MSI and server MSI or no MSI at all.

> **Tip:** To open the area with the condition details, click the chosen condition name. To close this area, either click the condition name again or click the X button at the upper right corner of the condition area.

Related Topics

- Test Patterns in Log File Conditions
- Message Policy Properties
- Message Policy Source
- Message Policy Defaults
- Message Policy Threshold
- Message Policy Options
- Message Policy Process Monitoring
- Message Policy Task Schedule
- Message Policy Content
- Service Discovery Schedule
- Service Auto Discovery

Condition Tab

The Condition tab of Add New Policy enables you to create or modify conditions for the HPOM policies you want to deploy to the managed nodes. Use this tab to define the condition you want incoming messages to match. In the condition, you define the following: severity of the incoming message, the message text, the message group to which the incoming message belongs, and the name of the

managed node that sent the message. To create a new condition to add to the new policy, you need to provide the information described in the following table:

Add New Policy: The Condition Tab

Field	Description of Contents
Severity	Select from the drop-down list the severity of the incoming message you want to match to trigger further processing.
Node	Use the node browser to select the managed node from which the incoming messages must come to trigger further processing. If you want to specify multiple nodes, use the pipe symbol "|" to separate the node names, for example: NodeName1 | NodeName2.
Application	Specify the name of the application that generated the incoming message. If you want to specify multiple applications, use the pipe symbol "|" to separate the application names, for example: ApplicationName1 | ApplicationName2.
Message Group	Use the object browser to select the message group to which the incoming message must belong to trigger further processing. If you want to specify multiple message groups, use the pipe symbol "|" to separate the group names.
Object	Specify the name of the HPOM object associated with the incoming message; if you want to specify multiple objects, use the pipe symbol "|" to separate the object names.
Match Text	Specify the message text to match with the text of the incoming message. Note that you can use pattern matching to specify the message text, for example: `<*>` String, `<n*>` String of length "n", `<#>` Integer, `<n#>` Integer of length "n", `<_>` Separator, `<n_>` "n" separators, `<@>` Word, | OR operator, `<![ ]>` NOT operator, `[ ]` bracket group, `<[ ].var>` subpattern assignment. For numerical comparison, use the following patterns: `<[ ] -eq n>` equal to, `<[ ] -ne n>` not equal to, `<[ ] -lt n>` less than, `<[ ] -le n>` less than or equal to, `<[ ] -gt n>` greater than, `<[ ] -ge n>` greater than or equal to.

Related Topics

- Define message actions
- Set custom attributes
- Set message-correlation conditions
- Specify instruction text interface
- Set message-stream interface details

Message Tab

The Message tab in the new policy condition page enables you to configure messages for the HPOM policies you want to deploy to the managed nodes. To configure a new message to add to the new policy, you need to provide the information described in the following table:

Add New Policy: The Message Tab

Field	Description of Contents

Add New Policy: The Message Tab, continued

Severity	Use the drop-down menu to assign a severity to the message. The severity indicates the importance of the event which triggers this message.
Node	Type the name of the node to which the message will be assigned. You can also use the default <$MSG_NODE> (Local Node), or use the variable <$OPC_MGMTSV> for the management server node. For agentless monitoring, type the name of the originating node. Note that you can add hyperlinks to URLs in your message or instruction text, too.
Application	Type the name of the application which generated the message. Note that "application" generally refers to the name of a general program.
Message Group	Type the name of the message group that you want to assign to messages generated by this policy. Note that message filters in the console and web console limit the length of a message-group name to 32 characters.
Object	Type the name of the object which generated the message. Note that "object" generally refers to the name of a process or subprogram.
Message Text	Type the text that the message should have. You can use HP Operations Manager Service Configuration Variables to construct messages that are specific to the event that causes the message.
Service ID	Type the name (ID) of the service that you want to associate with this message. A service ID is a unique identifier for a service in your service hierarchy. When a message with a service ID is sent to the management server, the severity of that message will be included in the status calculation for the service that has the matching service ID.
Service hosted on	Shows on which node the service is hosted.
Message Type	Use only if you want to provide another organizational category for this message, for example: if you want to indicate two types of messages that belong to the same message group.

Related Topics

- Define a new policy condition
- Set custom attributes
- Set message correlation conditions
- Specify instruction text interface
- Set message-stream interface details

Actions Tab

The Actions Tab in the new policy condition page enables you to define an automatic or operator-initiated action to attach to the matched message. This tab is only available for use with the condition type *Message on matched condition*. To set the attributes of a matched message, use the information displayed in the Measurement Threshold Policy monitor Start Actions: Actions Tab table.

Related Topics

- Define a new policy condition

- Set custom attributes

- Set message correlation conditions

- Specify instruction text interface

- Set message-stream interface details

Custom Attributes Tab

The Custom Attributes Tab in the new policy condition page enables you to define your own attributes which add information to the matched messages after interception by HPOM, for example: the customer name, the type of service-level agreement (SLA), a device type, and so on. This tab is only available for use with the condition type *Message on matched condition*. Note that HPOM *only* displays custom message attributes in the browser windows of the Java GUI where the operator can sort and filter messages based on these attributes. You can add custom attributes only to the messages of the following type: Logfile Entry, SNMP Interceptor, and Measurement Threshold. To add custom attributes to a matched message, use the information displayed in the following table. You can also remove attributes within this page. For the explanations of the Custom Attributes Tab fields, see Measurement Threshold Policy monitor Start Actions: The Custom Attributes Tab table.

Related Topics

- Define a new policy condition

- Define message actions

- Set message correlation conditions

- Specify instruction text interface

- Set message-stream interface details

Correlation Tab

The Correlation Tab in the new policy condition page enables you to correlate messages matching a particular message key or key pattern and, in addition, determine how the duplicate messages should be suppressed. This tab is only available for use with the condition type *Message on matched condition*. To define the correlation of matched messages, use the information displayed in the Measurement Threshold Policy monitor Start Actions: Correlation tab table.

Related Topics

- Define a new policy condition

- Define message actions

- Set custom attributes

- Specify instruction text interface

- Set message-stream interface details

Instructions Tab

The Instructions tab in the new policy condition page enables you to define the instructions (if any) that operators are provided with to help solve the problem described in the matched message. This tab is only available for use with the condition type *Message on matched condition*. There are two ways you can add instructions to a message: you can either write the instruction text yourself or use the instruction text interface to call an external program which generates the instruction text. To use the Instructions Tab to include instructions in a message that matches the policy condition you are defining, use the information displayed in the Measurement Threshold Policy monitor Start Actions: Instructions Tab table.

Related Topics

- Define a new policy condition
- Define message actions
- Set custom attributes
- Set message correlation conditions
- Set message-stream interface details

Advanced Tab

The Advanced Tab in the new policy condition page enables you to define how to use case sensitive pattern matching to check the text of the matched message, what to do if an action is attached to the matched message, and whether or not to copy or divert the matched message to the message-stream interfaced (MSI) on the managed node or the management server. To set the attributes of a matched message, use the information displayed in the Measurement Threshold Policy monitor Start Actions: Advanced Tab table.

Related Topics

- Define a new policy condition
- Define message actions
- Set custom attributes
- Set message correlation conditions
- Specify instruction text interface

Source Tab

The New Policy **Source** tab displays details of the source of the information that the new HPOM policy is to monitor. Use this page to define where to find the information, how often to check the information source, and what to do in the event of a problem.

The fields that are displayed in the Source tab depend on the type of policy you are creating, for example: logfile, monitor, or SNMP trap. The following tables contain the information that you need enter in each of the fields in the New Policy Source tab for some of the policy types. For a list of all policy types available, see Policy Types.

The following table explains what information to enter in each of the fields in the Event Correlation Source tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Event Correlation: Source Tab

Field Label	Description of Contents	Information Required
EC Circuit File	The path to and the name of the event correlation circuit you want the new policy to use.	✔
EC Source File	The path to and the name of the event correlation source you want the new policy to use.	✔

The following table explains what information to enter in each of the fields in the Logfile Source tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Logfile Entry: Source Tab

Field Label	Description	Information Required
Logfile	The log file to be monitored. You can either type the full path to this log file on the appropriate managed node or call a script or a command that returns the path and the name of the log file. The latter approach is very useful when you want to dynamically determine the log file path or monitor multiple instances of the log file. The syntax is `< `command` >`, where the command is the name of a script that returns the path and the name of the log file you want to monitor to `stdout`.	--
Execute	The name of a command or a program that preprocesses the log file. Type a command or a program together with required parameters and options and you will get a file that must be specified in the Read file field. Use this option if the original log file must be reformatted before monitoring begins.	--
Read file	The name of the log file to be read by the log file encapsulator instead of the log file defined in the Logfile field. If you specify a path in this field, the agent reads this log file. If you leave this field empty, the agent reads the log file that you specify in the Logfile field instead.	--

Logfile Entry: Source Tab, continued

Read from	Indicates whether the policy should process the entire log file or should only process new log file entries. The following are the available read modes:	--
	• Last File Position: The policy reads only newly appended entries written in the log file while the policy is enabled on the managed node. Choose this option if you are concerned only with log file entries that occur when the policy is enabled.	
	• Begin (First Time): The policy reads the complete log file each time the policy is enabled or the agent restarts on the managed node. Choose this option if you want to ensure that every existing and future entry in the log file will be processed by the policy while it is enabled.	
	• Begin (Always): The policy reads the complete log file every time it detects that the log file has changed. Choose this option if you are monitoring a log file that is overwritten, rather than appended.	
	Note that every policy reads the same log files independently from any other policies. This means, for example, that if Policy 1 with read mode Read from beginning (first time) is enabled on a node where Policy 2 with the same read mode already exists, Policy 1 will still read the entire log file after it is enabled.	
Codeset	Choose the code set the policy should expect to find for the contents of the defined log file.	--
Message on no logfile	Enable if you want HPOM to send a message if the specified log file does not exist.	--
Close after read	Choose if the policy should close the log file after reading it.	--
Polling Interval	Define how often the policy reads the specified log files.	--

The following table explains what information to enter in each of the fields in the Threshold Source tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Measurement Threshold: Source Tab

Field Label	Description of Contents	Information Required

Measurement Threshold: Source Tab, continued

Source Type	Check and select the source type from the drop-down list, for example: "External", "Embedded Performance Component", "MIB", "Program", "Real time Performance Measurement", "WMI". Note that the information you have to provide depends on the type of threshold source. For example, MIB (Management Information Base) requires an ID and the name of the node where the ID was generated. Embedded Performance Component requires a data source (CODA), an object name (GLOBAL), and a metric name (GBL_CPU_TOTAL_UTIL).	✔
Short Name	Enter a name for the threshold you want to monitor.	✔
Description	Enter a short description of the threshold you want to monitor; this description should make it clear to other users what the threshold monitor does and why.	--
Data Source	Click the **Browse** button [...] to display the data source browser, which you can use to select the type of data source the policy should use to gather metrics, for example: CODA (Embedded Performance Component).	✔
Object	After you select a data source in the data source browser, HP Operations Manager automatically populates the **Object** drop-down list, which you can use to select the object whose performance you want to monitor.	✔
Metric	After you select an object in the data source browser, HP Operations Manager automatically populates the **Metric** drop-down list, which you can use to select the metric for the performance monitor to use.	--

The following table explains what information to enter in each of the fields in the Source tab for the Windows Event Log policy. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Windows Event Log: Source Tab

Field Label	Description of Contents	Information Required
Event log name	The name of the event log whose entries you want to monitor with the new policy, for example: System, Security, or Application. Select "Specify Name" if you want to enter the name of another event log to monitor and enter the name of the event log on the text box that is displayed.	--
Read from	Specify how you want the event file to be read, for example: from the beginning of the file each time, or only those entries added to the end of the file.	--

Windows Event Log: Source Tab, continued

Send message if event log does not exist	Send a notification message if the event log the policy is monitoring does not exist.	--

The following table explains what information to enter in each of the fields in the WMI (Windows Management Interface) Source tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Windows Management Interface: Source Tab

Field Label	Description of Contents	Information Required
Node	The name of the managed node where the object of the new policy is located; use the [...] button to select a managed node from a list of known nodes. Note that you might have to click the Filter button to populate the node list.	--
WMI Namespace	The name of the WMI namespace that contains the object of the new policy is to be monitored.	✔
Object Type	Select the object type the new policy should monitor; you can choose between Event (temporary) and Instance (static) data in the WMI repository.	--
Class Name	The name of the class that contains the object (or data) that the new policy is to monitor; a class is a collection of data properties that is defined for information that will be stored in the WMI repository.	✔
Connect as Non-Agent User	Check this box if you want the new policy to run under a non-agent user account; you will have to provide log-on details, too. Note that this account must exist on the managed node and must have local administrator privileges. If not selected, the agent account is used.	--
Type of Query	Specify whether to enable of disable polling in the new policy.	--
Global WQL Filter (WQL Where-Clause)	The name of the program you want to call with the new policy.	--

Related Topics

- Message Policy Properties
- Message Policy Defaults
- Message Policy Conditions
- Message Policy Threshold

- Message Policy Options
- Message Policy Process Monitoring
- Message Policy Task Schedule
- Message Policy Content
- Service Auto Discovery
- Service Discovery Schedule

Content Tab

In the Add Policy (Raw Mode) use the **Content** tab to create or modify the configuration file that is written to the managed node when a ConfigFile policy, agent, or subagent is deployed to the managed node. The Add Policy (Raw Mode) **Content** tab displays a text editor that enables you to create (or modify) the raw contents of the selected policy. Note that, by default, HP Operations Manager does not check the syntax of the modified contents. However, some Smart Plug-ins (SPI) do provide their own checking mechanism, which is described in the SPI documentation.

If you add a new policy using the raw edit mode, note that the policy name specified in the **Properties** tab must be *identical* to the name specified in the raw contents displayed in the **Contents** tab. If you modify an existing policy's source file, note that you can change all details *except* the policy type. Note, too, that the name of the policy can only be changed in the **Name** field of the **Properties** tab; do *not* change the policy name in the raw contents of the policy.

Creating or editing a policy in *raw-edit* mode is only recommended for expert users.

Related Topics

- Message Policy Properties
- Message Policy Source
- Message Policy Defaults
- Message Policy Conditions
- Message Policy Threshold
- Message Policy Options
- Message Policy Process Monitoring
- Message Policy Task Schedule
- Service Auto Discovery
- Service Discovery Schedule

Thresholds Tab

The New Policy Thresholds tab displays details of the different thresholds that the new policy is to monitor. Use this page to define which thresholds to monitor, and, if necessary, whether to monitor individual instances, too.

To create, modify, organize, or delete a threshold or a threshold instance filter, use the action drop-down menus or the icons as described in the following table.

Using the Thresholds or Threshold Instance Filter action drop-down menus or icons

Action Name	Action Description
Add Threshold/Add Instance Filter	Opens the threshold or instance filter dialog and enables you to define the threshold that the new policy is to monitor. The new threshold or instance filter appears in the list of thresholds or instance filters.
Delete Threshold/Delete Instance Filter	Removes the threshold or the instance filter from the policy.
Copy Threshold (s)/Copy Instance Filter(s)	Copies the selected threshold(s) or instance filter(s) to an internal storage so that you can place a copy elsewhere in the list of thresholds or instance filters or into another policy.
Paste Threshold (s)/Paste Instance Filter(s)	Pastes the threshold(s) or the instance filter(s) that were copied before at the end of the list of thresholds or instance filters.
Move up	Moves the selected threshold or instance filter up one place in the thresholds or instance filters list.
Move down	Moves the selected threshold or instance filter down one place in the thresholds or instance filters list.
Move Threshold to ... or/Move Instance Filter to ...	Moves the selected threshold or instance filter to another position in the thresholds or instance filters list. A small dialog pops up which enables you to enter the new position.
Edit Threshold(s) /Edit Instance Filter(s)	Opens a dialog for the selected threshold(s) or instance filter(s).

Related Topics

- Threshold Tab

- Instance Filter Tab

Threshold Tab

The New Policy Thresholds **Threshold** tab displays the details of the individual thresholds that the new policy is to monitor. Use this page to define how the threshold monitor handles short term peaks (or spikes) and the value to use in the event of a reset.

The fields that are displayed in the New Policy Thresholds **Threshold** tab depend on the monitoring type. The following tables explains what information you enter in each of the fields in the New Policy Threshold tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Measurement Threshold: Threshold Tab

Field Label	Description of Contents	Information Required
Description	Enter a brief description to indicate the scope of the threshold you are defining.	✔
Threshold	Enter a threshold monitor value, for example, 80.0.	✔
Short term peak behavior	Indicate whether the threshold policy should ignore intermittent peaks completely or only during specified times. If you choose to specify a period of time during which peaks are to be ignored, you must define the start and end times for the specified period.	--
Reset	Specify the value to use when resetting the threshold; you can choose between a specific value or the default, which is the same as the threshold value.	--

Related Topics

- Instance Filter Tab
- Start Actions Tab
- Continue Actions Tab
- End Actions Tab

Start Actions Tab

The New Policy Thresholds **Start Actions** tab enables you to define an action (or actions) to associate with messages generated by a Threshold policy. Start actions are carried out the first time that a monitored value exceeds the threshold defined in the policy. Note that if the monitored value exceeds the threshold specified in several policy rules, the actions of the rule with the most severe value are carried out.

The tabs and fields displayed depend on the configuration choices you make. The following tables explains what information you enter in each of the fields in the New Policy Threshold **Start Actions** tab. Note that the HPOM Administration UI displays a blue asterisk (*) to indicate a field where information is required.

- Start Action: Message
- Start Action: Actions
- Start Action:Custom Attributes
- Start Action: Correlation
- Start Action: Instructions
- Start Action: Advanced

The following table explains what information to enter in each of the fields in the **Start Action: Message** Tab of the Threshold policy type. The HPOM Administration UI displays a blue asterisk (*) to indicate a field where information is required.

Measurement Threshold Policy monitor Start Actions: Message Tab

Field Label	Description of Contents	Information Required
Severity	Use the drop-down menu to assign a severity to the message generated by the Threshold policy. The severity indicates to the operator the importance of the event which triggers this message.	✔
Node	Type the name of the node to which the message will be assigned. You can also use the default <$MSG_NODE> (Local Node), or use the variable <$OPC_MGMTSV> for the management server node. For agentless monitoring, type the name of the originating node. Note that you can add hyperlinks to URLs in your message or instruction text, too.	✔
Application	Type the name of the application which generated the message. Note that "application" generally refers to the name of a general program.	✔
Message Group	Type the name of the message group that you want to assign to messages generated by this policy. Note that message filters in the console and web console limit the length of a message-group name to 32 characters.	✔
Object	Type the name of the object which generated the message. Note that "object" generally refers to the name of a process or subprogram.	✔
Message Text	Type the text that the message should have. You can use HP Operations Manager Service Configuration Variables to construct messages that are specific to the event that causes the message.	✔
Service ID	Type the name (ID) of the service that you want to associate with this message. A service ID is a unique identifier for a service in your service hierarchy. When a message with a service ID is sent to the management server, the severity of that message will be included in the status calculation for the service that has the matching service ID.	✔
Message Type	Use this box if you want to provide another organizational category for this message, for example: if you want to indicate two types of messages that belong to the same message group.	✔
Service hosted on	Shows on which node is service hosted.	✔

The following table explains what information to enter in each of the fields in the **Start Action: Actions** Tab of the Threshold policy type. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Measurement Threshold Policy monitor Start Actions: Actions Tab

Field	Description of Contents	Information Required
On Server Log Only	Select this option if you want the messages that match the new policy condition to be logged on the management server without further processing by HPOM. If you select this option, the messages do not appear in the active message browser, and all configured actions, trouble ticket forwarding, and notifications are ignored. Note that messages which are only logged on the management server are stored in the message history database with all other acknowledged messages.	✔
Automatic	Select the Automatic option if you want to attach an automatic action to the matched message after processing. You need to specify the command the action calls and, in addition, the name of the managed node on which the command must run. Click the browse button [...] to browse available managed nodes. You can also specify that the message should be automatically acknowledged if the automatic action completes successfully, and attach the command output to the acknowledged message as an annotation. The annotation includes the action's start and finish time, its output, and the exit value.	✔
Operator initated	Select the Operator initiated option, if you want to attach an action to the matched message that the operator can start after the message appears in the message browser. You need to specify the command the action calls and, in addition, the name of the managed node on which the command must run. Click the browse button [...] to browse available managed nodes. You can also specify that the message should be automatically acknowledged if the operator-initiated action completes successfully, and attach the command output to the acknowledged message as an annotation. The annotation includes the action's start and finish time, its output, and the exit value. Note that an annotation is provided by default if the operator-initiated action fails.	✔
Forward To Trouble Ticket	Select this option if you want to inform a configured trouble ticket system when the matched message arrives on the HP Operations management server. You can also specify that the matched message is automatically acknowledged and does not appear in the active message browser.	✔
Notification	Select this option if you want to forward matched messages to an external notification service. Note that the specified notification service must be configured and available when the message is received on the management server.	✔

The following table explains what information you enter in each of the fields in the **New Policy Threshold** Tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Measurement Threshold Policy monitor Start Actions: The Custom Attributes Tab

Field	Description of Contents
Name	Enter the name of the new message attribute. The name you enter will be displayed in an additional column in the Java GUI message browser.
Value	Specify the value to assign to the attribute defined in the Name field. This value can be one of the following: + Hard-coded text + Variables returned by HPOM's pattern matching syntax + Predefined HPOM variables

The following table explains what information to enter in each of the fields in the **Start Action: Correlation** tab of the Threshold policy type. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Measurement Threshold Policy monitor Start Actions: Correlation tab

Field Label	Description of Contents	Information Required
Message Key	Type the message key that you want to assign to messages generated by this policy so that other processes can identify them. Note that the message key is different from the message ID. Every message has a unique message ID; all messages produced by a particular policy have the same message key. The same message key can also be used by more than one policy.	✔
Acknowledge Messages Matching This Message Key Pattern	Check if you want to automatically acknowledge all messages with the specified message key; acknowledged messages are sent immediately to the history browser and do not appear in the active messages browser.	✔
Field Separators	Specify the field separators to use in any pattern matching operation.	✔
Case Sensitive	Choose whether to recognize upper- or lower-case characters ("A" or "a") in pattern matching operations.	✔

The following table explains what information to enter in each of the fields in the **Start Action: Instructions** tab of the Threshold policy type. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Measurement Threshold Policy monitor Start Actions: Instructions Tab

Field Label	Description of Contents

Measurement Threshold Policy monitor Start Actions: Instructions Tab, continued

Type	Use the drop-down menu to specify the way in which you want to provide the operator with instruction text, for example: "Do not use instruction text.", manually written instruction text, instructions provided by an instruction text interface.	
	Do not use instruction text.	No instructions are provided with the matched message.
	Instruction Text	Use the box provided to enter the instruction text you want to include in the matched message.
	Instruction Text Interface	Select from the drop-down list the *type* of Interface Name you want to use to generate the instruction text to be included in the matched message. Use the Parameters field to enter any additional options you want to pass to the program generating the instruction text; you can include three types of parameters: hard-coded values, HPOM variables ($MSG_NODE), or any variables defined in pattern matching strings.

The following table explains what information to enter in each of the fields in the **Start Action: Advanced** tab of the Threshold policy type. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Measurement Threshold Policy monitor Start Actions: Advanced Tab

Field Label	Description of Contents	Information Required
Agent MSI	When the agent MSI is enabled, you can choose between the following options: Divert or Copy. Diverting a message sends the message generated by the policy to the message-stream interface instead of to the message browser. Copying a message sends the message directly to the message browser, and a copy of the message to the message-stream interface.	✔
Server MSI	When the server MSI is enabled, you can choose between the following options: Divert or Copy. Diverting a message sends the message generated by the policy to the message-stream interface instead of to the message browser. Copying a message sends the message directly to the message browser, and a copy of the message to the message-stream interface.	✔

Related Topics

- Instance Filter Tab
- Threshold Tab
- Continue Actions Tab
- End Actions Tab

Continue Actions Tab

The New Policy Thresholds **Continue Actions** tab enables you to define an action (or actions) to associate with messages generated by a Measurement Threshold policy at each polling interval if the reset value is not reached.

The tabs and fields displayed depend on the configuration choices you make. The following table explains what information you enter in each of the fields in the New Policy Threshold **Continue Actions** tab. Note that HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Measurement Threshold Policy monitor Continue Actions Tab

Field Label	Description of Contents	Information Required
Don't start any 'Continue Actions'	No actions are either specified or required to run by the message generated, when the threshold reset value is not reached at the policy's polling interval.	✔
Use the specified 'Start Actions'	Run the same actions configured in the Start Actions tab, if the threshold reset value is not reached at the policy's polling interval.	✔
Define special 'Continue Actions'	Define special actions that run if the threshold reset value is not reached at the policy's polling interval. Note that the tabs and fields you use to define "Continue" actions are the same as the ones you use to define **Start Actions**. For more information, see **Measurement Threshold Policy monitor Start Actions** in the list of related topics below.	✔

Related Topics

- Instance Filter Tab
- Threshold Tab
- Start Actions Tab
- End Actions Tab

End Actions Tab

The New Policy Thresholds **End Actions** tab enables you to define an action (or actions) to associate with messages generated by a Threshold policy. End actions are carried out after the threshold crosses the reset value. Note that if the monitored value exceeds the threshold specified in several policy rules, the actions of the rule with the most severe value are carried out.

The tabs and fields displayed depend on the configuration choices you make. The following table explains what information you enter in each of the fields in the New Policy Threshold **End Actions** tab. Note that HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Measurement Threshold Policy monitor End Actions Tab

Field Label	Description of Contents	Information Required
Do not start any end actions	No actions are either specified or required to run by the message generated when the threshold reset value is reached at the policy's polling interval.	✔
Define special end actions	Define special actions that run if the threshold reset value is reached at the policy's polling interval. Note that the tabs and fields you use to define "End" actions are the same as the ones you use to define **Start Actions**. For more information, see **Measurement Threshold Policy monitor Start Actions: Message Tab** in the list of related topics below.	✔

Related Topics

- Instance Filter Tab

- Threshold Tab

- Start Actions Tab

- Continue Actions Tab

Instance Filter Tab

The New Policy Measurement Threshold **Instance Filter** tab displays details of the different thresholds that the new policy is to monitor. Use this page to define which thresholds to monitor, and, if necessary, whether to monitor individual instances, too.

The fields that are displayed depend on what you select in the Use Instance Filters drop-down menu, **yes** or **no**.

The following table explains what information to enter in each of the fields in the Threshold Monitor's Instance Filter tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Threshold Monitor: Instance Filter Tab

Field Label	Description of Contents	Information Required
Description	Type a brief description of the threshold instance filter.	✔
Instance Behavior	Select the type of threshold you want the policy to monitor, for example: simple maximum or minimum values, or by using a script to perform a calculation. The default setting is "If matched, evaluate thresholds".	✔
Object Name	Type the name of the object which generated the message. Note that "object" generally refers to the name of a process or subprogram.	--

Threshold Monitor: Instance Filter Tab, continued

Pattern Matching Field Separators	Specify the field separators to use in any pattern matching operation.	--
Case Sensitive	Choose whether to recognize upper- or lower-case characters ("A" or "a") in pattern-matching operations.	--

If you try to save a measurement threshold policy with a new instance filter and the threshold for that instance is not configured, an error message appears indicating that the policy cannot be saved without the threshold being configured.

Related Topics

- Threshold Tab
- Start Actions Tab
- Continue Actions Tab
- End Actions Tab

Message Defaults Tab

The Add Policy **Message Defaults** tab displays generic information about the default message attributes. Use this page to define the messages that the new policy generates when a condition matches, for example: the message severity level, the group the message belongs to, and so on.

The fields that are displayed in the Message Defaults tab depend on the type of policy you are creating, for example: Logfile Entry, Measurement Threshold, or SNMP Interceptor. The following tables explains which information you enter in each of the fields in the Add Policy Message Defaults tab:

- Generic Message Defaults Tab
- Service Process Message Defaults Tab

The following table explains what generic information is required in each of the fields in the Message Defaults tab for the following policies: Open Message Interface, Windows Event Log, Logfile Entry, Measurement Threshold, SNMP Interceptor and Service Process Monitoring. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Generic: Message Defaults Tab

Field Label	Description of Contents	Information Required
Severity	Select a severity level to assign to the messages generated by the new policy.	--
Application	The name of the application associated with the messages the new policy generates.	--

Generic: Message Defaults Tab, continued

Object	The HPOM object associated with the messages the new policy generates.	--
Node	The name of the managed node from which the messages upon which the new policy is generated originate. Click the [...] button to browse known nodes.	--
Message Group	The name of the HPOM message group where the messages upon which the new policy is generated belong to. Click the [...] button to browse known message groups.	--
Service ID	The service associated with the messages upon which the new policy is generated.	--
Service Hosted On	The name of the managed node where the service is running that the new policy will monitor; you can click the [...] button to display a list of nodes to choose from.	--
Instructions	Use the drop-down menu to select the type of instructions to attach to a message. If you select "Instruction text", you have to enter the text manually in the box provided; if you select "Instruction text interface", you have to specify how to start the instruction text interface along with parameters for resolving instruction text and how it is displayed.	--
Message Correlation	Use the [...] button to specify a message key, and use the drop-down menu to specify the type of correlation to perform, for example: if duplicate messages should be suppressed or not.	--
Advanced	Specify whether to pass messages via the message-stream interface (MSI) on the agent or the management server. If you enable the MSI, specify if the original message or a copy should be processed by the MSI.	--

The following table explains what generic information is required in each of the fields in the Message Defaults tab for the Service Process Monitor policy. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Service Process: Message Defaults Tab

Action Type	Tab Name	Field Label	Description of Contents	Information Required
Start Actions	Message	Severity	Select a severity level to assign to the messages generated by the new policy.	--
		Application	The name of the application associated with the messages the new policy generates.	--

Service Process: Message Defaults Tab, continued

		Object	The HPOM object associated with the messages the new policy generates.	--
		Node	The name of the managed node from which the messages upon which the new policy is generated originated. Click the [...] button to browse known nodes.	--
		Message Group	The name of the HPOM message group where the messages upon which the new policy is generated belong to. Click the [...] button to browse known message groups.	--
		Message Text	Type the text that the message should have. You can use HP Operations variables to construct messages that are specific to the event that causes the message.	--
		Service ID	The service associated with the messages the new policy generates.	--
		Service Hosted On	The name of the managed node where the service is running that the new policy will monitor; you can click the [...] button to display a list of nodes to choose from.	--
		Message Type	Specify the type of messages generated by the new policy.	--
	Actions	On Server Log Only	Log arrival of messages in a file on the management server.	--
		Automatic	Specify the actions that you want to be started automatically if a message arrives.	--
		Operator-initiated	Specify the actions that you want to be started by an operator if a message arrives.	--
		Forward to Trouble Ticket	Forward a copy of the incoming message automatically to a configured trouble ticket system.	--
		Notification	Send a notification message.	--

Service Process: Message Defaults Tab, continued

	Custom Attributes		A list of any custom attributes defined for the incoming message.	--
		Add Attribute	Adds a custom attribute.	
		Delete Attribute	Deletes a custom attribute.	
	Correlation	Message Key	Use the [...] button to specify a message key, and use the drop-down menu to specify the type of correlation to perform, for example: if duplicate messages should be suppressed or not. You can also specify a string that HP Operations Manager matches with message keys to automatically acknowledge duplicate messages.	--
	Pattern Matching	Acknowledge Messages Matching This Message Key Pattern	Acknowledges the messages matching this message key pattern.	--
		Field Separators	Field separators.	--
	Case Sensitive		Check box that enables you to specify case sensitivity.	--
	Instructions	Type	Use the drop-down menu to select the type of instructions to attach to a message. If you select "Instruction Text", you have to enter the text manually in the box provided; if you select "Instruction text interface", you have to specify how to start the instruction text interface along with parameters for resolving instruction text and how it is displayed.	--
	Advanced	MSI	Specify whether to pass messages via the message-stream interface (MSI) on the agent or the management server. If you enable the MSI, specify if the original message should be copied or diverted by the MSI.	--
Continue Actions		Don't start any 'Continue Actions	Use the drop-down list to specify that *no actions* should start if a "continue" event occurs.	--

Service Process: Message Defaults Tab, continued

		Use the specified 'Start Actions'	Use the drop-down menu list to specify that HP Operations Manager should use the same actions as those defined in the Start Actions tab, if a "continue" event occurs.	--
		Define special 'Continue Actions'	Use the drop-down menu list to specify that HP Operations Manager should use actions that you define explicitly for use here if a "continue" event occurs.	--
End Actions		Don't start any 'End Actions'	Use the drop-down list to specify that *no actions* should start if an "end" event occurs. An "end" event is an event that resets a threshold.	--
		Define special 'End Actions'	Use the drop-down list to specify that HP Operations Manager should use the same actions as those defined in the Start Actions tab, if an "end" event occurs.	--

Note: The default settings for messages generated by the Open Message Interface policy are not the same as the other policies - some fields and text boxes are not required or displayed.

Related Topics

- Message Policy Properties
- Message Policy Source
- Message Policy Conditions
- Message Policy Threshold
- Message Policy Options
- Message Policy Process Monitoring
- Message Policy Task Schedule
- Message Policy Content
- Service Auto Discovery
- Service Discovery Schedule

Monitoring Tab

The New Policy **Service Process Monitoring**Tab displays parameters for policies that monitor operating system process or services. Use this page to set or modify existing parameter values. You can set the interval at which the policy should check the availability of the process or service and define in more detail what actions the policy should take if the monitored service is not behaving as expected. The following table explains what information you enter in each of the fields in The New Policy **Service**

Process Monitoring Tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

New Policy: Monitoring Tab

Field Label	Description of Contents	Information Required
Type	Use the drop-down menu to select whether you want the policy to monitor a process or a Windows service.	✔
Polling Interval	Specify in hours, minutes, and seconds, how often the policy should check the named process or service.	✔
Conditions	Enter details of the Windows service or process the policy should monitor. For example, enter the name of the service or process to monitor. Note that the duplicates or empty strings are not allowed and HP Operations Manager does not check for the existence of the named process or service. Click the Send Message if service does not exist if you want to receive notification of the service name you enter. The Display Name is an internal name used by the policy editor only. If you want the policy to perform actions according to the results of its monitoring, you can define your own custom actions (in the available tabs) or use the default actions defined for the message.	✔

To create, modify, organize, or delete a service or a process, use the action drop-down menus or the icons as described in the following table.

Using the Monitor or Service action drop-down menus or icons

Action Name	Action Description
Add Process/Add Service	Opens the process or service dialog and enables you to define the process or the service that the policy is to monitor. The new process or service appears in the list of processes or services.
Delete Process/Delete Service	Removes the process or the service from the policy.
Copy Process(es) /Copy Service(s)	Copies the selected process(es) or service(s) to an internal storage so that you can place a copy elsewhere in the list of processes or services or into another policy.
Paste Process(es) /Paste Service(s)	Pastes the process(es) or service(s) that were copied before at the end of the list of processes or services.
Move Process up/Move Service up	Moves the selected process or service up one place in the processes or services list.
Move Process down/Move Service down	Moves the selected process or service down one place in the processes or services list.

Using the Monitor or Service action drop-down menus or icons, continued

Move Process to .../Move Service to ...	Moves the selected process or service to another position in the processes or services list. A small dialog pops up which enables you to enter the new position.
Edit Process(es)/Edit Service(s)	Opens a dialog for the selected process(es) or service(s).

Related Topics

- Message Policy Properties

- Message Policy Source

- Message Policy Defaults

- Message Policy Conditions

- Message Policy Threshold

- Message Policy Options

- Message Policy Task Schedule

- Message Policy Content

- Service Auto Discovery

- Service Discovery Schedule

Scheduled Task Tab

The New Policy "Scheduled Task" Scheduled Task Tab displays parameters for scheduled task policies that use VB Script, Perl Script or Command. Use this tab to set or modify the schedule at which you want the task to run. For example, you can specify the time of the day (hour, minute), the day of the week, and so on. The following table explains what information you enter in each of the fields in New Policy "Scheduled Task" Scheduled Task Tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

New Policy: Scheduled Task Tab

Field Label	Description of Contents	Information Required
Schedule	Specify the details of the schedule at which the task should run using the fields displayed. Keep in mind that wildcards such as the asterisk (*) are not allowed (to specify *all* values, leave the field blank). However, you can use the comma (,) and the hyphen (-) to specify ranges. For example: *Minute:* a number from 0 through 59 Enter `15` to start the task at 15 minutes past every hour, `0,30` to start the task every 30 minutes, or `10-20` to start the task every minute from 10 to 20 minutes past the hour. *Hour:* a number from 0 (midnight) through 23 (using the 24-hour clock)	--

New Policy: Scheduled Task Tab, continued

	Enter 12 to start the task at midday, 06,18 to start the task at 6 A.M. and at 6 P.M., or 14-18 to start the task once an hour every hour from 2 P.M. to 6 P.M. *Day of the Month:* a number from 1 through 31 Enter 15 for the first day of every month, 5,15 for the 5th and 15th day of every month, and 1-31 for every day of the month. Note that 31 is always interpreted as the last day of the month, even if the month has 28, 29, or 30 days. If you define the day twice, once here and once in "Day of the Week," the scheduled action is started twice. *Month:* a number from 1 (January) through 12 (December) Enter 4,5 for April and May, and 6-8 for June, July, and August. *Year:* the year in which the scheduled task should run Enter 2009 for year 2009. Note that the number must include four digits. If you want to signify year 2009, you must enter 2009 and not only 09. *Day of the Week:* a number from 0 (Sunday) through 6 (Saturday) Enter 1,2,3 for Monday, Tuesday, and Wednesday, or 4-6 for every day between (and including) Thursday and Saturday. If you define the day twice, once here and once in "Day of the Month," the scheduled action is started twice.	
Task	Use the drop-down menu to select the type of task you want to run, for example: Command, VB Script, or Perl Script. The selection you make here determines if any further information is required. For example, if you select "Command", you will have to enter the command you want to run and the name of the user under whose account the command should run.	--
Command	The command you want to run at the scheduled interval.	✔
Execute	The user whose credentials you want to use to start the command. By default, the user is "$AGENT_USER; if you want to star the command as a non-agent user, you must enter the authorization credentials for the indicated user and select value "as User".	✔
Send Message	Indicate if you want HP Operations Manager to send a message before the scheduled task starts, after it completes successfully, or when it fails to run.	--

Related Topics

- Message Policy Properties
- Message Policy Source
- Message Policy Defaults
- Message Policy Conditions
- Message Policy Threshold
- Message Policy Options
- Message Policy Process Monitoring
- Message Policy Content

- Service Auto Discovery
- Service Discovery Schedule

Service Auto Discovery Tab

The New Service Auto Discovery Policy **Service Auto Discovery** tab enables you to specify the management module that contains the service type definition that you want to configure and use during the service discovery process. Select the service type definition you want to configure. You can browse the listed service type definitions and use the text boxes provided to enter or modify any editable parameters. The following table explains what information you enter in each of the fields in the New Policy **Service Auto Discovery** tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

New Policy: Service Auto Discovery Tab

Field Label	Description of Contents	Information Required
Custom Discovery	Management module for Custom Service Auto Discovery.	✔
SiteScope Integration	Management module for SiteScope Integration.	✔
Virtualization Infrastructure	Management module for Virtualization Infrastructure.	✔
Systems Infrastructure	Management module for Systems Infrastructure.	✔
HA Cluster Infrastructure	Management module for HA Cluster Infrastructure.	✔

Related Topics

- Message Policy Properties
- Message Policy Source
- Message Policy Defaults
- Message Policy Conditions
- Message Policy Threshold
- Message Policy Options
- Message Policy Process Monitoring
- Message Policy Task Schedule
- Message Policy Content
- Service Discovery Schedule

Schedule Tab

The Service Auto Discovery **Schedule** tab enables you to specify when and how often the service discovery process should run. For example, you can specify the frequency (hourly, daily, weekly,

monthly, once) or a custom interval (using *expert mode*), the time of the day (hour, minute), the day of the week, and so on. Note that the contents of the Schedule tab change according to the selection you make. For example, if you select the Daily option, the Time text box is displayed, allowing you to set the exact time (or times) that auto-discovery should occur and the hourly intervals (if any) at which it should recur. Alternatively, if you select Expert Mode, you can define much more precisely when and how often the automatic service discovery process should occur.

New Policy: Polling Schedule Tab

Field Label	Description of Contents	Information Required
Schedule	The interval at which you want the automatic service discovery process to run, for example: hourly, daily, or weekly. You can also choose Expert Mode, which gives you full control and enables you to specify a precise time and day to start the discovery process.	--
Time	Specify the time at which you want to run (or repeat) the service discovery process. If you specify a specific time, use the 24-hour clock, for example: 06:30 or 18:15. If you want to define multiple times, use the check boxes displayed.	✔

Related Topics

- Message Policy Properties

- Message Policy Source

- Message Policy Defaults

- Message Policy Conditions

- Message Policy Threshold

- Message Policy Options

- Message Policy Process Monitoring

- Message Policy Content

- Service Auto Discovery

Options Tab

The New Policy Logfile Entry **Options** Tab displays generic parameters for the logging and forwarding of messages. Unmatched messages do not match conditions and often occur with new or undefined sources. Use the Options tab to decide what to with these messages. The following table explains the fields in the New Policy Logfile Entry **Options** tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

New Policy: Options Tab

Field Label	Description of Contents	Information Required

New Policy: Options Tab, continued

Log Messages matching Message Conditions	Save information about a matched message in a local log file.	--
Log Messages matching Suppress Conditions	Save information about a suppressed message in a local log file.	--
Log unmatched Messages	Save information about a unmatched message in a local log file; unmatched messages do not match any defined conditions.	--
Forward to Server	Forward unmatched messages to the HP Operations management server.	--
On Server Log Only	Log information about unmatched messages; do not forward the message.	--

The Event Correlation Policy **Options** Tab shows possible ways of logging for ECS.

Event Correlation Policy: Options Tab

Field Label	Description of Contents	Information Required
ECS log output	Local logging output check box.	--
ECS log onput	Local logging input check box.	--

Related Topics

- Message Policy Properties
- Message Policy Source
- Message Policy Defaults
- Message Policy Conditions
- Message Policy Threshold
- Message Policy Process Monitoring
- Message Policy Task Schedule
- Message Policy Content
- Service Auto Discovery
- Service Discovery Schedule

Parameters Tab

The New Measurement Threshold Policy **Parameters** tab displays parameters for measurement threshold monitor policies that use either VBScript or Perl. Use this page to reset or modify existing parameter values. If the value is set to Minimum or Maximum when you choose the monitoring type

(VBScript or Perl), the **Parameters** tab is not generated. The following table explains what information you enter in each of the fields in New Policy **Parameters** tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

New Policy: Parameters Tab

Field Label	Description of Contents	Information Required
Data type	Data type shows type of a parameter.	--
Name	The name of the parameter whose value you want to reset or modify.	✔
Caption	A short description of the displayed parameter's function.	--
Value	The current setting of the displayed parameter; you can type a new value in the text box.	--
Default	The default setting for the displayed parameter.	✔
Node Info	Disable node info	--
	Try to get parameter value from node info, use parameter name.	--
	Try to get parameter value from node info, use custom name:[1]	--
Session	Disable session.	--
	Store parameter value in session, use parameter name.	--
	Store parameter value in session, use custom name:[2]	--

Related Topics

- Message Policy Properties
- Message Policy Source
- Message Policy Defaults
- Message Policy Conditions
- Message Policy Threshold
- Message Policy Options
- Message Policy Process Monitoring
- Message Policy Task Schedule
- Message Policy Content
- Service Auto Discovery
- Service Discovery Schedule

[1]When this option is selected, a new info box that requires the information (marked with a blue asterisk (*)) is created.
[2]When this option is selected, a new info box that requires the information (marked with a blue asterisk (*)) is created.

Add Policy Group

The Add Policy Group page displays parameters for new HPOM policy groups and allows you to define the policy group completely. Use this page to create new policy groups and add them to your HPOM environment. The following table explains what information you enter in each of the fields in the Add Policy Group Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

New Policy Group: Properties Tab

Field Label	Description of Contents	Information Required
Name	The name of the new policy group you want to create. The name appears in the list of policies in the HPOM Message Source policies window.	✔
Description	A short description of the policy group you are creating; the description is displayed in the Administration UI to help users understand what type of messages are generated by policies in the policy group.	--
Information	A text box that you can use to enter any additional details about the new policy group.	--
Parent Group	The name of the group that contains the policy group you are creating.	--

To create a new policy group

To create a new policy group and add it to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Edit** menu, click **Add Policy Group**
3. Enter information in the fields presented in the **Properties** tab.

   The **Properties** tab displays details about the new policy group you want to create. For more information about what values are allowed in the fields displayed, see the tables below.
4. After configuring the new policy, save or discard the details of the policy using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new policy group definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

○ **Restore**

Displays a list of the previously saved restore points which you can use to select and recall a backup version of the policy group configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

○ **Cancel**

Discards all changes to the policy group.

Related Topics

- New policies
- Edit policy groups

New Category

The Add Category page displays parameters that enable you to define categories for new HPOM policies and nodes. Use the Add Category page to create new categories and add them to your HPOM environment, for example: so that you can associate the new categories with policies and nodes. The following table explains what information you enter in each of the fields in the Add Category Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Add Category: Properties Tab

Field Label	Description of Contents	Information Required
Name	The name of the new category you want to create. The name is used in the HPOM Administration UI if no label definition is available. Note that the name you enter must not contain a question mark (?), an asterisk (*), or a forward slash (/). This is because the category name you enter here is also used as the name of the new directory created to hold the instrumentation for the new category, if you leave the "Create Category Directories" checked.	✔
Description	A short description of the new category to help users understand what type of policy or node belongs to this category.	--
Create Category Directories	Check if you want a new directory to be created for the new category; the directory is created in the following location on the HP Operations management server: `/var/opt/OV/share/databases/OpC/mgd_node/instrumentation/`. The name of the directory is the same as the name of the category you enter in the Name field. For more information about the restrictions that exist for file and directory names, see the entry for "Name" above.	--

To create a new category

To create a new category and add it to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Edit** menu, click **Add Category**.

3. Enter information in the fields presented in the **Properties** tab.

   The **Properties** tab displays details about how the new category appears in the user interface. For more information about what values are allowed in the fields displayed, see the table above.

4. Save or discard the details about the new category using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new category definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editor session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the category configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Cancel**

   Discards all details you enter about the new category.

Related Topics

- List all Categories
- Add a New Policy
- Add a New Policy Group

Add Tool

The **Add Tool** page displays parameters for new HPOM tools and allows you to define the tools completely. Use this page to create new tools and add them to your HPOM environment. You define tools by entering information in fields in various property tabs. The number and type of tabs which require you to enter information is determined by the type of tool you choose to create. The following table gives you an overview of what information is required for each tool type.

Add Tool: Configuration Tabs

Policy Type	Properties	Internal tool	OM tool
Internal Tool	✔	✔	--
OM Tool	✔	--	✔

To create or edit a tool

To create a new tool and add it to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Edit** menu, click **Add Tool**.

3. Enter information in the fields presented in the tabs that are displayed. Note that the tabs displayed depend on the type of tool you want to add.

    ○ Tool Properties:

    Requires details concerning how the new tool appears in the user interface.

    ○ Internal Tool:

    Requires details about the internal tool, such as: the name, the platform it is to run on and the name and password of the executing user.

    ○ OM Tool:

    Requires details about the new command or tool to start and where you want it to run.

4. Save or discard the details about the new tool using the following buttons:

    ○ **Save**

    Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new tool definition.

    ○ **Backup**

    Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

    ○ **Restore**

    Displays a list of the previously saved restore points which you can use to select and recall a backup version of the tool configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

    ○ **Cancel**

    Discards all details you enter about the new tool.

Related Topics

- The Tool Properties Tab
- The Internal Tool Tab
- The OM Tool Tab

Tool Properties Tab

When you create any type of new (or edit an existing) tool, you first need to enter information in the Properties tab. Then, depending on the type of tool you are adding or editing, you need to enter additional information in other tabs such as: the Internal tool tab and the OM Tool tab.

The following table explains what information you enter in each of the fields in the Tool Properties tab. A blue asterisk (*) in the Administration UI indicates a field where information is required.

New Tool: Properties Tab

Field Label	Description of Contents	Information Required
Tool Name	The name of the new tool you want to create. The name is used in the HPOM Administration UI if no label is defined in the Label field.	✔
Label	The name of the new tool you want to create; this is the label you will see in the user interface.	--
Description	A short description of the new tool to help new users determine what the tool does	✔
Tool type	Use the drop-down menu to select the type of tool you are adding, for example: Internal Tool, or OM tool. Note that the type of tool you select determines the additional property tabs that is displayed. Note that you cannot change the type of tool when modifying details of an existing tool; in edit mode, the tool Type field is inactive.	✔
Parent Group	Indicate the name of the tool group to which the new tool belongs.	--

Related Topics

- The Internal tool Tab
- The OM Tool Tab
- Create/Edit a Tool

OM Tool Tab

HPOM tools are represented by symbols in the HPOM tools bank or as part of a hierarchy under a tool group symbol.

When you create a new (or edit an existing) HPOM tool, you need to enter information in the Properties tab and, in addition, either in the OM Tool or in the Internal Tool tab. The following table explains what information you enter in each of the fields in the OM Tool tab. A blue asterisk (*) in the Administration UI indicates a field where information is required.

New tool: OM Tool Tab

Field Label	Description of Contents	Information Required
Tool Call	The command call you want to run when the new tool is started.	✔
Parameters	Parameters and options for the command specified in the tool Call field, for example: $OPC_NODES.	--
Start	Use the drop-down menu to indicate where you want the new tool to run, for example: on the management server, or on a managed node.	✔
Presentation	Use the drop-down menu to indicate what type of information about the running tool you want to see and where the information should be displayed appear, for example: Window (output only), command output should be displayed and in its own, dedicated window.	✔
User Name	Specify the name of the user you want the new tool to run under.	✔
Password	Specify a password for the user named in the User Name field.	✔

Related Topics

- The Tool Properties Tab
- Create/Edit a Tool

Internal Tool Tab

Internal tools are applications such as, for example, Broadcast. When you create a new (or edit an existing) internal tool, you need to enter information in the tool-properties tab and, in addition, in the Internal Tool tab. The following table explains what information you enter in each of the fields in the Internal Tool tab. A blue asterisk (*) in the Administration UI indicates a field where information is required.

New Tool: Internal Tool Tab

Field Label	Description of Contents	Information Required
Internal Tool Type	This field is inactive and can not be changed. By default has value Broadcast.	✔
User	Specify the name of the user starting the internal tool on UNIX Platform Logon or MS Platform Logon.	--
Password	Specify a password for the user named in the User field.	--

Related Topics

- The Tool Properties Tab
- Create/Edit a Tool

Add Tool Group

The **Add Tool Group** page displays parameters for new tool groups and allows you to define the tool groups quickly and completely. Use this page to create new tool groups and add them to your HPOM environment. The following table explains what information you enter in each of the fields in the Add Tool Group Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Add Tool Group: Properties Tab

Field Label	Description of Contents	Information Required
Name	The name of the new tool group you want to create. The name is used in the HPOM Administration UI if no label is defined in the Label field.	✔
Label	The name of the new tool group you want to create; this is the label you will see in the user interface.	--
Description	A short description of the tool group to help users understand what type of tools (or tool groups) the tool group contains.	--
Information	A text box that you can use to enter any additional details about the new tool group.	--
Parent Group	The name of the tool group that contains the tool group you are creating.	--

To create a new tool group

To create a new tool group and add it to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Edit** menu, click **Add Tool Group**.

3. Enter information in the fields presented in the **Properties** tab.

   The **Properties** tab displays details concerning how the new tool group is displayed in the user interface. For more information about what values are allowed in the fields displayed, see the table above.

4. Save or discard the details about the new tool group using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new tool group definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

○ **Restore**

Displays a list of the previously saved restore points which you can use to select and recall a backup version of the tool group configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

○ **Cancel**

Discards all details you enter about the new tool group.

Add/Edit User

The **Add/Edit User** page displays parameters for new HPOM users and allows you to define the new user quickly and completely. HPOM users include operators, administrators, policy administrators, and so on, who are responsible for the nodes managed by the HP Operations management server you select from the Server List. Use the Add User page to create new HPOM operators and add them to your HPOM environment.

To create or modify a user

To create a new (or modify an existing) user and apply the configuration to HPOM, perform the steps described below.

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Edit** menu click **Add User** to create a new user, or choose **All Users** from the Browse menu. From the list of users select the one you want to modify and choose **Edit...** from the actions menu.

3. Enter information in the fields presented in the displayed tabs:

   ○ Properties:

   Define details concerning the user's name and password.

   ○ Operator:

   Define details about the capabilities of the HPOM user you are adding or modifying, such as: the allowed actions and whether the user can own messages and modify message attributes.

4. Save or discard the details of the user using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new user definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

Displays a list of the previously saved restore points which you can use to select and recall a backup version of the user configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

○ **Cancel**

Discards all the information you enter about the new user.

Related Topics

- Add a New User Profile
- Add a New Message Group

Operator Tab

The Add User **Operator** tab enables you to define the capabilities for the new or existing HPOM operator. For example, you can indicate whether the operator is allowed to own and acknowledge messages or perform actions that are attached to messages. The following table explains what information you enter in each of the fields in the New User Operator tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

New Users: Operator Tab

Field Label	Description of Contents	Information Required
Perform/Stop Actions	Enable if you want the user to be able to start and stop operator-initiated actions that are attached to messages.	--
Modify Message Attributes	Enable if you want the user to be able to modify message attributes, for example: the severity level, the message group to which the message belongs, and so on.	--
Own	Enable if you want the user to be able to own and disown messages; the owner of a message is responsible for fixing the problem to which the message relates.	--
(Un-)acknowledge Messages	Enable if you want the user to be able to acknowledge and unacknowledge messages; acknowledged messages are moved to the history message browser, which you can configure to be downloaded to a file according to a defined schedule. By unacknowledging a message you move the message back to the active messages browser, where it can be owned again.	--
Node Hierarchy	Use the [...] button to select a node hierarchy for the user you are adding or modifying. The node hierarchy contains the nodes and node groups for which the new (or modified) user is responsible.	✔

To create a new user

To create a new user and add it to HPOM, perform the following steps:

1. Add a new user: In the HPOM **Edit** menu, click **Add User**.

   Modify an existing user: In the HPOM **Browse** menu, click **All Users**, locate the user you want to modify, and from the actions menu click **Edit...** to open the **Edit User** page.

2. Enter information in the fields displayed in the Operator tab, which are described in the table above.

3. Save or discard the details of the user using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new user definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the user configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Cancel**

   Discards all the information you enter about the new user.

Related Topics

- The User Properties Tab
- Add a New User Profile
- Add a New Message Group

Properties Tab

The New User **Properties** tab displays general parameters for new HPOM operators. HPOM users include operators, administrators, policy administrators, and so on, who are responsible for the nodes managed by the HP Operations management server you select from the Server List. Use the Properties to define the new user's name and the password . The following table explains what information you enter in each of the fields in the Add User Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

New Users: Properties Tab

Field Label	Description of Contents	Information Required

New Users: Properties Tab, continued

User Name	The name of the new user you want to create, for example: opc_op for the standard HPOM operator or spi_op for an operator who is responsible for an HPOM Smart Plug-in. The name you enter in the User Name field is used in the Administration UI if no label is defined in the Label field.	✔
Information	Contain more useful data related to user you want to create. It is not visible on general overview of user.	--
Label	The label to apply to the new user you want to create; this is the label you will see in the user interface.	--
Real Name	The name of the new user you want to create. The name is used in the HPOM Administration UI if no label is defined in the Label field.	--
Password/Confirm Password	Enter the password of the new user you want to create.	✔
Description	A short description of the new user to help HPOM administrators understand what type of user it is.	--

To add or modify user properties

To add new (or modify existing) user properties and apply the configuration to HPOM, perform the following steps:

1. Add a new user: In the **Edit** menu, click **Add User**.

   Modify an existing user: In the **Browse** menu, click **All Users**, locate the user you want to modify, and from the actions menu click **Edit...** to open the **Edit User** page.

2. Enter information in the fields displayed in the Properties tab, which are described in the table above.

3. Save or discard the details of the user using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new user definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the user configuration (if any exists) that you made by clicking the **Backup**

button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

- **Cancel**

  Discards all the information you enter about the new user.

