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WHAT YOU NEED TO KNOW. **WHEN** YOU NEED TO KNOW IT.

User's Guide

Meta-View Performance Manager

Meta-View Web & Alert Clients

Document Information

Meta-View Performance Manager Web version B.04
Meta-View Performance Manager Alert version A.01
User's Guide to Meta-View Web and Alert
Revised 12/09/2004

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Meta-View Suite Overview

Meta-View Performance Manager Suite

Introduction

Meta-View Performance Manager suite (**Meta-View**) by Lund Performance Solutions is an executive information system that utilizes *agents* to deliver computer performance and operational data instantaneously over the Web for use by powerful client software running anywhere on the internet. **Meta-View** provides what you need to know, when you need to know it.

NOTE Meta-View enables the user to monitor a multi-platform environment from a single client application on a single computer.

Meta-View Agents

There are **Meta-View** agents for five different operating systems:

- HP-UX
- Linux
- MPE
- Solaris
- Windows

Each provides different data, according to what is available on the operating system. However all of them provide certain basic data items, such as system-wide CPU usage. For more information a specific agent, consult the User's Guide for that agent.

Meta-View Clients

The **Meta-View** clients request data from the agents, and display or process the data. There are four **Meta-View** clients.

Meta-View Web

Meta-View Web is a Java client that can display data from multiple hosts of various types in a single chart. There may be multiple charts on a page, and multiple pages. The pages are completely configurable. However there are default pages supplied with Web that provide immediate usability. The default pages provide quick drill-down from an enterprise-wide view to a single problem process on a single system.

Meta-View Web runs on Linux, Windows, HP-UX, and Solaris.

Meta-View Alert

Meta-View Alert is a Java client that monitors multiple hosts and sends alerts such as email messages based on configurable conditions. Meta-View Alert can run on any machine that supports Java applications. It is a flexible, lightweight client, designed for monitoring status and flexible alerting. It comes pre-configured with sample alert rules, making it easy to use right out of the box.

Each instance of Meta-View Alert monitors up to 100 multiple-platform host systems and is particularly useful for system administrators who wish to manage by exception. Meta-View Alert retrieves data in real-time from the monitored hosts and notifies of any exceptional situations by using a flexible alerting mechanism.

Meta-View Alert runs on Linux, Windows, HP-UX, and Solaris.

Performance Gallery Gold

Performance Gallery Gold provides trending and presentation quality graphics. Like **Meta-View Web** it can show real-time data, but its strength is in displaying large amounts of historical data. It is an excellent tool for examining long-term performance trends.

2

Installation & Setup Instructions

This chapter provides information about the architecture and installation of the Meta-View Performance Manager Web and Alert clients.

Installation of Meta-View Web

To install Meta-View Web follow the next steps:

1. If Meta-View Web will be installed on a system running Windows XP/2000 or Windows Server 2003, be sure that the user that performs the installation has administrator rights.
2. Close any other applications on the PC on which the installation will be performed. This includes the Office Toolbar as well as any anti-virus software.
3. Insert the Meta-View Performance Manager Product CD into the CD-ROM drive. If AutoPlay is enabled on the CD-ROM drive, the main menu of the Product CD will appear in an Internet Explorer window.
4. If the main menu of the Product CD is not displayed, open Windows Explorer to view the contents of the CD-ROM drive. Double-click on the index.html file in the CD-ROM's primary folder to open the main menu.
5. Click on the "Install Meta-View Web" link to start the installation program.
6. Another dialog may pop up from Internet Explorer asking if you would like to open/run the program or save it to disk. If this happens, select the Open/Run option and click on OK in that dialog.
7. An additional dialog may pop up, reporting a security warning with the information that the Authenticode signature was not found. If this warning occurs, click on Yes to run the installation program.
8. The installation program will start.
9. Follow the installation steps in the program wizard to place Meta-View Web on the computer.
10. Congratulations! Meta-View Web is now installed and ready to run.

NOTE The installation program may be displayed under the other program windows on the desktop. To prevent confusion between the installation program activity and other applications, minimize or close any other open windows while performing the installation.

Meta-View Web for UNIX Installation

Follow these instructions to install Meta-View Web client on your UNIX system:

1. `cd` into the directory containing the Meta-View Web for UNIX install files:
   ```
   cd /mnt/cdrom/Meta-View_Web/UNIX/
   ```
2. Run the install script with the command:
   ```
   ./install.sh
   ```

Follow the on-screen instructions described in the following steps:

3. At the prompt:
   ```
   Enter fully qualified path for mvweb :
   ```

Enter the complete path (beginning with a "/") for the directory where mvweb will reside. For example: `/opt/mvWeb`. The default path it is "`~/mvWeb`".

NOTE If you install into a shared directory, changes made by each user (to preferences or to page configurations) will be saved in the shared area, and will affect all users.

4. If the path does not already exist, the following prompt appears:
   `PATH doesn't exist. Do you want to create it?`
   Enter "Y" to create the installation directory.
5. If the path does exist, the following prompt appears:
   `PATH directory exists. Overwrite it?`
   Enter "Y" to overwrite the current contents of the directory.
6. Meta-View Web will be installed in the directory you specified. On completion, the following message should appear:
   `Meta-View Web installed successfully.`
7. To run Meta-View Web, use the startup script:
   `mvWeb.sh`

Architecture of Meta-View Alert

Meta-View Alert Service (or, on UNIX, the Daemon) runs in the background and continuously polls the monitored hosts for data to check its list of alert rules. When one of the alert rules is triggered, the Meta-View Alert Service executes one or more actions (e.g. sends an email, runs a specified script).
Meta-View Alert Configurator is used to specify which hosts to monitor, what alert items should be watched and what actions the Meta-View Alert Service should take when an alert rule is triggered.

Logging

You may check the Meta-View Alert Service activity by watching the log files located in the `log` folder of the installation directory. The log files are in HTML format, and can be viewed with a web browser of your choice. Meta-View Alert logs three types of events:

1. Alert events: generated each time a Meta-View Alert rule is triggered. Alert events are logged in the `alert.html` file.
2. Access events: generated each time Meta-View Alert retrieves data from a host. Access events are logged in the `access.html` file.
3. Error events: generated when Meta-View Alert encounters an exceptional situation (e.g. can not retrieve data from a certain host, the alert item requested is invalid etc.). Error events are logged in the `error.html` file.

Installation of Meta-View Alert

Windows Platform

To install Meta-View Alert:

1. From the product CD, open the Meta-View Alert folder.
2. Double-click `Setup.exe` and follow the on-screen instructions.

Windows Service Installation versus System Tray Installation

Meta-View Alert for Windows can be installed either as a Windows Service or as an ordinary application running in the Windows System Tray.

The benefit of installing Meta-View Alert as a Windows Service is that the application will continue running even when the current user logs off and another user logs on. As a Windows Service, Meta-View Alert will automatically start each time Windows starts up. When installed as a Windows Service, Meta-View Alert can be controlled from the Windows Start menu, by selecting **Programs > Meta-View Alert > Meta-View Service Start/Stop/Restart**. The Configurator can be launched by selecting **Programs > Meta-View Alert > Meta-View Alert Configurator**. For configuration changes to take effect, the Meta-View Alert Service must be stopped and restarted.

The other option is to install Meta-View Alert as an application running in the Windows System Tray. Installing as a System Tray application has two benefits:

1. Configuration can be done by right-clicking on the system tray icon and selecting **Configure Meta-View Alert**. Configuration changes are immediately applied; there is no need to restart the application.
2. Meta-View Alert will pop up a system tray balloon each time an alert condition is met, showing useful information about the host that generated the alert.

Unix Platforms

The following instructions will guide you through the installation and setup of Meta-View Alert on your Unix system.

Extracting the Setup Program from the Product CD

To extract the Meta-View Alert program:

1. Login with your user name, or with a user that has the right to mount the CD-ROM drive. If you are not sure whether you have the right to mount the CD-ROM drive, please ask your system administrator for assistance.
2. Insert the Meta-View Performance Manager Product CD into the CD-ROM drive.
3. Mount the product CD under a directory of your choice.
   Check to see if the `/cdrom` directory exists:

   ```
   ls -d /cdrom
   ```

   If the `/cdrom` directory does not exist, create it:

   ```
   mkdir /cdrom
   ```

   Mount the CD using the device file for the CD-ROM drive:

   ### HP-UX/Solaris

   ```
   mount -F cdfs <device file name> /cdrom
   ```

   The device file name is `/dev/dsk/c0tXd0`, where `X` is a number such as 2 or 6. You can use the following command to discover the correct device file for the CD-ROM on your system:

   ```
   /sbin/ioscan -knfC disk
   ```

   Find the entry described as a CD-ROM drive; the device file will be listed on the line below it.

   ### Linux

   Most of the recent Linux distributions will automatically mount the CD. The mount point is often `/mnt/cdrom` or `/media/cdrom`. If your mount point is `/mnt/cdrom`, enter the following command:

   ```
   mount /mnt/cdrom
   ```

   Some distributions disable execute privileges on CD-ROM devices by default. To mount with execute permission at mount point `/mnt/cdrom`, issue the following command:

   ```
   mount -o exec /mnt/cdrom
   ```

   If your CD-ROM was not automatically mounted, enter:

   ```
   mount -t iso9660 -o ro /cdrom /mnt/cdrom
   ```

   where `/mnt/cdrom` represents the mount point of the CD-ROM.

   For more information about the mount command, please refer to your system documentation.
4. Create the directory where mvAlert will be installed, say `/opt/lps/mvalert`.
   ```
   mkdir /opt/lps/mvalert
   ```
5. Change the current working directory to `/opt/lps/mvalert`:
   ```
   cd /opt/lps/mvalert
   ```
6. Determine the install file name

```
ls /cdrom/Meta-View_Alert/*.gz
```

7. Use the `tar` command to extract the Meta-View Alert files from the product CD (insert the correct `tar` file name from the previous step)
   ```
   tar xzvf /cdrom/Meta-View_Alert/mvAlert-?.???.tar.gz
   ```
8. Congratulations! Meta-View Alert is now ready to start.

3

Startup & Configuration

This chapter provides information about startup and configuration of the Meta-View Performance Manager Web and Alert clients.

Startup of Meta-View Web

Meta-View Web can be started by either double-clicking on the desktop icon (if it was selected during the installation process) or by launching it from the Start menu (Start > Programs > Meta-View Web > Meta-View Web Application). The Meta-View Web splash screen will appear with the Lund logo at the top. After the splash screen closes, the Meta-View Web application window will be displayed.
As soon as the application window appears, a small dialog with a moving cursor with the words "Discovering new hosts. Please wait." in the center of it will be shown. This is displayed while Meta-View Web attempts to automatically find systems within the local area network running the Meta-View Performance Manager agents.
After the discovery dialog closes, the First Look page of Meta-View Web will be displayed and load information from the hosts that were discovered.
For more information on how host systems are found and how to manually add a host to the host list, see the Configuring Hosts section of this chapter.
To learn more about the charting system, pages, and how to set default hosts, see the Configuring Pages section of this chapter.

Configuring Hosts in Meta-View Web

Automatic Detection (Default Method)

As soon as Meta-View Web starts up and has closed the splash screen, a small dialog with a moving cursor and the words "Discovering new hosts. Please wait." will be shown in the center of the application window.

This is displayed while Meta-View Web is searching within the local area network for systems running the Meta-View Performance Manager agents.

The automatic detection process can also be launched at any time by selecting the Find Hosts option under the Edit menu.

Hosts that are detected during the search will be displayed under the Hosts tab in the left explorer view, both in the Host folder and placed in the appropriate folders based on operating system type.

NOTE The new host list will not be saved permanently until the Save button is clicked.
There are two perspectives related to this note:

If it is about a host list created by the user, then it is not saved for the next sessions of Meta-View Web unless the user click the Save button. Clicking only on Apply button, Meta-View Web will save it only for the current session. If it is about a "default" host list (for example HP-UX that uses the hosts of the HP-UX platform), then this is automated generated depending on the existent HP-UX hosts and its saving it's not a problem.

NOTE In order for a host to be monitored by Meta-View Web, it must have a Lund data provider agent running. The agents are started by the MVMONJ job stream for MPE/iX systems, in the MVDATAD daemon for UNIX systems, and in the MVDATASVC service for Windows systems. See the user's guide provided with the applicable MPE/iX, UNIX, or Windows versions of Meta-View Performance Manager for details.

Hosts that are not found during the automatic detection process are usually located on another subnet or otherwise removed from the current local area network. These hosts can be added manually, using a simple process described in the next section.

Manual Host Configuration

Any hosts that are discovered automatically or have been previously added and saved will be listed in the left explorer pane under the Hosts tab in the Host folder. If a host system is not on the list it can be added using the following steps:

1. From the Edit menu, select Hosts. The Host Editor dialog box will appear, allowing hosts to be manually added.
2. Click on the Add button to prepare to add a new host.
3. Fill out the requested information for the new host record:
    a. Name - The name to display on the screen for the host system.
    b. Internet Address - The domain name service (DNS) name or IP address of the host system.
    c. Port Number - The IP port used to communicate with the host system. If this has not been customized on the server, it should be left to the default value of 5381.
    d. Time-out (sec) - The amount of time to wait for a response from the host. This should be left at the default unless time out errors are encountered with the server.
    e. Color - The line color to use when displaying data from this host.
4. Click on the Apply button to add the new host to the current list.
5. Repeat steps 2 through 4 until all desired hosts have been added.
6. Click on the Save button to permanently save the host list.
7. Click on the Close button to exit the Host Editor.

Configuring Pages in Meta-View Web

Meta-View Web organizes the charts that it displays into pages of information. Only one page can be displayed at any time. Each page contains at least one chart.

NOTE Until a default host is specified for the CPU chart in the First Look page, that chart will be blank and show the message "Host error". This can be fixed by assigning a default host for the chart. To do this, see the Configuring Pages section of this document.

When Meta-View Web first starts, it displays the First Look page. This provides a general view of the processor utilization for all hosts in the lower chart, a list of all host alert messages in the upper right chart, and the processor utilization of a specific system in the upper left chart.
Initially, the upper left chart in the First Look page will display the warning message "Host error" at the top and contain no data. All charts that display data from a single system will initially give this message, as no host has been specified and the default host for those charts has not been set. It is recommended that default hosts be set for all pages that apply to monitored hosts. This includes the Second, Third, and Fourth Look pages.
To set the current host for a chart, drag and drop the host name from the left explorer view to the desired chart. To set the current host for all charts in an entire page, double click on the desired host in the left explorer view. This can also be set by dragging and dropping the host name from the left explorer view to the bar containing the page name at the top of the right chart area.
To add a host to a chart or page while keeping the old hosts, hold down the control (Ctrl) key while performing the drag and drop operation.
To set these selections as the default host(s) for the page, click on the Save Page icon on the toolbar or select the Save option from the File menu. If the selections are not saved, they will not be retained the next time that Meta-View Web is run.

Startup of Meta-View Alert

Windows Service

Starting the Meta-View Alert Configurator

You can start Meta-View Alert Configurator by either:

- Double-clicking the **Meta-View Alert Configurator** desktop icon, or
- From the Start Menu, select: **Programs > Meta-View Alert > Meta-View Alert Configurator**

For the changes to take effect remember to stop and restart the Meta-View Alert Service .

Starting the Meta-View Alert Service

- The Meta-View Alert Service is started automatically upon installation. You may achieve this by selecting **Programs > Meta-View Alert > Meta-View Alert Service Restart**.

To start manually… Windows System Tray Application

You can start Meta-View Alert in the system tray by either:

- Double-clicking the **Meta-View Alert** desktop icon, or
- From the Start Menu, select: **Programs > Meta-View Alert > Meta-View Alert**

The presence of the application is signaled by the Meta-View Alert icon appearing in the Windows system tray bar.

Figure 3.1 Windows system clock

The Configurator can now be started by clicking on the Meta-View Alert icon in the system tray and selecting **Configure Meta-View Alert**:

Figure 3.2 Meta-View Alert menu accessed at the Windows system tray

Unix

Starting the Meta-View Alert Configurator

Run the `mvalertc.sh` file, located in the installation folder (e.g. `/opt/lps/mvalert`). For the changes to take effect remember to stop and restart the Meta-View Alert Service.

Starting the Meta-View Alert Daemon

Run the `mvalertd.sh` file, located in the installation folder (e.g. `/opt/lps/mvalert`).

NOTE A 1.4.x compliant Java Runtime Environment needs to be installed on the machine that Meta-View Alert is running on. You can obtain a Java Runtime Environment for your platform at http://java.sun.com/j2se/1.4.2/download.html (for Linux and Solaris) or http://www.hp.com/products1/unix/java/ (for HP-UX).

Configuration of Meta-View Alert

The central concept of Meta-View Alert is the *alert rule*. The Meta-View Alert Configurator is designed to offer flexible and easy-to-use management of alert rules.
Meta-View Alert keeps its configuration files in the `conf` directory located in the installation folder. If you want to configure on one machine and run the Meta-View Alert Service on another, simply copy the contents of the `conf` folder from the first machine to the second.

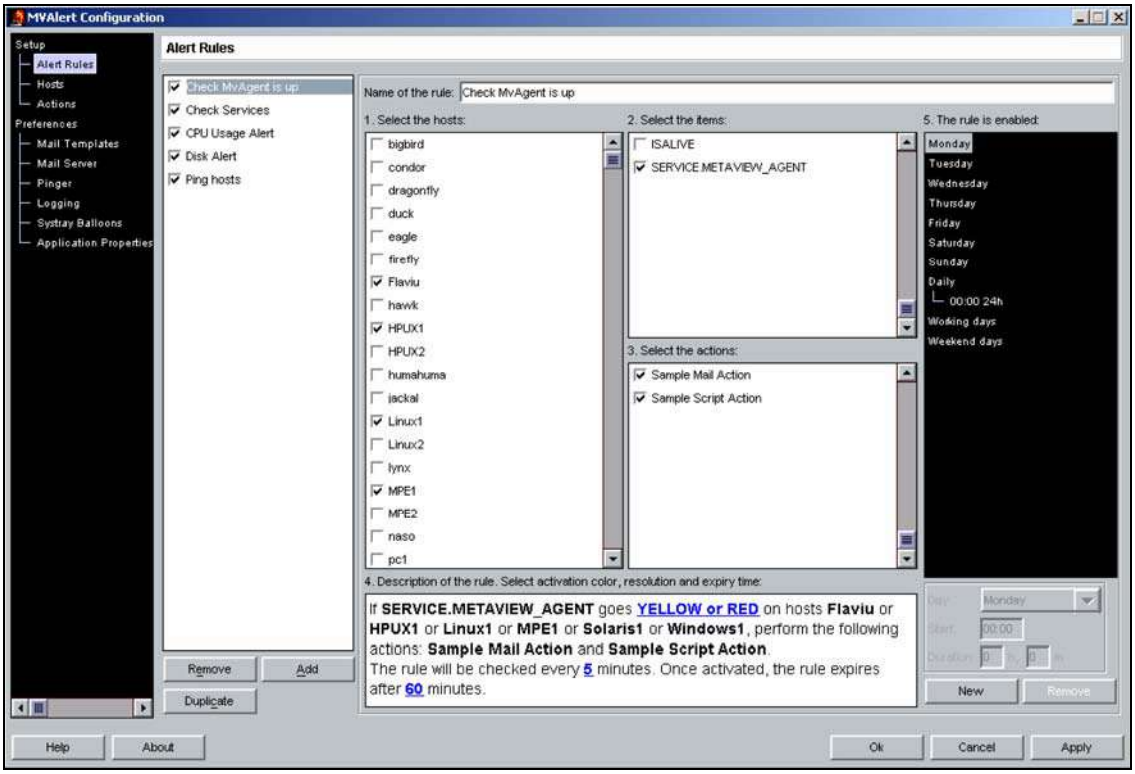


Figure 3.3 The Meta-View Alert Configurator dialog box

The first time you run Meta-View Alert Configurator you must:

1. Configure *hosts* that you wish to monitor.
2. Define *actions* to be taken when alert conditions are met.
3. Define the *alert rules* that describe alert conditions and the actions to take when the rules are met.
4. (Optional) Specify the SMTP server (for email alerts).

NOTE The following programs must be running on all hosts to monitor their performance data with Meta-View Web and Meta-View Alert:

1. `mvlogd` and `mvdatad` for UNIX systems
2. `MVMONJ` and `MVDATAJ` for MPE/iX systems
3. `mvlogsvc` and `mvdatasvc` for Windows systems

Configuring Hosts in Meta-View Alert

Select the **Hosts** item from the **Setup** section of the Configurator tree. This will bring up the **Hosts** panel, allowing you to manage the hosts you wish to monitor.

Auto-Detection of Meta-View Hosts

Press the **Detect New** button, located right below the host list. Meta-View Alert will attempt to automatically detect hosts from which it can retrieve performance data. It displays a dialog box with the

message *"Searching for new hosts…"* while auto-detection is in progress. Detected hosts will be displayed in the host list, located on the left side of the **Hosts** panel, above the **Detect New** button.

NOTE Auto-detection will succeed if the machine running Meta-View Alert is on the same subnet as hosts running mvdatad. Hosts not on the same subnet must be manually configured.

Importing Meta-View Web Hosts

Meta-View Alert is capable of importing and using the hosts defined in Meta-View Web. Thus, there is no need to duplicate the effort of defining hosts for users running both Meta-View Web and Meta-View Alert.

Press the **Import Hosts** button, located in the **Hosts** panel, right below the **Detect New** button. The **Import Meta-View Web Hosts** dialog box will appear, allowing you to specify the hosts file you wish to import. If Meta-View Web is installed on the same computer in the default installation folder, Meta-View Alert will automatically detect and try to use the `hosts.xml` file that contains information about Meta-View Web hosts.

If Meta-View Web is installed on a different computer or in a non-specific folder, simply point to the `hosts.xml` file located in the `lib` folder of the Meta-View Web installation and click **Import**. Meta-View Alert will extract the new hosts from the `hosts.xml` file and will automatically download the alert items defined for each of the newly added hosts.

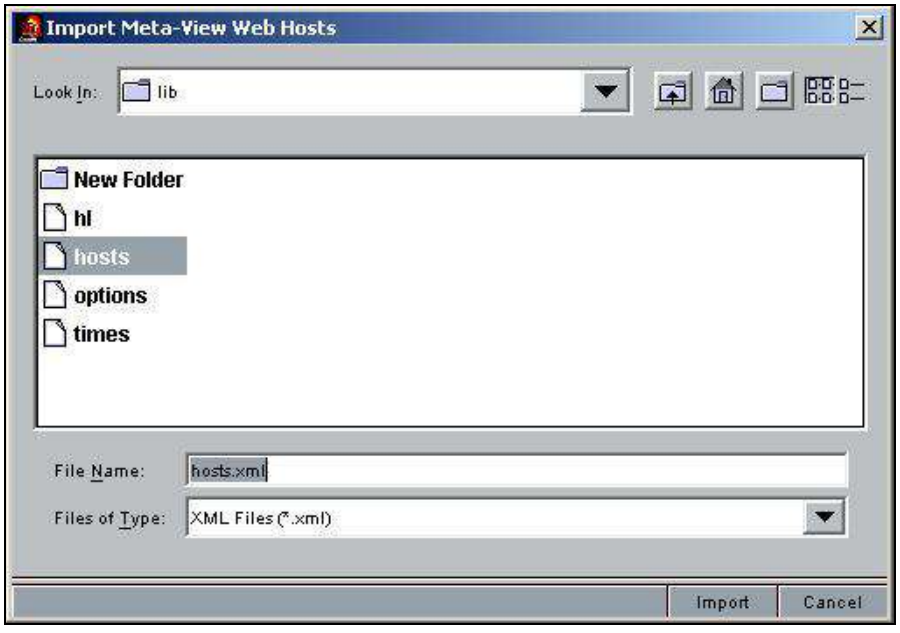


*Figure 3.4 The Import Meta-View Web Hosts Dialog Box. The **hosts.xml** file contains information about Meta-View Web hosts.*

Each time the Meta-View Alert Configurator is started up, examines for the **hosts.xml** file in the default installation folder, and informs you if new hosts have been found:

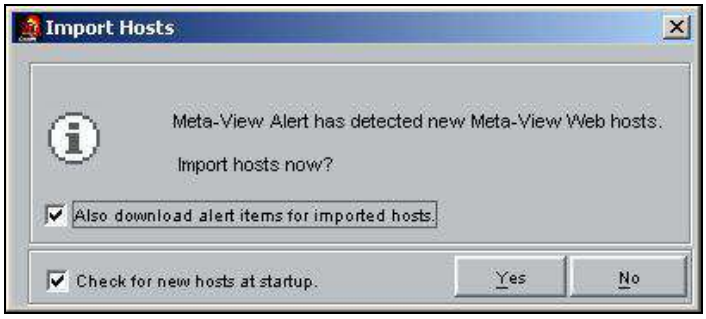


Figure 3.5 The Import Hosts dialog box.

Click **Yes** to import the newly found hosts. Click **No** if you do not want the newly found hosts to be imported. Un-check the **Check for new hosts at startup** checkbox to disable automatic lookup of new hosts at Configurator startup.

Manual Configuration of Hosts

In the **Hosts** edit panel, click **Add** and enter the information requested:

Field	Description
Name	The name of the host, as it will be displayed in the Hosts list and in alert rules.
Address	The fully qualified domain name for this host, or its IP address
MvAgent Port	The port number that is being used by the Meta-View Data Service on this host. The default port number for the Meta-View Data service is 5381.
Alert Items	Click the **Retrieve** button located below the Alert Items box in order the alert items for the corresponding host to be downloaded.
Additional available services	Check the corresponding available services (FTP, SSH, Telnet, SMTP, HTTP, POP3, IMAP) and enter information as requested for every service the user chooses.

Table 3.1Host's Parameters

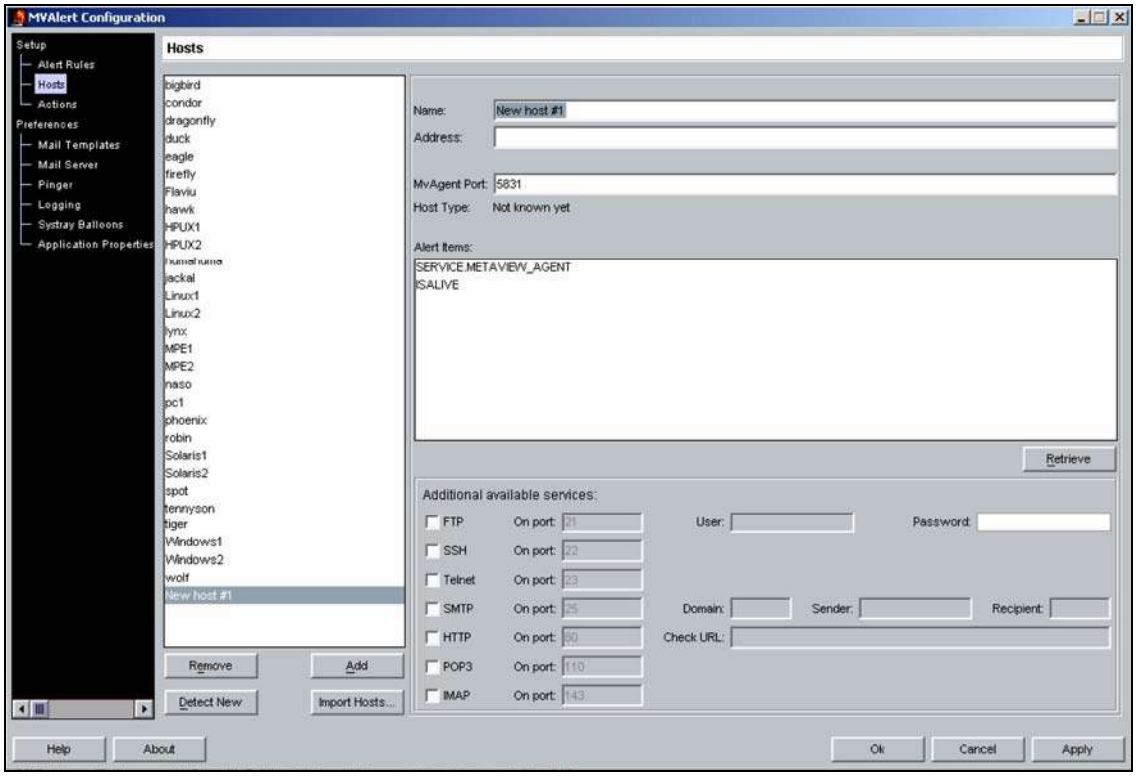


Figure 3.6 The Hosts edit panel -- adding a new host

Once you have entered the required information, click the **Retrieve** button (or press **Alt + R** shortcut keys) and the Meta-View Alert Configurator will download the alert data items from the newly-defined hosts. The newly downloaded items will be displayed in the **Alert Items** list box.

Configuring Actions in Meta-View Alert

Select the **Actions** item from the **Setup** section of the Configurator tree. This will bring up the **Actions** panel, allowing you to manage the Meta-View Alert actions when alert rules are triggered. Meta-View Alert supports two types of actions:

Mail Actions: an email is sent to a list of recipients when an alert rule is triggered. The list of mail actions is located under the **Mail** node of the **Actions List**.

Script Actions: a shell script is executed each time an alert rule is triggered. The list of script actions is located under the **Script** node of the **Actions List**.

Mail Actions

To add a new mail action, click on the **Mail** node of the action list (or on any other mail action), then click **Add** and enter the information requested:

Field	Description
Name	The name of the mail action, as it will be displayed in the action list and in the alert rules.
Email list	A comma (or semicolon) separated list of valid email addresses Meta-View Alert will notify when the alert rule is triggered (see Figure 3.7).

Message template	The content of the email message that Meta-View Alert will send when the alert rule is triggered.

Table 3.2 Mail Actions's Parameters

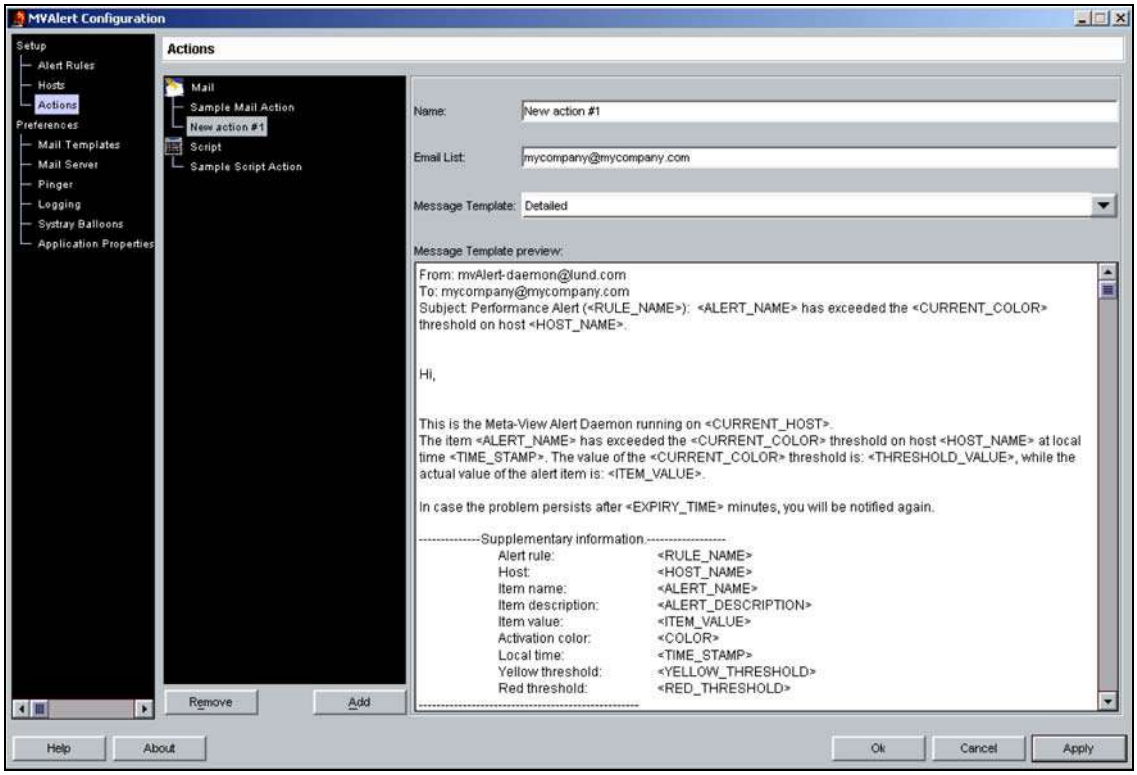


Figure 3.7 The Actions edit panel -- adding a new mail action

To modify a mail action, select it from the **Actions List** and enter the changes.

To remove a mail action, select it from the **Actions List** and click **Remove**.

Script Actions

To add a new script action, click on the **Script** node of the **Actions List** (or on any other script action), then click **Add** and enter the information requested:

Field	Description
Name	The name of the script action, as it will be displayed in the action list and in the alert rules.
Run Script	The name of the script that will be executed when the alert rule is triggered. Meta-View Alert is looking for scripts in the **script** folder, located in the installation directory (see Figure 8).

Script Parameters	Select the parameters that Meta-View Alert will pass on to the executing script. The listbox on the left shows the available parameters (e.g. the name of the alert rule, the time the rule has been activated, the value of the alert item which triggered the rule etc.), while the listbox on the right shows the parameters that have been selected for being sent. You can change the order of the parameters to be sent using the **Up** and **Down** buttons.

Table 3.3 Script Actions's Parameters

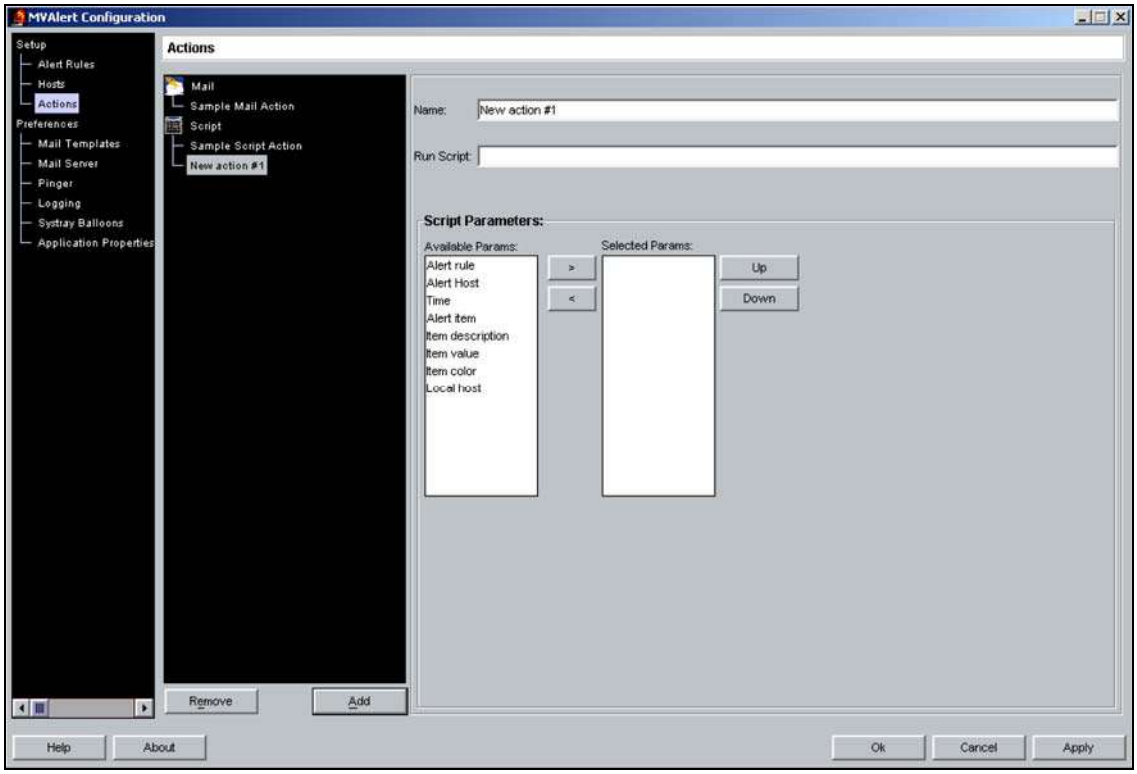


Figure 3.8 The Actions edit panel -- adding a new script action

To modify a script action, select it from the **Actions List** and enter the changes.

To remove a script action, select it from the **Actions List** and click **Remove**.

NOTE Changes you make in the action editor are permanently saved only after clicking **Apply** or **Ok** inside the Configurator window.

Configuring Alert Rules

Select the **Alert Rules** item from the **Setup** section of the Configurator tree. This will bring up the **Alert Rules** panel, allowing you to manage the essence of Meta-View Alert: the alert rules.

You can move between alert rules by clicking on the alert rule name in the **Alert Rules List**. When selecting a rule, the information such as host(s), item(s), action(s) and the intervals when the alert rule is enabled are displayed selected as they were defined in every related list. Also the detailed narrative description of the rule is displayed in the **Rule Description** text box. By clicking on the hyperlinks inside the description you may adjust some parameters of the rule, like the activation color, resolution and expiration time.

You can remove an alert rule by clicking the **Remove** button located on the upper-right side of the Alert Rule panel.

To duplicate an existing alert rule, select it in the **Alert Rules List**, and click **Copy**. You may then adjust the newly created rule.

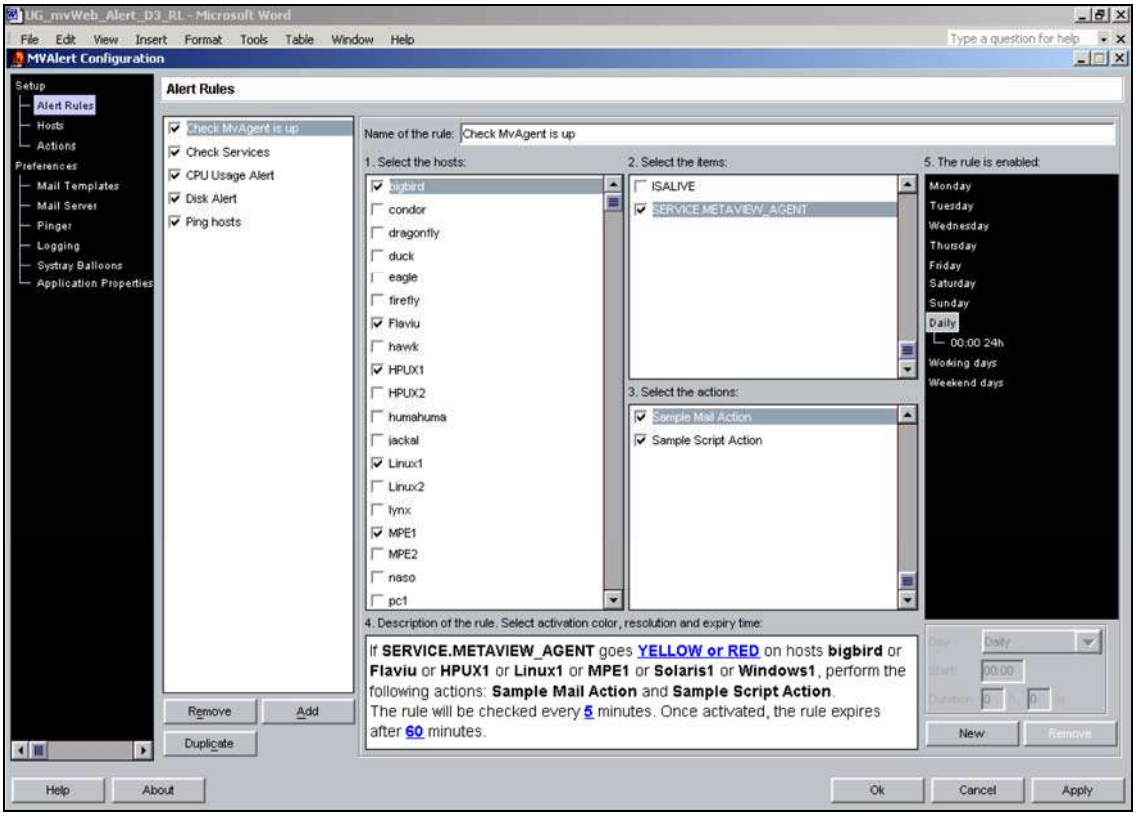


Figure 3.9 The Alert Rules edit panel

4

Meta-View Web Quick Tour

The Meta-View Web client is based on Java technology. Lund supports it to run on these platforms: HP-UX, Linux, Solaris and Windows. It is an accommodating, lightweight client, designed for monitoring status and flexible alerting. It comes pre-configured with sample alert rules and default pages, making it easy to use right out of the box.
Meta-View Web displays real-time performance data from as many as 100 multiple-platform host systems in a variety of easy-to-read pages. Each page has one or more 2D or 3D graphs and/or tables designed to provide a wealth of systems information without overwhelming the user.
Meta-View delivers comprehensive data in uncluttered pages with details on demand. In four clicks, you can drill down from 100 multi-platform host systems to a single system, to a single resource, to the problem process. This chapter provides information about getting started using the Meta-View Web product.

Automatic Host Discovery

When the user first launches the Meta-View Web software, the Automatic Host Discovery feature is turned on. This feature enables Meta-View Web to search the local segment of the subnet and identify hosts on that local segment that are running a Meta-View agent.