Related Topics

- The User Operator Tab
- Add a New User Profile
- Add a New Message Group

Add User Profile

The **Add User Profile** page displays parameters for new HPOM user profiles and allows you to define the new user profile quickly and completely. HPOM user profiles can be applied to the new HPOM users (such as operators and administrators) that you add to the HP Operations management servers. Use the New User Profile page to create new HPOM user profiles and add them to your HPOM environment. The following table explains what information you enter in each of the fields in the New User Profiles Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

New User Profiles: Properties Tab

Field Label	Description of Contents	Information Required
Profile Name	The name of the new user profile you want to create. The name is used in the HPOM Administration UI if no label is defined in the Label field.	✔
Information	Contains more useful data related to user profile you want to create. It is not visible on general overview of user profiles.	--
Label	The label to apply to the new user profile you want to create; this is the label you will see in the user interface.	--
Description	A short description of the new user profile to help HPOM administrators understand what type of user the profile can be applied to.	--

To create a new user profile

To create a new user profile and add it to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Edit** menu, click **Add User Profile**.
3. Enter information in the fields presented in the displayed tabs.
4. Save or discard the details of the user profile using the following buttons:

○ **Save**

Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new user profile definition.

○ **Backup**

Makes a backup of the data entered so far during the current editor session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

○ **Restore**

Displays a list of the previously saved restore points which you can use to select and recall a backup version of the user profile (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

○ **Cancel**

Discards all the information you enter about the new user profile.

Related Topics

- Add a New User Profile
- Add a New Message Group

Add Regroup Condition

The Add Regroup Condition page displays parameters that you can use to change the message group to which a message belongs. After the message has been integrated and filtered by HPOM, you can instruct HPOM to move the matched messages to a new message group on the management server, for example: to new and customized message groups specifically suited to an operator's tasks and responsibilities. Regrouping messages means you do not have to change individual conditions in the message source policy itself and you do not have to redistribute the policies to move messages from one message group to another. You create the new message groups and move the messages to the new groups after they arrive on the management server. The following table explains what information you enter in each of the fields in the Add Regroup Conditions page. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Add Regroup Condition Page

Field Label	Description of Contents	Information Required
Description	A short but helpful description of the regroup condition; the text should help people understand what the regroup condition does.	✔

Add Regroup Condition Page, continued

Match Condition	Specify the message details that must match for the message to be forwarded to another message group, for example: the message severity, the name of the node or application that generated the message, the message group that the original message belongs to, the HPOM object associated with the message and the message text. Note that you can specify all or part of the message text and use pattern matching to specify how the message text should be interpreted, too. You can also specify multiple severities (critical *OR* major *OR* minor). However, if the values you provide for the other fields (Node, Application, and so on) are interpreted *in addition to* (as refinements to) the message Severity, for example: Severity="Critical" "Major", Node="Nodename", Application="Oracle", Message Text="Tablespace" Move to the message group specified in the New Message Group field all messages that have EITHER the severity critical OR major AND originate from the node Nodename AND were generated by Oracle AND contain the word "Tablespace" in the message text.	--
Pattern Matching	Specify the character you want to use to distinguish between blocks of text in the message-text field. You can use any character, for example: the comma (,), the semi colon(;) or a letter (a,B). Note that the space character is also interpreted as a field separator, so you must make sure that you do not include a space before or after the chosen character unless you specifically want to. If you want to use the semi colon (;) to separate fields in a list, enter the semi colon in the Field Separator field taking care not to add a space before or after the semi colon. If you specify a character as the field separator (abc, ABC), you can enable the case-sensitive option to instruct the regroup condition to distinguish between lowercase and uppercase characters. For example, if you enter the letter "a" as the field separator and enable the case-sensitive option, then the letter capital A (A) would not be considered as a field separator.	--
New Message Group	Enter the name of the new message group that you want to move messages to if the messages match the regroup condition.	✔
New Service Name	Enter the name of the new service that you want to associate messages with if the messages match the regroup condition.	--

To create a new regroup condition

To create a new regroup condition and add it to HPOM:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Edit** menu, click **Add Regroup Condition**.

3. Enter information in the fields presented. For more information about what information is required, expected, or allowed in the various fields, see the table above.

4. Save or discard the details for the new regroup condition using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new regroup-message condition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the regroup-condition configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Cancel**

   Discards all details you enter about the new regroup condition.

Related Topics

- Add a new message group
- Display message-group details

Add Instruction Text Interface

The Add Instruction Text Interface page displays the parameters you need to use to provide instruction text to HPOM users by means of an external application such as web browser when a message condition matches and a message is generated. Use this page to create a call to the external applications that you want to use to display instruction text for you HPOM operators in order to help them fix problems. The following table explains what information you enter in each of the fields in the New Instruction Text Interface Properties tab. displays a blue asterisk (*) to indicate a field where information is required.

Add Instruction Text Interface: Configuration Tab

Field Label	Description of Contents	Information Required
Name	A unique name for the instruction text interface call.	Yes
Description	A short description of the instruction text interface call.	--

Add Instruction Text Interface: Configuration Tab, continued

Call	The command that starts the application which displays the instruction text to the HPOM user. The command runs on the managed node defined in the Start field and in the context of the user specified in the Execute as User field. You will also have to provide the absolute path to the command or the relative path from the default HPOM application directory.	✔
Execute as User	The user executing the application displaying the instruction text.	✔
Output Mode	**(Output Only)**: select this option if the application called by the instruction text interface writes its output to stdout; the instruction text is displayed in a simple window. **No Window (X Application)**: select this option if the application can open its own output window to display the instruction text.	✔
When forwarding messages to trouble ticket or notification interface	**Ignore Instruction Text**: use this option if the application called by the instruction text interface requires an X-window or if the resolution of variables in the message could take a long time. **Resolve Instruction Text**: use this option if you want the notification service and the trouble ticket interface to use the instruction text from the instruction text interface. This may involve the resolving of variables to display the message.	--
Start on	Select the location whether you want the application displaying the instruction text to start on the HP Operations management server or on a managed node (where the HP Operations Agent is running).	✔

To create new instruction text

To create new instruction text and make it available to HPOM users, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Edit** menu, click **Add Instruction Text Interface**.

3. Enter information in the fields presented in the **Configuration** tab.

   The **Configuration** tab displays details concerning the application used to display the instruction text as well as where it should start and how the information should be displayed. For more information about what values are allowed in the fields displayed, see the tables above.

4. Save or discard the details of the instruction text using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new instruction text definition.

   ○ **Backup**

Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

- **Restore**

    Displays a list of the previously saved restore points which you can use to select and recall a backup version of the instruction-interface configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

- **Cancel**

    Discards all the information you enter about the new instruction text.

Related Topics

- New Notification Service
- List All Instruction-Test Interfaces

Add Notifications Service

The Configure Notifications page enables you to specify an external notification service such as an email or a Short Messaging Service (SMS) to inform HPOM operators of important events. You can schedule different notification services at different times of the day, for example: SMS during the day and pager at night. The following table explains what information you enter in each of the fields in the Configure-Notifications Notification-Service tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Configure Notifications: Notification Service Tab

Field Label	Description of Contents	Information Required
Name	The name of the notification service you want to use.	Yes
Call	The command you want to use to start the notification service.	Yes

The following table explains what information you enter in each of the fields in the Notification Schedule tab. Notification schedules are optional.

Configure Notifications: Notification Schedule Tab

Field Label	Description of Contents	Information Required

Configure Notifications: Notification Schedule Tab, continued

Day	Use the drop-down menu to select the day you want the notification service to start. You can configure multiple schedules for notification services. Click the icons next to the drop-down menu to add and remove additional schedules to and from the list.	No
Start time	The start time for the notification schedule; you can configure multiple start times.	No
End time	The end time for the notification schedule; you can configure multiple end times.	No

To define a new notification service

To define a new notification service, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Edit** menu, click **Add Notification Service**.

3. Enter information in the fields presented in the following tabs:

   ○ **Notification Service**:

   Displays details about the external notification service that you want to use to inform HPOM operators about important events as well as how and when you want the notification service to start. For more information about what values are allowed in the fields displayed, see the table above.

   ○ **Notification Schedule**:

   Displays details about when and how often the notification service should be used. For more information about what values are allowed in the fields displayed, see the table above.

4. Save or discard the details of the notification service using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the notification service definition.

   ○ **Cancel**

   Discards all the information you enter about the notification service.

Related Topics

- Edit Existing Notification Service
- List Known Notification Services

Edit Trouble Ticket Interface

The **Edit Trouble Ticket Interface** page enables you to configure a trouble ticket interface to work with HPOM. Use this page to start and stop the trouble ticket interface and define the system call. Note that the first line of the shell script you use to start the interface must contain the statement "/#!/usr/bin/sh" or the execution of your script or program may fail. The following table explains what information you enter in each of the fields in the **Configuration** tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Trouble Ticket Interface: Configuration Tab

Field Label	Description of Contents	Information Required
Use Trouble Ticket System	With this check box you can either activate or deactivate the trouble ticket system interface.	✔
Trouble Ticket Call	Enter the full path to and name of the command you want to use to start the trouble ticket interface. The command parameters you specify here are called for all messages configured with trouble ticket. HPOM sends its own message parameters to the external interface. You may not use a command that requires additional parameters.	✔

To set up the trouble ticket interface

To set up the trouble ticket interface, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Edit** menu, click **Edit Trouble Ticket Interface**.
3. Enter information in the fields presented in the Configuration tab:

    ○ **Use Trouble Ticket System**:

    Activate or deactivate Trouble Ticket System.

    ○ **Trouble Ticket Call**:

    The name of the trouble ticket system or script. For more information about what values are allowed in the fields displayed, see the tables above.

4. Save or discard the details of the trouble ticket interface using the following buttons:

    ○ **Save**

    Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the modified trouble ticket interface definition.

    ○ **Cancel**

    Discards all the modifications you made to the trouble ticket interface.

Related Topics

- Edit Management Server Configuration
- Edit Database Maintenance Settings

Edit Management Server Configuration

Use the **Edit Management Server Configuration** page to configure the HP Operations management server. You can define an external message-stream interface, or set global options. The following table explains what information you enter in each of the fields in the Server Configuration tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Edit Management Server Configuration: Server Configuration Tab

Field Label	Description of Contents	Information Required
Add duplicates as annotations	Add an annotation for each suppressed duplicate message. The annotations are added to the first message to which the others are duplicates. Annotations may be useful for troubleshooting purposes.	--
Enabled	Enables you to enable or disable the start-up message. If enabled, you can specify a new start-up message text in a text box provided.	--
Automatic Actions	Check this option if you want to enable external applications to define automatic actions in HPOM by means of the message-stream interface.	--
Enable Output	Enables or disables the output to instances of the external message-stream interface (MSI) on the management server.	--
Operator-initiated actions	Check this option if you want to enable external applications to define operator-initiated actions in HPOM by means of the message-stream interface.	--
Parallel distributions	Use the drop-down menu to set the maximum number of managed nodes served by the distribution manager concurrently.	✔
Send all messages to Server MSI	Check this option if you want to send all messages to the MSI before the message browser. If you enable this option, you must set a value in the field: Send Mode.	--

Edit Management Server Configuration: Server Configuration Tab, continued

Send Mode	Use the drop-down menu to decide how you want to divert messages via the MSI: **Divert Messages**: Divert messages from the standard HPOM message path to the message-stream interface. The messages may then be modified and submitted to the message manager by an external application. **Copy Messages**: Send a copy of the message to the message-stream interface. The original message goes directly to the message browser.	✔
Suppress and count duplicate messages	Suppress duplicate messages on the HP Operations management server. Duplicate messages are messages that have exactly the same message key.	--

To edit the HP Operations management server configuration

To edit the HP Operations management server configuration, you need to perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Edit** menu, click **Edit Management Server Configuration**.

3. Enter information in the fields presented in the **Server Configuration** tab.

   T he **Server Configuration** tabisplays details of the management-server elements that you can configure, use of the message-stream interface, and some global options. For more information about what values are allowed in the fields displayed, see the tables below.

4. Save or discard the details of the management server configuration using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the modified management server configuration.

   ○ **Cancel**

   Discards all modifications.

Related Topics

- Edit Trouble Ticket Interface
- Edit Database Maintenance Settings

Edit DB Maintenance Settings

Use the Edit DB Maintenance Settings page to manage HPOM message storage and maintenance. For example, you can specify the maximum number of active, pending, and history messages that HPOM keeps in the database before it sends a warning message to the message browser. The following table explains what information you enter in each of the fields in the Database Configuration tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Edit Database Configuration: Database Maintenance Tab

Field Label	Description of Contents	Information Required
Active and Pending Messages: Send Message	Send a message if the number of active and pending messages exceeds the specified limit.	Yes
History Log: Send Message	Send a message if the number of history messages exceeds the specified limit.	Yes
History Log: Download	Check this option to download acknowledged messages older than a defined age to a named file according to a defined schedule. Note that enabling this option displays the download settings fields; you must specify a storage location for the downloaded messages in the "into directory" field. You can also specify that HPOM notifies you of the successful completion of the operation.	No

To edit the HPOM database configuration

To define or edit the HPOM database configuration perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Edit** menu, click **Edit DB Maintenance Settings**.

3. Enter information in the fields presented in the **Database Maintenance**tab.

   T he **Database Maintenance**tab displays details of when to notify HPOM users that the various message databases are full as well as when and where to download the saved messages. For more information about what values are allowed in the fields displayed, see the tables below.

4. Save or discard the details of the database configuration using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the modified database configuration.

   ○ **Cancel**

   Discards all modifications to the database configuration.

Related Topics

- Edit Trouble Ticket Interface
- Edit Management Server Configuration

Add Report

The Add Report page displays parameters that enables you to define the scope and contents of any new reports you want to generate for the HPOM environment you are managing, for example: simple or

detailed reports about message groups or managed nodes, and so on. HPOM reports enables you to visualize information such a policy deployment on the managed nodes, or tool and message-group assignment to user roles. Use the Add Report page to create new report definitions and add them to the list of reports already available in your HPOM for UNIX environment. The following table explains what information you enter in each of the fields in the Add Report Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Add Report Definition: Properties Tab

Field Label	Description of Contents	Information Required
Report Name	The name of the new report you want to define and generate. The name is used in the HPOM Administration UI .	✔
Description	A short and clear description of the scope and contents of the new report to be generated by the report definition you are creating.	--
Execute as	The name of the HPOM user under whose account the new report is to be generated, for example: Administrator or Operator.	✔
Report Execution Type	Specify whether the report should be generated internally by HPOM (Internal Report) or by means of an external program (Program). Note that if you select "Program" as the report execution type, you must specify in the Program field which program you want to use to generate the new report and, in the Parameters field, any additional parameters to call with the specified program.	✔
Program	The name of the external program you want to use to generate the new report. Note that if the program resides in a non- standard location that is not in the system PATH, you need to include the path to the program, for example: `/opt/command`.	-- ✔
Parameters	The parameters you want to use to define the scope and contents of internal reports (Internal Report) or, in the case of an externally generated report, the parameters that modify the program specified in the Program field. For example: for internal reports, "DETAILED, $message_active" defines a detailed report covering all currently active messages on the selected management server. If the report uses an external program such as `/bin/cat` to read a file, then the parameters column displays the name of the file to be read, for example: `/var/opt/OV/log/System.txt`.	-- ✔

To create a new report definition

To create a new report definition and add it to HPOM, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Edit** menu, click **Add Report**.
3. Enter information in the fields presented in the **Properties**tab.

The **Properties** tab displays details of the report definition; the report definition defines the scope and contents of the new report and, in addition, how the new report is to be created. For more information about what values are allowed in the fields displayed, see the table above.

4. Save or discard the details about the new message group using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new report definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the report configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Cancel**

   Discards all details you enter about the new report definition.

Related Topics

- List all reports
- Display report details
- List all Server-Configuration-Menu options

Browse Menu

The range and type of menus and menu options displayed is determined by the data context you set when you start the Administration UI. For example, if you select HPOM as the data context you want to browse, the following configuration options are displayed in the Browse menu:

HPOM Menu: Browse Options

Menu Option	Description
Node Bank	Opens the **Elements in Node Hierarchy "HPOM Node Bank"** page which displays the contents of the HPOM node bank, which is a hierarchical representation of the node bank structure, including node layout groups and nodes. The HPOM node bank contains all the managed nodes that are managed by the HP Operations management server you select from the Server List.

HPOM Menu: Browse Options, continued

Policy Bank	Opens the **Policy Bank** page which displays a list of all the policies and policy groups available on the HP Operations management server you select from the Server List. Note that, if there are a lot or policies, it can take a while for the Configurator to populate the list.
Tool Bank	Opens the **Tool Bank** page which displays the contents of the OM Tool bank. The OM Tool bank contains all the Tools available to HPOM users on the HP Operations management server you select from the Server List.
All Nodes	Displays a flat (rather than hierarchical) representation of the complete list of all the managed nodes available for assignment to HPOM users on the HP Operations management server you select from the Server List.
All Nodes Groups	Displays a list of all the managed node groups available for assignment to HPOM users on the HP Operations management server you select from the Server List.
All Nodes Hierarchies	Displays a list of all the managed node hierarchies that exist on the HP Operations management server you select from the Server List. Node hierarchies are the top-level group for nodes and node groups in HPOM. For example, the HPOM node hierarchy bank contains the Node Bank as the default HPOM node hierarchy.
All Layout Groups	Displays a list of all the managed-node layout groups that are available on the HP Operations management server you select from the Server List. Node layout groups are collapsible hierarchies that enables you to restrict the number of nodes displayed to those that exist in a particular level or hierarchy. Layout groups enables you to organize large numbers of managed nodes into more manageable groups.
All Node Defaults	Displays a list of all the default configurations for the various types of managed node, including information about the machine type (Itanium 64/32, Sun SPARC), communication type (HTTPS), operating-system type (HP-UX, AIX, Solaris, Linux).
All Message Groups	Displays a list of all the message groups available for assignment to HPOM users on the HP Operations management server you select from the Server List. Message groups enables you to define logical sets of messages of a similar type, which you can then assign to users who are responsible for the technical areas which the messages cover.
All Policies	Displays a list of all the policies available for assignment to the nodes managed by the HP Operations management server you select from the Server List.
All Policy Groups	Displays a list of all the policy groups available for assignment to the nodes managed by the HP Operations management server you select from the Server List.

HPOM Menu: Browse Options, continued

All Policy Assignments	Displays a list of all the assignments (nodes, node groups, message groups, and so on) to the nodes managed by the HP Operations management server you select from the Server List.
All Categories	Displays a list of all the categories available for assignment to the nodes managed by the HP Operations management server you select from the Server List. Categories are logical classifications of policies that you can associate with instrumentation, nodes, and with user profiles to ensure that the appropriate instrumentation is deployed at the same time as the policy it is associated with.
All Policy Types	Displays a list of all the policy types available for the HP Operations management server you select from the Server List.
All Smart Plug-ins	Displays a list of all the Smart Plug-ins configured on the HP Operations management server you select from the Server List.
All Tools	Displays a list of all the Tools available for assignment to users; users are responsible for the nodes managed by the HP Operations management server you select from the Server List.
All Tool Groups	Displays a list of all the Tool groups available for assignment to users; users are responsible for the nodes managed by the HP Operations management server you select from the Server List.
All Users	Displays a list of all the default and defined users (operators, administrators, policy administrators, and so on) who are responsible for the nodes managed by the HP Operations management server you select from the Server List.
All User Profiles	Displays a list of all the default and defined user profiles, which are used to configure the users who are responsible for the nodes managed by the HP Operations management server you select from the Server List.
Managed Node Instrumentation	Enables you to browse all files and directories (customer, instrumentation, vendor tree) beneath /var/opt/OV/share/databases/OpC/mgd_node/. Files can be uploaded, edited and deleted by using the Administration UI web interface.
Downloads	Displays a list of the files and packages that have been downloaded to the HP Operations management server.
Shopping Cart	Opens the **Shopping Cart for Server** page, which displays a snapshot of objects you have chosen to save for future use. For example, you can use the shopping cart to save configuration download definitions until you are ready to download all the saved configurations at one time.

Related Topics

- The HPOM Edit Menu
- The HP Operations management server-configuration Menu
- The HPOM Find Menu
- The HPOM Analyze Menu

- The HPOM Deployment Menu
- The HPOM Tasks Menu
- The HPOM Integrations Menu
- The HP Operations management servers Menu

List All Nodes

The **All Nodes** page displays a list of the nodes that belong to the HPOM management server. The information in the All Nodes page is displayed in a table with the following information; note that you can click the Name column title to reorganize list of managed nodes in ascending or descending order. Click the actions button ( ) to display a list of the actions you can perform on the nodes in the list; click the browse button ( ) to display a list of the node-configuration details that you can browse.

If you want to filter the list of managed nodes to reduce the number displayed, click the **Filter** link at the top of the list and use the fields and drop-down menus to define the filter conditions; you can filter objects according to a wide range of criteria, for example: name, type, label. The range and complexity of filter options available depends on the type of object you want to display in a list. Alternatively, to display only those nodes that have not been assigned to a user, or do not have any HPOM policies deployed, use options in the **Analyze** menu. Note that when you apply filters to the list of managed nodes, some of the default options for browsing and performing actions are not always available; the unavailable options are grayed out.

List of Managed Nodes

Column Title	Description
All	Check boxes to enables you to select all or individual nodes on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Move to Layout Group..." and "Assign Node to Node Group...".
Type	An icon indicates the type of node (IP, other, external node). Hover the cursor over the icon for a brief description of the node type.
Label	Shows the label assigned to the node or group as it appears in the Administration UI. The label is used as a display mechanism together with the icon which it describes.
Name	Shows the short name of the managed node as resolved by DNS. Click the node name to see more detailed information about the selected node. Click one of the icons next to the node name for menus that enables you to display more information about the node or perform an action on the node.
⧉	Click the Browse Details button to display a list of the configuration details that you can browse for the selected node. For more information about what node details you can browse, see Browse Node Configuration Details.

List of Managed Nodes, continued

⚙	Click the Actions button to display a display a list of the actions you can perform on the nodes in the list. For more information about what actions you can perform, see List Node Actions.
IP	Shows the IP address of the node for IP nodes, for example: 192.168.123.18.
Network Type	Shows the network type for the node, for example: IP, other, external IP name or IP pattern, and so on.
Machine type	Shows the hardware type for the managed node, for example: operating system (HP-UX), hardware (PA-RISC), and so on.
Control type	Shows the currently configured state of the node, for example: "disabled" (temporarily not sending messages), "controlled" (monitored and managed by HPOM), "monitored only" (agents running but no actions allowed), and "message allowed" (messages accepted but no HP Operations agents running).
Policies	Indicates if the node has policies assigned.

To display a list of managed nodes

To display a list of all the nodes managed by the HP Operations management server, you need to perform the following steps. Note that you can display the list as a hierarchical tree or as a flat list.

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Browse** menu, click **Node Bank** if you want to display the list of nodes as a hierarchical tree; click **All Nodes** to display the nodes in a flat list. Note that if there are many nodes, it can sometimes take a little time for HP Operations Manager to populate the lists of nodes.

Related Topics

- Sorting Node Lists
- Filter Node Lists
- Analyze Node Lists
- List Node Actions
- Browse Node-Configuration Details
- All Node Groups
- All Node Hierarchies
- All Layout Groups
- All Node-Defaults
- Pending Requests for Security Certificates
- Updating Policy Version Assignments

Display Node Details

The **Node Details** page displays detailed information about the configuration of the individual nodes listed in the **All Nodes** page. The information in the Node Details page is displayed in a table with the

following information. Click the page title to display a list of the actions you can perform on the nodes in the list; click the browse button ( ) to display a list of the node-configuration details that you can browse.

Node Details

Attribute	Value
Name	The name of the managed node as specified in the New Node window.
Operating system version	Shows version of the operating system - Kernel version in the case of UNIX systems.
Core ID	Shows the UUID of the managed node from which the request for a security certificate originated; the UUID is used to create the Request ID for the security certificate.
Certificate State	Shows if a managed node using the HTTPS communication type has been granted a security certificate from the certificate server.
Label	The label used to represent the named managed node in the HPOM graphical user interface.
IP address	The IP address of the named managed node.
Network Type	The type of network configured for the managed node, for example: IP, non-IP, external...
Machine Type	The type of machine hosting the managed node, for example: HP PA-RISC, Itanium 64/32, IBM RS/6000...
Control Type	What (and how much) information you want to receive from the managed node, for example: controlled, monitored only (no messages), message allowed, disabled...
Communication Type	The communication method between node and management server, for example: HTTPS.
Polling type	The method used by the managed node to indicate to the management server that it is available, for example: Normal, RPC (for firewalls), no polling...
Heartbeat polling enabled	Indicates if heartbeat polling is enabled or disabled.
Heartbeat interval	The frequency with the managed node informs that management server that it is still available.
Agents sends alive packets	The agent tells the management server that it is up and available; yes or no.
Auto Install/Update	The setting for the installation of the HP Operations Agent software.

Node Details, continued

Terminal /Terminal Font	The type of terminal (and the fonts used) used when displaying information from HPOM applications.
MSI output/MSI allow auto action/MSI allow operator-initiated actions	Indicates if messages from the managed node are passed to the message-stream interface and whether actions associated with those messages are allowed.
Buffer Size Limit	The maximum number of messages that can be stored locally on the managed node.
Installation Method	The way in which HPOM installs agent software on the managed node, for example: opc, or manual.
Codeset	The character set used to generate and display HPOM messages from the managed node, for example: iso88591.

To display details of a managed node

To display a detailed description of the current configuration of a selected node or node group, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Nodes**. Note that if there are many nodes it can sometimes take a little time for HP Operations Manager to populate the lists of nodes.

3. In the **Name** column, click the link that corresponds to the node whose details you want to display and check.

Related Topics

- List Node Actions

- Browse Node-Configuration Details

- Display Policy Details

- Display Node/Policy Deployments

Configure HPOM Managed Nodes

You can display a list of the actions to perform on HPOM objects; the type of actions available depends on the type of object, on which you want to perform the action and, in addition, whether you want to perform an action on single or multiple objects. To perform an action on a single object, locate the object in the list and use the actions button ( ) to display a list of the actions available; to perform an action on multiple objects, check the box next to the objects you want to modify and use the drop-down menu at the bottom of the table. In the event that neither of these options is available, use the actions button ( ) next to the page title. The following table lists the actions you can perform on nodes, and node groups, for example, you can view and modify node details, edit policy assignments.

Actions Menu: Managed Node/ Group/ Hierarchy/ Layout

Action	Description
View	View a detailed description of the selected managed node.
Edit…	Modify the definition of the selected managed node.
Copy…	Copy the definition of the selected managed node.
Copy with Assignments…	Copy the definition of the selected managed node and all policy, policy group, and category assignments, too.
Assign Node to Node Group…	Opens the node group bank and enables you to select the node groups to which you want to assign the managed node.
Assign Policies/Policy Groups…	Opens the policy group bank and enables you to select the policies or policy groups which you want to deploy to the managed node, node group, or node hierarchy.
Move to Layout Group…	Opens the node bank and enables you to select a node layout group to which you want to move the selected node.
Execute Task…	Displays a sub menu with a list of the tasks currently configured for the selected node, node group, node hierarchy, or node layout group, for example: display the status of the HP Operations Agent or an inventory of the installed packages. You can run any of the displayed tasks immediately. For a list of the tasks configured for the HPOM management server, see the Tasks menu.
Install Agent…	Install the agent on the selected managed node.
Deinstall Agent…	Remove the agent from the selected managed node.
Deploy Configuration…	Opens a browsing window that lets you specify which parts of the HPOM instrumentation (policies, actions, commands, or monitors) you want to distribute to the selected managed node. The **Force Update** option ensures that the deploy operation overwrites existing data.
Delete…	Delete the managed node from the HPOM node bank.
Download…	Download the managed node configuration from the HPOM database.
Assign Categories…	Opens the category bank and enables you to select the category that you want to assign to the selected managed node, node group, or node hierarchy. A category is a logical tag that you can assign to nodes or policies to ensure that the appropriate instrumentation is automatically deployed for the selected node or policy.

Actions Menu: Managed Node/ Group/ Hierarchy/ Layout, continued

Update Assignments…	Opens a dialog with a drop-down list that enables you to define an update strategy for policy assignments to the managed nodes (or node groups). You can specify exactly what you want to update, and how. For example, you can substitute the current policy version with a "Fixed" version (assign the *indicated* policy version), "Latest" version (assign the *latest* version of the indicated policy), or "Minor to Latest" (always assign a *minor* version of a policy in place of a major version, for example: 1.* not "1" or "2").
Add to Shopping Cart	Add the selected node object to the shopping cart. You can download the contents of the shopping cart to the clipboard directory from where you can upload the package again to any management server, or simply archive the package for use at a later point in time.
Enable Node…	Enabling the managed node starts the agent on the node and allows the agent to send messages.
Disable Node…	Disabling the managed node stops the agent on the node; no messages are sent while the node is disabled.

To display a list of node-related actions

To display a list of the actions you can perform on the selected managed node, node group, node layout group, or node hierarchy:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Nodes**(All Node Groups, All Node Hierarchies, All Layout Groups).

3. In the list of managed nodes displayed, locate the managed node you want to perform an action on.

4. Click the actions button (⚬) to display a list of the actions available.

5. In the menu that is displayed, click the action you want to start. For more information about available actions and what they do, see the table below.

Related Topics

- Display Node-Configuration Details

- List All Nodes

- View Node Details

- Add/Edit Node Details

- List All Node Layout Groups

- Display the Contents of the Shopping Cart

- Update Policy Version Assignments

- Compare policies

Browse Node Configuration Details

You can browse details of HPOM objects; the type of information available depends on the type of object, whose configuration you want to browse. To browse details of a single object, locate the object in the list and use the browse button ( ) to display a list of the information available or use the browse button ( ) next to the page title. The table below lists the details you can browse for HPOM nodes, node groups, node hierarchies, or a node layout groups, for example: what policies are assigned to the node (or node group), which users are responsible for the nodes (or node groups), and so on.

Browse Menu: Managed Node

Configuration Details	Description
Direct Policy (group) Assignments	View a list of the policies assigned directly to the selected managed node or node group (and not by inheritance from a node group).
Categories	Display a list of the categories to which the selected managed node is assigned.
Effective Policy Assignments	View a list of all the policies to be deployed to the selected managed node, even those policies assigned by inheritance through a policy group (or groups) higher up the node group hierarchy.
Effective Subagent Assignments	Show a list of all subagents to be deployed to the selected managed node.
Instrumentation	Display a list of the instrumentation to which the selected managed node is assigned.
Node Groups	Display a list of the node groups to which the selected managed node is assigned.
Node Defaults	Display node defaults configuration of the selected managed node.
Layout Groups	Display a list of the node layout groups to which the selected managed node is assigned.
Users	Display the HPOM users to whom the selected node, node group, node layout group, or node hierarchy has been assigned.
Profiles	Display the HPOM user profiles to which the node, node group, node layout group, or node hierarchy has been assigned.
Message Catalog	Display the message catalog for the selected managed node. The message catalog for the selected managed node contains all the messages generated by the policies assigned to the selected managed node.

Browse Menu: Managed Node, continued

Resource Catalog	Display the resource catalog for the selected managed node. The resource catalog contains a list of the resources that are reference by the policies assigned to the selected managed node, for example: log files, scripts. The displayed information includes file names, paths, and so on.
Notification Catalog	Display the notification catalog for the selected managed node. The notification catalog is a list of all the conditions in the policies assigned to the selected managed node which forward messages to notification interfaces or trouble ticket systems.
Instruction Catalog	Display the instruction catalog for the selected managed node. The instruction catalog contains all instruction text associated with all conditions of all policy or policy groups assigned to the selected managed node.
Message Correlation	Display a list of the messages correlated on the selected node; the information displayed includes the name of the policy that generated the message, the condition triggered, the message key, and the resulting correlation.

To display Node Configuration Details

To display a list of the options you can use to request detailed information about the configuration of a node, follow the instructions below. Note that the options available in the menus displayed differ according to the type of object you are browsing:

1. Click the HPOM icon to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Nodes (All Node Hierarchies, All Node Groups, All Layout Groups)**. Note that if there are many elements, it can sometimes take a little time to populate the lists.

3. In the list of managed nodes (or groups) displayed, locate the managed node whose configuration you want to browse.

4. Click the browse button (⬛) to display a list of the configuration details that are available for the selected node.

5. In the menu that is displayed, click the configuration details you want to display and browse. For more information about available configuration details, see the table above.

Related Topics

- List Node Actions
- List All Nodes

Message Catalog

The message catalog for the selected managed node contains all the messages generated by the policies assigned to the selected managed node, that is: all messages created by *match* conditions in a policy assigned (either directly or through inheritance from a policy group) to and deployed on the selected managed node. The list contains the most important attributes such as application, object and message text.

Available Columns

Column	Description
Severity	Severity of the message generated by the policy condition.
Policy	Name of the policy containing the condition that generated the message.
Condition	Name of the match condition that generated the message.
Application	Name of the application responsible for the original problem that triggered the message.
Object	Name of the object associated with the generated message.
Message	Message text of created message as written in the policy. The message text may contain HPOM pattern-matching characters and variables.
Version	Shows policy version containing condition that generated the message.

To display the message catalog

To display the contents of the message catalog for the policies deployed on the currently selected managed node, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Nodes** (All Node Groups, All Policies, All Policy Groups).

3. In the list of managed nodes displayed, locate the managed node you want to perform an action on.

4. Click the actions button (⚙) to display a list of the actions available.

5. In the menu that is displayed, click **Message Catalog**.

Related Topics

- Display the Resource Catalog

- Display the Notification Catalog

- Display the Instruction Catalog

- List Correlated messages

Resource Catalog

The Resource Catalog page shows a list of the log files, monitor programs, and scripts associated with the messages generated by the policies assigned to (and deployed on) the currently selected managed node. The information is displayed in a table with the following form:

Available Columns

Column	Description
Type	Type of policy, for example: logfile, monitor, SNMP trap, and so on.

Available Columns, continued

Policy	Name of the policy that generates the messages associated with which the named resource.
Resource	Name of resource associated with the policy. The resource can be a file (such as a log file), a program, or a script, and so on. For example, for *logfile* policies, the "resource" is the name of the logfile that is monitored. For *monitor* policies, the "resource" is the name of the script called by the monitor policy.
Interval	Monitoring interval used to access the named resource. For example, read the log file every 10 minutes.
Version	Shows policy version that generated the messages associated with the named resource.
Resource type	Shows the resource type associated with the policy, for example, executable.

To Display the Resource Catalog

To display the contents of the resource catalog for the policies deployed on the currently selected managed node, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Browse** menu, click **All Nodes** (All Node Groups, All Policies, All Policy Groups).
3. In the list of managed nodes displayed, locate the managed node you want to perform an action on.
4. Click the actions button (⬡) to display a list of the actions available.
5. In the menu that is displayed, click **Resource Catalog**.

Related Topics

- Display the Message Catalog
- Display the Notification Catalog
- Display the Instruction Catalog
- List Correlated messages

Notification Catalog

Display the notification catalog for the selected managed node. The notification catalog is a list of all the conditions in the policies assigned to (and deployed on) the selected managed node which are configured to forward a copy of generated messages to notification interfaces or trouble ticket systems.

Available Columns

Column	Description
Policy	Name of the policy containing the condition that generated a message to be sent to a notification or trouble ticket interface.

Available Columns, continued

Condition	Name of the matched condition that generated the message to be forwarded to a notification or trouble ticket interface.
Notification	Forward to notification interface: yes or no. You can check and change this setting in the New Policy Condition: Actions Tab.
TTS	Forward to trouble ticket system (TTS): yes or no. You can check and change this setting in the New Policy Condition: Actions Tab.
Acknowledge	Automatically acknowledges messages forwarded to a notification service or trouble ticket system: yes or no. You can check and change this setting in the New Policy Condition: Actions Tab.
Version	Shows policy version containing condition that generated the message to be sent to a notification trouble ticket interface.

To Display the Notification Catalog

To display the contents of the notification catalog for the policies deployed on the currently selected managed node, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Nodes** (All Node Groups, All Policies, All Policy Groups).

3. In the list of managed nodes displayed, locate the managed node you want to perform an action on.

4. Click the actions button (⚙) to display a list of the actions available.

5. In the menu that is displayed, click **Notification Catalog**.

Related Topics

- Display the Message Catalog

- Display the Resource Catalog

- Display the Instruction Catalog

- List Correlated messages

Instruction Catalog

The **Instruction Catalog** page shows the contents of the instruction catalog for the selected managed node. The instruction catalog contains the instruction text provided for all conditions of all policies deployed to the selected managed node. The information provided is displayed in a table with the following form:

Instruction Catalog: Contents

Column	Description
Policy	Names of the policies deployed on the currently selected managed node. The policy conditions might (or might not) contain instruction text.

Instruction Catalog: Contents, continued

Condition	Name of the policy condition that generates a message for which instructions are available to help understand and resolve the problem that generated the message.
Type	Type of instruction text supplied, for example: "direct", "no instructions", and so on. Hover the mouse cursor over the icon for a brief description of the instruction text type.
Default	Indication of whether the instruction text is provided by default (with the installed policy) or was added at a later point in time, for example, by the administrator.
Instruction	Copy of the complete instruction text including variables, for example: <$THRESHOLD>, $INST_DIR, and so on.
Version	Shows policy version containing condition for which instructions are available.

To Display the instruction text Catalog:

To list the contents of the instruction text catalog for a particular managed node, perform the following steps:

1. Click the HPOM button in the toolbar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Nodes**(All Node Groups, All Policies, All Policy Groups).

3. Click the actions button ( ) and select the **Instruction Catalog** option from the menu which is displayed: the instructions catalog for the policies deployed on the selected managed node are displayed in the form of a list.

Related Topics

- Display the Message Catalog
- Display the Resource Catalog
- Display the Notification Catalog
- List Correlated messages
- Display a List of Configured Instruction Text Interfaces
- Add New Instruction Text Interface
- Edit Existing Instruction Text Interface

Message Correlation

The **Message Correlation** page displays a list of the messages correlated on the selected node; the information displayed includes the name of the policy that generated the message, the condition triggered, the message key, and the resulting correlation. The list shows all correlations between policy conditions based on the message key and message-key relation attributes for a policy or policy group.

List Message Correlations

Column	Description

List Message Correlations, continued

Severity	Severity of the correlated message, for example: critical, major.
Policy	Name of the policy that generated the correlated message.
Condition	Name of the matched policy condition that triggered the correlated message.
Message Key	Message key for the correlated message. A message key is an identifier that you can assign to messages so that processes can identify them. Note that a message key is not the same a message ID; *all* messages produced by a particular policy condition have the *same* message key. The same message key can also be used by more than one policy or condition. Messages with identical message keys are treated as duplicates.
Message key relation	Message key relation shows the link between correlated messages; it is the reference from the message you see to the messages that are acknowledged as a result of the correlation process and do not appear in the active message browser.
Correlation	The text of the correlated message as defined in the message policy; the text can contain HPOM pattern-matching characters and variables, for example: "^Utilization of tablespace <*.tspace> (<*.msg_rest>$)".
Version	Shows policy version that generated the correlation message.

To Display a List of Correlated Messages

To display the contents of the message catalog for the policies deployed on the currently selected managed node, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Browse** menu, click **All Nodes** (All Node Groups, All Policies, All Policy Groups).
3. In the list of managed nodes displayed, locate the managed node you want to perform an action on.
4. Click the actions button ( ) to display a list of the actions available.
5. In the menu that is displayed, click **Message Correlation**.

Related Topics

- Display the Message Catalog
- Display the Resource Catalog
- Display the Notification Catalog
- Display the Instruction Catalog

Removing Nodes

Before removing the node you have to perform several manual tasks:

- Acknowledge all messages for the node you plan to remove in the message browser.
- If a node is used in some policy suppress condition, delete the node in this condition as well.

- Stop heartbeat polling (node Action menu: Execute Task).

- Deinstall the agent on the target node.

- Perform a history download of all messages for that node (node Action menu: Execute Task).

- Remove all policy/policy group/node group assignments for that node.

> **Tip:** Except the message acknowledgement, all functions are accessible by using the Browse or the Action menu for each node.

For more information regarding these tasks, see the *HPOM Administrator's Reference Guide*.

When all these tasks are performed, you can remove the node by using the Delete function. Otherwise, some node references remain in some database tables. In this instance a warning message is displayed stating that the node removal was not 100% successful.

List All Node Groups

The **All Node Groups** page displays a list of the nodes groups deployed to the HP Operations management server. The information in the All Node Groups page is displayed in a table with the following information; note that you can click the Name column title to reorganize list of managed node groups in ascending or descending order. Click the actions button (⚙) to display a list of the actions you can perform on the node groups in the list; click the browse button (🗗) to display a list of the node group configuration details that you can browse.

List of Managed Node Groups

Column Title	Description
All	Check boxes to enables you to select all or individual node groups on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Add Node Group...", "Assign Nodes...", and "Delete...".
Label	Shows the label of the managed node group.
Name	Shows the name of the managed node group. Click a node-group name to see more detailed information about the selected node group, including the nodes the node group contains. Click one of the icons next to the node-group name to display menus that enables you to view more information about the node group or perform an action on the node group.
🗗	Click the Browse Details button to display a list of the configuration details that you can browse for the selected node group. For more information about what node details you can browse, see Browse Node Configuration Details.
⚙	Click the Actions button to display a display a list of the actions you can perform on the node groups in the list. For more information about what actions you can perform, see List Node Actions.
Node	The number of nodes in the currently selected node group.

List of Managed Node Groups, continued

Description	A brief explanation of the contents of the selected node group.
Visible	Indicates if the node group icon is visible or hidden.
Policies	Indicates if the node group has policies assigned.

To display a list of managed node groups

To display a list of all the node groups managed by the HP Operations management server, you need to perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Node Groups** to display the node groups in a flat list. Note that if there are many node groups, it can sometimes take a little time for HP Operations Manager to populate the list.

Related Topics

- Sorting Object Lists
- Filter Object Lists
- List Node-Group Actions
- Browse Node-Group-Configuration Details
- All Node Hierarchies
- All Node-Defaults
- All Layout Groups
- Updating Policy Version Assignments

Edit Node Group

The Edit Node Group page enables you to modify the definitions of existing node groups. Use this page to change and update the parameters for the node groups in your IT environment.

The following table explains what information you enter in each of the fields in the Edit Node Group Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Edit Node Group: Properties Tab

Field Label	Description of Contents	Information Required
Name	Name of the node group you are modifying. The name is used in the HPOM Administration UI if no label is defined in the Label field. Note that you cannot change the name of the node group you are modifying; the field is inactive.	Yes
Information	Contains more useful data related to the node group you want to create. It is not visible on general overview of the node group.	No

Edit Node Group: Properties Tab, continued

Hide Node Group from Responsibilities	Shows that this node will not be shown in Responsibility matrix.	No
Label	Name of the node group you want to modify; this is the label you will see in the user interface.	No
Description	A short description of the node group to help users understand what type of nodes (or node groups) the node group contains.	No

Modifying a Node Group

To modify a node group and apply the changes to your environment, perform the following steps:

1. Enter information in the fields presented in the **Properties**tab.

    The **Properties**tab displays details concerning how the node group appears in the user interface. For more information about what values are allowed in the fields displayed, see the tables below.

2. Save or discard the to changes yo make to node groups using the following buttons:

    ○ **Save**

    Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the modified node group definition.

    ○ **Backup**

    Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

    ○ **Restore**

    Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node group configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

    ○ **Cancel**

    Discards all changes you make to the node group.

List All Node Hierarchies

The **All Node Hierarchies** page displays a list of the nodes hierarchies that are configured on the HP Operations management server. The information in the All Node Hierarchies page is displayed in a table with the following information; note that you can click the Name column title to reorganize list of managed node hierarchies in ascending or descending order. Click the actions button ( ) to display a list of the actions you can perform on the node hierarchies in the list; click the browse button ( ) to display a list of the configuration details that you can browse for the node hierarchies.

List of Managed Node Hierarchies

Column Title	Description
All	Check boxes to enables you to select all or individual node hierarchies on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Add Node Hierarchy", "Delete..." and "Download...".
Name	Shows the name of the managed node hierarchy. Click a node hierarchy name to see more detailed information about the selected node hierarchy, including the nodes the node hierarchy contains. Click one of the icons next to the node hierarchy name to display menus that enables you to view more information about the node hierarchy or perform an action on the node hierarchy. For more information about the browse and actions menus and the options they contain, see the list of related topics below.
⎙	Click the Browse Details button to display a list of the configuration details that you can browse for the selected node hierarchy. For more information about what node details you can browse, see Browse Node-Hierarchy Details.
⚙	Click the Actions button to display a display a list of the actions you can perform on the selected node hierarchy in the list. For more information about what actions you can perform, see List Node-Hierarchy Actions.
Description	A brief explanation of the listed node hierarchy.

To display a list of managed node hierarchies

To display a list of all the node hierarchies configured on the HP Operations management server, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Browse** menu, click **All Node Hierarchies** to display the node hierarchies in a flat list.

Related Topics

- Sorting Object Lists
- Filter Object Lists
- List Node-Hierarchy Actions
- Browse Node-Hierarchy-Configuration Details
- All Node Groups
- All Node-Defaults
- All Layout Groups

Edit Node Hierarchy

The Edit Node Hierarchy page enables you to modify parameters for existing node hierarchies. Use this page to change and update node hierarchies and make the changes available to the users in your IT environment.

To modify a node hierarchy and apply the changes to your environment, perform the following steps:

1. Enter information in the fields presented in the **Properties** tab.

   The **Properties**tab shows details about how the modified node hierarchy appears in the user interface. For more information about what values are allowed in the fields displayed, see the tables below.

2. Save or discard the details about the modified node hierarchy using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the modified node hierarchy definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node-hierarchy configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Cancel**

   Discards all details you enter about the modified node hierarchy.

The following table explains what information you enter in each of the fields in the New Edit Node Hierarchy Properties tab. A blue asterisk * indicates a field where information is required.

Modified Node Hierarchy: Properties Tab

Field Label	Description of Contents	Information Required
Name	The name of the node hierarchy you are modifying. The name is used in the HPOM Administration UI if no label is defined in the Label field. Note that you cannot change the name of the node hierarchy you are modifying; the field is inactive.	Yes
Information	Contains more useful data related to the node hierarchy you want to create. It is not visible on general overview of the Node Hierarchy.	No
Label	The name of the node hierarchy you are modifying; this is the label you will see in the user interface.	No
Description	A short description of the node hierarchy to help users understand what type of nodes (or node groups) the modified node hierarchy contains.	No

List Layout Groups

The **All Layout Groups** page displays a list of the layout groups that are configured on the HP Operations management server. The information in the **All Layout Groups** page is displayed in a table with the following information. Click the actions button (⚙) to display a list of the actions you can perform on the layout groups in the list; click the navigation button (🗗) to display a list of the configuration details that you can browse for the layout groups.

If you want to filter the list of layout groups to reduce the number displayed, click the **Filter** link at the top of the list and use the fields and
drop-down menus to define the filter conditions; you can filter objects according to a wide range of criteria, for example: name, type, label. The range and complexity of filter options available depends on the type of object you want to display in a list.

List of Managed Layout Groups

Column Title	Description
All	Check boxes to enables you to select all or individual layout groups on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Add Layout Group..." and "Delete...".
Type	Shows the type of the layout group.
Label	The label to apply to the layout group. If defined, it is used to represent the user in the layout group lists throughout the user interface.
Contents	Shows whether there any contents (node, layout group) in the layout group.
Node Hierarchy	Shows the type of the node hierarchy where the layout group belongs to.
Description	Shows a short description of the layout group and provides the information such as the type of nodes and other layout groups that this layout group contains.
Name	Shows the name of the layout group. Click a layout group name to see more detailed information about the selected layout group, including the nodes or layout groups that the selected layout group contains. Click the column title to reorganize list of layout groups in ascending or descending order. Click one of the icons next to the layout group name to display menus that enables you to browse information about the layout group or perform an action on the layout group. For more information about the browse and actions menus and the options they contain, see the list of related topics below.
🗗	Click the Browse Details button to display a list of the configuration details that you can browse for the selected layout group. For more information about what layout details you can browse, see Browse layout Group Details.
⚙	Click the Actions button to display a display a list of the actions you can perform on the selected node layout group. For more information about what actions you can perform, see List layout Group Actions.

To display a list of layout groups

To display a list of all the layout groups managed by the HP Operations management server, you need to perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Browse** menu, click **All Layout Groups** to display the layout groups in a flat list.

Related Topics

- Sorting Node Lists
- Filter Node Lists
- Query Node Lists
- List layout-Group Actions
- Browse layout-Group Configuration Details
- All Node Groups
- All Node Hierarchies
- All Layout Groups

Edit Layout Group

The Edit Layout Group page enables you to define parameters for existing nodes. Use this page to modify existing layouts groups that contain nodes that you want to make available to the users in your IT environment.

To edit layout group and apply the changes to your environment, perform the following steps:

1. In the HPOM **Browse** menu, click **All Layout Groups**. Select the layout group you want to modify and from action menu click
   Edit....
2. Enter information in the fields presented in the **Properties**tab.

   The **Properties**tab displays details concerning how the modified layout group appears in the HPOM user interface. For more information about what values are allowed in the fields displayed, see the tables below.
3. Save or discard the changed you make to the layout group using the following buttons:
   - **Save**

     Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the modified node layout group definition.

   - **Cancel**

     Discards all changes you make to the layout group.

The following table explains what information you enter in each of the fields in the Edit Layout Group Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Edit Layout Group: Properties Tab

Field Label	Description of Contents	Information Required
Name	The name of the node layout group you are modifying. The name is used in the HPOM Administration UI if no label is defined in the Label field. Note that you cannot change the name of the node layout group you are modifying; the field is inactive.	Yes
Label	The name of the node layout group you modified; this is the label you will see in the user interface.	No
Description	A short description of the layout group to help users understand what type of nodes (or layout group) the layout group contains.	No

All Node Defaults

The **All Node Defaults** page displays a list of all the default configurations for the various types of managed node, including information about the machine type (Itanium 64/32, Sun SPARC), communication type (HTTPS), operating-system type (HP-UX, AIX, Solaris, Linux). These settings are used when a node of this type is added or discovered in the network.

The information in the All Node Defaults page is displayed in a table with the following information; note that you can click the **Name** column title to reorganize the list of managed node defaults in ascending or descending order. Click the actions button (⬤) to display a list of the actions you can perform on the node defaults in the list; click the browse button (⧉) to display a list of the configuration details that you can browse for the node defaults.

List of Managed Node Defaults

Column Title	Description
All	Check boxes to enables you to select all or individual node default-configuration on which you want to perform an action using the "Choose an action" menu option, for example, "Download...".
Name	Shows the name of the managed node default configuration. Click the default configuration name to see more details. Click one of the icons next to the node name for menus that enables you to display more information about the node defaults or perform an action on the node default configuration. For more information about the browse and actions menus and the options they contain, see the table below.
Label	The Label is the string used to represent the "Name" in the HPOM graphical user interface.
⧉	Click the Browse Details button to display a list of the default configuration details that you can browse for the selected node. For more information about what details you can browse, see Browse Node Defaults Details.

List of Managed Node Defaults, continued

⚙	Click the Actions button to display a display a list of the actions you can perform on the nodes in the list. For more information about what actions you can perform, see List Node Defaults Actions.
Network Type	Shows the network type for the node default configuration, for example: IP Network, non-IP.
Machine type	Shows the default hardware type for the managed node, for example: Itanium 64/32, Sun SPARC and so on, along with the communication type (HTTPS). type (HP-UX, AIX, Solaris, Linux).
Operating System	Shows the default installed operating-system, for example: HP-UX, AIX, Solaris, Linux.

To display a list of managed node defaults

To display a list of all the node default configurations available on the HP Operations management server, you need to perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Node Defaults** to display the node defaults in a flat list.

Related Topics

- Sorting Object Lists

- Filter Object Lists

- List Node-Defaults Actions

- Browse Node-Defaults Details

- All Node Groups

- All Node Hierarchies

- All Layout Groups

Display Node Default Details

The **Node Defaults Details** page displays detailed information about the default configuration for the individual node types, for example: HP PA-RISC, Itanium, and so on. The information in the **Node Defaults Details** page is displayed in a table with the following information. Click the actions icon (⚙) to display a list of the actions you can perform on the selected node-default configuration; click the browse icon (⧉) to display a list of the configuration details that you can browse for the selected node default configuration. For example, you can display a list of all the nodes that use settings displayed in the currently selected node default configuration, or view, edit, and download the node default settings displayed.

Node Details

Attribute	Value

Node Details, continued

Network Type	The type of network configured for the managed node, for example: IP, non-IP, external...
Machine Type	The type of machine hosting the managed node, for example: HP PA-RISC, Itanium 64/32, IBM RS/6000...
Control Type	What (and how much) information you want to receive from the managed node, for example: controlled, monitored only (no messages), message allowed, disabled, and so on.
Communication Type	The communication method between node and management server, for example: HTTPS...
Heartbeat polling enabled	Indicates if heartbeat polling is enabled or disabled; the management server uses heartbeat polling to check that managed nodes are still available and running.
Polling type	The method used by the management server to check that the managed nodes are available, for example: Normal, RPC, the `ping` command, and so on.
Heartbeat interval	The frequency with the management server checks that managed nodes are still available.
Agent sends alive packets	Indicates whether the agent is configured to inform the management server at a defined interval that it is still available and running, for example: yes, or no.
Auto Install	The setting for the installation of the HP Operations Agent software, for example: enabled or disabled.
Auto Update	The setting for the update of the HP Operations Agent software, for example: enabled or disabled.
Terminal	The type of terminal used when displaying information from HPOM applications, for example: xterm, or hpterm.
Terminal Font	The type of fonts available in the terminal used to display information from HPOM applications.
MSI Output	Indicates if messages from the managed node are passed to the message-stream interface, for example: enabled or disabled.
MSI allow operator-initiated actions	Indicates if operator-initiated actions associated with messages passed to the message-stream interface are allowed, for example: enabled or disabled.
MSI Allow Auto Action	Indicates if automatic actions associated with messages passed to the message-stream interface are allowed, for example: enabled or disabled.
Buffer Size Limit	The maximum number of messages that can be stored locally on the managed node, for example: enabled or disabled. If enabled, a limit must be defined.

Node Details, continued

Installation Method	The way in which HPOM installs agent software on the managed node, for example: opc, or manual.
Installation User	The user whose account HPOM uses to install and upgrade agent software on the managed node, for example: root.
Codeset	The character set used to generate and display HPOM messages from the managed node, for example: iso88591 or utf8.

To display details of the configured node defaults

To display a detailed description of the configured node defaults, perform the following steps:

1. In the **Browse** menu, click **All Node Defaults**. Note that if there are many nodes it can sometimes take a little time for HP Operations Manager to populate the list.

2. In the **Name** column, click the link that corresponds to the node whose default configuration you want to display and check.

Related Topics

- List Node Defaults
- List Node Actions
- Browse Node Configuration Details

All Message Groups

The **All Message Groups** page displays a list of the HPOM message groups deployed on the HP Operations management server. The information in the All Message Groups page is displayed in tabular form.

If you want to filter the list of message groups to reduce the number displayed, click the **Filter** link at the top of the list and use the fields and drop-down menus to define the filter conditions; you can filter objects according to a wide range of criteria, for example: name, type, label. The range and complexity of filter options available depends on the type of object you want to display in a list.

List Message Groups

Name	Description
All	Check boxes to enables you to select all or individual message groups on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Delete..." and "Add Message Group...".
Label	Shows the label assigned to the message group as it appears in the Administration UI. The label is used as a display mechanism together with the icon which it describes.

List Message Groups, continued

Name	Shows the name of the message groups that are available on the HP Operations management server. Click the column title to reorganize the contents of the Name column in ascending or descending order.
⎘	Click the Browse Details button to display a list of the configuration details that you can browse for the selected message group. For more information about what details you can browse, see Browse Message group Configuration Details.
⚙	Click the Actions button to display a display a list of the actions you can perform on the selected message group(s) in the list. For more information about what actions you can perform, see Modify Message group Details.
Description	Displays a short description of the listed message groups.

To list all message groups

To list all message groups configured on the HP Operations management server:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Browse** menu, click **All Message Groups**.

Note: If there are many message groups, it can sometimes take a little time to populate the lists.

Related Topics

- Browse Message group Configuration Details
- Modify Message group Details
- Sorting Object Lists
- Filter Object Lists
- List all Node Groups
- Add New User
- List all Message Source Policies

Browse Message Group Details

You can browse details of HPOM objects; the type of information available depends on the type of object, whose configuration you want to browse. To browse details of a single object, locate the object in the list and use the browse button (⎘) to display a list of the information available or use the browse button (⎘) next to the page title. The table below lists the details you can browse for HPOM message groups, for example: list the users (or user profiles) to whom the message group is assigned.

Browse Menu: Message Groups

Configuration Details	Description

Browse Menu: Message Groups, continued

Users using Message Group	View a list of the users to whom the selected message group has been assigned, that is: the users responsible for messages belonging to the selected message group.
Profiles using Message Group	Display a list of all the HPOM user profiles to which the selected message group has been assigned.