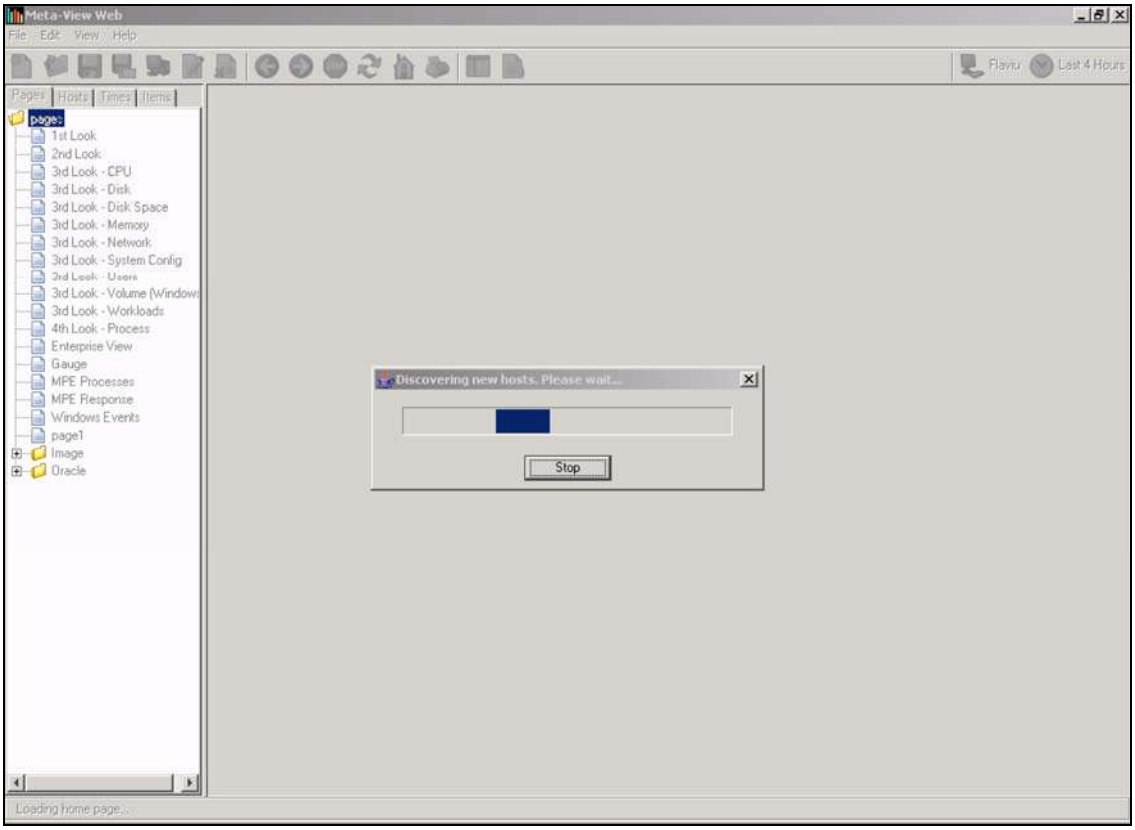


Figure 4.1 Meta-View Web: Automatic Host Discovery

Disabling Automatic Host Discovery

After launching the program for the first time, it is not necessary to have Meta-View Web conduct its automatic host discovery. From the Edit Menu select Options. In the Options Editor dialog box there is a check box in the bottom section that is labeled 'Enable Automatic Host Discovery'. With the box unchecked, Meta-View will no longer automatically check for hosts when the software is launched.

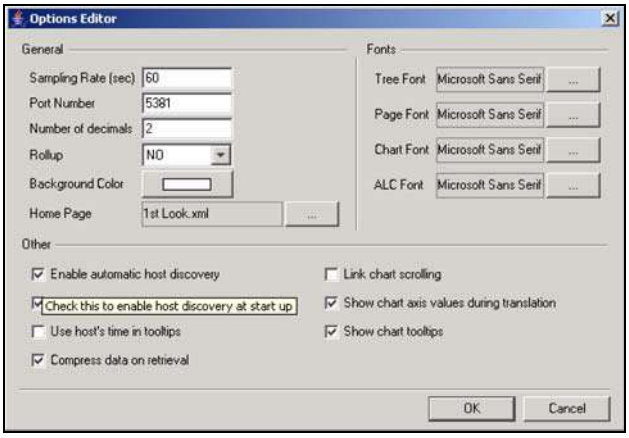


Figure 4.2 Meta-View Web: Disabling Automatic Host Discovery

Port Configuration

The communication port is also a configurable feature of Meta-View Web. From the Options selection in the Edit Menu, the user can change the communication port number. The default port for Meta-View communication is 5381. See Figure 4.2 which contains the Options Editor dialog box.

Page Concept

Within Meta-View Web are screens called pages. This page concept is central to Meta-View Web and serves as a foundation for navigation and investigation. Pages contain graphs, tables and text. There are pages that come as part of the default set up in Meta-View and the user can also define new pages. Pages within Meta-View Web are the cornerstone to investigation and understanding the performance data collected by the Meta-View agents and available in Meta-View Web.

Additional Meta-View Web Product Concepts

Meta-View Product Concepts are features and functionality common to all Meta-View Web pages.

Concept	Description
Drag and drop	The user can drag a selcection from the configuration pane (Pages, Hosts, Times and Items tabs) and drop it on any chart in the chart section of the screen.
Click and move	The user can click on nealry any object and move it to another location on the page.
Hover stats	The user can view additional information regarding the value at a specific point on a chart and the date and time stamp associated with that interval.
Sorting	The user can sort the data in tables by clicking on the header row.
Next/Previous Sample	The user can change the display in a chart or table by clicking on the Next/Pervious Sample buttons to increment one sample interval at a time.
Status light	The status light uses green, yellow or red coloring to indicate whether there were issues with retrieving data, the client is currently attempting to retrieve data or all is well with the latest data retrieval.

Drill down	Meta-View Web allows the user to go from 100 multi-platform host systems to a single system, to a single resource, to the problem process all by using the mouse. Simply by clicking on a host of interest and navigating through the 'Looks' a Meta-View user can view more granular data and make determinations and adjustments to processes, configuration and networking to adapt and maintain optimal performance.

Table 4.1 Meta-View Web: Product Concepts

Title bar, Menu bar and Toolbar

The Title bar, Menu bar, and Toolbar within Meta-View put the power of Meta-View at your fingertips. Opening pages, saving pages, configuring pages and communication as well as modifying view features are all available from the Menu bar and Toolbar. For a complete description of the menus and toolbar, please see Chapter 7 "Menus and Commands in Meta-View Web" beginning on page 42 or the "Toolbar Icons" listed on page 79.

Figure 4.3 Meta-View Web: Title Bar, Menu Bar and Toolbar

Default Pages

Page	Description
First Look	Multi-platform, multi-host, multi-data item interface that shows a host of interest chart, alert message log table and hosts status chart by default.
Second Look	Single-host, multi-data item interface that shows key indicators of resource utilization in a single interface.
Third Look	Single-host, single-resource depiction of multiple data items.
Fourth Look	Single-host process information table.

Table 4.2 Meta-View Web: Default Page Description

First Look Page

The Meta-View Web "First Look" page displays key resource utilization and alerts across all networked systems in the environment. The First Look page contains three customizable charts. In the lower portion of the window is the 3D multi-host Host Status chart. Above it and to the left is the Host of Interest chart. And in the upper right is the multi-host Alert Messages table.

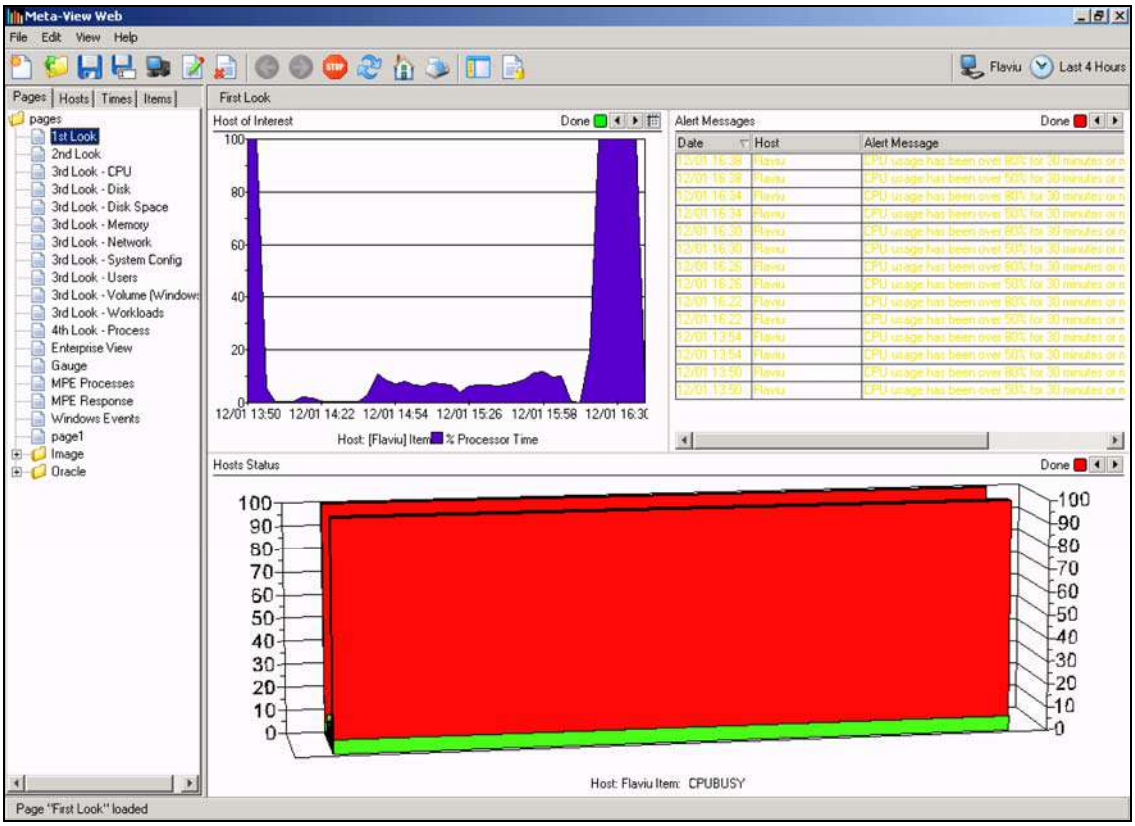


Figure 4.4 First Look page

Second Look Page

Meta-View Performance Manager comes with over one hundred charts pre-configured and organized in pages. The Second Look Page allows the user to drill down to a single host while displaying multiple data items related to multiple system resources. The default data items displayed are considered industry standard for purposes of problem identification and issue resolution. These pages, charts and data items are all user-configurable and can be customized to suit the specifics of individual environments. There is only a single Second Look Page, but it displays different items and different chart titles for various host types. The data displayed depends on what hosts are assigned to the chart, and what their host types are.

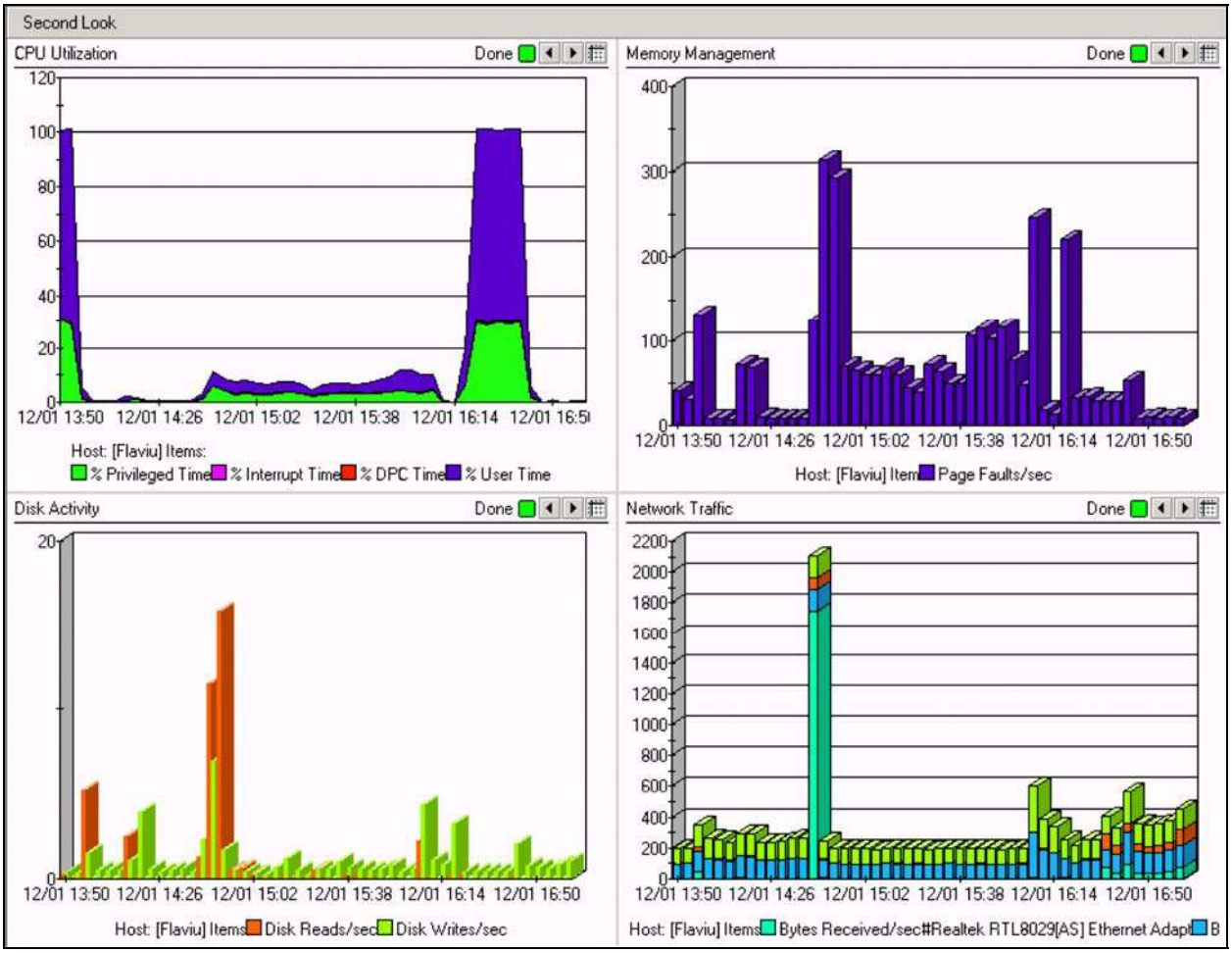


Figure 4.5 Second Look page

Third Look Page

The Third Look Page enables the user to view multiple metrics related to a single resource all on the same page. Meta-View Performance Manager comes equipped with many charts pre-configured to run on the Third Look Page. A separate Third Look Page is configured for each major resource: CPU, Memory, Disk, Disk Space, Network, MPE Response, MPE Processes, Users, Volume, and System Configuration. Once the resource of concern has been identified in Second Look, the user can drill down further to Third Look to see greater detail regarding that resource.

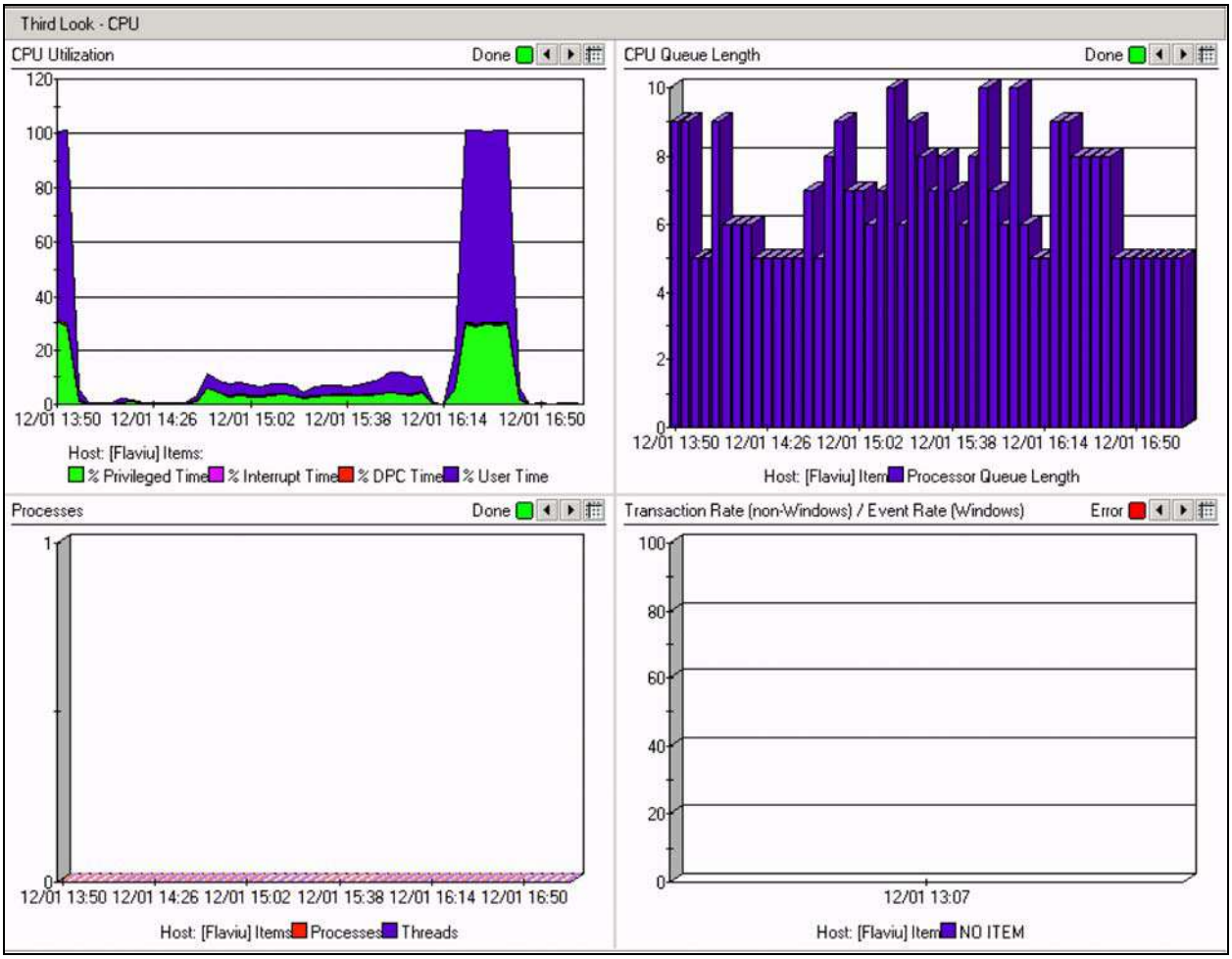
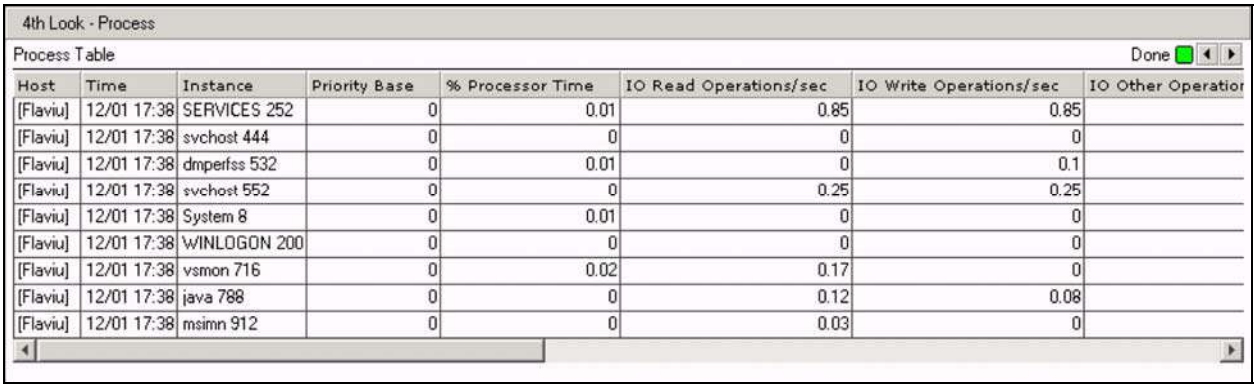


Figure 4.6 Third Look page: CPU

Fourth Look Process Page

Fourth Look Process page shows tables reporting process level data. The page is divided into two sections for all platforms except Windows. The sections are the Workload Groups Table, which displays process information grouped by Workload and the Process Table, which also lists the process level information, but does not summarize the data by Workload Group. The Fourth Look Process page for a Windows system does not include the Workload Group Table because no Meta-View Workload Groups are defined on Windows systems.


4th Look - Process

Process Table — Done

Host	Time	Instance	Priority Base	% Processor Time	IO Read Operations/sec	IO Write Operations/sec	IO Other Operatior
[Flaviu]	12/01 17:38	SERVICES 252	0	0.01	0.85	0.85	
[Flaviu]	12/01 17:38	svchost 444	0	0	0	0	
[Flaviu]	12/01 17:38	dmperfss 532	0	0.01	0	0.1	
[Flaviu]	12/01 17:38	svchost 552	0	0	0.25	0.25	
[Flaviu]	12/01 17:38	System 8	0	0.01	0	0	
[Flaviu]	12/01 17:38	WINLOGON 200	0	0	0	0	
[Flaviu]	12/01 17:38	vsmon 716	0	0.02	0.17	0	
[Flaviu]	12/01 17:38	java 788	0	0	0.12	0.08	
[Flaviu]	12/01 17:38	msimn 912	0	0	0.03	0	

Figure 4.7 Fourth Look Process page

Explorer View

Pages Tab

The Pages tab lists all of the pages saved in the Meta-View Web application's "pages" subfolder, which contains the default pages provided by Lund and any other custom pages that have been saved. You can save pages in subfolders within the 'pages' folder. This allows the user to group pages and classify them as desired.

In the Pages tab, the currently selected page is highlighted. To display a different page, simply double-click on the page name. The page you select will appear with data from its default host(s).

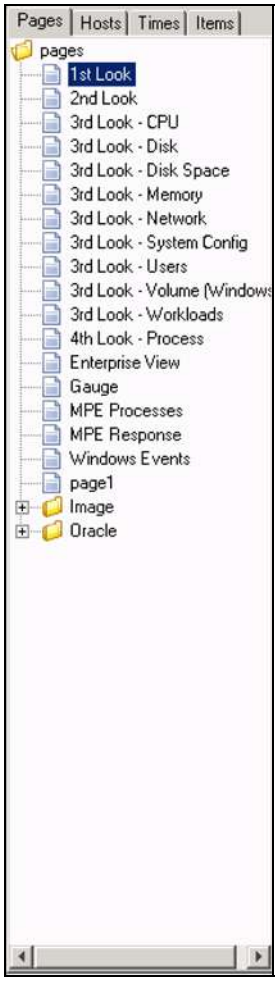
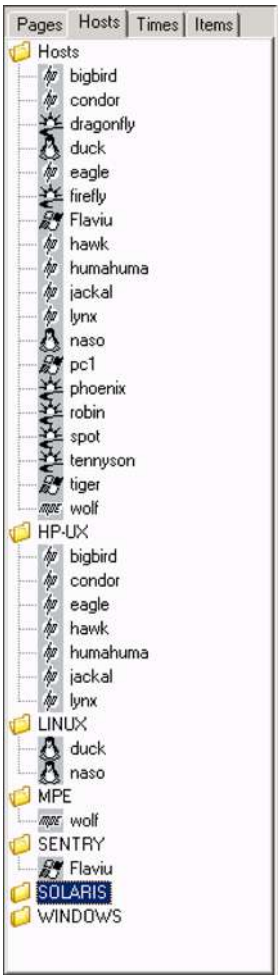


Figure 4.8 Meta-View Web Pages Tab

Hosts Tab



The Hosts tab presents a list of hosts that are available to view. Hosts can be grouped into folders ("host-lists") using the Host List Editor. For information about creating and editing host lists using the Host List Editor, see "Host Lists Command" on page 67.

The special host list labeled "Hosts" contains all of the hosts that are currently configured and available with data. Other host lists can contain any combination of hosts you specify. You may use the default host lists provided, or create your own in the Host List Editor. Notice there are some predefined host lists that are generated automatically: Hosts for all hosts known, MPE for all MPE hosts, Linux for all Linux hosts, HP-UX for all HP-UX hosts, Solaris for all Solaris hosts, Windows for all Windows hosts and SeNTry for all SeNTry hosts. All of those lists (except for hosts) appear only if you have a host of the respective type, and they are not editable. If you delete a host from Hosts, it will be automatically deleted from it's corresponding platform host list. If you add a hot to Hosts, it will be automatically added to it's platform host list.

Hosts that are detected in the "automatic host discovery" process automatically appear in the Hosts list. You can add, remove or modify host information using the Hosts Editor, which is explained later in this manual ("Edit Hosts" on page 66).

Double-clicking changes the *current host.* Some charts are configured to display data from the current host (and only that host). Such charts show the host name in square brackets. You can also drag and drop a host onto a single chart within a page. (You must first select the host with a single click, then drag it over a chart and drop it.) You can also drop a host or group of hosts over the page's title bar, and it will replace the hosts in all the charts. If you use CTRL the host/hosts will be added to the hosts in the charts. The user should note that a 'current-host' chart would no longer be a 'current-host' chart after a host is dragged onto it or onto the page.

Multiple hosts can be selected with a CTRL-click; the whole group of selected hosts can be dropped into a chart.

You can add a host to a chart by holding the CTRL key while you drag and drop it onto the chart. The cursor will show a "+" sign, indicating that you will be adding to the group of hosts displayed on the chart.

Figure 4.9 Meta-View Web Hosts Tab

Times Tab

The Times tab allows you to customize the interval and sampling rate of the charts on a page. Interval specifies the time range to be displayed along the x-axis of a chart. Sampling rate specifies the resolution of data displayed in a chart.

Double-click a time interval or sampling rate to apply it to all charts on the current page.

Select a time interval or sampling rate, and then drag-and-drop it to apply it to a single chart. Drop it over the page's title bar to apply it to the entire page.

Figure 4.10 Meta-View Web Times Tab

Items Tab

By using the Items tab you can configure new charts or add items to existing charts. Simply click an item to select it, and then drag-and-drop it onto a chart.

As with hosts, multiple items can be selected with CTRL-click, and you can add an item to a chart by holding down the CRTL key while you drag the item onto the chart.

Since different platforms (MPE/iX, HP-UX, Linux, Solaris, and Windows) provide different performance data items, the item list can change from host to host. Selecting a host in the drop-down list at the top of the Items tab will display the list of items for that host's type. Lund provides lists with Meta-View Web that are representative of the Lund agent data items at the time of shipping. However different hosts of a single host type may actually have different items. The items refresh button on the tab can be used to find out exactly what items the host has available, but then this list will be the list used in the future for all other hosts of that type.

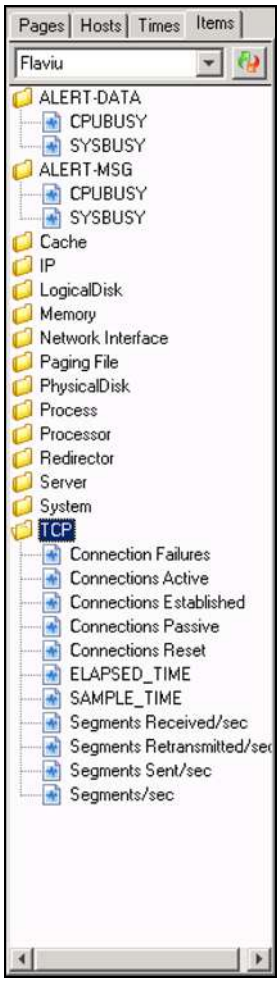


Figure 4.11 Meta-View Web Items Tab

5

Meta-View Alert Quick Tour

Meta-View Alert Service (or, on UNIX, the Daemon) runs in the background and continuously polls the monitored hosts for data to check its list of alert rules. When one of the alert rules is triggered, the Meta-View Alert Service executes one or more actions (e.g. sends an email, runs a specified script).
Meta-View Alert Configurator is used to specify which hosts to monitor, what alert items should be watched and what actions the Meta-View Alert Service should take when an alert rule is triggered.

Alert Rules

The essence of Meta-View Alert is the alert rule. To view the **Alert Rules** panel, select the **Alert Rules** item from the **Setup** section of the Configurator tree.
You can move between alert rules by clicking on the alert rule name in the **Alert Rules List**. When selecting a rule, the information such as host(s), item(s), action(s) and the intervals when the alert rule is enabled are displayed selected as they were defined in every related list. Also the detailed narrative description of the rule is displayed in the **Rule Description** text box. By clicking on the hyperlinks inside the description you may adjust some parameters of the rule, like the activation color, resolution and expiration time.
You can remove an alert rule by clicking the **Remove** button located on the upper-right side of the Alert Rule panel.
To duplicate an existing alert rule, select it in the **Alert Rules List**, and click **Copy**. You may then adjust the newly created rule.

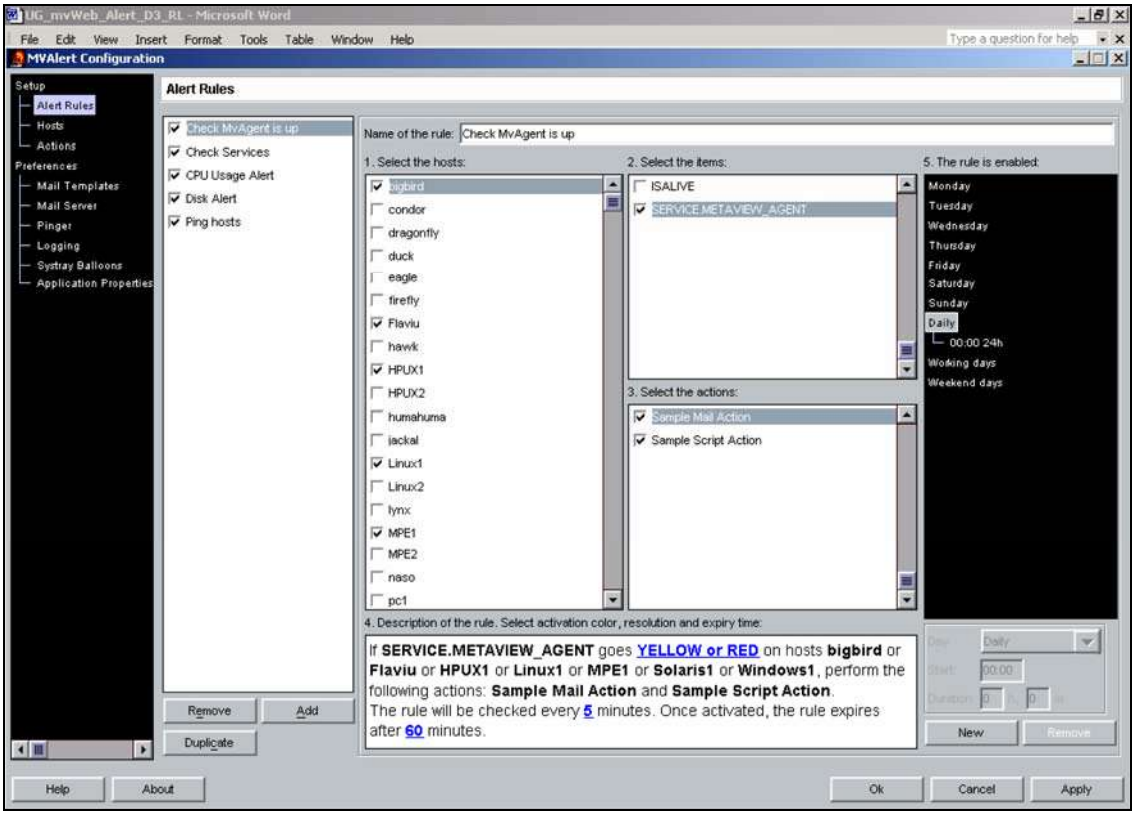


Figure 5.1 The Alert Rules edit panel

Defining a New Alert Rule

In the **Alert Rules** Configurator panel, click **Add**. Defining an alert rule is an easy, 6-step process:

1. Specify the name of the rule, as it will be referred in the **Alert Rules List** and in alert emails (see Figure 5.1).
2. Select the hosts for your rule by checking the appropriate boxes. The selected hosts will be monitored by the current rule.
3. Select the items for your rule. In the item list, check the data items that are to be retrieved from the hosts selected at the previous step. If any of these items goes over the defined threshold, on any of the hosts defined at step 1, the rule is triggered.
4. Select the actions for your rule. In the **Action List**, select the actions that are to be taken when the alert rule is triggered. Each time the alert rule is triggered, Meta-View Alert will execute all the actions that have been selected for the rule.
5. Adjust the parameters of the rule. In the rule description edit box, there are three hyperlinks, allowing you to make these adjustments:
   - 5.1. The **COLOR** hyperlink, allows you to specify the threshold that needs to be achieved by the alert items to activate the rule. There are three possible settings:
     - 5.1.1. **YELLOW** – the alert rule is triggered when one or more of the alert items go yellow, but not red.
     - 5.1.2. **YELLOW** or **RED** – the alert rule is triggered when one or more of the alert items go yellow or red.
     - 5.1.3. **RED** – the alert rule is triggered when one or more of the alert items go red.
   - 5.2. The **RESOLUTION** hyperlink, allows you to specify the time interval at which the hosts are polled for data. In other words, after a number of **RESOLUTION** minutes, the alert rule is checked against the hosts. Setting the resolution does not override the host-specific sample interval.
   - 5.3. The **EXPIRY TIME** hyperlink, allows you to specify how long Meta-View Alert should wait (after the alert rule was triggered) until notifying again.
6. (Optional) Specify the intervals when the alert rule is enabled. Meta-View Alert offers a very flexible interface to specify times when an alert rule is active (see paragraph).

NOTE When selecting multiple hosts, the item list will only show items that are common to all hosts. However the item list will never be empty, as the **SERVER_IS_DOWN** (triggered when a host's Meta-View Agent stops responding) and **PING** (triggered when a host does not respond to ping) alert items are common to all hosts.

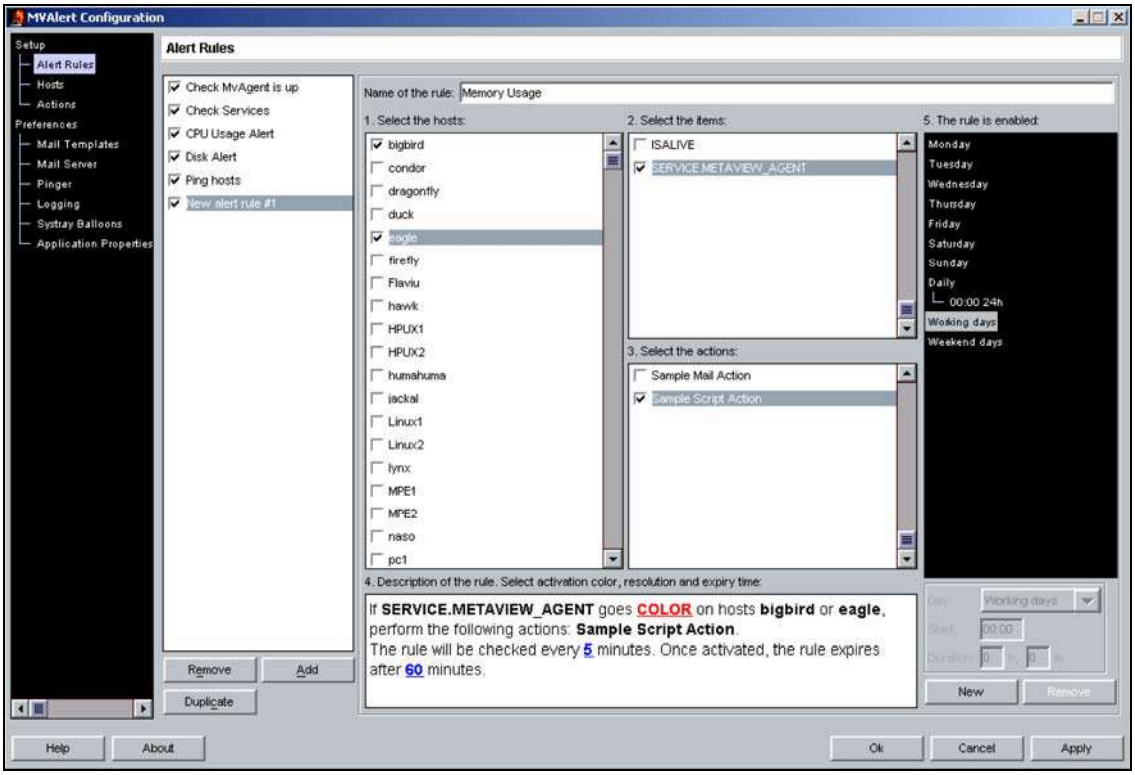


Figure 5.2 The Alert Rules panel – adding a new alert rule

Activating/Deactivating Alert Rules

You may temporarily turn off an alert rule by un-checking it in the **Alert Rules List**. Meta-View Alert ignores a deactivated alert rule. You may reactivate the alert rule any time, by checking it in the **Alert Rules List**.

Specifying times when an Alert Rule is active

Meta-View Alert offers a very flexible interface to specify times when an alert rule is active. You can specify alert rule activation time:

On a day by day basis, specifying for each week day, from Monday to Sunday, the time intervals when the alert rule will be checked. This allows different activation times for each day of the week. For example, you can choose an alert to be active from 8:00 AM to 4:00 PM on Monday, from 8:00 AM to 5:00 PM on Tuesday etc.

On a daily basis, specifying activation time intervals affecting all days of the week. For example, you can define an alert rule that will be active each day from 8:00 AM to 4:00 PM and 7:00 PM to 9:00 PM.

For working days, specifying time intervals affecting the working days of the week (Monday to Friday).

For weekend days, specifying time intervals affecting days in the weekend (Saturday and Sunday).

Any combination of the above. For example you can define an alert rule which is active from 8:00 AM to 4:00 PM during the weekdays, from 12:00 AM to 12:00 PM during the weekend and a couple of hours in the evening on Monday and Thursday:

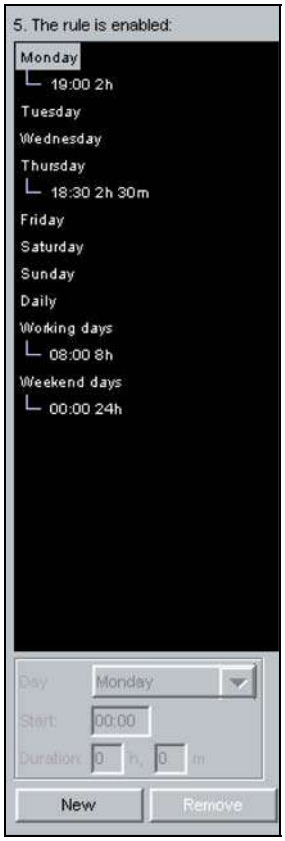


Figure 5.3 Time intervals screenshot, specifying that the alert rule is active from 8:00 AM to 4:00 PM during the weekdays, all day during the weekend and a couple of hours in the evening on Monday and Thursday.

You can remove a time interval for an alert rule by clicking the **Remove** button located below the time interval tree, at the bottom of the dialog window (Figure 5.3).

Defining a new activation time interval

To add a new activation time interval for the current alert rule, click the **New** button located below the time interval tree and enter the information requested:

Field	Description
DoW	Day of week. Select the day(s) of week for which the current time interval applies. It can be either Mon to Sun, Daily, Working days or Weekend days.
Start	The hour and minute when the time interval starts.
Duration	The duration of the time interval in hours and minutes.

Table 5.1 Time interval's Parameters

Specifying the Format of Email Messages (Email templates)

Meta-View Alert allows you to fully customize the email messages you receive when an alert rule is triggered. Select the **Email Templates** item from the **Preferences** section of the Configurator tree to open the **email template** editor.

To ensure maximum flexibility, Meta-View Alert allows you to customize the subject and body of the email messages sent. Moreover, you can define several email message templates; when defining an email action, you can specify which email message template to be used if the action is triggered.

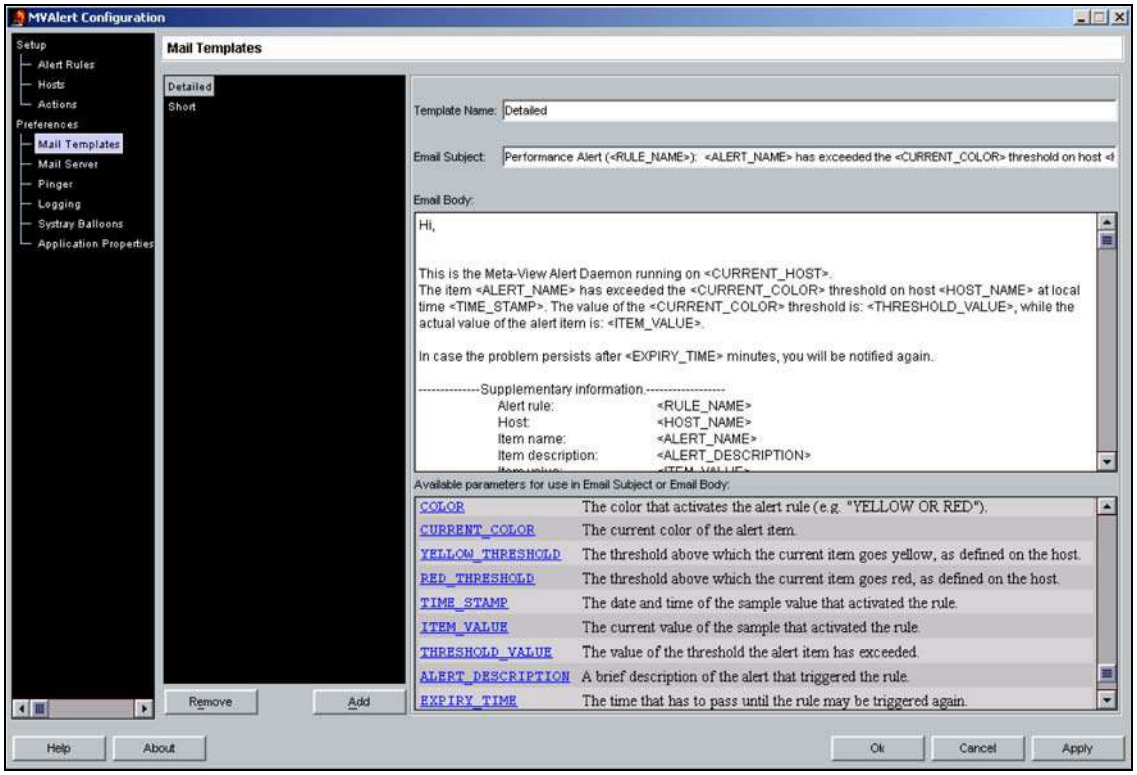


Figure 5.4 The Email templates configuration panel.

The list box located on the left side of the panel contains the currently defined email message templates. For example, in Figure 5.4, we have two message templates: *Detailed* and *Short*.

To delete an email message template, click on the **Remove** button located in the upper-right corner. Meta-View Alert prevents you from deleting message templates which are currently in use by a Mail Action – an error message is shown when attempting to delete such a message template (Figure 5.5).

Figure 5.5 Error dialog box

To create a new message template, press **Add** and enter information requested:

Field	Description
Template Name	The name of message template, as it will be referred in the Mail Templates list and by the Email Actions.
Email Subject	The subject of the current email message template.
Email Body	The contents of the current email message template.