To browse configuration details of message groups

To display a list of the additional information you can request about the current configuration of a selected HPOM message group:

1. Click the HPOM icon to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Message Groups**. Note that if there are many message groups, it can sometimes take a little time to populate the lists.

3. In the displayed list, locate the message group whose configuration details you want to browse.

4. Click the browse button (🗗) to display a list of the configuration details that are available.

5. In the menu that is displayed, click the option that corresponds to the type of configuration details you want to display and browse. For more information about available configuration details, see the table above.

Related Topics

- List all Message Groups
- Modify Message Group Configuration

Edit Message Group

The **Edit Message Group** page enables you to modify any existing message groups that you use to manage your message types. You can then re-assign the modified message groups to HPOM users in order to ensure that the right users receive the correct messages.

To modify an existing message group and apply the changes to your HPOM environment, perform the following steps:

1. In the HPOM **Browse** menu, click **All Message Groups**. From the list of message groups select the one you want to modify and from actions menu click **Edit...**.

2. In the Edit Message Group page which displays, enter information in the fields presented in the **Properties** tab.

   The **Properties** tab displays details about how the modified message group appears in the user interface. For more information about what values are allowed in the fields displayed, see the table below.

3. Save or discard the changes you make to the message group using the following buttons:

   ○ **Save**

Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the modified message group definition.

- **Backup**

  Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

- **Restore**

  Displays a list of the previously saved restore points which you can use to select and recall a backup version of the message group configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

- **Cancel**

  Discards all changes made to the modified message group.

The following table explains what information you enter in each of the fields in the Edit Message-Group Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Edit Message Group: Properties Tab

Field Label	Description of Contents	Information Required
Name	The name of the message group you are modifying. The name is used in the HPOM Administration UI if no label is defined in the Label field. Note that you cannot change the name of the message group you are modifying; the field is inactive.	No
Information	Short information about the message group.	No
Label	The name of the new message group you want to create; this is the label you will see in the user interface.	Yes
Description	A short description of the message group to help users understand what type of messages the message group contains.	No

Modify a Message Group

You can display a list of the actions to perform on HPOM objects; the type of actions available depends on the type of object, on which you want to perform the action and, in addition, whether you want to perform an action on single or multiple objects. To perform an action on a single object, locate the object in the list and use the actions button ( ) to display a list of the actions available; to perform an action on multiple objects, check the box next to the objects you want to modify and use the drop-down menu at the bottom of the table. In the event that neither of these options is available, use the actions

button (⬤) next to the page title. The table below lists the actions you can perform on HPOM message groups, for example: view or edit.

Actions Menu: Message Groups

Action	Description
View	View a detailed description of the selected HPOM message group.
Edit...	Modify the definition of the selected HPOM message group.
Copy...	Opens the edit-message-group page so that you can copy an existing message group while changing any details during the copy operation.
Delete...	Delete the message group from the HPOM message group bank.
Download...	Download the message group configuration from the HPOM database.
Add to Shopping Cart	Add the selected message group to the shopping cart. You can download the contents of the shopping cart to the clipboard directory from where you can upload the package again to any management server, or simply archive the package for use at a later point in time.

To list the actions for message groups

To display a list of the actions you can perform on a selected message group:

1. Click the HPOM icon to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Message Groups**. Note that if there are many message (groups), it can sometimes take a little time to populate the lists.

3. Locate the message group on which you want to perform an action.

4. Click the actions button (⬤) to display a list of the actions available.

5. In the menu that is displayed, click the action you want to start. For more information about available actions and what they do, see the table above.

Related Topics

- List all Message Groups

- Browse Message Group Configuration Details

- Edit Message Group Configuration Details

All Policies

The **Policy Bank** page displays a list all the policies and policy groups that are currently available on the HP Operations management server. Note that the number and type of policies displayed depends on the version of HPOM that you are using. The information in the Policy Bank page is displayed in a table with the following information; note that you can click the title of the Name column to reorganize the list of policies in ascending or descending order. For more information about the actions you can perform on policies and the configuration details you can browse, see the list of related topics below.

If you want to filter the list of policies to reduce the number displayed, click the **Filter** link at the top of the list and use the fields and drop-down menus to define the filter conditions; you can filter objects according to a wide range of criteria, for example: name, type, label. The range and complexity of filter options available depends on the type of object you want to display in a list.

List of HPOM Policies

Column Title	Description
All	Check boxes to enables you to select all or individual policies or policy groups on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Copy..." and "Assign to Policy Group".
Type	Uses icons to indicate the type of policy. For more information about policy types and the icons used to represent them, see the PolicyTypes table.
Name	Shows the name of the policy or policy group. Click the policy name to see more detailed information about the selected policy. Click one of the icons next to the policy name for menus that enables you either to display more information about or perform an action on the selected policy.
⧉	Click the Browse Details button to display a list of the configuration details that you can browse for the selected policy. For more information about what policy details you can browse, see Browse policy (group) details.
⚙	Click the Actions button to display a list of the actions you can perform on the selected policy (or policies) in the list. For more information about what actions you can perform, see Configure policy (group) details.
Contents	Policy *groups* only. Shows the number of policies a policy group contains. For policies, this column is empty.
Version	Indicates the HPOM version of the policy that is currently assigned to a node and in use. Use the option **Versions** to display a list of the policy versions available.
Latest	Shows the most recent version of policy that exists. If this is the same as the assigned policy, then the two version numbers are identical.
Smart Plug-in	Indicates which, if any, Smart Plug-in the policy belongs to. Click the link to display details of the Smart Plug-in to which the policy belongs.
Categories	Indicates which, if any, category is assigned to the listed policy. A category is a logical tag that you can assign to nodes or policies to ensure that the appropriate instrumentation is automatically deployed for the selected node or policy. Click the link to display details of the category assigned to the selected policy.
Description	Shows a brief description of the policy or policy group and helps understand what the policy does, for example: "History of HP-UX 10.x/11.x bad logons".

To display a list of policies

To display a list of all the policies available on the HP Operations management server, you need to perform the following steps. Note that you can display the policies and groups as a hierarchical tree or as a flat list.

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **Policy Bank** if you want to display the list of policies and policy groups as a hierarchical tree; click **All Policies** or **All Policy Groups** to display the policies and policy groups in a flat list. Note that if there are many policies and policy groups, it can sometimes take a little time for HP Operations Manager to populate the list.

Related Topics

- Configure policy (group) details

- Browse policy (group) details

- Understanding Policy Types

- List all Policy Categories

- Update policy assignments

- New Policy

- New Policy Group

Display Policy Details

The **Display Policy Details** page shows details information about a selected policy, for example: all its conditions. One condition is shown at a time, starting with the first one. Clicking a condition name on the left hand side highlights the policies that contain the selected condition. Nodes and message groups that appear in the policy are automatically linked to the corresponding node-, node-group, and message-group-details pages.

Policy Details

Policy Details	Description
Attributes	General details about the selected policy for example: name, policy type (logfile, opcmsg...), run interval, location of log file, and the codeset used to generate messages. The details also include information about (and links to) assigned categories.
Message Defaults	A list of the default attributes displayed by the messages generated by the selected policy when the messages appear in the HPOM message browser, for example: message severity, message group, application, whether unmatched messages should be automatically forwarded or duplicate messages suppressed, and so on.
Message Conditions	A comprehensive list of all the conditions defined in the policy, including: condition name and number, the text of the message generated by the condition, the generated message's severity, and so on.

To display details of a policy

To display a detailed description of a selected policy, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Policies**. Note that if there are many policies, it can sometimes take a little time to populate the lists.

3. Locate and click the policy whose details you want to display. Note that you can click the **Name** and **Type** column header to filter the list by policy *name* or type, which makes the policy location process easier.

4. Click the actions button (⬤) to display a list of the configuration actions that are available.

5. Click **View** to display details of the selected policy.

Related Topics

- List Categories
- List Smart Plug-ins

Browse Policy or Policy Group Details

You can browse details of HPOM objects; the type of information available depends on the type of object, whose configuration you want to browse. To browse details of an object, locate the object in the list and use the browse button (▣) to display a list of the information available or use the browse button (▣) next to the page title. The table below lists the details you can browse for HPOM policies or policy groups, for example: list the node (or node group) to which the policy is assigned, display any message groups to which the policy (or group) is assigned, and so on.

Note that if you browse details of a policy displayed in a list of policies versions, remember that the results of the browse request concern *only* the listed version of the selected policy. For example, if you browse the assignments of a particular version of a policy, you will only see the assignments for the selected policy version, which might be different to the assignments for other versions of the same policy.

Browse Menu: HPOM Policies

Configuration Details	Description
Policies	Display a list of policies assigned to policy group.
Parent Policy Groups	Display the policy group (or groups) to which the policy (or policy group) belongs.
Direct Node (Group) Assignments	Display the list of nodes or node groups to which the selected policy or policy group has been assigned.
Effective Node Assignments	Display the list of assignments that are inherited from other policy groups.
Instrumentation	Display details of the instrumentation associated with the selected policy, the instrumentation is available in the following location: `/var/opt/OV/share/databases/OpC/mgd_node/`.

Browse Menu: HPOM Policies, continued

Categories	Display a list of the categories to which the selected policy belongs.
Policy Type	Display details of the selected policy's policy type.
Smart Plug-ins	Display details of the Smart Plug-in to which the policy belongs.
Message Catalog	Display the message catalog for the selected policy or policy group; the message catalog for the selected policy contains all the messages generated by the selected policy or policy group.
Resource Catalog	Display the resource catalog for the selected policy or policy group; the resource catalog contains a list of the resources (such as log files, thresholds, or SNMP traps) that are reference by the selected policy or policy group.
Notification Catalog	Display the notification catalog for the selected policy or policy group; the notification catalog is a list of all the conditions in the selected policy (or policy group) which forward messages to notification interfaces or trouble ticket systems.
Instruction Catalog	Display the instruction catalog for the selected policy or policy group; the instruction catalog contains all instruction text associated with all conditions of the selected policy (or policies in the selected policy group).
Message Correlation	Display messages correlated on the selected policy or policy group.
Versions	Displays a list of all the HPOM versions of the selected policy that exist.

To browse policy (group) details

To display a list of the additional information you can request about a selected policy or policy group:

1. Click the HPOM icon to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Policies** or **All Policy Groups**. Note that if there are many policies (or groups), it can sometimes take a little time to populate the lists.

3. In the displayed list, locate the policy (or group) whose configuration details you want to browse.

4. Click the browse button ( ) to display a list of the configuration details that are available.

5. In the menu that is displayed, click the option that corresponds to the configuration details you want to display and browse. Note that some of the menu options might not always be available; the menu options displayed depend on the type of HPOM policy or policy group you select. For more information about available menu options, see the table above.

Related Topics

- Configure policy (group) details
- Display Policy Types
- New Policy
- New Policy Group

Perform Policy (Group) Actions

You can display a list of the actions to perform on HPOM objects; the type of actions available depends on the type of object, on which you want to perform the action and, in addition, whether you want to perform an action on single or multiple objects. To perform an action on a single object, locate the object in the list and use the actions button ( ) to display a list of the actions available; to perform an action on multiple objects, check the box next to the objects you want to modify and use the drop-down menu at the bottom of the table. In the event that neither of these options is available, use the actions button ( ) next to the page title. The following table lists the actions you can perform on HPOM policies or policy groups, for example: view or edit a policy's (or policy group's) contents, edit policy assignments, move the policy between policy groups, and so on.

Note that if you perform any of the actions listed in the following table on a policy displayed in a list of policies versions, remember that the results of the action concern *only* the listed version of the selected policy. For example, if you view the assignments of a particular version of a policy, you will only see the assignments for the selected policy version, which might be different to the assignments configured for other versions of the same policy.

Actions Menu: HPOM Policies (Groups)

Action	Description
View	View a detailed description of the selected policy or policy group.
View (Raw Mode)	View the contents of the selected policy file.
Edit...	Open the selected policy or policy group for editing. Note that for policy you can change all details except the policy type.
Edit (Raw Mode)...	Open the selected policy's source file for editing; note that you can change all details except the policy type. Note, too, that the name of the policy can only be changed in the **Name** field of the **Properties** tab; do *not* change the name in the raw contents of the policy. If you are adding a new policy with raw mode, note that the policy name specified in the **Properties** tab must be *identical* to the name specified in the raw contents displayed in the **Contents** tab. Creating a policy in *raw* mode is only recommended for expert users.
Assign to Policy Group...	Opens the policy group hierarchy and enables you to choose the policy group to which you want to assign the selected policy. The currently displayed version of the policy is used for assignment purposes.
Copy...	Copies the selected policy or policy group and its contents. **Note:** To copy the policies that can be edited only by using the Raw mode, copy policy text from the target to the source policy.

Actions Menu: HPOM Policies (Groups), continued

Copy Policy Group Structure...	Copies the selected policy group and its node, node group, policy, and policy group assignments into another policy group. After you choose the policy group into which you want to copy the selected policy group, the following two scenarios are possible: • The policy group into which you want to copy the selected policy group *does not contain* a policy group with the same name. In this case, a new policy group is created. • The policy group into which you want to copy the selected policy group already *contains* a policy group with the same name. In this case, you can choose to merge them by using the **Merge with Existing Group** option. The following options are available with both the scenarios: • **Copy Policy Group Assignments**: If you choose **Yes**, all policy group assignments from the selected policy group that you want to copy are added to the new or existing policy group. • **Copy Policy Assignments**: If you choose **Yes**, all policy assignments from the selected policy group that you want to copy are added to the new or existing policy group. • **Copy Node Group Assignments**: If you choose **Yes**, all node group assignments from the selected policy group that you want to copy are added to the new or existing policy group. • **Copy Node Assignments**: If you choose **Yes**, all node assignments from the selected policy group that you want to copy are added to the new or existing policy group. **Note:** If you choose **No** with any of these options, the corresponding assignments are not added.
Move to Policy Group...	Moves the selected policy or policy group from the policy group to which it belongs to a new policy group; remove the selected policy or policy group from its original location.
Assign to Node/Node Group...	Assigns the selected policy or policy group to a node or node group; you can select the new node or node group from the list of nodes and node groups displayed.
Assign Categories...	Assign the selected policy to a category; a category is a logical tag that you can assign to policies (or nodes) to ensure that the appropriate instrumentation is automatically deployed for the selected node or policy.
Compare to...	Opens the policy bank and enables you to compare either similar policies or versions of a selected policy. For example, you can compare Cron (10.x/11.x HP-UX) with Cron (RedHat Linux) or Cron (10.x/11.x HP-UX) version 1.2 with Cron (10.x/11.x HP-UX) version 1.1. Note that the filtering function in the policy selector window enables you to display (and select from) HPOM versions of a policy (OM Versions).

Actions Menu: HPOM Policies (Groups), continued

Compare to (Raw Mode).…	Opens the policy bank and enables you to compare in text format either similar policies or versions of a selected policy. For example, you can compare Cron (10.x/11.x HP-UX) with Cron (RedHat Linux) or Cron (10.x/11.x HP-UX) version 1.2 with Cron (10.x/11.x HP-UX) version 1.1. Note that the filtering function in the policy selector window enables you to display (and select from) HPOM versions of a policy (OM Versions).
Delete...	Remove the latest version of the selected policy or policy group from the list.
Delete (including all versions)…	Remove the current version of the selected policy from the list and, in addition, any other versions that exist.
Download...	Download the policy or policy group configuration from the HPOM database.
Add to Shopping Cart	Add the selected policy or policy group to the shopping cart. You can download the contents of the shopping cart to the clipboard directory from where you can upload the package again to any management server, or simply archive the package for use at a later point in time.

To display a list of policy (group) actions

To display a list of the actions you can perform on the selected HPOM policy or policy group:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Browse** menu, click **All Policies** (Groups, Assignments).
3. Locate the HPOM policy, policy group, or assignment on which you want to perform an action.
4. Click the actions button (⟳) to display a list of the actions available.
5. In the menu that is displayed, click the action you want to start.

Related Topics

- Browse policy (group) details
- Display Policy Types
- Update policy assignments
- New Policy
- New Policy Group

Edit Policy

The Edit Policy page displays parameters for HPOM policies. Use this page to modify existing policies and redeploy them to your HPOM environment. You define policies by entering information in fields in various property tabs. The number and type of tabs which require you to enter information is determined by the type of policy you choose to modify. The Policy: Configuration Tabs table gives you an overview of what information is required for each policy type.

To modify an existing policy

To modify an existing policy and redeploy it to HPOM, perform the following steps:

1. In the **Browse** menu, click **All Policies**. From the list of policies choose policy you want to modify. From actions menu click option **Edit…**.

2. Enter information in the fields presented in the displayed tabs. Note that the type of policy you choose determines the number and type of tabs which appear in the Edit Policy window, for example:

   ○ Properties:

   Generic details about the policy you want to modify such as the name and type. For more information about what values are allowed in the fields displayed.

   ○ Source:

   Information about the information source for the policy, how often the source is to be read, what information is important, and when messages should be generated and sent to HPOM.

   ○ Message Defaults:

   Information about the type of message to be generated including the text it contains, the severity level, and the message group to which it belongs. Note that you can also add information such as message instructions, which message-stream interface to use, and whether messages should be considered for correlation.

   ○ Conditions:

   A list of the conditions configured for the message. Use the icons to move up and down the list and cut and paste conditions or parts of conditions.

   ○ Options:

   Information about if matched and unmatched messages should be logged and whether to forward messages or not.

3. After modifying the policy, save or discard the details of the policy using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new policy definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the policy (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Cancel**

   Discards all changes to the policy.

Related Topics

- New policy groups

Compare Policies

The **Policy Comparison** page enables you to compare either similar policies or versions of a selected policy. For example, you can compare the policy Cron (10.x/11.x HP-UX) with the similar policy Cron (RedHat Linux) or Cron (10.x/11.x HP-UX) version 1.2 with Cron (10.x/11.x HP-UX) version 1.1.

The policy comparison feature uses colors to indicate where the policies you are comparing are different and, more importantly, how they differ. The following table indicates what the color coding tells you about the changes to the compared policies.

Policy Differences: Color Codes

Text Color	Description
Yellow	Text colored orange is *modified* text, that is: text that has been changed between the compared policies.
Red	Text colored red is *new* text, that is: text that has been added to the selected policy.
Green	Text colored green is *obsolete* text, that is: text that has been removed from the selected policy.

To compare one policy with another

To compare one policy with another and display the differences for inspection, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Policies**. Note that if there are many policies, it can sometimes take a little time for HP Operations Manager to populate the list of policies.

3. Locate and select the first of the two HPOM policies that you want to compare.

4. Click the actions button ( ) to display a list of the actions available.

5. In the menu that is displayed, click **Compare to...**. Note that the **Compare to (Raw Mode)...** option enables you to compare the differences in text form - manipulating policies in raw-text form is *only* recommended for experts.

6. In the **Selector** window, click **Policy Bank** or **All Policies** and locate the second of the two policies you want to compare.

7. Click OK; the results of the comparison are displayed side-by-side in the browser window. For more information about the meaning of the colors used to indicate differences, see the table above.

Related Topics

- Display all policies
- Display all policy types

- Perform an action on a policy (group)

- Browse policy (group) details

Pattern Testing

The Pattern Testing page enables you to set up and test pattern matching rules that you can use to improve the way HP Operations Manager monitors the entries that the monitored applications write to their log files. The pattern matching strings can then be applied to the policies used to monitor application log files before the policies are distributed to the managed nodes. Adding pattern matching to conditions enables you to target much more accurately the most important entries in the log files that you are monitoring. Use this page to refine the way in which you monitor changes to the log files you are monitoring. The information in the following table helps you to create, modify, test, and delete pattern matching strings for Logfile Entry policies.

LogFile Policy: Using the Pattern Testing Page

Interface Element	Description of Action
Condition Patterns	A list of the conditions for which pattern matching rules exist for the logfile entry policy you are editing.
Reset	Load the original conditions from the policy. Useful if you have made changes to the patterns in the conditions and want to revert back to the original state.
Validate	Test the new or modified patterns for syntax errors. Indicates condition and character which caused the error. More detailed information is available in a tool tip, which is displayed when you hover the mouse over the condition with the indicated error.
Test	Run a quick test of the patterns on the data in the file you have uploaded. The test is performed only on the part of the file that is visible in the **Test Data** window, which is by default 20 lines, but can be extended to 50 lines or a maximum of 100 lines. The test stops as soon as it finds the first match and shows the results of the test in the results table.
OK	Apply the defined pattern matching rules to the logfile entry policy you are currently editing. Note that the policy itself has to be saved independently, too, before the changes are committed to the policy.
Cancel	Discard all changes and close the pattern testing editor.

LogFile Policy: Using the Pattern Testing Page, continued

Test Data	Shows the data you want to test. By default, 20 lines are shown. Can be extended to 50 lines per page. Only those lines that are displayed in the Test Data window are considered for the test (20, 50, or 100 lines). The Maximum possible is 100 lines. You can make changes to the file to test what-if cases (to ensure that not too much or too little matches). However, the changes you make to the file are lost as soon as you page away from the changed lines or you shut the editor.
	It is also possible to use the test data from a log file on your local workstation (it must be in a text format). To do so, select the Upload file from local Computer option from the drop-down menu. A pop-up box opens from which you can select the file. The maximum file size for uploads is 10mb.
Result Table	Shows the results of the pattern matching tests by indicating which parts of the uploaded log file match the patterns specified in the rules you are defining. The results show the line in the log file where the match occurred, the content that matched, and the condition that triggered the match. Use the [<] and [>] buttons to jump to the start and end of the current page of results. Select a line in the result table to display (underneath the table) the variables (if any) that matched in the selected line and the value of the variable that matched. You can use the information displayed in the Results Table to fine tune the condition to more accurately match the logfile entry entries. If there are no matches, it is indicated by an minus (-) sign. If you change a pattern, this pattern becomes highlighted in blue in the pattern listing.
Action dropdown menu: Upload file from local Computer ...	Opens the file upload dialog, which you can use to locate the log file you want to upload from the file system on the machine where you are running the browser session. The file you upload contains the data you want to use to test the new or modified pattern matching rules.

To test patterns in a logfile entry policy

To test the patterns you define for a logfile entry policy, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Policies**.

3. Filter the policies by the logfile_entry type and, in the list of policies displayed, locate and click the log file whose conditions you want to test.

4. In the displayed log file page, click the **Edit** option in the Actions (⚙)menu.

5. In the Conditions tab click the **Test Patterns** button. Note that the pattern testing editor is displayed in a separate, pop-up window. If the window does not display, make sure you configure the browser to allow pop-up windows from the HP Operations Manager server.

6. Enter the pattern you want to test for each condition in the appropriate Condition Patterns field.

7. Load the log file you want to use to test the new patterns. You can load the test log file from the local file system (on the machine where the browser is running) or the file system on the HP Operations Manager management server.

8. If the pattern matching works as expected, you can apply the changes to the currently selected logfile entry policy using the following options:

- **OK**

  Saves all changes made during the current session and closes the pattern testing window. When you use the policy editor again, you must click **Save** to save all changes in the HPOM database.

- **Cancel**

  Discards all changes made during the current session and closes the pattern testing window. Use the Cancel button to:

  - leave the pattern test window
  - leave the editor

Related Topics

- The message policy conditions tab
- Add a new message policy condition

Pattern Matching in Message Source Policies

You can use pattern matching rules in HPOM message source policies both to help you target specific messages or strings in messages and also to compose custom messages to forward to the message browser. The following table lists the types of characters that are allowed and describes the syntax that you must use when defining pattern-matching rules.

Message Source Policy: Pattern Matching Rules

Element	Description	Examples
Ordinary Characters	Ordinary characters are expressions which represent themselves. Any character of the supported character set may be used.	A, a, Z, z, as well as any special characters. However, the following special characters [ ] < >	^ $ must be prefaced with a backslash (\) which masks their usual function. If ^ and $ are not used as *anchor* characters (at the start and end of an expression), they are considered to be ordinary characters.
Mask Operator	The backslash (\) is used to *mask* the special meaning of the characters: [ ] < >	^ $. A special character preceded by a backslash (\) results in an expression that matches the special character itself.	\\ (interpreted as \) or \[(interpreted as [)

Message Source Policy: Pattern Matching Rules, continued

Anchor Characters	The caret (^) and the dollar sign ($) are used to match strings at the start and end of an expression respectively.	"^ab" matches the string "ab" in the line "abcde", but not in the line "xabcde". "de$" matches "de" in the line "abcde", but not in the line "abcdex".
Match Multiple Characters	Patterns can be used to match strings consisting of an arbitrary number of characters, but require one or more of the following expressions.	* n* # n# - n_ @
Brackets	The square brackets ([and]) are used as delimiters to group expressions. To increase performance, brackets should be avoided wherever they are superfluous. Bracketed expressions are used frequently with the Alternative Operator and the Not Operator. Brackets are also often useful when assigning values to variables.	The pattern [ab|c]d matches the string "abd" and the string "cd".
Alternative Operators	Two expressions separated by the vertical bar alternative operator (|) match a string that is matched by either expression.	The pattern: [ab|c]d matches the string "abd" and the string "cd".
Assign to Variables	In addition to being able to use a single expression, such as <*> or <#> to assign a string to a variable, it is also possible to use the assign-to-variable operator to build up a complex subpattern composed of a number of operators. The assign-to-variable operator uses the square brackets used in other bracket expressions.	<[Warning|Error].var> would match any instance of the string "Warning'' or the string "Error'' found in the message text and assign the string "Warning" to "var".
Not Operator	The not operator enables you to match text that does *NOT* match a string. Note that the not operator must be used with delimiting square brackets.	<![WARNING]> matches all text which does not contain the string "WARNING".
Numeric Ranges	Patterns that define a range of numbers delimited by an operator such as "greater than" or "equal to".	-le (less than or equal to), -lt (less than), -ge (greater than or equal to), -gt (greater than), -eq (equal to), -ne (not equal to).
Separators	Separators are used within the message-text pattern to separate characters or blocks of text.	-n (newline), -r (carriage return), or -t (tab character).

Related Topics

- Using variables in new policies
- Create a new policy

Alternative Operators

You can use pattern matching rules in HPOM message source policies both to help you target specific messages or strings in messages and also to compose custom messages to forward to the message browser. The following table lists alternative operator and describes the syntax that you must use when defining pattern-matching rules.

Two expressions separated by the vertical bar alternative operator (|) match a string that is matched by either expression. You can use this operator to match multiple strings from a single, longer string.

Message-Source Pattern Matching: Alternative Operators

Operator	Description	Examples
|	Two expressions separated by the vertical bar alternative operator (|) match a string that is matched by either expression.	[ab|c]d matches the string "abd" and the string "cd"

Related Topics

- Using pattern matching in new policies
- Using variables in new policies
- Create a new policy

Anchor Characters

You can use pattern matching rules in HPOM message source policies both to help you target specific messages or strings in messages and also to compose custom messages to forward to the message browser.

The caret (^) and the dollar sign ($) are used to match strings at the start and end of an expression respectively. The following table lists the anchor characters allowed in pattern matching for message source policies and shows the syntax that is required when using them.

Message-Source Pattern Matching: Anchor Operators

Operator	Description	Examples
^	Match strings at the start of an expression.	^ab matches the string "ab" in the line "abcde", but not in the line "xabcde".
$	Match strings at the end of an expression.	de$ matches "de" in the line "abcde", but not in the line "abcdex".

Related Topics

- Using pattern matching in new policies
- Using variables in new policies
- Create a new policy

Assigning to Variables

You can use pattern matching rules in HPOM message source policies both to help you target specific messages or strings in messages and also to compose custom messages to forward to the message browser.

In addition to being able to use a single expression, such as <*> or <#> to assign a string to a variable, it is also possible to use the assign-to-variable operator to build up a complex subpattern composed of a number of operators. The assign-to-variable operator uses the square brackets used in bracket expressions. For example, <[Warning|Error].var> would match any instance of the string "Warning" or the string "Error" found in the message text and assign the string "Warning" to "var".

The basic pattern to use when assigning values matched strings to variables is as follows: `<[sub-pattern].var>`. For example, `<[<@>file.tmp].fname>`. Note that in this example above, the dot (.) between "file" and "tmp" matches the dot character, while the dot between "]" and "fname" is mandatory syntax. The example pattern would match a string such as "Logfile.tmp" and assign the complete string to the variable "fname".

Message-Source Pattern Matching: Assign to Variable

Operator	Description	Examples
*	Match a string in a sub pattern and assign the resulting match to a variable.	
#	Match a digit/number in a sub pattern and assign the resulting match to a variable.	

In the example `<[Warning|Error].var>`, the pattern would match any instance of the string "Warning" or the string "Error" found in the message text. The message text: "Warning and Error: Shutdown" would therefore cause the string "Warning" to be assigned to the variable "var". Notice that it is the first instance of a matched string which is assigned.

In the example, `<[Error[<#.n><*.msg>]].complete>`, any line containing the word "Error" followed by a number would assign the number to the variable "n", and any further text would be assigned to the variable "msg". Then, both number (in variable "n") and text (in variable "msg") are assigned to the variable "complete".

Related Topics

- Using pattern-matching in new policies
- Using variables in new policies
- Create a new policy

Brackets

You can use pattern matching rules in HPOM message source policies both to help you target specific messages or strings in messages and also to compose custom messages to forward to the message browser.

The square brackets ([and]) are used as delimiters in group expressions. To increase performance, brackets should be avoided wherever they are superfluous. Bracketed expressions are used frequently with the Alternative Operators and the Not Operator. Brackets are also often useful with the Assign-to-variable Operator.

Message-Source Pattern Matching: Bracket Operators

Operator	Description	Examples
[	Used to indicate the *start* of a group expression.	[ab|c]d matches the string "abd" and the string "cd".
]	Used to indicate the *end* of a group expression.	[ab|c]d matches the string "abd" and the string "cd".

Related Topics

- Using pattern-matching in new policies
- Using variables in new policies
- Create a new policy

Mask Operator

You can use pattern matching rules in HPOM message source policies both to help you target specific messages or strings in messages and also to compose custom messages to forward to the message browser.

The backslash (\) is used to mask the special meaning of the characters: [ ] < > | ^ $. If you precede one of the listed special character with a back slash (\), for example, \[the pattern-matching expression matches the special character itself - in the example shown "[". Note that because ^ and $ only have special meaning when placed at the beginning and end of a pattern respectively, you need not mask them when they are used within the pattern (in other words, not at beginning or end). Note that to use a tab character in a pattern-matching expression, use /t.

Message-Source Pattern Matching: Bracket Operators

Operator	Description	Examples
\	Used to mask a special character and force the "masked" character to be interpreted as an ordinary character.	\\ (interpreted as \), \^ (interpreted as ^), or \$ (interpreted as $).

Related Topics

- Using pattern-matching in new policies
- Using variables in new policies
- Create a new policy

Match Multiple Characters

You can use pattern matching rules in HPOM message source policies both to help you target specific messages or strings in messages and also to compose custom messages to forward to the message browser.

Patterns can be used to match strings consisting of an arbitrary number of characters, but require one or more of the following expressions.* n* # n# - n_ @

Message-Source Pattern Matching: Multiple Characters Operators

Operator	Description	Examples
<*>	Matches any sequence of zero or more arbitrary characters (including separators).	
<n*>	Matches a sequence of n arbitrary characters (including separators).	
<#>	Matches a sequence of one or more digits.	
<n#>	Matches a sequence of n digits.	
<->	Matches a sequence of one or more separator characters. Separator characters are configurable for each pattern. By default, separators are the space and the tab characters.	<_> matches any individual separator character.
<n_>	Matches a sequence of n separators. Separator characters are configurable for each pattern. By default, separators are the space and the tab characters.	<2_> matches a sequence of two (2) separator characters.
<@>	Matches any string that contains no separator characters, in other words, a sequence of one or more non-separators; this can be used for matching words. The <@> and <_> expressions are designed to match input lines consisting of a sequence of words that each must be assigned to a variable.	`^Error 101: <@.date><_ ><@.node><_ ><@.errid><_ ><<*.msg>` matches the error message: `"Error 101: 4/9/93 nd001 101_2534 Couldn't write log file"`

Related Topics

- Using pattern-matching in new policies
- Using variables in new policies
- Create a new policy

Not Operator

You can use pattern matching rules in HPOM message source policies both to help you target specific messages or strings in messages and also to compose custom messages to forward to the message browser.

The not operator (!) enables you to search for and match strings that do not contain specific characters, digits, or complex strings. The not operator (!) must be used with delimiting square brackets, for example: <![WARNING]>, which would match all text that does not contain the string "WARNING".

Message Source Policy: Pattern Matching Rules

Operator	Description	Examples
!	Enables you to match patterns that do *not* contain specific characters, digits, or complex strings.	`SU <*> + <@.tty> <![root|[user[1|2]]].from>-<*.to>` generates a "switch-user" message for anyone who is *not* user root, user1, or user2. So, the message would match: `SU 03/25 08:14 + ttyp2 user11-root`, but the message `SU 03/25 08:14 + ttyp2 user2-root` would not, because it contains a reference to "user2".

When using the not operator, it is important to remember that unless excluded by the specific use of the caret (^) (beginning of line) or $ (end of line), all patterns are evaluated as if they are both preceded with and followed by the wildcard (*). So, the pattern `<![backup completed].text>` is actually evaluated as <*><![backup completed].text><*>, which can produce unexpected results, because each part of the pattern tries to match as few characters as possible.

For example, the string: "The backup failed at 2:42" matches the pattern `<![backup completed].text>`. However, because of the implied <*> at the end of the pattern, the variable "text" remains empty.

The pattern `<![backup completed].text>$` also matches the string "The backup failed at 2:42". However, since the not string is delimited by a $, the variable text will contain the string "The backup failed at 2:42".

Note that if the subpattern including the not operator (!) does not find a match, the not operator behaves like a <*>. So, it matches zero or more arbitrary characters. For this reason, the UN*X expression "[!123]" cannot be duplicated in HPOM. HPOM's <![1|2|3]> matches any character or any number of characters, *except* 1, 2 or 3; the UN*X operator matches any one character, except 1, 2 or 3.

Related Topics

- Using pattern-matching in new policies
- Using variables in new policies
- Create a new policy

Numeric Ranges

You can use pattern matching rules in HPOM message source policies both to help you target specific messages or strings in messages and also to compose custom messages to forward to the message browser. The following table lists the types of characters that are allowed and describes the syntax that you must use when defining pattern-matching rules.

Numeric Ranges are patterns that define a range of numbers delimited by an operator such as "greater than" or "equal to". For example, -le (less than or equal to), -lt (less than), -ge (greater than or equal to), -gt (greater than), -eq (equal to), -ne (not equal to).

Message–Source Pattern Matching: Numeric Operators

Operator	Description	Examples
-le	less than, or equal to	`<<#> -le 45>` matches all messages containing a number which is less than, or equal to, 45. For example, the message: `ATTENTION: Error 40 has occurred`. Note that the number 45 in the pattern is a true numeric value and not a string. Numbers higher than 45, for instance, "4545" will not be matched even if they contain the combination, "45".
-lt	less than	`<15 -lt <2#> -le 87>` matches any message in which the first two digits of a number are within the range 16-87. For instance, the message `Error Message 3299` would match; the string `Error Message 9932` would not match. A "less than" operator is also referred to as an Open Interval. Using "less than, or equal to" operators creates a Closed Interval.
-ge	greater than, or equal to	`^ERROR_<57 -ge <#.err>>` matches any text starting with the string "ERROR_" immediately followed by a number less than, or equal to, 57. For example, the message `ERROR_34: processing stopped` would match and the string "34" would be assigned to the variable "err". Note the use of the "^" expression anchor, which means that the string "ERROR_ 34" only matches if it occurs at the start of the line.
-gt	greater than	`<120 -gt [<#>1] -gt 20>` matches all numbers between 21 and 119 which have 1 as their last digit. For example, messages containing the following numbers would match: 21, 31, 41 101... 111, and so on. Alternatively, the example "Temperature <*> <@.plant>: <<#> -gt 100> F$" matches strings such as: "Actual Temperature in Building A: 128 F" and assigns the letter "A" to the variable "plant". Note the use of the "$" expression anchor. A "greater than" operator is also referred to as an Open Interval. Using "greater than, equal to" operators creates a Closed Interval.
-eq	equal to	`Error <<#> -eq 1004>` matches any message containing the string "Error" followed by the sequence of digits, "1004". For example, `Warning: Error 1004 has occurred` would match this pattern. However, `Error 10041` would not match.

Message-Source Pattern Matching: Numeric Operators, continued

-ne	not equal to	WARNING <<#> -ne 107> matches any message containing the string "WARNING" followed by a blank and any sequence of one or more digits, except "107". For example, the message: `Application Enterprise (94/12/45 14:03): WARNING 3877` would match.

Related Topics

- Using pattern-matching in new policies
- Using variables in new policies
- Create a new policy

Ordinary Characters

You can use pattern matching rules in HPOM message source policies both to help you target specific messages (or strings in messages) and also to compose custom messages to forward to the message browser.

Ordinary characters are expressions which represent themselves. Any character of the supported character set may be used. A, a, Z, z, and so on, as well as any special characters. However, the special characters [ ] < > | ^ $ must be prefaced with a backslash (\) to masks their usual (special) function. If ^ and $ are not used as Expression Anchor characters (at the start and end of an expression), they are considered to be ordinary characters.

Related Topics

- Using pattern-matching in new policies
- Using variables in new policies
- Create a new policy

Separators

You can use pattern matching rules in HPOM message source policies both to help you target specific messages or strings in messages and also to compose custom messages to forward to the message browser.

Field separators are used within the message text pattern as separator characters. You can specify up to seven separators. Enter the separators in a string without spaces. The following separators must be preceded with a backslash but still count as one separator.

Message Source Pattern Matching: Separator
Operators

Operator	Description
\n	Newline (NL)
\t	Horizontal tab (HT)
\v	Vertical tab (VT)

Message Source Pattern Matching: Separator Operators, continued

\b	Backspace (BS)
\r	Carriage return (CR)
\f	Form feed (FF)
\a	Alert (BEL)
\\	Backslash (\)

The default separators are: a blank, and the horizontal tab character.

Related Topics

- Using pattern matching in new policies
- Using variables in new policies
- Create a new policy

Policy Objects for Scripts

The objects listed here are available for each policy and can be manipulated with Visual Basic Scripting Edition or with Perl. These policy objects can only be used in scripts that run within a policy. They cannot be used in standalone scripts that are executed from the command line.

Caution: Policy scripts provide administrators with a powerful tool to evaluate and manipulate data. If, however, a script is incorrectly written, it could cause the agent to fail. Hewlett-Packard Company is not responsible for agent failures resulting from incorrectly written scripts.

Policy Object

This object is used to access the attributes of a policy.

Policy Method:	**Source**
Parameter:	*name* (The **Short name** indicated in the policy's source properties.)
Return Type:	VB Script: IDispatch object of type "Source" (This is the default method for the Policy object.) Perl: source object.
VB Script Syntax:	`Policy.Source ("`*name*`")`
Perl Syntax:	`$Policy->Source ("`*name*`");`

Description:	Returns the source object for the defined source and metric. Measurement type sources must use a separate source for each metric. **Note:** To improve performance, assign the source object to a variable instead of using the Source method every time it is needed.
Policy Method:	**Name**
Parameter:	void
Return Type:	VB Script: BSTR Perl: string
VB Script Syntax:	`Policy.Name()`
Perl Syntax:	`$Policy->Name();`
Description:	Returns the name of the policy that started the script.
Policy Method:	**CreateObject**
Parameter:	*progID* (string of format: `[Vendor.]Component[.Version]`)
Return Type:	VB Script: IDispatch Perl: not applicable
VB Script Syntax:	`Policy.CreateObject("`*progID*`")`
Perl Syntax:	not applicable
Description:	Creates a component instance of a COM object. Note that this method is valid only on Windows nodes, and cannot be used in a Perl script.
Policy Method:	**SourceEx**
Parameter:	*expression* (See Description, below, for valid expressions.)
Return Type:	VB Script: IDispatch object of type "Source" Perl: source object
VB Script Syntax:	`Policy.SourceEx("`*expression*`")`
Perl Syntax:	`$Policy->SourceEx("`*expression*`");`

Description:	Returns the source object instance of the source defined by the expression. This source object is identical to the object returned by the Policy.Source method, but because it does not have to be configured in the policy, it can be used for scheduled tasks, as well as for measurement threshold policies. The expression can have the following format depending on which component the performance metric will be collected from:

- `NTPERFMON\\Object\\Counter\\Instance`
  Access a `perflib`metric (not supported on UNIX nodes). Object, Counter, and Instance are strings as specified in the current monitor configuration for NT performance monitors. Example: `NTPERFMON\\Process\\Elapsed Time\\*`

- `SNMP\\object id[\\hostname]`
  Perform an SNMP get on the specified object id (OID). By default, the collection will be done on the managed node but can be elsewhere if the optional hostname is given. For SNMP, the method will have to wait until the value is returned which might take some time. Example: `SNMP\\.1.3.6.1.2.1.1.7.0\\onion.veg.com`

- `PROGRAM\\command[\\monname]`
  Run the specified command or script for gathering the monitored value. The command or script must at some point run the opcmon command to return the value associated with the monitor. If no monitor name is specified, then the default DynPROGRAM must be used. For example, to specify the monitor mymonname: `opcmon mymonname=value`; to specify the default, `opcmon DynPROGRAM=value`. Examples:
  `PROGRAM\\opcmon DynPROGRAM=12`
  `PROGRAM\\opcmon testmon=25\\testmon`

- `EXTERNAL[\\monname]`
  Wait for a value returned by the execution of the opcmon command. This is similar to the PROGRAM expression but a command is not directly carried out. An external command previously triggered by the ExecuteCommand object must provide the monitor value. The default value is DynEXTERNAL (opcmon DynExternal=10) Examples:
  `EXTERNAL`
  `EXTERNAL\\testmon`

- `WBEM\\namespace\\class name\\property name`
  WMI interface (not supported on UNIX nodes). Get access to WBEM values. Namespace, class name, and property name are strings as specified in the current monitor configuration for WBEM.Example:
  `WBEM\\ROOT\CIMV2\\Win32_PerfRawData_PerfDisk_ LogicalDisk\\DiskReadBytesPersec`

- `CODA\\data source\\collection\\metric name`
  Query a metric from the embedded performance component. Data source, collection and metric name are strings as specified in the monitor configuration for the embedded performance component. Currently if the data source is empty, the string Coda will be used. Example:
  `CODA\\\\CPU\\BYCPU_CPU_TOTAL_UTIL`

  You can view a of list of available metrics in the *Dictionary of Performance*

	Metrics: Performance Collection Component which is available at HP Software Product Manuals. (Select the product **Operations Agent**, the required version, OS, and language.)
	Note: In Perl, the backslash character '\' is an escape code. A backslash is only introduced in a string when preceded by another backslash. Because of this, tokens in expressions need to be separated by quadruple backslashes '\\\\'. Example for Perl: `my $TestSource = $Policy->SourceEx("PROGRAM\\\\/tmp/script.sh\\\\testmon");`
***Policy Method*:**	**SourceExTimeout**
Parameter:	*seconds* (integer)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`Policy.SourceExTimeout = seconds`
Perl Syntax:	`$Policy->SourceExTimeout(seconds);`
Description:	Specifies the maximum amount of time, in seconds, the SourceEx and SourceCollection methods will wait before a value is returned. Default is 30 seconds.
***Policy Method*:**	**Execute**
Parameter:	*command* (string)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`Policy.Execute("command")`
Perl Syntax:	`$Policy->Execute("command");`
Description:	Run the specified command asynchronously. The command is executed in the context of agent security, so could be run as Local System or any other user-selected user to run the agent. The method will return immediately. See the ExecuteCommand method Command for more information about how to indicate commands.
***Policy Method*:**	**Output**
Parameter:	*string*
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`Policy.Output("string")`
Perl Syntax:	`$Policy->Output("string");`
Description:	Appends the string to the annotation field of the message sent to the message browser in response to the success or failure of a scheduled task. This method is valid only for scheduled task policies.
	ExecuteEx

Parameter:	*command* (string)
Return Type:	VB Script: BSTR Perl: string
VB Script Syntax:	`Policy.ExecuteEx("command")`
Perl Syntax:	`$Policy->ExecuteEx("command");`

Description:	Run the specified command synchronously and wait for it to complete before returning the output of the command.
	
	• **Security.** The command is executed in the context of agent security, so could be run as Local System or any other user-selected user to run the agent.
	
	• **Return values.** If the command is successful, STDOUT is returned. If the command is not successful (return value non-zero), the string "ERROR:\n" followed by STDERR will be returned.
	
	To handle non-zero return values, run ExecuteEx in an eval function and then check the result, for example for the string ERROR.
	
	Perl script example:
	
	`eval '$ReturnText = $ExecuteCommand->ExecuteEx()';`
	`$ReturnText =$@ if $@;`
	
	• **Paths.** You must use complete paths or ensure that any needed path is included in the PATH variable.
	
	Example: `dir_con = Policy.ExecuteEx ("cmd /c dir c:\")`

Policy Method:	**StoreCollection**
Parameters:	• *expression*: (An embedded performance component metric in the format: `CODA\\data source\\collection\\metric name[\\category]`) • *sourceobj*: (Any valid source object)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`Policy.StoreCollection("expression", sourceobj)`
Perl Syntax:	`$Policy->StoreCollection("expression", sourceobj);`
Category Type:	Describes available category types.
Description:	Stores the source object into the embedded performance component data source identified by the expression. Example: `Policy.StoreCollection "CODA\\DBSPI\\TABLE\\SPACE",Source`
Policy Method:	**SourceCollection**

Parameters:	• *expression*: An embedded performance component metric in the format: `CODA\\data source\\collection\\metric name`. • *rangeofseconds*: The number of seconds for which metrics should be returned. • *endtime*: End time for *rangeofseconds*. The format of time is of type DATE for VB Script or a string (format DD/MM/YYYY HH:MM:SS) for Perl. The date is optional.
Return Type:	VB Script: IDispatch object of type "Source" Perl: source object.
VB Script Syntax:	`Policy.SourceCollection ("expression", rangeofseconds, endtime)`
Perl Syntax:	`$Policy->SourceCollection ("expression", rangeofseconds, endtime);`
Description:	Returns the source object containing all values collected by the specified embedded performance component metric. For each instance, all metrics collected between the expression "*endtime - rangeofseconds*" and "*rangeofseconds*" will be returned. If *endtime* is 0 (NULL for Perl) it is evaluated with the current time. Example: `Policy.SourceCollection ("CODA\\\\CPU\\BYCPU_CPU_TOTAL_UTIL",300,0)`The number of seconds specified should usually be less than 3600 (one hour), since retrieving a large number of values takes time and consumes resources.

Source Object

The source object is used to access the current values of the metrics. The source object instances can be created by any method that returns the source object.

Source Method:	Value
Parameter:	void
Return Type:	VB Script: variant (This is the default method for the Source object.) Perl: string
VB Script Syntax:	`Sourceobj.Value()`
Perl Syntax:	`$Sourceobj->Value();`
Description:	Current instance value if the option *Process each instance separately* is selected in the policy's processing options.
Source Method:	Name
Parameter:	void
Return Type:	VB Script: BSTR Perl: string
VB Script Syntax:	`Sourceobj.Name()`

Perl Syntax:	`$Sourceobj->Name();`
Description:	Returns the name of the current instance if option *Process each instance separately* is selected in the processing options of the measurement threshold policy.
Source Method:	**InstanceCount**
Parameter:	void
Return Type:	VB Script: Int Perl: integer
VB Script Syntax:	`Sourceobj.InstanceCount()`
Perl Syntax:	`$Sourceobj->InstanceCount();`
Description:	Returns the number of instances that the source has.
Source Method:	**Count**
Parameter:	void
Return Type:	VB Script: Int Perl: integer
VB Script Syntax:	`Sourceobj.Count()`
Perl Syntax:	`$Sourceobj->Count();`
Description:	Same as InstanceCount. This parameter exists to provide backwards compatibility.
Source Method:	**Item**
Parameter:	*index*
Return Type:	VB Script: IDispatch object of type "Source" Perl: source object
VB Script Syntax:	`Sourceobj.Item(index)`
Perl Syntax:	`$Sourceobj->Item(index);`
Description:	Access to the instance defined by the index. The index is a number from 0 to InstanceCount - 1. The returned source object can be extracted using the Value and Name methods. This parameter exists to provide backwards compatibility.
Source Method:	**ValueOf**
Parameter:	*index* (integer)
Return Type:	VB Script: variant Perl: string
VB Script Syntax:	`Sourceobj.ValueOf(index)`
Perl Syntax:	`$Sourceobj->ValueOf(index);`

Description:	Direct access to the value of the instance defined by the index. This method is useful for looping over all instances, if the option *Process all instances once* is defined. The index is a number from 0 to InstanceCount - 1.
Source Method:	**NameOf**
Parameter:	*index* (integer)
Return Type:	VB Script: BSTR Perl: string
VB Script Syntax:	`Sourceobj.NameOf(`*`index`*`)`
Perl Syntax:	`$Sourceobj->NameOf(`*`index`*`);`
Description:	Direct access to the name of the instance defined by the index. The index is a number from 0 to InstanceCount - 1. This method is useful for looping over all instances, if the option *Process all instances once* is selected in the policy's processing options.
Source Method:	**Top**
Parameter:	*number*
Return Type:	VB Script: IDispatch object of type "Source" Perl: source object
VB Script Syntax:	`Sourceobj.Top(`*`number`*`)`
Perl Syntax:	`$Sourceobj->Top(`*`number`*`);`
Description:	Returns a new source object instance that contains only the instances with the <number> highest values. For example, if these three instances exist: `c:` `=` `90%;` `d` `=` `80%;` `e` `=` `40%` then Sourceobj.Top(2) returns `c:` and `d:`.
Source Method:	**Bottom**
Parameter:	*number*
Return Type:	VB Script: IDispatch object of type "Source" Perl: source object
VB Script Syntax:	`Sourceobj.Bottom(`*`number`*`)`
Perl Syntax:	`$Sourceobj->Bottom(`*`number`*`);`
Description:	Returns a new source object instance that contains only the instances with the <number> lowest values. For example, if these three instances exist: `c:` `=` `90%;` `d` `=` `80%;` `e` `=` `40%` then Sourceobj.Bottom(2) will return `d:` and `e:`.
Source Method:	**Exclude**
Parameter:	*namepattern*, *valuepattern*
Return Type:	VB Script: IDispatch object of type "Source" Perl: source object
VB Script Syntax:	`Sourceobj.Exclude("`*`namepattern`*`", "`*`valuepattern`*`")`

Perl Syntax:	`$Sourceobj->Exclude("namepattern", "valuepattern");`
Description:	Returns a new source object instance excluding values specified by the patterns. You can specify two parameters, one for the name of the variable (type, object, and instance) and one for the value. Specify NULL if no matching is required for one argument. Patterns should be valid HPOM pattern-matching expressions.
Source Method:	**Include**
Parameter:	*namepattern*, *valuepattern*
Return Type:	VB Script: IDispatch object of type "Source" Perl: source object
VB Script Syntax:	`Sourceobj.Include("namepattern", "valuepattern")`
Perl Syntax:	`$Sourceobj->Include("namepattern", "valuepattern");`
Description:	Returns a new source object instance including only values specified by the patterns. You can specify two parameters, one for the name of the variable (type, object, and instance) and one for the value. Specify `NULL` if no matching is required for one argument. Patterns should be valid HPOM pattern-matching expressions.
Source Method:	**Time**
Parameter:	void
Return Type:	VB Script: DATE Perl: string (format: `DD/MM/YYYY HH:MM:SS`)
VB Script Syntax:	`Sourceobj.Time()`
Perl Syntax:	`$Sourceobj->Time();`
Description:	Returns the time when the expression was evaluated.
Source Method:	**TimeOf**
Parameter:	index (integer)
Return Type:	VB Script: DATE Perl: string (format: `DD/MM/YYYY HH:MM:SS`)
VB Script Syntax:	`Source.TimeOf(index)`
Perl Syntax:	`$Sourceobj->TimeOf(index);`
Description:	Returns the time when the expression was evaluated for a specific instance. The index is a number from 0 to InstanceCount - 1.
Source Method:	**Add**
Parameter:	*instancename*, *value*
Return Type:	VB Script: void Perl: void

VB Script Syntax:	`Sourceobj.Add "instancename:",value`
Perl Syntax:	`$Sourceobj->Add("instancename:",value);`
Category Type:	Describes available category types.

Description:	Adds the instance name to the source object and sets the value. If this instance is already part of the source object ,the new instance will not be added and the value will be replaced. This method can be used on a newly created object or an object retrieved from any method returning a source object. This method is used to store data into the embedded performance component.
	VB Script example:
	`set Sourceobj = Policy.CreateObject("Ito.OvEpScriptMetric")`
	`Sourceobj.Add "a:",10`
	`Sourceobj.Add "b:",25`
	`Policy.StoreCollection`
	`"CODA\\floppy\\disk\\space\\\\gauge",Sourceobj`
	
	Perl example:
	`my $Sourceobj = new Source;`
	`$Sourceobj->Add("a:",10);`
	`$Sourceobj->Add("b:",25);`
	`$Policy->StoreCollection`
	`("CODA\\\\floppy\\\\disk\\\\space\\\\gauge",$Sourceobj);`

Source Method:	**DataAvailable**
Parameter:	void
Return Type:	VB Script: Boolean Perl: integer
VB Script Syntax:	`Sourceobj.DataAvailable`
Perl Syntax:	`$Sourceobj->Sourceobj.DataAvailable;`
Description:	Returns TRUE if the source object contains any value, otherwise, returns FALSE.
Source Method:	**ValueOfInstance**
Parameter:	*instancename*
Return Type:	VB Script: variant Perl: string
VB Script Syntax:	`Sourceobj.ValueOfInstance("instancename")`
Perl Syntax:	`$Sourceobj->ValueOfInstance("instancename");`
Description:	Direct access to the value of the instance defined by the instance name.

Session Object

The Session object can be used to store data and to access it later within the script running at a different interval. The session object can also be used to transfer data from the script to the policy actions using the action variable `<$SESSION(KEY)>`. The Session object is unique for each policy.

Session Method:	IsPresent
Parameter:	key
Return Type:	VB Script: Boolean Perl: integer
VB Script Syntax:	`Session.IsPresent("key")`
Perl Syntax:	`$Session->IsPresent("key");`
Description:	Returns TRUE if a value for key exists. Returns FALSE if no value for key exists. Keys are set with the Session Value method.
Session Method:	Remove
Parameter:	key
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`Session.Remove("key")`
Perl Syntax:	`$Session->Remove("key");`
Description:	Removes the key specified from the session object.
Session Method:	RemoveAll
Parameter:	void
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`Session.RemoveAll()`
Perl Syntax:	`$Session->RemoveAll();`
Description:	Removes all keys from the session object.
Session Method:	Value
Parameter:	key value (for Perl only)
Return Type:	VB Script: variant (This is the default method for the Session object.) Perl: string
VB Script Syntax:	for put: `Session.Value("key")=value` for get: `value=Session.Value("key")`

Perl Syntax:	for put: $Session->Value("key","value"); for get: Value = $Session->Value("key");
Description:	Gets or puts a value for the defined key.

Rule Object

The Rule object is used to indicate to the policy whether a threshold has been crossed or not. TRUE = threshold crossed, FALSE = threshold not crossed.

Rule Method:	Status
Parameter:	void
Return Type:	VB Script: Boolean Perl: integer
VB Script Syntax:	for put: Rule.Status = boolvalue for get: boolvalue = Rule.Status
Perl Syntax:	for put: $Rule.Status(boolvalue); for get: boolvalue = $Rule.Status();
Description:	Puts or gets the value for threshold status. For scheduled task policies, FALSE indicates that the scheduled task failed.

ConsoleMessage Object

The ConsoleMessage object provides a method for sending messages directly to the message browser. Messages sent in this way will not be intercepted by an open message interface policy, but instead will be sent directly to the management server (message will go to MSI, if configured). The specified message will be sent to the message agent. Multiple uses of the Send method are supported. The same script can then send multiple messages to the HP Operations Manager console depending on which problem it detects.