Table 5.2 Message Template's Parameters

The values in brackets are rule-specific parameters, which will be replaced with actual values when the rule is triggered. The current Meta-View Alert version supports the following parameters:

Field	Description
CURRENT_HOST	The name of the host running Meta-View Alert.
RULE_NAME	The name of the alert item that triggered the rule.
ALERT_NAME	The name of the alert item that triggered the rule.
HOST_NAME	The name of the host on which the alert item went over the threshold.
COLOR	The color that activates the alert rule (e.g. YELLOW).
YELLOW_THRESHOLD	The threshold above which the current item goes yellow, as defined on the host.
RED_THRESHOLD	The threshold above which the current item goes red, as defined on the host.
TIME_STAMP	The date and time of the sample value that activated the rule.
ITEM_VALUE	The current value of the sample that activated the rule.
THRESHOLD_VALUE	The value of the threshold that activates the rule.
ALERT_DESCRIPTION	A brief description of the alert that triggered the rule.
EXPIRY_TIME	The time that has to pass until the rule may be triggered again.

Table 5.3 Meta-View Alert's Parameters

Specifying the Mail Server (SMTP) settings

Select the **Mail Server** item from the **Preferences** section of the Configurator tree to open the **Mail Server** editor.

Fill in the **Sender email address** text field with the email address Meta-View Alert will use for sending emails. You can enter any correct email address, or even addresses that do not exist, as long as they are accepted by the SMTP server.

TIP The sender email address can be very useful when running multiple instances of Meta-View Alert, as it provides a simple way to make a distinction between email alerts sent from different Meta-View Alert instances.

In the **Outgoing Mail (SMTP)** text field, input the fully qualified name or the IP address of the SMTP server that will relay Meta-View Alert email messages.

If your email servers requires authentication, select the **My server requires authentication** checkbox and fill in a valid user name and password, for example:

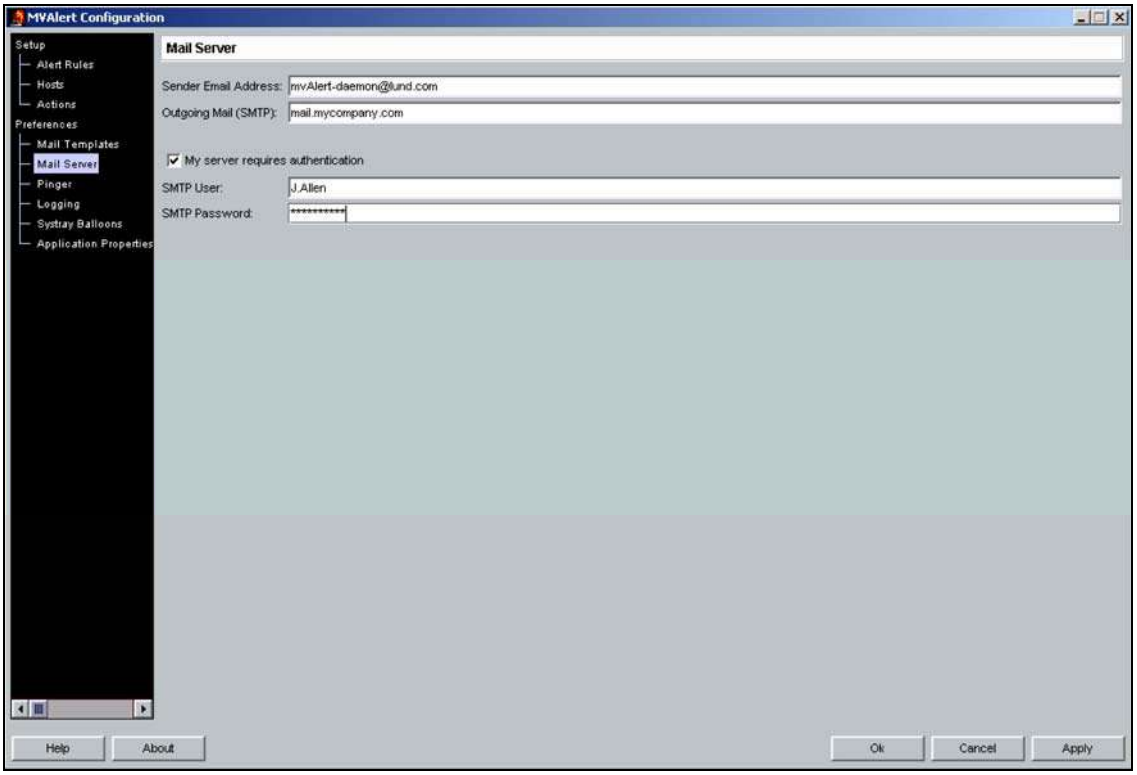


Figure 5.6 The Mail Server configuration Panel.

Specifying the Pinger preferences

Meta-View Alert defines two special items available for each of the monitored hosts. These items are special because they are not collected by Meta-View Agent, but are calculated and provided by Meta-View Alert itself. The name of these items is SERVER_IS_DOWN and PING. The former goes red when the Meta-View Agent does not respond to a handshake request initiated by Meta-View Alert. The latter goes yellow or red when the number of packets lost when the host is pinged exceeds a predefined limit.

Select the **Pinger** item from the **Preferences** section of the Configurator tree to open the pinger preferences panel. The Pinger preferences panel allows you to specify the number of packets to be sent when the PING item is checked against a host, the number of lost packets for the PING item to go yellow, and the number of lost packets for the PING item to go red.

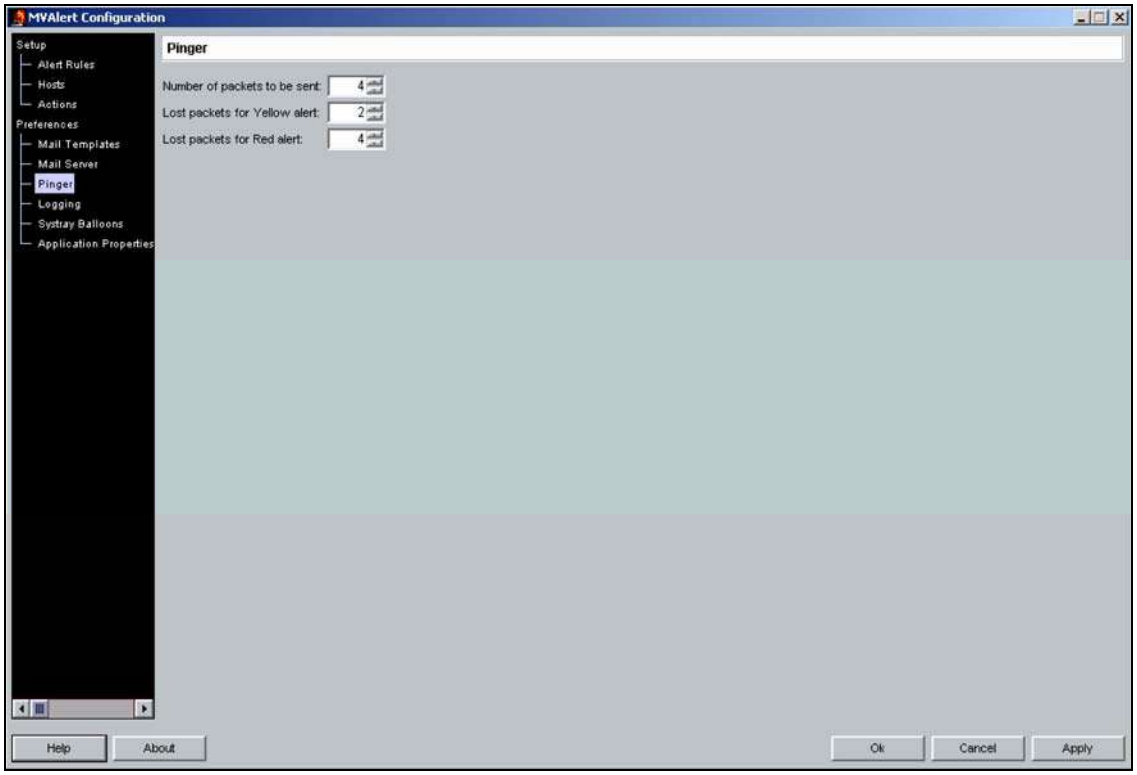


Figure 5.7 The Pinger preferences Panel

Specifying logging preferences

As we have already stated, you may check the Meta-View Alert Service activity by watching the log files located in the `log` folder of the installation directory. Meta-View Alert logs three types of events:

1. Alert events: generated each time a Meta-View Alert rule is triggered. Alert events are logged in the `alert.html` file.
2. Access events: generated each time Meta-View Alert retrieves data from a host. Access events are logged in the `access.html` file.
3. Error events: generated when Meta-View Alert encounters an exceptional situation (e.g. can not retrieve data from a certain host, the alert item requested is invalid etc.). Error events are logged in the `error.html` file.

   You can customize which events you want to be logged in the **Logging** configuration panel, which can be opened by selecting the **Logging** item inside the **Preferences** section of the Configurator tree (Figure 5.8 on page 36).

   By default, Meta-View Alert will log only Alert and Error events. You can select/deselect an event type to be logged by checking/un-checking the corresponding check box in the Logging configuration panel.

   To open a log file within the default browser, click the corresponding **View ... Log** button.

   To change the directory where Meta-View Alert writes its log files click the  button next to the **Log Directory** box (see Figure 5.9 on page 36). Choose the directory and then click **Select**.

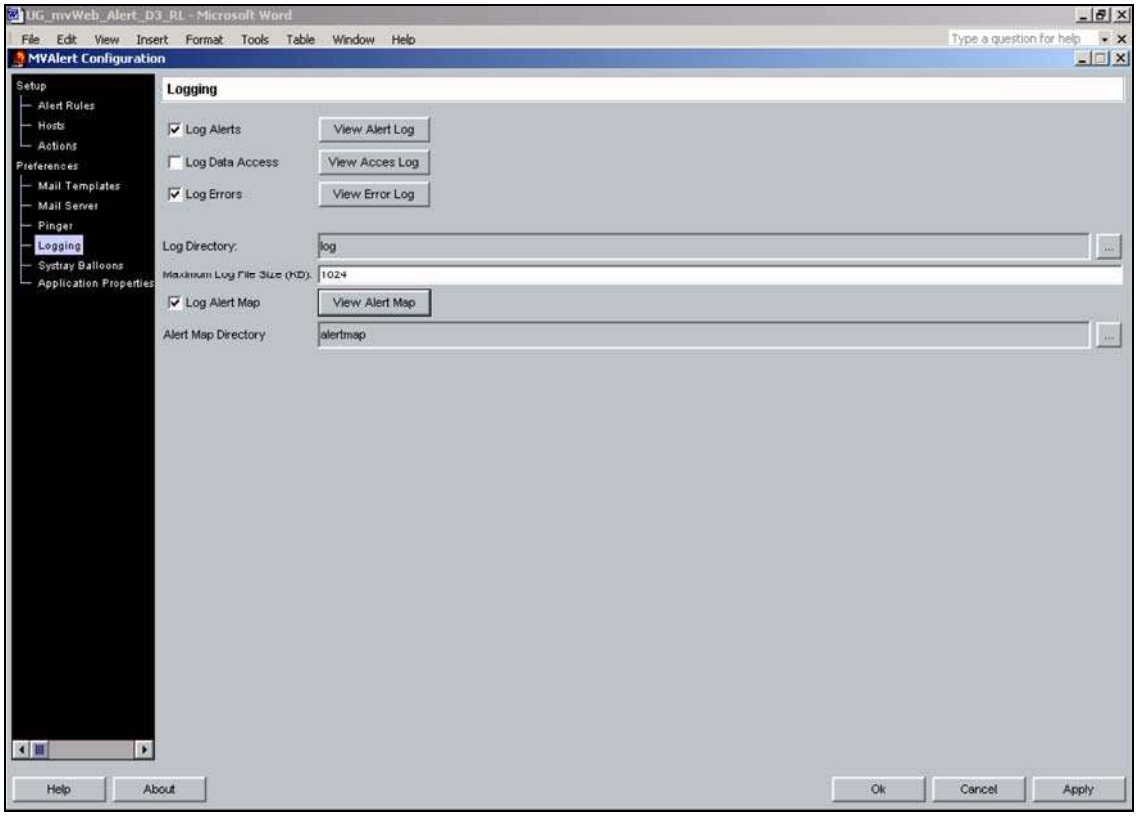


Figure 5.8 The Logging preferences Panel.

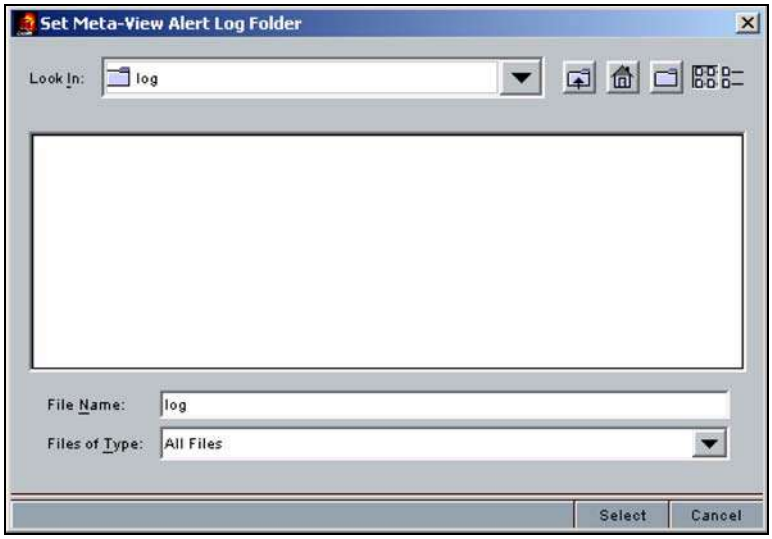


Figure 5.9 The Set Meta-View Alert Log folder dialog box.

To view the Alert Map, click the **View Alert Map** button.

To change the directory where Meta-View Alert writes the Alert Map file click the ... button next to the **Alert Map Directory** box (see Figure 5.10). Choose the directory and then click **Select.**

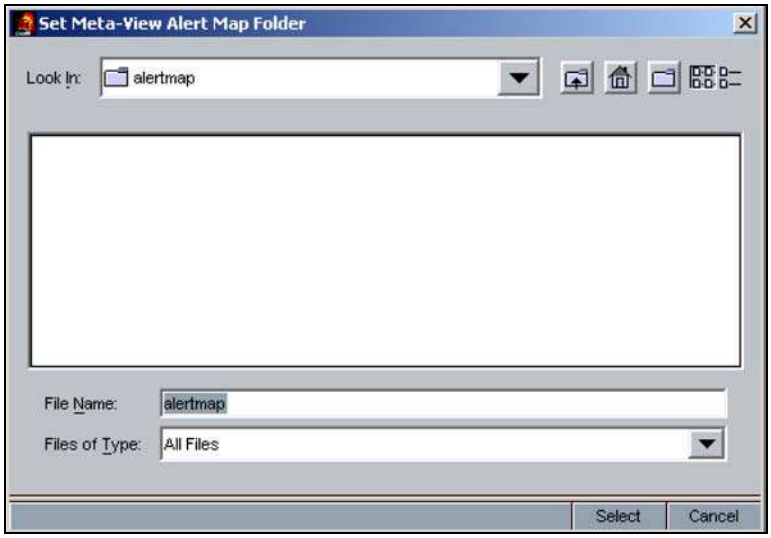


Figure 5.10 The Set Meta-View Alert Map folder dialog box.

Specifying system tray balloon preferences (Windows only)

Select the **Systray Ballons** item from the **Preferences** section of the Configurator tree to open the Windows System Tray preferences panel (Figure 5.11).

When running Meta-View Alert as a system tray application on Windows, you may optionally select to be notified by a system tray balloon when one of the alert rules is triggered. Moreover, you may customize the title and content of the system tray balloon message to display exactly the information you need to see.

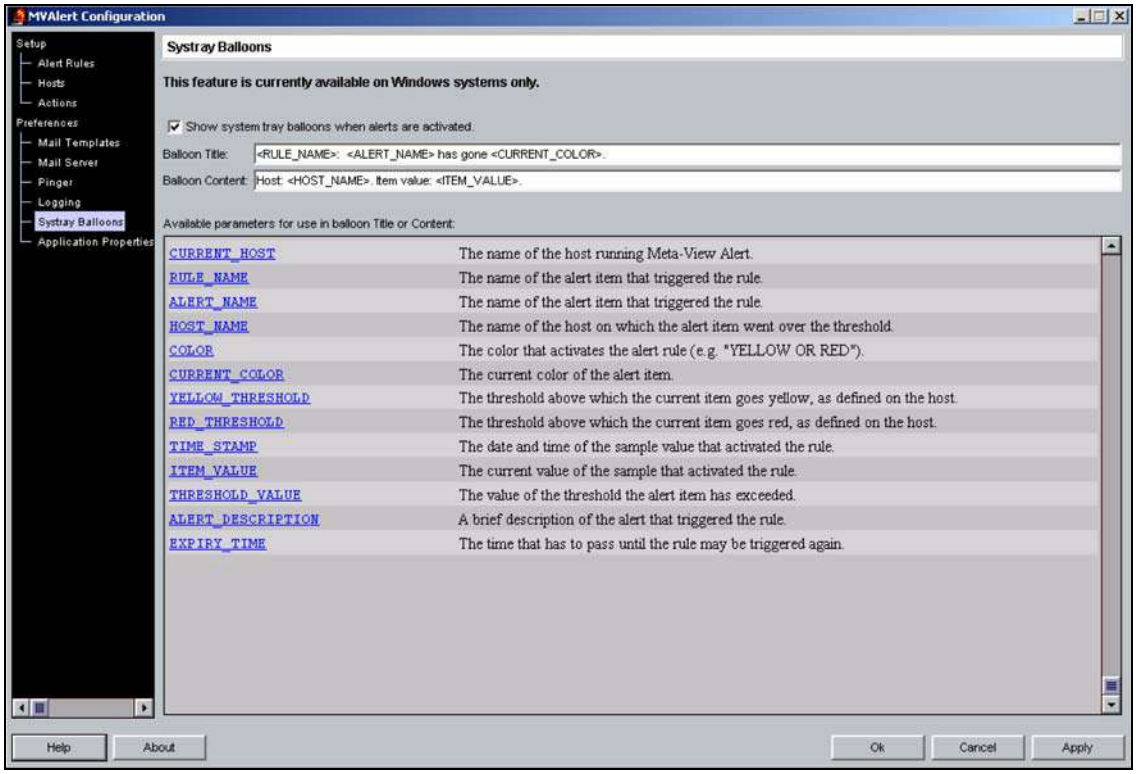


Figure 5.11 The Windows System Tray preferences Panel.

The values in brackets are rule-specific parameters, which will be replaced with actual values when the rule is triggered. For a description of the supported parameters refer to the table in the "Specifying the Format of Email Messages (Email templates)" section on page 32.

Specifying Application Properties

Select the **Application Properties** item from the **Preferences** section of the Configurator tree to open the Application Properties preferences panel (Figure 5.12).

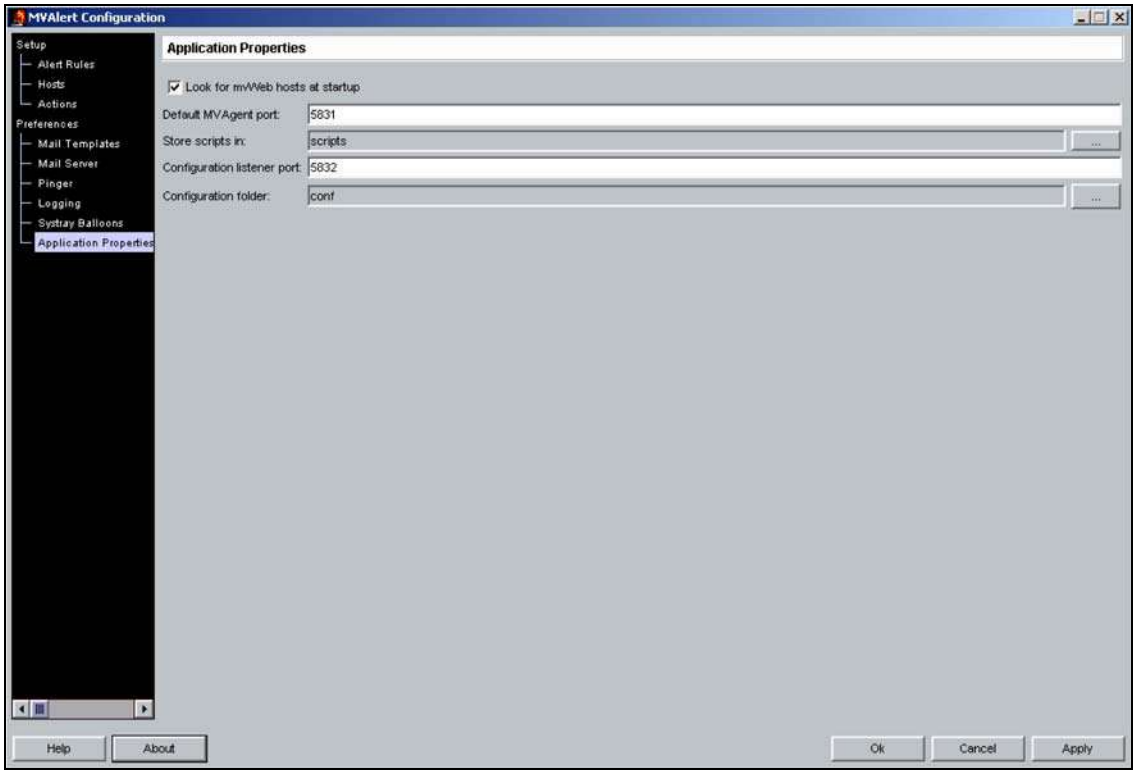


*Figure 5.12 The **Application Properties** preferences Panel*

To change the directory where Meta-View Alert stores the script file click the  button next to the **Store scripts in** box (see Figure 5.13). Choose the directory and then click **Ok.**

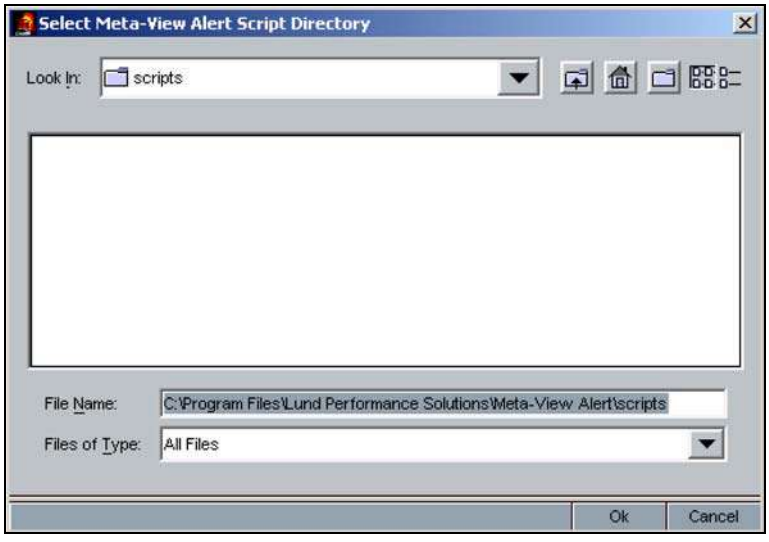


Figure 5.13 The Set Meta-View Alert Script directory dialog box.

To change the directory where Meta-View Alert stores the configuration file click the ... button next to the **Configuration folder** box (see Figure 5.14). Choose the directory and then click **Ok.**

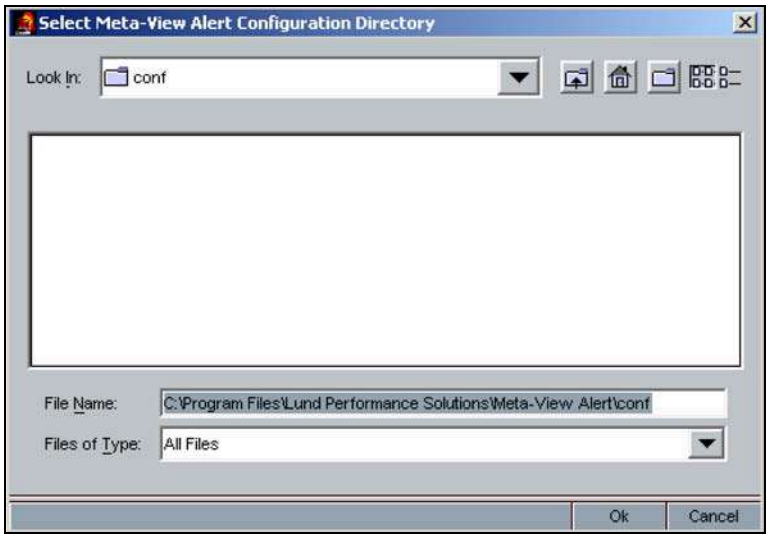


Figure 5.14 The Set Meta-View Alert Configuration directory dialog box.

Online Help System

Press the **Help** button located in the bottom-left corner of the Meta-View Alert Configurator, right below the Configurator tree, to find explanations of the features of Meta-View Alert, as well as tips to guide you through the program's basic functionality.

About Box

The **About** box displays current version and copyright information for the installation of Meta-View Alert client. Press the **About** button located on the right side of the **Help** button. The **About alerting client** dialog box displays (Figure 5.15).

Figure 5.15 The About alerting client dialog box.

6

First Look of Meta-View Web Explanation

This chapter more closely examines the First Look Page that comes as a default page from Lund. Each of the components and buttons that comprise this page are shown and explained in greater detail. Many of the buttons and indicators introduced on the First Look Page are consistent throughout all of Meta-View Web.

3D Hosts Status Chart

The First Look page contains a 3D Hosts Status alert chart (Figure 6.1). This chart provides color-coded resource utilization levels for selected networked host systems (MPE/iX, HP-UX, Linux, Solaris, and Windows) over time. Green indicates acceptable resource utilization, yellow indicates problematic utilization, and red means that system has surpassed the maximum recommended threshold for that resource. The user can specify the host systems, the key resource, the interval, and the thresholds. For information on how Meta-View Web can be configured, see “Additional Meta-View Web Product Concepts” on page 19 and “Menus and Commands in Meta-View Web” beginning on page 42.

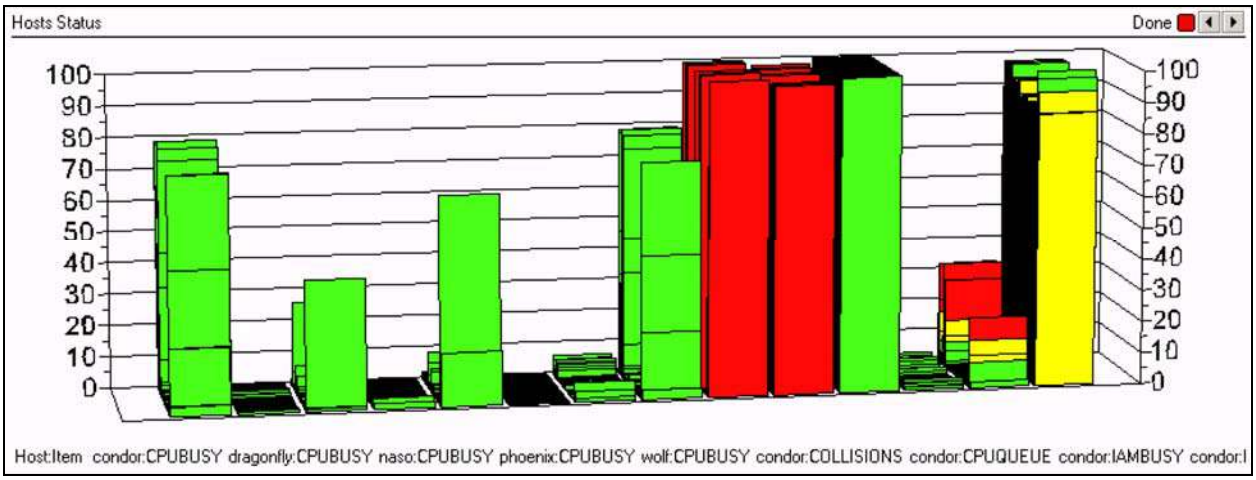


Figure 6.1 First Look page: 3D System Status alert chart

Data Loading Status Indicator

In the upper right corner of every Meta-View Web chart is a data loading status indicator message and light (red, yellow, green). The following indicator messages are described in Table 6.1.

Message	Description
Authenticating host(s)...	client is attempting to establish communication with host
Processing data...	data is being calculated to populate appropriate fields
Receiving data...	data is being transmitted to be included in the chart or table
Done	data transmission and chart population are complete
Authentication Error	communication error occurred between host and client
Host Error	error on the agent/host

Table 6.1 Meta-View Web: data loading status indicator

Button/Feature	Image	Description
Previous Sample and Next Sample		To the right of the Data Loading Status Indicator light is a set of arrow buttons you can use to scroll through the previous and next data samples chronologically. Click the left arrow to show earlier data samples. Click the right arrow to show more recent samples.
Table/Chart Toggle		To the right of the Data Loading Status Indicator light is a button that either has the image of a data table or a graph. The user can use this button to toggle between displaying the data in a table and in a chart. This button appears only for 2D charts and tables. For tables it appears only if the resulting 2D chart is able to display the items contained in the table.

Data on Demand Features		Hovering the mouse over a data bar in the graph will cause a popup box to display information specific to that system:
		`<host name>`
		`<resource item> = <data point>`
		`<date> <time>`
		Single-clicking a data bar on the 3D System Status chart will bring up key resource information for that host system in the Single Host Resource Chart.

Drag and Drop Capability		Meta-View Web allows you to drag and drop hosts, data items, and interval times from the Configuration Pane tabs on the left side of the window.

Table 6.2 First Look Button/Feature Descriptions

Single Host Resource Chart

The Single Host Resource Chart or Host of Interest chart found on the First Look page displays a single performance metric for a particular host of interest. The metric used depends on the drill-down. When you drill-down from the other two charts, one or more metrics are passed to this chart. The alert config file determines the metrics passed.

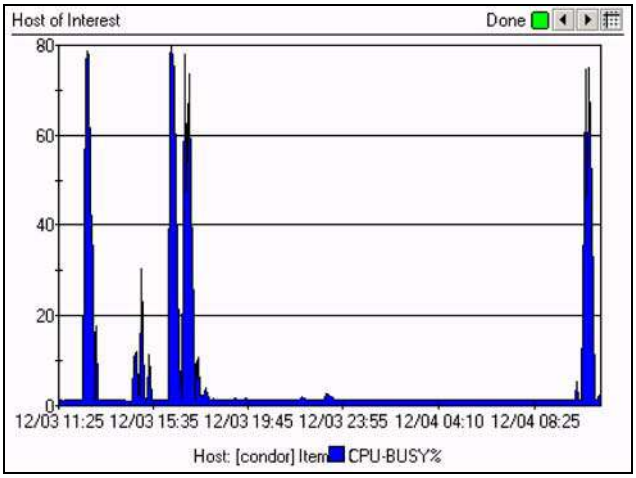


Figure 6.2 First Look page: Host of Interest - single-host resource chart

Multi-Host Alert Log

The Multi-Host Alert Log or Alert Messages table displays alert messages as appropriate for hosts monitored by the client, as determined by alert config file. The table can be sorted by date, host or alert message simply by clicking on the header row. The data provided for each alert message includes the date and time the message was generated,

the host name for the host that incurred the alert message, and the alert message as defined in the alert config file on the host system.

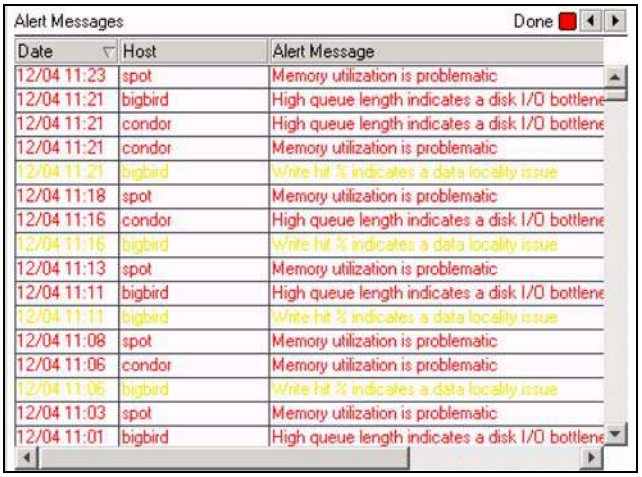


Figure 6.3 First Look page: Alert Messages - multi-host alert log

7

Menus and Commands in Meta-View Web

This chapter addresses the four main menus in Meta-View Web and the associated commands. By using a mouse and clicking on each of the menus on the menu bar or by using the ALT key plus the letter underlined in the menu name, the user can activate each menu. (e.g. ALT+F for the File menu) The same mouse clicking to select a command item or using the ALT plus the underlined letter functionality is available for each command contained in the individual menus.

File Menu

The File menu contains six menu options: New Page, Load Page, Save, Save As…, Print Page, Import Settings, Export Settings, and Exit. There are ALT plus key combinations for all of these options as well as Hot-Key combinations for two of these selections.

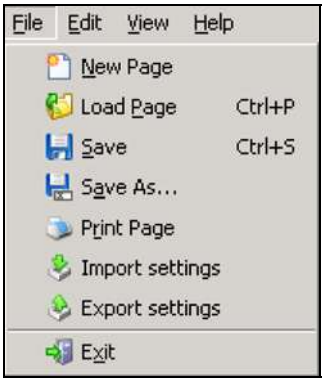


Figure 7.1 File menu

New Page Command

Using the New Page Wizard the user can create a new page from the ground up. The New Page Wizard walks the user through the process of creating a new page beginning with naming the page and ending with saving it to the appropriate Pages folder.

In the New Page Wizard Properties dialog box, the user selects the name for the new page and then identifies the background color, sampling rate in seconds, and whether the chart will roll up and whether it will refresh.

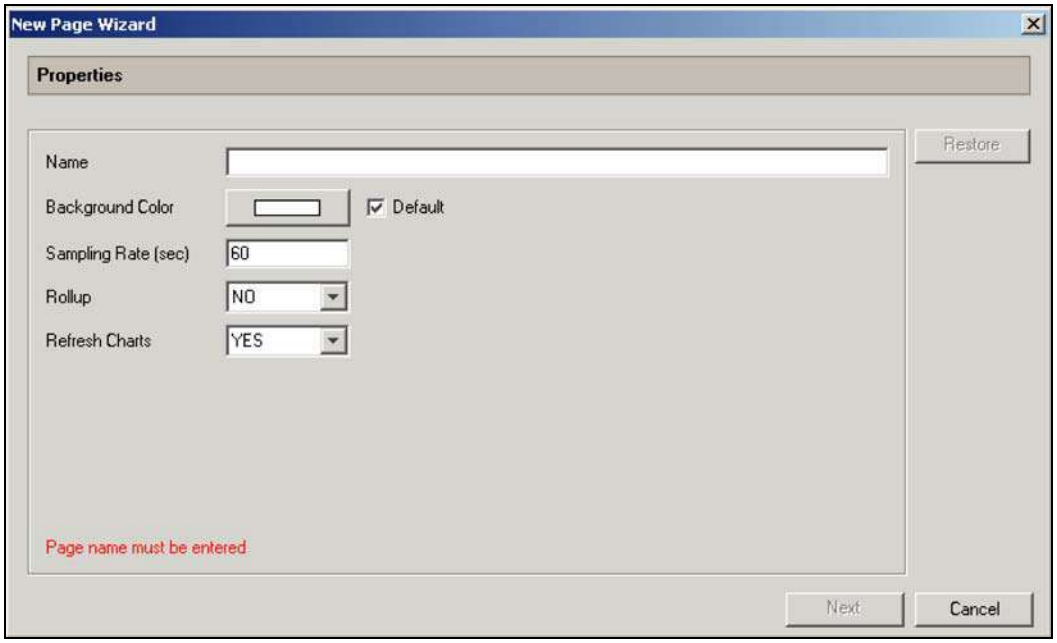


Figure 7.2 File menu: New Page command, Properties dialog

Name

The user must insert here the name of the page, that will appear in the page label.

Background Color

The user can choose the color of the backgound for the page he or she creates. The default color is black. To choose another color the user have to disable the *Default* option and then choose the color from the Color Editor dialog box that will display.

Sampling Rate (sec)

This is the time interval between samples. When the user creates a new page, this parameter has the default value (60 seconds).

Rollup

When a data request is made, Meta-View Web send this parameter to the Meta-View Agent. The default value is NO. If it is set to YES, then the agent make the "rollup", meaning it cumulates more samples in one. For example, if the collector collects data every minute, and Meta-View Web is set to show any sample every 5 minutes, then in the time interval of 5 minutes there are 5 samples logged. Let's say the time interval 9:55 AM – 10:00 AM. The agent can return the last sample logged, the one at 10:00 AM (rollup = NO), or it can cumulate those 5 samples (an average of them is made) in one sample that will will be returned (rollup = YES). This is important. At 9:57 AM can be a huge spike, let's say a spike of 99, while at 10:00 AM we have a spike of 0.1. If rollup = NO, Meta-View Web shows 0.1, like there is no problem. If rollup = Yes, Meta-View Web will show a greater value, an average for the time interval, depending on the spike size. But, if the collector collects data every 5 minutes and Meta-View Web is set at 60 seconds resolution, then rollup is worthless because the agent has nothing to cumulate, there are fewer logged samples then the requested ones.

Refresh Charts

The value set here will be in all the defined charts of the created page and also in the new charts that can be added later. The default value is YES.

Set Interval

In the New Page Wizard Set Interval dialog box the user identifies the interval for the display of the data. There are options ranging from predefined intervals for ease of configuration to customized intervals where the user can specify a date and time range, the last day, week or month and even a time interval range where the user can limit the display to data collected from a narrow window of time. (e.g. 1:00 AM to 2:30 AM)

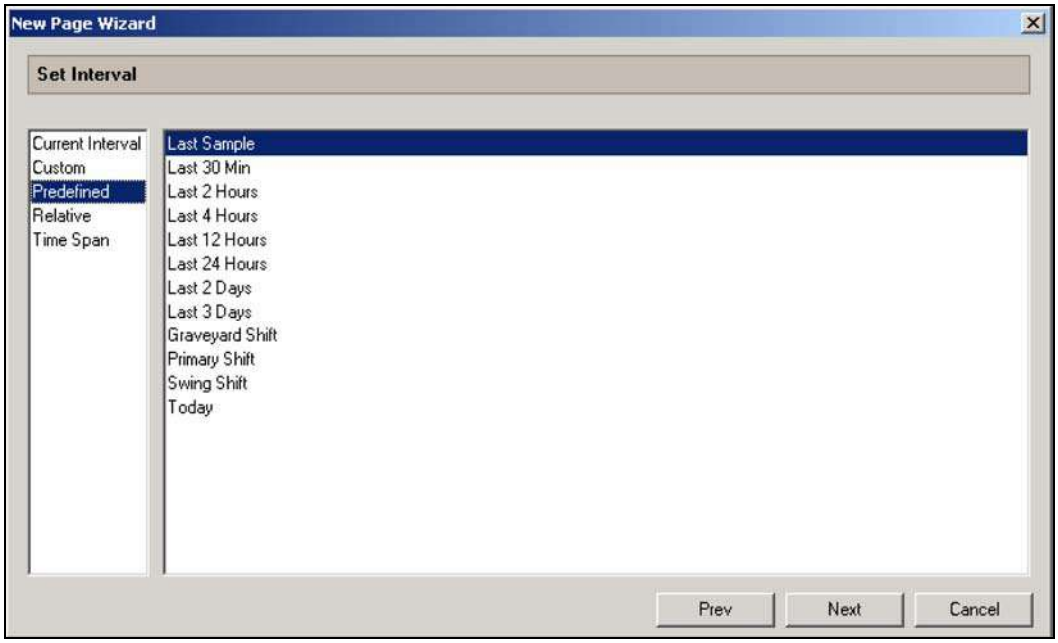


Figure 7.3 File menu: New Page command, Set Interval dialog

Current Interval

The Current Interval indicates the current interval for the active page. A chart with any interval defined in it will show data with the current interval. Most of the predefined charts do not have any interval defined in them. That way, they will show data for the current interval when loaded. On the other hand, when you drill-down to a page, or you double click on an interval in the Times tab of the configuration pane, the respective interval becomes the current interval.

Custom

If the user choose the custom time interval means that this interval specifies a fixed time interval (Begin, e.g. 2004 August 26 – 2:48 PM; End e.g. 2004 August 26 – 3:48 PM).

Predefined

Choosing the predefined time interval means that the user selects an interval defined in the Times tab from the left pane (e.g. Last Sample or Last 2 Days etc.).

Relative

The relative time interval means a relatine interval like "Last N Minutes/Hours/Days/Weeks/Months/Years", where N is between 1 and 100 (e.g. Last 2 Hours).

Time span

This time interval means a relative interval specifying the start and end hour; the final value depends of the time when this interval is used (e.g. 2:30 AM to 4:00 AM).

Charts

The New Page Wizard Charts dialog box contains seven tabs. Each tab contains key configuration information for the charts on the new page. The tabs are Properties, Engine, Hosts, Host Lists, Interval, Items, and Drill Down. This Charts dialog box also allows the user to determine the location of the charts on the new page. The Chart Position indicator at the bottom left is used to define a chart's position on the page.

NOTE There are rules for setting relative chart position:
1 chart – full page.
2 charts – two half-page charts, one above the other.
3 charts – two quarter-page charts side by side above a half-page chart.
4 charts – four quarter-page charts.
5 charts – four quarter-page charts followed by a half-page chart (scrolling).