You cannot use action variables with the ConsoleMessage object.	
ConsoleMessage Method:	**Application**
Parameter:	application (string)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	ConsoleMessage.Application = "application"
Perl Syntax:	$ConsoleMessage->Application("application");
Description:	This optional method sets the content of **Application** in the general message properties of the message sent to the browser.
ConsoleMessage Method:	**Object**

Parameter:	*object* (string)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ConsoleMessage.Object = "object"`
Perl Syntax:	`$ConsoleMessage->Object("object");`
Description:	This optional method sets the content of **Object** in the general message properties of the message sent to the browser.
ConsoleMessage Method:	**MsgText**
Parameter:	*msgtext* (string)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ConsoleMessage.MsgText = "msgtext"`
Perl Syntax:	`$ConsoleMessage->MsgText("msgtext");`
Description:	This method sets the message text for the message that is sent.
ConsoleMessage Method:	**Severity**
Parameter:	*severity* (valid strings are: Unknown|Normal|Warning|Minor|Major|Critical)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ConsoleMessage.Severity = "severity"`
Perl Syntax:	`$ConsoleMessage->Severity("severity");`
Description:	Sets the severity of the message that is sent. If not specifically set with this method, the default is Normal. If an invalid string is supplied, severity Unknown will be used.
ConsoleMessage Method:	**MsgGrp**
Parameter:	*messagegroup* (string)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ConsoleMessage.MsgGrp = "messagegroup"`
Perl Syntax:	`$ConsoleMessage->MsgGrp("messagegroup");`
Description:	Sets the value for the **Message Group** in general message properties of the message sent to the browser. If this method does not supply a value, Misc is used.
ConsoleMessage Method:	**Node**
Parameter:	*nodename* (IP address or fully qualified hostname)

Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ConsoleMessage.Node = "nodename"`
Perl Syntax:	`$ConsoleMessage->Node("nodename");`
Description:	Sets the value for **Primary Node Name** that will be displayed in the general message properties of the message sent to the browser. IP addresses and fully qualified hostnames are valid. If this method does not supply a value, the hostname of the managed node is used by default.
ConsoleMessage Method:	**ServiceId**
Parameter:	*serviceid* (string)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ConsoleMessage.ServiceId = "serviceid"`
Perl Syntax:	`$ConsoleMessage->ServiceId("serviceid");`
Description:	This optional method sets the Service ID for the message.
ConsoleMessage Method:	**MessageType**
Parameter:	*messagetype* (string)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ConsoleMessage.MessageType = "messagetype"`
Perl Syntax:	`$ConsoleMessage->MessageType("messagetype");`
Description:	This optional method sets the value for the **message type field** of the general message properties of the message sent to the browser.
ConsoleMessage Method:	**MessageKey**
Parameter:	*messagekey* (string)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ConsoleMessage.MessageKey = "messagekey"`
Perl Syntax:	`$ConsoleMessage->MessageKey("messagekey");`
Description:	This optional methods sets a key for message correlation.
ConsoleMessage Method:	**AcknowledgeMessageKey**
Parameter:	*messagekey* (string)
Return Type:	VB Script: void Perl: void

VB Script Syntax:	`ConsoleMessage.AcknowledgeMessageKey = "messagekey"`
Perl Syntax:	`$ConsoleMessage->AcknowledgeMessageKey("messagekey");`
Description:	This optional method sets the message key to indicate which messages are automatically acknowledged in the browser.
ConsoleMessage Method:	**TroubleTicket**
Parameter:	*Booleanvalue*
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ConsoleMessage.TroubleTicket = Booleanvalue`
Perl Syntax:	`$ConsoleMessage->TroubleTicket(Booleanvalue);`
Description:	This optional method specifies if the message is to be sent to a trouble ticket interface. Default is FALSE.
ConsoleMessage Method:	**Notification**
Parameter:	*Booleanvalue*
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ConsoleMessage.Notification = Booleanvalue`
Perl Syntax:	`$ConsoleMessage->Notification(Booleanvalue);`
Description:	This optional method specifies if the message is sent to the notification mechanism. Default is FALSE.
ConsoleMessage Method:	**AgentMSI**
Parameter:	*type* (valid strings are: copy|divert|none)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ConsoleMessage.AgentMSI = "type"`
Perl Syntax:	`$ConsoleMessage->AgentMSI("type");`
Description:	This optional method specifies if the message is to be sent through the message stream interface on the agent. Default (or if string misspelled) is none.
ConsoleMessage Method:	**ServerMSI**
Parameter:	*type* (valid strings are: copy|divert|none)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ConsoleMessage.ServerMSI = "type"`

Perl Syntax:	$ConsoleMessage->ServerMSI("*type*");
Description:	This optional method specifies if message is sent through the message stream interface on the server. Default (or if string misspelled) is none.
ConsoleMessage Method:	**Send**
Parameter:	void
Return Type:	VB Script: void Perl: void
VB Script Syntax:	ConsoleMessage.Send()
Perl Syntax:	$ConsoleMessage->Send();
Description:	This method sends the message to the management server. The MsgText method must set the message text before using this method. Multiple uses of the Send method are supported. HP Operations variables will not be expanded.

ExecuteCommand Object

Object used for requesting a command to be run. It starts a command to be run by the HP Operations agent.

ExecuteCommand Method:	**Command**
Parameter:	*command* (string)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	ExecuteCommand.Command = "*command*"
Perl Syntax:	$ExecuteCommand->Command("*command*");
Description:	This mandatory method is the name of the command to run with all necessary parameters. **Note:** For scripts that will run on Windows nodes, internal commands such as Copy, Rename, and DIR use a command interpreter that must be started before the command can be run. For commands of this type, the command must be preceded with `cmd /k`, followed by any other parameters required.
ExecuteCommand Method:	**KillonTimeout**
Parameter:	*seconds* (integer)
Return Type:	VB Script: void Perl: void

VB Script Syntax:	`ExecuteCommand.KillonTimeout = seconds;`
Perl Syntax:	`$ExecuteCommand->KillonTimeout(seconds);`
Description:	This method sets the maximum time, in seconds, that the command will run. The default is unlimited. Valid only with the StartEx method.
ExecuteCommand Method:	**UserName**
Parameter:	username (string)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ExecuteCommand.UserName = "username"`
Perl Syntax:	`$ExecuteCommand->UserName("username");`
Description:	User name under which the command should be run. Optional, default is $AGENT_USER.
ExecuteCommand Method:	**Password**
Parameter:	password (string)
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ExecuteCommand.Password = "password"`
Perl Syntax:	`$ExecuteCommand->Password("password");`

Description:	Password for accessing the specified user account. To prevent the password from being visible in the script, use the following instructions:
	1. Open a command prompt.
	2. Change directory to the agent install directory. By default, this directory is: `\Program Files\HP\HP BTO Software\Installed Packages\{790C06B4-844E-11D2-972B-080009EF8C2A}\bin\OpC\install`
	3. Encrypt your password with the command: **opcpwcrpt** *yourpassword*
	4. Use the output string as the password in your script.
	In some cases it is better not to supply a password.
	Executing the command without the password is the easier of the two methods, but it has some restrictions that make it unsuitable in some situations. The lists below show the restrictions and advantages of both methods.
	Without a password:
	• For Windows nodes, resources accessed through the network are not available.
	• For Windows nodes, if a domain user is specified, the agent must be installed on the domain controller that authenticates the user. In Windows 2000 domains, the agent must be installed on the PDC and the BDC of the user domain and both must have been restarted once.
	• For all nodes, changed passwords do not invalidate the policy.
	With a password:
	• For all nodes, resources accessed through the network are available.
	• For all nodes, the encrypted password is sent over the network.
	• For all nodes, if the password changes, the policy must be updated and redeployed.
ExecuteCommand Method:	**Start**
Parameter:	void
Return Type:	VB Script: void Perl: void
VB Script Syntax:	`ExecuteCommand.Start()`
Perl Syntax:	`$ExecuteCommand->Start();`

Description:	Run the command specified by ExecuteCommand Command and return immediately the control to the script so the next lines can be processed right away.
ExecuteCommand Method:	**StartEx**
Parameter:	void
Return Type:	VB Script: BSTR Perl: String
VB Script Syntax:	`ExecuteCommand.StartEx`
Perl Syntax:	`$ExecuteCommand->StartEx();`

Description:	Run the command ExecuteCommand Command and wait until it finishes. Commands can be run synchronously or asynchronously, as needed. Multiple uses of the Start method are supported. This way, the same script can trigger multiple external commands.
	If the command is successful, `STDOUT` is returned. If the command is not successful (return value non-zero), the string `"ERROR:\n"` followed by `STDERR` will be returned.
	
	To handle non-zero return values, run StartEx in an eval function and then check the result, for example for the string `ERROR`.
	
	Perl script example:
	
	`eval '$ReturnText = $ExecuteCommand->StartEx()';`
	`$ReturnText =$@ if $@;`

Related topics

- "Pattern Matching in Message Source Policies" on page 150
- "Pattern Testing" on page 148

Variables in Message Source Policies

You can use HPOM and user-defined variables in HPOM message source policies, for example: to compose the message generated by the new policy, pass parameters to action calls, or for use in external applications, by using the instruction text interface. HPOM variables must not be used for any other purpose (such as creating user-defined variables).

The variables listed in the table below can be used in most of the fields and text-entry boxes of the configuration dialogs for logfile, HPOM Interface, threshold monitor, and SNMP trap policies. The variables can be used within HPOM, or passed to external programs. They must be entered within the angle brackets "<" and ">" to ensure correct processing. For more information, see the *HPOM Administrator's Reference*.

Message Source Policy: Generic HPOM Variables

Variable Name	Description
<$MSG_APPL>	Returns the name of the application associated with the message. This name is set in the Message Defaults section of the Edit Policy dialog box. However, if a console message already has a value for this field, <$MSG_APPL> is not overwritten by an entry in the Edit Policy dialog box. This variable cannot be used in logfile policies. Sample output: `/usr/bin/su(1) Switch User`.
<$MSG_GEN_ NODE>	Returns the IP address of the node from which the message originates. Sample output: `14.136.122.123` for IPv4, `fec0::94f6:cff:fe4d:ccdd` for IPv6
<$MSG_GEN_ NODE_NAME>	Returns the name of the node on which from which the message originates. Sample output: `gfn.gfn.com`
<$MSG_GRP>	Returns the default message group of the message, as set in the Message Defaults section of the Logfile Entry Policy, Edit Policy or Open Message Interface dialog boxes. Sample output: `Security`
<$MSG_ID>	Returns the unique identity number of the message, as generated by the message agent. (Note: suppressed messages do not have message IDs.) Sample output: `6e998f80-a06b-71d0-012e-0f887a7c0000`.
<$MSG_NODE>	Returns the IP address of the node on which the message originates. Sample output: `14.154.162.13` for IPv4, `fec0::94f6:cff:fe4d:ccdd` for IPv6.
<MSG_NODE_ ID>	Returns the name of the node on which the event took place. Sample output: `richie.c.com`. This variable is only available in the Service Name field.
<$MSG_NODE_ NAME>	Returns the name of the node on which the message originates. This is the name returned by the node's name service. Sample output: `geefn.gfn.com`
<$MSG_ OBJECT>	Returns the name of the object associated with the event. This is set in the Message Defaults section of the SNMP Interceptor Policy dialog box. Note that this variable returns the *default* object, not the object set in the conditions window. This variable cannot be used in logfile policies.
<$MSG_ SERVICE>	Returns the service name associated with the message. This variable can also be used for automatic and operator-initiated actions. Sample output: `Application_Server`
<$MSG_SEV>	Returns the default value for the severity of the message. This is set in the Message Defaults section of the Logfile Entry Policy, Edit Policy or Open Message Interface dialog boxes. Sample output: `Normal`
<$MSG_TEXT>	Returns the original text of the message. This is the source text that is matched against the message text pattern in each condition. This variable returns an empty string when used in threshold monitor policies. Sample output: `SU 03/19 16:13 + ttyp7 bill-root`
<$MSG_TIME_ CREATED>	Returns the time the message was created in seconds since January 1, 1970. Sample output: `950008585`

Message Source Policy: Generic HPOM Variables, continued

<$MSG_TYPE>	Returns the default name for the message type set in the Condition No. window that opens from the Conditions tab in the Edit Policy dialog box.
<$OPTION(N)>	Returns the value of an optional variable that is set by opcmsg or opcmon (for example, <$OPTION(A)> <$OPTION(B)>, etc.). See the *opcmsg(1)* or *opcmon (1)* manual pages for information about how to set this variable.

For more information about using variables in the various fields and text boxes displayed during the configuration of a particular type of message source policy, for example, log files or SNMP traps, see the list of related topics below.

Related Topics

- Using variables in SNMP trap policies

- Using variables in scheduled action policies

- Using variables in policy actions

- Using variables in logfile policies

- Using variables in threshold policies

- Create a new policy

- Using pattern-matching in new policies

Variables in Logfile Entry Policies

The following variables can be used in the fields and text boxes of most logfile policies. The variables can be used within HPOM or passed to external programs.

Logfile Entry Policy: Permitted Variables

Variable Name	Description
<$1>	*Windows EventLog only.* Returns one or more of the possible parameters that are part of a Windows event. (<$1> returns the first parameter, <$2> returns the second parameter, and so on.)
<$EVENT_ID>	*Windows EventLog only.* Returns the event ID of the Windows event. <$EVENT_ID> simplifies the processing of multi-line EventLog messages. Note that you need the event's Source field and <$EVENT_ID> to identify the event uniquely. Sample output: 0x0000600F
<$LOGFILE>	Returns the name of the monitored logfile. Sample output: sulog
<$LOGPATH>	Returns the full path to the monitored logfile including the file name. Sample output: /var/adm/sulog

Related Topics

- Using variables in SNMP trap policies

- Using variables in scheduled action policies

- Using variables in policy actions

- Using variables in threshold policies

- Create a new policy

- Using pattern-matching in new policies

Variables in Message Source Actions

The following variables can only be used in the `Node` field (text box) when defining operator-initated actions, except for the variable <$OPC_MGMTSVL> which can be used in all fields. The variables <$OPC_MGMTSVL>, <$OPC_Administration UI _CLIENTL> and <$OPC_Administration UI _ CLIENT_WEBL> must be entered within angle brackets "<" and ">". Note that the variables must not be part of a string and cannot be nested.

Message Source Policy: Variables in Policy Actions

Variable Name	Description
<$OPC_ENV (environment variable)>	Returns the value of the environment variable for the user who has started HPOM. This variable is only available for operator-initated actions. It is resolved in the action call. Sample output: PATH, NLS_LANG, EDITOR, SHELL, HOME, TERM. For example, if SHELL is set to `/usr/bin/ksh`, and you have set up the operator-initated action echo $OPC_ENV(SHELL), the following command will be executed as operator-initated action: `echo /usr/bin/ksh`
<$OPC_GUI _ CLIENT>	Executes the application or action on the client where the Java GUI is currently running. If no Java GUI client is currently running, the application or action is started on the management server.
<$OPC_GUI _ CLIENT_WEB>	Starts a web browser on the client where the Java GUI is currently running. If no Java GUI client is currently running, the web browser is started on the management server.
<$OPC_ MGMTSV>	Returns the name of the current HP Operations management server. This variable can be used in all fields related to actions. Sample output: `gfn.gfn.com`
$OPC_USER	Returns the name of the HPOM user who is currently logged on the management server. This variable is only available for operator- initated actions. It is resolved in the action call. Sample output: `opc_adm`

Related Topics

- Using variables in SNMP trap policies

- Using variables in scheduled action policies

- Using variables in logfile policies

- Using variables in threshold policies

- Create a new policy

- Using pattern-matching in new policies

Variables in Scheduled Action Policies

The variables listed below can be used in the Scheduled Action - Start/Success/Failure Message windows of scheduled action policies. The variables can be used within HPOM, or passed to external programs.

Scheduled Action Message Source Policy: Permitted Variables

Variable Name	Description
<$PROG>	Returns the name of the program executed by the scheduled action policy. Sample output: `opcsv`
<$USER>	Returns the name of the user under which the scheduled action was executed. Sample output: `root`

Related Topics

- Using variables in SNMP trap policies
- Using variables in policy actions
- Using variables in logfile policies
- Using variables in threshold policies
- Create a new policy
- Using pattern-matching in new policies

Variables in SNMP Trap Policies

The variables listed below can be used in most of the fields and text-entry boxes displayed during the configuration of SNMP trap message source policies, except where noted. The variables can be used within HPOM or passed to external programs.

SNMP Trap Policy: Permitted Variables

Variable Name	Description
<$#>	Returns the number of variables in an enterprise-specific SNMP trap (generic trap 6 Enterprise-specific ID). Sample output: `2`
<$*>	Returns all variables assigned to the trap. Sample output: `[1] .1.1 (OctetString): arg1 [2] .1.2 (OctetString): kernighan.c.com`
<$@>	Returns the time the event was received as the number of seconds since Epoch (Jan 1, 1970) using the time representation. Sample output: `859479898`
<$1>	Returns one or more of the possible trap parameters that are part of an SNMP trap. (<$1> returns the first variable, <$2> returns the second variable, etc.)

SNMP Trap Policy: Permitted Variables, continued

<$\>1>	Returns all attributes greater than n as value strings, which is useful for printing a variable number of arguments. <$\>0> is equivalent to $* without sequence numbers, names, or types. Sample output: `geefn.gfn.com`
<$\>+1>	Returns all attributes greater than n as name:value string. Sample output: `.1.2:geefn.gfn.com`
<$+2>	Returns the nth variable binding as name:value. (Note: this parameter is not valid in the `Command` field.) Sample output: `.1.2:geefn.gfn.com`
<$\>-n>	Returns all attributes greater than n as [seq] name (type): value strings. Sample output: `[2] .1.2 (OctetString):geefn.gfn.com`
<$-2>	Returns the nth variable binding as [seq] name-type:value. (Note: this parameter is not valid in the `Command` field.) Sample output: `[2] .1.2 (OctetString): geefn.gfn.com`
<$A>	Returns the node which produced the trap. Sample output: `geefn.gfn.com`
<$C>	Returns the community of the trap. Sample output: `public`
<$E>	Returns the enterprise ID of the trap. Sample output:`private.enterprises.hp.nm.OpMgt.hpOpMgt`
<$e>	Returns the enterprise object ID. Sample output: `.1.3.6.1.4.1.11.2.17.1`
<$F>	Returns the textual name of the remote pmd's machine if the event was forwarded. Sample output: `geefn.gfn.com`
<$G>	Returns the generic trap ID. Sample output: `6`
<$N>	Returns the event name (textual alias) of the event format specification used to format the event, as defined in the Event Configurator. Sample output: `OM_Node_Down`
<$O>	Returns the name (object identifier) of the event. Sample output: `private.enterprises.hp.nm.opmgt.hpOpMgt.0.58916872`
<$o>	Returns the numeric object identifier of the event. Sample output: `.1.3.6.1.4.1.11.2.17.1`
<$R>	Returns the true source of the event. This value is inferred via the transport mechanism which delivered the event. Sample output: `geefn.gfn.com`
<$r>	Returns the implied source of the event. This may not be the true source of the event if the true source is proxying for another source, such as when a monitoring application running locally is reporting information about a remote node. Sample output: `geefn.gfn.com`
<$S>	Returns the specific trap ID. Sample output: `5891686`
<$s>	Returns the event's severity. Sample output: `Normal`
<$T>	Returns trap time stamp. Sample output: `0`

SNMP Trap Policy: Permitted Variables, continued

<$V>	Returns the event type, based on the transport from which the event was received. Currently supported types are SNMPv1, SNMPv2, SNMPv2C, CMIP, GENERIC, and SNMPv2INFORM. Sample output: `SNMPv1`
<$X>	Returns the time the event was received using the local time representation. Sample output: `17:24:58`
<$x>	Returns the date the event was received using the local date representation. Sample output: `03/27/97`

Related Topics

- Using variables in scheduled action policies

- Using variables in policy actions

- Using variables in logfile policies

- Using variables in threshold policies

- Create a new policy

- Using pattern matching in new policies

Variables in Threshold Monitor Policies

The variables listed below can be used in most of the fields and text-entry boxes displayed during the configuration of a threshold monitor policy except where noted. The variables can be used within HPOM or passed to external programs.

Threshold Monitor Policy: Permitted Variables

Variable Name	Description
<$NAME>	Returns the name of the threshold monitor set in the `Name` field of the Edit Policy dialog box. You cannot use the $NAME variable in the `Monitor Program` or `MIB ID` field. Sample output: `cpu_util`
<$THRESHOLD>	Returns the value of a monitor threshold set in the Threshold: field in the Condition No. window. Sample output: `95.00`
<$VALAVG>	Returns the average value of all messages reported by the threshold monitor. Sample output: `100.00`
<$VALCNT>	Returns the number of times that the threshold monitor has delivered a message to the browser. Sample output:`1`
<$VALUE>	Returns the value measured by a threshold monitor. Sample output: `100.00`

Related Topics

- Using variables in SNMP trap policies

- Using variables in scheduled action policies

- Using variables in policy actions

- Using variables in logfile policies
- Create a new policy
- Using pattern matching in new policies

All Policy Groups

The **All Policy Groups** page displays a list all the policy groups that are currently available on the HP Operations management server. The information in the All Policy Groups page is displayed in a table with the following information; note that you can click the title of the Name column to reorganize the list of policies in ascending or descending order. Click the actions button (⚙) to display a list of the actions you can perform on the policy groups in the list; click the browse button (🗗) to display a list of the configuration details that you can browse for the selected policy groups. For more information about the actions you can perform on policy groups and the configuration details you can browse, see the list of related topics below.

If you want to filter the list of policy groups to reduce the number displayed, click the **Filter** link at the top of the list and use the fields and drop-down menus to define the filter conditions; you can filter objects according to a wide range of criteria, for example: name, type, label. The range and complexity of filter options available depends on the type of object you want to display in a list.

List of HPOM Policy Groups

Column Title	Description
All	Check boxes to enables you to select all or individual policy groups on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Move to Policy Group...", "Assign Policies..." and "Delete..."
Name	Shows the name of the policy group. Click the policy-group name to see more detailed information about the selected policy group. Click one of the icons next to the policy group name for menus that enables you either to display more information about or perform an action on the selected policy group.
Path	The path the location of the selected policy group; used to indicate if subgroups are nested in policy groups, for example: `/Policy Bank/SiteScope Integration/SiteScope Monitor Alerts/Development`.
🗗	Click the Browse Details button to display a list of the configuration details that you can browse for the selected policy group. For more information about what details you can browse, see Browse policy (group) details.
⚙	Click the Actions button to display a list of the actions you can perform on the selected policy group (or groups) in the list. For more information about what actions you can perform, see Configure policy (group) details.
Contents	Shows the number of policies a policy group contains.
Description	Shows a brief description of the policy group.

To display a list of policy groups

To display a list of all the policy groups available on the HP Operations management server, you need to perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Policy Groups** to display the policy groups in a flat list. Note that if there are many policy groups, it can sometimes take a little time for HP Operations Manager to populate the list.

Related Topics

- Sorting Object Lists
- Filter Object Lists
- Perform policy actions
- Browsing policy details
- Understanding Policy Types
- New Policy
- New Policy Group
- Updating Policy Version Assignments

Edit Policy Group

The Edit Policy Group page displays parameters for existing HPOM policy groups and allows you to redefine the policy group completely. Use this page to modify policy groups and redeploy them to your HPOM environment. The following table explains what information you enter in each of the fields in the Edit Policy Group Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Edit Policy Group: Properties Tab

Field Label	Description of Contents	Information Required
Information	Short information about the policy group you are modifying.	No
Name	The name of the policy group you want to modify. The name appears in the list of policies in the HPOM Message Source Policies window.	Yes
Description	A short description of the policy group you are modifying; the description is displayed in the Administration UI to help users understand what type of messages are generated by policies in the policy group.	No

To modify a policy group

To modify an existing policy group and redeploy it to HPOM, perform the following steps:

1. In the **Browse** menu, select **All Policy Groups**, and then choose the group you want to modify from the displayed list of policy groups. Choose **Edit...** from the actions menu.

2. Enter information in the fields presented in the **Properties** tab.

The **Properties** tab displays details about the policy group you want to modify. For more information about what values are allowed in the fields displayed, see the tables above.

3. After configuring the policy group, save or discard the details of the policy group using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new policy group definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the policy-group configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Cancel**

   Discards all changes to the policy group.

Related Topics

- New policies
- New policy groups

All Policy Assignments

The **All Policy Assignments** page displays a lists of all the policies and policy groups that have been assigned to the managed nodes or node groups that belong to the HP Operations management server, which you are browsing. The information in the **All Policy Assignments** page is displayed in a table with the following information:

List of Policy Assignments

Column Title	Description
Icons listed, no title	An icon indicates the type of node ( ) or node group ( ) for the node or node group listed in the Name column.
Node (group)	Shows the name of the node or node group whose policy assignment you want to browse. Click the node or node group name to display details of the node or node group configuration.

List of Policy Assignments, continued

Direct Assignment	Indicates with a tick (✔) if the listed policy or policy group was assigned directly to the managed node (or node group) as opposed to by means of inheritance (another policy group or node group).
Assignment via Node Group	Indicates with a tick (✔) if the listed policy or policy group was assigned indirectly by inheritance, that is: because it is already assigned to a "parent" node group or because node group assignments changed.
Assignment via Policy Group	Indicates with a tick (✔) if the listed policy or policy group was assigned indirectly by inheritance, that is: because it is included in another policy group that is already assigned to a node group.
Policy types listed, no title	Uses a variety of icons to indicates the type of policy or policy group that have been assigned to the selected managed node or node group, for example: policy group, console, logfile, measurement threshold, scheduled task, snmp, event correlation, and so on. For a short description of the policy type, hover the cursor over the icon; for a complete list of the icons used to indicate policy and policy group types, see Policy Types. For more information about the displayed policy including conditions and related message groups, click the policy icon.
Policy (group)	Shows the name of the policy or policy group assigned to the listed node or node group. Click the policy or policy group name to display details of the policy or policy group configuration.
Version	*HPOM 9.* only.* Shows the version number of the policy assigned to the listed node or node group. If there is more than one version available, click the version number to display a version history.
Mode	*HPOM 9.* only.* Indicates how to perform the selected policy assignment, as follows: "Fix" - always assign a specified version, "Latest" - replace the currently assigned version with the latest available version, and "Minor to latest" - replaced the currently assigned version with the latest available minor version for example: 1.2 to 1.6 (but not 1.2 to 2.0).

To list all policy assignments

To list all policy assignments to the nodes managed by the HPOM management server, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Policy Assignments**. Note that if there are a large number of nodes and policies, it can sometimes take a little time for HP Operations Manager to populate the lists of nodes and policies.

3. To display details of the node, click the link in the **Node (Group)** column.

4. To display details of the policies deployed to a node, click the policy icon in the policy type column.

Related Topics

- List Node Actions
- Display Node Configuration Details

- Configure policy (group) details
- Browse policy (group) details
- All HPOM Policies
- All HPOM Policy Groups
- Policy Types
- Display Policy Details
- Display Node Details

Updating Policy Version Assignments

Policies are assigned to nodes, node groups, and policies groups using a special version or assignment *mode*. For example, you can assign either a specific version (1.1 or 1.5) of a policy to a node or the *latest* (most recent) version, if available. Use the **Update Assignments...** option in the action (⦿) menu to update multiple policy assignments at the same time in a single operation.

For instructions explaining how to update policy assignments, see To update policy assignments below. Note that the update operation is performed in three steps:

1. Set a filter to specify which policy assignments must be considered for update.
2. Specify which version of the policy is to be used when performing the update operation.
3. Apply the changes to all filtered policy assignments.

To specify which assigned policies need to be updated, you need to set a filter as described in the following table.

Filtering the Policy Assignments

Label	Description
All Versions	Consider for update *all* versions of any policies assigned to the selected object (node, node group, or policy group).
All Versions of Major Version	Consider for update *all* minor (interim) versions of the specified major version, where the assigned major version is equal to the version number you specify in the **Version** field.
Fixed Version	Consider for update *all* assigned policies where the assigned version is identical to the version *you* specify in the **Version** field.
Latest Versions of Major Version	Consider for update *all* assigned policies where the assigned version is identical to the *major* version number specified in the **Version** field and the minor version is the latest version.
All latest Versions	Consider for update *all* assigned policies, where the assigned version is the latest version of the policy.

After you specify the assigned policies that must be updated, you have to define the version of the policy to use when performing the update operation. The following table lists the options available for specifying the policy version to use in an update-assignment operation.

Specify the Update Version

Label	Description
Latest	Update the assigned policies to the latest (most recent) available policy version.
Minor to latest	Update the assigned policies to the latest minor (interim) version of the currently assigned major version.
Latest for current Major Version	Update the assigned policies to the latest version available for the major version you specify in the **Version** field. For example, if the assigned policy version is 1.3, and you specify an update to the policy version 2, the update operation replaces the assigned policy 1.3 with the latest available interim version of the version 2 policy, even if there is a newer (version 3.*) policy available.
Fixed	Update the assigned policies to the given fixed version.

Note: Conflicts are possible if conflicting assignment rules exist. For example, a fixed policy version is assigned through a policy group and at the same time the latest version is assigned through a node group. Such conflicts are solved by taking into account the latest version.

To update policy assignments

To update all assigned policies according to a single defined strategy, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Nodes**, **All Node Groups**, or **All Policy Groups** to display the contents of the selected group in a flat list. Note that if there are many nodes, node groups, or policy groups, it can sometimes take a little time for HP Operations Manager to populate the list.

3. Click the actions button ( ) to display a list of the actions available for the listed group.

4. In the **Actions** menu, click **Update Assignments…**.

5. Use the drop-down menus and dialog boxes displayed to specify the policy-assignment strategy you want to implement; the options available in the drop-down menus are described in detail in the tables above.

6. When you have completed the configuration steps, click **OK** to start the policy-assignment update.

Related Topics

- List Nodes
- List Node Groups
- List Policy Groups

Deassigning Policies and Policy Groups

This is a configuration example where displaying and removing the assignments are demonstrated. The following is some general information regarding this example:

- The following direct assignments are defined for the test node woodford:

  ○ Policy Group DBSPI-Core

  ○ Policies cpu_util and cron (RedHat Linux)

- Woodford is part of the node group linux.

  ○ The node group linux has the policy group Linux assigned to it.

  ○ The policy group Linux contains the policy groups Adv.Linux Policies and Quick Start Policies. These policy groups contain various policies.

This example is used for the demonstration of the following tasks:

- "Deassigning Direct Assignments" below
- "Deassigning Indirect Assignments" below
- "Deassigning Nodes from Node Groups" on the next page

Deassigning Direct Assignments

You can deassign direct assignments (policies, policy groups) by following this workflow:

1. From the Browse menu select Direct Policy(group) Assignments.
2. To deassign a policy and/or a policy group the following options are available:

   ○ For a single item select Deassign from this Node from the Action menu.

   ○ To deassign multiple objects from a node, enable all required check boxes and select Deassign from Node from the List menu.

Deassigning Indirect Assignments

Note: For the node woodford in our example, you cannot perform a deassigning operation from the Effective Policy Assignments page available from the Browse menu for performance reasons. Namely, resolving the origins (often multiple) of each policy and each policy group would take too long. Moreover, if a policy belongs to multiple policy groups, a deassign operation might destroy other assignments.

In this example, because there are no direct policy group assignments, the existing assignments are inherited from the node group the node woodford belongs to. Consider also the following:

- Select Node Groups from the Browse menu of the node woodford.
  This lists all node groups the node woodford belongs to. In our example, woodford belongs only to the node group linux.

- You can show various relationships by using the Browse menu. In our example, the Direct Policy (group) Assignments is selected.

- You can deassign the policy group Linux from the node group linux either by using the Action menu or by using the List menu.

- If you want to deassign a policy group from within the policy group (in this example, it is Linux),

select the link for the policy group. You can deassign any policy group from the currently opened policy group by selecting Deassign from this Policy Group from the drop-down menu.

Deassigning Nodes from Node Groups

If you want to remove a node (in our example, the node woodford) from a node group select Node Groups from the Browse menu. This lists all node groups the node (in our example, woodford) belongs to. Node woodford belongs only to the node group linux.

Inside the Results window, you can deassign the node woodford from the node group linux. You can do one of the following:

- Use the Action menu option Deassign node from this nodegroup
- Enable the check box and use the List menu option Deassign node from this nodegroup

> **Tip:** The All Policy Assignments function available from the Browse menu in the HPOM context shows only direct assignments.

All Categories

The **All Categories** page displays a list all the categories that are currently available on the selected HPOM management server. Categories are logical classifications of policies or nodes. You can use categories to associate policies with instrumentation, nodes, and with user profiles. If you associate policies with instrumentation using categories, you can ensure that the appropriate instrumentation is deployed at the same time as the policy it is associated with.

The information in the **All Categories** page is displayed in a table with the following information; note that you can click the title of the **Name** column to reorganize the list of categories in ascending or descending order. Click the actions button ( ) to display a list of the actions you can perform on the policies in the list; click the browse button ( ) to display a list of the configuration details that you can browse for the selected categories. For more information about the actions you can perform on categories and the configuration details you can browse, see the list of related topics below.

If you want to filter the list of categories to reduce the number displayed, click the **Filter** link at the top of the list and use the fields and
drop-down menus to define the filter conditions; you can filter objects according to a wide range of criteria, for example: name, type, label. The range and complexity of filter options available depends on the type of object you want to display in a list.

List of all Categories

Column Title	Description
All	Check boxes to enables you to select all or individual categories on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Add category", "Delete...", " Assign to Node", and "Assign to Policy".

List of all Categories, continued

Name	Shows the name of the category. Click the category name to see more detailed information about the selected category. Click one of the icons next to the category name for menus that enables you either to display more information about or perform an action on the selected category. For more information about the browse and actions menus and the options they contain, see the related topics below.
🗗	Click the Browse Details button to display a list of the configuration details that you can browse for the selected category. For more information about what details you can browse, see Browse category details.
⚙	Click the Actions button to display a list of the actions you can perform on the selected category (or categories) in the list. For more information about what actions you can perform, see Modify categories.
Description	Shows a brief description of the policy or policy group and helps understand what the policy does, for example: "History of HP-UX 10.x/11.x bad logons".

To display a list of categories

To display a list of all the categories available on the HP Operations management server, you need to perform the following steps.

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Categories** to display the categories in a list. Note that if there are many categories, it can sometimes take a little time for HP Operations Manager to populate the list.

Related Topics

- Modify categories

- Browse category details

- Understanding Policy Types

- Add New Policy Category

Browse Category Details

You can browse details of HPOM objects; the type of information available depends on the type of object, whose configuration you want to browse. To browse details of a single object, locate the object in the list and use the browse button (🗗) to display a list of the information available. The table below lists the details you can browse for HPOM categories, for example: list the nodes and policies to which the category is assigned and so on.

Browse Menu: HPOM Categories

Configuration Details	Description
Nodes	Display the list of nodes or node groups to which the selected category is assigned.

Browse Menu: HPOM Categories, continued

Policies	Display the list of policies to which the selected category is assigned.
Instrumentation	Display the instrumentation to which the selected category belongs.

To browse category details

To display a list of the additional information you can request about a selected category:

1. Click the HPOM icon to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Categories**. Note that if there are many categories, it can sometimes take a little time to populate the list.

3. In the displayed list, locate the category whose configuration details you want to browse.

4. Click the browse button (🗗) to display a list of the configuration details that are available for the selected category.

5. In the menu that is displayed, click the option that corresponds to the configuration details you want to display and browse. For more information about available menu options, see the table above.

Related Topics

- Modify categories
- Understanding Policy Types
- Add New Policy Category

Modify Category

You can display a list of the actions to perform on HPOM objects; the type of actions available depends on the type of object, on which you want to perform the action and, in addition, whether you want to perform an action on single or multiple objects. To perform an action on a single object, locate the object in the list and use the actions button (⚙) to display a list of the actions available; to perform an action on multiple objects, check the box next to the objects you want to modify and use the drop-down menu at the bottom of the table. The following table lists the actions you can perform on node and categories:

Actions Menu: HPOM Categories

Action	Description
Remove empty directories	Runs the command `/opt/OV/bin/OpC/utils/opcinstrumcfg -remove_empty`. The clean-up operation checks if an instrumentation folder exists for each of the selected categories and, if empty, removes it.
Add to Shopping Cart	Add the selected category to the shopping cart. You can download the contents of the shopping cart to the clipboard directory from where you can upload the package again to any management server, or simply archive the package for use at a later point in time.

Actions Menu: HPOM Categories, continued

Create all directories	Runs the command `/opt/OV/bin/OpC/utils/opcinstrumcfg -update_all`. The update operation checks if instrumentation exists for the selected categories and, if not, creates a new instrumentation directory for each new category. The new directory is created in the following location: `<data_dir>\shared\Instrumentation`.
Edit...	Displays the Edit Category page, which enables you to change the properties defined for the selected category.
Copy...	Displays the Copy Category page, which enables you to use the properties defined for an existing category to create a new category with a different name.
Delete...	Removes the selected category from the database; note that the corresponding instrumentation folder is not removed as part of the delete action.
Assign to Node...	Displays the Node Selector dialog which enables you to choose the node with which you want to associate the currently selected category.
Assign to Policy...	Displays the Policy Selector dialog which enables you to choose the policy with which you want to associate the currently selected category.
Download...	Download the selected category from the database.

To modify category details

To display a list of the additional configuration actions you can perform on a selected category:

1. Click the HPOM icon to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Categories**. Note that if there are many categories, it can sometimes take a little time to populate the list.

3. In the displayed list, locate the category whose configuration details you want to modify.

4. Click the actions button ( ) to display a list of the actions available for the selected category.

5. In the menu that is displayed, click the action you want to start. For more information about available actions and what they do, see the table above.

Related Topics

- Browse Category Details
- Display Policy Types
- New Policy
- New Policy Group

All Policy Types

The **All Policy Types** page displays a list of all the policy types that are available with the currently installed version of HPOM. Note that the number and type of policies displayed depends on the version of HPOM that you are using. If you add a new policy type, for example, using HPOM command line tools, the new policy types also appear in the **All Policy Types** page.

List of HPOM Policy Types

Column Title	Description
All	Check boxes to enables you to select all or individual policy types on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table.
Type	Uses icons to indicate the type of policy. For more information about policy types and the icons used to represent them, see the Policy Types table below.
Name	Shows the name of the policy type. Click the policy type name to see more detailed information about the selected policy type.
	Click the Browse Details button to display a list of the configuration details that you can browse for the selected policy. For more information about what policy details you can browse, see Browse Policy or Policy Group Details.
	Click the Actions button to display a list of the actions you can perform on the selected policy in the list. For more information about what actions you can perform, see Display Policy Type Actions.
Agent Type	The type of agent based policy, for example, `configfile` (configuration file), `monitor` (advanced or threshold monitor), or `trapi` (SNMP Trap interceptor), click the link in the Agent Type column for more information.
Editor	Uses icons to indicate which editor is registered for use with the selected policy type, for example: `midas:logfile`, for `midas:opcmsg`. The editor registration is determined by default settings. However, you can change these settings, or add new editors for new policy types.
MIME Type	Information about policy content using standard Multipurpose Internet Mail Extensions (MIME). The information consists of a type and subtype, for example, `text:plain`.

Browse the policy types listed in the Type column and click the policy type that you want to add. The Type column in the All Policies table uses a variety of different icons to indicate the type of policies that are available. The following table lists all the icons used to indicate a policy type and explains what the icons represent.

Policy Types

Icon	Name	Description
	ConfigFile	Configuration file policies are used to configure defined parts of the HP Operations Agent on the managed node.
	Event Correlation	Event correlation policies enables you to reduce the number of duplicate or similar messages. You need to install and configure separate event correlation software.
	ECS Composer	The Event Correlation Composer policy type enables you to correlate messages on the HPOM management server or the managed node by using HP Correlation Composer.

Policy Types, continued

	FlexibleManagement	Indicates a Flexible-Management policy type. The Flexible-Management feature, for example, enables you to configure a hierarchy of management servers in which groups of HP Operations management servers are managed by a single (or multiple) HP Operations management server(s). Managed nodes can be configured to send messages to different management servers depending on the time of day, the geographical region, and so on. For more information about flexible-management configuration files, see List Flexible-Management Files.
	Logfile Entry	Logfile policies read log files and monitor entries and changes to the log file.
	Measurement Threshold	A threshold monitor that uses a short script to process multiple threshold values before generating a message. The script must be written in either Visual Basic (Windows nodes) or Perl (Windows or UNIX nodes).
	Node Info	Node info policies are used to overwrite the `nodeinfo` file on a managed node running a Microsoft Windows operating system. The `nodeinfo` file contains information about the configuration of the managed node, for example: the agent communication type (HTTPS), if the agent message-stream interface is enabled (TRUE/FALSE), and so on.
	Open Message Interface	Indicates an `Open Message Interface` message policy type; message policies intercept messages submitted by the HPOM commands `opcmsg(1)` and `opcmsg(3)`.
	Remote Action Security	Scheduled policies run a defined action on a remote system.
	SNMP Interceptor	SNMP trap policies intercept and report selected SNMP traps, for example: from applications sending traps to the `opctrapi` daemon on the management server, from managed nodes where the HP Operations Manager for UNIX trap daemon `ovtrapd` is running, or in port access mode on selected managed node platforms.
	Scheduled Task	Scheduled task policies run a defined action at a scheduled time.
	Service Auto Discovery	Service discovery policies run scripts that search selected managed nodes for defined services.
	Service Process Monitoring	Service and process monitor policies monitor services and processes running on a Windows managed node.
	SiteScope	SiteScope policies are SiteScope templates that are converted into HPOM policies and uploaded to the HPOM database. It can be used to report data that is used in various applications in Business Service Management (BSM).

Policy Types, continued

	Subagent	Policies that you can use to configure and manage the installation, updated, and removal of the HPOM subagents.
	Windows Event Log	Windows event log policies monitor entries in the Windows event log and generate a message when a defined character pattern appears in the event log. Choose this policy type if want to monitor entries in a Windows event log.
	Windows Management Interface	Windows Management Interface policies monitor the properties of WMI classes and class instances and generate a message either when a property matches a value you select, or when the class instance you select is created. For example, WMI policies monitor the Windows Management Instrumentation framework for changes and modifications, such as additions to partitions and drives.
		Indicates an unknown policy type; unknown policies are policies that do not match any of the known policy types listed above.

To display a list of all policy types

To display a list of all the policy types available on the HP Operations management server, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Policy Types**.

> **Note:** If there are many policy types, it can sometimes take a little time for HP Operations Manager to populate the list.

Related Topics

- Display Policy Type Actions
- Browse Policy Type Details
- Display Policy Type Details
- Add New Policy
- Add New Policy Group

Display Policy Type Details

The **Policy Type Details** page shows details of the selected policy type, for example: the name, the agent type, the command used to open a policy of the chosen type in an editor, and any callback commands to apply to the policy of the chosen type before, during, or after policy deployment.

Policy Type Details

Policy Type Details	Description

Policy Type Details, continued

Name	The name of the selected policy type for example: logfile_entry, event_correlation, flexible_management, and so on.
Agent Type	The type of agent for which the policy of the desired type is intended, for example: text, EC (event correlation), mgrconf (flexible-management), and so on.
Edit	The command used to open a policy of the chosen type in the Web-based text editor, for example: **midas:mgrconf** would open a policy of the type "flexible-management" in the flexible-management policy editor. Note that the web server that starts the editor process can run either on the HP Operations Manager management server or on another machine; you need to make this clear in the http command that starts the editor, for example: `http://$MGMT_SV/...` or `http://machine.name.com/....`
Call backs	Indicates if any callback "actions" are defined for policies of the chosen type before, during, and after deployment to the managed node. For example, callback commands can be defined that enables you to edit a policy before deployment, check a new policy before upload to the database, deploy a policy to the managed node, and clean up after deployment. It is recommended that all temporary files are removed after the completion of the callback command. Note that policy-related variables (such as $FILENAME, $TYPE, $VERSION, and $SYNTAX) may be used in the callback command and, for security reasons, some restrictions are placed on the callback command. The default security level for the callback commands is "strict" where the callback will not run unless user root is the owner of both the callback executable and the directory in which the callback executable resides. Other security levels are "Relaxed", where the callback executable (or its directory) has write permissions for group and others, and "None", where no checks of any kind are performed before running the callback executable.

To display details of a policy type

To display a detailed description of a selected policy type, perform the following steps:

1. In the HPOM **Browse** menu, click **All Policy Types**.
2. In the **Name** column, click the name that corresponds to the policy type whose details you want to check.

Related Topics

- Display Policy Type Actions
- Browse Policy Type Details
- New Policy
- New Policy Group

Browse Policy Type Configuration Details

You can browse details of HPOM objects; the type of information available depends on the type of object, whose configuration you want to browse. To browse details of a single object, locate the object

in the list and use the browse button (⬚) to display a list of the information available or use the browse button (⬚) next to the page title. The table below lists the details you can browse for HPOM policy types, for example: list all the policies that exist on the HP Operations management server for the selected policy type.

Browse Menu: HPOM Policies

Configuration Details	Description
Policies	Displays a list of all the policies with the selected policy type that are available on the management server.

To browse policy type details

To display a list of the additional information you can request about a selected policy type:

1. Click the HPOM icon to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Policy Types**.

3. In the displayed list, locate the policy type whose configuration details you want to browse.

4. Click the browse button (⬚) to display a list of the policy-configuration details that are available.

5. In the menu that is displayed, click the option that corresponds to the configuration details you want to display and browse. For more information about available menu options, see the table above.

Related Topics

- Display Policy Type Actions
- Display Policy Types
- New Policy
- New Policy Group

ConfigFile Policy Type

Policies of the ConfigFile type are used by SPIs to enhance the management capabilities for specific enterprise applications such as SAP and Microsoft Exchange. These applications may require advanced monitoring and management capabilities that are not available through the standard set of HPOM policy types.

Therefore many SPIs include complex instrumentation that must be configured after deployment to nodes. This configuration task is performed by ConfigFile policies. These policies consist of configuration files that contain a set of rules or instructions for the SPI instrumentation.

The ConfigFile policy type allows you to run callbacks on an agent after the deployment of the ConfigFile policy to perform some post-processing, such as loading OV Composer fact stores. For more information on how to enable running callbacks on an agent, see the *HPOM Administrator's Reference*.

Related Topics

- All Policy Types
- ConfigFile Policy Type: Syntax and Keywords

ConfigFile Policy Syntax and Keywords

The syntax and keywords used in configuration files is determined by the SPIs and described in the SPI documentation.

The following generic keywords can be used at the beginning of all configuration files to notify external applications, for example HP Performance Agent Software, when a ConfigFile policy is added to or removed from a directory that is of particular interest to that application.

Keyword	Description
`#$Installcommand=<command>` `#$Deinstallcommand=<command>`	`<command>` contains the command to be run, including all required parameters. If necessary, use quotation marks to handle all platforms.
`#$Commandtype=<value>`	`<value>` specifies the type of command to be used: 1. **Executable (default)** If you do not specify the command type, the ConfigFile policy assumes that the command is an executable. 2. **VBScript or shell script** You do not need to add a .vbs or .sh extension to the command. HPOM automatically appends the appropriate extension so that a single policy can be run on both Windows and UNIX nodes. 3. **Perl script**
`Size=<value>`	`<value>` specifies the size of the policy, for example, 14454 bytes.

For the example of ConfigFile policy parameters, see the *HPOM Administrator's Reference*.

Event Correlation Policy Type

The Event Correlation policy type enables you to correlate messages on the management server or the managed node by using HP Event Correlation Services (ECS). Event correlation policies reference event correlation (EC) circuits. ECS provides an interface and a protocol for correlating HPOM messages. To correlate messages for HPOM, ECS must be allowed to access the HPOM message flow through the HPOM message-stream interface. Event correlation policies integrate EC circuits so that you can deploy them to the management server or nodes from a central location.

For detailed information about event correlation and also for the policy body grammar that can be used for this policy type, see the *HPOM Concepts Guide*. To learn how to set up event correlation, see the *HPOM Administrator's Reference*.

Related Topics

- All Policy Types
- Event Correlation Composer Policy Type

Event Correlation Composer Policy Type

The Event Correlation Composer policy type enables you to correlate messages on the HPOM management server or the managed node by using HP Correlation Composer. HP Correlation Composer is a graphical user interface (GUI) on top of the HP Event Correlation Services (ECS) runtime that enables you to customize predefined correlation logic to meet your requirements in HP Operations Manager (HPOM). Event correlation Composer policies integrate arbitrary files, for example datastore or factstore files, so that you can deploy them to the HPOM management server or nodes from a central location in case you want to automate their use.

For detailed information about event correlation, see the *HPOM Concepts Guide*. To learn how to set up event correlation, see the *HPOM Administrator's Reference*. For the event correlation composer details, see the *HPOM Correlation Composer User's Guide*.

Related Topics

- All Policy Types
- Event Correlation Policy Type

Flexible-Management Policy Type

The Flexible-Management policy type enables you to configure managed nodes to send messages to different management servers based on time and message attributes. This functionality helps you to manage your worldwide network more effectively across time zones (for example, by using follow-the-sun control). It also enables you to increase efficiency (for example, by creating competence centers).

This topic describes the conventions you use to set up flexible management with the example policies provided by HPOM. For more information about the HPOM flexible management environment, see the *HPOM Concepts Guide*.

> **Note:** You can deploy only one policy of this type to a node.

For more information about flexible-management configuration (for example, the locations and types of flexible-management policies, distributing configuration and policies in the flexible management environment, and so on), see the *HPOM Administrator's Reference*. See also the *opcmom* manual page for the syntax details.

Related Topics

- All Policy Types

Keywords for Flexible Management Policies

To define various elements required in the flexible management configuration, HPOM uses the following keywords and parameters:

- ACTIONALLOWMANAGERS

  HPOM managers that are allowed to execute actions on the managed node. The action response (for example, command broadcast) is sent to this manager. Only the primary HPOM manager can configure action-allowed managers for an agent.

  - ACTIONALLOWMANAGER

    Name of the manager allowed to execute actions on the managed node.

  - NODE

    Node name of the action-allowed manager. You can use the $OPC_PRIMARY_MGR variable to specify that this node name is always the node name of the primary manager.

  - DESCRIPTION

    Short description of the action-allowed manager.

- CONDSTATUSVARS

  Conditions status variables that enable (TRUE) or disable (FALSE) scheduled outage conditions. For details, see .

- DESCRIPTION

  Short description of the manager.

- MSGTARGETRULES

  Message target rules. The rules that define where messages are sent and who can work on the message.

  - MSGTARGETRULE

    Rule to configure the message target conditions and the message target manager.

  - DESCRIPTION

    Description of the message target rule.

- MSGTARGETMANAGERS

  Message target manager. The name of the HPOM manager to which agents send HPOM messages as well as action responses to these HPOM messages. Only the primary HPOM manager can configure message target managers for an agent. The result of an HPOM message is sent to only one HPOM manager.

  - MSGTARGETMANAGER

    Message target manager. Management server to which you forward a message. Always specify the IP address of the target management server as 0.0.0.0. The real IP address is then resolved by the domain name server (DNS).

  - TIMETEMPLATE

    Time policy. Name of the time policy corresponding to the target manager. If the time condition is always true, you can use the $OPC_ALWAYS variable. If you use this keyword, message transfers to the target manager will not depend on the time.

  - OPCMGR

Node name of the target manager. You can use the `$OPC_PRIMARY_MGR` keyword to indicate that this will always be the primary manager.

- ○ `MSGCONTROLLINGMGR`

  Message controlling manager. Enables the message target manager to switch control of a message. By switching control of the message, the target management server can carry out all the message-related actions usually performed by the source management server.

  For more information about switching control of a message, see the *HPOM Concepts Guide*.

- ○ `NOTIFYMGR`

  Notify manager. Enables the message target manager to send notification messages to itself.

  For more information about notification messages (also known as read-only messages or FYI messages), what you can or cannot do with them, and message forwarding concept in general, see the *HPOM Concepts Guide*.

- ○ `ACKNONLOCALMGR`

  Enables a message rule to force a direct acknowledgment of a notification message on a source management server.

  > **Caution:** Standard messages are displayed by default (`MSGCONTROLLINGMGR` is assumed).

- • `MSGTARGETRULECONDS`

  Conditions for message target rules.

  - ○ `MSGTARGETRULECOND`

    Condition that tells the agent to which management server to send specific messages. Messages are sent based on message attributes or time. The message agent evaluates the message target conditions by reading the `mgrconf` file. If the `mgrconf` file does not exist, the messages are sent to the management server name stored in the `primmgr` file. If the `primmgr` file does not exist, messages are sent according to the instructions set using the `ovconfchg` command line tool.

  - ○ `DESCRIPTION`

    Description of the message target rule condition.

  - ○ `SEVERITY`

    Severity level of the message: `Unknown`, `Normal`, `Warning`, `Minor`, `Major`, or `Critical`.

  - ○ `NODE` *`<node>`*

    One or more node names or node groups, separated by spaces:

    - ▪ IP *`<ipaddress>`* or IP *`<ipaddress><string>`*

      For example, `NODE IP 0.0.0.0 "hpbbn"`.

      If the node is defined using the format IP <*ipaddress*> or IP <*ipaddress*> <*string*>, you should use the IP address "0.0.0.0". The real IP address is then resolved by the domain name server (DNS).

    - ▪ NODEGROUP *`<string>`*

For example, `NODEGROUP "maintenance"` specifies all nodes in the node group `maintenance`.

For example, to specify multiple nodes and node groups:

```
NODE IP 192.168.12.5 NODEGROUP "maintenance" IP 192.168.25.4 NODEGROUP
"office"
```

- o NODEPATTERN

  Pattern matching can be used to match nodes. Note that pattern matching is case insensitive. Two match types are possible:

  - IPPATTERN:

    Pattern matching using the IP address of a node. Example: `NODEPATTERN IPPATTERN "10.1.<*>"`.

  - NAMEPATTERN:

    Pattern matching using the node name. Example: `NODEPATTERN NAMEPATTERN "testnode.<*>"`.

- o APPLICATION

  Application name.

- o MSGGRP

  Message group name.

- o OBJECT

  Object name.

- o MSGTYPE

  Description of the message type.

- o MSGCONDTYPE

  Message condition type:

  - Match:

    Condition is true if the specified attributes are matched.

  - Suppress:

    Condition is true if the specified attributes are not matched.

- o TEXT

  String containing all or part of the message text. Pattern matching may be used, for example:
  `TEXT "^Path: /[dir1|dir2]<_>[dir3|dir4]" SEPARATORS "/"`

- o SERVICE_NAME

  String containing the unique identifier of the service. Pattern matching may be used, for example:
  `SERVICE_NAME "Service<*> [A|B]" ICASE`.

- o CMA

CMA NAME `<string>` VALUE `<pattern>`. Forwards messages containing the custom message attribute (CMA) with the given `NAME`, which supports multiple strings separated by the pipe character (|) (for example, "`CMA1|CMA2`"), and the `VALUE` matching the specified pattern.

- `MSGOPERATIONS`

  Parameters in the policy used to define operations to perform on messages generated during service hours and scheduled outages:

  `MSGOPERATION`

  Message operation:

  - `DELAY`

  - `INSERVICE`

  - `LOGONLY`

  - `NOTIFICATION`

  - `SUPPRESS`

  - `TROUBLETICKET`

  For details, see .

- `RESPMGRCONFIG`

  Responsible manager configuration.

- `SECONDARYMANAGERS`

  Secondary HPOM managers of an agent. Each of these management servers has permission to take over responsibility and become the primary HPOM manager for an agent.

  - `SECONDARYMANAGER`

    Name of the secondary manager.

  - `NODE` `<node>`

    Node name of the secondary manager.

  - `DESCRIPTION`

    Description of the secondary manager.

Syntax for Flexible Management Policies

You can use the syntax described in the following sections as a basis for configuring flexible management features (for example, switching of responsibility between managers) in the policy files provided.

For more information about the policy syntax for flexible management policies, see the *opcmom(4)* and *opcmomchk(1m)* manual pages, as well as the `README` file in the following policy directory:

`/etc/opt/OV/share/conf/OpC/mgmt_sv/tmpl_respmgrs`

Special Characters

The syntax examples below use the following special characters that you can use in flexible management policies:

- e

  Empty string. If you want to include an empty string in a policy, enter e.

  Example: e

- #

  Comment. If you want to include a comment in a policy, include a pound sign (#) at the start of every line of the comment. Every character in the line is treated as part of the comment by HPOM.

  Example: # This is a comment

- \

  Escape character. If you want to use quotation marks in a syntax string, escape the quotation marks with a back slash (\).

  Example: \"quotation\"

Syntax for Responsible Manager Configuration Policies

Use the following syntax for responsible manager configuration policies:

```
respmgrconfigs ::= <respmgrconfigs> RESPMGRCONFIG DESCRIPTION
                    <string> <respmgrconds> | e
respmgrconds   ::= SECONDARYMANAGERS <secondmgrs>
                   ACTIONALLOWMANAGERS <actallowmgrs>
                   [MSGTARGETRULES <msgtargetrules>]
secondmgrs     ::= <secondmgrs> SECONDARYMANAGER NODE <node>
                   [DESCRIPTION <string>] | e
actallowmgrs   ::= <actallowmgrs> ACTIONALLOWMANGER
                   NODE <node>
                   [DESCRIPTION <string>] | e
msgtargetrules ::= <msgtargetrules> MSGTARGETRULE DESCRIPTION
                   <string> <msgtargetrule> | e
msgtargetrule  ::= MSGTARGETRULECONDS <mtrconditions>
                   MSGTARGETMANAGERS <msgtargetmgrs>
                   | MSGTARGETRULECONDS <mtrconditions>
                   MSGTARGETMANAGERS <msgtargetmgrs>
                   ACKNONLOCALMGR
mtrconditions  ::= <mtrconditions> MSGTARGETRULECOND
                   DESCRIPTION
                   <string> <mtrcond> | e
mtrcond        ::= <mtrcond> SEVERITY <severity> |
                   <mtrcond> NODE <nodelist> |
                   <mtrcond> APPLICATION  <string> |
                   <mtrcond> MSGGRP <string> |
                   <mtrcond> OBJECT <string> |
                   <mtrcond> MSGTYPE <string> |
                   <mtrcond> TEXT <pattern> |
```

```
                        <mtrcond> SERVICE_NAME  <pattern>    |
                        <mtrcond> CMA NAME <string> |
                                VALUE <pattern> |
                         <mtrcond> MSGCONDTYPE  <msgcondtype> | e
                        <mtrcond> NODEPATTERN <nodepatternlist> |
severity        ::= Unknown | Normal | Warning | Critical |
                    Minor | Major
msgcondtype     ::= Match | Suppress
nodelist        ::= <node> | <nodelist> <node>
node            ::= IP <ipaddress> | IP <ipaddress> <string> |
                    NODEGROUP <string>
string          ::= "any alphanumeric string"
ipaddress       ::= <digits>.<digits>.<digits>.<digits>
```

> **Note:** Multiple occurrences of the same `<mtrcond>` are allowed within a single
> `MSGTARGETRULECOND` condition, but only the last one is considered.

Syntax for Time Policies

Use the following syntax for time policies:

```
timetmpls      ::= <timetmpls> TIMETEMPLATE <string>
                        DESCRIPTION
                        <string> <conditions> | e
conditions     ::= TIMETMPLCONDS <timetmplconds> | e
timetmplconds ::= <timetmplconds> TIMETMPLCOND <timetmplcond>
timetmplcond  ::= [TIMECONDTYPE <timecondtype>] [TIME FROM
                        <time> TO <time>] [WEEKDAY <weekday>]
                        [DATE <exact_date>] | e
timecondtype  ::= Match | Suppress
time           ::= <hh>:<mm>
weekday        ::= ON <day> | FROM <day> TO <day>
day            ::= Monday | Tuesday | Wednesday | Thursday
                    | Friday | Saturday | Sunday
exact_date    ::= ON <date> | FROM <date> TO <date>
date           ::= <mm>/<dd>/<yyyy> |<mm>/<dd>/*|*/<dd>/*
```

> **Note:** The time policy is compared with the creation time of the message on the managed node.
> Message creation time is always defined in GMT.

Syntax for Switching Management Responsibility

Use the following syntax for policies that switch management server responsibility:

```
configfile := [TIMETEMPLATES <timetmpls>] RESPMGRCONFIGS
            <respmgrconfigs>
```

Syntax for Message Target Rules

Use the following syntax for policies that define message target rules:

```
msgtargetmgrs ::= <msgtargetmgrs> MSGTARGETMANAGER
                  TIMETEMPLATE <string> OPCMGR <node> |
                  <msgtargetmgrs> MSGTARGETMANAGER
                  TIMETEMPLATE <string> OPCMGR <node>
                  MSGCONTROLLINGMGR | <msgtargetmgrs>
                  MSGTARGETMANAGER TIMETEMPLATE <string>
                  OPCMGR <node> NOTIFYMGR | e
```

> **Note:** You can replace the <*string*> variable with $OPC_ALWAYS to specify that the time condition is always true. To specify that the current primary manager is always used as the message target server, replace the <*node*> variable with $OPC_PRIMARY_MGR.

Syntax for Message Operations

Use the following syntax for message operations policies:

```
msgoperations  ::=  <msgoperations> MSGOPERATION TIMETEMPLATE
                    <string> <msgoperation> |
                    <msgoperations> MSGOPERATION
                    <msgoperation> | e

msgoperation   ::=  INSERVICE|SUPPRESS|LOGONLY
```

Syntax for Service Hours and Scheduled Outages

Use the following syntax for policies that define service hours and scheduled outages:

```
configfile := [TIMETEMPLATES <timetmpls>]
              [CONDSTATUSVARS <statusvarsdef>]
              RESPMGRCONFIGS <respmgrconfigs>
```

Syntax for the declaration of condition status variables:

```
statusvarsdef ::= <statusvarsdef> CONDSTATUSVAR
                  <string> <bool> | e
```

Syntax for the time policy:

```
timetmpls       ::= <timetmpls> TIMETEMPLATE <string>
                    DESCRIPTION <string> <timetmpldefs>
                    <conditions> | e
timetmpldefs    ::= TIMEZONETYPE <timezonetype>
                    TIMEZONEVALUE <string> | e
timezonetype    ::= Fix | Local
conditions      ::= TIMETMPLCONDS <timetmplconds> | e
```

```
timetmplconds¹ ::= <timetmplconds> TIMETMPLCOND <timetmplcond>
timetmplcond   ::= [TIMECONDTYPE <timecondtype>] [TIME FROM
                    <time> TO <time>] [WEEKDAY <weekday>]
                    [DATE <exact_date>] | e
timecondtype   ::= Match | Unmatch
time           ::= <hh>:<mm>
weekday        ::= ON <day> | FROM <day> TO <day>
day            ::= Monday | Tuesday | Wednesday | Thursday
                    | Friday | Saturday | Sunday
exact_date     ::= ON <date> | FROM <date> TO <date>
date           ::= <mm>/<dd>/<yyyy> |<mm>/<dd>/*|*/<dd>/<yyyy>
                    |*/<dd>/*
```

Syntax for service hours and scheduled outages:

```
respmgrconfigs  ::=  <respmgrconfigs> RESPMGRCONFIG²
                     DESCRIPTION
                     <string>  <respmgrconds>  |  e
respmgrconds    ::=  MSGTARGETRULES  <msgtargetrules>
msgtargetrules  ::=  <msgtargetrules> MSGTARGETRULE
                      DESCRIPTION  <string>
                      <msgtargetrule>  |  e
msgtargetrule   ::=  MSGTARGETRULECONDS  <mtrconditions>
                      MSGOPERATIONS  <msgoperations>
mtrconditions   ::=  <mtrconditions>  MSGTARGETRULECOND
                      DESCRIPTION   <string>  <mtrcond>  |  e
mtrcond         ::= <mtrcond>  CONDSTATUSVAR  <string>  |
                    <mtrcond> SEVERITY  <severity>  |
                    <mtrcond> NODE  <nodelist>  |
                    <mtrcond> APPLICATION  <string>  |
                    <mtrcond> MSGGRP  <string>  |
                    <mtrcond> OBJECT  <string>  |
                    <mtrcond> MSGTYPE  <string> |
                    <mtrcond> TEXT <pattern>   |
                    <mtrcond> SERVICE_NAME <pattern>    |
                    <mtrcond> CMA NAME <string> |
                            VALUE <pattern> |
                    <mtrcond> MSGCONDTYPE <msgcondtype>  | e
                    <mtrcond> NODEPATTERN <nodepatternlist>
bool            ::=  True  | False
severity        ::=  Unknown  |  Normal  |  Warning
                     |  Critical | Minor   |  Major
msgcondtype     ::=  Match  |  Unmatch
nodelist        ::=  <node>  |  <nodelist>  <node>
node            ::=  IP  <ipaddress>  |  IP  <ipaddress>
                     <string> | NODEGROUP <string>
```

¹Outages only.

²Only one RESPMGRCONFIG is supported in scheduled outage configuration files.

```
string          ::=  "any  alphanumeric  string"
ipaddress       ::=   <digits>.<digits>.<digits>.<digits>
```

Note: You can replace the `<string>` variable with `$OPC_ALWAYS` to specify that the time condition is always true.

Policy Schedules

The policy for service hours and scheduled outages allows you to suppress, or buffer (inservice) messages that match certain conditions for defined time periods. You configure service hours and scheduled outages on the management server with a policy similar to the one used to configure flexible management.

A log-only message, also known as a server message, is processed on the HP Operations management server as follows:

- HPOM does not forward a copy of a log-only message to the trouble-ticket interface.

- HPOM does not start any automatic actions associated with a log-only message.

- HPOM uses a log-only message for message-correlation purposes. The log-only message can have message key relationships which are able to acknowledge messages from the browser of the active messages.

Syntax for Service Hours and Scheduled Outages Policies

The syntax used to configure service hours and scheduled outages is the same as that used to configure flexible management. The syntax for both may be checked with the `opcmomchk` tool. For more information about policy syntax, see "Syntax for Time Policies" on page 207 and "Syntax for Service Hours and Scheduled Outages" on page 208.

Location of Service Hours and Scheduled Outages Policies

When you configure service hours and scheduled outage policies, remember that HPOM expects to find files and templates in the following locations:

- Default files are located at `/etc/opt/OV/share/conf/OpC/mgmt_sv/tmpl_respmgrs` on the HP Operations management server.

  This is a central store for all the default templates and files associated with scheduled outages and service hours. To access these files by using the Administration UI, follow these steps:

  a. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

  b. From the **Server Configuration** menu, select **Flexible Management Templates**. The list of the default template files open.

- Work files are located at `/etc/opt/OV/share/conf/OpC/mgmt_sv/work_respmgrs` on the HP Operations management server.

  This is a working area. To access these files by using the Administration UI, follow these steps:

  a. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

  b. From the **Server Configuration** menu, select **Flexible Management Work**. The list of the files

in the working area open.

> **Caution:** Do not work on default templates and files. Before making any changes, copy the template file as follows and then work on the copied file:
>
> a. Select the **Copy File...** option from the **Actions** menu of the chosen template file.
>
> b. Choose the **Work** option from the **Alias of the destination directory** drop-down list.
>
> c. Specify the name of the copy file in the **Name of the destination directory** field.
>
> d. Choose not to overwrite the original file, optionally add your comment, and click **OK**. The copied file appears in the working area.

- Enabled files are located at `/etc/opt/OV/share/conf/OpC/mgmt_sv/respmgrs` on the HP Operations management server.

  This is a location where HPOM stores files that specify the currently enabled configuration. To access these files by using the Administration UI, follow these steps:

  a. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

  b. From the **Server Configuration** menu, select **Flexible Management Active**. The list of the currently enabled files open.

  To force the management server to read and implement the new configuration, either run `ovconfchg` without parameters on the server, or, if you choose to perform this task by using the Administration UI, select **Activate** from the **Actions** menu of the chosen file in the working area. The file will now appear in the Active area.

> **Note:** You may not change the default names assigned to outage policies. HPOM looks for specific policy file names and performs actions depending on whether it finds them. For more information about how to set up configuration files for service hours and scheduled outages, see "Syntax for Service Hours and Scheduled Outages" on page 208.

Parameters for Service Hours and Scheduled Outages Policies

The following table describes the parameters in the policy used to define service hours and scheduled outages.

Parameters for Service Hours and Scheduled Policies

Parameter	Description
DELAY	Sends messages to the Pending Messages browser where they stay until the specified number of minutes elapses.
INSERVICE	Sends messages to the Pending Messages browser if the message condition matches and the time policy condition does not match. The messages remain in the Pending Messages browser until the unbuffer time condition is matched or until the message is unbuffered manually.
LOGONLY	Sends matching messages to the history browser.
NOTIFICATION	If set to `True`, messages are forwarded to the notification interface.

Parameters for Service Hours and Scheduled Policies, continued

Parameter	Description
SUPPRESS	Deletes messages. Message-related actions triggered by the HP Operations management server are not started if the SUPPRESS option is defined.
TROUBLETICKET	If set to True, messages are forwarded to the trouble ticket interface. If ACKN is set, messages are automatically acknowledged.

Note: Scheduled outages and service hours may be configured by an external application. However, the designated external application must create the policy for outages and service hours and use the opccfgout(1m) command to control outages.

Parameters for Buffering Messages

Messages buffered in the Java GUI Pending Messages Browser are automatically moved to the Message Browser as soon as the specified buffer time expires. You can change this behavior by setting the value of the OPC_AUTO_DEBUFFER parameter using the ovconfchg command line tool on the HP Operations management server to FALSE. In this case, messages remain in the Pending Messages Browser.

Forwarding Messages to a Trouble Ticket or Notification Interface

You can change the value of message attributes to do the following:

- Forward to a trouble ticket service
- Forward to an external notification interface

In conjunction with the time policy, you can forward messages to a trouble ticket or a notification interface according to time of day.

For example, set the following values in the service hours policy to forward messages to the trouble ticket interface:

```
MSGOPERATION TIMETEMPLATE "SLA_cust1" TROUBLETICKET TrueMSGOPERATION TIMETEMPLATE
"SLA_cust2" NOTIFICATION False
```

For more information on these and other variables, see .

Status Variables for Conditions

Status variables for conditions allow you to enable and disable conditions dynamically. The conditions are used in conditions for message target rules and must be declared at be beginning of the policy, after the TIMETEMPLATES values.

HPOM enables you to declare several variables for one condition, as well as to declare one variable in several conditions. For example, an external interface can set the state of many conditions with one call.

The following abbreviated (...) example of a policy defining service hours sets the condition status variable for SAP to true:

```
TIMETEMPLATES
...
CONDSTATUSVARS
        CONDSTATUSVAR "sap" True
...
RESPMGRCONFIG
...

    MESSAGETARGETRULECONDS
        MESSAGETARGETRULECOND
            DESCRIPTION "Filter SAP messages"
            CONDSTATUSVAR "sap"

APPLICATION "Sap"
    MSGOPERATIONS
        MSGOPERATION
            INSERVICE
```

> **Note:** Status variables are persistent. They are not affected by the message manager stopping and restarting.

Time Zone Strings

The creation time of an HPOM message is always defined in UTC, regardless of where in the world the managed node is located. As a result, HPOM messages contain an indication of the difference between UTC and the local time on the managed node. By tracking time in this way, the HP Operations management server is able to calculate the local time of the managed node that sent the message. The management server can then decide whether or not it is appropriate to act.

Service hours are usually defined in terms of the local time on the managed node. For example, a service provider uses the service hours policy to tell the HP Operations management server that managed nodes in various time zones must be supported between 08:00 and 16:00 local time. Policies for scheduled outages define time in terms of the local time on the server that provides the service that is scheduled to be unavailable. For example, the administrator of an HP Operations management server in the United Kingdom (UK) knows that a SAP server situated in eastern United States (U.S.) will be unavailable for maintenance reasons between 22:00 and 02:00 U.S. Easter Standard Time (EST).

The policies for scheduled outages and service hours on the HP Operations management server can contain a string that defines a fixed local time zone (for example, EST).

The HP Operations management server uses the value of the time zone string and the time (in UTC) to calculate the fixed local time on the given management server for which an outage has been scheduled.

Time Zone Syntax

The following example illustrates the syntax that is required for the time zone string:

```
TIMEZONETYPE Fix TIMEZONEVALUE "EST"
```

By default, HPOM evaluates time conditions for both service hours and scheduled outages by comparing the time frame defined for each condition to the time the message is received on the HP Operations management server.

Setting the Time Zone Parameter

You can force the HP Operations management server to use the message creation time on the local managed node, rather than the message arrival time on the management server.

To specify the time zone parameter for service hours or scheduled outages, set one of the following strings using the `ovconfchg` command-line tool:

- Service hours:

  `OPC_SERVHRS_USE_AGENT_TZ TRUE`

- Scheduled outages:

  `OPC_OUTAGE_USE_CREATE_TIME TRUE`

These strings force the HP Operations management server to apply the time frame for service hours and scheduled outages defined on the HP Operations management server (for example, 08:00–16:00) as a sliding time frame for managed nodes in their respective local time zone.

> **Note:** Make sure the local time is correctly set on the managed node.

Command Line Interface

The message manager does not automatically read the configuration policy for outages and service hours each time the policy file is modified (for example, by the system administrator or an external application).

You can use the `opccfgout(1m)` command line tool to start the reconfigure request, as follows:

On the HP Operations management server open the command prompt and type the following:

`# opccfgout -update`

Additional options allow you to set status variables for the conditions:

`# opccfgout -set_cond <cond_stat_var> [-true|-false|-default]`

To list the current status of the status variables, enter:

`# opccfgout -list_cond <cond_stat_var>|-all`

Message Forwarding Policies

HPOM enables you to generate notification messages to be sent to remote management servers. You can also assign control of the messages to the source management server with same policy. You can check the validity of the syntax in the policy by using the `opcmomchk` tool. For more information about the parameters and options available with the `opcmomchk` tool, see the *opcmomchk(1)* manual page.

HPOM stores the message forwarding policy in the following location:

`/etc/opt/OV/share/conf/OpC/mgmt_sv/respmgrs/msgforw`

For detailed information about the syntax for flexible management policies, see "Syntax for Flexible Management Policies" on page 205.

> **Note:** For all flexible management considerations, such as hosting several certificate servers, certificate handling for a second HP Operations management server, and so on, see *HPOM Administrator's Reference.*

Configuring the Message Forwarding Policy

Configuring the message forwarding policy includes the following:

- Message targets:

  You can forward a message to one or more target servers.

- Message control:

  You can assign the `MSGCONTROLLINGMGR` attribute to target management servers to which you forward a message. This attribute enables the target servers to switch control of a message.

- Message notification:

  You can assign the `NOTIFYMGR` attribute to target management servers to which you forward a message. This attribute enables the target servers to send notifications to themselves.

- Message acknowledgement:

  You can assign the `ACKNONLOCALMGR` attribute to messages. This attribute forces the source management server to acknowledge message notifications explicitly.

Message Attributes in Message Forwarding Policies

You can use any of the following message attributes in a message condition in the message forwarding policy:

- `OBJECT`
- `APPLICATION`
- `MSGGRP`
- `SEVERITY`
- `NODE`
- `NODEGROUP`
- `CMA`
- `MSGCONDTYPE`

For more information about message attributes and how to configure them by means of the command line interface, see the *opcmom(4)* manual page.

Message Forwarding Policy Parameters

You can set parameters to configure message forwarding on various target or source management servers. The parameters are required for the management of system and network resources. You can add the parameters with the `ovconfchg` command on each target management server. The value of the parameters must be set for each target manager.

> **Note:** The `OPC_SOURCE_FORW_NOTIF_TO_TT` parameter should be specified on the source management server (see the table below).

The following table lists the available message forwarding parameters, indicates their default values, and provides a short description of the function of each parameter.

Message Forwarding Parameters

Parameter Name	Default Value	Description
OPC_ACCEPT_CTRL_SWTCH_ACKN	TRUE	Accepts acknowledgment for normal messages from other management servers.
OPC_ACCEPT_CTRL_SWTCH_MSGS	TRUE	Accepts normal messages from other management servers.
OPC_ACCEPT_NOTIF_MSSGS	TRUE	Accepts notification messages from other management servers.
OPC_FORW_CTRL_SWTCH_TO_TT	TRUE	Forwards normal messages to a trouble ticket or a notification service.
OPC_SOURCE_FORW_NOTIF_TO_TT	TRUE	Forwards notification-planned messages to a trouble ticket or a notification service on a source server. Must be set on the source server.
OPC_FORW_NOTIF_TO_TT	FALSE	Forwards notification messages to a trouble ticket or a notification service.
OPC_ONE_LINE_MSG_FORWARD	FALSE	Controls forwarding in larger manager hierarchies.
OPC_SEND_ACKN_TO_CTRL_SWTCH	TRUE	Sends acknowledgements to normal messages.
OPC_SEND_ANNO_TO_CTRL_SWTCH	TRUE	Sends annotations to normal messages.
OPC_SEND_ANNO_TO_NOTIF	TRUE	Sends annotation to notification messages.
OPC_SEND_ANT_TO_CTRL_SWTCH	TRUE	Sends action-related data to normal messages.
OPC_SEND_ANT_TO_NOTIF	TRUE	Sends action-related data to notification messages.

Message Target Rules

Message target rules define the management server to which specific messages are sent based on the time of day, date, and message attribute conditions. HPOM provides a set of plain text policies that you can copy and edit to define flexible management functionality. Both message target rules and remote access rules are defined in the responsible manager policy (the `mgrconf` file).

On the HP Operations management server, you must set up the responsible manager policy. You can find the example files and policies in the following directory:

`/etc/opt/OV/share/conf/OpC/mgmt_sv/tmpl_respmgrs`

Defining Message Target Rules

To define message target rules, perform the following steps:

1. From the **Actions** menu of the appropriate responsible-management policy file select **Edit (Raw Mode)…**.The policy file opens.

2. Find the section header `MSGTARGETRULES`.

3. Define the message conditions in the subsection, `MSGCONDTYPE`. You can define the following conditions: `Match` and `Suppress`.

4. Define the message attributes in the subsection, `MSGTARGETRULES`. You can define the following attributes: application, custom message attribute, message group, message type, message text, node, node pattern, object, service name, severity.

5. Define the message target manager, according to the time policy used, in the subsection, `MSGTARGETMANAGER`.

6. Save and close the modified policy file.

7. Select **Check** option from the **Actions** menu of the policy file to make sure that any additions or changes are valid.

   > **Note:** You can do this also on the management server by running the *opcmomchk (1)* validation tool as follows:
   >
   > `# /opt/OV/bin/OpC/opcmomchk <file_name>`
   >
   > For more information about required syntax and permitted parameters, see the *opcmomchk(1)* manual page.

8. Enable the policy file by selecting **Activate** from its **Actions** menu. The file will now appear in the Active area.

   > **Note:** You can do this also on the management server by following these steps:
   >
   > a. As user root, copy the validated file to the configuration directory `respmgrs` as follows:
   >
   >   `# cp <file_name> /etc/opt/OV/share/conf/OpC/mgmt_sv/respmgrs`
   >
   > b. To activate the configuration, use the `ovconfchg` utility without any options:
   >
   >   `# /opt/OV/bin/ovconfchg`

Time Policies

A time policy consists of the following:

- Policy name
- Time conditions

Each time condition defines a specific time period. This time period contains definitions of the time, day, date, or any combination of the three. The local time zone is always used to evaluate the policy.

Note: When specifying a time, use the 24-hour clock notation. For example, for "1:00 p.m." enter `13:00`. HPOM time inputs are interpreted as hh:mm:00. For example, if you want to specify a 24 hour time period ending at midnight, enter: 00:00–24:00.

Specifying a notification time period of 00:00–23:59 for every day would mean that any message being received after 23:59:00 and before 00:00:00 would not create a notification. When setting time values for the scheduled-action policy, you do not need to specify a time. The scheduled action is executed repeatedly at one minute intervals. Wildcard characters are not recognized.

Example Time Policies

The following examples show various ways to specify time formats in the time policies:

- Time:

  If you do not specify a particular time, day of the week, or year, HPOM assumes that you want the condition to be true for 24 hours, from 00:00 to 24:00, every day of the year.

  HPOM requires you set up a time policy for the message target rules even if the scheduled action does not depend on time. You can use the variable `OPC_ALWAYS` to configure time policies when the condition is always true.

- Day or date:

  If you specify a condition, HPOM assumes the conditions exist continually for the day or date specified:

  ○ Day:

    If you specify only Tuesday, HPOM will evaluate the condition as true every Tuesday, from 00:01 to 23:59, throughout the year, every year. Use the following syntax:

    WEEKDAY ON Tuesday

  ○ Date:

    Specifying January 1 and nothing else will match a condition every January 1st of every year. Use the following syntax:

    DATE ON 01/01/*

- Time periods:

  You can set time periods:

  ○ Time:

    To set a time period from 7:00 to 17:00, use the following syntax:

    TIME FROM 7:00 TO 17:00

  ○ Day:

    To set a time period from Monday to Friday, use the following syntax:

    WEEKDAY FROM Monday TO Friday

  ○ Date:

    To set a time period from the year 2005 to 2010, use the following syntax:

```
DATE FROM 01/01/2005 TO 12/31/2010
```

- ○ Date and time:

  To set a time on December 31 2008, from 23:00 to 23:59, use following the syntax:

  ```
  TIME FROM 23:00 TO 23:59 DATE ON 12/31/2008
  ```

  If you include the day of the week (for example, Monday April 1, 2008), HPOM cross-checks the day and date you have entered to make sure that they match the calendar. If they do not match, the action will not be correctly completed but HPOM does not display an error message.

- Wildcards (*)

  You can set days, dates, or periods using a wildcard character (*):

  - ○ Specific day:

    To set a time condition for the first day of every month, use the following syntax:

    ```
    DATE ON */01/*
    ```

  - ○ Specific date:

    To set a time condition for December 1st every year, use the following syntax:

    ```
    DATE ON 12/01/*
    ```

  - ○ Time period:

    To set a time condition from August 6th to September 10th every year, use the following syntax:

    ```
    DATE FROM 08/06/* TO 09/10/*
    ```

> **Note:** Although syntactically correct, HPOM cannot handle mixed conditions such as: `DATE FROM 05/07/08 TO 10/10/*`. It is not recommended to use `DATE ON */31/*`, this date format does not function for months that do not have 31 days.

For further examples of time policies, see the following documents, see "Syntax for Time Policies" on page 207 or the *opcmom(4)* manual page.

See the default template files in the default flexible-management templates directory:

`/etc/opt/OV/share/conf/OpC/mgmt_sv/tmpl_respmgrs`

If you want to use any of the template files, make a copy of the default file in the working directory (`work_respmgrs`) and modify the new copy.

> **Note:** HP-UX only: To correct time differences between the different time resources used by the HPOM C-routines, the `TIMEZONE` variable must be set on the appropriate managed nodes. If not, messages can be sent to the wrong management server as they are processed using the incorrect time.

Keywords in Time Templates

To define the various elements required in a flexible-management configuration, HPOM uses the following keywords and definitions:

- DESCRIPTION

  Describes the scope of time template.

- TIMETEMPLATE

  Defines the name of the time template; the name itself is specified in, for example, `<string>`.

- TIMETMPLCONDS

  Defines a time period, which can include one or more time intervals specified in time conditions (`TIMETMPLCOND`).

- TIMETMPLCOND

  Defines a single time interval.

  Several time conditions together comprise a time period. A time condition allows you to use combinations of day, date, and time to define a time period.

- TIMECONDTYPE

  Defines the type of time condition, which determines what to do with messages that arrive inside or outside the defined time period. Use one of the following for the definition:

  - Match: If the current time is within the defined time period, forward matching messages to the Message Browser.

  - Suppress: If the current time is outside the defined time period ignore or delete suppressed messages.

- TIME

  Specifies a time period. Set the variable `<time>` using the format:

  `FROM <time> TO <time>,` where <time> is specified in the format: `<hh:mm>`

  The variable `FROM <time>` must appear before the time variable `TO <time>`, for example: `FROM 18:00 TO 24:00`, or `FROM 22:00 TO 06:00`).

- WEEKDAY

  Specifies a day of the week, for example: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, or Sunday. The required syntax is:

  - `ON <day>`

    Specifies the day of the week (`ON Sunday`).

  - `FROM <day> TO <day>`

    Specifies the time period (`FROM Monday TO Wednesday`).

- DATE

  Specifies the date. The date must have one of the following formats:

  <MM>/<DD>/<YYYY>

  <MM>/<DD>/<YY>

  <MM>/<DD>/*

  /<DD>/

  */<DD>/<YYYY>

HPOM does not verify that the time period is valid. For example, `10/35/*` is not recognized as an invalid date.

You specify the date as follows:

```
ON <date>

FROM <date>

TO <date>
```

Example Flexible Management Policies

This section provides a number of example policies that illustrate a simple implementation of selected flexible-management features. In this section you can find examples of the following flexible-management configurations:

- "Management Responsibility Switch" below
- "Follow-the-Sun Responsibility Switch" on the next page
- "Multiple Subnet Management" on page 224
- "Message Forwarding between Management Servers" on page 225
- "Service-Hour Schedules" on page 225
- "Scheduled Outage Configuration" on page 226

Management Responsibility Switch

The following example policy switches management responsibility from one HPOM management server to another.

```
#
# Configuration file
# /etc/opt/OV/share/conf/OpC/mgmt_sv/respmgrs/f887818
# and managed node hptest with
# the IP address 15.136.120.24 (= f887818 in hex notation)
#
TIMETEMPLATES
    TIMETEMPLATE "shift1"
        DESCRIPTION "Time Template 1"
        TIMETMPLCONDS
            TIMETMPLCOND
                TIMECONDTYPE Match
                TIME FROM 10:00 TO 14:00
                WEEKDAY FROM Monday TO Friday
            TIMETMPLCOND
                TIMECONDTYPE Match
                TIME FROM 17:00 TO 24:00
                WEEKDAY FROM Monday TO Friday
    TIMETEMPLATE "shift2"
        DESCRIPTION "Time Template 2"
        TIMETMPLCONDS
            TIMETMPLCOND
                TIMECONDTYPE Match
```

```
                   TIME FROM 6:00 TO 18:00
                   WEEKDAY FROM Monday TO Friday
                   DATE 1/1/95
RESPMGRCONFIGS
    RESPMGRCONFIG
        DESCRIPTION "responsible mgrs for agents in Europe"
        SECONDARYMANAGERS
            SECONDARYMANAGER
                NODE IP 0.0.0.0"hptest.bbn.hp.com"
                DESCRIPTION "Boeblingen"
            SECONDARYMANAGER
                NODE IP 0.0.0.0 "hpsystem.bbn.hp.com"
                DESCRIPTION "Boeblingen gateway"
        ACTIONALLOWMANAGERS
            ACTIONALLOWMANGER
                NODE IP 0.0.0.0 "hptest.bbn.hp.com"
                DESCRIPTION "Boeblingen"
            ACTIONALLOWMANGER
                NODE IP 0.0.0.0 "hpsystem.bbn.hp.com"
                DESCRIPTION "Boeblingen gateway"
            ACTIONALLOWMANGER
                NODE IP 0.0.0.0 "$OPC_PRIMARY_MGR"
                DESCRIPTION "HPOM primary manager"
    MSGTARGETRULES
        MSGTARGETRULE
            DESCRIPTION "other messages"
            MSGTARGETRULECONDS
            MSGTARGETMANAGERS
                MSGTARGETMANAGER
                    TIMETEMPLATE "shift2"
                    OPCMGR NODE IP 0.0.0.0 "system.aaa.bb.com"
```

Follow-the-Sun Responsibility Switch

The following example policy defines follow-the-sun responsibility switching.

```
#
# Time-template configurations for follow-the-sun functions
#
# Three responsible managers are used in this example
TIMETEMPLATES
        # time template 1
        TIMETEMPLATE "shift1"
        DESCRIPTION "Time Template 1 "
        # Time template for shift1
        # this include the time from 17:00 to 24:00  and from
        # 0:00 to 6:00
        # on the weekday Monday to Friday
            TIMETMPLCONDS
                TIMETMPLCOND
```

```
                            TIME FROM 0:00 TO 6:00
                            WEEKDAY FROM Monday TO Friday
                      TIMETMPLCOND
                            TIME FROM 17:00 TO 24:00
                            WEEKDAY FROM Monday TO Friday
            TIMETEMPLATE "shift2"
            DESCRIPTION "Time Template 2 "
            # Time template for shift2
            # this includes the time from 6:00 to 17:00
            # on the weekday Monday to Friday
               TIMETMPLCONDS
                      TIMETMPLCOND
                            TIME FROM 6:00 TO 17:00
                            WEEKDAY FROM Monday TO Friday
            # time template 3
            TIMETEMPLATE "shift3"
            DESCRIPTION "Time Template 3 "
            # Time template for shift3
            # include the time from 0:00 to 24:00 (all day)
            # on the weekday Saturday and Sunday
               TIMETMPLCONDS
                      TIMETMPLCOND
                            TIME FROM 0:00 TO 24:00
                            WEEKDAY FROM Saturday TO Sunday
   #
   # Responsible Manager Configurations for follow the sun
   # functionality
   #
   RESPMGRCONFIGS
      RESPMGRCONFIG
      DESCRIPTION "responsible managers M1 "
         SECONDARYMANAGERS
            SECONDARYMANAGER
               NODE IP 0.0.0.0 "M1"
               DESCRIPTION "secondary manager M1"
            SECONDARYMANAGER
               NODE IP 0.0.0.0 "M2"
               DESCRIPTION "secondary manager M2"
            SECONDARYMANAGER
               NODE IP 0.0.0.0 "M3"
               DESCRIPTION "secondary manager M3"
         ACTIONALLOWMANAGERS
            ACTIONALLOWMANAGER
               NODE IP 0.0.0.0 "M1"
               DESCRIPTION "action allowed manager M1"
            ACTIONALLOWMANAGER
               NODE IP 0.0.0.0 "M2"
               DESCRIPTION "action allowed manager M2"
            ACTIONALLOWMANAGER
               NODE IP 0.0.0.0 "M3"
```

```
            DESCRIPTION "action allowed manager M3"
        MSGTARGETRULES
            MSGTARGETRULE
            DESCRIPTION "target rule description "
                MSGTARGETRULECONDS
                # for all messages
                MSGTARGETMANAGERS
                    MSGTARGETMANAGER
                    # target manager from 17:00 to 24:00
                    # and 00:00 to 6:00
                    # from Monday to Friday
                        TIMETEMPLATE "shift1"
                        OPCMGR IP 0.0.0.0 "M1"
                    # target manager from 6:00 to 17:00
                    # from Monday to Friday
                    MSGTARGETMANAGER
                        TIMETEMPLATE "shift2"
                        OPCMGR IP 0.0.0.0 "M2"
                    # target manager on the whole weekend
                    MSGTARGETMANAGER
                        TIMETEMPLATE "shift3"
                        OPCMGR IP 0.0.0.0 "M3"
```

Multiple Subnet Management

If you are using an HP Operations management server that manages multiple subnets through multiple ethernet interfaces, you should distribute the appropriate `mgrconf` file to the managed nodes in subnets to support this setup environment. The following example can be used as a template:

```
RESPMGRCONFIGS
        RESPMGRCONFIG
        DESCRIPTION "responsible mgrs for <server_name>"
                SECONDARYMANAGERS
                        SECONDARYMANAGER
                        NODE <IP_address_1> "<server_name_1>"
                        DESCRIPTION        "first_IP_address"
                        SECONDARYMANAGER
                        NODE IP <IP_address_2> "<server_name_2>"
                        DESCRIPTION        "second_IP_address"
                ACTIONALLOWMANAGERS
                        ACTIONALLOWMANAGER
                        NODE IP <IP_address_1> "<server_name_1>"
                        DESCRIPTION        "first_IP_address"
                        ACTIONALLOWMANAGER
                        NODE IP <IP_address_2> "<server_name_2>"
                        DESCRIPTION        "second_IP_address"
```

Where the meaning of the above stated selectors is as follows:

- *<server_name_1>* is the name the management server uses for the first subnet.
- *<server_name_2>* is the name the management server uses for the second subnet.
- *<IP_address_1>* is the IP address the management server uses for the first subnet.
- *<IP_address_2>* is the IP address the management server uses for the second subnet.

Your DNS server must properly resolve all host names and IP addresses that belong to the management server.

Message Forwarding between Management Servers

The following example policy defines message forwarding between management servers.

If you install the policy on a server named Source, that server Source performs the following actions:

1. Forwards messages to expert center

   Forward messages assigned to the message group DATABASE to a database expert center (dbexpert) and pass control of the message to the expert center. The Source server also informs a second server (dbnotify). Finally, the Source server causes the message to be acknowledged directly on the local HPOM server.

2. Informs treasury server

   Inform a treasury server (Treasury) about messages that concern financial and CAD applications.

3. Informs master server

   Inform a master server (Master) about critical messages coming from nodes x1 and x2.

```
RESPMGRCONFIGS
        RESPMGRCONFIG
         DESCRIPTION "msg-forwarding target specification"
                    MSGTARGETRULES
                      MSGTARGETRULE
                      DESCRIPTION "application appl"
                            MSGTARGETRULECONDS
                               MSGTARGETRULECOND
                                DESCRIPTION "no condition"
                                MSGTARGETMANAGERS
                               MSGTARGETMANAGER
                                   TIMETEMPLATE "$OPC_ALWAYS"
                                 OPCMGR IP 0.0.0.0 "ligety.bbn.hp.com"
                                   MSGCONTROLLINGMGR
                               MSGTARGETMANAGER
                                   TIMETEMPLATE "$OPC_ALWAYS"
                                 OPCMGR IP 0.0.0.0 "moses.bbn.hp.com"
                                      MSGCONTROLLINGMGR
```

Service-Hour Schedules

The following example policy defines service hours for a SAP server with the node name saparv01. This node must be in service on weekdays from 08:00 hours to 16:00 hours.

```
TIMETEMPLATES
   # time template
```

```
        TIMETEMPLATE "service hours"
        DESCRIPTION "template match for service hours"
            TIMETMPLCONDS
                TIMETMPLCOND
                    TIME FROM 08:00 TO 16:00
                    WEEKDAY FROM Monday TO Friday

RESPMGRCONFIGS
   RESPMGRCONFIG
   DESCRIPTION "Define service hours for a SAP server"
      MSGTARGETRULES
         MSGTARGETRULE
         DESCRIPTION "Buffer msg outside service hrs for SAP"
            MSGTARGETRULECONDS
                MSGTARGETRULECOND
                DESCRIPTION "Node with SAP server"
                NODE IP 0.0.0.0 "sapsrv01"
            MSGOPERATIONS
                MSGOPERATION
                TIMETEMPLATE "service hours"
                INSERVICE
```

Scheduled Outage Configuration

The following example policy defines a scheduled outage that suppresses all messages relating to the application oracle from node sapsrv01.

```
CONDSTATUSVARS
   CONDSTATUSVAR "ora_on_sapsrv01" False
RESPMGRCONFIGS
   RESPMGRCONFIG
   DESCRIPTION "define outage for oracle on node orasv01"
      MSGTARGETRULES
         MSGTARGETRULE
         DESCRIPTION "outage for oracle on node orasv01"
            MSGTARGETRULECONDS
                MSGTARGETRULECOND
                DESCRIPTION "Node with oracle server"
                CONDSTATUSVAR "ora_on_sapsrv01"
                NODE IP 0.0.0.0 "sapsrv01"
                APPLICATION "oracle"
            MSGOPERATIONS
                MSGOPERATION
                SUPPRESS
```

Logfile Entry Policy Type

The Logfile Entry policy type enables you to monitor entries in a text or binary log file. When specified character patterns appear in monitored log files, actions are started (that is, the Logfile Entry policy type

specifies a source log file and rules that define what a policy should do in response to a specific type of event). Each rule consists of the following:

- **Condition**
  Part of a policy that describes the type of event in the source that triggers an action.

- **Action**
  Response that the policy should take if an event that matches the condition occurs.

> **Note:** A policy must contain at least one rule. If the policy contains multiple rules, the rules are evaluated in a specific order. When one condition is matched, no additional rules are evaluated.

Actions are the part of a rule that defines what the policy should do if it detects an event that matches or does not match the rule's condition. The action can consist of one or more of the following:

- **Send a message to the active message browser**

  This is the most common action. A message notifies the operator that an event occurred (the message may also contain instructions for responding to the event and a link to a command that the operator can run). You can also acknowledge messages or suppress duplicate messages.

- **Send a message to the acknowledged messages browser**

  The message is sent directly to the acknowledged messages browser.

- **Automatically run a command**

  If you know that a certain command should always be run in response to a certain event, you can configure an automatic command.

- **Nothing**

  In some circumstances, you may want a rule to stop the policy from evaluating the event (to improve performance) without providing the operator with any notification.

For detailed information about log file messages and policies and also for the policy body grammar that can be used for this policy type, see the *HPOM Concepts Guide*.

Related Topics

- All Policy Types

Measurement Threshold Policy Type

The Measurement Threshold policy type evaluates performance data and responds if the data does not remain within specified threshold levels. By using this policy type, you can monitor parameters that change constantly (for example, CPU load, disk space, number of running processes, and so on).

For the policy body grammar that can be used for this policy type, see the *HPOM Concepts Guide*.

Related Topics

- All Policy Types

Node Info Policy Type

The node info policy type provides a way to modify configuration information on a managed node. Node info policies use `ovconfchg` to manipulate node settings files and update the node configuration

database.

Related Topics

- Specifying Parameters in the Node Info Policies
- All Policy Types

Specifying Parameters in Node Info Policies

The Node Info policy type provides a simple editor where parameters can be typed. Each parameter consists of a name and a string value. Only ASCII characters are permitted. The string value may not contain new line characters.

The Node Info policy syntax is as follows:

```
;XPL config
[<namespace>]
<parameter_name> = <parameter_value>
```

`;XPL config` triggers the configuration of HTTPS agents.
`[<namespace>]` contains the namespace to be updated.

In this instance, `;XPL config` triggers the configuration of agents and `[<namespace>]` contains the namespace to be updated.

For example:

```
;XPL config
[eaagt]
OPC_AGTMSI_ENABLE = TRUE
OPC_AGTMSI_ALLOW_AA = FALSE
[bbc.http]
PROXY = proxy1.example.com:8080
```

> **Note:** If a parameter is defined in more than one policy, the value in the policy that was deployed last is the value that will be used. However, when a Node Info policy is removed from the node, the value for the parameter is not rolled back to the previous value, but is set to the default value. This can make it difficult to know what the configuration state on the node actually is. To prevent confusion, it is recommended either to deploy only one Node Info policy per node, or to create one Node Info policy for each specific parameter or unique group of parameters.

Open Message Interface Policy Type

The Open Message Interface policy type enables you to monitor messages that scripts or programs generate by using the `opcmsg` command, and to filter the messages and send them to the management server.

The Open Message Interface policy filters messages by defining match conditions for these messages. If a message matches, the policy sends a message to the management server. All other messages are suppressed.

For the message source policies information and the policy body grammar that can be used for this policy type, see the *HPOM Concepts Guide*. See also the *opcmsg(1)* or *opcmsg(3)* manual pages for more information.

Related Topics

- All Policy Types

Remote Action Security Policy Type

By default, any node can send a message with a remote automatic action, and the management server runs that action on the remote node. However, you can configure a management server to allow or deny remote automatic action requests. You do this by using the Remote Action Security policy type. After you create a remote action security policy, you must deploy it to the management server that you want to configure.

Note: Remote action security policies determine whether a management server starts remote automatic actions. Remote action security policies do not prevent users from starting remote automatic actions manually. They also do not prevent users from starting remote operator-initiated actions. You can configure user roles to prevent users from starting actions on specific nodes.

For detailed information about remote actions, see the *HPOM Concepts Guide* and the *HPOM Administrator's Reference*.

Related Topics

- All Policy Types

SNMP Interceptor Policy Type

The SNMP Interceptor policy type monitors SNMP events and responds when a character pattern that you choose is found in an SNMP message.

Note: SNMP interceptor policies enable you to manage SNMP devices that you cannot deploy to (for example, printers, routers, computers with unsupported operating systems, and so on).

For more information about the SNMP Trap Interception see the *HPOM Administrator's Reference*. You can also find the policy body grammar that can be used for this policy type in the *HPOM Concepts Guide*.

Related Topics

- All Policy Types

Scheduled Task Policy Type

The Scheduled Task policy type allows you to schedule commands to run on one or more managed nodes once or according to a specific schedule. A message is then sent to the management server to indicate the success or failure of the command. For the schedule configuration details see Scheduled Task Tab .

For the policy body grammar that can be used for this policy type, see the *HPOM Concepts Guide*.

Related Topics

- All Policy Types

Service Auto Discovery Policy Type

Service Auto Discovery policies are supplied by SPIs to discover services in your managed environment and display them on a service map. Usually there is no need to modify the SPI Service Auto Discovery policy. However, certain SPIs may require that you configure this policy by adding parameter data such as a user name or a password to allow access and discovery of specific applications on a managed node.

Service Auto Discovery policies allow you to:

- Configure a predefined management module discovery
- Configure a custom service discovery policy
- Schedule the execution of the discovery by the management module
- Define additional parameters if required

You must deploy a Service Auto Discovery policy to a managed node before it can be executed. When you remove a Service Auto Discovery policy from a managed node, the discovered services and relationships are removed from the service map.

For detailed information about Service Auto Discovery policies, see the *Service Discovery and Topology Synchronization Guide*.

Related Topics

- All Policy Types

Service Process Monitoring Policy Type

The Service Process Monitoring policy type monitors Windows services or processes (on any supported operating system) that run on the managed node. You can define the status to monitor and the action to be performed if the status changes. Service Process Monitoring policies send a message when the status of the monitored services changes (for example, from running to stopped).

For the policy body grammar that can be used for this policy type, see the *HPOM Concepts Guide*.

Related Topics

- Configure Service Monitors
- Configure Process Monitors
- Configure Start Actions
- Configure Continue Actions
- Configure End Actions
- All Policy Types

Configure Service Monitors

To add a new service to monitor, follow these steps:

1. Select **Services**from the **Type** drop-down menu that is available on the **Monitoring** tab of the Service Process Monitoring policy.

2. If you know the exact name of the service you want to add:
   a. From the drop-down list below, select **Add Service**. The **Condition** dialog box opens.

   b. In the **Condition** dialog box, provide the following details:

   - **Service Name**

     Type the *real* name of the service that you want to monitor.

     The policy editor compares the string that you type in the **Service Name** box with the list of existing service names defined in the policy. It does not allow duplicate names or recognize the following special characters; \ (backslash), " (quotation mark), : (colon), & (ampersand), < > (angle brackets), ? (question mark), | (pipe), and spaces ( ).

     The policy editor does not try to establish whether the service you specify exists (for example, because you have not typed the service name correctly).

   - **Send message if Service does not exist**

     The policy editor does not try to establish whether the service you specify exists (for example, because you have not typed the service name correctly).

     Select the **Send message if Service does not exist** option to ensure that HPOM informs you if the service you specify here is *not* present when you deploy the policy to the node.

   - **Display Name**

     The Display Name is used in the policy editor for information purposes only. It is not used to identify the service. By default, the Display Name is the name that shows in the **Name** column of **Services** dialog box.

   - **Actions, if service is NOT**

     Select the state that you want to monitor for the selected service. For example, the default monitoring status "Running" checks whether the selected service is running. Other states include "Disabled" and "Stopped". If the policy detects a change in state for the selected service, it starts the actions defined in Actions, below.

   - **Message actions**

     Choose whether you want to use the default actions defined for the service, or specify your own, customized actions:

     - **Use Message Defaults**

       Click **Use Message Defaults** from the drop-down list to specify that you want the monitor to use the default actions defined for the policy.

     - **Custom Message**

       Click **Custom defined** if you want to define custom actions for a monitor. If you check this option, you must use the options in the **Start Actions**, **Continue Actions** and **End Actions** tabs to configure the actions that you want to occur when the policy finds a match. The actions tabs you use here are the standard HPOM tabs for defining a message and automatic or operator-initiated action.

3. Set the **Polling Interval** by entering the appropriate values in the **Hours**, **Min** and **Sec** boxes.

4. Click **Save** to save the new or modified process monitor policy.

Configure Process Monitors

To add a new process to monitor, perform the following:

1. Select **Processes**from the **Type** drop-down menu that is available on the **Monitoring** tab of the Service Process Monitoring policy.

2. If you know the name of the process you want to add:

   a. From the drop-down list below, select **Add Process**. The **Condition** dialog box opens.

   b. Type the details of the process to monitor:

   ■ **Process Name**

   The name of the process that you want to monitor.

   The policy editor compares the string you type in the **Process Name** box with the list of existing process names defined in the policy. It does not allow duplicate names or recognize the following special characters; \ (backslash), " (quotation mark), : (colon), & (ampersand), < > (angle brackets), ? (question mark), | (pipe), and spaces ( ).

   For Windows nodes, the string you enter here must match the name of the process as it is known to Windows, including the file extension, for example: "notepad.exe". Duplicates are not allowed.

   For UNIX or Linux nodes, specify *only* the name of the executable file for the process that you want to monitor. Do not include the path.

   You can monitor multiple instances of a process by using parameters to differentiate between the instances (for example, `svchost.exe -k rpcss` and `svchost.exe -k netsvcs`). For more information, see Parameters below.

   ■ **Parameters**

   Define the strings or parameters that you need to match. If you use this option, the parameters you specify are used to identify the running process. Standard HPOM pattern matching is used to evaluate the contents of this box, which for Windows managed nodes are not case sensitive. Note that:

   ● If the **Parameters** box is empty, the policy editor matches only processes running without parameters.

   ● If the **Parameters** box contains a string with no pattern-matching characters, the policy editor matches only processes with the defined string.

   ● If the **Parameters** box contains pattern-matching characters, the policy editor matches all process parameters with the string defined (for example, <*> matches *all* parameters, and <*>abc<*> matches all parameters containing the string "abc").

   ■ **Actions, if number of processes is NOT**

   Select the state that you want to monitor for the selected process. You can choose among <=, ==, and >=.

   ■ **Message actions**

   Choose whether you want to use the default actions defined for the process, or specify your own, customized actions:

- **Use Message Defaults**:

  Click **Use Message Defaults**from the drop-down menu to specify that you want the process monitor to use the default actions defined for the policy.

- **Custom Message**:

  Click **Custom Message** if you want to define custom actions for a process monitor. If you check this option, you will have to use the options in the **Start actions**, **Continue actions** and **End actions** tabs to configure the actions that you want to occur when the policy finds a match. The actions tabs you use here are the standard HPOM tabs for defining a message and automatic or operator-initiated action.

3. Set the **Polling Interval** by entering the appropriate values in the **Hours**, **Min** and **Sec** boxes.

4. Click **Save** to save the new or modified process monitor policy.

Configure Start Actions

Each service or process monitor that you add to your policy has a start action. A start action is triggered when the service is not in the state you specified, or the number of processes is not as you specified. If you do not change the default start actions, the predefined start actions run.

The default start action for service monitors sends a message to the active message browser. The message can have different attributes for each policy. The following are some of them:

- Severity: Critical

- Message key: `<$NAME>:<$MSG_NODE_NAME>:<$MSG_OBJECT>:START`

- Message text: `<$MSG_TEXT>.(Service name, actual and expected service state)`

  For example: `Service Telnet is not running. Current state is stopped.`

- Acknowledge Messages Matching This Message Key Pattern: `<$NAME>:<$MSG_NODE_ NAME>:<$MSG_OBJECT>:<*>`

The default start action for process monitors sends a message to the active message browser. The message can have different attributes for each policy. The following are some of them:

- Severity: Critical

- Message key: `<$NAME>:<$MSG_NODE_NAME>:<$MSG_OBJECT>:START`

- Message Acknowledgment with message key: `<$NAME>:<$MSG_NODE_NAME>:<$MSG_OBJECT>:<*>`

- Message text: `<$MSG_TEXT>.(Process name, actual and expected number of running processes)`

  For example: `0 processes "xterm" with parameter "<*>abc<*>" are running. Expected: 1 process.`

> **Note:** See Message Defaults Tab for the information about the default message attributes, and Condition Tab for more details on defining conditions.

To configure start actions for service process monitoring policies:

1. You can configure default start actions, which apply to all service or process monitors, or configure custom start actions, which apply to individual service or process monitors.

- To configure default start actions, click **Message Defaults** Tab, and then click the **Start Actions** tab. The **Message** tab is displayed where you can configure the message.

- To configure custom start actions:

  i. In the **Monitoring** Tab, choose the service or process monitor from the list.
  ii. In the **Condition** Tab , from the **Message Actions** drop-down list select **Custom Message**. The **Start Actions** Tab appears.

2. *Optional.* If you choose to send the message to the active message browser, you can define the automatic and operator-initiated actions in the Monitoring tab -> Start Actions -> Actions.

Configure Continue Actions

Each service or process monitor that you add to your policy can have a continue action. After the start runs, continue actions are carried out at each subsequent polling interval if the reset value is not reached. If you do not change the default continue actions, then no continue actions run.

To configure continue actions, follow these steps:

1. You can configure default continue actions, which apply to all service or process monitors, or you can configure custom continue actions, which apply to individual service or process monitors.

   - To configure default continue actions, click **Message Defaults** Tab, and then click **Continue Actions** Tab. From the **Continue Actions** Tab choose **Use the specified 'Start Actions'** from the drop-down menu.

   - To configure custom continue actions:

     i. Click the service or process monitor in the list, and then click **Custom Message** in the **Condition** tab.
     ii. From the **Continue Actions** Tab choose **Define special 'Continue Actions'** from the drop-down menu. The **Message** tab is displayed where you can configure the message.

2. *Optional.* If you choose to send the message to the active message browser, you can define the automatic and operator-initiated actions in the Monitoring tab -> Start Actions -> Actions.

Configure End Actions

Each service or process monitor that you add to your policy can have an end action. After the start runs, end actions are carried out after the service or process returns to the expected state. If you do not change the default continue actions, the end action runs.

The default end action for service monitors sends a message to the active message browser. The message can have different attributes for each policy. The following are some of them:

- Severity: Normal
- Message key: `<$NAME>:<$MSG_NODE_NAME>:<$MSG_OBJECT>:END`
- Acknowledge message with message key:
  `<$NAME>:<$MSG_NODE_NAME>:<$MSG_OBJECT>:<*>`

- Message text:
  `<$SESSION(SERVICEDISPLAYNAME)> is <$SESSION(SERVICEMONITORSTATE)>.`

  For example: `Service Telnet is running.`

Predefined default end action for process monitors

The predefined default end action for process monitors sends a message to the active message browser. The message can have different attributes for each policy. The following are some of them:

- Severity: Normal

- Message key: `<$NAME>:<$MSG_NODE_NAME>:<$MSG_OBJECT>:END`

- Message Acknowledge with message key:
  `<$NAME>:<$MSG_NODE_NAME>:<$MSG_OBJECT>:<*>`

- Message text:
  `<$SESSION(PROCESSNBRAVAILABLE)> process "<$SESSION(PROCESSNAME)>" with parameter`
  `"<$SESSION(PROCESSPARAMETERS)>" is running.`

  Example: `1 processes "xterm" with parameter "<*>abc<*>" is running.`

> **Note:** See Message Defaults Tab for the information about the default message attributes, and Condition Tab for more details on defining conditions.

To configure end actions, follow these steps:

1. You can configure only custom end actions, which apply to individual service or process monitors. To configure special end actions:

   a. In the **Monitoring** Tab, choose the service or process monitor from the list.

   b. In the **Condition** Tab , from the **Message Actions** drop-down list select **Custom Message**. The **End Actions** Tab appears. From the drop-down list, select **Define special 'End Actions'**. The **Message** tab is displayed where you can configure the message.

2. *Optional.* If you choose to send the message to the active message browser, you can define the automatic and operator-initiated actions in the Monitoring tab -> Start Actions -> Actions.

SiteScope Policy Type

The combined functionality of SiteScope and HPOM provides an effective and in-depth monitoring solution that enables you to manage SiteScope templates with HPOM (that is, SiteScope templates and monitors can be configured through the HPOM policy assignment and deployment). In general, the SiteScope policy is a SiteScope template that is converted into an HPOM policy and uploaded to the HPOM database. Its policy type is `sitescope`.

For detailed information about deploying SiteScope configuration with HPOM, see the *Deploying SiteScope Configuration with HPOM* document that you can find at the following location:

https://softwaresupport.hp.com/group/softwaresupport/search-result?keyword=

Related Topics

- All Policy Types

Subagent Policy Type

The Subagent policy type enables you to manage the subagent (that is, a product that is not part of HPOM, but is partially manageable from the HP Operations management server).

For detailed information about the Subagent policy type, see the *HPOM Concepts Guide*.

Related Topics

- All Policy Types

Windows Event Log Policy Type

The Windows Event Log policy type monitors entries in a Windows event log and responds when a character pattern that you choose appears in the event log. For the descriptions of the settings you need to specify in the Properties Tab, see Properties Tab.

For the policy body grammar that can be used for this policy type, see the *HPOM Concepts Guide*.

Related Topics

- Configure Event Log Sources
- Configure Event Log Policy Options
- Configure Actions in Windows Event Log Policies
- Configure Event Log Conditions
- Configure Message Defaults in Windows Event Log Policies
- All Policy Types

Configure Event Log Sources

The Source tab of the event log policy editor allows you to indicate which event log the policy reads and where the policy should begin to read the event log. You can also choose to receive a message if the event log is missing.

For the descriptions of the settings you need to specify in the Source Tab, see Source Tab.

Configure Message Defaults in Windows Event Log Policies

In the Message Defaults tab you can set default attributes for all messages that a policy sends.

The message defaults only affect new rules. You can override the defaults for individual rules after you create them. If a message in any rule contains empty attributes, the agent uses the default attributes. For more information about the following settings, see Message Defaults Tab.