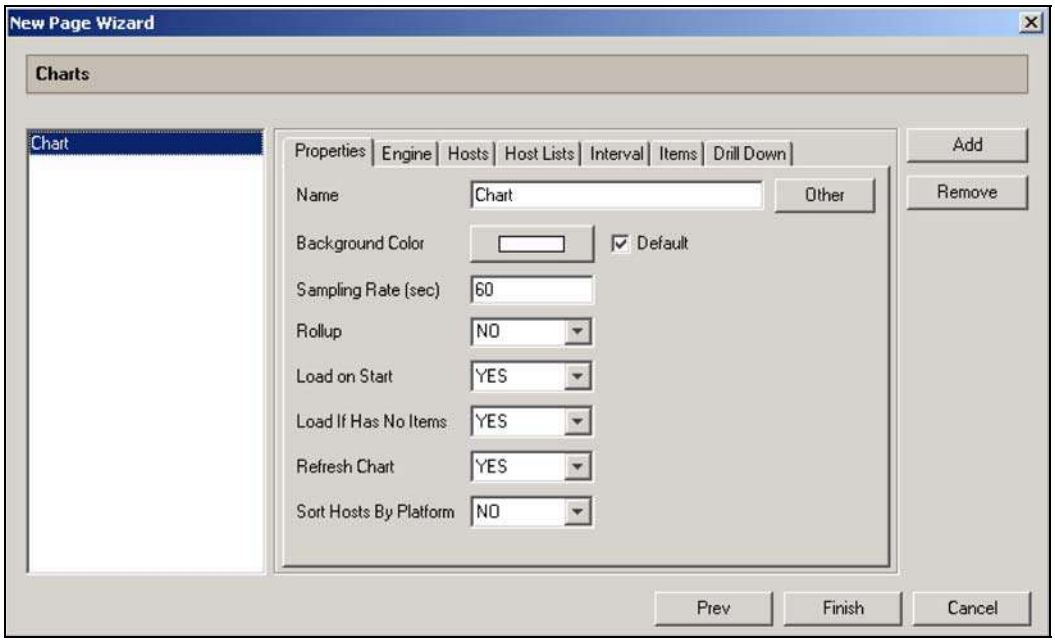


Figure 7.4 File menu: New Page command, Charts dialog

Properties

There are seven properties for creating a chart. They are as follows:

Name

This is the name of the chart. It is unique in a page.

Background Color

The user can specify the color of the background for the chart(s) he or she creates. The default color is black.

Sampling Rate (sec)

This is the time interval between samples. When the user creates a new chart, this parameter has the default value (60 seconds).

Rollup

When a data request is made, Meta-View Web send this parameter to the Meta-View Agent. The default value is NO. If it is set to YES, then the agent make the "rollup", meaning it cumulates more samples in one. For example, if the collector collects data every minute, and Meta-View Web is set to show any sample every 5 minutes, then in the time interval of 5 minutes there are 5 samples logged. Let's say the time interval 9:55 AM – 10:00 AM. The agent can return the last sample logged, the one at 10:00 (rollup = NO), or it can cumulate those 5 samples (an average of them is made) in one sample that will will be returned (rollup = YES). This is important. At 9:57 AM can be a huge spike, let's say a spike of 99, while at 10:00 AM we have a spike of 0.1. If rollup = NO, Meta-View Web shows 0.1, like there is no problem. If rollup = Yes, Meta-View Web will show a greater value, an average for the time interval, depending on the spike size. But, if the collector collects data every 5 minutes and Meta-View Web is set at 60 seconds resolution, then rollup is worthless because the agent has nothing to cumulate, there are fewer logged samples then the requested ones.

Load on Start

This parameter specifies if the created chart will be displayed when the page is loaded. The default value is YES. The hidden charts can be seen with "Load next hidden chart" function.

Load If Has No Items

This parameter specifies if a chart with no items (e.g. there are no items for a special host) to be visible or not when the page is loaded. The default value is YES.

Refresh Chart

If this parameter is enabled, the chart become a real-time chart (it will refresh at a interval specified at SamplingRate).

Sort Hosts By Platform

This parameter is the most useful for table charts. If it is set YES, then the hosts are displayed in the alphabetical order of every platform (first the HP-UX hosts, then Linux hosts, etc.) instead the alphabetical order (A to Z) of all platforms. Some users may have only one platform – e.g. Sentry, so in this case the hosts are displayed in the alphabetical order of this platform.

Engine

There are six types of engines for charts with different parameters and functions.

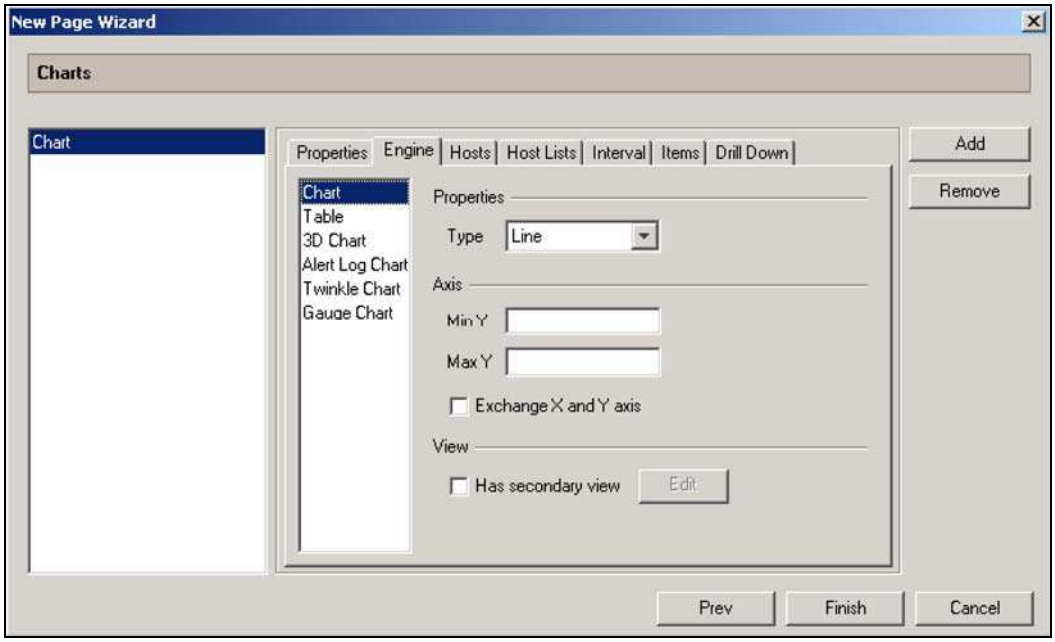


Figure 7.5 File menu: New Page command, Charts dialog, Engine tab

They are listed and explained below:

Chart

In the *Properties* section the user can choose the type of the chart, as they follow: Line, Scatter Plot, Area, Stacking Area, Bar, 3D Bar, Stacking Bar, 3D Stacking Bar, Pie, 3D Pie, Radar, and Area Radar.

In the *Axis* section the user must insert the minimum and the maximum values on the Y-axis. If these values are not established, then the engine calculates the best time interval for itself. (These parameters were introduced for the Y-axis in order not to display, for example at CPU-Busy, a maximum of 120 while the maximum possible value is 100).

If the *Exchange X and Y axis* option is enabled, then the chart "rotates". The default value is disabled.

Table

The properties of this type of engine are as follows:

- Use the default layout:
  If the user choose this option means that Meta-View generates a table of the next aspect:
  [host][time][instance (if it is the case)*][item 1]...[item N]*
  Every host in the chart is considered.
- Use a layout optimized for single instance items:
  If the user choose this option means that Meta-View generates a table that displays the items with a single instance.
  on columns:[host 1/time 1]...[host X/time Y]
  on rows: [item 1][item 2]...[item Z] (single instance)
  on rows: [item 1/instance][item 1/instance][item 2]...[item Z] (multi instances)
- Use a layout optimized for multiple instance items:
  If the user choose this option means that Meta-View generates a table that displays the items with multi instances.

on columns:[host 1/time 1]...[host Z/time Y]
on rows: [host 1/instance 1][host 1/instance2][host 2]...[host Z]

- Rotate the table: if this option is enabled then the table rotates (transpose).

3D Chart

In the *Axis* section the user must specify the *Max Z* parameter, meaning the maximum value displayed on the Z-axis.

Alert Log Chart

As the name of the chart says, this type of chart will display the alert messages collected by the Meta-View Web.

Twinkle Chart

This type of chart uses twinkle lights, red, yellow, and green, to show data.

Gauge Chart

This type of chart uses gauges to show samples of data.

Hosts

From the list with the hosts on the left, the user can choose the chart's host(s). Select a host by clicking on it or many hosts clicking CTRL + left mouse button, then add the selected host(s) in the Chart's Hosts box on the right Hosts box on the right side of the dialog box by clicking on the > button. The user can add all the hosts by clicking the >> button. Also, if the user add a host or many hosts by mistake, then the host(s) can be removed from the Chart's Hosts list clicking the < button. For removing all the hosts from the Chart's Hosts list, the user have to click the << button. If a chart has no defined host or host lists, then it will use the "default host" from the up-right corner of the page and in the legent will show between "[","]".

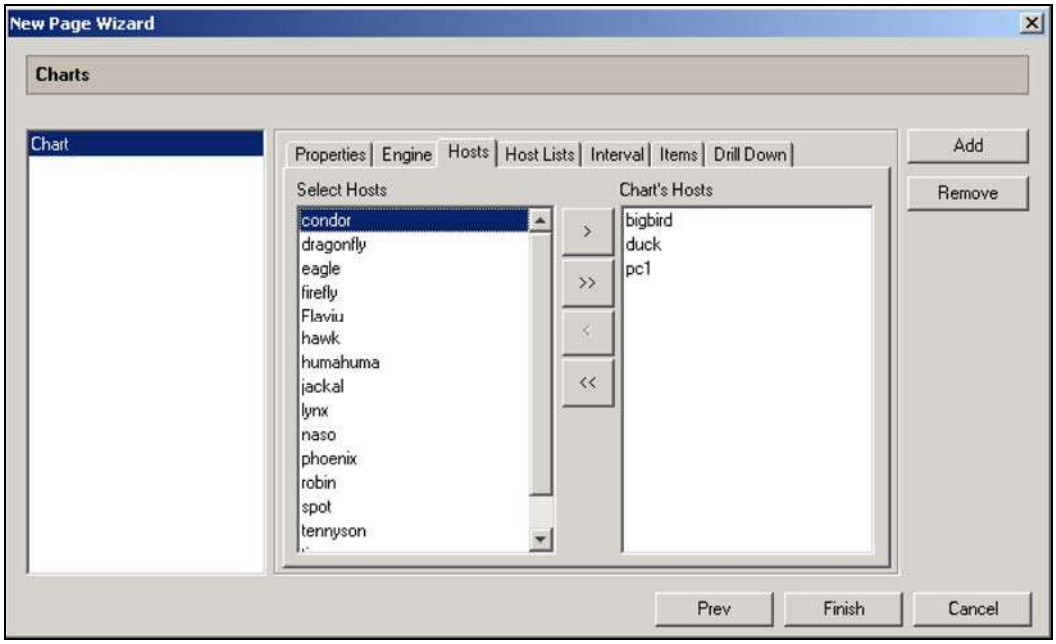


Figure 7.6 File menu: New Page command, Charts dialog, Hosts tab

Host Lists

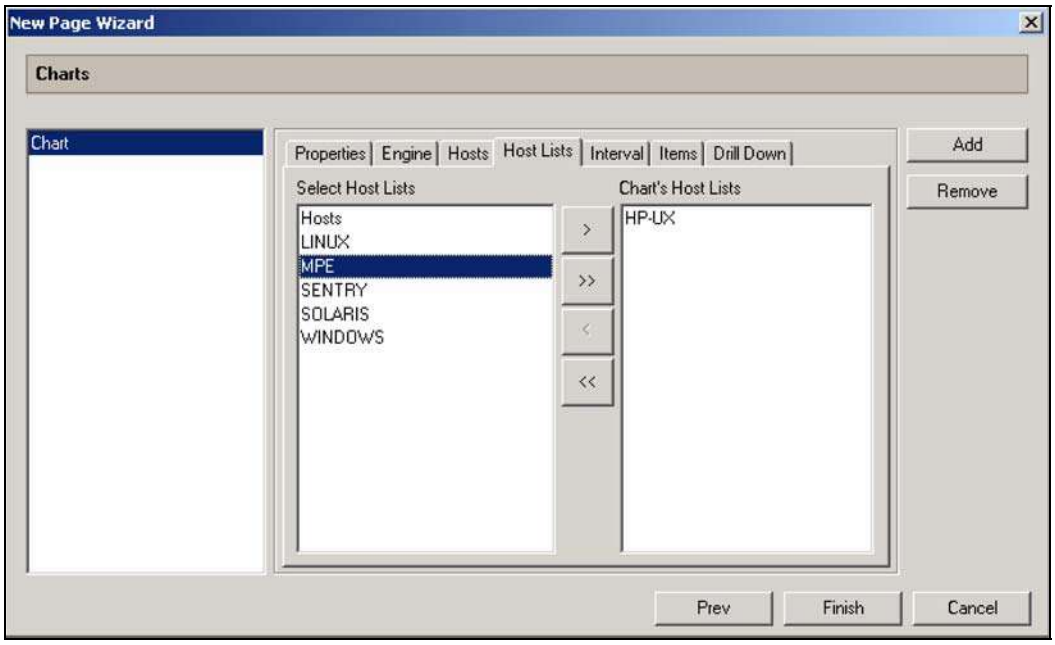


Figure 7.7 File menu: New Page command, Charts dialog, Host Lists tab

The user can select the host lists for the created chart. This property is similar to the Hosts one. For details see the information above, in the "Hosts" section.

Interval

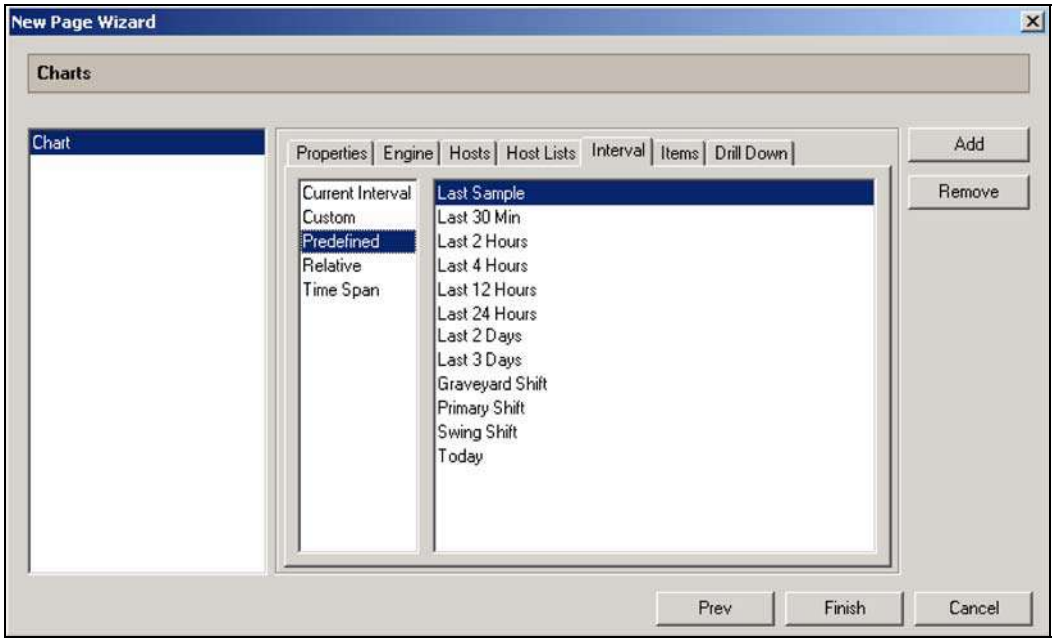


Figure 7.8 File menu: New Page command, Charts dialog, Interval tab

This section is similar to the one related to the Interval set for the created page. The user identifies the interval for the display of the data in the chart. There are options ranging from predefined intervals for ease of configuration to customized intervals where the user can specify a date and time range, the last day, week or month and even a time interval range where the user can limit the display to data collected from a narrow window of time. (e.g. 1:00 AM to 2:30 AM). For details see the "Set Interval" section on page 63.

Items

For every platform there are groups of items and the user can select from the list on the left either one or more needed items and click the "Add Item" button, or the needed group(s), clicking the "Add Group" button. The "Filter" button has the role of editing the filtering conditions (only the values that will accomplish these conditions will be displayed).

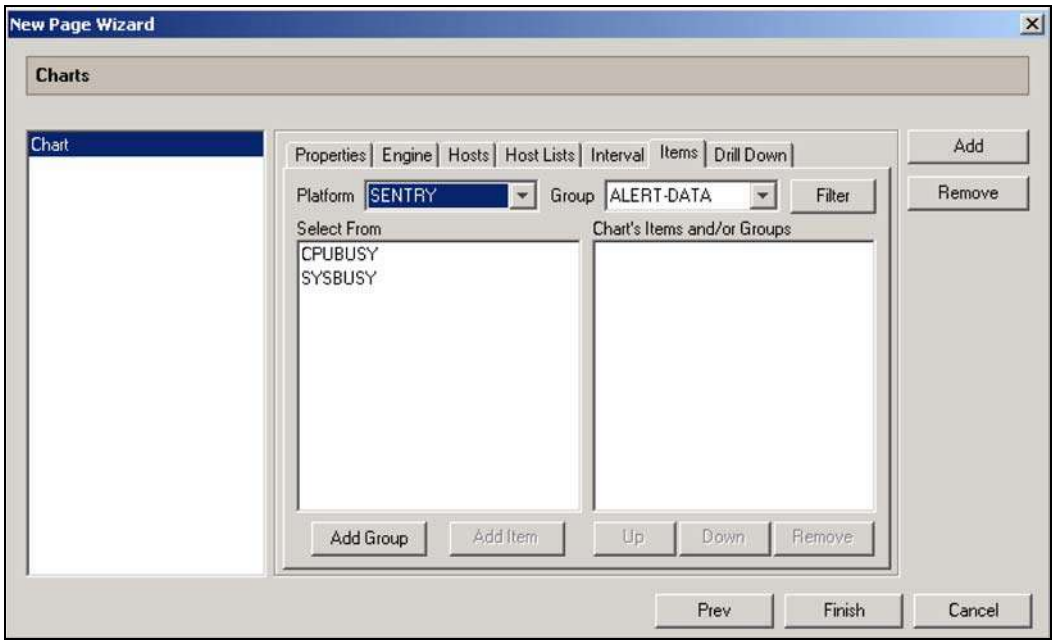


Figure 7.9 File menu: New Page command, Charts dialog, Items tab

Drill Down

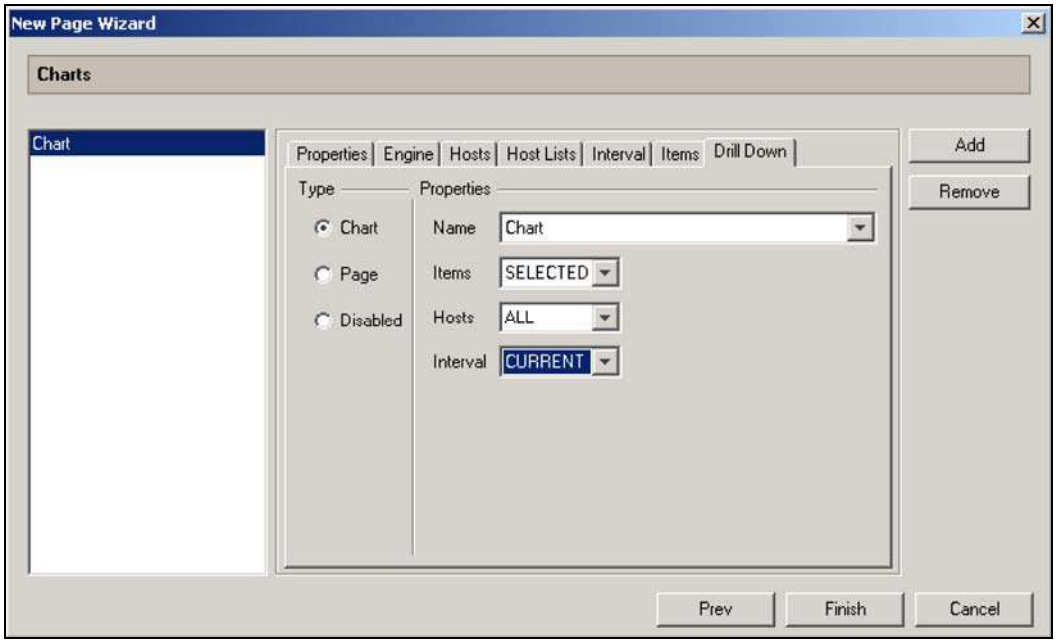


Figure 7.10 File menu: New Page command, Charts dialog, Drill Down tab

The Drill Down tab is divided into **Type** and **Properties**. This drill down function can be applied either to a chart or a page, or it can be disabled.

For the drill down to a *chart*, the properties are the following:

Name

The user has to specify the name of the chart that will be uploaded after drill-down.

Items

This option specifies the items of the new chart and the user can select one of four options.

NONE: the new chart will contain the items of its definition.

SELECTED: the new chart will contain only the selected item.

ALL: the new chart will contain all the items defined in the source chart (the selected chart).
CAUSE: the new chart will contain the items related to the selected item.

Hosts

This options specifies the hosts of the new chart and the user can select one of three options.

NONE: the new chart will contain the hosts of its definition.

SELECTED: the new chart will contain only the selected (clicked) host.

ALL: the new chart will contain all the hosts defined in the selected chart (the clicked chart).

Interval

This options specifies the interval of the new chart and the user can select one of four options.

NONE: the new chart will have the interval specified in its definition.

SELECTED: the new chart will have the selected interval (one sample in this case).

ALL: the new chart will have the same interval as the source chart.

CURRENT: the new chart will have the same interval as the interval of the source chart (there is not compulsory for a chart to display all the contained values).

For the drill down to a *page*, the properties are the following:

Name

The user has to specify the name of the page that will be uploaded after drill-down.

Hosts

This options specifies the hosts of the new page and the user can select one of three options.

NONE: the new page will contain the hosts of its definition.

SELECTED: the new page will contain only the selected (clicked) host.

ALL: the new page will contain all the hosts defined in the selected chart (the clicked chart).

Interval

This options specifies the interval of the new page and the user can select one of four options.

NONE: the new page will have the interval specified in its definition.

SELECTED: the new page will have the selected interval (one sample in this case).

ALL: the new page will have the same interval as the source chart.

CURRENT: the new page will have the same interval as the interval of the source chart (there is not compulsory for a chart to display all the contained values).

The user can also choose not to use the drill down function and, in this case, the option **Disabled** will be selected.

Save

The New Page Wizard Save dialog box allows the user to save the newly created page to the appropriate folder for future use in Meta-View Web. The user can overwrite an existing page name by selecting the existing name using the mouse and clicking the Save button. Or the user can specify a unique name for the newly created page simply by typing the new name in the File Name field. Meta-View Web adds the .xml extension automatically, and the newly created pages can be saved to the 'pages' folder or a subfolder in the 'pages' folder and can be copied and shared amongst users.

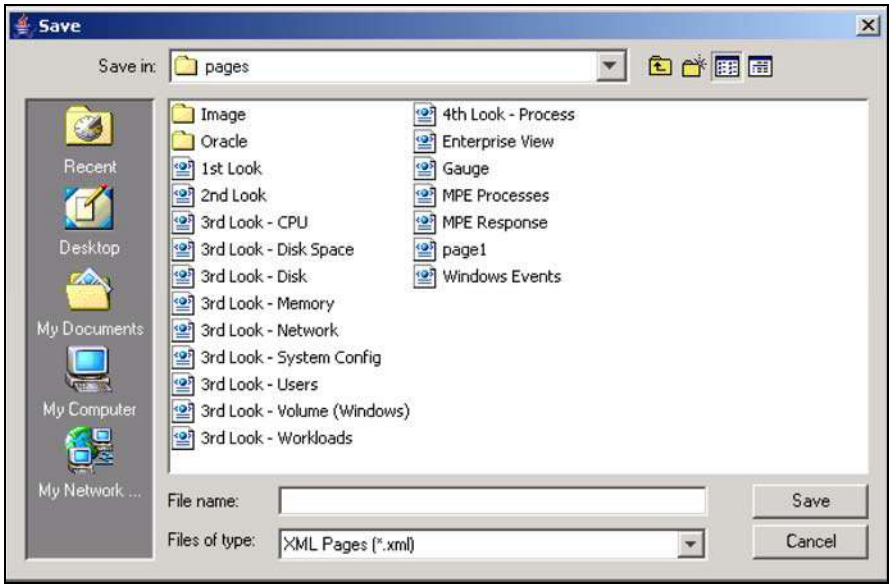


Figure 7.11 File menu: New Page command, Save dialog

Load Page Command

The Load Page command allows the user to load pages into Meta-View Web. The user can access the open page dialog box either by using the menu command or by double-clicking the page on the pages tab. The user can browse through files and folders and locate pages to load into Meta-View Web for viewing.

Once the user has browsed the file system and located the appropriate page, the user can either double-click on the file name or single-click on the Open button.

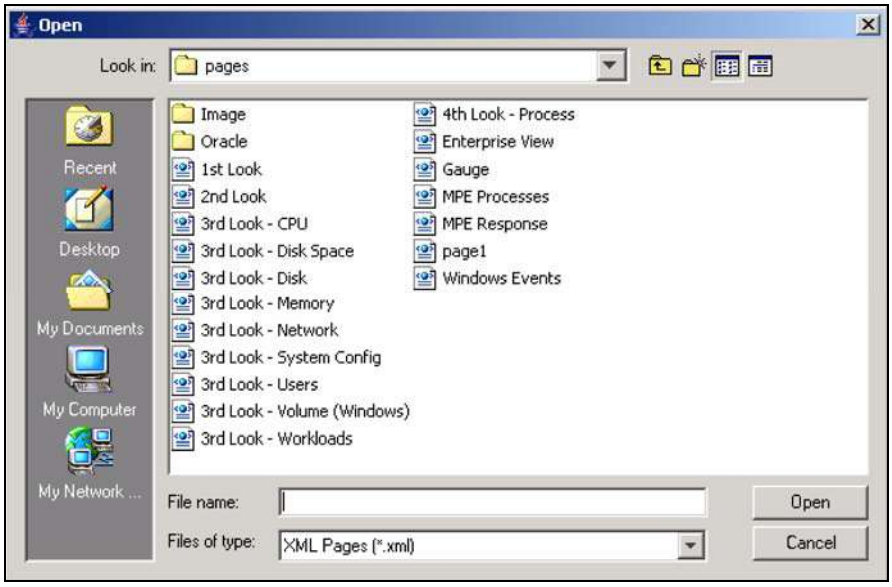


Figure 7.12 File menu: Load Page command

Save Command

When the user has made changes to a page he or she has the option to save those changes for future viewing. The Save command can be used for such a function. Because the page is saved using the same name the option to change the name of the page does not appear. To save a page using a different name, see the Save As… Command below.

Figure 7.13 File menu: Save dialog

Save As… Command

If the user has made a change to a page and would like to save those changes using a different page name, in essence creating a new page, he or she should use the Save As… command. This command opens the Save dialog box and allows the user to specify the name and location of the new page. The user has the option to overwrite an existing page or type in a new page name. Meta-View Web automatically adds the .xml extension.

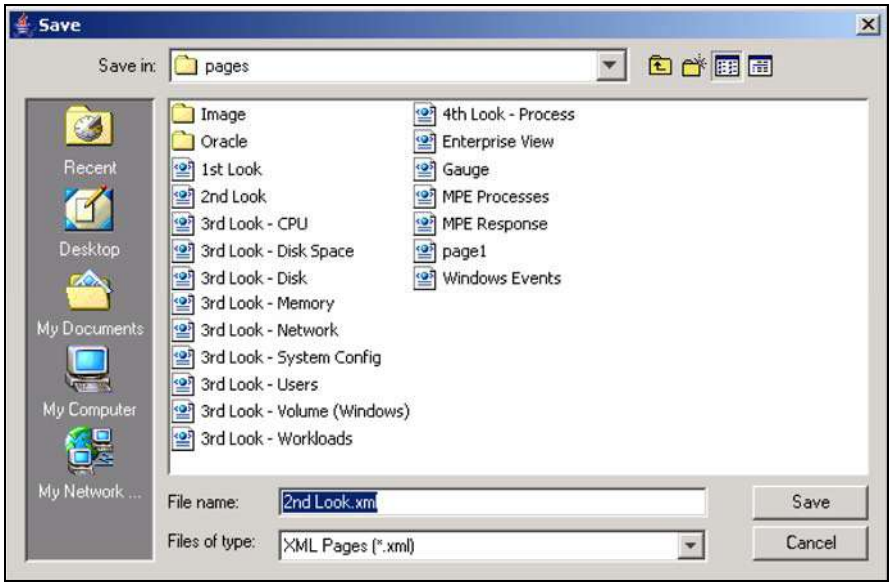


Figure 7.14 File menu: Save As… command

Print Page Command

The Print Page command allows the user to print pages to a specified printer. When the user selects the Print Page command, the Print dialog box is launched. From here the user can specify a printer, properties, and other print options including number of copies.

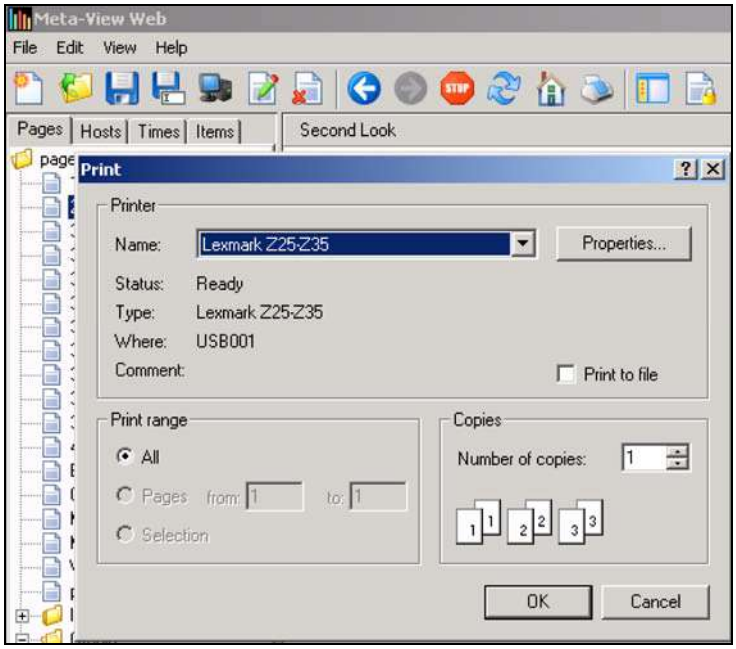


Figure 7.15 File menu: Print Page command

Import Settings

The Import Settings command allows the user to import the following settings: Hosts, Host Lists, Options, Time Intervals, and all the pages from the *Meta-View Web* folder and his subfolders. The user chooses a zip file (Figure 7.17) where the resources are, then selects the needed resources (Figure 7.18) and imports them by clicking the **Import** button.

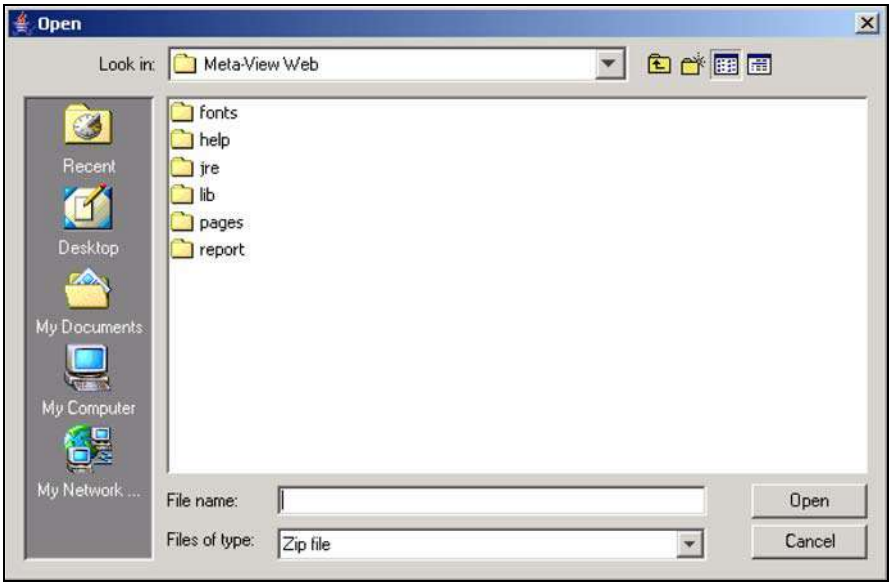


Figure 7.16 File menu: Import Settings command

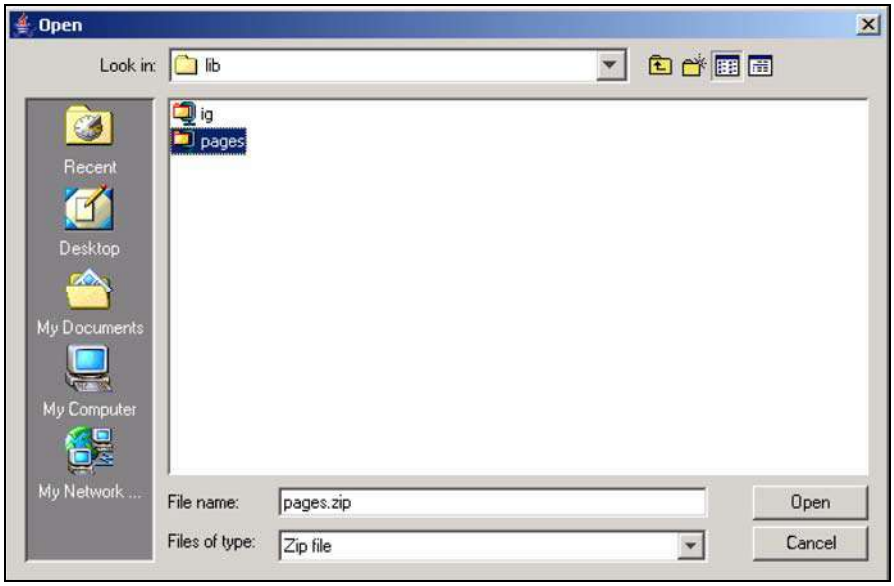


Figure 7.17 File menu: Import Settings command – Open zip file

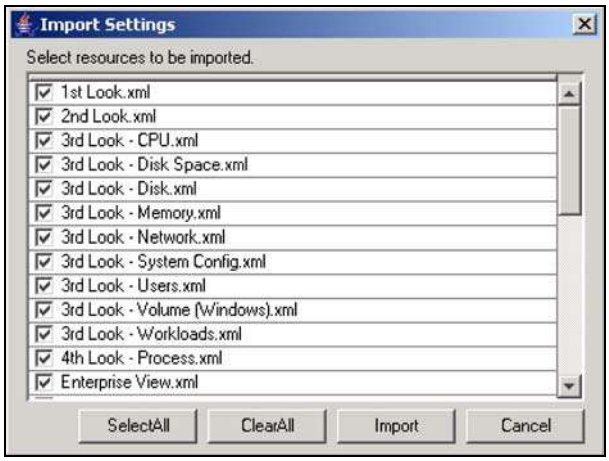


Figure 7.18 Import Settings dialog box

The most important function is that the Meta-View Web Installer saves all the settings in a zip file. These settings belongs to an old version of Meta-View Web, if there is one. Then, it installs the new version of Meta-View Web with the new settings. First time when Meta-View Web runs, it will discover some old settings and it will offer the user the possibility to import these settings. This way the user can import settings of different versions of Meta-View Web. This is useful for importing old hosts or pages and any other setting in order not to create the hosts or pages again.

Export Settings

The Export Settings command allows the user to select some or all settings (Figure 7.19), and by clicking the **Export** button a zip file is created (Figure 7.20) and Meta-View Web save these settings in it, when clicking the **Save** button. This way the saved settings can be transfered to another PC where they can be imported.

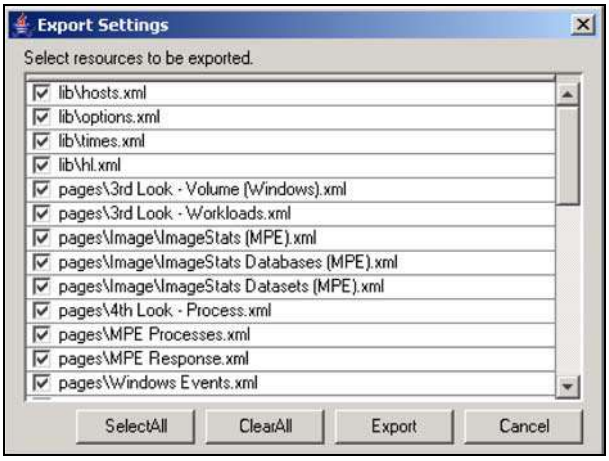


Figure 7.19 File menu: Export Settings command

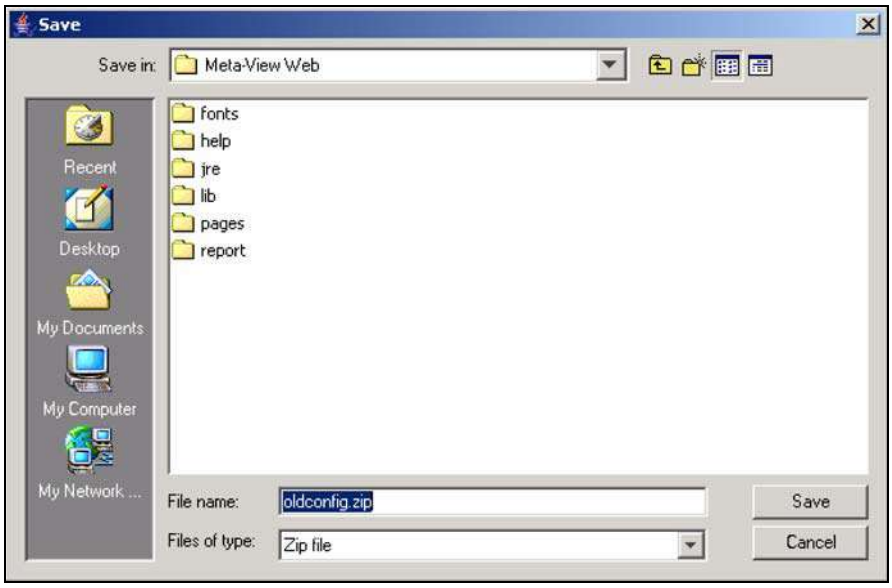


Figure 7.20 File menu: Export Settings command – Save dialog box

Exit Command

The Exit command allows the user to close the Meta-View Web program. This menu selection is the same as clicking on the 'X' or Close Program button found in the top right corner of the Meta-View Web window.

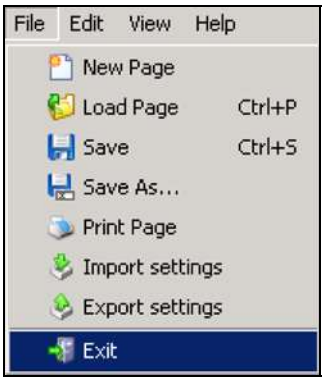


Figure 7.21 File menu: Exit command

Edit Menu

The Edit Menu contains eight options: Edit Page, Delete, Add Chart, Hosts, Host Lists, Refresh Hosts, Find Hosts, and Options. There are ALT plus key combinations for all of these options.

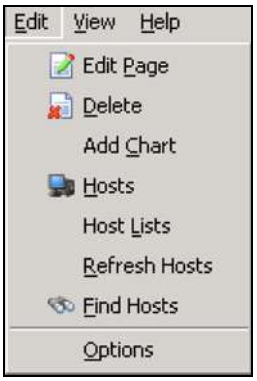


Figure 7.22 Edit Menu

Edit Page Command

The Edit Page Command launches the Page Editor, which allows the user to modify page characteristics and properties.

Page Editor Properties Tab

The Page Editor Properties Tab allows the user to edit the name of the page, adjust the background color and sampling rate in seconds and change whether the chart will rollup and whether it will refresh.

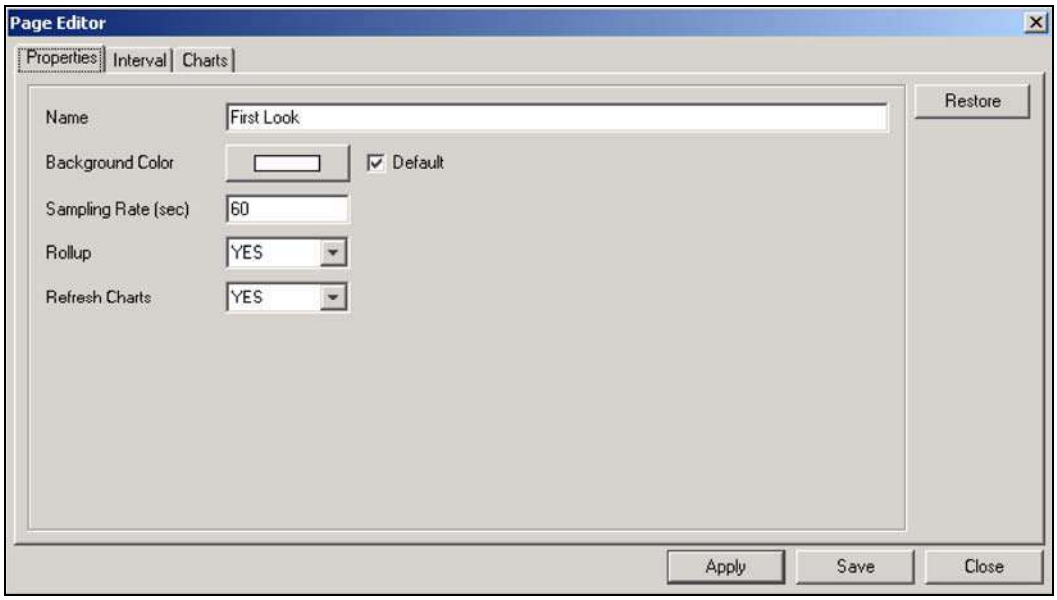


Figure 7.23 Edit menu: Edit Page command, Page Editor Properties Tab

Page Editor Interval Tab

The Page Editor Interval Tab allows the user to change the interval for the display of the data. There are options ranging from predefined intervals for ease of configuration to customized intervals where the user can specify a date and time range, the last day, week or month and even a time interval range where the user can limit the display to data collected from a narrow window of time. (e.g. 1:00 AM to 2:30 AM).