- **Message Attributes**

    Message attributes for the Log Event policies.

○ **Service ID**

The default service ID that is used in generated messages unless overridden in a condition.

○ **Service hosted on**

Enables you to locate the name of the node that hosts the service. Chose among the available selectors (Filter, All Node Groups, All Node Hierarchies and All Nodes) depending on the information that you need.

○ **Message Group**

Enables you to locate the message group. Default value is set part of condition. Chose among the available selectors (Filter and All Message Groups) depending on the information that you need.

- **Instructions Tab**

Select the appropriate option from the **Type** drop-down menu. Choose among the following options: Do not use instruction text, Instruction Text, and Instruction Text Interface.

- **Correlation Tab**

Define a message key. Select the available check box to indicate whether you want to duplicate message suppression or not.

- **Advanced Tab**

The advanced settings that include Pattern Matching (Define the field separators and decide whether you want them to be case sensitive or not by selecting the appropriate check box) and message-stream Interface (Specify whether you want to have Agent MSI and Server MSI or not).

Configure Event Log Conditions

In the **Conditions** tab you can specify the conditions for a Windows Log Event policy. This tab lets you specify an entry in the Windows event log that causes the rule to carry out the actions that are associated with the rule. If the policy finds an event log entry that matches what you specify here, the actions that you specify in the action tab are carried out.

For the descriptions of the settings that you need to specify in the Conditions Tab, see Conditions Tab.

Configure Actions in Windows Event Log Policies

In the **Actions** tab, you indicate what the policy should do after evaluating a particular condition. The policy can send a message to the management server, start a command, prepare a command for the operator to start, or any combination or none of these actions.

You can use HPOM action variables in most message and command text boxes (exceptions are noted). It is often useful to surround the variable with quotation marks, especially if it may return a value that contains spaces.

For the descriptions of the settings that you need to specify in the Actions Tab, see Actions Tab.

Configure Event Log Policy Options

The Options tab of the Windows event log policy editor enables you to configure several policy behaviors.

For the descriptions of the setting you need to specify in the Options Tab, see Options Tab.

Windows Management Interface Policy Type

The Windows Management Interface (WMI) policy type monitors the properties of WMI classes and instances, and responds when a property matches a value you select, or when an instance you select is created. For the descriptions of the settings you need to specify in the Properties Tab, see Properties Tab.

For the policy body grammar that can be used for this policy type, see the *HPOM Concepts Guide*.

Related Topics

- WMI Policy Sources
- WMI Policy Options
- WMI Policy Message Defaults
- WMI Policy Conditions
- All Policy Types

Configure WMI Source Tab

The WMI **Source** tab enables you to choose the instance or event that you want the WMI policy to monitor.

- **Object path**

    The object path defines the WMI object that you want to monitor.

    WMI contains a very large amount of information about the configuration of Windows, and about the configuration of other programs that write information to WMI namespaces. In order to write a useful WMI policy, you need to gain an understanding of the kinds of information that are available in WMI.

    The information provided by WMI is divided into namespaces. The default namespaces provided by WMI are `Root`, `Root\Default`, `Root\security` and `Root\CimV2`. Other applications may add other namespaces, for example, HPOM adds the namespace `root\Hewlett-Packard\OpenView\`.

    Namespace `Root\CimV2` is one of the most interesting namespaces, as it contains a large amount of information about the Windows operating system, and about hardware installed on the computer. The classes that are most useful are prefixed with `Win32_`, for example, `Win32_Service`, `Win32_Desktop`, `Win32_Share`, `Win32_PhysicalDisk` and so on. A good way to become acquainted with the information is to use a tool like wbemtest or the HP Operations class browser to examine the contents of the classes.

    - **Node:** The node that hosts the WMI database that you want to monitor. This can be an agentless node.
      If you do not specify a node, HPOM monitors the WMI database of the node that has this policy

deployed. Use the browse button (⬚) to select HPOM nodes or type a node name into the box.

○ **WMI Namespace:** The namespace that contains the data that you want to manage.

○ **Object Type:** Choose **Event** or **Instance**. Note that if you used the browse button (⬚) to fill in the Object path fields, the Object type will probably be correctly set. If, however, the class is not correctly located in the class hierarchy, the setting might be wrong.

Instance
Static information written to the WMI repository. This information remains in the repository until it is changed or deleted.

Event
Information that briefly appears in the WMI repository. This information is transitory, and never remains in the repository. Some events are defined by WMI by default, and are known as **intrinsic events**. Intrinsic events include the creation, modification, or deletion of an instance, class, or namespace. Other events, known as **extrinsic events**, are only available to a WMI policy if the namespace designer has defined them. In both cases, the event is only available to the WMI policy if the namespace designer has written a provider available for event, although intrinsic events can be simulated by the WMI policy by using a polling interval.

○ **Class Name**: Type the class that contains the event or instance that you want to monitor. (A class is a collection of data properties that is defined for information that will be stored in the WMI repository.)

○ **Connect as Non-Agent user:** If selected, the agent accesses the node's WMI database using the following account information. This account must exist on the agentless node and must have local administrator privileges. If not selected, the agent account is used.

- **Type of Query**

  The type of query depends on the object type that you are monitoring. If you are monitoring an event for which a provider is defined, then you do not need to enter any information here. If you are monitoring an intrinsic event for which no provider is defined, then you need to specify a polling interval. If you are monitoring an Instance, then you need to provide the following information:

  ○ Select **Query Instance of Class** if you want to match specific values contained within the class. You must indicate the **Polling interval** to indicate the frequency with which the Windows Management Interface policy checks the instances you selected.

  ○ Select **Query the intrinsic Event for these instances** if you want to check for the creation, modification or deletion of the instance, the class that contains the instance, or the namespace that contains the instance. If there is no provider for the event, you must also set the **Polling Interval** to indicate the frequency with which the Windows Management Interface policy will check the object you selected. (This results a WBEM Query Language **within** clause.)

- **Global WQL Filter (WQL Where-Clause)** A global filter can be described as a rule. It is a test that is applied to the instance or event before the policy begins to evaluate it. A global filter can improve performance, because events or instances that do not get through the filter are not evaluated by the policy. (The global filter is a WBEM Query Language **Where-Clause** .)

  Sample global filters

The syntax of a global filter has three parts:

PROPERTY OPERATOR VALUE

for example: `_PATH = "C:/program files"`

If the global filter filters intrinsic events, the syntax is somewhat different:

TargetInstance.*PROPERTY OPERATOR VALUE*
or
TargetClass.*PROPERTY OPERATOR VALUE*
or
TargetNamespace.*PROPERTY OPERATOR VALUE*

for example,

```
TargetInstance.InteractWithDeskTop = 1
TargetNamespace.name = "CIMV2"
```

Configure Message Defaults in WMI Policies

In the Message Defaults tab you can set default attributes for all messages that a policy sends.

The message defaults only affect new rules. You can override the defaults for individual rules after you create them. If a message in any rule contains empty attributes, the agent uses the default attributes. For more information about the following settings, see Message Defaults Tab.

- **Message Attributes**

  Message attributes for the WMI policies.

  - **Service ID** The default service ID that is used in generated messages unless overridden in a condition.

  - **Service hosted on** Enables you to locate the name of the node that hosts the service. Chose among the available selectors (Filter, All Node Groups, All Node Hierarchies and All Nodes) depending on the information that you need.

  - **Message Group**Enables you to locate the message group. Default value is set part of condition. Chose among the available selectors (Filter and All Message Groups) depending on the information that you need.

  - **Application** The "Application" attribute. Default value is set part of condition.

  - **Object** The "Object" attribute. Default value is set part of condition.

  - **Node** The "Node" attribute. Chose among the available selectors (Filter, All Node Groups, All Node Hierarchies and All Nodes) depending on the information that you need.

  - **Severity** Enables you to set the severity. Choose a severity among the Unknown, Normal, Minor, Major, Warning and Critical values. If no other severity is specified for a condition, this severity is used.

- **Instructions Tab**Select the appropriate option from the **Type** drop-down menu. Choose among the following options: Do not use instruction text, Instruction Text, and Instruction Text Interface.

- **Correlation Tab** Define a message key. Select the available check box to indicate whether you want to duplicate message suppression or not.

- **Advanced Tab**The advanced settings that include Pattern Matching (Define the field separators and decide whether you want them to be case sensitive or not by selecting the appropriate check box) and message-stream Interface (Specify whether you want to have Agent MSI and Server MSI or not).

Configure WMI Conditions

In the **Conditions** tab you can specify the conditions for a Windows Management Interface policy. Conditions for these rules are sets of WMI event or instance properties, along with values that these properties must have in order for a match to be successful.

For the descriptions of the settings that you need to specify in the Conditions Tab, see Conditions Tab.

Configure WMI Policy Options

The Options tab of the Windows Management Interface policy editor enables you to configure several policy behaviors.

For the descriptions of the settings you need to specify in the Options Tab, see Options Tab.

List All Smart Plug-ins

The **All Smart Plug-ins** page displays a list of the Smart Plug-ins (SPIs) installed on the HP Operations management server. The information in the **All Smart Plug-ins** page is displayed in a table with the following information; note that you can click the **Name** column title to reorganize list of SPIs in ascending or descending order.

If you want to filter the list of SPIs to reduce the number displayed, click the **Filter** link at the top of the list and use the fields and drop-down menus to define the filter conditions; you can filter objects according to a wide range of criteria, for example: name, type, label. The range and complexity of filter options available depends on the type of object you want to display in a list. Note that when you apply filters to a list, some of the default options for browsing and performing actions are not always available; the unavailable options are grayed out.

List of Smart Plug-ins

Column Title	Description
All	Check boxes to enables you to select all or individual SPIs on which you want to perform an action using the **Choose an action** drop-down menu at the bottom of the table.

List of Smart Plug-ins, continued

Name	Shows the short name of the Smart Plug-in. Click the actions button (⚙) to display a list of the actions you can perform on the listed SPIs; click the browse button (▣) to display a list of the configuration details that you can browse for each SPI. For example, you can list all the policies related to the selected SPI, or view detailed information about the configuration of a selected SPI.
▣	Click the Browse Details button to display a list of the configuration details that you can browse for the selected Smart Plug-in (SPI). For example, **Policies** displays a list of the policies linked to the selected SPI.
⚙	Click the Actions button to display a list of the actions you can perform on the selected Smart Plug-in. For example, **View** displays an overview of the current configuration and contents of the selected Smart Plug-in.
Description	A brief overview of the technical area covered by the selected Smart Plug-in.

To display a list of Smart Plug-ins

To display a list of all the SPIs managed by the HP Operations management server, you need to perform the following steps.

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Smart Plug-ins** to display the SPIs in a flat list. Note that if there are many SPIs, it can sometimes take a little time for HP Operations Manager to populate the lists of nodes.

Related Topics

- Sorting Lists
- Filtering Lists
- Display SPI details
- List all SPI-related policies

Display Smart Plug-in Details

The **Smart Plug-in Details** page displays detailed information about the configuration of the individual SPIs listed in the **All Smart Plug-ins** page. The information in the SPI Details page is displayed in a table with the following information. Click the actions icon (⚙) to display a list of the actions you can perform on the selected SPI; click the browse icon (▣) to display a list of the configuration details that you can browse for the selected SPI. For example, you can display a list of all the policies that belong to the currently selected SPI, or view detailed information about the configuration of the selected SPI.

Smart Plug-in Details

Attribute	Value
Name	The name of the Smart Plug-in; you can click the Smart Plug-in name to display more detailed information.

Smart Plug-in Details, continued

Description	The label used to represent the named managed node in the HPOM graphical user interface.

To display details of a Smart Plug-in

To display a detailed description of the current configuration of a selected SPI, perform the following steps:

1. In the **Browse** menu, click **All Smart Plug-ins**. Note that if there are many SPIs it can sometimes take a little time for HP Operations Manager to populate the list.

2. In the **Name** column, click the link that corresponds to the SPI whose details you want to display and check.

Related Topics

- List all Smart Plug-ins

All Tools

The **All tools** page displays a list of the tools that are available to users on the HP Operations management server. The information in the All tools page is displayed in a table with the following information; note that you can click the column title of the Name column to reorganize the tool names in ascending or descending order. Click the actions button ( ) to display a list of the actions you can perform on the tools in the list; click the browse button ( ) to display a list of the configuration details that you can browse for the selected tools. For more information about the actions you can perform on tools and the configuration details you can browse, see the list of related topics below.

If you want to filter the list of tools to reduce the number displayed, click the **Filter** link at the top of the list and use the fields and drop-down menus to define the filter conditions; you can filter objects according to a wide range of criteria, for example: name, type, label. The range and complexity of filter options available depends on the type of object you want to display in a list.

List of Tools

Column Title	Description
All	Check boxes to enables you to select all or individual tools on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Add Tool...", "Link to Tool Group...", and "Delete...".
Type	Uses an icon to indicate the type of tool in the list.
Label	Shows the label associated with the tool defined in the "Name" column; the label is used in the HPOM graphical user interface to identify the selected tool. Click the tool label in the list of tools to display more details of the tool.

List of Tools , continued

Name	Shows the name of the tool. Click a tool name to see more detailed information about the selected tool, including the tool group to which the selected tool belongs. Click one of the icons next to the tool name to display menus that enables you to browse the configuration of (or perform an action on) the selected tool.
Target	The location where the tool runs, for example: **$MGMTSV** (management server), **Selected Nodes** (currently selected managed nodes), or **URL** (link to the a specified location).
Output Mode	The way in which information supplied by the tool is displayed, for example: **In/Out** (user input required to respond to tool prompt), **Output only** (tool writes data to a default or requested destination), **X** (tool opens a graphical interface to display results, such as a terminal window).
⬚	Click the Browse Details button to display a list of the configuration details that you can browse for the selected tool (or tool group). For more information about what details you can browse, see Browse Tool (Group) Configuration Details.
⚙	Click the Actions button to display a list of the actions you can perform on the selected tool (or group) in the list. For more information about what actions you can perform, see List Tool (Group) Actions.
Description	Describes briefly the task the tool performs, for example: "Used to edit logfile configuration file".

To display a list of tools

To display a list of the tools configured on the HP Operations management server. Note that you can display the list of tools and groups as a hierarchical tree or as a flat list.

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **Tool Bank** if you want to display the list of tools and tool groups as a hierarchical tree; click **All Tools** or **All Tool Groups** to display the tools and tool groups in a flat list.

Related Topics

- Sorting Object Lists

- Filter Object Lists

- Browse Tool (Group) Configuration Details

- List Tool (Group) Actions

- All Tool Groups

- All Users

- All User Profiles

Display Tool Details

The **Tool Details** page displays detailed information about the configuration of the individual tools listed in the **All tools** page. The information in the tools Details page is displayed in a table with the following information. Click the actions button (⚙) or the page title to display a list of the actions you can perform on the tools in the list; click the navigation button (⧉) to display a list of the tool configuration details that you can browse.

Tool Details

Attribute	Value
Name	Name of the tool.
Start in terminal	Represents how the tool is started and also where output of the tool is printed.
Label	The label used to represent the named tool in the HPOM graphical user interface.
Description	A short description of the tool.
Type	The type of tool whose details you are viewing, for example: OM tool or Internal tool.
Target	Where the tool is supposed to run, for example: on the managed node(s) or on the management server.
Call	The command call that is used to start the tool you are viewing; if the location is not defined in the PATH variable, include the path to the command call, too.
User	The name of the operating-system user starting the tool, for example: root or "HP ITO Account".

To display details of a tool

To display a detailed description of a selected tool, perform the following steps:

1. In the HPOM **Browse** menu, click **All Tools**. Note that if there are many tools it can sometimes take a little time for HP Operations Manager to populate the lists of tools.
2. In the **Name** column, click the link that corresponds to the tool whose details you want to display.

Related Topics

- List tool actions
- Browse tool configuration details

Edit Tool

The Edit Tool page enables you to modify parameters for an existing tool, for example:

Use the Edit Tool page to make changes to the tools you use to manage your IT environment.

To modify an existing tool, perform the following steps:

1. In the HPOM **Browse** menu, click **All Tools**. From the list of tools choose a tool you want to modify. Select the **Edit…** option from the actions menu.

   ○ Tool Properties

   Details about how the edited tool appears in the user interface. For more information about what values are allowed in the fields displayed, see the tables below.

   ○ Internal Tool

   Requires details about the internal tool, such as: the name, the platform it is to run on and the name and password of the executing user.

   ○ OM Tool

   Requires details about the new command or tool to start and where you want it to run.

   ○ Details about the command or tool to start and where you want it to run.

2. Save or discard the changes you make to the tool using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the modified tool definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the tool configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Cancel**

   Discards all the changes you have made to the tool.

The following table indicates what information is expected in each of the fields in the Edit Tool Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Edit Tool: Properties Tab

Field Label	Description of Contents	Information Required

Edit Tool: Properties Tab, continued

Tool Name	The name of the tool you are modifying. The name is used in the Administration UI if no label is defined in the Label field. Note that you cannot change the name of the tool you are modifying; the field is inactive.	Yes
Label	The name you want to assign to the tool you are modifying; the label identifies the tool in the user interface.	No
Description	A short description of the tool to help users determine what the tool does.	No
Parent Group	Indicate the new name (if any) of the tool group to which the modified tool belongs.	No

The following table explains what information you enter in each of the fields in the Edit Tool OM Tool tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Edit Tool: OM Tool Tab

Field Label	Description of Contents	Information Required
Tool Call	The command call you want to run when the modified tool is started.	Yes
Parameters	Parameters and options for the command specified in the tool Call field.	No
Start	Use the drop-down menu to indicate where you want the modified tool to run, for example: on the management server, or on a managed node.	Yes
Presentation	Use the drop-down menu to indicate what type of information about the running tool you want to see and where the information should be displayed appear, for example: Window (output only), command output should be displayed and in its own, dedicated window.	Yes
User Name	Specify the name of the user you want the modified tool to run under.	Yes
Password	Specify a password for the user named in the User Name field.	Yes

Modify a Tool (Group)

You can display a list of the actions to perform on HPOM objects; the type of actions available depends on the type of object, on which you want to perform the action and, in addition, whether you want to perform an action on single or multiple objects. To perform an action on a single object, locate the object in the list and use the actions button ( ) to display a list of the actions available; to perform an action on multiple objects, check the box next to the objects you want to modify and use the drop-down

menu at the bottom of the table. In the event that neither of these options is available, use the actions button (⦿) next to the page title. The table below lists the actions you can perform on HPOM tools and tool groups, for example, view and edit.

Actions Menu: Tools/Tool Groups

Action	Description
View	View a detailed description of the selected OM Tool or tool group.
Copy with Contents...	Opens the edit-tool page so that you can copy an existing tool or a tool group while changing any details during the copy operation, except the contents of the tool if it exists. Contents of the tool stays the same.
Assign Tools / Tool Groups	Adds the selected tool or the tool group to available tools or available tool groups.
Edit...	Modify the definition of the selected OM Tool or tool group.
Copy...	Opens the edit-tool page so that you can copy an existing tool or tool group while changing any details during the copy operation.
Link to Tool Group...	Link the selected tool or tool group from the group to which it belongs to another tool group.
Assign to User/Profile...	Add the selected tool or tool group to a user or a user profile; you can select the user or user profile from the list in the user bank or user profile bank, which is displayed.
Delete...	Delete the tool from the tool bank or the tool group from the HPOM tool group bank.
Download...	Download the tool or tool group configuration from the HPOM database.
Add to Shopping Cart	Add the selected tool or tool group to the shopping cart. You can download the contents of the shopping cart to the clipboard directory from where you can upload the package again to any management server, or simply archive the package for use at a later point in time.

To list the actions for tools or tool groups

To display a list of the actions you can perform on a selected tool or tool group:

1. In the HPOM **Browse** menu, click **All Tools** or **All Tool Groups**. Note that if there are many tools (groups), it can sometimes take a little time to populate the lists.
2. Locate the tool or tool group you want to perform an action on.
3. Click the actions button (⦿) to display a list of the actions available.
4. In the menu that is displayed, click the action you want to start. For more information about available actions and what they do, see the table above.

Related Topics

- Browse Tool (Group) Configuration Details
- View Tool (Group) Configuration Details

- [Edit Tool (Group) Configuration Details]

Browse Tool (Group) Details

You can browse details of HPOM objects; the type of information available depends on the type of object, whose configuration you want to browse. To browse details of a single object, locate the object in the list and use the browse button ( ) to display a list of the information available or use the browse button ( ) next to the page title. The table below lists the details you can browse for HPOM tools or tool groups, for example: list the users (or user profiles) to whom the tool or tool group is assigned.

Browse Menu Tools/Tool Groups

Configuration Details	Description
Parent Tool Groups	View a list of the tool groups to which the selected tool or tool group belongs.
Tools	Display a list of tools assigned to tool group.
Users	Display a list of all the HPOM users to whom the selected tool or tool group has been assigned.
Profiles	Display a list of all the HPOM user profiles to whom the selected tool or tool group has been assigned.

To browse configuration details of tools or tool groups

To display a list of the additional information you can request about the current configuration of a selected OM Tool or tool group:

1. Click the HPOM icon to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Tools** or **All Tool Groups**. Note that if there are many tools (groups), it can sometimes take a little time to populate the lists.

3. In the displayed list, locate the tool or tool group whose configuration you want to browse.

4. Click the browse button ( ) to display a list of the configuration details that are available.

5. In the menu that is displayed, click the option that corresponds to the type of configuration details you want to display and browse. For more information about available configuration details, see the table below.

Related Topics

- [List Tool (Group) Actions]

All Tool Groups

The **All Tool Groups** page displays a list of the tools groups that are available on the HP Operations management server. The information in the All Tool Groups page is displayed in a table with the following information; note that you can click the column title of the Name column to reorganize the

tool-group names in ascending or descending order. Click the actions button (⚙) to display a list of the actions you can perform on the tool groups in the list; click the browse button (🗔) to display a list of the configuration details that you can browse for the selected tool groups. For more information about the actions you can perform on tool groups and the configuration details you can browse, see the list of related topics below.

List of Tool Groups

Column Title	Description
All	Check boxes to enables you to select all or individual tool groups on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Add tool", "Add Tool Group...", and "Delete...".
Type	Uses an icon to indicate the type of tool group in the list.
Label	Shows the label associated with the tool group defined in the "Name" column; the label is used in the HPOM graphical user interface to identify the selected tool group. Click the tool group label in the list of tool groups to display more detail.
Name	Shows the name of the tool group. Click a tool group name to see more detailed information about the selected tool group, including the tools the tool group contains. Click one of the icons next to the tool group name to display menus that enables you to browse the configuration of (or perform an action on) the selected tool group.
Contents	Indicates the number of tools contained in the listed tool groups.
Description	Describes briefly the sort of tools contained in the listed tool group.

To display a list of tool groups

To display a list of the tool groups configured on the HP Operations management server:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Browse** menu, click **All Tool Groups** to display the tool groups in a flat list.

Related Topics

- Sorting Object Lists
- Filter Object Lists
- Browse Tool (Group) Configuration Details
- List Tool (Group) Actions
- All Tools
- All Users
- All User Profiles

Display Tool Group Details

The **Tool Group Details** page displays detailed information about the contents of the individual tool group listed. The information is displayed in a table with the following information. Click the actions

button (⚬) or the page title to display a list of the actions you can perform on the tools groups in the list; click the navigation button (⧉) to display a list of the tool group configuration details that you can browse.

Tool Group Details

Attribute	Value
Name	The name of the tool group as used internally.
Label	The label used to represent the named tool group in the HPOM graphical user interface.
Description	A short description of the selected tool group.

To display details of a tool group

To display a detailed description of a selected tool or tool group, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Tools Groups**. Note that if there are many tools groups, it can sometimes take a little time for HP Operations Manager to populate the lists of tools.

3. Select the tools group whose details you want to display and, in the **Actions** (⚬) menu, click **View**.

Related Topics

- All Tool Groups
- List Tool Actions
- Browse Tool-Configuration Details

Edit Tool Group

The Edit Tool Group page enables you to modify parameters for an existing tool group.

Use this page to make changes to tool group that you want to make available to users in your IT environment.

To modify an existing Tool group and make the changed version available to users in your environment, perform the following steps:

1. Enter information in the fields presented in the **Properties**tab.

   The **Properties**tab displays details about how the Tool group appears in the user interface. For more information about what values are allowed in the fields displayed, see the tables below.

2. Save or discard the changes to the Tool group using the following buttons:

   ◦ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, it saves the modified Tool group definition.

   ◦ **Backup**

Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

- **Restore**

    Displays a list of the previously saved restore points which you can use to select and recall a backup version of the tool group configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

- **Cancel**

    Discards all changes you made to tool group.

The following table explains what information you enter in each of the fields in the Edit Tool Group Properties tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Edit Tool Group: Properties Tab

Field Label	Description of Contents	Information Required
Name	The name of the Tool group you are modifying. The name is used in the HPOM Administration UI if no label is defined in the Label field. Note that you cannot change the name of the Tool group you are modifying; the field is inactive.	Yes
Information	Contains useful data related to the tool group you want to create, in addition to the description. It is not visible on general overview of the tool group, however it is accessible through the drop-down menu (View option).	No
Label	The name of the Tool group you are modifying; this is the label that identifies the Tool group in the user interface.	No
Description	A short description of the new Tool group to help users understand what type of Tools (or Tool groups) the new Tool group contains.	No
Parent Group	The name of the Tool group that contains the Tool group you are modifying.	No

All HPOM Users

The **All Users** page displays a list of the users configured to work on the HP Operations management server. The information in the All Users page is displayed in a table with the following information; note that you can click the title of the Name column to reorganize the list of users in ascending or descending order.

If you want to filter the list of users to reduce the number displayed, click the **Filter** link at the top of the list and use the fields and drop-down menus to define the filter conditions; you can filter objects according to a wide range of criteria, for example: name, type, label. The range and complexity of filter options available depends on the type of object you want to display in a list.

> **Note:** The Administration UI allows multiple concurrent sessions by default. This means that a user can be logged on to several Administration UI sessions at the same time, either on the same machine (using different browsers) or on different machines. To prevent a user from having multiple concurrent sessions, follow the instructions described in the *HPOM Administrator's Reference*.

List of HPOM Users

Column Title	Description
All	Check boxes to enables you to select all or individual users on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Assign to Profiles", "Delete...", and "Add User...".
Type	An icon indicates the type of user (Administrator, operator).
Label	Shows the label assigned to the user as it appears in the Administration UI. The label is used as a display mechanism together with the icon which it describes.
Name	Shows the name of the HPOM user, for example: "itop", "netop", "opc_op". Click the HPOM user name to see more detailed information about the selected user. Click one of the icons next to the user name for menus that enables you either to display more information about the user or perform an action on the user.
▭	Click the Browse Details button to display a list of the configuration details that you can browse for the selected user. For more information about what user details you can browse, see Browse User Configuration Details.
⚙	Click the Actions button to display a list of the actions you can perform on the selected user configuration. For more information about what actions you can perform, see List User Actions.
Real Name	Shows the real name of the listed HPOM user.
Description	Displays a short description of the listed HPOM user, which allows the administrator to determine details such as role and location.
Responsibilities	Indicates if responsibilities have been assigned to the selected HPOM user; responsibilities include the assignment of message groups and node groups, which determine the type and quantity of messages the user receives.
Tools	Indicates if Tools or Tool group have been assigned to the selected HPOM user; Tools (in Tool groups) are the tools HPOM users have available to respond to problems.
Profiles	Indicates if a user's configuration is defined by means of a user profile.

To display a list of HPOM users

To display a list of all the HPOM users configured on the HP Operations management server:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Users** to display the users in a flat list.

To enable a user account

When a user fails to log on to the Administration UI in the several attempts, the account of this user is locked until it is enabled again by the administrator. To enable this account again, choose the corresponding action from the action menu of this user in the All Users page of the Administration UI.

Related Topics

- Sorting Object Lists

- Filter Object Lists

- Add/Edit a User

- List User Actions

- Browse User-Configuration Details

- All HPOM User Profiles

Configure HPOM Users or User Profiles

You can display a list of the actions to perform on HPOM objects; the type of actions available depends on the type of object, on which you want to perform the action and, in addition, whether you want to perform an action on single or multiple objects. To perform an action on a single object, locate the object in the list and use the actions button (⊙) to display a list of the actions available; to perform an action on multiple objects, check the box next to the objects you want to modify and use the drop-down menu at the bottom of the table. In the event that neither of these options is available, use the actions button (⊙) next to the page title. The following table lists the actions you can perform on HPOM users and user profiles, for example: view or edit the user configuration (or user profile), edit user responsibilities, assign profiles, and so on.

Actions Menu: HPOM User or User Profile

Action	Description
View	View a detailed description of the configuration of the selected HPOM user (or user profile).
Edit…	Modify the configuration of the selected HPOM user (or user profile).
Copy…	Copy the configuration of the selected HPOM user (or user profile), for example: to create a similar user (or profile) with a different name.
Assign Profiles…	Opens the user profile bank and enables you to assign a user profile to the selected HPOM user (or profile).
Edit Responsibilities…	Edit the list of message groups and node groups assigned to an HPOM user (group, or profile).

Actions Menu: HPOM User or User Profile, continued

Assign Tools...	Opens the Tool bank and enables you to assign Tools or Tool groups to the selected user or user profile.
Delete...	Delete the HPOM user (or profile) from the HPOM user bank.
Inform Operator...	Opens a dialog that enables you to compose a short message to send to all the HPOM users that are logged on to the selected management server at the time the message is sent. For more information about sending messages to users, see send user a message; for more information about listing received messages, see list user notification messages.
Download...	Download the HPOM user (or profile) from the HPOM user bank.
Add to Shopping Cart	Add the selected user or user profile to the shopping cart. You can download the contents of the shopping cart to the clipboard directory from where you can upload the package again to any management server, or simply archive the package for use at a later point in time.

To display a list of user or user profile actions

To display a list of the actions you can perform on the selected HPOM user or user profile:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Users** or **All User Profiles**. Note that if there are many users (or profiles), it can sometimes take a little time to populate the lists.

3. Locate the HPOM user (or profile) on whom you want to perform an action.

4. Click the actions button (⚙) to display a list of the actions available on users and user profiles.

5. In the menu that is displayed, click the action you want to start. For more information about available actions and what they do, see the table above.

Related Topics

- Browse User (Profile) Configuration Details
- List All HPOM Users
- List All HPOM User Profiles
- Edit an HPOM User's responsibility matrix
- Send user a message
- List user notification messages

Browse User or User Profile Configuration Details

You can browse details of HPOM objects; the type of information available depends on the type of object, whose configuration you want to browse. To browse details of a single object, locate the object in the list and use the browse button (🗖) to display a list of the information available or use the browse button (🗖) next to the page title. The table below lists the details you can browse for HPOM user or user profile, for example: display a list of the message groups assigned to the selected user, display

the list of the responsibilities inherited by the selected user, or the Tools assigned to the selected user, and so on.

Browse Menu: HPOM user and (profiles)

Configuration Details	Description
Nodes	Displays a list of the nodes assigned to the selected HPOM user.
Assigned Profiles	Displays a list of user profiles assigned to the selected profile.
Parent Profiles	Displays a list of user profiles that contain the selected profile.
Users	Displays a list of users who are assigned to this profile.
Node Groups	Displays a list of the node groups assigned to the selected HPOM user.
Message Groups	Display a list of the message groups assigned to the selected user; message groups determine what type of messages the selected HPOM user receives.
Responsibilities	Display the complete responsibility matrix for the selected user. The responsibility matrix shows which message groups have been assigned to the selected user and, in addition, which managed nodes or node groups the selected user is allowed to receive messages from.
Effective Responsibilities	Display the list of the responsibilities inherited by the selected user; users inherit responsibilities from user profiles.
Profiles	Display the list of profiles assigned to the selected HPOM user; user profiles are pre-defined user configurations that you can use to set up a responsibility matrix for HPOM users and, at the same time, assign Tools and Tool groups.
Node Hierarchy	Display the HPOM node hierarchy; you can use the hierarchy to browse and assign managed nodes.
Tools	View a list of the Tools assigned to the selected HPOM user; users make use of Tools to fix the problems reported by the messages they receive.
Effective Tools	View a list of the Tools inherited by the selected user.

To display user configuration details

To display a list of the additional information you can request about the configuration of a selected HPOM for UNIX user or user profile:

1. Click the HPOM icon to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Users** or **All User Profiles**. Note that if there are many users (or profiles), it can sometimes take a little time to populate the lists.

3. Locate the HPOM user (or profile) whose configuration you want to browse.

4. Click the browse button ( ) to display a list of the user-configuration details that are available.

5. In the menu that is displayed, click the option that corresponds to the configuration details you want to display and browse. Note that some of the menu options might not always be available; the menu options displayed depend on the type of HPOM user you select, for example: HPOM

operator or policy administrator. For more information about available menu options, see the table above.

Related Topics

- List All HPOM User Actions

- List All HPOM Users

- List All HPOM User Profiles

Display User Details

The **User Details** page displays detailed information about the individual users listed in the **All Users** page. The information in the User Details page is displayed in a table with the following information:

User Details

Attribute	Value
Label	The label used to represent the selected user in the HPOM graphical user interface, for example: netop (network operator), opcop (opc operator), opcadm (network administrator), and so on.
Name	HPOM user name, for example, `opc_op` for the standard HPOM operator or `spi_op` for the operator who is responsible for HPOM for UNIX Smart Plug-ins. This name is used in the Administration UI if no label is defined in the Label field.
Description	A short description of the selected user, for example: HPOM network operator, HPOM operator, HPOM network administrator, and so on.
Type	The type of HPOM user, for example: operator or administrator.
Real Name	The real name of the HPOM user.
Node Hierarchy	The node hierarchy containing the nodes assigned to the selected HPOM user, for example, Node Bank.

The User Details page also displays information concerning the both the capabilities and the responsibilities that have been assigned to the selected HPOM user, for example:

- **Capabilities:**
  Acknowledge, Modify Message Attributes, Perform actions, Own messages.

- **Responsibilities:**
  A list of the node and message groups that are assigned to the selected HPOM user.

To display details of a selected HPOM user

To display a detailed description of a selected user, perform the following steps:

1. In the HPOM **Browse** menu, click **All Users**.

2. In the **Name** column, click the link that corresponds to the user whose details you want to display and check.

Related Topics

- Display User-Profile Details

- Display All Message Groups

- Display All Policies

- Display All Tools

User Responsibilities

The **Responsibilities** page displays a matrix that shows which message groups have been assigned to the selected user and, in addition, which managed node groups the selected user is allowed to receive messages from. The selected user can only see messages which originate from assigned managed nodes (through node groups) and belong to assigned messages groups.

Consider the following responsibility matrix features:

- You can select all rows or columns by clicking their header.

- The horizontal block Node Groups is always visible, also when scrolling down to the bottom of the list.

- If the mouse pointer is above a check box, a small transparent pop-up box shows its coordinates (for example, NG for the node group, and MG for the message group).

The following table shows how the selected user is responsible for messages that belong to the message groups Backup, Database, Network, and OS message groups, and from nodes contained in the node groups "HP-UX" and "net devices" node groups. Note how the matrix makes it clear that the user is not responsible (and therefore will not see) messages from the node group "net devices" concerning problems relating to database and operating-system (OS) problems.

User Responsibility Matrix

	hp-ux	net devices
Backup	✔	✔
Database	✔	--
Network	✔	--
OS	✔	✔

To display user responsibilities

To display a list of the responsibilities assigned to the selected user:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All Users**.

3. In the list of users displayed, locate the user whose responsibilities you want to display.

4. Click the browse button ( ) to display a list of the configuration details that you can browse for the selected user.

5. Click **Responsibilities**.

Related Topics

- All Users
- All Message Groups
- All Node Groups

Edit User or User Profile Responsibilities

The **Edit Responsibilities** page enables you to modify the responsibility matrix for a specific user or user profile. The responsibility matrix specifies the areas of responsibility assigned to a user (or user profile). For example, you can specify the managed nodes a user is responsible for monitoring and, in addition, the messages groups whose messages the user is entitled to see and work on. After changing the responsibility matrix, you can re-assign the modified user profile to the HPOM users (or groups) who require it. A correctly configured responsibility matrix enables you to make sure that the right users receive the correct messages from the appropriate nodes. Note that disabled nodes are not considered in the responsibility matrix.

The following table explains what information you enter in each of the fields in the Edit Responsibilities page. Where appropriate, HP Operations Manager displays a blue asterisk (*) to indicate that information is required.

Edit User Profile: Responsibility Matrix

Field Label	Description of Contents	Information Required
Edit View	Opens the Edit Matrix View dialog, which you can use to refine the number and combination of items displayed in the responsibility matrix, that is: define which message groups and node groups you want to display in the responsibility matrix. Use the Visible Groups list to specify the items that you want to appear in the responsibility matrix you are editing. The items in the Available Groups list are those that are available for selection but not yet included in the responsibility matrix. Use the buttons provided to move all ([<<] [>>]) or selected ([<] [>]) items between the two lists. Note that you cannot move items that are "enabled" (checked) in the matrix. For more information about using the Edit View window to configure a user responsibility matrix, see Edit responsibility matrix view.	--

Edit User Profile: Responsibility Matrix, continued

Edit Selections	Opens the Selection Editor, which you can use to select the combination of managed nodes and message groups to enable or disable for the currently selected user or user profile. If the list of node groups or message groups is long, you can reduce and refine the contents of the list by setting a filter that shows only those items which match or contain a defined string. From the lists, select which of the node or message groups you want to enable or disable for the currently active user or user profile. For more information about using the Edit Selections window to configure a user responsibility matrix, see Edit responsibility matrix selection. **TIP**: For quick access to the Selection Editor, for example to open the Selection Editor in the context of a specific node group or message group, right click the group you want to edit.	--
Save	Commit any changes you have made to the user responsibility matrix (either to the matrix view or the selected nodes and message groups) in the current session and close the window.	--
Cancel	Close the editor and discard any changes you have made to the user responsibility matrix (either to the view or the selected nodes and message groups) in the current session.	--

To modify a user's responsibility matrix

To modify the responsibility matrix associated with an existing user or user profile and apply the changes to your HPOM environment:

1. In the HPOM **Browse** menu, click **All Users** or **All User Profiles**.

2. In the **All Users** or **All User Profiles** page, select the user or user profile you want to modify.

3. Click the actions button ( ) and select the Edit Responsibilities option from the menu that is displayed.

4. In the Edit Responsibilities page, make the desired changes to the user's (or user profile's) responsibility matrix. You can make the changes directly in the matrix itself or use the Edit View and Edit Selection buttons to make and preview any changes first and, if appropriate, apply them immediately.

    ○ **Edit View**

    Modify what is visible (and what is not) in the responsibility matrix for a specific user or user profile.

    ○ **Edit Selections**

    Select the items you want to enable or disable in the responsibility matrix for a specific user or user profile.

5. Save or discard the changes you make to the responsibility matrix.

Related Topics

- Edit responsibility matrix view
- Edit responsibility matrix selection

Edit View

The **Edit Matrix View** window enables you to modify what is visible (and what is not) in the responsibility matrix for a specific user or user profile. The responsibility matrix specifies the areas of responsibility that are assigned to a user (or user profile). Use the Edit Matrix View to add node groups or message groups to (or remove them from) the responsibility matrix. After configuring which node and message groups are visible in the responsibility matrix, use the Selection Editor to enable or disable specific combinations of message and node groups for the users or user profiles to whom you assign the responsibility matrix. If the list of node groups or message groups is long, you can reduce and refine the contents of the list by setting a filter that shows only those items which match or contain a defined string. The filter is pro-active; as soon as it finds a match, it updates the contents of the list. The filtering feature can be used as follows:

- *While you type:* The filter is applied instantly while you type, giving you some immediate feedback on the listed results. Matching results can be also displayed while you type. Click one of them to select the item.

- *Multiple filters:* You can also filter an already filtered result. This means that you apply a filter on the top of the another one. This can be done by using the Lock filter function.
For example, the first filter is hp and the second filter is ia64. After you enter hp click the **Lock filter** icon. The filter field becomes empty and the filter hp is kept in the background. Now you can enter ia64. To remove any filter use the Unlock filter icon.

- *From the drop-down menu:* You can define a kind of filter to be used. The available filters are: "contains", "matches", and "exact".

The following table explains the meaning of the fields in the Responsibility Matrix's View Editor.

Responsibility Matrix: View Editor

Field Label	Description of Contents	Information Required
Visible Message Groups	A list of the message groups that are visible in the responsibility matrix for the currently selected user or user profile. If the list of message groups is long, you can reduce and refine the contents of the list by setting a filter that shows only those items which match or contain a defined string. The filter is pro-active; as soon as it finds a match, it changes the contents of the list immediately. Note that you can use the buttons next to the Filter box to lock and release the filter. Locking the filter saves it so you can use it for future searches. Releasing the filter removes the lock and clears the contents of the filter box. You can also use the buttons provided to move all ([<<] [>>]) or selected ([<] [>]) items between the two lists. Note that you cannot remove any items that are *enabled* (checked) in the matrix. If you select all items for removal from the list and some remain (or reappear) after you click OK, it is very likely that they are still active in the responsibility matrix. You will have to disable them (in the Edit Selection window) and try to remove them all again. For information about using the Edit Selection window to configure a	--

Responsibility Matrix: View Editor, continued

	user responsibility matrix, see Edit responsibility-matrix selection.	
Available Message Groups	Available message groups on the system which can be used to add to the current selected user or user profile. If the list of message groups is long, you can reduce and refine the contents of the list by setting a filter that shows only those items which match or contain a defined string. The filter is pro-active; as soon as it finds a match, it changes the contents of the list immediately. Note that you can use the buttons next to the Filter box to lock and release the filter. Locking the filter saves it so you can use it for future searches. Releasing the filter removes the lock and clears the contents of the filter box. You can also use the buttons provided to move all ([<<] [>>]) or selected ([<] [>]) items between the two lists (Visible and Available).	--
Available Node Groups	Available node groups on the system which can be used to add to the current selected user or user profile. If the list of node groups is long, you can reduce and refine the contents of the list by setting a filter that shows only those items which match or contain a defined string. The filter is pro-active; as soon as it finds a match, it changes the contents of the list immediately. Note that you can use the buttons next to the Filter box to lock and release the filter. Locking the filter saves it so you can use it for future searches. Releasing the filter removes the lock and clears the contents of the filter box. You can also use the buttons provided to move all ([<<] [>>]) or selected ([<] [>]) items between the two lists (Visible and Available).	--
Visible Node Groups	A list of the node groups that are visible in the responsibility matrix for the currently selected user or user profile. If the list of node groups is long, you can reduce and refine the contents of the list by setting a filter that shows only those items which match or contain a defined string. The filter is pro-active; as soon as it finds a match, it changes the contents of the list immediately. Note that you can use the buttons next to the Filter box to lock and release the filter. Locking the filter saves it so you can use it for future searches. Releasing the filter removes the lock and clears the contents of the filter box. You can also use the buttons provided to move all ([<<] [>>]) or selected ([<] [>]) items between the two lists. Note that you cannot remove any items that are *enabled* (checked) in the matrix. If you select all items for removal from the list and some remain (or reappear) after you click OK, it is very likely that they are still active in the responsibility matrix. You will have to disable them (in the Edit Selection window) and try to remove them all again. For information about using the Edit Selection window to configure a user responsibility matrix, see Edit responsibility matrix selection.	--

Responsibility Matrix: View Editor, continued

OK	Apply changes to the configuration; the changes are visible immediately in the responsibility matrix.	--
Cancel	Close the view editor and discard any changes made during the current session.	--

To modify a user's responsibility matrix

To modify the responsibility matrix associated with an existing user or user profile and apply the changes to your HPOM environment, perform the following steps:

1. In the HPOM **Browse** menu, click **All Users** or **All User Profiles**.

2. In the **All Users** or **All User Profiles** page which is displayed, select the user or user profile you want to modify.

3. Click the actions button ( ) and select the Edit Responsibilities option from the menu that is displayed.

4. In the Edit Responsibilities page, make the desired changes to the user's (or user profile's) responsibility matrix. You can make the changes directly in the matrix itself or use the Edit View and Edit Selections buttons to make and preview any changes first and, if appropriate, apply them immediately.

   - **Edit View**

     Modify what is visible (and what is not) in the responsibility matrix for a specific user or user profile.

   - **Edit Selections**

     Select the items you want to enable or disable in the responsibility matrix for a specific user or user profile.

5. Save or discard the changes you make to the responsibility matrix.

Related Topics

- Edit a responsibility matrix
- Edit responsibility matrix selection

Edit Selections

The **Edit Selections** page enables you to select the items you want to enable or disable in the responsibility matrix for a specific user or user profile. If the list of node groups or message groups is long, you can reduce and refine the contents of the list by setting a filter that shows only those items which match or contain a defined string. The filter is pro-active; if it finds a match, it updates the contents of the list immediately. If the node group or message group you are interested in is not present in the list, use the Edit View window to make sure you have included it in the list of visible items.

> **Tip:** For quick access to the Selection Editor you can, for example, open the Selection Editor in the context of a specific node group or a message group by
> right-clicking the group that you want to edit.

The following table explains the meaning and impact of the fields in Responsibility Matrix's the Selection Editor.

Responsibility Matrix: Selection Editor

Field Label	Description of Contents	Information Required
Message Groups	A list of the message groups that are available for selection in the responsibility matrix of the currently active user or user profile. If the lists of message groups is long, you can set a filter that reduces and refines the contents of the list. From the lists, choose the message groups that you want to enable (Select) or disable (Deselect) in the responsibility matrix.	--
Node Groups	A list of the node groups that are available for selection in the responsibility matrix of the currently active user or user profile. If the list of node groups is long, you can set a filter that reduces and refines the contents of the list . From the list, choose the message groups that you want to enable (Select) or disable (Deselect) in the responsibility matrix.	--
Select	Enable (check) the *selected* items in the node group or message group column; the change is immediately applied to (and visible in) the responsibility matrix.	--
Deselect	Disable (uncheck) the *selected* items in the node group or message group column; the change is immediately applied to (and visible in) the responsibility matrix.	--
Close	Close the selection editor and apply any changes to the user responsibility matrix. If you want to save or discard the changes made during the current session, click Save or Cancel in the Edit Responsibilities page.	--

To modify a user's responsibility matrix

To modify the responsibility matrix associated with an existing user or user profile and apply the changes to your HPOM environment, perform the following steps:

1. In the HPOM **Browse** menu, click **All Users** or **All User Profiles**.

2. In the **All Users** or **All User Profiles** page which is displayed, select the user or user profile you want to modify.

3. Click the actions button ( ) and select the Edit Responsibilities option from the menu that is displayed.

4. In the Edit Responsibilities page, make the desired changes to the user's (or user profile's) responsibility matrix. You can make the changes directly in the matrix itself or use the Edit View and Edit Selections buttons to make and preview any changes first and, if appropriate, apply them immediately.

- **Edit View**

  Modify what is visible (and what is not) in the responsibility matrix for a specific user or user profile.

- **Edit Selections**

  Select the items you want to enable or disable in the responsibility matrix for a specific user or user profile.

5. Save or discard the changes you make to the responsibility matrix.

Related Topics

- Edit the responsibility matrix view

- Edit a responsibility matrix

All User Profiles

The **All User Profiles** page displays a list of the user profiles that are currently available on the HP Operations management server. The information in the All User Profiles page is displayed in a table with the following information; note that you can click the title of the Name column to reorganize the list of user profiles in ascending or descending order:

List of HPOM User Profiles

Column Title	Description
All	Check boxes to enables you to select all or individual user profiles on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Assign to user/profile...", "Assign Tools...", and "Delete...".
Label	Label helps you to fast determine the meaning of user profile. It is used to represent the named user profile in the HPOM graphical user interface.
Name	Shows the name of the HPOM user profile, for example: "HPUX Administrator", "Linux operator". Click the HPOM user profile name to display more detailed information about the selected user profile. Click one of the icons next to the user profile name for menus that enables you either to display more information about or perform an action on the selected user profile.
⬚	Click the Browse Details button to display a list of the configuration details that you can browse for the selected user profile. For more information about what user details you can browse, see Browse User Profile Configuration Details.
⚙	Click the Actions button to display a list of the actions you can perform on the selected user-profile configuration. For more information about what actions you can perform, see List User Profile Actions.

List of HPOM User Profiles, continued

Description	Displays a short description of the listed HPOM user profile; the description allows the HPOM administrator to determine the type of HPOM user the profile is intended for.
Responsibilities	Indicates if responsibilities have been assigned to the selected HPOM user profile; responsibilities include the assignment of message groups and node groups, which determine the type and quantity of messages the users with this profile receive.
Tools	Indicates if tools (applications) or tool groups have been assigned to the selected HPOM user profile tools (in tool groups) are the applications that are available to HPOM users and enable them to respond to specific problems.
Profiles	Indicates if a user profile has been assigned to an HPOM profile.

To display a list of HPOM user profiles

To display a list of all the HPOM user profiles configured on the HP Operations management server:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **All User Profiles** to display the user profiles in a flat list.

Related Topics

- List User Profile Actions

- Browse User Profile Configuration Details

- All HPOM Users

- Edit the responsibility matrix for an HPOM user profile

Display User Profile Details

The **User Profile Details** page displays detailed information about the individual user profiles listed in the **All User Profiles** page. The information in the User Profiles Details page is displayed in a table with the following information:

User Details

Attribute	Value
Name	The label used to represent the selected user profile in the HPOM graphical user interface, for example: OSSPI_Tru64_admin, OSSPI_Linux_admin, and so on.
Label	The label used to represent the user profile in the HPOM graphical user interface.
Description	A short description of the selected user profile, for example: Unix OS SPI administrator profile for Tru64 nodes, and so on.

The User Profile Details page also displays information concerning the responsibilities that have been assigned to the selected HPOM user profile, for example, **Responsibilities**: A list of the node and message groups that are assigned to the selected HPOM user profile.

To display details of a selected HPOM user profile

To display a detailed description of a selected user profile, perform the following steps:

1. In the **Browse** menu, click **All User Profiles**.

2. In the **Name** column, click the link that corresponds to the user profile whose details you want to display and check.

Related Topics

- Display User Details
- Display All Message Groups
- Display All Policies
- Display All Tools

Managed Node Instrumentation

The **Managed Node Instrumentation** page displays detailed information about all Instrumentation currently available on the server. The information in the **Managed Node Instrumentation** page is displayed in a following table:

Managed Node Instrumentation: Directory

Column Title	Description
Name	Name used to represent selected Instrumentation in the HPOM Administration UI.
Date	Creation date for the Instrumentation.
File Type	Type of Instrumentation.
Size	Size of the Instrumentation directory or file.

To display the contents of the Managed Node Instrumentation

To display the contents of the Managed Node Instrumentation for the HP Operations management server:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **Managed Node Instrumentation** to display the contents in a flat list.

Related Topics

- Add a file

Add/Edit a File

The **Add File** page enables you to create a new file (or modify an existing file) and upload it to the managed node instrumentation directory (or one of its subdirectories) on the HP Operations management server. The following table explains what information is displayed in the **Add file** or **Edit file** pages:

HPOM: Add File

Attribute	Value
Path	The location of the file that you want to add to (or change in) the managed node instrumentation directory on the HPOM management server. Note that the path indicated is always relative to the instrumentation directory on the management server, namely: `/var/opt/OV/share/databases/OpC/mgd_node/`. For example, `/` points to the absolute path `/var/opt/OV/share/databases/OpC/mgd_node/vendor` and `/vendor` points to the absolute path `/var/opt/OV/share/databases/OpC/mgd_node/vendor`.
Encoding	Drop-down menu that enables you to choose desired encoding, for example, UTF-8.
Name	The name of the file you want to create; an entry in this field is mandatory if you want to add a new file to the instrumentation directory. If the file name is already in use, HP Operations Manager displays an error when you attempt to save the file, and you cannot save the new file until you select a new name.
Last Modification	The date and time when the selected file was last changed. If the file is new, the field remains blank.
Size	Indicates in bytes how big the added file is. If the file is new, the field remains blank.
Line Format	Choose between using line break characters that are compatible with UNIX or Windows text files.
Toggle Editor	Display or hide the file-edit tool bar, which provides editing tools that enable you to search/locate words or characters, jump to a particular line, highlight code syntax. Note that you can also use the available drop-down menus to change the font size or select the syntax rules you want to apply to the new file, for example: C, Perl, Ruby, XML, and so on.

To add or edit an HPOM system file

To add a new (or modify an existing) HPOM system file, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Browse** menu, click **Managed Node Instrumentation**; the instrumentation directory is displayed.

   ○ To add a new file:

   In the **Managed Node Instrumentation**page choose an action using the "Choose an action" drop-down menu at the bottom of the table, click **Add File…**.

   ○ To edit an existing file:

   Browse to the instrumentation file you want to edit, and in the actions menu (⚙), click the **Edit…** option.

3. Use the text editor to create or modify the file you want to add, for more information about the features available in the text editor, see the **Toggle Editor** option in the table above.

4. Click **Save** to add or update the file, **Restore** to revert to the previously saved version of the file (if any exists), or **Cancel** to discard any changes and close the text editor. Note that if no previous version of a file exists, for example when you are adding a new file, the **Restore** button clears any changes made in the session so far and displays an empty screen.

Shopping Cart

The **HPOM Shopping Cart** page displays a snapshot of the HPOM objects you have chosen to save for future use. For example, you can use the shopping cart to save configuration-download definitions until you are ready to download all the saved configurations at one time. The contents of the shopping cart belong to the HP Operations Manager user who started the active Administration UI session and to the HP Operations management server. The name of the management server whose contents are in the shopping cart that you are viewing is displayed in the shopping cart title. If you have selected multiple management servers, you can use the shopping cart title to help you navigate. Use the Actions menu at the bottom of the page to download the contents of the shopping cart you are viewing, too. Downloading a shopping cart places the contents of the shopping cart on the clipboard; the clipboard is a directory structure, which you can browse and inspect at any point.

A check box provided enables you to select all or individual items in the shopping cart on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Delete from shopping cart...".

The information in the Shopping Cart page is displayed in a table with the following information:

Shopping Cart Contents

Action Title	Description
Objectclass	Shows the class of HPOM object which you have placed in the shopping cart, for example: HPOM policy group (ovo:policygroup) or OM Tool (ovo:application).
Name	Shows the name of the HPOM object you have placed in the shopping cart. The object name includes the names of the parent objects, too. For example, the object name "[opc_adm]:[Remedy SPI Admin]:Stop AR Server - Unix" refers to the AR Remedy SPI Tool "Stop AR Server -Unix" in the OM Tool group "Remedy SPI Admin", which is located in the Tool group available to the HPOM administrator "opc_adm". Click the name link to display a detailed description of the object in the list.
Type	An icon indicates the type of HPOM object in the shopping cart, for example: "integrated" Tools are Tools that have been uploaded to the HPOM database and appear in the HPOM graphical user interface.
Version	Shows the version of file in Shopping Cart if the file has version.

To display the contents of the HPOM shopping cart

To display the contents of the shopping cart for the HP Operations management server:

1. In the HPOM **Browse** menu, click **Shopping Cart**. Note that if there are a lot of objects in the shopping cart, it can sometimes take a little time to populate the list.

Server Configuration Menu

The **Server Configuration** menu provides a number of options that enables you to configure various important aspects of the HP Operations management server, for example: which notification services are configured, what instruction text interfaces are available, and basic settings for database maintenance. The range and type of menus and menu options displayed is determined by the data context you set when you start the Administration UI. For example, if you select HPOM as the data context you want to browse, the following configuration options are displayed in the Server Configuration menu:

HPOM Menu: Server Configuration Options

Menu Option	Description
Instruction Text Interface	Displays the **Instruction Text Interfaces** page; you can use the All Instruction Text Interface page to view the configuration of all the instruction text interfaces currently known to HPOM. instruction text interfaces provide instruction text to HPOM users by means of an external application (such as web browser) when a message condition matches and a message is generated.
Regroup Conditions	Displays the **Regroup Conditions** page which lists the regroup conditions that currently exist. Regroup conditions filter messages that arrive on the HPOM management server and reorganize the messages from one message group or service into another. You use regroup conditions to organize logically related groups of messages that come from a variety of different sources but relate to the same type of event or problem.
Notification Services	Displays the **Notification Service** page which enables you to view the configuration of external notification services that are already known to HPOM. HPOM can use external notification services such as email, paging, or Short Messaging Services (SMS) to inform HPOM operators of important events.
Trouble Ticket Interface	Displays the **Trouble Ticket Interface** page which enables you to view the status and configuration of a trouble ticket interface enabled with HPOM. Use this page to start and stop the trouble ticket interface and define the system call.
Management Server Configuration	Displays the **Management Server Configuration** page which displays details of the current configuration of the HP Operations management server. Use this page to define an external message-stream interface, or set global options.
Server Policies	Displays the **Policies for Node "$MGMTSV"** page for the HP Operations management server. The Management Server Policies page displays details of the policies and policy groups currently deployed on the HP Operations management server. Use this page to view which policies or policy groups are currently active on the selected management server, for example: Event Correlation (EC) policies.