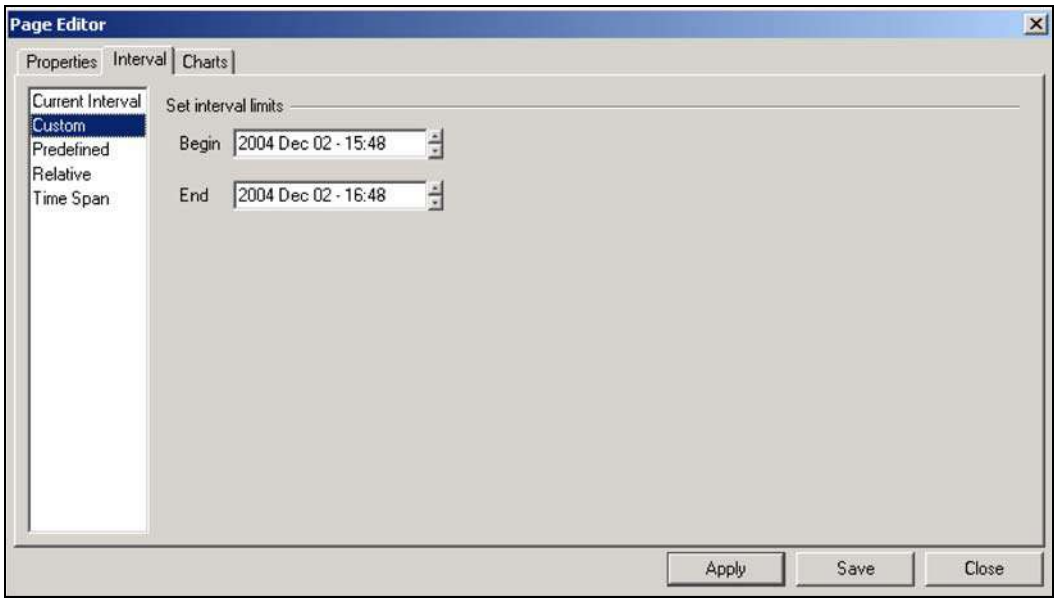


Figure 7.24 Edit menu: Edit Page command, Page Editor Interval Tab

Page Editor Charts Tab

The Page Editor Charts Tab allows the user to change everything from the name of the chart to the properties of every table and chart on the page. The Page Editor Charts Tab contains several additional tabs to make configuration changes. The tabs are Properties, Engine, Hosts, Host Lists, Interval, Items, and Drill Down. This Charts dialog box also allows the user to determine the location of the charts on the new page. The Chart Position indicator at the bottom left is used to define a chart's position on the page.

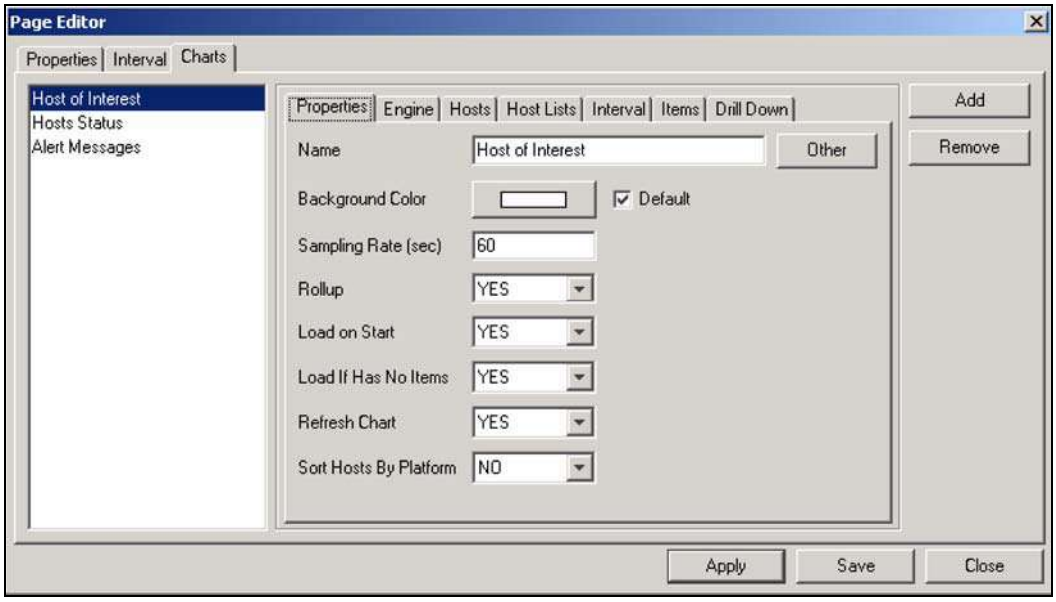


Figure 7.25 Edit menu: Edit Page command, Page Editor Charts Tab

Delete Page Command

The Delete Page command allows the user to remove the active page from the Pages folder.

Figure 7.26 Edit menu: Delete Page command

Add Chart Command

The Add Chart Command launches the New Chart Wizard, which directs the user step-by-step through the process of creating a new chart.

Set Chart Properties

The New Chart Wizard Set Chart Properties dialog box gives the user an opportunity to name the new chart and to set certain property parameters. The Properties dialog is where background color, sampling rate in seconds, rollup, refresh, sorting hosts by platform, and loading characteristics are set. These choices dictate the general look and feel as well as some of the behaviors of the newly created chart.

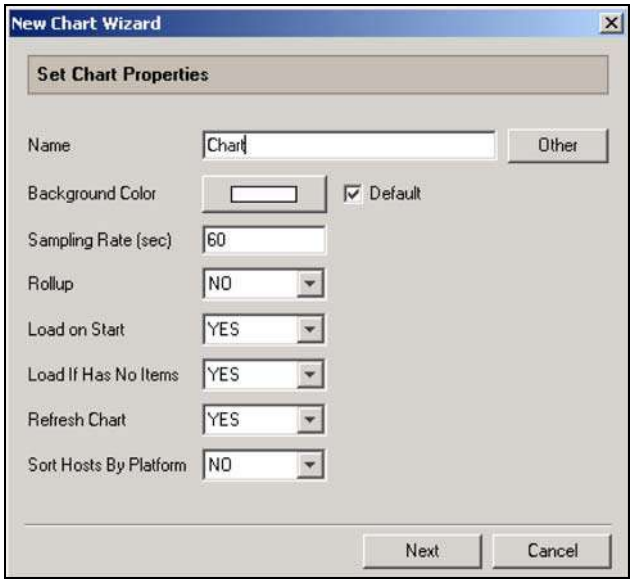


Figure 7.27 Edit menu: Add Chart command, New Chart Wizard, Set Chart Properties dialog

Set Chart Engine

The New Chart Wizard Set Chart Engine dialog box offers the user more configuration options. The user can select the type of chart from a drop down list of supported types, set the axis minimum and maximum or exchange the X-and Y-axis. **Note**: This tab allows the user to select the engine: 2D chart, 3D chart, table, alert log chart, twinkle chart, or gauge chart. Then, after selecting the engine, you can select other properties for the respective engine, like the type (line, area, etc.), min, and max.

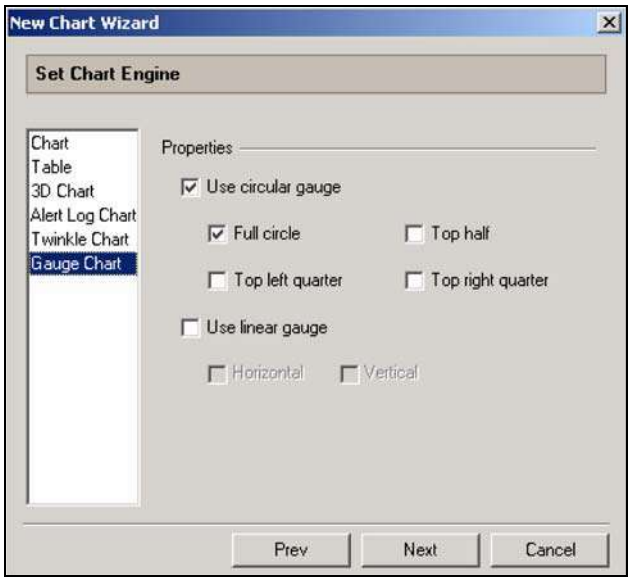


Figure 7.28 Edit menu: Add Chart command, New Chart Wizard, Set Chart Engine dialog

Add Hosts

The New Chart Wizard Add Hosts dialog box gives the user an opportunity to select the hosts to be displayed on the new chart. The available hosts are listed in the 'Select Hosts' pane of the dialog and when a host is chosen it appears in the 'Chart's Hosts' pane.

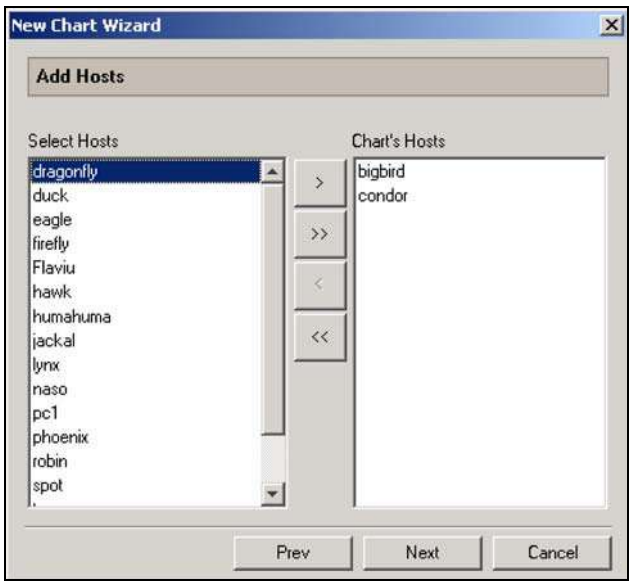


Figure 7.29 Edit menu: Add Chart command, New Chart Wizard, Add Hosts

Add Host Lists

The New Chart Wizard Add Host Lists dialog box enables the users to select entire host lists to be included in the chart. The available host lists are listed in the 'Select Host Lists' pane of the dialog and when a host list is chosen it appears in the 'Chart's Host Lists' pane.

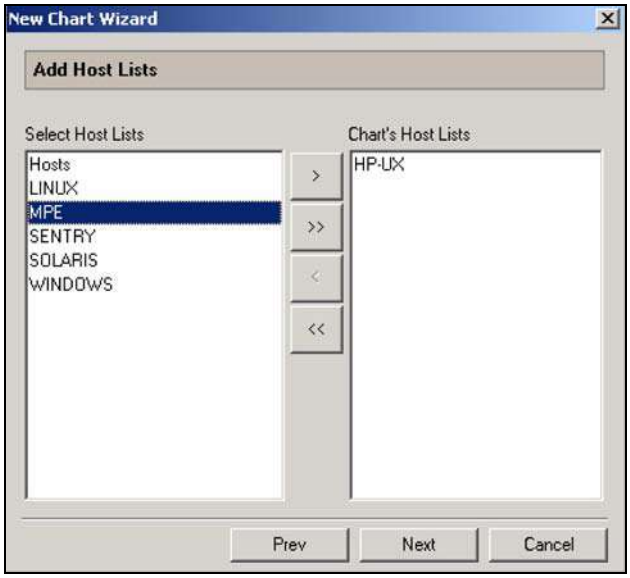


Figure 7.30 Edit menu: Add Chart command, New Chart Wizard, Add Host Lists

Set Interval

The New Chart Wizard Set Interval dialog box allows the user to select the interval displayed in the new chart. There are options ranging from current interval or predefined intervals for ease of configuration to customized intervals where the user can specify a date and time range, the last day, week or month and even a time interval range where the user can limit the display to data collected from a narrow window of time. (e.g. 1:00 AM to 2:30 AM)

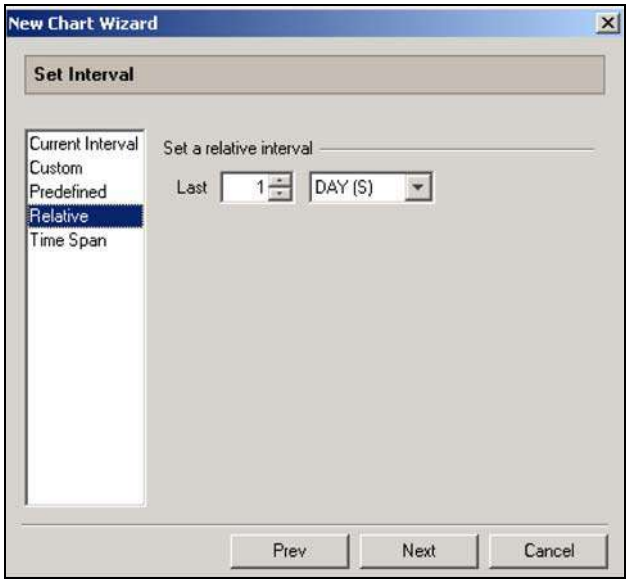


Figure 7.31 Edit menu: Add Chart command, New Chart Wizard, Set Interval

Add Items

The New Chart Wizard Add Items dialog box allows the user to set rules and identify items to display in the chart. The Filter button opens a dialog, allowing the user to specify a set of filtering rules. An item, an operator and a value make up a rule. When data is retrieved from an agent, the values are compared to those specified in filter rules. If one of the values in the instance fails to respect one rule, the entire instance is disregarded and it won't show up in the chart. This is very useful in defining the data the user wants to see, especially when there is lots of data in a chart.

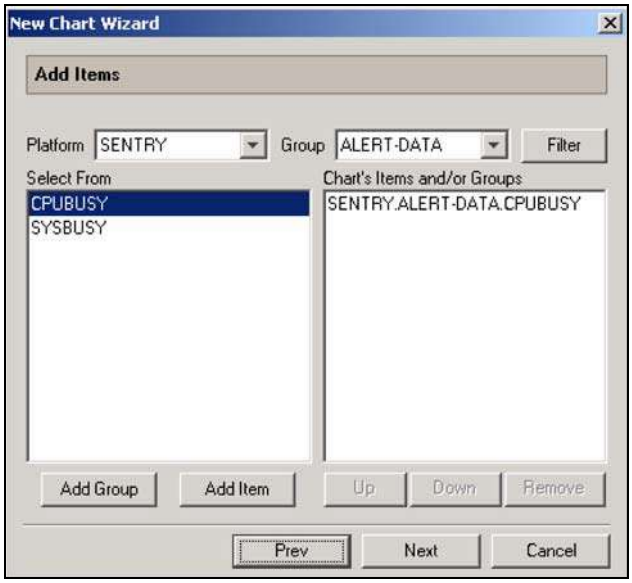


Figure 7.32 Edit menu: Add Chart command, New Chart Wizard, Add Items dialog

Set Drill Down

The New Chart Wizard Set Drill Down dialog box allows the user to adjust chart parameters related to its drill down behavior. The options include name, items, hosts, and interval for that chart.

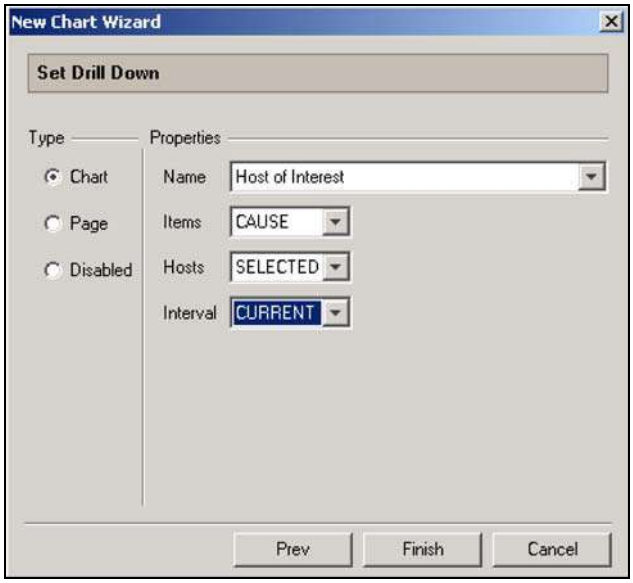


Figure 7.33 Edit menu: Add Chart command, New Chart Wizard, Set Drill Down

Save Chart

The New Chart Wizard Save Chart dialog box allows the user to save the newly created chart as part of the active page. The updated page file will remain in the Pages folder and will retain the .xml extension required by Meta-View Web.

Figure 7.34 Edit menu: Add Chart command, New Chart Wizard, Save Chart

Edit Hosts

The Host Editor dialog box enables the user to edit the properties of any host. This dialog box also allows the user to add and remove hosts as needed. The updated hosts file will remain in the Lib folder and will retain the .xml extension required by Meta-View Web.

Name

The user can name the host a common name that identifies that computer in his or her environment.

Internet Address

This specifies the exact computer on the network. A name that resolves to a specific IP address can also be used. (E.g. mycomputer.mycompany.com)

Port Number

Meta-View Web listens on port 5381. This is the default port for Meta-View communication.

Time-out (sec)

The user can specify the time-out in seconds for that particular host on the network. If connection errors occur, this time-out number can be raised to allow more time for the Meta-View Web client to establish a connection to the data service.

Color

The user can specify a color to distinguish a server. The user may choose to designate a color to a platform. Such as all HP-UX systems are yellow. Or the user may choose to designate a color to a section of the subnet or a department. Such as all accounting computers are green.

Host Type

This field refers to the detected host type for a particular host.

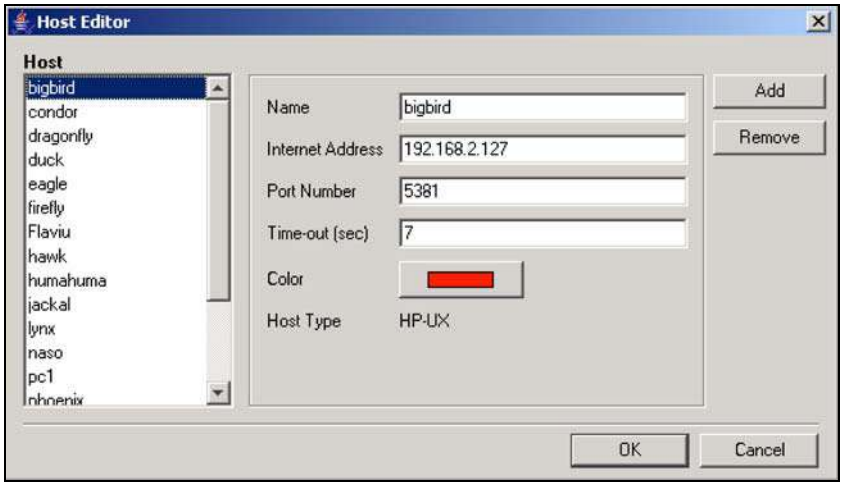


Figure 7.35 Edit menu: Hosts command

Host Lists Command

The Host List dialog box enables the user to edit the properties of any host list. This dialog box also allows the user to add and remove host lists as needed. The updated host list file (hl) will remain in the Lib folder and will retain the .xml extension required by Meta-View Web.

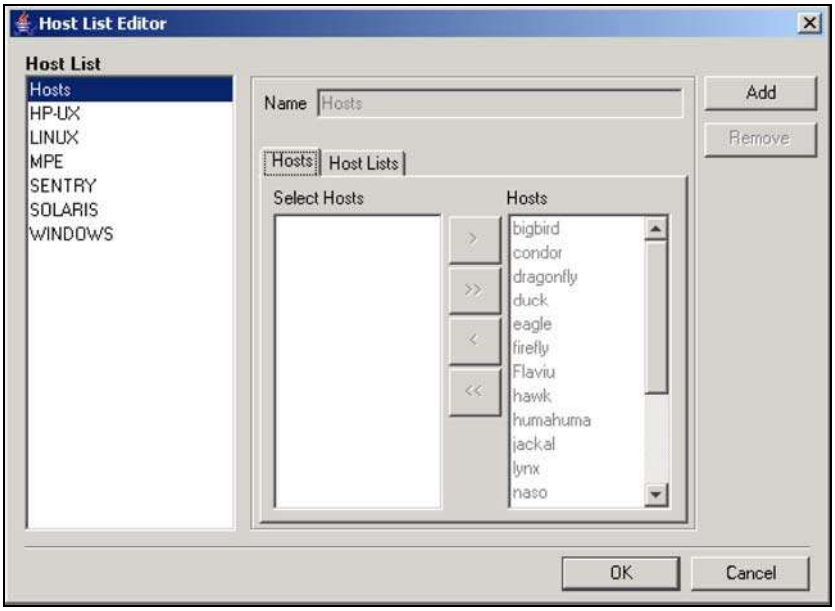


Figure 7.36 Edit menu: Host Lists command

Refresh Hosts Command

The Refresh Hosts Command updates the settings for each of the existing hosts.

Figure 7.37 Edit menu: Refresh Hosts command

Find Hosts Command

The Find Hosts Command searches for new hosts not already listed in the hosts tab or hosts editor and updates the settings for each of the existing hosts. This function is the same as the Automatic Host Discovery.

Figure 7.38 Edit menu: Find command

Options Command

The Options command opens the Options Editor dialog box. The Options Editor dialog box contains a number of valuable option settings. The user can adjust fonts, enable/disable automatic host discovery, optimize memory management, use the host's time in tool tips, compress data on retrieval, link scrolling charts, show chart axis values during translation and show chart tool tips.

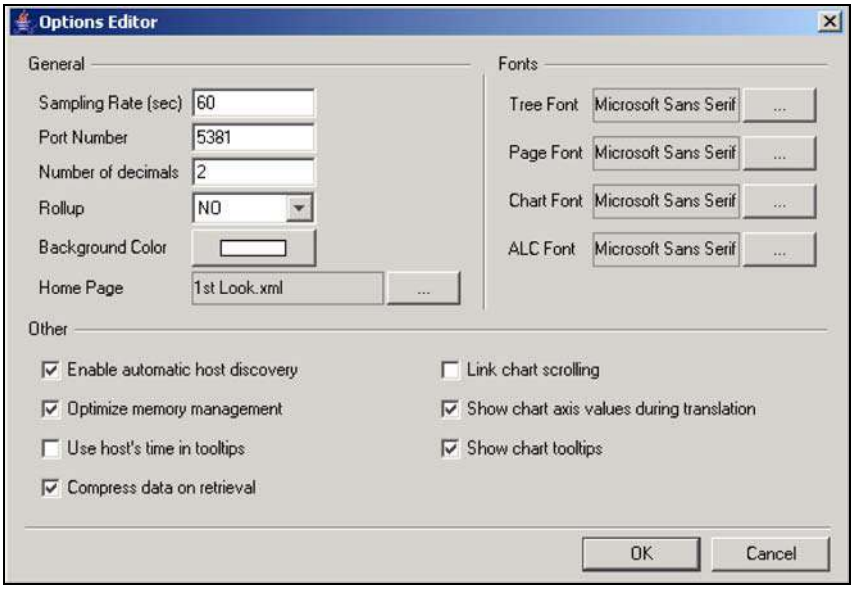


Figure 7.39 Edit menu: Options command

The Options Editor dialog box is divided into **General**, **Fonts** and **Other** properties, with **General** parameters occupying the top left half of the dialog box. The **Fonts** parameters occupy the top right half and the **Other** options occupy the bottom part of the dialog box.

General

There are six parameters used by the General feature of the Options Editor:

- Sampling Rate (sec)
- Port number
- Number of decimals
- Rollup
- Background Color
- Home page

Sampling Rate (sec)

This is the time interval between samples. When a new page/chart is created, this parameter has the default value (60 seconds).

Port Number

Meta-View Web listens on port 5381. This is the default port for Meta-View communication.

Number of decimals

This parameter represents the number of displayed decimals in tables, tooltips and so. The default value is 2.

Rollup

When a data request is made, Meta-View Web send this parameter to the Meta-View Agent. The default value is NO. If it is set to YES, then the agent make the "rollup", meaning it cumulates more samples in one. For example, if the collector collects data every minute, and Meta-View Web is set

to show any sample every 5 minutes, then in the time interval of 5 minutes there are 5 samples logged. Let's say the time interval 9:55 AM– 10:00.AM The agent can return the last sample logged, the one at 10:00 AM (rollup = NO), or it can cumulate those 5 samples (an average of them is made) in one sample that will will be returned (rollup = YES). This is important. At 9:57 AM can be a huge spike, let's say a spike of 99, while at 10:00 AM we have a spike of 0.1. If rollup = NO, Meta-View Web shows 0.1, like there is no problem. If rollup = Yes, Meta-View Web will show a greater value, an average for the time interval, depending on the spike size. But, if the collector collects data every 5 minutes and Meta-View Web is set at 60 seconds resolution, then rollup is worthless because the agent has nothing to cumulate, there are fewer logged samples then the requested ones.

Background Color

The user can specify the color of the background for the left pane, page and charts. The default color is black.

Home Page

Using this parameter, the user can specify the page loaded at start up. The default page is the First Look Page. To choose another home page:

1. Click on the ... button. The Open dialog box displays (see Figure 50 on page 53).
2. Choose the page you want to be the home page.
3. Click the **Open** button.
4. Click **Apply**.
5. If all modifications are made click **Save** and then click **Close**.

Fonts

There are four parameters by the Fonts feature of the Options Editor:

- Tree Font
- Page Font
- Chart Font
- ALC Font

Tree Font

This is the font used by the left pane.

Page Font

This is the font used by the page label.

Chart Font

This font is used by the charts (tables, chart label and legend).

ALC Font

This font is used by the ALC charts.

To change any of the fonts above:

1. Click the ... button of the related font. The Font Editor dialog box displays (see the next figure).

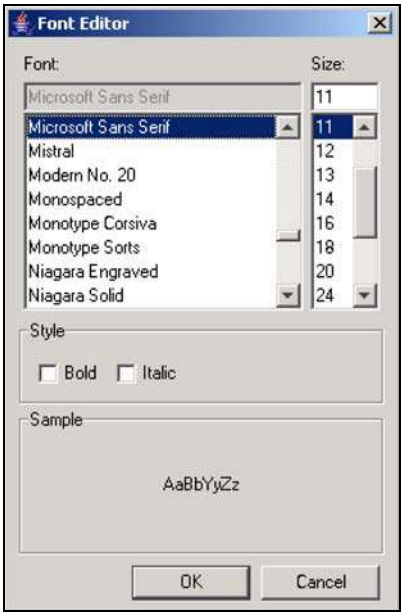


Figure 7.40 Font Editor dialog box

2. In the Font Editor dialog box, select your choice of font, size, and style.
3. Click OK.
4. Click **Apply**.
5. If all modifications are made click **Save** and then click **Close**.

Other

There are seven options used by the Options Editor:

- Enable automatic host discovery
- Optimize memory management
- Use host's time in tooltips
- Compress data on retrieval
- Link chart scrolling
- Show chart axis values during translation
- Show chart tooltips

Enable automatic host discovery

If the user check this option then the host discovery is enabled at startup. The default value is enabled.

Optimize memory management

If this option is enabled and if there in not enough available memory, then Meta-View Web deletes the first values that are memorised for a chart. If this option is disabled and there are a lot of data because of a large time interval, low resolution and/or a lot of items or hosts, Meta-View Web keep adding the received data to those existant, till it "dies" – *Out Of Memory Exception*. Some of the samples are discarded if there is not enough room to keep all of them. The default value is enabled.

Use host's time in tooltips

The time displayed in the charts is translated depending on the meantime zone between Meta-View Agent and Meta-View Web (it displays the relative time to the Meta-View Web's Time Zone) if this option is enabled, tooltips shows the real time (related to Meta-View Agent) when that value it was recorded (it was done this way in order to line up the data received from hosts in different zones). If

the user enable this option, in the tooltips is used the host's time, not the local time. The default value is disabled.

Compress data on retrieval

When this option is enabled, the answer received from the Meta-View Agent is compressed (with zip). Compressed data is retrieved faster. The default value is enabled.

Link chart scrolling

If this option is enabled, all the charts scroll when the user scrolls one of the charts. The default value is disabled.

Show chart axis values during translation

If this option is enabled then the user can see the charts axis annotation during translation. If this option is disabled, some charts update more quickly. The default value is enabled.

Show chart tooltips

If this option is enable, then the user can see the data details when moving the mouse over the charts. The default value is enabled.

View Menu

The View Menu contains ten selection options. The top four are toggle options that turn on or off certain components of the Meta-View Web screen. The bottom six options address navigation through pages and updating or halting the update of data on a page, and changing the skin for Meta-View Web. There are ALT plus key combinations for all of these options.

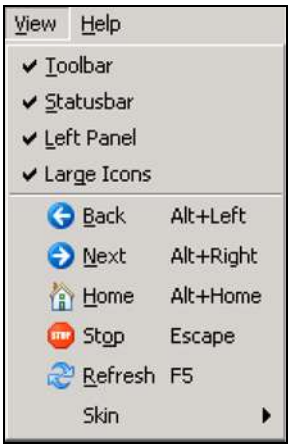


Figure 7.41 View menu

Option	Description
Toolbar	A toggle to turn on and off the display of the toolbar.
Status Bar	A toggle to turn on and off the display of the status bar.
Left Panel	A toggle to turn on and off the display of the left panel.
Large Icons	A toggle to display the toolbar with large or small icons.
Back	Allows the user to move back one page view.
Next	Allows the user to move forward one page view.
Home	Resets the display to the home view as set in the options editor, typically the 1st Look Page.
Stop	Halts the data refresh process.
Refresh	Initiates the data refresh process and repaints the page displayed.
Skin	Allows the user to choose the look for Meta-View Web (Metal, CDE/Motif, Windows, and Windows Classic)

Table 7.1 Meta-View Web: View Menu Options

Help Menu

The Help Menu contains four menu options: Help Contents, Message Console, Verbose On/Off, and About Box. There are ALT plus key combinations for all of these options.

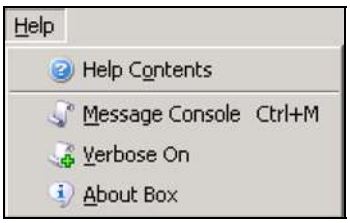


Figure 7.42 Help menu

Help Contents

The Meta-View online help facility contains a summary of the menu commands.

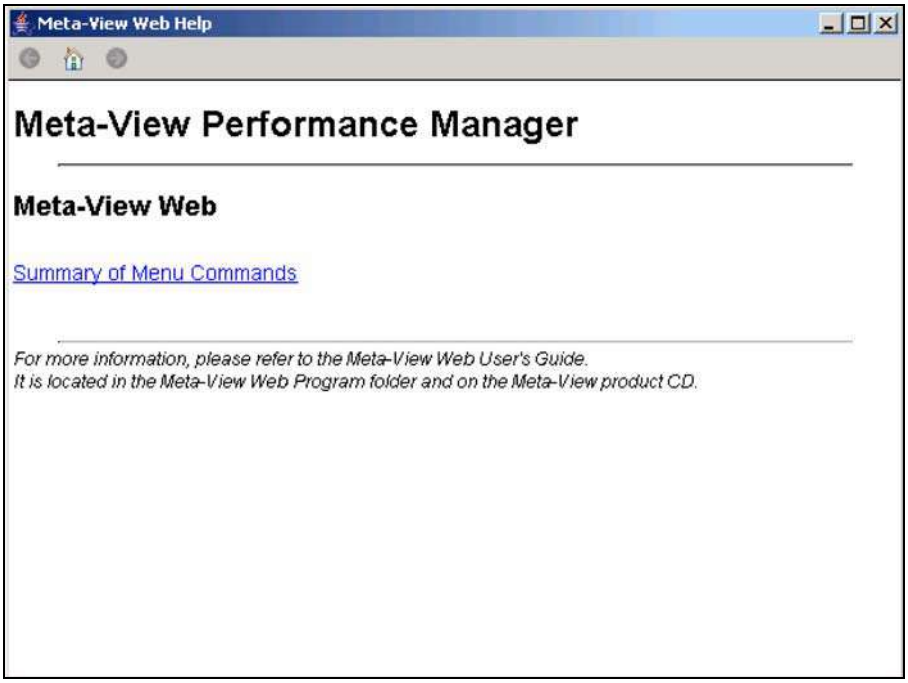


Figure 7.43 Help menu: Help Contents command

Message Console

The Message Console displays messages generated by Meta-View Web.

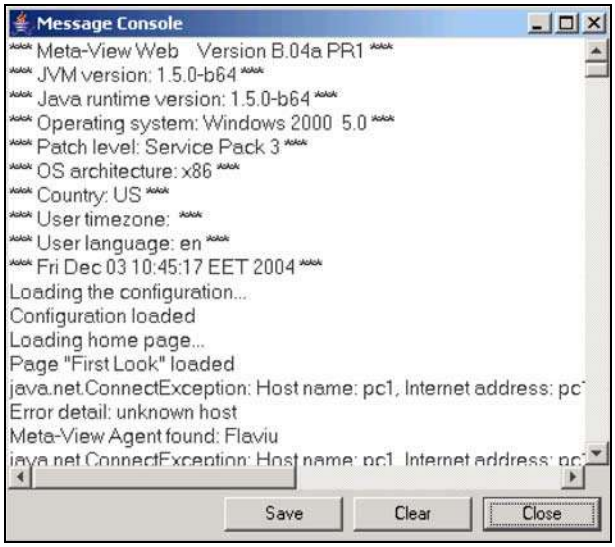


Figure 7.44 Help menu: Message Console command

Verbose On/Off

This is a toggle function that addresses the wordiness of the message console messages. The menu displays the alternate option setting: Verbose On or Verbose Off. When the menu reads Verbose On, you can click on that option to turn the setting to 'on'. When the menu reads Verbose Off, you can click to turn the setting to 'off'.

About Box

The About Box identifies the software version, copyright, and Lund URL information associated with the installed software product.

Figure 7.45 Help menu: About Box command

8

Shortcut Keys and Toolbars in Meta-View Web

This chapter addresses shortcut keys and toolbars available in Meta-View Web. Nearly every menu command has either a shortcut key or toolbar button to enable the user to more easily perform these operations.

Shortcut Keys

Meta-View Web commands can be invoked by a keyboard key or a key combination such as CTRL+P. These commands are listed in the following tables.

Application Shortcut Keys

Shortcut Key(s)	Command
ALT+LEFT ARROW	Back one page
ALT+RIGHT ARROW	Forward one page
ALT+HOME	Load home page
ESC	Stop page loading
F5	Refresh page
CTRL+P	New page
CTRL+S	Save page
CTRL+M	Open message console

Table 8.1 Application Shortcut Keys

Configuration Shortcut Keys

Shortcut Key(s)	Command
ENTER	Select a chart or a host, time or item from the Explorer pane and then press the ENTER key to Load a page or apply a host, time or item to an entire page.
CTRL+ENTER	Add selected hosts or items to the hosts or items already in the page.
ARROW UP/DOWN	Move up/down within the Explorer pane.
MOUSE+SHIFT	Select multiple hosts/items in the tree.
MOUSE+CTRL	Select specific host/items in the tree.
DOUBLE CLICK	Load the selected host/time/item in the page.
SINGLE CLICK any page	Select a page and then double-click the left mouse button to load the page.
DRAG & DROP	Select one or multiple hosts or items or a single time interval from the Explorer pane, and then drop them over the page title bar or over a chart to apply them to the entire page.
CTRL+DRAG & DROP	Add hosts/items to those already present in the page/chart.

Table 8.2 Configuration Shortcut Keys

Chart Shortcut Keys

To use the shortcut key commands described in the following table, first select a chart in a Meta-View Web page.

Shortcut Key(s)	Object	Command
SINGLE CLICK the chart	Charts that are configured to drill down to other charts	Click the chart using the left mouse button to drill down to the drill-down chart or page. (the drill-down chart or page is defined in the drill-down tab for each chart.) For example, click a chart in the First Page to drill down to the Second Look page. For information about this chart configuration, see "Chart Shortcut Menu" on page 77. The Chart Shortcut Menu is accessed via right click context menu.
SINGLE CLICK the chart margin	Any chart	Click the area between the chart and its border to return to the most recent chart displayed (opposite of drill down).
SHIFT+MOUSE DRAG	Any 2D and 3D chart or their legend	Hold down SHIFT and use the left mouse button to scroll through chart data in either direction on the x-axis. If you use that command on the legend, you can scroll the legend to the right or left. It works with large legends, that do not fit in the display area.
CTRL+MOUSE DRAG	Charts that are two-dimensional with three-dimensional bars; or a three dimensional pie chart	Hold down CTRL and use the left mouse button to rotate the 2D chart.
CTRL+MOUSE DRAG	Charts that are three-dimensional (x, y, and z axes)	Hold down CTRL and use the left mouse button to rotate the 3D chart.
X+CTRL+ MOUSE DRAG	Charts that are three-dimensional (x, y, and z axes)	Click somewhere on the chart so the chart gets keyboard focus and press X. Hold down CTRLand use the left mouse button to rotate the chart on its horizontal vertical axis.
Y+CTRL+ MOUSE DRAG	Charts that are three-dimensional (x, y, and z axes)	Click somewhere on the chart so the chart gets keyboard focus and press Y.Hold down CTRL and use the left mouse button to rotate the chart on its vertical category axis.
Z+CTRL+ MOUSE DRAG	Charts that are three-dimensional (x, y, and z axes)	Click somewhere on the chart so the chart gets keyboard focus and press Z.Hold down CTRL and use the left mouse button to rotate the chart on its depth axis (z-axis).
CTRL+SHIFT+MOUSE DRAG	Any two- or three-dimensional chart	Hold down CTRL and use the left mouse button to zoom in on the selected chart area.
R	Any two- or three-dimensional chart	Use the R key to reset the chart to its original size and position. The chart has to be clicked first to get the keyboard focus.
DOUBLE CLICK a chart title bar	Any chart	Double-click the chart title bar to maximize or restore the chart to its original size and position.
SINGLE CLICK a table row header	Any table	Click the row header to select the row.
SINGLE CLICK a column header	Any table	Click the column header to sort the table.

Table 8.3 Chart Shortcut Keys

Shortcut Menus

Meta-View Web has two shortcut menus: one that appears when the user right-clicks the page title bar, and another that appears when the user right-clicks a chart. There are shortcut menus (also known as context menus) for Pages,

Hosts and Times tab in the configuration pane. Another context menu is obtained with a right click on the chart's title bar, and has the Resize command.

Page Shortcut Menu

The Page shortcut menu commands are described in Table 8.4. For more information about these page commands, see "Menus and Commands in Meta-View Web" on page 42.

Figure 8.1 Page Shortcut Menu

Shortcut Command	Description
New Page	Defines the properties, interval and charts of a new Meta-View Web page.
New Folder	Creates a new folder.
Rename	Renames the active page.
Edit	Edits the active page.
Delete	Deletes the active page.

Table 8.4 Page Shortcut Menu commands

Chart Shortcut Menu

Figure 8.2 Chart Shortcut Menu

Shortcut Command	Description
Edit Chart	Edit the active chart.
Edit Page	Edit the active page.

Drill Down to Chart...	Select a chart to be the drill-down target. The active page must contain at least one other chart that qualifies as a drill-down chart. A host is selected by the location of the mouse click.
Drill Down to Page...	Select a page to be the drill-down target. The host to be displayed is selected by the location of the mouse click.
Drill-Up	The reverse of the drill-down, this allows the user to move to a more broad representation of the data.
Refresh Chart	Restarts the data refresh process in case it was stopped.
Stop Chart	Stops the refreshing process. The chart will not reload any more data.
Reload Chart	Initiates a reload of the active chart and updates the data.
Delete Chart	Removes the chart from the page and gives the user the option to resave the page without the chart.
Delete Page	Removes the page from the Meta-View Web.
Chart Report	Generates a report. This is like printing a page, but instead the result is saved in an HTML file that can later be viewed and shared with others.
Print Chart	Prints the active chart.
Print Page	Prints the active page.

Table 8.5 Chart Shortcut Menu commands

Toolbar Icons

Meta-View Web commands can be invoked by using Toolbar buttons.

Button or Feature	Image	Description
New Page		The New Page button invokes the New Page Wizard. Using the New Page Wizard the user can create a new page from the ground up. The New Page Wizard walks the user through the process of creating a new page beginning with naming the page and ending with saving it to the appropriate Pages folder.
Load Another Page		The Load Page command allows the user to load pages into Meta-View Web. By browsing through files and folders, the user can locate pages to load into Meta-View Web for viewing. This is how pages can be shared between users and Meta-View Web instances. Once the user has browsed the file system and located the appropriate page, the user can either double-click on the file name or single-click on the Open button.
Save Page		When the user has made changes to a page he or she has the option to save those changes for future viewing. The Save command can be used for such a function. Because the page is saved using the same name the option to change the name of the page does not appear. To save a page using a different name, see the Save As… Command below.
Save Page As…		If the user has made a change to a page and would like to save those changes using a different page name, in essence creating a new page, he or she should use the Save As… command. This command opens the Save dialog box and allows the user to specify the name and location of the new page. The user has the option to overwrite an existing page or type in a new page name. Meta-View Web automatically adds the .xml extension.
Edit Hosts		The Edit Hosts button launches the Host Editor dialog box, which enables the user to edit the properties of any host. This dialog box also allows the user to add and remove hosts as needed.
Edit Page Properties		The Edit Page Properties button opens the Page Editor to the Properties Tab. From the Properties Tab of the Page Editor, the user is able to edit the name of the page, adjust the background color and sampling rate in seconds and change whether the chart will rollup and whether it will refresh. One can also edit any chart in the page by choosing the Charts tab. The Properties and Interval tabs of the Page Editor are used to set properties and the interval for all the charts.

Delete Page		The Delete Page command allows the user to remove the active page from the Pages folder.
Back		The Back command allows the user to move back one page view.
Next		The Next command allows the user to move forward one page view.
Stop Page		The Stop Page command
Refresh Page		The Refresh Page command initiates the data refresh process and repaints the page displayed.
Home		The Home command resets the display to the home view as set in the options editor, typically the 1st Look Page.
Print		The Print command allows the user to print the current page.
Hide Left Pane		The Hide Left Pane command allows the user to hide the left pane in Meta-View Web.
Lock Chart Scrolling		The Lock Chart Scrolling command allows the user to lock the scrolling function for a chart.
Current Host		The Current Host drop down box allows the user easy access to a host list to update the host of interest for the current page. It also indicates the current host of interest for the active page. A chart with any host defined in it will show data from the current host. Most of the predefined charts do not have any host defined in them. That way, they will show data from the current host when loaded. On the other hand, when you drill-down to a page, or you double click on a host in the Hosts tab of the configuration pane, the respective host becomes the current host.
Current Interval		The Current Interval drop down box allows the user easy access to a time interval list to update the time interval for the current page. It also indicates the current interval for the active page. A chart with any interval defined in it will show data with the current interval. Most of the predefined charts do not have any interval defined in them. That way, they will show data for the current interval when loaded. On the other hand, when you drill-down to a page, or you double click on an interval in the Times tab of the configuration pane, the respective interval becomes the current interval.

Table 8.6 Toolbar Icon Description

9

Alert Configuration File

The Meta-View Performance Manager suite of tools contains multiple methods for alerting based on resource and performance metrics. The alert config file within the Meta-View agent contains the parameters for the alert messages and the hosts status chart found on the first look page of Meta-View Web. This file is also used by Meta-View Alert to determine whether a particular alert rule is true or false. In this chapter you will learn to update the alert config file that is the basis for alerting within the Meta-View suite of products.

Location

The alert configuration file is located on the host as part of the Meta-View Agent.