HPOM Menu: Server Configuration Options, continued

DB Maintenance Settings	Displays the **DB Maintenance Settings** page which displays details of the current configuration of the HPOM database. Use this page to display an overview of the database configuration, for example: the maximum number of allowed active messages, and the audit type and level. To edit the DB maintenance settings see the list of related topics below.
Configuration Parameters	Displays the **Configuration Parameters** page which displays details of the current configuration of the HPOM management server and the HTTPS agent. Use this page to display an overview of the HPOM configuration, for example, the namespaces, keys, and the values assigned to the keys.
Flexible-Management Active	Displays the active configuration of the HPOM Flexible-Management feature.
Flexible-Management Templates	Displays the HPOM Flexible-Management policies that are available for deployment to the management servers configured in the Flexible-Management environment.
Flexible-Management Work	Displays the configurations that are available but not necessarily yet activated.
Selective Distribution	Opens the **Selective Distribution Policy** page which displays the contents of the selective distribution configuration file.
Reports	Opens the **All Reports** page which displays a list of the reports that are available for the HPOM users configured on the HP Operations management server, for example: all active messages, Nodes Overview, and so on.
Report SQL Scripts	Opens the **Filtered HPOM Reports** page which displays a list of the SQL scripts that are used by the `call_sqlplus.sh` script to generate reports for the HPOM environment, for example: active users, node configuration, policy assignments, or user profiles. You can click the report link to view the SQL script that is used to generate the report.

Related Topics

- The HPOM Edit Menu
- The HPOM Browse Menu
- The HPOM Find Menu
- The HPOM Analyze Menu
- The HPOM Deployment Menu
- The HPOM Tasks Menu
- The HPOM Integrations Menu
- The HP Operations management servers Menu

All Instruction Text Interfaces

The All Instruction Text Interfaces page displays a list of the instruction text interfaces that have been configured and are known to HPOM. HPOM enables you to use instruction text to help users solve problems; the text can be written manually or supplied by an external application. The information in the All Instruction Text Interfaces page is displayed in a table with the following information:

List All Instruction Text Interfaces

Column Title	Description
Name	The name of the instruction text interface used by HPOM, for example: "DB2SPI_ Helper". Click the link to display more information about the selected instruction text interface.
Call	The path to and name of the executable which starts the instruction text interface, for example: /opt/OV/db2spi/bin/db2s_helptext.pl.
Description	A short description of the defined instruction text interface, for example: "Help-text interface for the DB2SPI".

To list all instruction text interfaces

To list all instruction text interfaces, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Server Configuration** menu, click **Instruction Text Interfaces**.

Note: If there are many instruction text interfaces, it can sometimes take a little time for HP Operations Manager to populate the list.

Related Topics

- Display the Contents of the Instruction Text Catalog
- Add New Instruction Text Interface
- Edit Existing Instruction Text Interface

Edit Instruction Text Interface

The Edit Instruction Text Interface page displays the parameters you need to use to provide instruction text to HPOM users by means of an external application such as web browser when a message condition matches and a message is generated. Use this page to create a call to the external applications that you want to use to display instruction text for you HPOM operators in order to help them fix problems.

The following table explains what information you enter in each of the fields in the Edit Instruction Text Interface Configuration tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Edit Instruction Text Interface: Configuration Tab

Field Label	Description of Contents	Information Required
Name	The name of the instruction text interface call.	✔
Description	A short description of the instruction text interface call.	--
Call	The command you want to start the application which displays the instruction text to the HPOM user. The command runs on the managed node defined in the Start field and in the context of the user specified in the Execute as User field.	✔
Execute as User	The user executing the application displaying the instruction text.	✔
Output Mode	**(Output Only)**: Select this option if the application called by the instruction text interface writes its output to stdout; the instruction text is displayed in a simple window. **No Window (X Application)**: Select this option if the application can open its own output window to display the instruction text.	✔
When forwarding messages to trouble ticket or notification interface	**Ignore Instruction Text**: Use this option if the application called by the instruction text interface requires an X-window or if the resolution of variables in the message could take a long time. **Resolve Instruction Text**: Use this option if you want the notification service and the trouble ticket interface to use the instruction text from the instruction text interface. This may involve the resolving of variables to display the message.	--
Start on	Select the location whether you want the application displaying the instruction text to start on the HP Operations management server or on a managed node (where theHP Operations Agent is running).	✔

To edit and publish Instruction Text

To edit instruction text and make it available to HPOM users, perform the following steps:

1. In the HP Operations management server **Configuration** menu, select **Instruction Text Interfaces**. In the list of instruction text interface displayed, locate the instruction text interface you want to modify.

2. Click the actions button ( ) and select the **Edit...** option from the displayed menu. Enter information in the fields presented in the **Configuration** tab

   The **Configuration** tab displays details concerning the application used to display the instruction text as well as where it should start and how the information should be displayed. For more information about what values are allowed in the fields displayed, see the table above.

3. Save or discard the details of the instruction text using the following buttons:

○ **Save**

Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the modified instruction text definition.

○ **Backup**

Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

○ **Restore**

Displays a list of the previously saved restore points which you can use to select and recall a backup version of the instruction text configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

○ **Cancel**

Discards all modifications to the instruction text.

List Regroup Conditions

The **Regroup Conditions** page displays a lists of the message conditions that have been moved from one message group to another. Regroup conditions parse the text and attributes of messages that arrive on the HP Operations management server and reorganize the messages from one message group or service into another. Regroup conditions enable you to organize logically related groups of messages, whose messages come from a variety of different sources but relate to the same type of event or problem. The information in the List Regroup Conditions page is displayed in a table with the following information:

Regroup Conditions

Field Label	Description
Application	Name of an application for Regroup Conditions.
Field Separator	Represents a separator between fields, which can be case sensitive or not.
Message Group	Name of a message group for Regroup Conditions.
Message Text	Shows the text for Regroup Conditions.
New Service name	Shows a service name for Regroup Conditions.
Node	Name of a node for Regroup Conditions.
Object	Name of an object for Regroup Conditions.
Pos.	Shows the position of Regroup Conditions.

Regroup Conditions, continued

| Severity | Shows severity for Regroup Conditions. |

To display a list of message group conditions

To display and, if necessary modify, the list of all the regroup message conditions configured on the HP Operations management server:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the Server Configuration menu, click **Regroup Conditions**.

> **Note:** You can also change the order of the regroup conditions in the lists. The order is important since messages are reassigned to another message group as soon as the first regroup conditions matches. This means that more generic conditions should come *after* the more detailed ones.

Related Topics

- List all Message Source Policies
- List all Message Groups

List Notification Services

The List Notifications page displays a list of the notification services that are known to HPOM. HPOM enables you to use external services such as email, pagers, or Short Messaging Services (SMS) to notify HPOM operators about important events. You can also choose to use different services at different times of the day, for example: email during working hours and pagers or SMS at night. You can use this page to modify and delete any or all existing notification services. The information in the List Notifications page is displayed in a table with the following information:

List HPOM Notification Services

Column Title	Description
Name	Name of the notification service used by HPOM.
Call	Path to and name of the executable to call to start the notification service.
Schedule	Times to start and stop the named notification services.

To list an existing notification services

To list an existing notification services, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the Server Configuration menu, click **Notification Services** to display a list of all currently configured notification services.

Related Topics

- View Notification Service Details
- Add New Notification Service
- Edit Existing Notification Service

View Notification Service Details

The View Notification Service page displays details of the HPOM for UNIX notification service that you have selected for viewing. HPOM enables you to use external services such as email, pagers, or Short Messaging Services (SMS) to notify HPOM operators about important events. The information in the Notification Service page is displayed in a table with the following information:

View HPOM Notification Service

Attribute	Value
Name	The name of the notification service used by HPOM, for example: the email client, the paging client, and so on.
Call	The path to and name of the executable that HP Operations Manager calls to start the notification service, for example, `/usr/bin/mailclient`.
Schedule	The days and times when the selected notification service is configured to start and stop.

To view an existing notification service details

To view an existing notification service details, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Server Configuration** menu, click **Notification Services** to display a list of all currently configured notification services.
3. In the list of notification services displayed, locate the notification service you want to view.
4. In the **Name** column, click the notification service whose details you want to display.

Related Topics

- Add New Notification Service
- Edit Existing Notification Service

Edit Notification Services

The **Edit Notification Service** page enables you to modify the definition of an external notification service that is already known to HPOM. HPOM can use external notification services such as email, paging, or Short Messaging Services (SMS) to inform HPOM operators of important events.

The following table explains what information you enter in each of the fields in the Configure Notifications Notification Service tab. HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Configure Notifications: Notification Service Tab

Field Label	Description of Contents	Information Required

Configure Notifications: Notification Service Tab, continued

Name	Name of the notification service you want to use. Note that you cannot change the name of the notification service that you are modifying; the field is inactive.	Yes
Call	Command you want to use to start the notification service.	Yes

The following table explains what information you enter in each of the fields in the Notification Schedule tab. Notification schedules are optional.

Configure Notifications: Notification Schedule Tab

Field Label	Description of Contents	Information Required
Day	Use the drop-down menu to select the day you want the notification service to start. Click the icons next to the drop-down menu to add and remove additional schedules to and from the list.	No
Start time	Start time for the notification schedule.	No
End time	End time for the notification schedule.	No

Editing an existing notification service

To edit an existing notification service, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Server Configuration** menu, click **Notification Services** to display a list of all currently configured notification services.

3. Locate the notification service you want to modify and click the actions button (⚙).

4. In the menu displayed, click **Edit…**.

5. Enter information in the fields presented in the following tabs:

   ○ **Notification Service**:

   Displays details about the external notification service that you want to use to inform HPOM operators about important events as well as how and when you want the notification service to start. For more information about what values are allowed in the fields displayed, see the table above.

   ○ **Notification Schedule**:

   Displays details about when and how often the notification service should be used. For more information about what values are allowed in the fields displayed, see the table above.

6. Save or discard the details of the notification service using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the modified notification service definition.

    ◦ **Cancel**

       Discards all the modifications you made to the notification service.

Related Topics

- View Notification Service Details
- Add New Notification Service
- List Known Notification Services

Trouble Ticket Interface

The Trouble Ticket Interface page displays information about the status and availability of the trouble ticket interface. The information in the Trouble Ticket Interface page is displayed in a table with the following information:

Trouble Ticket Interface

Column Title	Description
Attribute	Indicates if the trouble ticket interface is enabled and what program is called to start the interface.
Value	The current value for the attributes listed in the Attribute column, for example: **enabled** = Yes/No **call** = <path_to_TroubleTicketInterface_executable>

To list an existing Trouble Ticket Interface

To list an existing trouble ticket interface, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the Server Configuration menu, click **Trouble Ticket Interface** to display a currently configured trouble ticket interface.

Related Topics

- Edit Trouble Ticket Interface

Management Server Configuration

The **Management Server Configuration** page displays an overview of the current configuration of the HP Operations management server, for example: the number of allowed concurrent distributions to managed nodes, or whether the message-stream interface is enabled. The information in the Management Server Configuration page is displayed in a table with the following information:

HP Operations management server Configuration

Column Title	Description

HP Operations management server Configuration, continued

Attribute	Indicates the HPOM database attributes that you configured in the HPOM administrator interface, for example: the number of allowed concurrent distributions, or whether the message stream interface is enabled.
Value	The current value for the attributes listed in the Attribute column.

To view the HPOM management server configuration

To view the current configuration of the HP Operations management server, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Server Configuration** menu, click **Management Server Configuration**.

Related Topics

- View the Current HPOM Management Policy Deployment
- Edit the HP Operations management server Configuration
- View the contents of the selective distribution file

Management Server Policies

The **Policies for Node "$MGMTSV"** page displays an overview of the policies and policy groups currently deployed on the HP Operations management server, for example: event correlation (EC) policies. The information in the Management Server Policies page is displayed in a table with the following information:

HP Operations management server policies deployment

Column Title	Description
Assigned	Column displays the version of a policy assigned to the HPOM management server. Clicking the version number displays the policy view - policy details in a graphical way.
Contents	Number of policy groups or policies in this group.
Description	Contains information about this policy regarding usage, functions, and so on.
Type	Indicates whether the a policy or a policy group has been deployed to the selected HPOM management server, for example: "ECS Policy".
Browse menu	Enables you to display existing relationships of a policy, or to perform an impact analysis.
Action menu	Enables you to quickly perform tasks like editing, assignments or deployments.
Name	The name of the policy or policy group that is deployed on the HP Operations management server, for example: "Alarm Correlation".

To view the HPOM management server policy deployment

To view the current policy deployment on the HP Operations management server, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Server Configuration** menu, click **Server Policies**.

Related Topics

- View the HP Operations management server Configuration
- Edit the HP Operations management server Configuration
- View the contents of the selective distribution file

Display Database Configuration

The **DB Maintenance Settings** page displays an overview of the current configuration of the HPOM database, for example: specify the maximum number of active, pending, and history messages that HPOM keeps in the database before it sends a warning message to the message browser, or configure the automatic download to a file of acknowledged messages. The information in the **DB Maintenance Settings** page is displayed in a table with the following information:

DB Maintenance Settings

Column Title	Description
Attribute	Indicates the HPOM database attributes that you configured in the HPOM administrator interface, for example: maximum number of history messages allowed, the maximum number of audit messages allowed and so on.
Value	The current value for the attributes listed in the Attribute column. To edit these values, use the Edit DB Maintenance Settings option in the Edit menu.

To display the HPOM database configuration

To display the HPOM database configuration perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the Server Configuration menu, click **DB Maintenance Settings**.

Related Topics

- Edit Trouble Ticket Interface
- View the contents of the selective-distribution file
- View the HP Operations management server Configuration
- Edit the HP Operations management server Configuration

Configuration Parameters

The **Configuration Parameters** page displays a complete list of the parameters that are set for the HP Operations management server, for example: the name and IP address of the HTTPS authentication server, any HPOM variables such as OPC_INSTALLED_VERSION, or a list of available security certificates. The information in the Configuration Parameters page is displayed in a table with the following information:

List of Configuration Parameters

Column Title	Description
Resource Group	Uses icons to displays the technical framework in which the parameter is set, for example: "server" (HPOM management server) or "agent" (HPOM agent).
Namespace	Indicates the name space in which the listed parameter (or key) is set, for example: " bbccb" (HTTP Communication broker), "eeagt" (server agent) or "sec.cm" (certificate manager).
Key	Displays the parameters that are set in the specified name space, for example: "OPC_INSTALLED_VERSION" which indicates the installed software version on the management server and agent or "CERTIFICATE_SERVER" which indicates the name of the machine hosting the certificate server.
Value	Displays the value set for the parameters listed in the "Keys" column, for example: "08.13.000" (OPC_INSTALLED_VERSION) or "host.name.com" (CERTIFICATE_SERVER).

To display a list of HPOM for UNIX Configuration Parameters

To display a list of all the HPOM configuration parameters set for the HPOM management server:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Server Configuration** menu, click **Configuration Parameters**.

Related Topics

- View the Current HPOM Management Policy Deployment
- Edit the HP Operations management server Configuration
- View the contents of the selective distribution file

List Flexible-Management Files

Use this page to display a list of the files associated with the flexible-management feature in HPOM, and filter the output according to various criteria, for example:

- Currently *active* configuration files
- The flexible-management configuration files you are currently developing
- All available flexible-management "templates"

For more information about configuration-file locations, see the table below.

Click a link in the **Name** column to display a detailed description of the selected flexible-management configuration file. The information displayed includes; the names of the responsible management servers, the time zones in which the configuration is active, and message rules and conditions. Click one of the icons next to the file name to display menus that enables you to browse additional details of (or perform an action on) the selected file.

Note that the process for developing, testing, and deploying configuration files for flexible-management is controlled by the use of explicit directory locations. For example, base templates installed during software set up should not be modified, they should be copied to the working directory, where they can be changed to suit local requirements.

After testing has ensured stability, the working files must be *activated* in the Administration UI to force the server processes to read the most recent configuration in the new files. The activation process involves copying the configuration file to the active-files directory (`respmgrs`) and explicitly loading the new configuration by running the `opccfgout` command with the `-update` option. For more information about the location of flexible-management configuration files, see the following table.

Flexible-Management: Configuration File Locations

Directory Type	Location	Description
Base	`/etc/opt/OV/share/conf/OpC/mgmt_sv/`	Base directory containing all the subdirectories, files, and templates for responsible-management configuration.
Templates	`<Base>/tmpl_respmgrs/`	Default configuration-file templates installed during software set up, for example: `escmgr`, `outage`, `hierarchy`.
Work	`<Base>/work_respmgrs/`	Configuration-files that are under development and need further testing before deployment and activation.
Active	`<Base>/respmgrs/`	Configuration-files that are deployed, activated, and in use in a production environment.

To Display a List of Flexible-Management Configuration Files

To display a list of flexible-management configuration files or templates, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Server Configuration** menu, click **Flexible-Management Templates**. Note that if there are many templates, it can sometimes take a little time for HP Operations Manager to populate the list. Note the list of templates displayed is read from the `tmpl_respmgrs` directory, which contains the default templates provided during software installation. For more information about the contents of the various configuration-file directories, see the table above.

Related Topics

- List all flexible-management file actions

- Browse flexible-management file details

- Display the contents of a flexible-management file

- Create a new flexible-management configuration file

Display Flexible-Management Configuration File

The Flexible-Management Configuration File page displays a detailed overview of the selected Flexible-Management configuration file including any time templates that apply, the message target rules and associated operations (for example, In Service, Suppress, or Log only) that are defined, and any condition-status variables, which you can use to temporarily disable individual conditions.

To display details of a flexible-management configuration file

To display a detailed description of a selected flexible-management configuration file, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Server Configuration** menu, click **Flexible-Management Templates**. Note that if there are many templates, it can sometimes take a little time for HP Operations Manager to populate the list. Note the list of templates displayed is read from the `tmpl_respmgrs` directory, which contains the default templates provided during software installation. Working copies of the default templates are located in the `work_respmgrs` directory, and the currently active configuration files are located in the `respmgrs` directory.

3. In the **Name** column, click the template that you want to display and view.

4. Alternatively, click the actions button (⬤) to display a list of the actions available, and, in the menu that is displayed, click **View**.

Related Topics

- Create a flexible-management configuration file

- List all Flexible-Management-File Actions

- Browse Flexible-Management-File Details

- Display a list of all Flexible-Management-Configuration Files

Browse Flexible-Management Details

You can browse details of HPOM objects; the type of information available depends on the type of object, whose configuration you want to browse and, in addition, whether you want to browse details of single or multiple objects. To browse details of a single object, locate the object in the list and use the browse button (🗐) to display a list of the information available; use the browse button (🗐) next to the page title.

To browse configuration details of flexible-management files:

To display a list of the additional information you can request about the current contents of Flexible-Management configuration files and templates:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Server Configuration** menu, click **Flexible-Management Active**, **Flexible-Management Templates**, or **Flexible-Management Work**.

3. In the list of files displayed, locate the file(s) you want to perform an action on.

4. Click the browse button ( ) to display a list of the configuration details that are available.

5. In the menu that is displayed, click the option that corresponds to the type of configuration details you want to display and browse.

Related Topics

- List flexible-management file actions

- Display a list of all flexible-management files

- Display the contents of the flexible management file

Modify the Flexible-Management Configuration

You can display a list of the actions to perform on HPOM objects; the type of actions available depends on the type of object, on which you want to perform the action and, in addition, whether you want to perform an action on single or multiple objects. To perform an action on a single object, locate the object in the list and use the actions button ( ) to display a list of the actions available; to perform an action on multiple objects, check the box next to the objects you want to modify and use the drop-down menu at the bottom of the table. In the event that neither of these options is available, use the actions button ( ) next to the page title. The following table lists the actions you can perform on the flexible-management configuration object:

Actions Menu: Flexible-Management Configuration

Action	Description
View	View a detailed description of the selected flexible-management file.
View (Raw Mode)	Display a detailed description of the ASCII version of the selected flexible-management file.
Edit (Raw Mode)...	*Expert use only.* Display the ASCII version of the selected flexible-management file in a text editor. You can toggle the display of line numbers, choose between Unix and Windows line breaks (markers that indicate the end of a line), select the character encoding (UTF-8, ISO-8859, and so on). Note that you can use the Check option to highlight any syntax errors in the file you are editing by hand.
Check	Check the selected flexible-management configuration file for syntax errors before saving and deployment.
Copy File...	Make a copy of the currently selected flexible-management configuration file; you must specify whether to overwrite any existing version of the file (if any exists) and define the location in which to save the new copy. The location is defined by specifying an alias directory.

Actions Menu: Flexible-Management Configuration, continued

Move File...	Move the currently selected flexible-management configuration file to another location; you must specify whether to overwrite any existing version of the file (if any exists) and define the location in which to save the file you want to move. Note that the new location is defined by specifying an alias directory.
Rename File...	Change the name of the currently selected flexible-management configuration file; you must specify whether to overwrite any existing version of the file (if any exists).
Delete...	Remove the currently selected flexible-management configuration file from the file system; HP Operations Manager requires you to confirm the delete operation since there is no way to reverse the result of the delete operation.

To display flexible-management files

To display a list of the files available concerning the configuration and activation of HPOM's flexible-management feature:

1. Click the **HPOM icon** in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Server Configuration** menu, click **Flexible-Management Active**, **Flexible-Management Templates**, or **Flexible-Management Work**.
3. In the list of files displayed, locate the file(s) you want to perform an action on
4. Click the actions button ( ) to display a list of the actions available
5. In the menu that is displayed, click the action you want to start.

Related Topics

- Browse flexible-management file details
- Display a list of all flexible-management files
- Display the contents of the flexible-management file
- Display the contents of the shopping cart

New Flexible-Management Configuration File

The process for developing, testing, and deploying configuration files for flexible-management is controlled by the use of explicit directory locations. For example, base templates installed during software set up should not be modified, they should be copied to the working directory, where they can be changed to suit local requirements. After testing has ensured stability, the working files must be *activated* in the Administration UI to force the server processes to read the most recent configuration in the new files. The activation process copies the configuration file to the active-files directory. For more information about the location of flexible-management configuration files, see List flexible-management configuration files.

To create a new flexible-management configuration file

To create a flexible-management configuration file and add it to HPOM, perform them following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. Select **Flexible-Management Work** from the **Server Configuration** menu.

3. In the Flexible-Management Work window, choose **Add Flexible-Management File (Raw Mode)...** from the drop-down menu, and then click the **Process selected action** button.

4. After configuring the new policy, save or discard the details of the policy using the following buttons:

   - **Save**

     Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) the fields where further information is required. If all the required information is present and correct,HP Operations Manager checks the syntax of the policy, saves the configuration file. Note that, unless otherwise specified, HP Operations Manager automatically sets the version to the next available number. If you manually enter a new version number that already exists, HP Operations Manager prompts you to choose between overwriting the existing version number, entering a new version number, entering a new policy name, or canceling the save operation.

   - **Backup**

     Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   - **Restore**

     Displays a list of the previously saved restore points which you can use to select and recall a backup version of the flexible- management configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   - **Cancel**

     Discards all changes to the configuration file and closes the configuration-file editor.

Related Topics

- List flexible-management configuration files
- Display the contents of a flexible-management configuration file
- Display the properties of a flexible-management configuration file

Properties Tab

The flexible-management configuration file **Properties** tab displays generic parameters for the HPOM flexible-management configuration file that you want to create or modify. Use this page to define the name of flexible-management configuration for your HPOM environment.

HP Operations Manager displays a blue asterisk (*) to indicate a field where information is required.

Flexible–Management Configuration: Properties Tab

Field Label	Description of Contents	Information Required

Flexible-Management Configuration: Properties Tab, continued

Name	The name of the flexible-configuration file that you want to create or modify. The name appears in the list of configuration files in the HPOM **Flexible-Management Work** page. Note that the **Flexible-Management Active** page displays only those files that have been explicitly activated.	✔
Line Format	Enables you to choose whether to use UNIX or Windows style line breaks when saving this file on the server.	✔
Encoding	Enables you to choose a desired encoding, for example, UTF-8.	✔

Related Topics

- Display contents of a flexible-management configuration file

- Create a new flexible-management configuration file

Selective Distribution

The **Selective Distribution** page displays the contents of the selective distribution configuration file, `seldist`, which you use to restrict the configuration data to be distributed to particular nodes and node groups, even if the "Force Update" option is enabled during the distribution operation. Note that you can click node groups displayed in the list to display more details. Note that the selective-distribution file must reside in the following location: `/etc/opt/OV/share/conf/OpC/mgmt_sv/seldist`. Note, too, that after modifying the `seldist` file, you have to use the `opcseldist` utility to reconfigure the Distribution Manager. The information in the Selective Distribution page is displayed in a table with the following information:

Selective Distribution Configuration File

Column Title	Description
Node Group	The names of the node group where selective distribution will apply during any distribution operation.
File name	The names of the actions, commands, or monitor scripts and files that are to be distributed as part of the selective-distribution operation.

All Reports

The **All Reports** page displays a list of the reports that are available for the HPOM users configured on the HP Operations management server, for example: all currently active messages, or policy deployment on managed nodes, and so on. The reports are available in the following directory on the management server: `/etc/opt/OV/share/conf/OpC/mgmt_sv/reports/C`. Note that the list of reports displayed in the All Reports page does not include reports generated by HP Reporter. The information in the All Reports page is displayed in a table with the following information:

List of HPOM Reports

Column Title	Description
Type	Uses icons to indicate the type of report to generate, for example: internal () or program ().
Name	Indicates the name of the report, for example: "All Active Messages" or "Node Report".
Description	Displays a short description of the report, for example: "Report about selected active messages" for internal reports, or "Report on error log file" for a report that uses an external program.
Command	For program-type reports only; displays the program called to generate the report, for example: `/bin/cat` to read the error log file.
Parameters	Optional parameters which determine the type of report and the report contents, for example: for internal reports, $operator, ACTIVE, DETAILED. If the report uses an external program, such as `/bin/cat` to read a file; then the parameters column displays the name of the file to be read, for example: `/var/opt/OV/log/System.txt`.

To display a list of HPOM Reports:

To display a list of all the HPOM reports for the HPOM management server:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Server Configuration** menu, click **Reports**.

Related Topics

- Add new report definition

Report Details

The **Report Details** page displays an overview of the currently selected HPOM report. The information displayed includes, amongst other things, the name of the report, the type, and a short description of the report's contents. The following table explains what information is displayed in the Report Details page:

HPOM: Task Details

Attribute	Description of Contents
Name	Indicates the name of the report, for example: "Selected Active Messages" or "All Pending Messages".
Description	Displays a short description of the report, for example: "Report about selected active messages" for internal reports, or "Report on error log file" for a report that uses an external program.

HPOM: Task Details, continued

Type	An icon indicates the type of report that is generated, for example: internal ( ) or program ( ).
Command	For program-type reports only; displays the program called to generate the report, for example: `/bin/cat` to read the error-log file.
Parameter	Optional parameters which determine the type of report and the report contents, for example: for internal reports, "DETAILED, $message_active". If the report uses an external program, such as `/bin/cat` to read a file; then the parameters column displays the name of the file to be read, for example: `/var/opt/OV/log/System.txt`.

To view report details

To view details of a particular report, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Server Configuration** menu, click **Reports**.
3. In the list of reports displayed, click the report that you want to generate and view.

Related Topics

- List all reports
- Add a new report definition
- List all Server-Configuration-Menu options

SQL Report Scripts

The **Report SQL Scripts** option displays a list of the SQL scripts that are used to generate reports for the HPOM environment, for example: node configuration, policy assignments, or user profiles. You can browse the report scripts and their contents. Note, too, that you can use the **sort** feature to display the contents of a list by object name in ascending or descending order. You can also apply a **filter** to restrict the number and type of objects in the list. If the list is long, you can use the index to **page** through the contents quickly and easily.

The information in the Report SQL Scripts page is displayed in a table with the following information:

List of SQL Report Scripts

Column Title	Description
All	Check boxes to enables you to select all or individual report scripts on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Delete...", "Upload File...", and so on.
Name	The name of the report script; the name should give an idea of the script's contents, for example: what type of objects the script is reporting on (node, message, or policy).

List of SQL Report Scripts, continued

Date	Shows the time and date when the script was created.
File Type	Shows the type of file for the listed report script, for example: "binary".
Size	Displays the size of the saved script in bytes.

To display a list of SQL report scripts

To display a list of all the report scripts for the HP Operations management server:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Server Configuration** menu, click **Report SQL Scripts**. Note that if there are many scripts, it can sometimes take a little time to populate the lists. If necessary, the scripts are displayed on more than one page.

Related Topics

- Sorting Object Lists

- Filter Object Lists

- Perform an action on an SQL report script

SQL Report Script Actions

You can display a list of the actions to perform on the SQL scripts used to generated HPOM reports; the type of actions available depend on the type of object, on which you want to perform the action. For example, you can view the contents of the report script, edit and change the script, or download the script to a local file system. The table below lists the actions you can perform on SQL report scripts.

Actions Menu: SQL Report Script

Action	Description
View Content	View the contents of the selected report script.
Rename File…	Rename the SQL report file.
Download…	Download the SQL report file to the HPOM management server.
Download to local computer	Download the selected report script to a file location on the management server.
Edit…	Open the contents of the selected report script in a file editor for modification.
Copy File…	Copy the contents of the selected report script.
Delete…	Delete the selected report script from the indicated directory.
Move File…	Move the selected script to an alternative location and rename it.

To display a list of report script actions

To display a list of the actions you can perform on the selected SQL report script:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Server Configuration** menu, click **SQL Report Script**. Note that if there are many scripts, it can sometimes take a little time to populate the lists, which are displayed on multiple pages.

3. Locate the report script on which you want to perform an action.

4. Click the actions button ( ) to display a list of the actions available.

5. In the menu that is displayed, click the action you want to start. For more information about available actions and what they do, see the table above.

Related Topics

- List all SQL report scripts

Find Menu

The **Find** menu enables you to locate objects in an HPOM database. The Find feature is particularly useful when you want to locate elements for an inventory, or see if elements have been updated or moved. The Find menu includes the options listed in the following table:

HPOM Menu: Find Options

Menu Option	Description
Locate...	Displays the **Locate Configuration Objects** page which enables you to locate all types of objects in the HPOM database on the HP Operations management server.

Related Topics

- The HPOM Edit Menu
- The HPOM Browse Menu
- The HP Operations management server-configuration Menu
- The HPOM Analyze Menu
- The HPOM Deployment Menu
- The HPOM Tasks Menu
- The HPOM Integrations Menu
- The HP Operations Management Servers Menu

Locate HPOM Objects

The **Locate Configuration Objects** page enables you to search for and locate all types of HPOM objects. For more details about the various fields and buttons in the Locate Configuration Objects page and the data you can enter, see the table below.

Locate HPOM Objects

Field Label	Description of Contents	Required Text?
Locate	Use the drop-down menu to select the type of object you want to locate, for example: node, tools, policy group, user profile, task, and so on. Note that the number and type of fields displayed depends on the type of object you select.	--
where name	Use the drop-down menu to decide the pattern matching technique to use as the search method, for example: "contains", "is", or "matches pattern". You will also have to enter a text string to use in the search. For more information about search methods, see Choosing the Location Method below.	✔
and network type is	If you are searching for a managed node based on network type, use the drop-down menu to select the network type of the managed node you want to locate, for example: All, IP, IP (DHCP), other, and so on.	--
Machine Type	If you are searching for a managed node based on machine type, use the drop-down menu to select the machine type of managed node you want to locate, for example: All, UNIX, Windows, and so on.	--
IP Address	If you are searching for a managed node based on IP address, Use the drop-down menu to specify the pattern-matching technique to use as the search method, for example: "contains", "is", or "matches pattern". You will also have to enter either the complete or a part of the IP address to use in the search. For more information about search methods, see Choosing the Location Method below.	✔
Node Category	Categories assigned to a node. You can search for a node by assigned categories.	--

Choosing the Location Method

You can define the way in which the string you enter is evaluated by choosing one of the available location methods, for example: "contains", "is", or "matches pattern". The way the string is evaluated determines what results are displayed. The following table explains what the differences between the location methods are and describes the results you can expect when using them to display object lists.

Object Location Methods

Locate Method	Description of Output	Example Search String	Example Search Output

Object Location Methods, continued

Contains	The search option "CONTAINS" evaluates the object detail you specify (node name, Tool label, etc.) and displays in a list any object it finds which *contains* the string you enter. If you enter the string "and", the CONTAINS filter evaluates the list of objects and displays only those which contain (in any position) the string "and", for example: "and", "blueand", "andblack", "blueandblack".	"and"	"and", "blueand", "andblack", "blueandblack"
Is	The search option "IS" evaluates the object detail you specify (name, label, etc.) and displays in a list any object it finds which *is identical* to the string you enter. If you enter the search string "and", the IS search option evaluates the list of objects and displays only those which match the string "and". Note that the strings "blueand", "andblack", or "blueandblack" would not be displayed if you use the "IS" search option in combination with the string "and".	"and"	"and"
Matches pattern	The search option "MATCHES PATTERN" evaluates the object detail you specify (name, label, etc.) and displays in a list any object it finds which matches in any form the pattern defined in the string you enter. You can use all the special characters that are normally available in pattern matching, such as: asterisk (*), angled brackets (< >), and so on. For example, if you enter the string "an*", the MATCHES PATTERN filter evaluates the list of objects and displays all objects that contain the defined string pattern, which includes: "and", "blueand", "andblack", or "blueandblack". However, the following strings would also be displayed "ant", "blueanx", "anycolour", and "blueankle".	"an*"	"and", "blueand", "andblack", "blueandblack", "ant", "blueanx", "anycolour", "blueankle", and so on
	Note that you can further restrict the context by using Perl pattern matching, for example: "`[hp][hp][hp].net.*`", for all node group names with any combination of the characters "b", "e", "s", followed by ".net.", and any string (*) would display node names such as: "`hp.net.com`, `ebs.net.com`, `sbe.net.biz`, `seb.net.eu`, and so on.	"`[hp][hp][hp].net.*`"	"`hp.net.com`, `ebs.net.com`, `sbe.net.biz`, `seb.net.eu`, and so on.

To locate an HPOM object

To locate an HPOM object, perform the following steps:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Find** menu, click **Locate…**.

3. Enter information in the fields presented in the displayed check boxes and fields. For more information about what actions the check boxes perform and what values are allowed in the fields displayed, see the tables above.

4. Start the search using the **Locate** button.

Related Topics

- Sorting Object Lists
- Filter Object Lists
- List all Managed Nodes
- List all Node Groups
- List all Message Groups
- List all Tools
- List all Policies

Analyze Menu

The **Analyze** menu provides a range of options that enables you to request information about the configuration of the HP Operations management server. For example, you can find out which nodes do not yet have any policies deployed, which message groups have not yet been assigned to a user, and so on. Note that the range and type of menus and menu options displayed is determined by the data context you set when you start the Administration UI. For example, if you select HPOM as the data context you want to browse, the following configuration options are displayed in the Analyze menu:

Analyze Menu: Options

Menu Option	Description
Orphaned Nodes	Displays a list of all the managed nodes that do not belong to a node group.
Unassigned Nodes	Displays a list of all the nodes managed by the HP Operations management server that do not yet have any HPOM policies assigned.
Unused Nodes	Displays a list of all the nodes that have not been assigned to any HPOM user by means of the user responsibility matrix.
Unassigned Node Groups	Displays a list of all the node groups managed by the HP Operations management server that do not yet have any HPOM policies assigned.
Unused Node Groups	Displays a list of all the node groups that have not been assigned to any HPOM user by means of the user responsibility matrix.
Unused Message Groups	Displays a list of all the message groups that have not been assigned to any HPOM user by means of the user responsibility matrix.

Related Topics

- The HPOM Edit Menu

- The HPOM Browse Menu

- The HP Operations management server configuration Menu

- The HPOM Find Menu

- The HPOM Deployment Menu

- The HPOM Tasks Menu

- The HPOM Integrations Menu

- The HP Operations management servers Menu

Deployment Menu

The **Deployment** menu provides a number of options that enables you to perform HPOM administration tasks relating to distribution and deployment. For example, you can install or remove the HP Operations Agent, and check if any HPOM distribution operation is pending. The Deployment feature is particularly useful when you want to manage HP Operations Agent or subagent packages or perform simple distribution and deployment operations. You can also check if any requests from HTTPS agents for security certificates are pending. The Deployment menu includes the options listed in the following table.

Deployment Menu: Options

Menu Option	Description
Deploy Configuration	Configure a package for distribution to the HPOM managed nodes. The package can contain instrumentation data such as: policies, actions, commands, and monitors, as well as node information or flexible-management configuration data.
Deploy Server Policies	Distribute or update message source policies, including threshold monitor policies on a system.
(De)Install Agent	Install a new HP Operations Agent, update an existing HP Operations Agent, or remove the HP Operations Agent from the managed node.
Agent Installation Logs	List the logs available for completed agent installations on the managed nodes.
Pending Certificate Requests	List the pending requests to the HPOM certificate manager for a security certificate from HTTPS agents. Requests that are granted disappear from the list immediately.

Related Topics

- The HPOM Edit Menu

- The HPOM Browse Menu

- The HP Operations management server-configuration Menu

- The HPOM Find Menu

- The HPOM Analyze Menu

- The HPOM Tasks Menu

- The HPOM Integrations Menu

- The HP Operations management servers Menu

Deploy HPOM for UNIX Configuration

The **Deploy Configuration** page enables you to specify the HPOM instrumentation components that you want to distribute from the HP Operations management server to the managed nodes and, in addition, to which managed nodes (or node groups) you want to distribute the instrumentation. For more details about the various fields, check boxes, and buttons in the Distribute page and the data you can enter, see the table below.

Distribution Parameters

Field Label	Description of Contents
Policies	Check the Policies box if you want to include policies in the distribution package.
Actions	Check the Actions box if you want to include actions in the distribution package.
Monitors	Check the Monitors box if you want to include monitors in the distribution package.
Commands	Check the Commands box if you want to include commands in the distribution package.
Instrumentation	Check the Instrumentation box if you want to include instrumentation files in the category directories in the distribution package. (HPOM 9 only)
Subagents	Check the Subagents box if you want to include subagents in the distribution package. (HPOM 9 only)
Target Nodes	Use the [...] box to browse the available managed nodes and select the nodes or node groups to which you want to distribute the HPOM instrumentation.
Force Update	Check the Force Update box if you want to force the distribution of the selected instrumentation components, even if this leads to conflicts with instrumentation that already exists on the selected managed nodes.
Purge	Check the Purge box if you want to purge the distribution of the selected instrumentation components, even if this leads to conflicts with instrumentation that already exists on the selected managed nodes. (HPOM 9 only)

To distribute the HPOM instrumentation

To distribute HPOM configurations to the managed nodes, perform the following steps:

1. In the Deployment menu, click **Deploy Configuration**.

2. Use the check boxes provided to select the type of components you want to distribute, for example: policies, actions, commands, or monitors. For more information about what actions the check boxes perform, see the tables above.

3. Select the managed nodes to which you want to distribute the HPOM instrumentation components. Note that you can remove a node (or node group) from the list of managed nodes (or node groups) by selecting it and clicking the **Remove** button.

4. Check the **Force Update** option if you want to overwrite existing data on the managed node during the distribution.

5. Start the distribution using the **Distribute** button.

Related Topics

- Locate HPOM Objects

New Agent Installation

The **(De)Install Agent** page enables you to install and update the HP Operations Agent on the managed node or remove the HP Operations Agent from the managed node quickly and easily. The following table shows what information is required to configure the installation, update, or removal of the HP Operations Agent on the managed node.

De/Install Agent: Properties Tabs

Field Name	Description	Information Required?
Install type	Use the drop-down menu to choose whether to install (or update) or remove the HP Operations Agent.	✔
Nodes	Use the [...] button to browse through and select the managed nodes on which you want to install or from which you want to remove the HP Operations Agent.	✔

To install a new or remove an existing HP Operations Agent

To install the HP Operations Agent on a new managed node, update the HP Operations Agent on an existing managed node, or remove the HP Operations Agent from a managed node:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Deployment** menu, click **(De)Install Agent**.

3. Enter information in the fields presented in the displayed tabs:

    ○ **Install type**

    Use the drop-down menu to select either Installation or deinstallation; selecting the installation type enables the **Preinstall Check** button which presents a summary of the configured agent installation job, which you can either modify or confirm.

    ○ **Nodes**

    Click the [...] button to browse the available managed nodes, which you can then select (with a double click of the mouse) as destinations for the new agent installation. The nodes you select appear in a list in the Nodes box.

4. Continue or cancel the new agent installation using the following buttons:

○ **Preinstall Check**

The preinstall check does perform some basic checks, for example, whether the node is reachable etc. After that, it displays all the information you enter to configure the agent installation job and displays it in a table so that you can modify the password, confirm the details and continue with the agent installation process, or cancel the operation.

○ **Cancel**

Discards all the information you enter about the new agent installation job and returns to the previous operation.

Related Topics

- Confirm details of the agent installation
- List all HP Operations Agent installation logs

New Agent Installation Summary

The **(De)Install Agent Properties** page displays a summary of the agent installation job you have configured, which you can use to see if any data is missing or incorrect and, where necessary, supply a password to start the installation on the managed node. You can modify details or confirm the details are correct and continue with the installation process. The following table shows what information is displayed in the agent installation summary.

De/Install Agent: Installation Summary

Object	Description
Select	Check box with which you select nodes on which HP Operations Agent is going to be installed or removed from.
Nodename	The host name of the managed nodes on which you want to install or from which you want to remove the HP Operations Agent.
IP Address	The IP address associated with the host on which you want to install or remove the HP Operations Agent.
Machine Type	Indicates the hardware specification for the machine on which you want to install (or update) or remove the HP Operations Agent and, in addition, the agent type, for example: HP PA-RISC, or SUN Sparc (HTTPS).
Network Type	Shows the network type of machine on which the HP Operations Agent is to be installed, updated, or removed, for example: IP (for IP Network), or IP Network Other for hardware running an unsupported operating system such as a bridge, a switch, or a printer.
Method	Indicates how the agent will be installed, for example, by using the standard (automatic) method, ftp, ssh, bootstrap, or manually by transferring the data to the selected managed nodes and completing the installation by hand.

De/Install Agent: Installation Summary, continued

Status	Indicates what, if anything, is required to complete the agent installation, update, or removal process successfully and adds a comment (in brackets) with further details, for example: "Standard (ok)" for a standard installation where all required information is present and correct, or "Invalid (no node found)" if the installation request contains invalid data such as a nonexistent node.
Comment	Displays additional information to complement the status indicated for the listed installation job, for example: "ok" if the data provided for the installation job is present and correct, or "no node found" if the installation job contains invalid data such as a nonexistent node.
Force	Indicates whether the Force Update option was enabled when configuring the agent installation job; the Force Update option ensures that the installation of the agent overwrites existing data.
User	Shows the name of the user whose account will be used to perform the agent installation, update, or removal.
Password	Enter the password for the user whose account will be used to perform the installation, update, or removal.

To install a new or remove an existing HP Operations Agent:

To install the HP Operations Agent on a new managed node, update the HP Operations Agent on an existing managed node, or remove the HP Operations Agent from a managed node:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Deployment** menu, click**(De)Install Agent**.

3. Enter information in the fields presented in the displayed tabs:

   ○ **Install type**

   Use the drop-down menu to select either Installation or deinstallation; selecting the installation type enables the **Preinstall Check** button which you use to display a summary of the configured agent installation job in order to either modify details or confirm that the configuration data is correct.

   ○ **Nodes**

   Click the [...] button to browse the available managed nodes, which you can then select (with a double click of the mouse) as destinations for the new agent installation. The nodes you select appear in a list in the Nodes box.

4. Confirm details of the agent installation or cancel the new agent installation using the following options:

   ○ **Preinstall Check**

   Display a summary of the installation, update, or removal of the HP Operations Agent on the selected managed nodes.

   ○ **Cancel**

Discards all the information concerning the new agent installation and returns to the page you were viewing before starting the agent installation task.

5. Start or cancel the installation process using the following options:

○ **Install**

Start the installation, update, or removal of the HP Operations Agent on the selected managed nodes. The installation will run silently in the background. Check the corresponding log files for details. The location of the log files is shown in the web page and can be directly shown within the browser.

○ **Interactive Installation**

Start the installation, update, or removal of the HP Operations Agent on the selected managed nodes. The installation will run within an xterm. The **Interactive Installation** is only available if the display value in the log-on screen was set. The xterm requires an X-Server to run on the system were the browser is running and the security settings (xhost) need to allow an X connection to the management server.

○ **Cancel**

Discards all the information concerning the new agent installation and returns to the page you were viewing before starting the agent installation task.

Related Topics

- Install, update, or remove the HP Operations Agent
- List all HP Operations Agent installation logs

Agent Installation Logs

The **Agent Installation Logs** page displays a list of the log files for the agent installations that have completed, including status information, and where appropriate, the exit code. The following table shows what information is displayed in the agent installation logs page.

De/Install Agent: Installation Logs

Object	Description
Select	Check the box next to the installation log you want to perform an action on and use the drop-down menu at the bottom of the table to choose the action to perform.
Name	The host name of the managed nodes on which HP Operations Agent installation occurred.
Status	Indicates the current status of the installation job, for example: pending, successful.
Exit Code	Shows an exit code to indicate if the installation job was successful or not.
Date	Shows the date and time the installation log was created.

To display a list of HP Operations Agent installation logs:

To display a list of all the HP Operations Agent installation logs available for nodes managed by the HPOM management server:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".
2. In the **Deployment** menu, click **Agent Installation Logs**.

Related Topics

- Install, update, or remove the HP Operations Agent
- Confirm details of the agent installation

Pending Certificate Requests

The **Pending Certificate Requests** page displays a list of the requests for a security certificate from HTTPS managed nodes that have not yet been granted by the HP Operations management server. A HTTPS agent requests a security certificate from the certificate server when it starts up for the first time after installation; the HTTPS agent requires the certificate to communicate with the HP Operations management server. The following table shows what information is displayed in the Pending Certificate Requests page.

HPOM: Pending Certificate Requests

Object	Description
Select	Check the box next to the pending request for a security certificate on which you want to perform an action and use the drop-down menu at the bottom of the table to choose the action to perform.
Host	The name of the HPOM managed node from which the request for a security certificate originated.
Time	The time (on the HPOM managed node) at which the request for a security certificate was made.
IP Address	The IP address associated with the HPOM managed node from which the request for a security certificate originated.
Mapped	Shows the name of the managed node to which the request for a security certificate is linked.
Platform	Shows additional details about the operating system installed on the managed node from which the request for a security certificate originated.
CoreId / Request ID	Shows the UUID of the managed node from which the request for a security certificate originated; the UUID is used to create the Request ID for the security certificate.

To display a list of Pending Certificate Requests:

To display a list of Pending Certificate Requests from the nodes managed by the HPOM management server:

1. Click the HPOM icon in the tool bar to set the data context to "HPOM for UNIX Configuration".

2. In the **Deployment** menu, click **Pending Certificate Requests**.

Related Topics

- Deploy Configuration

- New Agent Installation

- Agent Installation Logs

Tasks Menu

The range and type of menus and menu options displayed is determined by the data context you set. For example, if you select HPOM as the data context you want to browse, the following configuration options are displayed in the Tasks menu:

Tasks Menu: Options

HPOM Task	Description
View opc.hosts File	Displays the contents of the `opc.hosts` file which is an HPOM specific file for host name resolution that is similar in form and content to the system-wide `/etc/hosts` file. The information in the `opc.hosts` file is used as a fallback mechanism in the event that HPOM cannot resolve a managed node host name from information available in `/etc/hosts`, `resolv.conf`, and `nsswitch.conf`. Note that the `opc.hosts` file does not exist by default; it has to be created if needed. However, if an `opc.hosts` exists, HPOM expects to find it in the following location: `/etc/opt/OV/share/conf/OpC/mgmt_sv/opc.hosts`.
Check Categories	This menu triggers the `opcinstrumcfg_check` request. The output is displayed in the web interface.
View System.txt Log file	Displays the contents of the most recent version of the XPL log (System.txt). The XPL log contains entries concerning the HPOM management server components, for example: `ovcs` (the certificate server) `ovbbccb` (the communication broker) or `opcctlm` (the control manager). Information is prefixed with the abbreviation "INF"; errors are prefixed with the abbreviation "ERR". Each log entry specifies the time and date when the entry was logged, the HPOM component that logged the error such as `ovcsovbbccb`, and a short explanation for the entry, for example: "HP Operations Manager for UNIX Certificate Server started" or "OV Communication Broker stopped. Exit code (0)".
View MSI Configuration File	Runs the `msiconfget` command on the management server and displays the results which include information concerning OV resource groups, and the namespace associated with the listed resource group.

Tasks Menu: Options, continued

View Remote Action Configuration File	Displays the current contents of the file `remactconf.xml` which you use to configure remote-action security. To enable the feature, adapt the example file to your needs and place a copy of the file in `/etc/opt/OV/share/conf/OpC/mgmt_sv/`.
Inform Operators	Opens the "Inform All Operators" page, which you can use to send a simple message to all logged-on HPOM users.
Server Status	Runs the command `opcsv -status`, displays the output in the web browser, and writes the same information to a log file. The log file name indicates the date and time that the task was last performed. The log files are available in the logs directory, which you can configure in `<InstDir>/conf/log4j.xml`.
HBP Status	Displays a page with a list of the most recent requests (and responses) for the status of HBP (Heartbeat Polling) for all the nodes managed by the HP Operations management server and where the HBP is enabled. The information displayed includes the name of the polled node, whether heartbeat polling is enabled, and the interval at which the polling occurs, for example: `Node toba.hp.com ... HBP is off. Type: 0x3. Interval: 0h30m0s`.
Licenses	Displays a page that shows a breakdown of the active HPOM licenses for the HP Operations management server, and includes information such as the name and number of license, the expiration date, and the IP address (or range of addresses) to for which the license is valid.
BBC Status	Displays a page that shows the current status of the BBC, HPOM's communication broker, which controls the ports for HTTPS nodes managed by the HP Operations management server. The information displayed includes the relevant namespace, ports, bind address, and any open sockets. You can also see what (if any) incoming connections area currently open for HP Operations Manager for UNIX HTTP communication. Note that you can view the same information (or much more) by using the `bbcutil` or `ovbbccb` commands.
OV Configuration	Runs the `ovconfget` command on the management server and displays the results which include information concerning OV resource groups, and the namespace associated with the listed resource group. The `ovconfget` command reads the current configuration of the HP Operations management server. For more information about the `ovconfget` command, see the *ovconfget* manual page.
Download All	Downloads the contents of the HPOM database to the clipboard directory on the HP Operations management server.
Task Log Files	Displays a list of the logs written during the execution of tasks on the HP Operations management server; you can click a log link to display the contents of the log file.

Related Topics

- The HPOM Edit Menu

- The HPOM Browse Menu

- The HP Operations management server configuration Menu

- The HPOM Find Menu

- The HPOM Analyze Menu

- The HPOM Integrations Menu

- The HPOM Deployment Menu

- The HP Operations management servers Menu

Inform all Operators

The **Inform all Operators** page enables you to send a text message to all currently logged on HP Operations Manager users.

To inform all HPOM operators

To inform all HPOM operators, perform the following steps:

1. In the HPOM **Tasks** menu, click **Inform Operators**.

2. Type in the text you want the logged-on HPOM user to receive. You can use multiple lines of text in the input field.

3. Finish by clicking on the **Inform Operators** button.

Related Topics

- List available HPOM users

Integrations Menu

The range and type of menus and menu options displayed is determined by the data context you set when you start the Administration UI. For example, if you select HPOM as the data context you want to browse, the following configuration options are displayed in the Integrations menu:

Integrations Menu: Options

Menu Option	Description
Add-ons	Displays a page with details of the additional products and features that are available for download and purchase .
HPOM for Unix Operational UI	Displays the Java-based graphical user interface for the HPOM operator.

Related Topics

- The HPOM Edit Menu

- The HPOM Browse Menu

- The HP Operations management server-configuration Menu

- The HPOM Find Menu

- The HPOM Analyze Menu

- The HPOM Deployment Menu

- The HPOM Tasks Menu

- The HP Operations management servers Menu

Servers Menu

The range and type of menus and menu options displayed is determined by the data context you set when you start the Administration UI. For example, if you select HPOM as the data context you want to browse, the following configuration option is displayed in the Servers menu.

Servers Menu: Options

Menu Option	Description
<ServerHostName>_ server	Shows the concurrence selected and active HP Operations management server. The Administration UI supports only one HP Operations management server session at a time.

Related Topics

- The HPOM Edit Menu

- The HPOM Browse Menu

- The HP Operations management server configuration Menu

- The HPOM Find Menu

- The HPOM Analyze Menu

- The HPOM Deployment Menu

- The HPOM Tasks Menu

- The HPOM Integrations Menu

Chapter 3: Online Help for HP Operations Management Servers

Welcome to the Online Help for the HP Operations management servers. In the context of the HP Operations management server, you can configure and manage objects associated with the HP Operations management server whose configuration data you are monitoring, for example: tasks, object locks, downloads and archives of HPOM specific data. Note that the menus and menu options that you see are determined by the data context you set when you start the session and, in addition, by the roles and responsibilities granted to the user in whose name you logged on. For example, if you select Server as the data context you want to browse, you will see the menus listed below; an administrative user with global rights will see *all* menu options in all menus. Menu options which the logged-on user does not have permission to perform are gray to indicate that they are unavailable. For more information about HPOM menus and menu options, see All Server Menus and Options.

List of Server Objects

Column Title	Description
Objects	A list of the top-level groups of Server objects that you can browse, for example: downloads, archives, tasks, logs, and so on.

In the All Object Types page, you can view and modify Server objects and apply the changes or perform administrative tasks on the displayed objects. For more information about how to use the information displayed on the All Server Object Types page, see the following topics:

- Display Details of Server Objects
- Perform Administrator Tasks on Server Objects
- Print the Help topic related to a Server Object

Related Topics

- All Server Menus and Options

All Server Menus and Options

In the context of the HP Operations management server, you can configure and manage objects on the HP Operations management server. For example, you can browse tasks that are configured on the HP Operations management server and list any downloads and archives that contain data that is specific to the HP Operations management server.

The menus and the menu options that you see are determined by the data context you set when you start the session and, in addition, by the roles and responsibilities granted to the user account that you used for logging on. For example, if you select Server as the data context you want to browse, you will

see the menus listed below; an administrative user with global rights will see *all* menu options in all menus. Menu options which the logged-on user does not have permission to perform are gray to indicate that they are unavailable.

List of Server Menus

Menu Title	Description
Browse	The server **Browse** menu enables you to list the tasks that you have created, view server log files for auditing purposes, and display downloads and archives on the server.
Tasks	The **Tasks** menu enables you to generate an archive containing files that can help support services troubleshoot problems on the HP Operations management server.
Servers	The **Servers** menu shows the currently selected and active HP Operations management server.

Browse Menu

The server **Browse** menu enables you to list the tasks that you have created, view a list of server log files for that you can read for auditing purposes, and display downloads and archives. The **Browse** menu contains the following options:

Server Menu: Browse

Menu Title	Description
Formatted Audit Log	A formatted list of all entries recorded in the audit log file. Note that the audit.log is also available in the list of server log files.
All Path Aliases	List of all defined aliases for locations in the system. Location can be a single file which contents you want to make available to users, or the contents of an entire directory.
All Tasks	A list of all the tasks groups that are configured on the server.
Task Log Files	A list of all the logs files written by the tasks that are configured to run on the server.
Downloads	A list of all the downloads currently available on the clipboard of the HP Operations management server, for example: troubleshooting files for support, migration reports (in different formats), and so on. Downloads are saved as a directory structure, which you can browse in the same way as any normal file directory.
Archive	A list of all the archives that users have saved. Archives are saved as a directory structure, which you can browse in the same way as any normal file directory.

Server Menu: Browse, continued

Server Log Files	A list of all the server logs files written on the currently active server, for example: task logs, file logs, audit logs, and so on. You can browse the logs and view the contents.
Request Log Files	A list of the logs files containing trace information concerning data *requests* that the web application sends to the HP Operations management server. Note that, by default, tracing is not enabled for requests for data from the Web application; if you want to log the Web application's requests for data, you must enable the feature explicitly. For more information, see the *HPOM Administrator's Reference*.
Audit Log Files	A list of all the log files written on the server for auditing purposes, for example: with entries concerning logons and configuration changes. To view the contents of the `audit.log`, click the link to the file in the Name column.
Request Results	A list of the logs files containing entries concerning the *results* received for data requests that the web application sends to the HP Operations management server. Note that, by default, tracing is not enabled for the results of the Web application's requests for data requests; if you want to log the response to the Web application's requests for data, you must enable the feature explicitly. For more information, see the *HPOM Administrator's Reference*.
Shopping Cart	A snapshot of objects you have chosen to save for future use on HP Operations management server.