Platform	Location
MPE	`alertcfg.mvdata.lund`
Unix	`/opt/lund/lib/alert_config`
Windows	`C:\Program Files\Lund Performance Solutions\Meta-View Agent\alert_config_windows.xml` `C:\Program Files\Lund Performance Solutions\Meta-View Agent\alert_config_sentry.xml`

Table 9.1 Alert Configuration File Locations by Platform

Editing

The alert config file is a text file and can be edited in any text editor. Once the file is edited to your satisfaction, simply save the newly updated file in the original location.

Alert Data Item Attributes

AlertData items are used to send composite "system-status" data to Meta-View clients. All alertData items are members of the class "ALERT-DATA". These data are typically displayed in the "System Status" chart of Meta-View Web's "1st Look" page. Attributes for an alertData item:

Attribute	Description
name	The item name (e.g. SYSBUSY).
formula	A simple arithmatic combination of regular items (e.g. "CPU.CPU-SYS% + CPU.CPU-USER%"). Notes regarding formulas: a) Item names must be specified in full CLASS.ITEM format. b) Operators (e.g. "+") must be separated from item names by whitespace. c) Valid operators are: +, -, * and /.
min, max	Minimum and maximum values expected to result from computing the formula. These are used to scale the alert-data item's value to the range 0-100: value = (formula - min) * 100 / (max - min) if (formula < min) value = 0 if (formula > max) value = 100
yellow, red	Thresholds for the color-level of the alert-data value: if (value >= red) color = RED else if (value >= yellow) color = YELLOW else color = GREEN **Note**: this interpretation is carried out by the client: (mvWeb, mvMobile)
description	An optional text string describing the alert-data item. If the description attribute is requested, This text is sent in the response.
components	A string listing the data items that are used in the alert-data item's formula. They are used to find out for example which items are required for a formula to be evaluated correctly.

Table 9.2 Alert Data Item Attributes

Alert Message Attributes

AlertMessage items are used to send messages describing important system events (e.g. "Global average response time is excessively high.") to Meta-View clients. All alertMessage items are members of the class "ALERT-MSG". These messages are typically displayed in the "Alert Log" chart of Meta-View Web's "First Look" page.

Attribute	Description
name	The item name (e.g. RESPONSE).
trigger	A simple boolean expression. If the expression evaluates to TRUE during an interval, the alert message is considered to have been triggered. a) Item names must be specified in full CLASS.ITEM format. b) Operators (e.g. "+") must be separated from item names by whitespace. c) The comparison operators ">" and "<" should be replaced by "<" and ">". d) Valid operators are: +, -, * and /.
priority	A number describing the severity of the event. 1 = low (displayed by mvWeb in white text) 2 = medium (displayed by mvWeb in yellow text) 3 = high (displayed by mvWeb in red text)
text	The text of the message to be displayed when the alertMessage has been triggered.
description	An optional text string describing the alert-data item. If the description attribute is requested, This text is sent in the response.
components	A string listing the data items that are used in the alert-data item's formula. They are used to find out for example which items are required for a formula to be evaluated correctly.

Table 9.3 Alert Message Attributes

A

Lund Pre-Configured Pages

UNIX

Second Look for a Unix system displays data for CPU Utilization, Memory Management, Disk Activity and Network Traffic. This assists the user to identify which of the major resources appears to be contributing to the performance issues at hand.

Figure A.1 Second Look page: UNIX system

Windows

Second Look in for a Windows system displays data for CPU Utilization, Memory Management, Disk Activity and Network Traffic. This assists the user to identify which of the major resources appears to be contributing to the performance issues at hand.

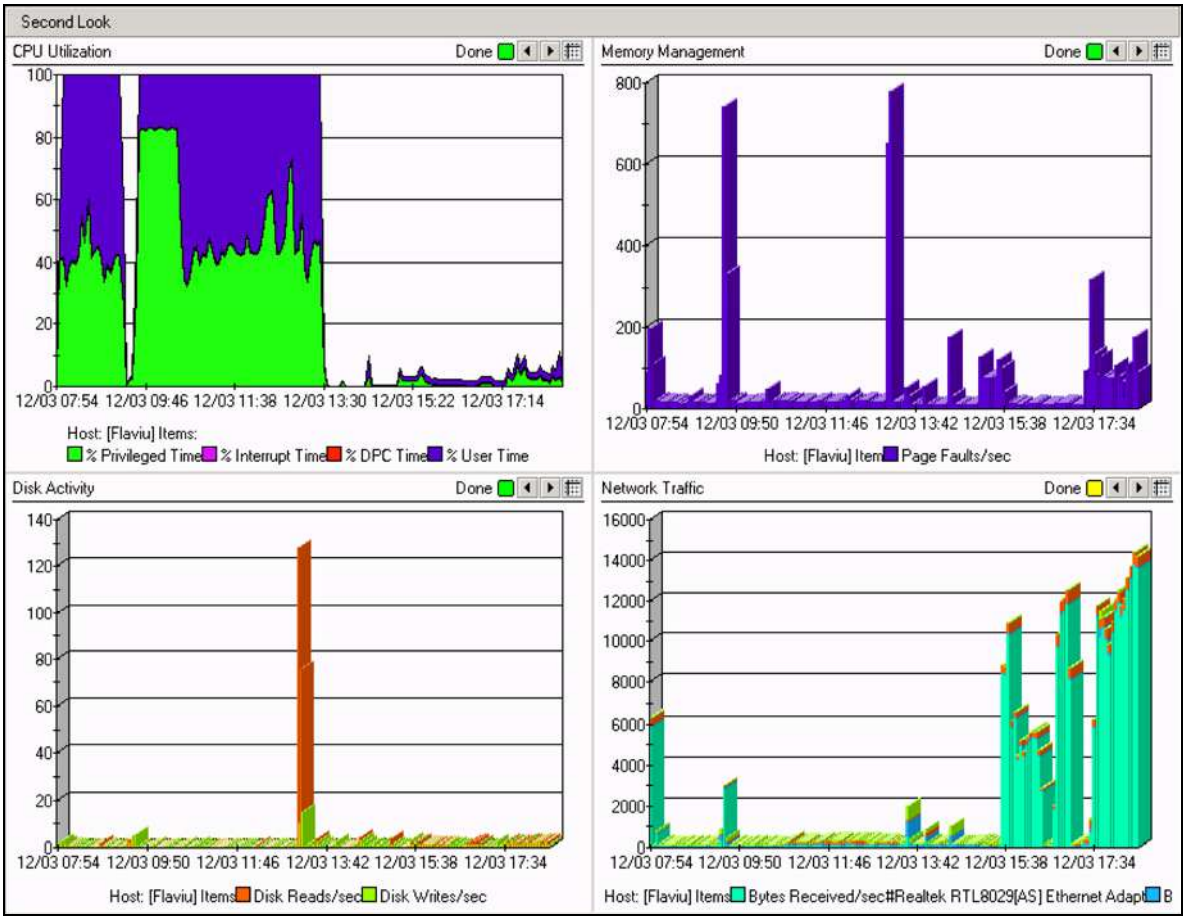


Figure A.2 Second Look page: Windows system

Disk

Third Look for Disk shows charts reporting Disk or I/O related data. Metrics such as Disk Queue Length, Disk Service Time, Physical Disk Activity, and Disk I/O display on the Third Look for Disk page.

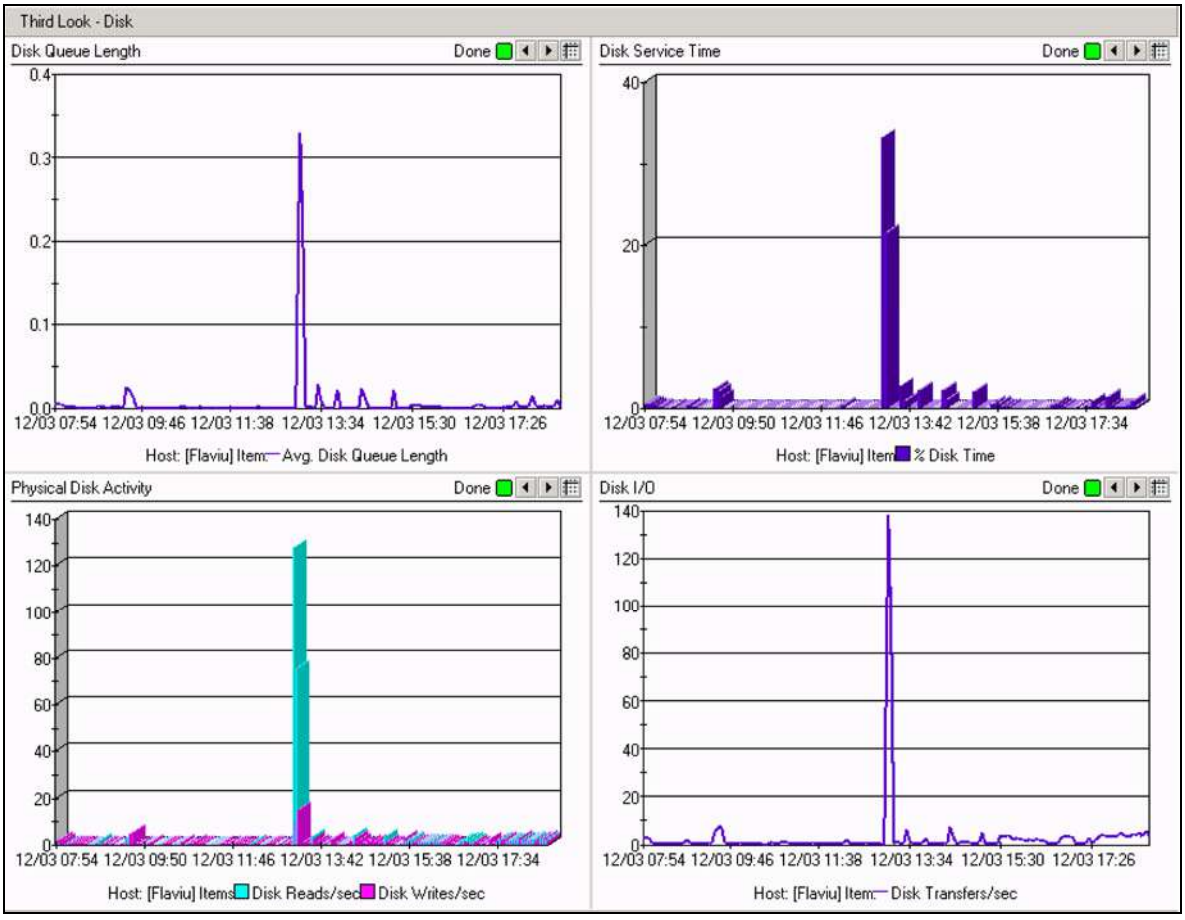


Figure A.3 Third Look page: Disk

Disk Space

Third Look for Disk Space shows charts reporting Disk or I/O related data. Metrics such as Disk Space Free, Disk Space Used, Inodes Free, and Disk Space by Device display on the Third Look for Disk Space page.

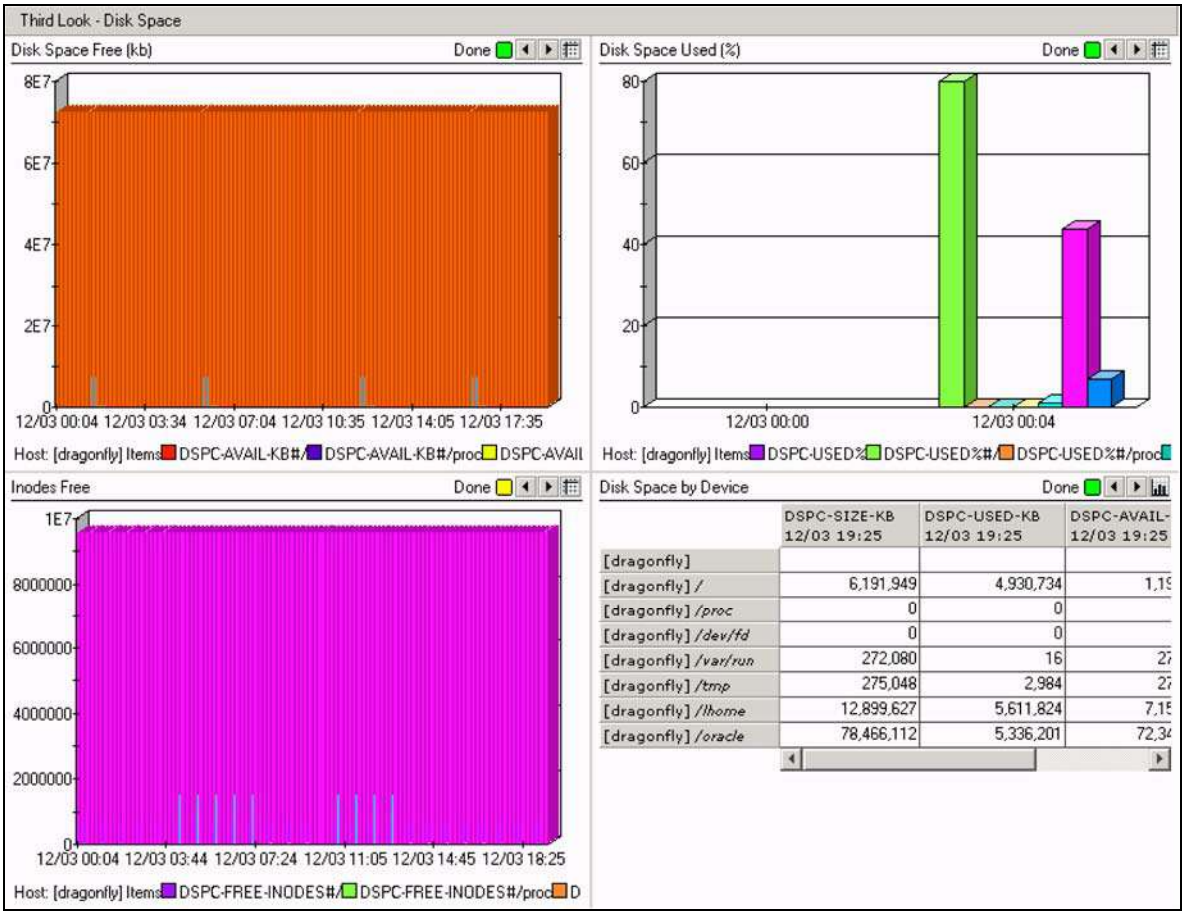


Figure A.4 Third Look page: Disk Space

Memory

Third Look for Memory shows charts reporting Memory related data. Metrics such as Memory Utilization, Cache Hit Ratios, Memory Paging, and Page Faults display on the Third Look for Memory page.

Figure A.5 Third Look page: Memory

Network

Third Look for Network shows charts reporting Network related data. Metrics such as Errors by Protocol, Traffic by Protocol, Errors by Interface, and Traffic by Interface display on the Third Look for Network page.

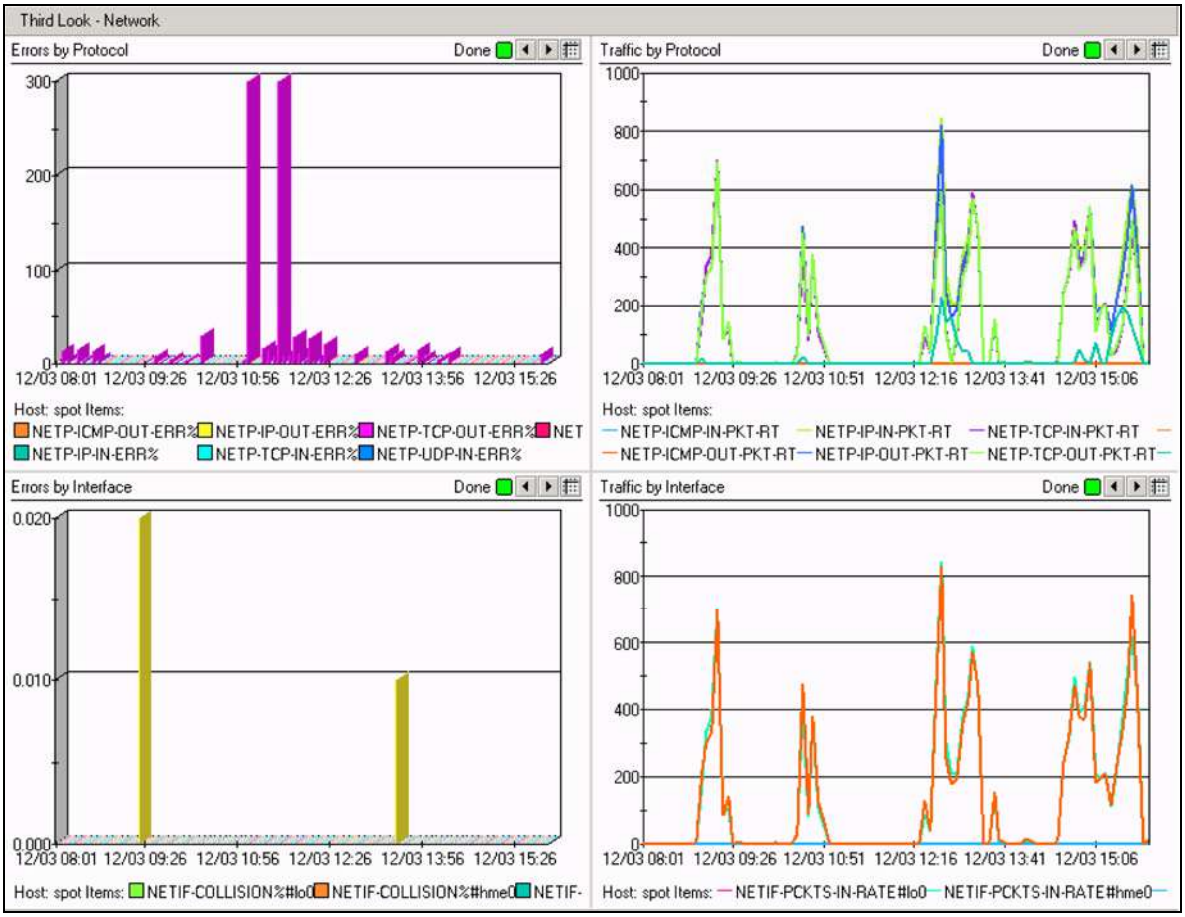
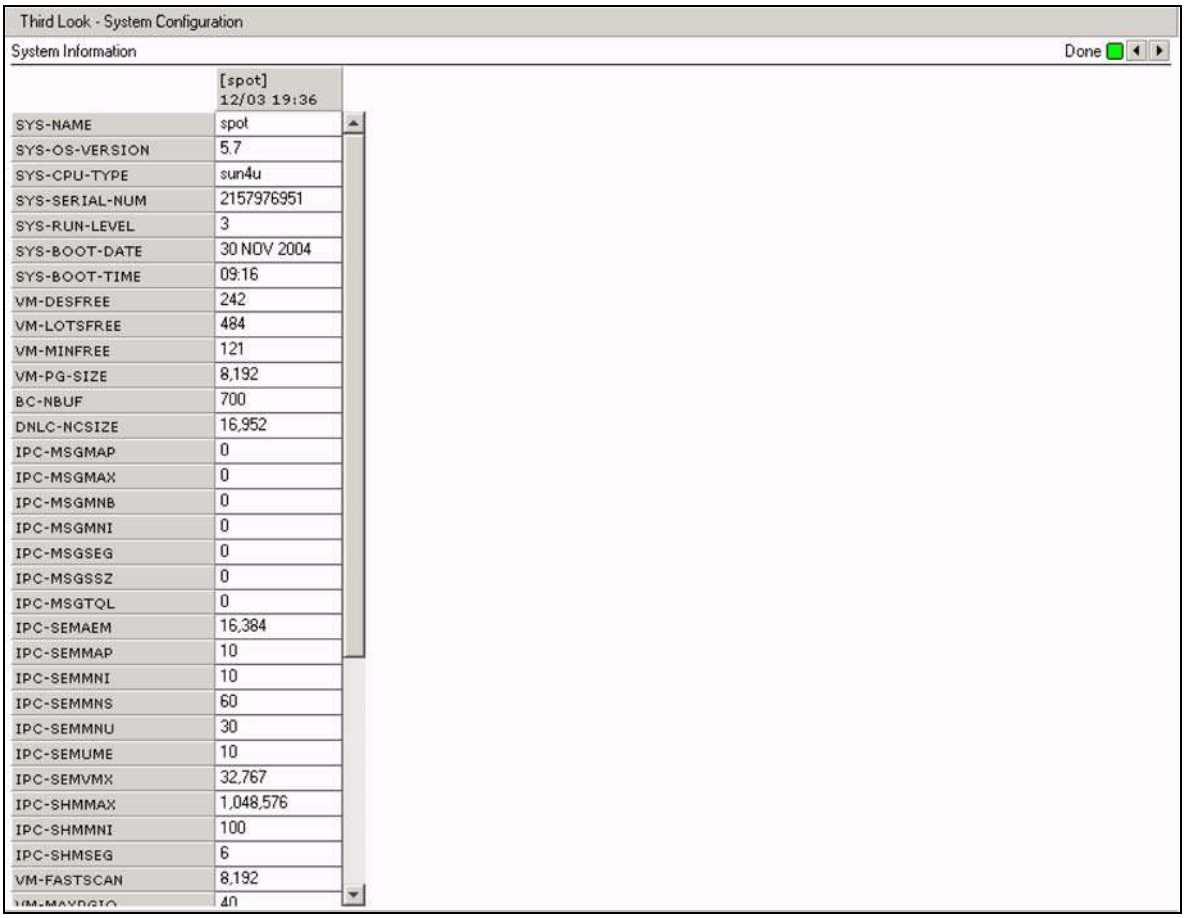


Figure A.6 Third Look page: Network

System Config

Third Look for System Configuration shows charts and tables reporting data related to the system's configuration. Metrics such as System Information, display on the Third Look for System Configuration page.



	[spot] 12/03 19:36
SYS-NAME	spot
SYS-OS-VERSION	5.7
SYS-CPU-TYPE	sun4u
SYS-SERIAL-NUM	2157976951
SYS-RUN-LEVEL	3
SYS-BOOT-DATE	30 NOV 2004
SYS-BOOT-TIME	09:16
VM-DESFREE	242
VM-LOTSFREE	484
VM-MINFREE	121
VM-PG-SIZE	8,192
BC-NBUF	700
DNLC-NCSIZE	16,952
IPC-MSGMAP	0
IPC-MSGMAX	0
IPC-MSGMNB	0
IPC-MSGMNI	0
IPC-MSGSEG	0
IPC-MSGSSZ	0
IPC-MSGTQL	0
IPC-SEMAEM	16,384
IPC-SEMMAP	10
IPC-SEMMNI	10
IPC-SEMMNS	60
IPC-SEMMNU	30
IPC-SEMUME	10
IPC-SEMVMX	32,767
IPC-SHMMAX	1,048,576
IPC-SHMMNI	100
IPC-SHMSEG	6
VM-FASTSCAN	8,192
VM-MAXPGIO	40

Figure A.7 Third Look page: System Configuration

Users

Third Look for Users page shows charts and tables reporting data related to User s. Metrics such as CPU % by Process, Disk I/O by Process, and Prompt Response by Process display on the Third Look for Users page.

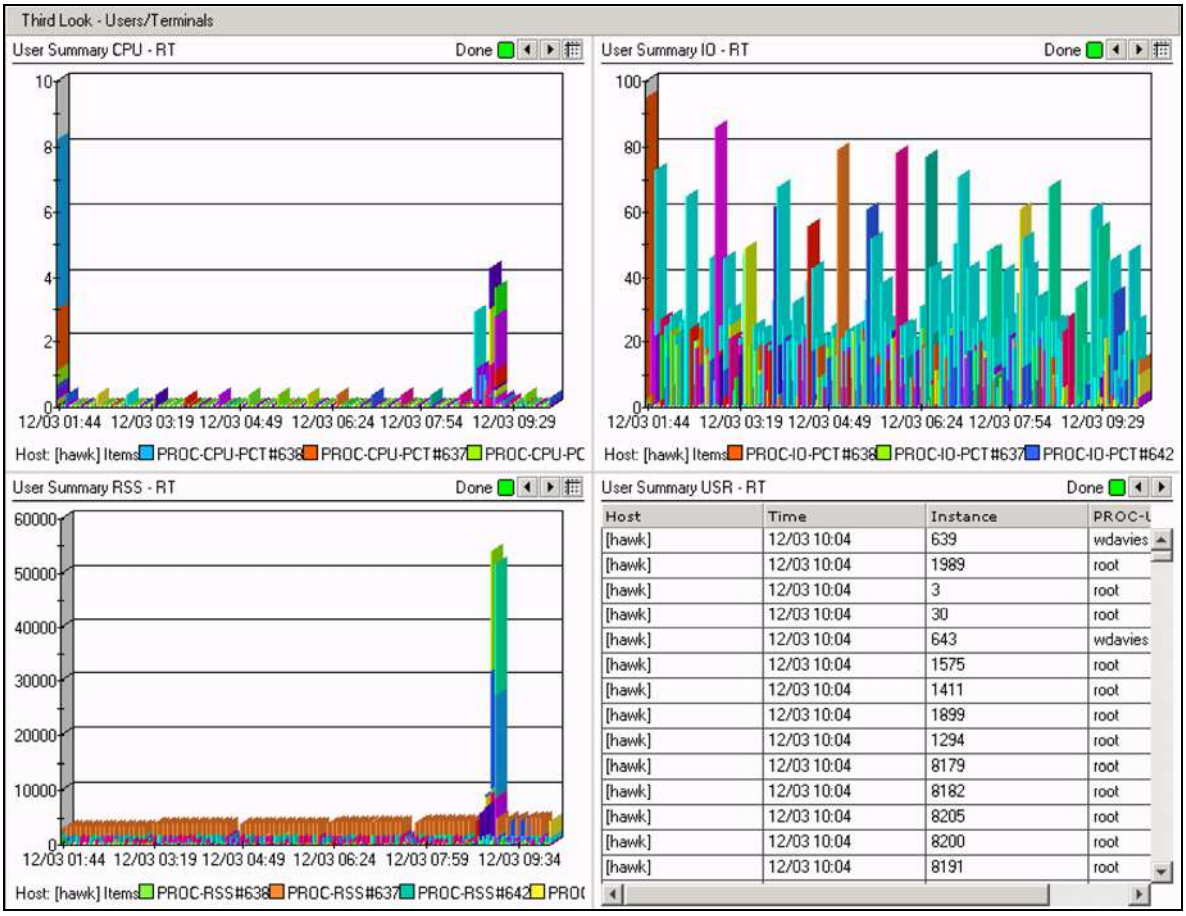


Figure A.8 Third Look page: Users

Workloads

Third Look for Workloads shows charts and tables reporting data related to the workload configuration and load. Metrics such as Workload Definitions-RT, CPU Usage, Disk Usage and Memory Usage display on the Third Look for Workloads page.

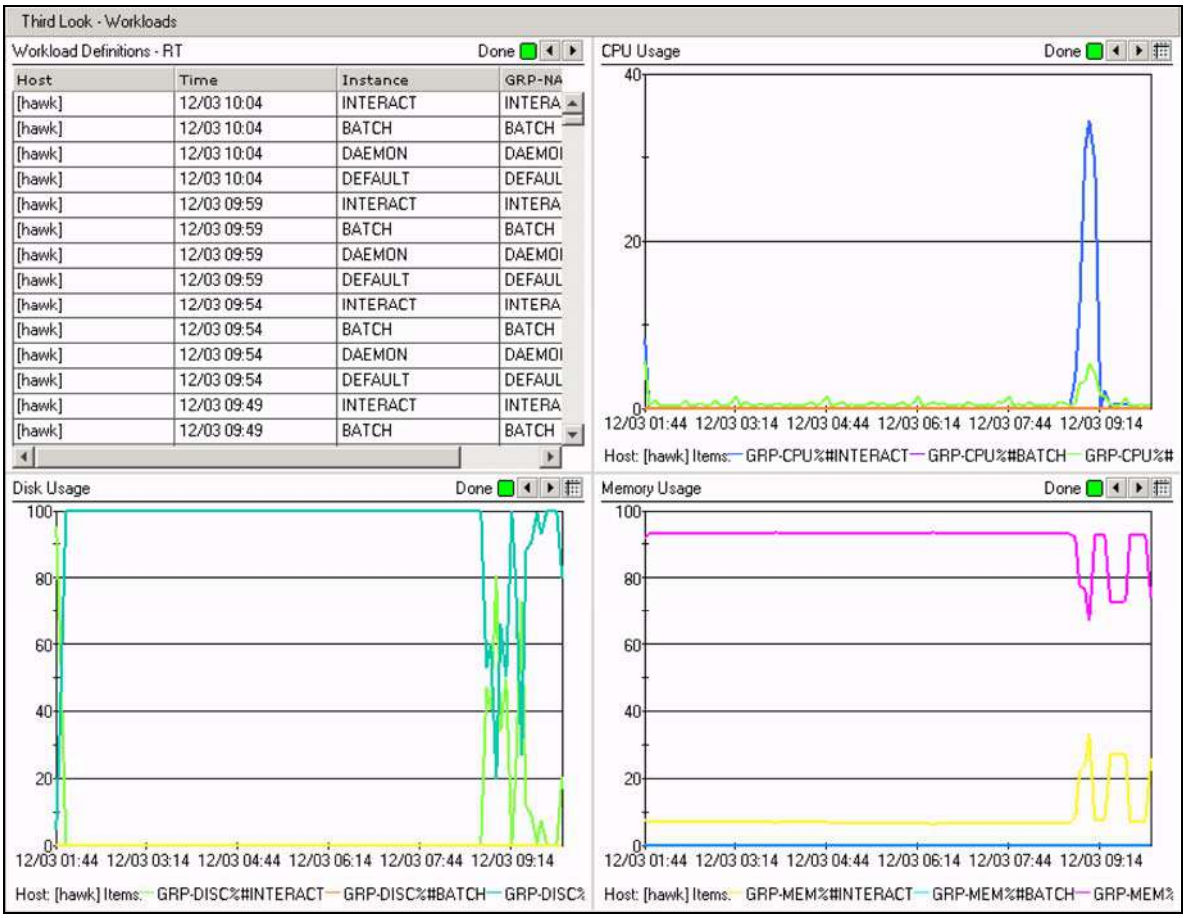


Figure A.9 Third Look page: Workloads

MPE Processes

MPE Processes page shows charts and tables reporting data related to specific MPE processes. Metrics such as CPU Percent by Process, CM/NM Switches by Process, I/O Percent by Process and Process Description, display on the MPE Processes page.

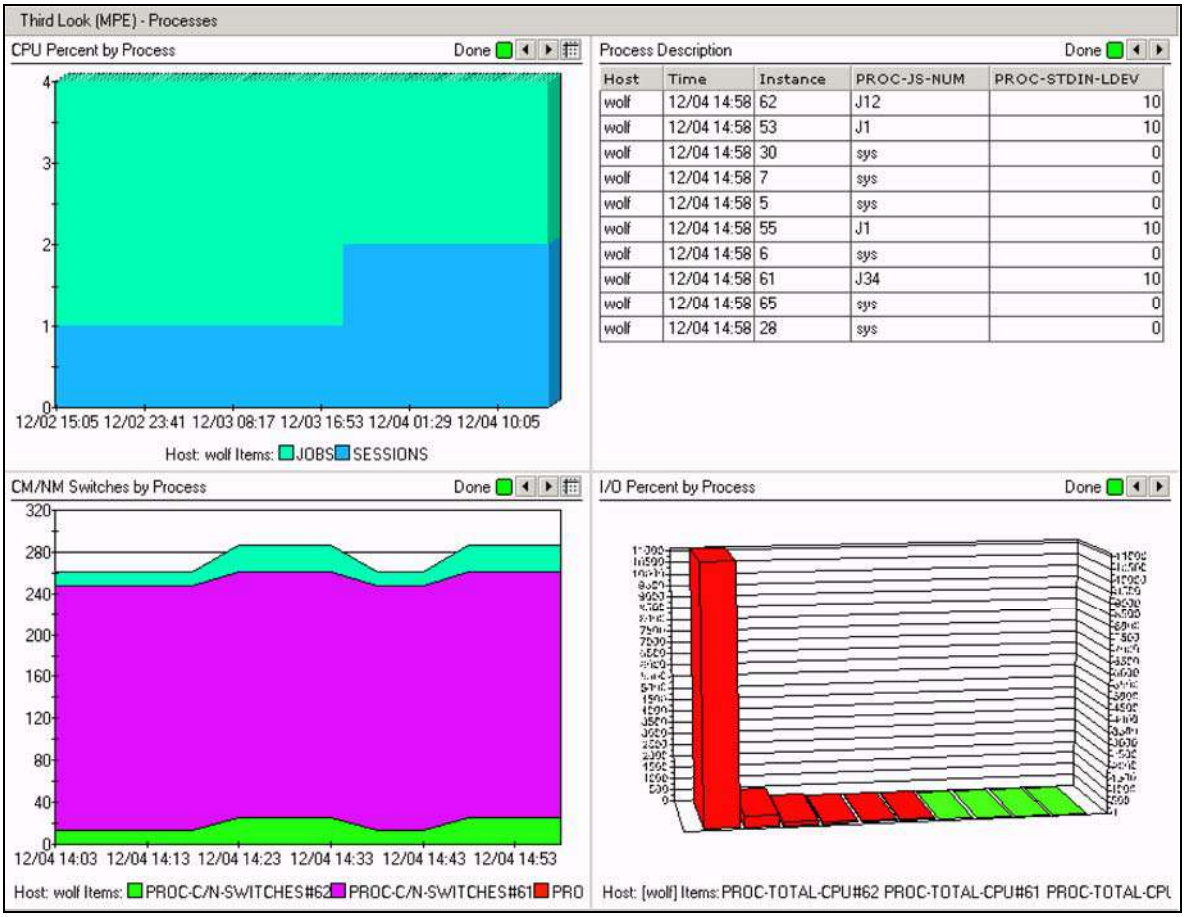


Figure A.10 Third Look page: Processes (MPE/iX)

Enterprise View

Enterprise View page shows a twinkle chart reporting data related to specific alerts.

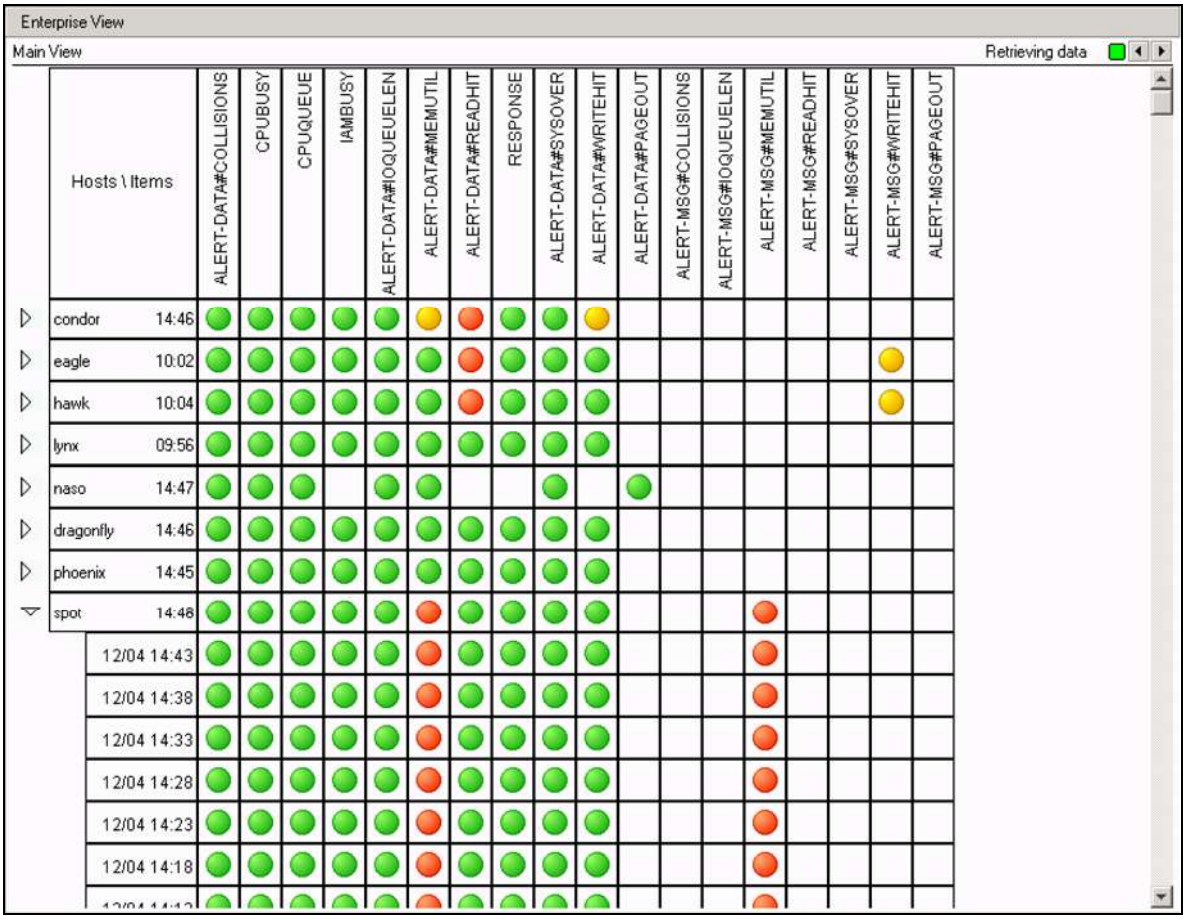


Figure A.11 Enterprise View page

Gauge View

Gauge page shows gauge charts reporting data related to specific alerts.

Figure A.12 Gauge View

HP-UX Data Items

Item Name	Description
HP-UX.ALERT-DATA.CPUBUSY	CPUBUSY
HP-UX.ALERT-MSG.COLLISIONS	COLLISIONS
HP-UX.ALERT-MSG.CPUBUSY	CPUBUSY
HP-UX.ALERT-MSG.CPUQUEUE	CPUQUEUE
HP-UX.ALERT-MSG.IOQUEUELEN	IOQUEUELEN
HP-UX.ALERT-MSG.MEMUTIL	MEMUTIL
HP-UX.ALERT-MSG.READHIT	READHIT
HP-UX.ALERT-MSG.RESPONSE	RESPONSE
HP-UX.ALERT-MSG.SYSOVER	SYSOVER
HP-UX.ALERT-MSG.WRITEHIT	WRITEHIT
HP-UX.BCACHE.BC-BUFPAGES	Buffer cache headers
HP-UX.BCACHE.BC-NBUF	Buffer cache size
HP-UX.BCACHE.BC-RHIT%	Buffer cache read hit %
HP-UX.BCACHE.BC-WHIT%	Buffer cache write hit %
HP-UX.CPU.CPU-BUSY%	Total CPU %
HP-UX.CPU.CPU-CSW%	CPU context switch %
HP-UX.CPU.CPU-CSW-RATE	CPU context switch rate
HP-UX.CPU.CPU-INTERRUPT-RATE	CPU interrupt rate
HP-UX.CPU.CPU-INTR%	CPU interrupt %
HP-UX.CPU.CPU-NICE%	CPU nice process %
HP-UX.CPU.CPU-NNICE%	CPU negative nice process %
HP-UX.CPU.CPU-QUEUE-LEN	Average CPU 1 min ready queue length
HP-UX.CPU.CPU-REAL%	CPU real time process %
HP-UX.CPU.CPU-SYS%	System CPU %
HP-UX.CPU.CPU-TRAP%	CPU trap %
HP-UX.CPU.CPU-USER%	User CPU %
HP-UX.CPU.CPU-VFLT%	CPU page fault %
HP-UX.DISCS.DISC-AVG-SERV-TIME	Average disk service time
HP-UX.DISCS.DISC-IOS	Disk physical IO activity
HP-UX.DISCS.DISC-PHY-RD-RATE	Disk physical read rate
HP-UX.DISCS.DISC-PHY-WR-RATE	Disk physical write rate
HP-UX.DISCS.DISC-QUEUE-LEN	Disk request queue length
HP-UX.DNLC.DNLC-NCSIZE	Name cache table entries
HP-UX.FSG.FSG-FSASYNC	Enable asynchronous write IO
HP-UX.FSSPACE.DSPC-AVAIL-INODES	Partition available inodes
HP-UX.FSSPACE.DSPC-AVAIL-KB	Available partition space to non-super user
HP-UX.FSSPACE.DSPC-FREE-INODES	Partition available inodes to non-super user
HP-UX.FSSPACE.DSPC-FREE-KB	Free partition space
HP-UX.FSSPACE.DSPC-INODES	Partition configured inode number
HP-UX.FSSPACE.DSPC-SIZE-KB	Partition size
HP-UX.FSSPACE.DSPC-USED%	Used partition space %
HP-UX.FSSPACE.DSPC-USED-KB	Used partition space
HP-UX.FTBL.FTBL-NFILE	File table size
HP-UX.ICACHE.IC-NINODE	Inodes cache size

HP-UX.IPC.IPC-MSGMAP	Entries to track free message space
HP-UX.IPC.IPC-MSGMAX	Maximum message size
HP-UX.IPC.IPC-MSGMNB	Maximum message queue size
HP-UX.IPC.IPC-MSGMNI	Max number of message queue identifiers
HP-UX.IPC.IPC-MSGSEG	Max number of message segments in system
HP-UX.IPC.IPC-MSGSSZ	Message segment size
HP-UX.IPC.IPC-MSGTQL	Max number of messages in system
HP-UX.IPC.IPC-SEMAEM	Max semaphore value in an undo structure
HP-UX.IPC.IPC-SEMMAP	Entries to track free semaphore memory
HP-UX.IPC.IPC-SEMMNI	Max number of semaphore identifiers
HP-UX.IPC.IPC-SEMMNS	Max number of semaphores in the system
HP-UX.IPC.IPC-SEMMNU	Number of semaphore undo structures
HP-UX.IPC.IPC-SEMUME	Max semaphore undo structures per proces
HP-UX.IPC.IPC-SEMVMX	Max semaphore value
HP-UX.IPC.IPC-SHMMAX	Max size of a shared memory segment
HP-UX.IPC.IPC-SHMMNI	Max number of shared memory identifiers
HP-UX.IPC.IPC-SHMSEG	Max number of shared memory segments per process
HP-UX.MEMORY.VM-DESFREE	Memory to be free at all times
HP-UX.MEMORY.VM-LOTSFREE	Trigger for system paging to begin
HP-UX.MEMORY.VM-MINFREE	Minimum acceptable memory level
HP-UX.MEMORY.VM-PAGE-FAULT-RATE	Virtual memory page fault rate
HP-UX.MEMORY.VM-PAGE-IN-BPS	Virtual memory pagein size rate
HP-UX.MEMORY.VM-PAGE-IN-RATE	Virtual memory pagein rate
HP-UX.MEMORY.VM-PAGE-INS	Virtual memory pageins
HP-UX.MEMORY.VM-PAGE-OUT-BPS	Virtual memory pageout size rate
HP-UX.MEMORY.VM-PAGE-OUT-RATE	Virtual memory pageout rate
HP-UX.MEMORY.VM-PAGE-OUTS	Virtual memory pageouts
HP-UX.MEMORY.VM-PG-REC-RATE	Virtual memory page reclaim rate
HP-UX.MEMORY.VM-PG-SCAN-RATE	Virtual memory page scan rate
HP-UX.MEMORY.VM-PG-SIZE	Virtual memory page size
HP-UX.MEMORY.VM-PS-LOADED	Number of processes loaded
HP-UX.MEMORY.VM-PS-LOADED-RUN	Number of processes loaded and runnable
HP-UX.MEMORY.VM-PS-LOADED-SLEEP	Number of processes loaded and sleeping
HP-UX.MEMORY.VM-USED-MEM%	Physical memory used %
HP-UX.MEMORY.VM-USED-VM%	Virtual memory used %
HP-UX.MISC.MISC-ACT-PROCESSES	Active processes
HP-UX.MISC.MISC-ACT-SESSIONS	Active sessions
HP-UX.MISC.MISC-PROCESSES	Processes
HP-UX.MISC.MISC-SESSIONS	Sessions
HP-UX.MISC.MISC-TRANS-RATE	Transaction rate
HP-UX.NETIFS.NETIF-COLLISION%	NetIf packet collision %
HP-UX.NETIFS.NETIF-IN-ERR%	NetIf packet in error %
HP-UX.NETIFS.NETIF-OUT-ERR%	NetIf packet out error %
HP-UX.NETIFS.NETIF-PCKTS-IN-RATE	NetIf packet in rate
HP-UX.NETIFS.NETIF-PCKTS-OUT-RATE	NetIf packet out rate
HP-UX.NETPROTO.NETP-ICMP-IN-PKT-RT	ICMP packet in rate
HP-UX.NETPROTO.NETP-ICMP-OUT-ERR%	ICMP error out %
HP-UX.NETPROTO.NETP-ICMP-OUT-PKT-RT	ICMP packet out rate
HP-UX.NETPROTO.NETP-IP-IN-ERR%	IP error in %

HP-UX.NETPROTO.NETP-IP-IN-PKT-RT	IP packet in rate
HP-UX.NETPROTO.NETP-IP-OUT-ERR%	IP error out %
HP-UX.NETPROTO.NETP-IP-OUT-PKT-RT	IP packet out rate
HP-UX.NETPROTO.NETP-TCP-IN-ERR%	TCP error in %
HP-UX.NETPROTO.NETP-TCP-IN-PKT-RT	TCP packet in rate
HP-UX.NETPROTO.NETP-TCP-OUT-ERR%	TCP error out %
HP-UX.NETPROTO.NETP-TCP-OUT-PKT-RT	TCP packet out rate
HP-UX.NETPROTO.NETP-UDP-IN-ERR%	UDP error in %
HP-UX.NETPROTO.NETP-UDP-IN-PKT-RT	UDP packet in rate
HP-UX.NETPROTO.NETP-UDP-OUT-PKT-RT	UDP packet out rate
HP-UX.PROCESSES.PROC-CPU-LIVE%	Process live on CPU %
HP-UX.PROCESSES.PROC-CPU-PCT	Process CPU %
HP-UX.PROCESSES.PROC-IO-PCT	Process % of physical disk IO's
HP-UX.PROCESSES.PROC-NAME	Process name
HP-UX.PROCESSES.PROC-NICE	Process nice value
HP-UX.PROCESSES.PROC-PRI	Process priority value
HP-UX.PROCESSES.PROC-RESP-TIME	Average process response time
HP-UX.PROCESSES.PROC-RSS	Process physical memory used
HP-UX.PROCESSES.PROC-SIZE	Process virtual memory used
HP-UX.PROCESSES.PROC-SYS-PCT	Process sys mode wait %
HP-UX.PROCESSES.PROC-TRANS-CNT	Process transaction count
HP-UX.PROCESSES.PROC-TTY	Process terminal device code
HP-UX.PROCESSES.PROC-USER	Process user name
HP-UX.PROCESSES.PROC-USR-PCT	Process user mode wait %
HP-UX.PROCESSES.PROC-WAIT-STATE	Process wait state
HP-UX.PROCESSES.SAMPLE_TIME	Sample time
HP-UX.PROCESSORS.PROCESSOR-BUSY%	Total CPU %
HP-UX.PROCESSORS.PROCESSOR-NICE%	CPU nice %
HP-UX.PROCESSORS.PROCESSOR-NNICE%	CPU negative nice %
HP-UX.PROCESSORS.PROCESSOR-NUMBER	CPU number
HP-UX.PROCESSORS.PROCESSOR-REAL%	CPU real %
HP-UX.PROCESSORS.PROCESSOR-SYS%	System CPU %
HP-UX.PROCESSORS.PROCESSOR-USER%	User CPU %
HP-UX.PTBL.PTBL-MAXFILES	Maxfiles
HP-UX.PTBL.PTBL-MAXFILES-LIM	Maxfiles_lim
HP-UX.PTBL.PTBL-MAXUPRC	Max number of user processes per user id
HP-UX.PTBL.PTBL-NPROC	Process table size
HP-UX.SWAPS.SWAP-DEV	Swap device code
HP-UX.SWAPS.SWAP-DEVFILE	Swap device filename
HP-UX.SWAPS.SWAP-FREE	Swap space free
HP-UX.SWAPS.SWAP-PRI	Swap priority
HP-UX.SWAPS.SWAP-RESERVED	Swap space reserved
HP-UX.SWAPS.SWAP-SIZE	Swap size
HP-UX.SWAPS.SWAP-TYPE	Swap type
HP-UX.SWAPS.SWAP-USED	Swap space used
HP-UX.SYSTEM.SYS-BOOT-DATE	System boot date
HP-UX.SYSTEM.SYS-BOOT-TIME	System boot time
HP-UX.SYSTEM.SYS-CPU-TYPE	System CPU type
HP-UX.SYSTEM.SYS-NAME	System name

HP-UX.SYSTEM.SYS-OS-VERSION	System OS version
HP-UX.SYSTEM.SYS-RUN-LEVEL	System run level
HP-UX.SYSTEM.SYS-SERIAL-NUM	System serial number
HP-UX.WORKLOADS.GROUP	Workload group number
HP-UX.WORKLOADS.GRP-CPU%	Workload CPU %
HP-UX.WORKLOADS.GRP-CPU-LIVE%	Workload process alive on cpu %
HP-UX.WORKLOADS.GRP-DISC%	Workload disk IO %
HP-UX.WORKLOADS.GRP-MAJFLT-RATE	Workload major page fault rate
HP-UX.WORKLOADS.GRP-MEM%	Percent memory used by procs in workload
HP-UX.WORKLOADS.GRP-MINFLT-RATE	Workload minor page fault rate
HP-UX.WORKLOADS.GRP-NAME	Workload name
HP-UX.WORKLOADS.GRP-OTHR-WT%	Workload other wait %
HP-UX.WORKLOADS.GRP-PHY-RD-RATE	Workload physical read rate
HP-UX.WORKLOADS.GRP-PHY-WR-RATE	Workload physical write rate
HP-UX.WORKLOADS.GRP-PRE-WT%	Workload preempted wait %
HP-UX.WORKLOADS.GRP-PROC-COUNT	Workload active process count
HP-UX.WORKLOADS.GRP-RESP-TIME	Average workload prompt response time
HP-UX.WORKLOADS.GRP-SYS-CPU%	Workload system CPU %
HP-UX.WORKLOADS.GRP-SYS-RD-RATE	Workload system read rate
HP-UX.WORKLOADS.GRP-SYS-WR-RATE	Workload system write rate
HP-UX.WORKLOADS.GRP-SYS-WT%	Workload system/kernel wait %
HP-UX.WORKLOADS.GRP-TRANS	Workload transactions
HP-UX.WORKLOADS.GRP-USER-CPU%	Workload user CPU %
HP-UX.WORKLOADS.GRP-USR-RD-RATE	Workload user read rate
HP-UX.WORKLOADS.GRP-USR-WR-RATE	Workload user write rate
HP-UX.WORKLOADS.GRP-VM%	Percent VM used by procs in workload
HP-UX.WORKLOADS.GRP-VM-RD-RATE	Workload VM read rate
HP-UX.WORKLOADS.GRP-VM-WR-RATE	Workload VM write rate
HP-UX.WORKLOADS.SAMPLE_TIME	Sample time

Table A.1 HP-UX Data Items

Linux Data Items

Item Name	Description
LINUX.ALERT-DATA.CPUBUSY	CPUBUSY
LINUX.ALERT-MSG.COLLISIONS	COLLISIONS
LINUX.ALERT-MSG.CPUBUSY	CPUBUSY
LINUX.ALERT-MSG.CPUQUEUE	CPUQUEUE
LINUX.ALERT-MSG.IOQUEUELEN	IOQUEUELEN
LINUX.ALERT-MSG.MEMUTIL	MEMUTIL
LINUX.ALERT-MSG.PAGEOUT	PAGEOUT
LINUX.ALERT-MSG.SYSOVER	SYSOVER
LINUX.CPU.CPU-BUSY%	Total CPU %
LINUX.CPU.CPU-CSW-RATE	CPU context switch rate
LINUX.CPU.CPU-INTERRUPT-RATE	CPU interrupt rate
LINUX.CPU.CPU-NICE%	CPU nice process %
LINUX.CPU.CPU-QUEUE-LEN	Average CPU 1 min ready queue length
LINUX.CPU.CPU-SYS%	System CPU %

LINUX.CPU.CPU-USER%	User CPU %
LINUX.DISCS.DISC-AVG-SERV-TIME	Average disk service time
LINUX.DISCS.DISC-IOS	Disk physical IO activity
LINUX.DISCS.DISC-PHY-RD-RATE	Disk physical read rate
LINUX.DISCS.DISC-PHY-WR-RATE	Disk physical write rate
LINUX.DISCS.DISC-QUEUE-LEN	Disk request queue length
LINUX.FSG.FSG-AUTOUP	Interval between dirty page checks
LINUX.FSG.FSG-UFS-HW	Minimum size to defer write IO
LINUX.FSG.FSG-UFS-LW	Maximum size to complete write IO
LINUX.FSSPACE.DSPC-AVAIL-INODES	Partition available inodes
LINUX.FSSPACE.DSPC-AVAIL-KB	Available partition space to non-super user
LINUX.FSSPACE.DSPC-FREE-INODES	Partition available inodes to non-super user
LINUX.FSSPACE.DSPC-FREE-KB	Free partition space
LINUX.FSSPACE.DSPC-INODES	Partition configured inode number
LINUX.FSSPACE.DSPC-SIZE-KB	Partition size
LINUX.FSSPACE.DSPC-USED%	Used partition space %
LINUX.FSSPACE.DSPC-USED-KB	Used partition space
LINUX.IPC.IPC-MSGMAP	Entries to track free message space
LINUX.IPC.IPC-MSGMAX	Maximum message size
LINUX.IPC.IPC-MSGMNB	Maximum message queue size
LINUX.IPC.IPC-MSGMNI	Max number of message queue identifiers
LINUX.IPC.IPC-MSGSEG	Max number of message segments in system
LINUX.IPC.IPC-MSGSSZ	Message segment size
LINUX.IPC.IPC-MSGTQL	Max number of messages in system
LINUX.IPC.IPC-SEMAEM	Max semaphore value in an undo structure
LINUX.IPC.IPC-SEMMAP	Entries to track free semaphore memory
LINUX.IPC.IPC-SEMMNI	Max number of semaphore identifiers
LINUX.IPC.IPC-SEMMNS	Max number of semaphores in the system
LINUX.IPC.IPC-SEMMNU	Number of semaphore undo structures
LINUX.IPC.IPC-SEMUME	Max semaphore undo structures per process
LINUX.IPC.IPC-SEMVMX	Max semaphore value
LINUX.IPC.IPC-SHMMAX	Max size of a shared memory segment
LINUX.IPC.IPC-SHMMNI	Max number of shared memory identifiers
LINUX.IPC.IPC-SHMSEG	Max number of shared memory segments per process
LINUX.MEMORY.VM-MAJ-PG-FLT-RATE	Virtual memory major page fault rate
LINUX.MEMORY.VM-MEM-SIZE	Total physical memory
LINUX.MEMORY.VM-MIN-PG-FLT-RATE	Virtual memory minor page fault rate
LINUX.MEMORY.VM-PAGE-IN-RATE	Virtual memory pagein rate
LINUX.MEMORY.VM-PAGE-INS	Virtual memory pageins
LINUX.MEMORY.VM-PAGE-OUT-RATE	Virtual memory pageout rate
LINUX.MEMORY.VM-PAGE-OUTS	Virtual memory pageouts
LINUX.MEMORY.VM-PS-LOADED	Number of processes loaded
LINUX.MEMORY.VM-PS-LOADED-RUN	Number of processes loaded and runnable
LINUX.MEMORY.VM-PS-LOADED-SLEEP	Number of processes loaded and sleeping
LINUX.MEMORY.VM-PS-SWAP	Number of processes swapped
LINUX.MEMORY.VM-PS-SWAP-RUN	Number of processes swapped and runnable
LINUX.MEMORY.VM-PS-SWAP-SLEEP	Number of processes swapped and sleeping
LINUX.MEMORY.VM-SWAP-IN-BPS	Virtual memory swapin size rate
LINUX.MEMORY.VM-SWAP-INS	Virtual memory swapins

LINUX.MEMORY.VM-SWAP-OUT-BPS	Virtual memory swapout size rate
LINUX.MEMORY.VM-SWAP-OUTS	Virtual memory swapouts
LINUX.MEMORY.VM-USED-MEM%	Physical memory used %
LINUX.MEMORY.VM-USED-VM%	Virtual memory used %
LINUX.MISC.MISC-ACT-SESSIONS	Active sessions
LINUX.MISC.MISC-PROCESSES	Processes
LINUX.MISC.MISC-SESSIONS	Sessions
LINUX.MISC.MISC-TRANS-RATE	Transaction rate
LINUX.NETIFS.NETIF-COLLISION%	NetIf packet collision %
LINUX.NETIFS.NETIF-DEFER%	NetIf packet defer %
LINUX.NETIFS.NETIF-IN-ERR%	NetIf packet in error %
LINUX.NETIFS.NETIF-OUT-ERR%	NetIf packet out error %
LINUX.NETIFS.NETIF-PCKTS-IN-RATE	NetIf packet in rate
LINUX.NETIFS.NETIF-PCKTS-OUT-RATE	NetIf packet out rate
LINUX.NETPROTO.NETP-ICMP-IN-ERR%	ICMP error in %
LINUX.NETPROTO.NETP-ICMP-IN-PKT-RT	ICMP packet in rate
LINUX.NETPROTO.NETP-ICMP-OUT-ERR%	ICMP error out %
LINUX.NETPROTO.NETP-ICMP-OUT-PKT-RT	ICMP packet out rate
LINUX.NETPROTO.NETP-IP-IN-ERR%	IP error in %
LINUX.NETPROTO.NETP-IP-IN-PKT-RT	IP packet in rate
LINUX.NETPROTO.NETP-IP-OUT-ERR%	IP error out %
LINUX.NETPROTO.NETP-IP-OUT-PKT-RT	IP packet out rate
LINUX.NETPROTO.NETP-TCP-IN-ERR%	TCP error in %
LINUX.NETPROTO.NETP-TCP-IN-PKT-RT	TCP packet in rate
LINUX.NETPROTO.NETP-TCP-OUT-ERR%	TCP error out %
LINUX.NETPROTO.NETP-TCP-OUT-PKT-RT	TCP packet out rate
LINUX.NETPROTO.NETP-UDP-IN-ERR%	UDP error in %
LINUX.NETPROTO.NETP-UDP-IN-PKT-RT	UDP packet in rate
LINUX.NETPROTO.NETP-UDP-OUT-PKT-RT	UDP packet out rate
LINUX.PROCESSES.PROC-CPU-PCT	Process CPU %
LINUX.PROCESSES.PROC-IO-PCT	Process % of physical disk IO's
LINUX.PROCESSES.PROC-NAME	Process name
LINUX.PROCESSES.PROC-NICE	Process nice value
LINUX.PROCESSES.PROC-PHY-READS	Process physical disk reads
LINUX.PROCESSES.PROC-PHY-WRITES	Process physical disk writes
LINUX.PROCESSES.PROC-PRI	Process priority value
LINUX.PROCESSES.PROC-RSS	Process physical memory used
LINUX.PROCESSES.PROC-SIZE	Process virtual memory used
LINUX.PROCESSES.PROC-SYS-PCT	Process sys mode wait %
LINUX.PROCESSES.PROC-TTY	Process terminal device code
LINUX.PROCESSES.PROC-USER	Process user name
LINUX.PROCESSES.PROC-USR-PCT	Process user mode wait %
LINUX.PROCESSES.PROC-WAIT-STATE	Process wait state
LINUX.PROCESSES.SAMPLE_TIME	Sample time
LINUX.PROCESSORS.PROCESSOR-BUSY%	Total CPU %
LINUX.PROCESSORS.PROCESSOR-IDLE%	CPU idle %
LINUX.PROCESSORS.PROCESSOR-NICE%	CPU nice %
LINUX.PROCESSORS.PROCESSOR-NUMBER	CPU number
LINUX.PROCESSORS.PROCESSOR-SYS%	System CPU %

LINUX.PROCESSORS.PROCESSOR-USER%	User CPU %
LINUX.SWAPS.SWAP-DEV	Swap device code
LINUX.SWAPS.SWAP-DEVFILE	Swap device filename
LINUX.SWAPS.SWAP-FREE	Swap space free
LINUX.SWAPS.SWAP-RESERVED	Swap space reserved
LINUX.SWAPS.SWAP-SIZE	Swap size
LINUX.SWAPS.SWAP-TYPE	Swap type
LINUX.SWAPS.SWAP-USED	Swap space used
LINUX.SYSTEM.SYS-BOOT-DATE	System boot date
LINUX.SYSTEM.SYS-BOOT-TIME	System boot time
LINUX.SYSTEM.SYS-CPU-TYPE	System CPU type
LINUX.SYSTEM.SYS-NAME	System name
LINUX.SYSTEM.SYS-OS-VERSION	System OS version
LINUX.SYSTEM.SYS-RUN-LEVEL	System run level
LINUX.SYSTEM.SYS-SERIAL-NUM	System serial number
LINUX.WORKLOADS.GRP-CPU%	Workload CPU %
LINUX.WORKLOADS.GRP-CPU-LIVE%	Workload process alive on cpu %
LINUX.WORKLOADS.GRP-HIGH-PRI	Workload high priority value
LINUX.WORKLOADS.GRP-LOW-PRI	Workload low priority value
LINUX.WORKLOADS.GRP-MAJFLT-RATE	Workload major page fault rate
LINUX.WORKLOADS.GRP-MEM%	Percent memory used by procs in workload
LINUX.WORKLOADS.GRP-MINFLT-RATE	Workload minor page fault rate
LINUX.WORKLOADS.GRP-NAME	Workload name
LINUX.WORKLOADS.GRP-PROC-COUNT	Workload active process count
LINUX.WORKLOADS.GRP-SWAP-RATE	Workload swapout rate
LINUX.WORKLOADS.GRP-SYS-CPU%	Workload system CPU %
LINUX.WORKLOADS.GRP-TYPE	Workload type
LINUX.WORKLOADS.GRP-USER-CPU%	Workload user CPU %
LINUX.WORKLOADS.GRP-VM%	Percent VM used by procs in workload
LINUX.WORKLOADS.SAMPLE_TIME	Sample time

Table A.2 Linux Data Items

MPE Data Items

Item Name	Description
MPE.ALERT-DATA.CPUBUSY	CPUBUSY
MPE.ALERT-MSG.CPUBUSY1	CPUBUSY1
MPE.ALERT-MSG.CPUBUSY2	CPUBUSY2
MPE.ALERT-MSG.CPUQUEUE1	CPUQUEUE1
MPE.ALERT-MSG.CPUQUEUE2	CPUQUEUE2
MPE.ALERT-MSG.DISKBUSY1	DISKBUSY1
MPE.ALERT-MSG.DISKBUSY2	DISKBUSY2
MPE.ALERT-MSG.DISKPAUSE1	DISKPAUSE1
MPE.ALERT-MSG.DISKPAUSE2	DISKPAUSE2
MPE.ALERT-MSG.MEMBUSY1	MEMBUSY1
MPE.ALERT-MSG.MEMBUSY2	MEMBUSY2
MPE.ALERT-MSG.MEMPAGEFAULT1	MEMPAGEFAULT1
MPE.ALERT-MSG.MEMPAGEFAULT2	MEMPAGEFAULT2

MPE.ALERT-MSG.READHIT1	READHIT1
MPE.ALERT-MSG.READHIT2	READHIT2
MPE.ALERT-MSG.RESPONSE1	RESPONSE1
MPE.ALERT-MSG.RESPONSE2	RESPONSE2
MPE.ALERT-MSG.SYSBUSY1	SYSBUSY1
MPE.ALERT-MSG.SYSBUSY2	SYSBUSY2
MPE.DISCS.DISC-IO-CNT	Total I/O
MPE.DISCS.DISC-QUEUE-LEN	Disc request queue length
MPE.DISCS.DISC-READ-RATE	Disc Reads/Sec
MPE.DISCS.DISC-SERV-TIME	Average request serv time
MPE.DISCS.DISC-WRITE-RATE	Disc Writes/Sec
MPE.FILESPACE.FSPC-AVAIL-TRANS	Available transient space
MPE.FILESPACE.FSPC-FREE-9	Free space <= 9 sectors
MPE.FILESPACE.FSPC-FREE-99	Free space <= 99 sectors
MPE.FILESPACE.FSPC-FREE-999	Free space <= 999 sectors
MPE.FILESPACE.FSPC-FREE-9999	Free space <= 9999 sectors
MPE.FILESPACE.FSPC-FREE-99999	Free space <= 99999 sectors
MPE.FILESPACE.FSPC-FREE-OVER	Free space over 99999 sectors
MPE.FILESPACE.FSPC-LARGEST-FREE	Largest free space
MPE.FILESPACE.FSPC-MAX-TRANS	Maximum transient space
MPE.FILESPACE.FSPC-PERM-USED	Amount of permanent space used
MPE.FILESPACE.FSPC-SZ	Total disc capacity
MPE.FILESPACE.FSPC-TOT-FREE	Total free space
MPE.FILESPACE.FSPC-TRANS-USED	Amount of transient space used
MPE.FILESPACE.FSPC-VOL-NAME	Volume name
MPE.FILESPACE.FSPC-VOL-SET	Volume set name
MPE.NETWORK.NET_CARRIER_LOSSES	Carrier losses
MPE.NETWORK.NET_CRC_ERROR	CRC error
MPE.NETWORK.NET_RECEIV_BROADCAST	Receives broadcast
MPE.NETWORK.NET_RECEIV_BYTES	Receive byte count
MPE.NETWORK.NET_RECEIV_DROPED	Receives dropped
MPE.NETWORK.NET_RECEIV_MULTICAST	Receives multicast
MPE.NETWORK.NET_RECEIV_NOERROR	Receives no error
MPE.NETWORK.NET_TRANS_16COLLISIONS	Transmits 16 collisions
MPE.NETWORK.NET_TRANS_BYTES	Transimt byte count
MPE.NETWORK.NET_TRANS_LATE_COLLIS	Transmits late collisions
MPE.NETWORK.NET_TRANS_NO_ERROR	Transmits no error
MPE.PROCESSES.PROC-ABSENT-WT%	Percent wait on absent
MPE.PROCESSES.PROC-BIO-WT%	Percent wait on block BIO
MPE.PROCESSES.PROC-C/N-SWITCHES	CM to NM switches
MPE.PROCESSES.PROC-CPU%	Percentage of overall CPU
MPE.PROCESSES.PROC-CPU-CM%	CM percentage
MPE.PROCESSES.PROC-DISC-IO%	Percent of all IO request
MPE.PROCESSES.PROC-DISC-READS	Logical disk reads
MPE.PROCESSES.PROC-DISC-WRITES	Logical disk writes
MPE.PROCESSES.PROC-DISC-WT%	Percent wait on disk
MPE.PROCESSES.PROC-FATH-SON-WT%	Percen wait on father-son
MPE.PROCESSES.PROC-FIRST-RESP	First response time(secs)
MPE.PROCESSES.PROC-IMPEDED-WT%	Percent wait on impeded

MPE.PROCESSES.PROC-JS-NUM	JS number
MPE.PROCESSES.PROC-LAUNCHES	Number of launches
MPE.PROCESSES.PROC-MSG-WT%	Percent wait on messages
MPE.PROCESSES.PROC-N/C-SWITCHES	NM to CM switches
MPE.PROCESSES.PROC-PAGE-FAULT/S	Page fault rate
MPE.PROCESSES.PROC-PRI	Priority
MPE.PROCESSES.PROC-PRI-QUEUE	Priority queue
MPE.PROCESSES.PROC-PROC-WT%	Process time percent
MPE.PROCESSES.PROC-PROGRAM	Program name
MPE.PROCESSES.PROC-PROMPT-RESP	Prompt response time(secs)
MPE.PROCESSES.PROC-RIN-WT%	Percent wait on RIN
MPE.PROCESSES.PROC-STDIN-LDEV	STDIN LDev
MPE.PROCESSES.PROC-TERM-READS	Terminal reads
MPE.PROCESSES.PROC-TERM-WR-WT%	Perc wait on terminal write
MPE.PROCESSES.PROC-TI-CPU%	Average TI CPU percent for proc
MPE.PROCESSES.PROC-TIMER-WT%	Percent wait on timer
MPE.PROCESSES.PROC-TOTAL-CPU	Total process time in msecs
MPE.PROCESSES.PROC-USER-LOGON	User logon
MPE.PROCESSES.PROC-WAIT-STATE	Wait reason index
MPE.PROCESSES.SAMPLE_TIME	Sample time
MPE.PROCESSOR.PROCESSOR-AS-PROCESS%	AS queue preocess %
MPE.PROCESSOR.PROCESSOR-BS-PROCESS%	BS queue preocess %
MPE.PROCESSOR.PROCESSOR-CS-PROCESS%	CS queue preocess %
MPE.PROCESSOR.PROCESSOR-DS-PROCESS%	DS queue preocess %
MPE.PROCESSOR.PROCESSOR-ES-PROCESS%	ES queue preocess %
MPE.PROCESSOR.PROCESSOR-HIGH-PRI-BUSY%	High priority processor busy %
MPE.PROCESSOR.PROCESSOR-NO	Processor number
MPE.PROCESSOR.PROCESSOR-TOT_BUSY%	Total Processor busy %
MPE.PROCESSOR.STOP-BREAK-WAIT/SEC	Count break mode/sec
MPE.PROCESSOR.STOP-CHILD-WAIT/SEC	Children stops/sec
MPE.PROCESSOR.STOP-CNTL-BLOCK-WAIT/SEC	Control block on semaphore stop
MPE.PROCESSOR.STOP-DATA-COMM-WAIT/SEC	Data comunication stops/sec
MPE.PROCESSOR.STOP-DISC-IO/SEC	Disc I/O stops/sec
MPE.PROCESSOR.STOP-DISP-WORK/SEC	Dispatcher work/sec
MPE.PROCESSOR.STOP-FILE-BLOCKED/SEC	File stops/sec
MPE.PROCESSOR.STOP-HLIO-WAIT/SEC	HLIO stops/sec
MPE.PROCESSOR.STOP-IO-CONFIG-WAIT/SEC	Config stops/sec
MPE.PROCESSOR.STOP-IPC-TRANS-COMPLETE/SEC	Transaction completed stops/sec
MPE.PROCESSOR.STOP-JUNK-WAIT/SEC	Junk stops/sec
MPE.PROCESSOR.STOP-MAIL-WAIT/SEC	Mail stops/sec
MPE.PROCESSOR.STOP-MEM-MGR-POST-WAIT/SEC	Posting pages stops/sec
MPE.PROCESSOR.STOP-MEM-MGR-PREFETCH/SEC	Memory manager prefetch stops/s
MPE.PROCESSOR.STOP-MESSAGE-WAIT/SEC	Message stops/sec
MPE.PROCESSOR.STOP-OTHER-IO/SEC	Other I/O devices stops/sec
MPE.PROCESSOR.STOP-PARENT-WAIT/SEC	Wait parents stops/sec
MPE.PROCESSOR.STOP-PFP-REPLY-WAIT/SEC	Port facility process stops/sec
MPE.PROCESSOR.STOP-PORT-BLOCKED-MAKE/SEC	Requested port stops/sec
MPE.PROCESSOR.STOP-PORT-WAIT/SEC	Port stops/sec
MPE.PROCESSOR.STOP-QUANTAM-EXPIRATION/SEC	Quantum expiration stops/sec

MPE.PROCESSOR.STOP-RIT-WAIT/SEC	RIT stops/sec
MPE.PROCESSOR.STOP-SIGNAL-WAIT/SEC	Signal stops/sec
MPE.PROCESSOR.STOP-STOP-SQL-LOCK-WAIT/SEC	SQL lock stops/sec
MPE.PROCESSOR.STOP-STORAGE-MGT/SEC	Storage management stops/sec
MPE.PROCESSOR.STOP-TERM-READ/SEC	Term read stops/sec
MPE.PROCESSOR.STOP-TIMER-WAIT/SEC	Timer wait stops/sec
MPE.PROCESSOR.STOP-USER-TO-DEBUG-MSG/SEC	Breakpoint contention stops/sec
MPE.PROCESSOR.STOP-WAIT-QUEUE/SEC	Queue stops/sec
MPE.SECURE.SUSAN-NUM	System Susan Number
MPE.SYSCFG.CPU-MODEL	CPU model name
MPE.SYSTEM.AS-PROCESS%	AS Queue Process %
MPE.SYSTEM.BS-PROCESS%	BS Queue Process %
MPE.SYSTEM.CS-PROCESS%	CS Queue Process %
MPE.SYSTEM.DISPATCHER%	Dispatcher %
MPE.SYSTEM.DS-PROCESS%	DS Queue Process %
MPE.SYSTEM.ES-PROCESS%	ES Queue Process %
MPE.SYSTEM.IMPEDES/SEC	Number of impedes/sec
MPE.SYSTEM.JOBS	# Jobs
MPE.SYSTEM.LAUNCH-RATE	Launch Rate
MPE.SYSTEM.MEM-MANAGER%	Memory manager %
MPE.SYSTEM.OVERHEAD%	Overhead %
MPE.SYSTEM.PAGE-FAULT/S	Page faults/Second
MPE.SYSTEM.PFET-CMCODE-CNT	Prefetch CM code object cnt
MPE.SYSTEM.PFET-CMDATA-CNT	Prefetch CM data object cnt
MPE.SYSTEM.PFET-CMSTK-CNT	Prefetch CM stack object cnt
MPE.SYSTEM.PFET-CMSYS-CNT	Prefetch CM Sys lib object cnt
MPE.SYSTEM.PFET-FILEOBJ-CNT	Prefetch File object cnt
MPE.SYSTEM.PFET-NMCODE-CNT	Prefetch NM code object cnt
MPE.SYSTEM.PFET-NMSTK-CNT	Prefetch NM stack object cnt
MPE.SYSTEM.PFET-NMSYS-CNT	Prefetch NM Sys lib object cnt
MPE.SYSTEM.PFET-PERM-CNT	Prefetch Permanent object cnt
MPE.SYSTEM.PFET-TRANS-CNT	Prefetch Transient object cnt
MPE.SYSTEM.PFLT-CMCODE-CNT	Page Fault CM code object cnt
MPE.SYSTEM.PFLT-CMDATA-CNT	Page Fault CM data object cnt
MPE.SYSTEM.PFLT-CMSTK-CNT	Page Fault CM stack object cnt
MPE.SYSTEM.PFLT-CMSYS-CNT	Page Fault CM Sys lib object cn
MPE.SYSTEM.PFLT-FILEOBJ-CNT	Page Fault File object cnt
MPE.SYSTEM.PFLT-NMCODE-CNT	Page Fault NM code object cnt
MPE.SYSTEM.PFLT-NMSTK-CNT	Page Fault NM stack object cnt
MPE.SYSTEM.PFLT-NMSYS-CNT	Page Fault NM Sys lib object cn
MPE.SYSTEM.PFLT-PERM-CNT	Page Fault Permant object cnt
MPE.SYSTEM.PFLT-TRANS-CNT	Page Fault Transient object cnt
MPE.SYSTEM.POST-CMCODE-CNT	Post CM code object cnt
MPE.SYSTEM.POST-CMDATA-CNT	Post CM data object cnt
MPE.SYSTEM.POST-CMSTK-CNT	Post CM stack object cnt
MPE.SYSTEM.POST-CMSYS-CNT	Post CM Sys lib object cnt
MPE.SYSTEM.POST-FILEOBJ-CNT	Post File object cnt
MPE.SYSTEM.POST-NMCODE-CNT	Post NM code object cnt
MPE.SYSTEM.POST-NMSTK-CNT	Post NM stack object cnt

MPE.SYSTEM.POST-NMSYS-CNT	Post NM Sys lib object cnt
MPE.SYSTEM.POST-PERM-CNT	Post Permanent object cnt
MPE.SYSTEM.POST-TRANS-CNT	Post Transient object cnt
MPE.SYSTEM.PRE-FETCH/SEC	Prefetches/sec
MPE.SYSTEM.PROCESSES	# Processes
MPE.SYSTEM.QUEUE-LEN	Ready queue length
MPE.SYSTEM.READ-HIT%	Disc read hit percentage
MPE.SYSTEM.SAQ	SAQ value
MPE.SYSTEM.SESSIONS	# Sessions
MPE.SYSTEM.TERM-READS/MIN	Number of terminal reads/min
MPE.SYSTEM.TOT-BUSY%	Total CPU busy %
MPE.WORKLOADS.ABSENT-WT%/GRP	Total process absent percent
MPE.WORKLOADS.CM_CPU%/GRP	CPU CM percentage
MPE.WORKLOADS.CPU%/GRP	CPU percentage
MPE.WORKLOADS.CPU/TRAN/GRP	CPU time per transaction
MPE.WORKLOADS.CPU-BUSY%/GRP	Total process CPU busy percent
MPE.WORKLOADS.DISC%/GRP	Total Disc I/O percentage
MPE.WORKLOADS.DISC-IO/GRP	Disc IO count
MPE.WORKLOADS.DISC-READ/GRP	Disc read count
MPE.WORKLOADS.DISC-WRITE/GRP	Disc write count
MPE.WORKLOADS.DISC-WT%/GRP	Total process disc I/O percent
MPE.WORKLOADS.FATH-SON-WT%/GRP	Total process father/son wait percent per group
MPE.WORKLOADS.FIRST-RESP/GRP	Average first respons time
MPE.WORKLOADS.GROUP	Workload group number
MPE.WORKLOADS.IMPEDED-WT%/GRP	Total process impeded percent
MPE.WORKLOADS.IO-RATE/GRP	Disc IO/second for workload
MPE.WORKLOADS.IO-WT%/GRP	Total process other i/o percent
MPE.WORKLOADS.JOB-PROC-CNT/GRP	Average job process count
MPE.WORKLOADS.LAUNCH-RATE/GRP	Launch rate per sec
MPE.WORKLOADS.MSG-WT%/GRP	Total process msg file wait per group
MPE.WORKLOADS.PROC-COUNT/GRP	Active process count
MPE.WORKLOADS.QUEUE/GRP	Priority queue limit
MPE.WORKLOADS.RESP-TIME/GRP	Average prompt resp time
MPE.WORKLOADS.RIN-WT%/GRP	Total process rin wait percent
MPE.WORKLOADS.SAMPLE_TIME	Sample time
MPE.WORKLOADS.SESS-PROC-CNT/GRP	Average session process count
MPE.WORKLOADS.SW-TO-CM/GRP	Switches from nm to cm/Sec
MPE.WORKLOADS.SW-TO-NM/GRP	Switches from cm to nm/Sec
MPE.WORKLOADS.TERM-RD-TIME/GRP	Total process term read time in
MPE.WORKLOADS.TERM-WR-TIME/GRP	Total process term write time i
MPE.WORKLOADS.TERM-WR-WT%/GRP	Total process term write percent
MPE.WORKLOADS.TIMER-WT%/GRP	Total process timer wait percent
MPE.WORKLOADS.TRAN-RATE/GRP	Transaction/second for workload

Table A.3 MPE Data Items

Solaris Data Items

Item Name	Description
SOLARIS.ALERT-DATA.CPUBUSY	CPUBUSY
SOLARIS.ALERT-MSG.COLLISIONS	COLLISIONS
SOLARIS.ALERT-MSG.CPUBUSY	CPUBUSY
SOLARIS.ALERT-MSG.CPUQUEUE	CPUQUEUE
SOLARIS.ALERT-MSG.IOQUEUELEN	IOQUEUELEN
SOLARIS.ALERT-MSG.MEMUTIL	MEMUTIL
SOLARIS.ALERT-MSG.READHIT	READHIT
SOLARIS.ALERT-MSG.RESPONSE	RESPONSE
SOLARIS.ALERT-MSG.SYSOVER	SYSOVER
SOLARIS.ALERT-MSG.WRITEHIT	WRITEHIT
SOLARIS.BCACHE.BC-BUFHWM	Memory to be used for buffer cache
SOLARIS.BCACHE.BC-NBUF	Buffer cache size
SOLARIS.BCACHE.BC-RHIT%	Buffer cache read hit %
SOLARIS.BCACHE.BC-WHIT%	Buffer cache write hit %
SOLARIS.CPU.CPU-BUSY%	Total CPU %
SOLARIS.CPU.CPU-CSW-RATE	CPU context switch rate
SOLARIS.CPU.CPU-INTERRUPT-RATE	CPU interrupt rate
SOLARIS.CPU.CPU-QUEUE-LEN	Average CPU 1 min ready queue length
SOLARIS.CPU.CPU-SYS%	System CPU %
SOLARIS.CPU.CPU-USER%	User CPU %
SOLARIS.DISCS.DISC-AVG-SERV-TIME	Average disk service time
SOLARIS.DISCS.DISC-IOS	Disk physical IO activity
SOLARIS.DISCS.DISC-PHY-RD-RATE	Disk physical read rate
SOLARIS.DISCS.DISC-PHY-WR-RATE	Disk physical write rate
SOLARIS.DISCS.DISC-QUEUE-LEN	Disk request queue length
SOLARIS.DNLC.DNLC-NCSIZE	Name cache table entries
SOLARIS.FSG.FSG-AUTOUP	Interval between dirty page checks
SOLARIS.FSG.FSG-DOIFLUSH	Update inode information during fsflush
SOLARIS.FSG.FSG-DOPAGEFLUSH	Check memory for modified pages during flush
SOLARIS.FSG.FSG-T-FSFLUSHR	Interval between fsflush invocations
SOLARIS.FSG.FSG-UFS-HW	Minimum size to defer write IO
SOLARIS.FSG.FSG-UFS-LW	Maximum size to complete write IO
SOLARIS.FSSPACE.DSPC-AVAIL-INODES	Partition available inodes
SOLARIS.FSSPACE.DSPC-AVAIL-KB	Available partition space to non-super user
SOLARIS.FSSPACE.DSPC-FREE-INODES	Partition available inodes to non-super user
SOLARIS.FSSPACE.DSPC-FREE-KB	Free partition space
SOLARIS.FSSPACE.DSPC-INODES	Partition configured inode number
SOLARIS.FSSPACE.DSPC-SIZE-KB	Partition size
SOLARIS.FSSPACE.DSPC-USED%	Used partition space %
SOLARIS.FSSPACE.DSPC-USED-KB	Used partition space
SOLARIS.IPC.IPC-MSGMAP	Entries to track free message space
SOLARIS.IPC.IPC-MSGMAX	Maximum message size
SOLARIS.IPC.IPC-MSGMNB	Maximum message queue size
SOLARIS.IPC.IPC-MSGMNI	Max number of message queue identifiers

SOLARIS.IPC.IPC-MSGSEG	Max number of message segments in system
SOLARIS.IPC.IPC-MSGSSZ	Message segment size
SOLARIS.IPC.IPC-MSGTQL	Max number of messages in system
SOLARIS.IPC.IPC-SEMAEM	Max semaphore value in an undo structure
SOLARIS.IPC.IPC-SEMMAP	Entries to track free semaphore memory
SOLARIS.IPC.IPC-SEMMNI	Max number of semaphore identifiers
SOLARIS.IPC.IPC-SEMMNS	Max number of semaphores in the system
SOLARIS.IPC.IPC-SEMMNU	Number of semaphore undo structures
SOLARIS.IPC.IPC-SEMUME	Max semaphore undo structures per proces
SOLARIS.IPC.IPC-SEMVMX	Max semaphore value
SOLARIS.IPC.IPC-SHMMAX	Max size of a shared memory segment
SOLARIS.IPC.IPC-SHMMNI	Max number of shared memory identifiers
SOLARIS.IPC.IPC-SHMSEG	Max number of shared memory segments per process
SOLARIS.MEMORY.VM-AVE-PG-RES-TIME	Average VM page residence time
SOLARIS.MEMORY.VM-DESFREE	Memory to be free at all times
SOLARIS.MEMORY.VM-FASTSCAN	Maximum memory scan rate
SOLARIS.MEMORY.VM-LOTSFREE	Trigger for system paging to begin
SOLARIS.MEMORY.VM-MAJ-PG-FLT-RATE	Virtual memory major page fault rate
SOLARIS.MEMORY.VM-MAXPGIO	Number of IO requests that can be queued
SOLARIS.MEMORY.VM-MINFREE	Minimum acceptable memory level
SOLARIS.MEMORY.VM-MIN-PG-FLT-RATE	Virtual memory minor page fault rate
SOLARIS.MEMORY.VM-PAGE-INS	Virtual memory pageins
SOLARIS.MEMORY.VM-PAGE-OUTS	Virtual memory pageouts
SOLARIS.MEMORY.VM-PG-REC-RATE	Virtual memory page reclaim rate
SOLARIS.MEMORY.VM-PG-SCAN-RATE	Virtual memory page scan rate
SOLARIS.MEMORY.VM-PG-SIZE	Virtual memory page size
SOLARIS.MEMORY.VM-PS-LOADED	Number of processes loaded
SOLARIS.MEMORY.VM-PS-LOADED-RUN	Number of processes loaded and runnable
SOLARIS.MEMORY.VM-PS-LOADED-SLEEP	Number of processes loaded and sleeping
SOLARIS.MEMORY.VM-PS-SWAP	Number of processes swapped
SOLARIS.MEMORY.VM-PS-SWAP-RUN	Number of processes swapped and runnable
SOLARIS.MEMORY.VM-PS-SWAP-SLEEP	Number of processes swapped and sleeping
SOLARIS.MEMORY.VM-SLOWSCAN	Minimum memory scan rate
SOLARIS.MEMORY.VM-SWAP-IN-BPS	Virtual memory swapin size rate
SOLARIS.MEMORY.VM-SWAP-INS	Virtual memory swapins
SOLARIS.MEMORY.VM-SWAP-OUT-BPS	Virtual memory swapout size rate
SOLARIS.MEMORY.VM-SWAP-OUTS	Virtual memory swapouts
SOLARIS.MEMORY.VM-THROTTLEFREE	Threshold for putting memory allocators
SOLARIS.MEMORY.VM-USED-MEM%	Physical memory used %
SOLARIS.MEMORY.VM-USED-VM%	Virtual memory used %
SOLARIS.MISC.MISC-ACT-PROCESSES	Active processes
SOLARIS.MISC.MISC-ACT-SESSIONS	Active sessions
SOLARIS.MISC.MISC-PROCESSES	Processes
SOLARIS.MISC.MISC-SESSIONS	Sessions
SOLARIS.MISC.MISC-TRANS-RATE	Transaction rate
SOLARIS.NETIFS.NETIF-COLLISION%	NetIf packet collision %
SOLARIS.NETIFS.NETIF-DEFER%	NetIf packet defer %
SOLARIS.NETIFS.NETIF-IN-ERR%	NetIf packet in error %
SOLARIS.NETIFS.NETIF-OUT-ERR%	NetIf packet out error %