Related Topics

- The Server:Tasks Menu
- The Server:Servers Menu

All Tasks

The **All Tasks** page displays a list of all the HPOM tasks available for the HP Operations management server. Ant tasks are managed and run by the `ant` utility. For example, a ant task could check and activate Flexible-Management configuration files. Normal tasks are programs or scripts. For example, a normal task could run a check for HPOM licenses using the `opclic` command. The information in the Tasks page is displayed in a table with the following details:

If you want to filter the list of tasks to reduce the number displayed, click the **Filter** link at the top of the list and use the fields and drop-down menus to define the filter conditions; you can filter objects according to a wide range of criteria, for example: name, type, label. The range and complexity of filter options available depends on the type of object you want to display in a list.

List of Tasks

Column Title	Description

List of Tasks, continued

All	Check boxes to enables you to select all or individual tasks on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Download...".
Task Type	Icons represent the type of task, for example: "ant" ( ).
Label	The label you want to assign to the listed task when it appears in the Administration UI , for example: "Generate Search Index". Click the task name to display details of the selected task.
Name	The name of the listed task, for example: "Generate Search Index". Click the task name to display details of the selected task. Click the Name link to arrange the list of tasks in ascending or descending order.
Build file	Shows the path to and the name of the task configuration file, for example: `classpath:conf/ant/search_index.xml`.
Target	Shows the target for the listed task, that is: what the task is supposed to do. Targets can be sub tasks, which are defined in the main task configuration file.
Description	Displays a short description of the task, for example: "Targets to generate search index".
Context	Shows the context in which the task is configured to run, for example: nodes, node groups, or Flexible-Management configuration. MOM is the Manager-of-Manager (also called Responsible Manager) functionality, which allows management servers to manage each other and each others nodes, to provide world-wide, round-the-clock cover of the managed environment.
Parameters	Shows the parameters to be passed to the command used to start the selected task, which you can see in the Task File column. For example, the following command lists the status of a node: `/opt/OV/bin/bbcutil -status %node%`, where the parameters are `%node`.

To display a list of known tasks

To display a list of all the tasks that exist for the server:

1. Click the Server icon in the tool bar to set the data context to "Server".

2. In the **Browse** menu, click **All Tasks**. Note that if there are many locks, it can sometimes take a while to populate the lists.

Related Topics

- Display details of a task

Understanding Server Log Files

The **Server Log Files** menu option displays the log files concerning important components configured and running on the server. The contents of the listed log files relate to the individual components and

depend on the log and trace levels set for the various components, for example: "info", "all", or "debug". Note that you can use the **sort** feature to display the contents of a list by object name, label, type, and so on. You can also apply a **filter** to restrict the number and type of objects in the list. If the list is long, you can use the index to **page** through the contents quickly and easily.

The information in the following table lists the most common log files that you are likely to encounter:

List of Common Server Logs

Log File Type	Description
Audit directory	Contains the daily audit logs. The current log file is called `audit.log`; previous log files have the date as a file suffix, for example: `audit.log.2006-10-19`. Note that there is no rollback or clean up. Logging levels include: "Info" (one line) "Debug" (all possible information).
backend.log	Adapter specific log file; the presence of the log file depends on whether you have installed, configured, and started the related HPOM adapter. The `HPOM` adapter is used for server configuration. Note that some adapters write information about specific XML database events to the `xmldb.log` log file, too.
dead.log	Lists all and any illegal requests that occur in HP Operations Manager components.
file.log	Adapter specific log file; the presence of the log file depends on whether you have installed, configured, and started the related adapter. The `file` adapter is used for file management utilities such as copy and ftp.
lock.log	Adapter specific log file; the presence of the log file depends on whether you have installed and configured, and started the related adapter. The `lock` adapter is used for the management of locks, which exist for objects that are currently open for modification by logged-on users.
midas.log	Generic default log file which catches all events not specifically configured to be written to other log files.
nnm.log	Adapter specific log file; the presence of the log file depends on whether you have installed and configured the related adapter. The `nnmconfig` adapter is used for the configuration of Network Node Manager.
ovo.log	Adapter specific log file; the presence of the log file depends on whether you have installed, configured, and started the related adapter. The `ovoconfig` adapter is use for the configuration of HPOM; the `opccfg` adapter is used for the management of HPOM configuration upload and configuration download tasks.
Requests directory	Contains the logs files for each and every data request that the web application sends to the HP Operations management server. Note that this feature must be enabled manually. For more information, see the *HPOM Administrator's Reference*.

List of Common Server Logs, continued

Results directory	Contains all the logs files listing the results of the data requests that the web application sends to the HP Operations management server. Note that the data request logging feature must be enabled manually. For more information, see the *HPOM Administrator's Reference*.
servicemix.log	Contains the start-up, running, and shut-down information about installed adapters.
task.log	The `task.log` file contains entries from adapter components that start task-related processes, such as: `task` or `file`. Note that the individual tasks started by these components write their own, individual log files to the `tasks` directory.
Tasks directory	Individual tasks started by adapter components write their own log files to the `tasks` directory. Look here for specific information relating to problems with a specific task. For example, the `log_opcerror_20061019_1244.xml` file contains information about errors logged on the HP Operations management server on October the 19th 2006.
usermgmt.log	Adapter specific log file; the presence of the log file depends on whether you have installed and configured the related adapter. The `usermgmt` adapter is used for the configuration and management of users. Note that the some adapters write information about specific XML database events to the `xmldb.log` log file, too.
web.log	Contains information about the status of the `webapp` utility and any problems it has during runtime.
wrapper.log	The information that the wrapper process writes to `stdout` also appears in log file `wrapper.log`.
xmldb.log	Adapter specific log file; the presence of the log file depends on whether you have installed and configured the related adapter. The `HPOM` or `usermgmt` adapters write XML database related information to the `xlmdb.log`.

To display a list of server log files

To display a list of all the log files that exist for server processes running on the server:

1. Click the Server icon in the tool bar to set the data context to "HP Operations management server".

2. In the **Browse** menu, click **Server Log Files**, or **Request Log Files**, or **Audit Log Files**. Note that if there are many locks, it can sometimes take a while to populate the lists.

Related Topics

- Sorting Object Lists
- Filter Object Lists

All Request Results

A list of the logs files containing entries concerning the results received for data requests that the Web application sends to the HP Operations management server. See also Request Log Files for a list of the requests for data that the Web application makes. Note that, by default, tracing is not enabled for the results of the Web application's requests for data requests; if you want to log the response to the Web application's requests for data, you must enable the feature explicitly.

The information in the Request Results page is displayed in a table with the following information:

List of Request Results

Column Title	Description
UID	Internal ID generated by HP Operations Manager and used to reference an individual entry in the audit log.
Request	This property means request type. E.g. authentication, get, create, execute...
Object Class	Name of the object class affected by the operation referenced in the audit log, for example: `ovo:msggroup` for changes to a message group configuration, `ovo:node` for changes to managed node configuration, `ovo:application` for changes to HPOM applications, and so on.
Date	Time stamp including the date and time the selected entry appeared in the audit log.
Object Name	Name of the object affected by the operation referenced in the audit log, for example: `ovo:msggroup` for changes to a message group configuration, `ovo:node` for changes to managed node configuration, `ovo:application` for changes to HPOM applications, and so on.
Object Type	Name of the object *type* affected by the operation referenced in the audit log, for example: `ovo:msggroup` for changes to a message group configuration, `ovo:node` for changes to managed node configuration, `ovo:application` for changes to HPOM applications, and so on.
Context	Technical or configuration area affected by the HPOM-related actions and operations logged on the audit log, for example: flexible-management configuration files, scheduled outages, and so on. Note that `all` refers to entries concerning objects in a wider technical context.
Context Object Name	Name of the context for the object affected by the operation referenced in the audit log. For more information about an entry's *context*, see the entry for **Context** in this table.
Context Object Type	Name of the context for the object *type* affected by the operation referenced in the audit log. For more information about an object's *context*, see the entry for **Context** in this table.

To display a list of request results:

To display a list of the results received for data requests that the web application sends to the HP Operations management server, perform the following steps:

1. Click the Server icon in the tool bar to set the data context to "Server".

2. In the **Browse** menu, click **Request Results**.

3. The request results are displayed in a table, whose contents are described in detail above.

Related Topics

- Understanding Log Files

All Path Aliases

You can display and browse through a list of aliases defined for file locations on a selected management server. Most aliases are predefined and configured during software installation. An alias is a link to a precise location in the file system, which you can display in your browser. The location can be either a single file, whose contents you want to make available to users, or the contents of a directory. Note that, for security reasons, the alias restricts access to the file or directory specified; you cannot browse the file system outside of the target specified in the alias definition. In addition, user roles can further restrict the type of access to the location specified in the path alias, for example: read (view), write (modify), or execute (start).

The information in the All Archives page is displayed in a table with the following information:

List of Existing Path Aliases

Column Title	Description
Create	Indicates with a check (✔) that the directory for the alias path is recursively created, in case that the flag for the path alias is set to TRUE.
Type	Shows the type of target specified in the path alias, for example: a simple file or a directory.
Name	The name of the defined alias: click the name to display a brief overview of the selected alias. For more information, see Display details of a selected alias.
Path	Shows the location in the file system to which the alias points; the location can be either a file or a directory. The alias syntax is `file:/<path>` where path can be either absolute or relative. For example: `file:/opt/OV/bin` or `file:data/clipboard`. Click the link for the path alias, whose contents you want to display.
Description	Displays a short description of the defined alias to help understand what the contents of the directory are or what the purpose of the file defined in the alias is.
Absolute	Indicates with a check (✔) if the selected alias points to a file location that is defined from the root directory (/). For example, the alias `ovbindir` points to the directory containing the OV binaries in the following location `file:/opt/OV/bin`. The alias `clipboard` points to the location for downloaded files `file:data/clipboard`, which is not an absolute path.

To display a list of path aliases

To display a list of all the path aliases defined on the management server:

1. Click the Server icon in the tool bar to set the data context to "Server".

2. In the **Browse** menu, click **All Path Aliases**. Note that if there are many aliases defined, it can sometimes take a little time to populate the list, and the list's contents could be split into multiple pages.

Related Topics

- Display details of a selected alias

- List files

- List user roles

Display Path Alias

You can display details of individual path aliases. An alias is a link to a precise location in the file system, which you can display in your browser. The location can be either a single file or the contents of a directory. Note that, for security reasons, restricts access to the file or directory specified in the alias; you cannot browse the file system outside of the target specified in the alias definition. The information in the **Path Alias Details** page expands the information already available in the list of path aliases.

Details of Selected Path Alias

Attribute	Description
Name	The name of the defined alias: click the name to display a brief overview of the selected alias.
Path	Shows the location in the file system to which the alias points. The syntax is `file:/<path>` where path can be either absolute or relative. For example: `file:/opt/OV/bin` or `file:data/clipboard`.
Description	Displays a short description of the defined alias to indicate what the contents of the directory or the purpose of the file defined in the alias.
Absolute	Indicates whether the selected alias points to a file location that is defined from the root directory (/). For example, the alias `ovbindir` points to the directory containing the OV binaries in the following location `file:/opt/OV/bin`. The alias `clipboard` points to the location for downloaded files `file:data/clipboard`, which is not an absolute path.

To display details of path alias

To display an overview of a selected path alias:

1. Click the Server icon in the tool bar to set the data context to "Server".

2. In the **Browse** menu, click **All Path Aliases**. Note that if there are many aliases defined, it can sometimes take a little time to populate the list, and the list's contents could be split into multiple

pages.

3. Click the **Name** of the path alias whose details you want to display.

Related Topics

- Display details of a selected alias
- List files
- List user roles

Tasks Menu

The **Tasks** menu enables you to generate an archive containing files that can help support services troubleshoot problems on the HP Operations management server. Note that the range and type of menus and menu options displayed is determined by the data context you set. For example, if you select **Server** as the data context you want to browse, the following configuration option is displayed in the **Tasks** menu:

Server Menu: Task Options

Server Task	Description
Generate Support Zip	Generate an archive containing files that can help support services troubleshoot problems. When the task completes, you can find the resulting Zip file in the downloads directory (**Browse > Downloads**) with a name that reflects the date and time the support file was generated, for example: `/opt/midas41/data/clipboard/support_20091016112251.zip`.

Related Topics

- The Server:Browse Menu

Servers Menu

The range and type of menus and menu options displayed is determined by the data context you set when you start the Administration UI. For example, if you select Server as the data context you want to browse, the following configuration option is displayed in the Servers menu.

Servers Menu: Options

Menu Option	Description
<ServerHostName>_ server	Shows the concurrence selected and active HP Operations management server. The Administration UI supports only one HP Operations management server session at a time.

Related Topics

- All Server Menus and Options
- The Server Browse Menu
- The Server Tasks Menu

Chapter 4: Online Help for Administration

Welcome to the Online Help for administration. In the administration context, you can configure and manage administration objects associated with the web application you are logged on to, for example: users, object locks, and HP Operations management servers that are registered with the web application. Note that the menus and menu options that you see are determined by the data context you set when you start the session and, in addition, by the roles and responsibilities granted to the user in whose name you logged on. For example, if you select Admin as the data context you want to browse, you will see the menus listed below; an administrative user with global rights will see *all* menu options in all menus. Menu options which the logged-on user does not have permission to perform are gray to indicate that they are unavailable. For more information about HPOM menus and menu options, see All Admin Menus and Options.

List of Admin Objects

Column Title	Description
Objects	A list of the top-level groups of Admin objects that you can browse, for example: users and user groups, object locks.

In the All Object Types page, you can view and modify Admin objects and apply the changes or perform administrative tasks on the displayed objects. For more information about how to use the information displayed on the All Admin Object Types page, see the following topics:

- Display Details of Admin Objects
- Perform Administrator Tasks on Admin Objects
- Print the Help topic related to a Admin Object

Related Topics

- All Admin Menus and Options

Admin Menus and Options

In the Admin context, you can configure and manage administration objects such as users, user roles and locks.

The menus and the menu options that you see are determined by the data context you set when you start the session and, in addition, by the roles and responsibilities granted to the user account that you used for logging in. For example, if you select Admin as the data context you want to browse, you will see the menus listed below; an administrative user with global rights will see *all* menu options in all menus. Menu options which the logged-on user does not have permission to perform are gray to indicate that they are unavailable.

List of Admin Menus

Menu Title	Description
Edit	The **Edit** menu provides a range of options that enables you to create new users, user groups, and user roles. User roles are a convenient way to define the scope and capabilities of individual users and determine which actions users may or may not perform; users belong to logical "user groups", to which you assign the user roles that define the group rights and responsibilities.
Browse	The **Browse** menu provides a range of options that enables you to list and view existing users, user groups, user profiles, and notifications.
Analyze	The **Analyze** menu enables you to manage the users and user roles defined in the HP Operations Manager environment. For example, you can list all users that do not belong to a user group, or all user groups that do not contain any users. You can also display all user groups that do not have any assigned user roles.
Servers	The **Servers** menu shows the currently selected and active HP Operations management server.

Related Topics

- Adding Users
- Managing Object Locks

The HP Operations Manager User Model

The HP Operations Manager user model is a fine balance between security and accessibility, allowing you to define a range of users from the global administrator with full access to everything to the simple operator who can view (but not modify) a strictly limited selection of objects. The user model is based on the concept of user groups and user roles. Users must belong to user groups; the rights and responsibilities granted to members of a user group are defined in a user role. A user who does not belong to a user group cannot see any objects or perform any task; if a user group does not have an assigned user role, group members cannot see any objects or perform any tasks - at logon, all menus and menus options would be gray, indicating they are unavailable.

Note that you can define user roles at a global level or at a more detailed level. Defining user roles at a more detailed level involves assigning access rights to individual objects (create, read, modify, assign). If you choose to define roles at detailed level, you need to be aware of the links and dependencies between the various objects in order to avoid creating problems where users have only read rights to objects which they need to modify or assign. For example, in HPOM, there is a dependency between node groups, messages groups, and policy groups. Users who can modify node groups also need to be able to see lists of policies and message groups and, in addition, be able to assign the policies and message groups to the nodes. Note that user rights are exclusive and cumulative, that is: users have no rights until explicitly granted them.

The following table explains the three pillars of the HP Operations Manager user model:

The HP Operations Manager User Model

User Concept	Description	Definition Required
User	Admin users are responsible for the management and maintenance of objects in the HP Operations Manager environment. Which objects a user is responsible for and the type of access (create, read, modify, assign) the user has is determined by the user group (or groups) to which the user belongs and, more importantly, the user role(s) assigned to the user group(s).	✔
User Group	Admin user groups are logical groups of users who perform the same (or similar) tasks, for example: database administration, node management, policy assignment, and so on. Users can belong to multiple user groups. Members of a user group inherit the rights and responsibilities defined in user roles, which are assigned to the user group. Note that if a user belongs to multiple user groups, the rights granted to the user by the least-restrictive user role apply to all other user groups to which the user belongs. This could result in users having access to objects that normally would be forbidden.	✔
User Role	Admin user roles are preconfigured user definitions which you assign to user groups in order to specify the roles and responsibilities for all the users who belong to the user group. The roles and responsibilities granted to a user determine the objects the users can see, they type of access they have to objects (create, read, modify, assign), which menu options they can see in the user interface and, as a consequence, the actions they are allowed to perform.	✔

To configure a new user

To define a new user, add the user to a user group, assign user rights and responsibilities, and grant the user a log on, perform the following steps:

1. Design a user model which meets the requirements of your user environment, for example: database administration, node management, policy assignment, simple operators, and so on.

2. Create and add a new user role

   Create a user role for each type of user you want to add; the role defines the rights and responsibilities granted to users with this role. For example: which objects are accessible on which servers, and what type of access is granted. For more information about defining user-role rights and responsibilities, see the list of related topics below.

3. Create and add a new user group

   Create a user group for each logical type of user you want to create, for example: global administrators, database administrators, policy administrators.

4. Assign the new user role to the new user group

   Assign the appropriate user role to the corresponding user group; the role defines rights and responsibilities granted to users who belong to the user group.

5. Add a new user

   Create and define a new user, including: name, label, and password.

6. Assign a user to a user group

   Place the new user in the user group whose rights and responsibilities best meet the users role. For example: a database-administrator user belongs to the database administrator user group, whose role allows full (read-write) access to database objects.

Related Topics

- User Role Properties

Edit Menu

The Admin Edit menu provides options that enables you to manage the users who administer the various data contexts that exist, for example: HPOM or HP Operations Manager itself. The Edit menu contains the following options:

Admin Menu: Edit

Menu Title	Description
Add User	Configure a new user on the currently active server. To change the selected server or check which server is currently active, use the Admin:Servers menu.
Add User Group	Configure a new user group on the currently active server; a user group is a logical collection of users, for example: who have the same or similar responsibilities. To change the selected server or check which server is currently active, use the Admin:Servers menu.
Add User Role	Configure a new user role on the currently active server; a user role is a preconfigured definition of rights and responsibilities which you assign to a user group (or groups). The users in the user group inherit the rights and responsibilities defined in the assigned user role. To change the selected server or check which server is currently active, use the Admin:Servers menu.

Related Topics

- Understanding User Concepts
- The Admin:Browse Menu
- The Admin:Analyze Menu
- The Admin:Servers Menu

Add User

The **Add User** page displays the parameters you need to configure a new admin user quickly and completely. Admin users are responsible for the management and maintenance of objects in the HP

Operations Manager environment. Which objects a user is responsible for is determined by the user group to which the user belongs and the user role assigned to the user group.

After creating the new user, you must place the user in a user group. By assigning a user role to the user group, you ensure that all members of the user group have the same rights and responsibilities for object access and management. The rights and responsibilities granted to members of a user group determine the menus and menu options available to the user group members in the user interface; the availability of menus and menu options determine the tasks a user is allowed to perform. Menu options for tasks that a user is not allowed to perform are disabled. For example, a simple operator with a restricted role cannot see or use all the menus and menu options available to an administrator with global rights and responsibilities. For more information about user groups and user roles, see the list of Related Topics below. The following table explains what information you enter in each of the fields in the Add User Properties tab. Note that, in the user interface, a blue asterisk (*) indicates a field where information is required.

Add User: Properties Tab

Field Label	Description of Contents	Information Required
Activate User	Enables you to activate or deactivate the newly added user. This check box is selected by default.	
E-mail	E-mail address for the newly added user.	
Name	The name of the new user you want to create, for example: "Admin" for the standard administrator with global rights, "Configurator" for a user who is responsible for configuration concepts, "Documentor" for a user who produces documentation snapshots, or "Operator" for an operator who is responsible for particular object classes. The name you define in the Name field is the name you enter in the User Name field in the initial log-on screen. The name also appears in the user interface to indicate which user is logged on and is the owner of the current session.	✔
Label	The label to apply to the new user you want to create. If defined, the label is used to represent the user in user lists throughout the user interface.	--
Real Name	The real name of the new user you want to create. The name you enter in the Real Name field is used, where appropriate, in user lists in the user interface.	--
Description	A short description of the new user to remind administrators what type of user it is.	--
Password	The password the new user must enter to log on to the HP Operations Manager. The password must be at least 6 and at most 32 characters long.	✔
Confirm Password	Re-enter the same password you entered in the Password field.	✔

To create or modify a user

To create a new (or modify an existing) user and apply the configuration, perform the steps described below.

1. Click the Admin icon in the tool bar to set the data context to "Admin".
2. In the Admin **Edit** menu, click **Add User**.
3. Enter information in the fields presented in the **User Properties** tab.

   The **User Properties** tab defines details concerning the user's name, password, and user type, for example: HPOM operator or HPOM policy administrator.
4. Save or discard the details of the user using the following buttons:
   - **Save**

     Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new user definition.

   - **Backup**

     Creates a backup copy of the editing session so far. You can use this backup to restore the editing session at a later point in time.

   - **Restore**

     Restores a previous editing session to the point where you made a backup using the [Backup] button.

   - **Cancel**

     Discards all the information you enter about the new user.

5. Assign the new user to a user group (or groups); user groups are logical groups of users who perform the same (or a similar) role. If you are modifying an existing user, the changes are effective immediately and automatically - you do not need to reassign the modified user.

Related Topics

- Add a New User Role
- Add a New User Group
- Assign User Roles
- Assign Users
- Understanding User Concepts

Add User Group

The **Add User Group** page displays parameters for new user groups and enables you to define the new user group quickly and completely. User groups contain users, who assume the rights and responsibilities that the group defines by means of user roles. For example, you can define a user role that allows members of a particular user group to manage locks or access specific HPOM nodes or HPOM message groups on a particular server. All members of a user group assume the rights and responsibilities specified in the user role definition that is assigned to the user group. Use the New User

Group page to create logical groups of users in your environment. The following table gives you an overview of the information that is required when defining a user group.

Add User Group: Properties Tab

Field Label	Description of Contents	Information Required
Name	The name of the new user group you want to create, for example: HPOM Operators for the standard HPOM operators or HPOM SPI Administrators for operators who are responsible for HPOM Smart Plug-ins. The name you enter in the User Group Name field is used in the Administration UI if no label is defined in the Label field.	✔
Label	The label to apply to the new user group you want to create; this is the label you will see in the user interface.	--
Description	A short description of the new user group to help administrators understand what type of object the user group contains.	--

To create or modify a user group

To create a new (or modify an existing) user group and apply the configuration, perform the steps described below.

1. Click the Admin icon in the tool bar to set the data context to "Admin".
2. In the Admin **Edit** menu, click **Add User Group**
3. Enter information in the fields presented in the **Properties** tab.

   The **Properties** tab defines details concerning the user group's name, its label and a short description.
4. Save or discard the details of the user group using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new user definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node hierarchy configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Cancel**

   Discards all the information you enter about the new user.

5. Assign a user role to the new user group; the user role defines the rights and responsibilities granted to all users in the user group. If you are modifying an existing user group, the changes are effective immediately and automatically - you do not need to reassign the user role to the modified user group.

Related Topics

- Assign Users
- Assign User Roles
- Add a New User
- Add a New User Role
- Understanding User Concepts

Add User Role

The **Add User Role** page displays parameters for new user roles and enables you to define new user roles quickly and completely. User roles are preconfigured user definitions which you assign to user groups in order to specify the roles and responsibilities for all the users who belong to the user group. The roles and responsibilities granted to a user determine the objects the users can see, they type of access they have to objects (create, read, modify, assign), which menu options they can see in the user interface and, as a consequence, the actions they are allowed to perform. For example, you can define a user role that allows members of a particular user group to manage databases, access specific HPOM nodes and HPOM message groups, or all policies and policy groups on a particular server. You can also define very precisely the type of access the user role allows to the managed objects, for example: read, modify, assign. When you assign the new user role to a user group, all members of the user group assume the rights and responsibilities specified in the user role.

You can define roles at a global level (where users can do anything anywhere) or at a more detailed level where you assign rights and responsibilities for individual objects to particular users or user groups. If you choose to define roles at a more detailed level, you need to be aware of the links and dependencies between the various objects in order to avoid creating problems where users have only read rights to objects which they need to modify. For more information about object rights, see New User Role Rights.

Use the Add User Role page to define custom user roles and add them to your environment.

To create a user role

To create a new user role and apply the configuration to your environment, perform the steps described below.

1. Click the Admin icon in the tool bar to set the data context to "Admin".
2. In the Admin **Edit** menu, click **Add User Role**.
3. Enter information in the fields presented in the displayed tabs:
   - Properties:
     Define details concerning the user role's name, its label and a short description.

- ○ User Role:

  Define the rights and responsibilities associated with the user role you are defining.

4. Save or discard the details of the user role using the following buttons:

    - ○ **Save**

      Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new user role definition.

    - ○ **Backup**

      Creates a backup copy of the user role editing session so far. You can use this backup to restore the editing session at a later point in time.

    - ○ **Restore**

      Restores a previous user role editing session to the point where you made a backup using the [Backup] button.

    - ○ **Cancel**

      Discards all the information you enter about the new user role.

5. Assign the user role to the user group (or groups); the user role defines the rights and responsibilities granted to all users in the user group. If you are modifying an existing user role, the changes are effective immediately and automatically - you do not need to re assign the modified user role.

Related Topics

- Assign User Roles
- Add a New User
- Add a New User Group
- Understanding User Concepts

User Role Properties Tab

The User Role **Properties** tab displays general parameters for new user roles. A user role is a set of rules defining rights and responsibilities that you assign to a user group; all members of a user group inherit the rights and responsibilities assigned to the group to which they belong. Use the Properties tab to define a name and label for the new user role. You can provide a short description, too. The following table explains what information you enter in each of the fields in the Add User Role Properties tab. The user interface displays a blue asterisk (*) to indicate a field where information is required.

New User Role: Properties Tab

Field Label	Description of Contents	Information Required

New User Role: Properties Tab, continued

Name	The name of the new user you want to create, for example: opc_op for the standard HPOM operator or spi_op for an operator who is responsible for an HPOM Smart Plug-in. The name you enter in the User Name field is used in the Administration UI if no label is defined in the Label field.	✔
Label	The label to apply to the new user you want to create; this is the label you will see in the user interface.	--
Description	A short description of the new user to help HPOM administrators understand what type of user it is.	--

To add or modify user role properties

To add new (or modify existing) user role properties and apply the new or modified configuration, perform the following steps:

1. Click the Admin button in the browser toolbar to set the data context to "Admin".

2. Add a new user role: In the **Edit** menu, click **Add User Role**.
   Modify an existing user role: In the **Browse** menu, click **All User Roles**, locate the user role you want to modify, and use the actions menu to open the **Edit User Role** page.

3. Enter information in the fields presented in the **Properties** tab, which are described in the table above.

4. Save or discard the details of the user using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new user definition.

   ○ **Backup**

   Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

   Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node hierarchy configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Cancel**

   Discards all the information you enter about the new user.

Related Topics

- The User-Role Role Tab
- Add a New User Role

- [Add a New User Group](#)
- [Understanding User Concepts](#)

User Role Tab

The **User Role** tab enables you to predefine the rights and responsibilities granted to new or existing users of the Administration UI. You assign a user role to a user group so that all members of the user group assume the rights and responsibilities defined in the user role. For example, you can specify which nodes the new role allows users to manage, or which policies the new role allows users to view or even modify. The rights and responsibilities you define in a user role determine what actions users and user groups can perform since the rights and permissions defined in a user role determine what menus and menu options the users see in the user interface.

Note that you can define user roles at a global level or at a more detailed level with individual filters. Defining user roles at a more detailed level involves assigning rights for individual objects. If you choose to define roles at a detailed level, you need to be aware of the links and dependencies between the various objects in order to avoid creating problems where users have only read rights to objects which they need to modify. For example, in HPOM, there is a dependency between node groups, messages groups, and policy groups. Users who can modify node groups also need to be able (at least) to see lists of policies and message groups in order to assign the policies and message groups to the nodes.

The following table explains what information you enter in each of the fields in the new **User Role** tab. A blue asterisk (*) in the user interface indicates a field where information is required.

Add User Role: User Role Tab

Field Label	Description of Contents	Information Required
Object Class	The class of object which you can configure and add to (or remove from) the user role you are configuring, for example: node, policy, application, user, message group, and so on. To add individual object classes to (and remove from) the list of accessible object classes, see the instructions below. Remember to ensure that you define the correct rights for dependent objects, too. For example, HPOM managed node groups, HPOM message groups, and HPOM policy groups are closely linked. A user who can edit a managed node group needs to be able to see (at least) HPOM message groups, too. Note that you cannot set up filters for the following object classes: Files and Directories, Agent Installation, Flexible-Management Files, Tasks, Locks, Distribution, Deployment, or Server Configuration.	--
Read	Click the check box to assign read-only permissions for the selected object. Note that you cannot assign read-only rights to Agent Installation, locks, and Deployment objects.	--

Add User Role: User Role Tab, continued

| All Rights | Click the check box to assign all rights for the selected object(s), for example: permission to read, create, modify, delete, assign, and execute objects. Note that if you enable "all" rights for all object classes, the check boxes for the more detailed definition of user role rights are disabled; you cannot subsequently define rights to individual objects at a more detailed level. This restriction applies for single object classes, too. | -- |

To define a new user role

To define the rights that you want to assign to a new user role and apply the configuration, perform the following steps:

1. Click the Admin icon in the tool bar to set the data context to "Admin".

2. Add a new user role: In the Admin **Edit** menu, click **Add User Role**.
   Modify an existing user role: In the Admin **Browse** menu, click **All User Roles**, locate the user role you want to modify, and use the **Edit...** option in the actions menu ⚙ to open the **User Role** page.

3. Click the **User Role** tab and use the 📄 button to add a new object to the list of objects to which the user role has access; use the ❌ button to remove an existing object from the list of accessible objects.

4. If required, you can use Perl-based regular expression to restrict the object name to a defined string, for example: "`[hp][hp][hp]-internal-*`", for all node group names with any combination of the characters "b", "e", "s", followed by "-internal-", and any string (*).

5. Save or discard the details of the user role using the following buttons:

   ○ **Save**

     Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new user role definition.

   ○ **Backup**

     Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

   ○ **Restore**

     Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node hierarchy configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

   ○ **Cancel**

     Discards all the information you enter about the new user role.

Related Topics

- The User Role Properties Tab
- The User Role Tab
- Add a New User Role
- Add a New User Group
- Understanding User Concepts

Browse Menu

The Admin Browse menu provides options that enables you to manage the users who administer the various data contexts that exist, for example: HPOM or HP Operations Manager itself. The Browse menu contains the following options:

Admin Menu: Browse

Menu Title	Description
All Users	A list of all the users that are configured and available on the currently active server for example: admin users, HPOM administrators, or HPOM operators. To change the selected server or check which server is currently active, use the Admin:Servers menu.
All User Groups	A list of all the user groups that are configured and available on the currently active server. A user group is a logical collection of users to which you assign a user role, which defines the rights and responsibilities given to the members of the user group. To change the selected server or check which server is currently active, use the Admin:Servers menu.
All User Roles	A list of all the user roles configured and available on the currently active server. User roles are preconfigured user definitions which you assign to user groups in order to specify the rights and responsibilities that users who belong to the user group have. To change the selected server or check which server is currently active, use the Admin:Servers menu.
All Locks	A list of the locks that exist on objects which users are currently modifying. If a user attempts to modify an object which is locked by another user, a warning is displayed.
Logged-on Users	A list of the users currently logged on to the HP Operations management server.
All Restore Points	A list of the manual backups made (using the **Backup** button) when editing an object, for example, a message-source policy, a node group, and so on. You can use this list to select a backup made on a particular day and at a specific time and display the selected backup in the original editor. In this way, you can restore the object you were editing to the point where you made the backup.
Notifications	List of all the notification messages sent to the user running the current browser session.

Related Topics

- Understanding User Concepts

- The Admin:Edit Menu

- The Admin:Analyze Menu

- The Admin:Servers Menu

All Users

The Admin **All Users** page displays a list of the users configured on the server, for example: admin users, HPOM administrators, or HPOM operators. Note that you can use the **sort** feature to display the contents of the list by name, label, type, and so on. You can also apply a **filter** to restrict the number and type of objects in the list. If the list is long, you can use the index to **page** through the contents quickly and easily.

The information in the All Users page is displayed in a table with the following information:

List of Admin Users

Column Title	Description
Description	Displays a short description of the listed admin user, which allows the administrator to determine details such as role and group assignment.
Enabled	This option is about the user's state. It can be changed for the newly created users (admins).
Name	The user name is the name a user enters in the initial log-on screen. The name also appears in the user interface to indicate which user is logged on and is the owner of the current session. Click the user name to see more detailed information about the selected user. Click one of the icons next to the user name for menus that enables you either to display more information about the user or perform an action on the user.
Real Name	Shows the real name of person associated with the listed user – log-on name.

To display a list of Admin users

To display a list of all the Admin users configured on the HP Operations management server:

1. Click the Admin icon in the tool bar to set the data context to "Admin".

2. In the **Browse** menu, click **All Users**. Note that if there are many users, it can sometimes take a little time to populate the lists.

Related Topics

- Sorting Object Lists

- Filter Object Lists

- Understanding User Concepts

- Assign Users

- Assign User Roles

- Display User Actions ( )
- Browse User Configuration Details ( )

Display User Details

The **User Details** page displays detailed information about the configuration of an individual user. The information in the User Details page is displayed in a table with the following information:

User Details

Attribute	Value
Authentication Method	Displays the authentication method for the admin user.
Enabled	Select this check box to enable displaying the user details, or likewise, deselect it to disable displaying the user details.
Name	The name defined for the displayed user. The name is used to represent the displayed user in the interface, for example, in lists.
Label	If defined, the label is used in preference to the user name to represent the selected user in the user interface.
Real Name	The real name of the selected user.
Description	A short description of the selected user, for example: "Manages Linux nodes"

To display information about the user groups to which the displayed user belongs or the user roles that define the displayed user's rights and responsibilities, use the "Users groups" or "User Roles" options in the browse menu.

To display details of a selected user

To display a detailed description of a selected user, perform the following steps:

1. Click the Admin icon in the tool bar to set the data context to "Admin".
2. In the **Browse** menu, click **All Users**.
3. In the **Name** column, either click the link that corresponds to the user whose details you want to display and check or click the actions button ( ) to display the actions menu, and then click **View**.

Related Topics

- List All Users
- List All User Groups
- List All User Roles
- Assign Users

Browse User Configuration Details

You can browse details about the configuration of admin users; the type of information available depends on the type of user, whose configuration details you want to browse. The table below lists the information that you can browse for HPOM users and user profiles.

Browse Menu: Users, User Roles, User Groups

Configuration Details	Description	Locks	User Roles	Users	User Roles	User Groups
Locks	Locks displays a list of the locks that exist on currently modified objects. If a user attempts to modify an object which is locked by another user, a warning is displayed.	--	✔	✔	✔	✔
Resolved User Role	Displays user roles, specific and general rights for the selected admin user.	✔	--	✔	✔	✔
Users	Display the list of users in the selected user group or with the selected user role. Users belong to user groups, to which user roles are assigned. Users inherit the rights and responsibilities assigned to the user group by means of the user role (or roles).	✔	✔	--	✔	✔
User Roles	Display a list of the user roles assigned to the selected user group or user; user roles define the rights and responsibilities assigned to user groups and the users that belong to the group.	✔	✔	✔	--	✔
User Groups	Display the list of user groups to which the selected user belongs or which have the selected user role assigned. User groups are logical collections of users to which you can assign a defined role (or roles).	✔	✔	✔	✔	--

To display user configuration details

To display a list of the additional information you can request about the configuration of a selected user, user role, or user group:

1. In the Admin **Browse** menu, click **All Users**, **All User Roles** or **All User Groups**. Note that if there are many users (or profiles), it can sometimes take a little time to populate the lists.

2. Locate the admin user (role, or group) whose configuration you want to browse.

3. Click the browse button (⊡) to display a list of the user configuration details that are available.

4. In the menu that is displayed, click the option that corresponds to the configuration details you want to display and browse. Note that some of the menu options might not always be available; the menu options displayed depend on the type of user you select. For more information about available menu options, see the table above.

Related Topics

- List All User Actions
- List All User Groups
- List All User Roles

All User Actions

You can view a list of the actions to perform on users; the type of actions available depend on the type of user object, on which you want to perform the action, for example: user, user role, or user group. The table below lists the actions you can perform on users, user roles, and user groups.

Actions Menu: Admin User, User Role, or User Group

Action	Description
View	View a detailed description of the configuration of the selected user, user role, or user group.
Edit	Modify the configuration of the selected user, user role, or user group.
Copy…	Displays the **Properties** dialog, which enables you to make a copy of the selected user, user group or user role. Copies do not include any assignments that are defined for the original users, user groups or user roles, for example, node groups and message groups.
Copy with assignments…	Displays the **Properties** dialog, which enables you to make a copy of the selected user, user group or user role including any assignments that are defined for the original user, user group or user role, for example: node groups and message groups.
Assign to group…	Displays the user group selection dialog, which enables you to assign the selected user to a specific user group.
Assign to user groups…	Displays the user group selection dialog, which enables you to assign a user role to a specific user group.
Assign Users…	Displays the admin-users selection dialog, which enables you to assign a user to a specific user group.
Assign Roles…	Displays the admin-users selection dialog, which enables you to assign a user to a specific user role.

Actions Menu: Admin User, User Role, or User Group, continued

Inform Users...	Displays the message dialog that enables you to send information to other users.
Delete...	Delete the selected user, user role, or user group.
Delete User's Locks...	Delete the locks that exist for objects that a user is currently editing, for example: policies, node groups, and so on. For more information about displaying a list of the objects that a user has locked, see List user locks.
Download...	Download the configuration of the selected user, user role, or user group to a file.
Inform User...	Enables you to send a text message to a selected user, members of a user group, or all currently logged on HP Operations Manager users. Individual users can display a list of all the messages they have received using the List Notifications" feature.
Disable User	Prevent the selected user from logging in to HP Operations Manager or starting a browser session.
Enable User	Allow the selected user or users to log on to HP Operations Manager or start a browser session.

To display a list of user actions

To display a list of the actions you can perform on the selected user, user role, or user group:

1. In the Admin **Browse** menu, click **All Users**, **All User Roles** or **All User Groups**. Note that if there are many users, it can sometimes take a little time to populate the lists.

2. Locate the admin user (role, or group) on which you want to perform an action.

3. Click the actions button ( ) to display a list of the actions available.

4. In the menu that is displayed, click the action you want to start. For more information about available actions and what they do, see the table above.

Related Topics

- Browse User Configuration Details
- List All User Groups
- List All User Roles
- Send user a message
- List user-notification messages
- List user locks

Edit User Settings

The **Edit User Settings** page displays parameters for existing users and enables you to modify the settings. Not that users must belong to a user group in order to be able to perform the tasks and actions defined in the user role assigned to the user group. The following table explains what information you

enter in each of the fields in the Edit User Settings page. Note that, in the user interface, a blue asterisk (*) indicates a field where information is required.

Admin: Edit User Settings

Field Label	Description of Contents	Information Required
Activate User	Enables you to activate or deactivate the newly added user. This check box is selected by default.	--
E-mail	E-mail address for the newly added user.	--
Label	The label to apply to the user you want to create or modify. If defined, the label is used to represent the user in user lists throughout the user interface.	--
Real Name	The real name of the user you want to create or modify. The name you enter in the Real Name field is used, where appropriate, in user lists in the user interface.	--
Description	A short description of the user you are creating or modifying; the description serves to remind administrators what type of user it is.	--
Password	The password the user must enter to log on. The password must be at least 6 and at most 32 characters long. If the user is an HPOM operator, the password allows the user to log on to HPOM; if the new user is a HP Operations Manager administrator, the password allows the user to log on to the HP Operations Manager Administration UI.	✔
Confirm Password	Re-enter the same password you entered in the Password field.	✔

To modify a user

To modify an existing user and apply the configuration, perform the steps described below.

1. Click the Admin icon in the tool bar to set the data context to "Admin".

2. In the Admin **Browse** menu, click **All Users**. Select user you want to edit or modify. From the **Actions** menu click the **Edit...** option.

3. Enter information in the fields presented in the **Properties** tab.

   The **Properties** tab define details concerning the user's name, password, and user type, for example: HPOM operator or HPOM policy administrator.

4. Save or discard the details of the user using the following buttons:

   ○ **Save**

   Checks that you have supplied all required information and, if not, indicates with a red exclamation mark (!) where further information is required. If all the required information is present and correct, saves the new user definition.

   ○ **Backup**

Makes a backup of the data entered so far during the current editing session. You can assign a name to the backup file and use the **Restore** button to recall this backup version at a later point in time and continue working on it.

- ○ **Restore**

    Displays a list of the previously saved restore points which you can use to select and recall a backup version of the node hierarchy configuration (if any exists) that you made by clicking the **Backup** button. For more information about displaying a list of all the restore points made by the currently logged-on user, see List all restore points (backups).

- ○ **Cancel**

    Discards all the information you enter about the new user.

Related Topics

- Add a New User
- Add a New User Role
- Add a New User Group

Assigning Users to User Groups

Users must belong to at least one user group in order to inherit the roles and responsibilities assigned to members of the group. The roles and responsibilities granted to a user group determine which menu options users in the group can see and, as a consequence, the actions they can perform. A user who does not belong to any user group cannot perform any actions or tasks. For example, you can define a user group whose members are allowed to manage databases or access specific HPOM nodes and HPOM message groups on a particular server.

To assign a user to a user group

To assign a user to a user group so that the new user inherits all the rights and responsibilities defined for the user group, perform the steps described below:

1. Click the Admin icon in the tool bar to set the data context to "Admin".
2. In the admin **Browse** menu, click **All Users**.
3. In the list of user displayed, click the check box next to the user you want to assign.
4. In the **Choose an action** drop-down menu at the bottom of the list, select the option **Assign to Group…**.
5. In the list of user groups that displays, browse to and select the user group to which you want to assign the user.
6. Click **OK**.

Related Topics

- List User Groups
- List User Roles
- Assign User Roles
- Understanding User Concepts

All User Groups

The **All User Groups** page displays a list of the user groups configured on the currently selected server. A user group is a logical collection of users to which you assign a user role, which defines the rights and responsibilities given to the members of the user group. Note that you can use the **sort** feature to display the contents of the list by name, label, type, and so on. You can also apply a **filter** to restrict the number and type of objects in the list. If the list is long, you can use the index to **page** through the contents quickly and easily.

The information in the All User Groups page is displayed in a table with the following information:

List of User Groups

Column Title	Description
All	Check boxes to enables you to select one or more user groups on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Assign to roles..." and "Assign to users...".
Description	Displays a short description of the listed user group, which allows the administrator to determine details such as user and user-role assignments.
Label	Represents the user group in user group lists throughout the user interface.
Name	Shows the name of the user group. Click the user-group name to display more detailed information about the selected user group. Click the browse or action icon next to the user-group name for menus that enables you either to display more information about the user group or perform an action on the user.
Users	Indicates whether the user group contains at least one user.
User Roles	Indicates whether the user group have assigned at least one user role to.

To display a list of User Groups

To display a list of all the user groups configured on the HP Operations management server:

1. Click the Admin icon in the tool bar to set the data context to "Admin".
2. In the **Browse** menu, click **All User Groups**. Note that if there are many user groups, it can sometimes take a little time to populate the lists.

Related Topics

- Sorting Object Lists
- Filter Object Lists
- Assign User Roles
- List all Users
- List all User Roles

- Display User-group Actions
- Browse User-Group Configuration Details

Displaying User Group Details

The **User Group Details** page displays detailed information about the configuration of an individual user group. The information in the User Group Details page is displayed in a table with the following information:

User-Group Details

Attribute	Value
Name	The name defined for the displayed user group, for example: "Administrators". The name is used to represent the displayed user group in the interface, for example in lists.
Label	If defined, the label is used in preference to the user-group name to represent the selected user group in the user interface.
Description	A short description of the selected user group, for example: "Manages Linux node groups".

To display details of a selected user group

To display a detailed description of a selected user group, perform the following steps:

1. Click the Admin icon in the tool bar to set the data context to "Admin".

2. In the **Browse** menu, click **All User Groups**.

3. Click the actions button ( ) to display the actions menu for the user group whose details you want to display and check, and click **View**.

Related Topics

- Assign User Roles
- List All Users
- List All User Groups
- List All User Roles

All User Roles

The Admin **All User Roles** page displays a list of the user roles configured for the server. User roles are preconfigured user definitions which you assign to user groups in order to specify the rights and responsibilities that users who belong to the user group have. Note that you can use the **sort** feature to display the contents of the list by name, label, type, and so on. You can also apply a **filter** to restrict the number and type of objects in the list. If the list is long, you can use the index to **page** through the contents quickly and easily.

Available check boxes enable you to select all or individual user roles on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Add user role", "Assign to user group", "Deassign from user group", and "Delete".

The information in the All User Roles page is displayed in a table with the following information:

List of Admin User Roles

Column Title	Description
Name	Shows the name of the user role. Click the user role name to see more detailed information about the selected user role. Click one of the icons next to the user name for menus that enables you either to display more information about the user or perform an action on the user.
Description	Displays a short description of the listed admin user role, which allows the administrator to determine what user tasks the user role is intended to define.
Label	Represents the user role in user role lists throughout the user interface.

To display a list of user roles

To display a list of all the user roles configured on the HP Operations management server:

1. Click the Admin icon in the tool bar to set the data context to "Admin".

2. In the **Browse** menu, click **All User Roles**.

   Note: If there are many user roles, it can take a little time to populate the lists.

Related Topics

- Assign User Roles
- List all Users
- List all User Groups
- Display User-group Actions
- Browse User-Group Configuration Details

Display User Role Details

The **User Role Details** page displays detailed information about the configuration of an individual user role. The information in the User Role Details page is displayed in a table with the following information:

User-Role Details

Attribute	Value
Name	The name defined for the displayed user role, for example: "Linux manager". This the name used to represent the displayed user role in the interface, for example in lists.

User-Role Details, continued

Label	If defined, the label is used in preference to the user-group name to represent the selected user group in the user interface.
Description	A short description of the selected user role, for example: "Manages Linux node groups"

The User Role Details page also displays information concerning the rights assigned to both the roles and the users associated with the selected user role, for example:

- **Global Rights**

  Rights are assigned to a user by means of a user role which is associated with the user group to which the user belongs. The list of global rights indicates what a user can do, for example; which servers the user can see, modify, or manage, and what type of access the user has: R (read), C (create), M (modify), D (delete), A (assign), and E (execute). Note that the rights assigned to a user at a "global" level are passed on to objects at a more specific level, unless specifically excluded, for example: by means of a filter.

- **Specific Rights**

  Indicates the areas to which the user role grants access, for example: HP Operations management servers, configuration objects, and any filtered objects. The information also shows how any rights granted at the global level are restricted for specific objects and indicates what type of access the user has to the specified objects: R (read), C (create), M (modify), D (delete), A (assign), and E (execute).

To display details of a selected user role

To display a detailed description of a selected user role, perform the following steps:

1. Click the Admin icon in the tool bar to set the data context to "Admin".

2. In the **Browse** menu, click **All User Roles**.

3. In the **Name** column, either click the link that corresponds to the user role whose details you want to display and check, or click the actions button (⚙) to display the actions menu, and then click **View**.

Related Topics

- Assign User Roles
- Assign Users
- List All User Roles
- List All Users
- List All User Groups

Assigning User Roles to User Groups

User roles are preconfigured user definitions which you assign to user groups in order to specify the roles and responsibilities for all existing members of the group and any users who join the group at a later stage. The roles and responsibilities granted to a user determine which menu options users can see in the user interface and, as a consequence, the actions they are allowed to perform. For example, you can define a user role that allows members of a particular user group to manage databases, access

only HPOM nodes and HPOM message groups, or maintain objects on a particular server. When you assign the new user role to a user group, all members of the user group inherit the rights and responsibilities specified in the user role.

To assign a user role to a user group

To assign a user role to a user group so that all existing and future members of the group have the rights and responsibilities defined in the user role, perform the steps described below:

1. Click the Admin icon in the tool bar to set the data context to "Admin".

2. In the admin **Browse** menu, click **All User Roles**.

3. In the list of user roles displayed, click the check box next to the user role you want to assign.

4. In the **Choose an action** drop-down menu at the bottom of the list, select the option **Assign to user groups...**.

5. In the list of user groups that displays, browse to and select the user group to which you want to assign the user role.

6. Click **OK**.

Related Topics

- List User Roles

- List User Groups

- Assign Users

- Understanding User Concepts

All Locks

The **All Locks** page displays a list of the locks that exist on objects which users are currently modifying. Whenever the Edit function is used on any HPOM object, the Administration UI creates a lock on this item. These locks are stored in the Administration UI.

> **Note:** Sometimes the lock exists even though the editing session is ended, because this session is finished by closing the Edit window or by using the back button of the web browser. To prevent this from happening, make sure that you use the Cancel or the Save button instead.

If you attempt to modify an object which is locked by another user, a warning message is displayed. Choose one of the following options:

- View object:

  View object in read-only mode; the original lock remains unchanged. Use this option to view the contents of an object and determine the object status. If necessary, you can ask the administrator to find out who is modifying the object and remove the lock to enable further modifications by other users.

- Edit object:

  Reset the lock and display the object in edit mode; the new user is now the owner of the object lock. Note that this option is to be used with care; resetting an object lock and modifying the object can lead to the corruption or loss of data if the original lock owner is still working on that object. (Note:

This option is only available if the current users user role has the create right set on objects of object class lock.

> **Note:** When editing and saving the changes might cause the other user's configuration to be overwritten, a corresponding warning message is displayed.

- Cancel:

Cancel the modification request; the object is not displayed and the owner of the original lock remains unchanged.

> **Note:** You can use the **sort** feature to display the contents of a list by object name, label, type, and so on. You can also apply a **filter** to restrict the number and type of objects in the list. If the list is long, you can use the index to **page** through the contents quickly and easily.

The information in the All Locks page is displayed in a table with the following information:

List of Locks

Column Title	Description
All	Check boxes to enables you to select all or individual locks on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Delete...".
ID	The unique ID for lock identification from the list of all locks.
Name	The lock name is the name given to the lock as it appears in the file system.
Server	Shows the name of the server where the object is being modified.
Type	Type of the locked objects.
User	Shows the name of the Admin user who owns the listed lock.
Object Class	Shows the class of the object which is locked.
Since	The time stamp of the listed lock, for example: 2006-10-19 17:36:21.160
Version	Version of the locked objects.

To display a list of object locks

To display a list of all the locks that exist for objects that belong to the server:

1. Click the Admin icon in the tool bar to set the data context to "Admin".
2. In the **Browse** menu, click **All Locks**. Note that if there are many locks, it can sometimes take a little time to populate the lists.

To remove an object lock

Sometimes it is useful to remove the locks, for example, on Monday morning when you are sure that no one is logged on yet.

To remove those lock files manually, follow these steps:

1. Select the Admin icon from the Toolbar menu.

2. From the **Browse** menu select **All Locks**. All locks are displayed.

3. Enable check boxes of those locks you want to remove.

4. Select **Delete...** from the Actions menu.

> **Tip:** To remove all locks click the first check box on the top left. By doing so, you enable all other check boxes.

Related Topics

- Sorting Object Lists

- Filter Object Lists

- List all Tasks

All Restore Points

The **All Restore Points** page displays a list of the backup copies of objects edited by the currently logged-on user. A restore point marks the point in time when a user makes a temporary backup of the object being modified (for example, a policy). You can use list restore points to restore an editing session, for example, after an editor session is canceled by any means other than clicking the **Save** or **Cancel** buttons. You can create a restore point at any time by clicking the **Backup** button when editing an object such as a message source policy. You can restore a backup copy of an object at any time by clicking the **Restore** button and selecting the object you want to restore. The backup copy of the object is displayed in the original editor in which it was saved.

The information in the **All Restore Points** page is displayed in a table with the following information:

List of Saved Restore Points

Column Title	Description
All	Check boxes to enables you to select all or individual restore points on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Delete...". Note that the delete function is also available from the actions menu, which you can display by clicking the (🔵) button.
Object Class	Type of object you were editing when you created the restore point, for example, a message source policy.
Name	Name assigned to the restore point; the name should give an idea of the restore point's subject matter, for example: what type of objects was being edited when the restore point was created (policy, policy groups).
Creation Date	Time and date when the restore point for the backup was created.
Editor Session ID	Identifying number for the editor used to save the restore point.
Description	Short explanation of the object for which the restore point was made.

List of Saved Restore Points, continued

Type	Type of the restored object.
Version	Version of the restored object.

To display a list of Restore Points

To display a list of all the restore points saved by the currently logged-on user:

1. Click the Admin icon in the tool bar to set the data context to "Admin".
2. In the **Browse** menu, click **All Restore Points**. Note that if there are many restore points, it can sometimes take a little time to populate the lists.

Related Topics

- Sorting Object Lists
- Filter Object Lists

Notifications

List all the notification messages sent to the user running the current browser session.

The information in the **Notifications** page is displayed in a table with the following information:

List of Notifications

Column Title	Description
All	Check boxes to enable you to select all or individual user notification messages on which you want to perform an action using the "Choose an action" drop-down menu at the bottom of the table, for example: "Add...", and "Delete...".
Time	The time and date when the notification arrived, for example: "Mar 24, 2009 7:05:10 AM".
User	The name of the user to whom the message was sent, for example: "admin".
Message	The text of the notification message that was sent, for example: "Outage planned for 10:00 today, Tuesday, 24/03/2009".

To display a list of notification messages

To display a list of all the notification messages for the currently logged-on user:

1. Click the Home icon in the tool bar to set the data context to "Home".
2. In the **Browse** menu, click **Notifications**.

Related Topics

- Send user a message
- List available HPOM users

Analyze Menu

The Analyze menu enables you to manage the users and user roles defined in the HP Operations Manager environment. For example, you can list all users that do not belong to a user group, or all user groups that do not contain any users. You can also display all user groups that do not have any assigned user roles. The Admin:Analyze menu displays the following options:

Admin Menu: Analyze

Menu Option	Description
Users without Group Assignments	Displays a list of users without any group assignments, that is: all users who do not belong to any user group.
User Groups without Users	Displays a list of user groups that do not contain any users, that is: all user groups to which no users have yet been assigned. User groups are logical collections of users, who assume the rights and responsibilities that the group defines by means of user roles.
User Groups without Role Assignments	Displays a list of user groups to which no user role (or roles) have yet been assigned. User roles are preconfigured user definitions which you assign to user groups in order to specify the roles and responsibilities for all the users who belong to the user group. The roles and responsibilities granted to a user determine the objects and menu options that the users can see.
User Roles without Group Assignments	Displays a list of user roles that have not yet been assigned to any user group. User roles are preconfigured user definitions which you assign to user groups in order to specify the roles and responsibilities for all the users who belong to the user group. The roles and responsibilities granted to a user determine the objects and the menu options that the users can see.

Related Topics

- The Admin:Edit Menu
- The Admin:Browse Menu
- The Admin:Servers Menu

Servers Menu

The Admin **Servers** menu enables you to view and maintain the HP Operations management server, which is available as a data source for the web application you are logged on to. Assuming you have the appropriate user rights and responsibilities, you see the following configuration option in the Admin Servers menu:

Admin Menu: Servers

Menu Option	Description
< *ServerHostName* >_server	Shows the currently selected and active HP Operations management server. The Administration UI supports only one HP Operations management server session at a time.

Related Topics

- The Admin:Edit Menu
- The Admin:Browse Menu
- The Admin:Analyze Menu