SOLARIS.NETIFS.NETIF-PCKTS-IN-RATE	NetIf packet in rate
SOLARIS.NETIFS.NETIF-PCKTS-OUT-RATE	NetIf packet out rate
SOLARIS.NETPROTO.NETP-ICMP-IN-ERR%	ICMP error in %
SOLARIS.NETPROTO.NETP-ICMP-IN-PKT-RT	ICMP packet in rate
SOLARIS.NETPROTO.NETP-ICMP-OUT-ERR%	ICMP error out %
SOLARIS.NETPROTO.NETP-ICMP-OUT-PKT-RT	ICMP packet out rate
SOLARIS.NETPROTO.NETP-IP-IN-ERR%	IP error in %
SOLARIS.NETPROTO.NETP-IP-IN-PKT-RT	IP packet in rate
SOLARIS.NETPROTO.NETP-IP-OUT-ERR%	IP error out %
SOLARIS.NETPROTO.NETP-IP-OUT-PKT-RT	IP packet out rate
SOLARIS.NETPROTO.NETP-TCP-IN-ERR%	TCP error in %
SOLARIS.NETPROTO.NETP-TCP-IN-PKT-RT	TCP packet in rate
SOLARIS.NETPROTO.NETP-TCP-OUT-ERR%	TCP error out %
SOLARIS.NETPROTO.NETP-TCP-OUT-PKT-RT	TCP packet out rate
SOLARIS.NETPROTO.NETP-UDP-IN-ERR%	UDP error in %
SOLARIS.NETPROTO.NETP-UDP-IN-PKT-RT	UDP packet in rate
SOLARIS.NETPROTO.NETP-UDP-OUT-PKT-RT	UDP packet out rate
SOLARIS.PROCESSES.PROC-CPU-PCT	Process CPU %
SOLARIS.PROCESSES.PROC-IO-PCT	Process % of physical disk IO's
SOLARIS.PROCESSES.PROC-NAME	Process name
SOLARIS.PROCESSES.PROC-NICE	Process nice value
SOLARIS.PROCESSES.PROC-PHY-READS	Process physical disk reads
SOLARIS.PROCESSES.PROC-PHY-WRITES	Process physical disk writes
SOLARIS.PROCESSES.PROC-PRI	Process priority value
SOLARIS.PROCESSES.PROC-RSS	Process physical memory used
SOLARIS.PROCESSES.PROC-SIZE	Process virtual memory used
SOLARIS.PROCESSES.PROC-SYS-PCT	Process sys mode wait %
SOLARIS.PROCESSES.PROC-TTY	Process terminal device code
SOLARIS.PROCESSES.PROC-USER	Process user name
SOLARIS.PROCESSES.PROC-USR-PCT	Process user mode wait %
SOLARIS.PROCESSES.PROC-WAIT-STATE	Process wait state
SOLARIS.PROCESSES.SAMPLE_TIME	Sample time
SOLARIS.PROCESSORS.PROCESSOR-BUSY%	Total CPU %
SOLARIS.PROCESSORS.PROCESSOR-NUMBER	CPU number
SOLARIS.PROCESSORS.PROCESSOR-SYS%	System CPU %
SOLARIS.PROCESSORS.PROCESSOR-USER%	User CPU %
SOLARIS.PTBL.PCACHE-MAX-NPROC	Maximum process number
SOLARIS.PTBL.PCACHE-MAXUPRC	Max number of user processes per user id
SOLARIS.PTBL.PCACHE-RLIM-FD-CUR	Process open file descriptor soft limit
SOLARIS.PTBL.PCACHE-RLIM-FD-MAX	Process open file descriptor hard limit
SOLARIS.SWAPS.SWAP-DEV	Swap device code
SOLARIS.SWAPS.SWAP-DEVFILE	Swap device filename
SOLARIS.SWAPS.SWAP-FREE	Swap space free
SOLARIS.SWAPS.SWAP-RESERVED	Swap space reserved
SOLARIS.SWAPS.SWAP-SIZE	Swap size
SOLARIS.SWAPS.SWAP-TYPE	Swap type
SOLARIS.SWAPS.SWAP-USED	Swap space used
SOLARIS.SYSTEM.SYS-BOOT-DATE	System boot date
SOLARIS.SYSTEM.SYS-BOOT-TIME	System boot time

SOLARIS.SYSTEM.SYS-CPU-TYPE	System CPU type
SOLARIS.SYSTEM.SYS-NAME	System name
SOLARIS.SYSTEM.SYS-OS-VERSION	System OS version
SOLARIS.SYSTEM.SYS-RUN-LEVEL	System run level
SOLARIS.SYSTEM.SYS-SERIAL-NUM	System serial number
SOLARIS.WORKLOADS.GRP-CPU%	Workload CPU %
SOLARIS.WORKLOADS.GRP-CPU-LIVE%	Workload process alive on cpu %
SOLARIS.WORKLOADS.GRP-DISC%	Workload disk IO %
SOLARIS.WORKLOADS.GRP-DPGFLT-WT%	Workload data page fault wait %
SOLARIS.WORKLOADS.GRP-JOB-WT%	Workload job control wait %
SOLARIS.WORKLOADS.GRP-KPGFLT-WT%	Workload kernel page fault wait %
SOLARIS.WORKLOADS.GRP-MAJFLT-RATE	Workload major page fault rate
SOLARIS.WORKLOADS.GRP-MEM%	Percent memory used by procs in workload
SOLARIS.WORKLOADS.GRP-MINFLT-RATE	Workload minor page fault rate
SOLARIS.WORKLOADS.GRP-NAME	Workload name
SOLARIS.WORKLOADS.GRP-OTHR-WT%	Workload other wait %
SOLARIS.WORKLOADS.GRP-PHY-RD-RATE	Workload physical read rate
SOLARIS.WORKLOADS.GRP-PHY-WR-RATE	Workload physical write rate
SOLARIS.WORKLOADS.GRP-PRE-WT%	Workload preempted wait %
SOLARIS.WORKLOADS.GRP-PROC-COUNT	Workload active process count
SOLARIS.WORKLOADS.GRP-RESP-TIME	Average workload prompt response time
SOLARIS.WORKLOADS.GRP-SWAP-RATE	Workload swapout rate
SOLARIS.WORKLOADS.GRP-SYS-CPU%	Workload system CPU %
SOLARIS.WORKLOADS.GRP-TPGFLT-WT%	Workload text page fault wait %
SOLARIS.WORKLOADS.GRP-TRANS	Workload transactions
SOLARIS.WORKLOADS.GRP-TRAP-CPU%	Workload CSW CPU %
SOLARIS.WORKLOADS.GRP-TYPE	Workload type
SOLARIS.WORKLOADS.GRP-ULCK-WT%	Workload user lock wait %
SOLARIS.WORKLOADS.GRP-USER-CPU%	Workload user CPU %
SOLARIS.WORKLOADS.GRP-VM%	Percent VM used by procs in workload
SOLARIS.WORKLOADS.SAMPLE_TIME	Sample time

Table A.4 Solaris Data Items

Windows Data Items

Item Name	Description
WINDOWS.ALERT-DATA.CPUBUSY	CPUBUSY
WINDOWS.ALERT-MSG.CPUBUSY	CPUBUSY
WINDOWS.ALERT-MSG.DISKBUSY	DISKBUSY
WINDOWS.ALERT-MSG.MEMBUSY	MEMBUSY
WINDOWS.ALERT-MSG.MEMUSED	MEMUSED
WINDOWS.ALERT-MSG.SYSBUSY	SYSBUSY
WINDOWS.Disk_PhysicalDisk.AvgDiskQueueLength	Avg. Disk Queue Length
WINDOWS.Disk_PhysicalDisk.DiskReadsPersec	Disk Reads/sec
WINDOWS.Disk_PhysicalDisk.DiskTransfersPersec	Disk Transfers/sec
WINDOWS.Disk_PhysicalDisk.DiskWritesPersec	Disk Writes/sec
WINDOWS.Disk_PhysicalDisk.PercentDiskTime	% Disk Time
WINDOWS.MVEvents.ComputerName	ComputerName

WINDOWS.MVEvents.Msg	Msg
WINDOWS.MVEvents.Name	Name
WINDOWS.MVEvents.SourceName	SourceName
WINDOWS.MVEvents.TimeGenerated	TimeGenerated
WINDOWS.MVEvents.Usr	Usr
WINDOWS.OS_Memory.PageFaultsPersec	Page Faults/sec
WINDOWS.OS_Memory.PageReadsPersec	Page Reads/sec
WINDOWS.OS_Memory.PagesInputPersec	Pages Input/sec
WINDOWS.OS_Memory.PagesOutputPersec	Pages Output/sec
WINDOWS.OS_Memory.PageWritesPersec	Page Writes/sec
WINDOWS.OS_Objects.Events	Events
WINDOWS.OS_Processor.InterruptsPersec	Interrupts/sec
WINDOWS.OS_Processor.Name	Name
WINDOWS.OS_Processor.PercentDPCTime	% DPC Time
WINDOWS.OS_Processor.PercentInterruptTime	% Interrupt Time
WINDOWS.OS_Processor.PercentPrivilegedTime	% Privileged Time
WINDOWS.OS_Processor.PercentProcessorTime	% Processor Time
WINDOWS.OS_Processor.PercentUserTime	% User Time
WINDOWS.OS_System.ContextSwitchesPersec	Context Switches/sec
WINDOWS.OS_System.ExceptionDispatchesPersec	Exception Dispatches/sec
WINDOWS.OS_System.Processes	Processes
WINDOWS.OS_System.ProcessorQueueLength	Processor Queue Length
WINDOWS.OS_System.Threads	Threads
WINDOWS.Proc_Process.CreatingProcessID	Creating Process ID
WINDOWS.Proc_Process.ElapsedTime	Elapsed Time
WINDOWS.Proc_Process.HandleCount	Handle Count
WINDOWS.Proc_Process.IOOtherOperationsPersec	IO Other Operations/sec
WINDOWS.Proc_Process.IOReadOperationsPersec	IO Read Operations/sec
WINDOWS.Proc_Process.IOWriteOperationsPersec	IO Write Operations/sec
WINDOWS.Proc_Process.Name	Name
WINDOWS.Proc_Process.PageFaultsPersec	Page Faults/sec
WINDOWS.Proc_Process.PercentProcessorTime	% Processor Time
WINDOWS.Proc_Process.PercentUserTime	% User Time
WINDOWS.Proc_Process.PriorityBase	Priority Base
WINDOWS.Proc_Process.PrivateBytes	Private Bytes
WINDOWS.Proc_Process.ThreadCount	Thread Count
WINDOWS.Proc_Process.VirtualBytes	Virtual Bytes
WINDOWS.Proc_Process.VirtualBytesPeak	Virtual Bytes Peak
WINDOWS.Proc_Process.WorkingSet	Working Set
WINDOWS.Proc_Process.WorkingSetPeak	Working Set Peak
WINDOWS.SYSTEM_DATA.SYS_BOOT_DATE	Boot Date
WINDOWS.SYSTEM_DATA.SYS_BOOT_TIME	Boot Time
WINDOWS.SYSTEM_DATA.SYS_FREE_PHY_MEM	Free Physical Memory
WINDOWS.SYSTEM_DATA.SYS_FREE_VM_MEM	Free Virtual Memory
WINDOWS.SYSTEM_DATA.SYS_NAME_ID	Name ID
WINDOWS.SYSTEM_DATA.SYS_TOTAL_VIRTUAL_MEM	Total Virtual Memory
WINDOWS.SYSTEM_DATA.SYS_TOTAL_VISIBLE_MEM	Total Visible Memory
WINDOWS.SYSTEM_DATA.SYS_USERS_NO	Users Number
WINDOWS.Tcpip_ICMP.MessagesOutboundErrors	Messages Outbound Errors

WINDOWS.Tcpip_ICMP.MessagesReceivedErrors	Messages Received Errors
WINDOWS.Tcpip_ICMP.MessagesReceivedPersec	Messages Received/sec
WINDOWS.Tcpip_ICMP.MessagesSentPersec	Messages Sent/sec
WINDOWS.Tcpip_IP.DatagramsReceivedPersec	Datagrams Received/sec
WINDOWS.Tcpip_IP.DatagramsSentPersec	Datagrams Sent/sec
WINDOWS.Tcpip_NetworkInterface.BytesReceivedPersec	Bytes Received/sec
WINDOWS.Tcpip_NetworkInterface.BytesSentPersec	Bytes Sent/sec
WINDOWS.Tcpip_NetworkInterface.PacketsOutboundErrors	Packets Outbound Errors
WINDOWS.Tcpip_NetworkInterface.PacketsReceivedErrors	Packets Received Errors
WINDOWS.Tcpip_TCP.ConnectionFailures	Connection Failures
WINDOWS.Tcpip_TCP.ConnectionsReset	Connections Reset
WINDOWS.Tcpip_TCP.SegmentsReceivedPersec	Segments Received/sec
WINDOWS.Tcpip_TCP.SegmentsSentPersec	Segments Sent/sec
WINDOWS.Tcpip_UDP.DatagramsReceivedErrors	Datagrams Received Errors
WINDOWS.Tcpip_UDP.DatagramsReceivedPersec	Datagrams Received/sec
WINDOWS.Tcpip_UDP.DatagramsSentPersec	Datagrams Sent/sec

Table A.5 Windows Data Items

HP-UX Oracle Data Items

Item Name	Description
HP-UX.ORACLE.B_SENT_VIASQLNTOCLNT	Oracle data sent via SQL*Net
HP-UX.ORACLE.BKGNDCHKPNTCOMPLTD	Oracle background checkpoints completed
HP-UX.ORACLE.BKGNDCHKPNTSTARTED	Oracle background checkpoints started
HP-UX.ORACLE.BRCVDVIASQLNFRMDBLNK	Oracle data received from dblink via SQL
HP-UX.ORACLE.BRCVDVIASQLNFROMCLNT	Oracle data received via SQL*Net
HP-UX.ORACLE.BSENTVIASQLNTODBLINK	Oracle data sent to dblink via SQL*Net
HP-UX.ORACLE.CACHE_BUFCHAINS_GETS	Oracle cache buffer chain gets
HP-UX.ORACLE.CACHE_BUFCHAINS_MIS	Oracle cache buffer chain misses
HP-UX.ORACLE.CACHE_BUFHANDLES_MIS	Oracle cache buffer handle misses
HP-UX.ORACLE.CACHE_BUFHANDLESGETS	Oracle cache buffer handle gets
HP-UX.ORACLE.CACHE_BUFHANDLESIMMI	Oracle cache buffer handle immediate miss
HP-UX.ORACLE.CACHE_PROTLATCH_GETS	Oracle cache protection latch gets
HP-UX.ORACLE.CACHE_PROTLATCH_MISS	Oracle cache protection latch misses
HP-UX.ORACLE.CACHEBUFCHAINSIMGETS	Oracle cache buffer chain immediate gets
HP-UX.ORACLE.CACHEBUFCHAINSIMMIS	Oracle cache buffer chain immediate miss
HP-UX.ORACLE.CACHEBUFHANDLESIMGET	Oracle cache buffer handle immediate get
HP-UX.ORACLE.CACHEBUFLRUCHAINGETS	Oracle cache buffer lru chain gets
HP-UX.ORACLE.CACHEBUFLRUCHAINMIS	Oracle cache buffer lru chain misses
HP-UX.ORACLE.CACHEBUFLRUCHNIMGETS	Oracle cache buffer lru chain immediate gets
HP-UX.ORACLE.CACHEBUFLRUCHNIMMIS	Oracle cache buffer lru chain immediate misses
HP-UX.ORACLE.CACHEPROTLATCHIMGETS	Oracle cache protection latch immediate gets
HP-UX.ORACLE.CACHEPROTLATCHIMMISS	Oracle cache protection latch immediate misses
HP-UX.ORACLE.CNTRLFILEPARWRTTOTWT	Oracle controlfile parallel write total
HP-UX.ORACLE.CNTRLFILESEQRDTOTWTS	Oracle controlfile sequential read total
HP-UX.ORACLE.CONSISTENT_GETS	Oracle consistent block reads requested
HP-UX.ORACLE.DB_BLOCK_BUF_K	Oracle block buffer
HP-UX.ORACLE.DB_BLOCK_GETS	Oracle blocks obtained in CURRENT mode

HP-UX.ORACLE.DBFILE_PARLRDTOTWTS	Oracle databasefile parallel read total waits
HP-UX.ORACLE.DBFILE_PARWRTTOTWTS	Oracle databasefile parallel write total waits
HP-UX.ORACLE.DBFILE_SCATRDTOTWTS	Oracle databasefile scattered read total waits
HP-UX.ORACLE.DBFILE_SEQ_RDTOTWTS	Oracle databasefile sequential read total waits
HP-UX.ORACLE.DBFILE_SNGLWRTTOTWTS	Oracle databasefile single write total waits
HP-UX.ORACLE.DBWR_BUF_SCANNED	Oracle DBWR buffers scanned
HP-UX.ORACLE.DBWR_CHECKPOINTS	Oracle DBWR checkpoints
HP-UX.ORACLE.DBWR_CHKPOINTBUFWRIT	Oracle DBWR checkpoint buffers written
HP-UX.ORACLE.DBWR_FORCED_WRITES	Oracle DBWR forced writes
HP-UX.ORACLE.DBWR_FREE_BUFFOUND	Oracle DBWR free buffers found
HP-UX.ORACLE.DBWR_LRU_SCANS	Oracle DBWR lru scans
HP-UX.ORACLE.DBWR_MAKE_FREEREQ	Oracle DBWR make free requests
HP-UX.ORACLE.DBWR_REV_BNGWRTBUF	Oracle DBWR revisited being written buffer
HP-UX.ORACLE.DBWR_SUM_SCANDPTH	Oracle DBWR summed scan depth
HP-UX.ORACLE.DBWR_TRANSTABLE_WRT	Oracle DBWR transaction table writes
HP-UX.ORACLE.DBWR_UNDO_BLOCK_WRT	Oracle DBWR undo block writes
HP-UX.ORACLE.DICTIONARY_CACHE_K	Oracle dictionary cache
HP-UX.ORACLE.DIRTY_BUF_INSPECTED	Oracle dirty buffers inspected
HP-UX.ORACLE.ENQUEUE_RELEASES	Oracle enqueue releases
HP-UX.ORACLE.ENQUEUE_REQUESTS	Oracle enqueue requests
HP-UX.ORACLE.ENQUEUE_TIMEOUTS	Oracle enqueue timeouts
HP-UX.ORACLE.ENQUEUE_WAITS	Oracle enqueue waits
HP-UX.ORACLE.EXECUTE_COUNT	Oracle execute count
HP-UX.ORACLE.FILE_1_LENGTH_MB	Oracle file_1 length
HP-UX.ORACLE.FILE_1_NAME	Oracle file_1 name
HP-UX.ORACLE.FILE_1_NUMBER	Oracle file_1 number
HP-UX.ORACLE.FILE_10_LENGTH_MB	Oracle file_10 length
HP-UX.ORACLE.FILE_10_NAME	Oracle file_10 name
HP-UX.ORACLE.FILE_10_NUMBER	Oracle file_10 number
HP-UX.ORACLE.FILE_2_LENGTH_MB	Oracle file_2 length
HP-UX.ORACLE.FILE_2_NAME	Oracle file_2 name
HP-UX.ORACLE.FILE_2_NUMBER	Oracle file_2 number
HP-UX.ORACLE.FILE_3_LENGTH_MB	Oracle file_3 length
HP-UX.ORACLE.FILE_3_NAME	Oracle file_3 name
HP-UX.ORACLE.FILE_3_NUMBER	Oracle file_3 number
HP-UX.ORACLE.FILE_4_LENGTH_MB	Oracle file_4 length
HP-UX.ORACLE.FILE_4_NAME	Oracle file_4 name
HP-UX.ORACLE.FILE_4_NUMBER	Oracle file_4 number
HP-UX.ORACLE.FILE_5_LENGTH_MB	Oracle file_5 length
HP-UX.ORACLE.FILE_5_NAME	Oracle file_5 name
HP-UX.ORACLE.FILE_5_NUMBER	Oracle file_5 number
HP-UX.ORACLE.FILE_6_LENGTH_MB	Oracle file_6 length
HP-UX.ORACLE.FILE_6_NAME	Oracle file_6 name
HP-UX.ORACLE.FILE_6_NUMBER	Oracle file_6 number
HP-UX.ORACLE.FILE_7_LENGTH_MB	Oracle file_7 length
HP-UX.ORACLE.FILE_7_NAME	Oracle file_7 name
HP-UX.ORACLE.FILE_7_NUMBER	Oracle file_7 number
HP-UX.ORACLE.FILE_8_LENGTH_MB	Oracle file_8 length
HP-UX.ORACLE.FILE_8_NAME	Oracle file_8 name

HP-UX.ORACLE.FILE_8_NUMBER	Oracle file_8 number
HP-UX.ORACLE.FILE_9_LENGTH_MB	Oracle file_9 length
HP-UX.ORACLE.FILE_9_NAME	Oracle file_9 name
HP-UX.ORACLE.FILE_9_NUMBER	Oracle file_9 number
HP-UX.ORACLE.FILE_IDENT_TOT_WTS	Oracle file ident waits
HP-UX.ORACLE.FILE_OPEN_TOT_WTS	Oracle file open waits
HP-UX.ORACLE.FREE_BUF_INSPECTED	Oracle free buffers inspected
HP-UX.ORACLE.FREE_BUF_REQUESTED	Oracle free buffers requested
HP-UX.ORACLE.FREE_LIST	Oracle free list
HP-UX.ORACLE.FREE_MEMORY_K	Oracle free memory
HP-UX.ORACLE.GETMISSES_SUM	Oracle data dictionary cache request misses
HP-UX.ORACLE.GETS_SUM	Oracle data dictionary cache requests
HP-UX.ORACLE.LIBRARY_CACHE_K	Oracle library cache
HP-UX.ORACLE.LOCKS_CURRENTLY_HELD	Oracle used lock entries
HP-UX.ORACLE.LOG_BUFFER_K	Oracle log buffer
HP-UX.ORACLE.LOGFILE_PARWRTTOTWTS	Oracle log file parallel write total waits
HP-UX.ORACLE.LOGFILE_SEQRDTOTWTS	Oracle log file sequential read total waits
HP-UX.ORACLE.LOGFILE_SNGLWRTTOTWT	Oracle log file single write total waits
HP-UX.ORACLE.LOGFILE_SYNC_TOT_WTS	Oracle log file synchronization total waits
HP-UX.ORACLE.OPENED_CURS_CUM	Oracle cumulative open cursors
HP-UX.ORACLE.PARSE_COUNT_HARD	Oracle (hard) parse count
HP-UX.ORACLE.PARSE_COUNT_TOTAL	Oracle (total) parse count
HP-UX.ORACLE.PHYS_BLK_READS_1	Oracle file_1 physical block reads
HP-UX.ORACLE.PHYS_BLK_READS_10	Oracle file_10 physical block reads
HP-UX.ORACLE.PHYS_BLK_READS_2	Oracle file_2 physical block reads
HP-UX.ORACLE.PHYS_BLK_READS_3	Oracle file_3 physical block reads
HP-UX.ORACLE.PHYS_BLK_READS_4	Oracle file_4 physical block reads
HP-UX.ORACLE.PHYS_BLK_READS_5	Oracle file_5 physical block reads
HP-UX.ORACLE.PHYS_BLK_READS_6	Oracle file_6 physical block reads
HP-UX.ORACLE.PHYS_BLK_READS_7	Oracle file_7 physical block reads
HP-UX.ORACLE.PHYS_BLK_READS_8	Oracle file_8 physical block reads
HP-UX.ORACLE.PHYS_BLK_READS_9	Oracle file_9 physical block reads
HP-UX.ORACLE.PHYS_BLK_WRITES_1	Oracle file_1 physical block writes
HP-UX.ORACLE.PHYS_BLK_WRITES_10	Oracle file_10 physical block writes
HP-UX.ORACLE.PHYS_BLK_WRITES_2	Oracle file_2 physical block writes
HP-UX.ORACLE.PHYS_BLK_WRITES_3	Oracle file_3 physical block writes
HP-UX.ORACLE.PHYS_BLK_WRITES_4	Oracle file_4 physical block writes
HP-UX.ORACLE.PHYS_BLK_WRITES_5	Oracle file_5 physical block writes
HP-UX.ORACLE.PHYS_BLK_WRITES_6	Oracle file_6 physical block writes
HP-UX.ORACLE.PHYS_BLK_WRITES_7	Oracle file_7 physical block writes
HP-UX.ORACLE.PHYS_BLK_WRITES_8	Oracle file_8 physical block writes
HP-UX.ORACLE.PHYS_BLK_WRITES_9	Oracle file_9 physical block writes
HP-UX.ORACLE.PHYS_READS_1	Oracle file_1 physical reads
HP-UX.ORACLE.PHYS_READS_10	Oracle file_10 physical reads
HP-UX.ORACLE.PHYS_READS_2	Oracle file_2 physical reads
HP-UX.ORACLE.PHYS_READS_3	Oracle file_3 physical reads
HP-UX.ORACLE.PHYS_READS_4	Oracle file_4 physical reads
HP-UX.ORACLE.PHYS_READS_5	Oracle file_5 physical reads
HP-UX.ORACLE.PHYS_READS_6	Oracle file_6 physical reads

HP-UX.ORACLE.PHYS_READS_7	Oracle file_7 physical reads
HP-UX.ORACLE.PHYS_READS_9	Oracle file_9 physical reads
HP-UX.ORACLE.PHYS_WRITES_1	Oracle file_1 physical writes
HP-UX.ORACLE.PHYS_WRITES_10	Oracle file_10 physical writes
HP-UX.ORACLE.PHYS_WRITES_2	Oracle file_2 physical writes
HP-UX.ORACLE.PHYS_WRITES_3	Oracle file_3 physical writes
HP-UX.ORACLE.PHYS_WRITES_4	Oracle file_4 physical writes
HP-UX.ORACLE.PHYS_WRITES_5	Oracle file_5 physical writes
HP-UX.ORACLE.PHYS_WRITES_6	Oracle file_6 physical writes
HP-UX.ORACLE.PHYS_WRITES_7	Oracle file_7 physical writes
HP-UX.ORACLE.PHYS_WRITES_8	Oracle file_8 physical writes
HP-UX.ORACLE.PHYS_WRITES_9	Oracle file_9 Physical writes
HP-UX.ORACLE.PHYSICAL_READS	Oracle physical reads
HP-UX.ORACLE.PHYSICAL_WRITES	Oracle physical disk writes
HP-UX.ORACLE.PINS_SUM	Oracle library cache PIN requests
HP-UX.ORACLE.RECURSIVE_CALLS	Oracle recursive calls
HP-UX.ORACLE.REDO_ALLOC_GETS	Oracle redo allocation gets
HP-UX.ORACLE.REDO_ALLOC_IMGETS	Oracle redo allocation immediate gets
HP-UX.ORACLE.REDO_ALLOC_IMMISSES	Oracle redo allocation immediate misses
HP-UX.ORACLE.REDO_ALLOC_MISSES	Oracle redo allocation misses
HP-UX.ORACLE.REDO_COPY_GETS	Oracle redo copy gets
HP-UX.ORACLE.REDO_COPY_IMGETS	Oracle redo copy immediate gets
HP-UX.ORACLE.REDO_COPY_IMMISSES	Oracle redo copy immediate misses
HP-UX.ORACLE.REDO_COPY_MISSES	Oracle redo copy misses
HP-UX.ORACLE.REDO_LOGSPACE_REQ	Oracle redo logspace requests
HP-UX.ORACLE.REDO_SYNCH_WRITES	Oracle redo entries to be synced on disk
HP-UX.ORACLE.REDO_WRT_GETS	Oracle redo write gets
HP-UX.ORACLE.REDO_WRT_IMGETS	Oracle redo write immediate gets
HP-UX.ORACLE.REDO_WRT_IMMISSES	Oracle redo write immediate misses
HP-UX.ORACLE.REDO_WRT_MISSES	Oracle redo write misses
HP-UX.ORACLE.REFRSHCNTRLFCOMTOTWT	Oracle controlfile refresh command total
HP-UX.ORACLE.RELOADS_SUM	Oracle library cache object disk reloads
HP-UX.ORACLE.ROLLBACK_1_GETS	Oracle rollback_1 reads
HP-UX.ORACLE.ROLLBACK_1_HIT%	Oracle rollback_1 hit %
HP-UX.ORACLE.ROLLBACK_1_IO	Oracle rollback_1 IO
HP-UX.ORACLE.ROLLBACK_1_NAME	Oracle rollback_1 segment name
HP-UX.ORACLE.ROLLBACK_1_USN	Oracle rollback_1 segment number
HP-UX.ORACLE.ROLLBACK_1_WAITS	Oracle rollback_1 waits
HP-UX.ORACLE.ROLLBACK_1_WRITES	Oracle rollback_1 writes
HP-UX.ORACLE.ROLLBACK_10_GETS	Oracle rollback_10 reads
HP-UX.ORACLE.ROLLBACK_10_HIT%	Oracle rollback_10 hit %
HP-UX.ORACLE.ROLLBACK_10_IO	Oracle rollback_10 IO
HP-UX.ORACLE.ROLLBACK_10_NAME	Oracle rollback_10 segment name
HP-UX.ORACLE.ROLLBACK_10_USN	Oracle rollback_10 segment number
HP-UX.ORACLE.ROLLBACK_10_WAITS	Oracle rollback_10 waits
HP-UX.ORACLE.ROLLBACK_10_WRITES	Oracle rollback_10 writes
HP-UX.ORACLE.ROLLBACK_2_GETS	Oracle rollback_2 reads
HP-UX.ORACLE.ROLLBACK_2_HIT%	Oracle rollback_2 hit %
HP-UX.ORACLE.ROLLBACK_2_IO	Oracle rollback_2 IO

HP-UX.ORACLE.ROLLBACK_2_NAME	Oracle rollback_2 segment name
HP-UX.ORACLE.ROLLBACK_2_USN	Oracle rollback_2 segment number
HP-UX.ORACLE.ROLLBACK_2_WAITS	Oracle rollback_2 waits
HP-UX.ORACLE.ROLLBACK_2_WRITES	Oracle rollback_2 writes
HP-UX.ORACLE.ROLLBACK_3_GETS	Oracle rollback_3 reads
HP-UX.ORACLE.ROLLBACK_3_HIT%	Oracle rollback_3 hit %
HP-UX.ORACLE.ROLLBACK_3_IO	Oracle rollback_3 IO
HP-UX.ORACLE.ROLLBACK_3_NAME	Oracle rollback_3 segment name
HP-UX.ORACLE.ROLLBACK_3_USN	Oracle rollback_3 segment number
HP-UX.ORACLE.ROLLBACK_3_WAITS	Oracle rollback_3 waits
HP-UX.ORACLE.ROLLBACK_3_WRITES	Oracle rollback_3 writes
HP-UX.ORACLE.ROLLBACK_4_GETS	Oracle rollback_4 reads
HP-UX.ORACLE.ROLLBACK_4_HIT%	Oracle rollback_4 hit %
HP-UX.ORACLE.ROLLBACK_4_IO	Oracle rollback_4 IO
HP-UX.ORACLE.ROLLBACK_4_NAME	Oracle rollback_4 segment name
HP-UX.ORACLE.ROLLBACK_4_USN	Oracle rollback_4 segment number
HP-UX.ORACLE.ROLLBACK_4_WAITS	Oracle rollback_4 waits
HP-UX.ORACLE.ROLLBACK_4_WRITES	Oracle rollback_4 writes
HP-UX.ORACLE.ROLLBACK_5_GETS	Oracle rollback_5 reads
HP-UX.ORACLE.ROLLBACK_5_HIT%	Oracle rollback_5 hit %
HP-UX.ORACLE.ROLLBACK_5_IO	Oracle rollback_5 IO
HP-UX.ORACLE.ROLLBACK_5_NAME	Oracle rollback_5 segment name
HP-UX.ORACLE.ROLLBACK_5_USN	Oracle rollback_5 segment number
HP-UX.ORACLE.ROLLBACK_5_WAITS	Oracle rollback_5 waits
HP-UX.ORACLE.ROLLBACK_5_WRITES	Oracle rollback_5 writes
HP-UX.ORACLE.ROLLBACK_6_GETS	Oracle rollback_6 gets
HP-UX.ORACLE.ROLLBACK_6_HIT%	Oracle rollback_6 hit %
HP-UX.ORACLE.ROLLBACK_6_IO	Oracle rollback_6 IO
HP-UX.ORACLE.ROLLBACK_6_NAME	Oracle rollback_6 segment name
HP-UX.ORACLE.ROLLBACK_6_USN	Oracle rollback_6 segment number
HP-UX.ORACLE.ROLLBACK_6_WAITS	Oracle rollback_6 waits
HP-UX.ORACLE.ROLLBACK_6_WRITES	Oracle rollback_6 writes
HP-UX.ORACLE.ROLLBACK_7_GETS	Oracle rollback_7 reads
HP-UX.ORACLE.ROLLBACK_7_HIT%	Oracle rollback_7 hit %
HP-UX.ORACLE.ROLLBACK_7_IO	Oracle rollback_7 IO
HP-UX.ORACLE.ROLLBACK_7_NAME	Oracle rollback_7 segment name
HP-UX.ORACLE.ROLLBACK_7_USN	Oracle rollback_7 segment number
HP-UX.ORACLE.ROLLBACK_7_WAITS	Oracle rollback_7 waits
HP-UX.ORACLE.ROLLBACK_7_WRITES	Oracle rollback_7 writes
HP-UX.ORACLE.ROLLBACK_8_GETS	Oracle rollback_8 reads
HP-UX.ORACLE.ROLLBACK_8_HIT%	Oracle rollback_8 hit %
HP-UX.ORACLE.ROLLBACK_8_IO	Oracle rollback_8 IO
HP-UX.ORACLE.ROLLBACK_8_NAME	Oracle rollback_8 segment name
HP-UX.ORACLE.ROLLBACK_8_USN	Oracle rollback_8 segment number
HP-UX.ORACLE.ROLLBACK_8_WAITS	Oracle rollback_8 waits
HP-UX.ORACLE.ROLLBACK_8_WRITES	Oracle rollback_8 writes
HP-UX.ORACLE.ROLLBACK_9_GETS	Oracle rollback_9 reads
HP-UX.ORACLE.ROLLBACK_9_HIT%	Oracle rollback_9 hit %
HP-UX.ORACLE.ROLLBACK_9_IO	Oracle rollback_9 IO

HP-UX.ORACLE.ROLLBACK_9_NAME	Oracle rollback_9 segment name
HP-UX.ORACLE.ROLLBACK_9_USN	Oracle rollback_9 segment number
HP-UX.ORACLE.ROLLBACK_9_WAITS	Oracle rollback_9 waits
HP-UX.ORACLE.ROLLBACK_9_WRITES	Oracle rollback_9 writes
HP-UX.ORACLE.ROLLBACK_GETS	Oracle rollback gets
HP-UX.ORACLE.ROLLBACK_WAITS	Oracle rollback waits
HP-UX.ORACLE.ROLLBACK_WRITES	Oracle rollback writes
HP-UX.ORACLE.SES_CURSORCACHE_HITS	Oracle session cursor cache hits
HP-UX.ORACLE.SESSION_PGA_MEM	Oracle session PGA memory
HP-UX.ORACLE.SESSION_PGA_MEM_MAX	Oracle session maximum PGA memory
HP-UX.ORACLE.SESSION_UGA_MEM	Oracle session UGA memory
HP-UX.ORACLE.SESSION_UGA_MEM_MAX	Oracle session maximum UGA memory
HP-UX.ORACLE.SORTS_DISC	Oracle sorts requiring disk write
HP-UX.ORACLE.SORTS_MEMORY	Oracle sorts performed in memory
HP-UX.ORACLE.SORTS_ROWS	Oracle total rows sorted
HP-UX.ORACLE.SQL_AREA_K	Oracle SQL area
HP-UX.ORACLE.SQLNBREAKRSTTOCLNT	Oracle break/reset sent to client via SQL*Net
HP-UX.ORACLE.SQLNMSGFROMCLNT	Oracle SQL*Net messages received
HP-UX.ORACLE.SQLNMSGTOCLNT	Oracle SQL*Net messages sent
HP-UX.ORACLE.SQLNRNDTRIPSTFRMCLNT	Oracle exchanged data via SQL*Net
HP-UX.ORACLE.SQLNRNDTRPTOFRMDBLNK	Oracle exchanged data with dblink via SQ
HP-UX.ORACLE.SUM_DIRTY_QUEUE_LNG	Oracle dirty queue length
HP-UX.ORACLE.SYSTEM_UNDO_BLOCK	Oracle system undo block
HP-UX.ORACLE.SYSTEM_UNDO_HEADER	Oracle system undo header
HP-UX.ORACLE.TABLESCANS_LONGTBL	Oracle (long table) tablescans
HP-UX.ORACLE.TABLESCANS_SHORTTBL	Oracle (short table) tablescans
HP-UX.ORACLE.TABLESPACE_1_NAME	Oracle tablespace name where file_1 belongs
HP-UX.ORACLE.TABLESPACE_1_NUMBER	Oracle tablespace number where file_1 belongs
HP-UX.ORACLE.TABLESPACE_10_NAME	Oracle tablespace name where file_10 belongs
HP-UX.ORACLE.TABLESPACE_10_NUMBER	Oracle tablespace number where file_10 belongs
HP-UX.ORACLE.TABLESPACE_2_NAME	Oracle tablespace name where file_2 belongs
HP-UX.ORACLE.TABLESPACE_2_NUMBER	Oracle tablespace number where file_2 belongs
HP-UX.ORACLE.TABLESPACE_3_NAME	Oracle tablespace name where file_3 belongs
HP-UX.ORACLE.TABLESPACE_3_NUMBER	Oracle tablespace number where file_3 belongs
HP-UX.ORACLE.TABLESPACE_4_NAME	Oracle tablespace name where file_4 belongs
HP-UX.ORACLE.TABLESPACE_4_NUMBER	Oracle tablespace number where file_4 belongs
HP-UX.ORACLE.TABLESPACE_5_NAME	Oracle tablespace name where file_5 belongs
HP-UX.ORACLE.TABLESPACE_5_NUMBER	Oracle tablespace number where file_5 belongs
HP-UX.ORACLE.TABLESPACE_6_NAME	Oracle tablespace name where file_6 belongs
HP-UX.ORACLE.TABLESPACE_6_NUMBER	Oracle tablespace number where file_6 belongs
HP-UX.ORACLE.TABLESPACE_7_NAME	Oracle tablespace name where file_7 belongs
HP-UX.ORACLE.TABLESPACE_7_NUMBER	Oracle tablespace number where file_7 belongs
HP-UX.ORACLE.TABLESPACE_8_NAME	Oracle tablespace name where file_8 belongs
HP-UX.ORACLE.TABLESPACE_8_NUMBER	Oracle tablespace number where file_8 belongs
HP-UX.ORACLE.TABLESPACE_9_NAME	Oracle tablespace name where file_9 belongs
HP-UX.ORACLE.TABLESPACE_9_NUMBER	Oracle tablespace number where file_9 belongs
HP-UX.ORACLE.UNDO_BLOCK	Oracle undo block
HP-UX.ORACLE.UNDO_HEADER	Oracle undo header
HP-UX.ORACLE.USER_CALLS	Oracle user calls

HP-UX.ORACLE.USER_COMMITS	Oracle user transaction commits
HP-UX.ORACLE.USER_ROLLBACKS	Oracle user manual rollbacks

Table A.6 HP-UX Oracle Data items

Linux Oracle Data Items

Item Name	Description
LINUX.ORACLE.B_SENT_VIASQLNTOCLNT	Oracle data sent via SQL*Net
LINUX.ORACLE.BKGNDCHKPNTCOMPLTD	Oracle background checkpoints completed
LINUX.ORACLE.BKGNDCHKPNTSTARTED	Oracle background checkpoints started
LINUX.ORACLE.BRCVDVIASQLNFRMDBLNK	Oracle data received from dblink via SQL
LINUX.ORACLE.BRCVDVIASQLNFROMCLNT	Oracle data received via SQL*Net
LINUX.ORACLE.BSENTVIASQLNTODBLINK	Oracle data sent to dblink via SQL*Net
LINUX.ORACLE.CACHE_BUFCHAINS_GETS	Oracle cache buffer chain gets
LINUX.ORACLE.CACHE_BUFCHAINS_MIS	Oracle cache buffer chain misses
LINUX.ORACLE.CACHE_BUFHANDLES_MIS	Oracle cache buffer handle misses
LINUX.ORACLE.CACHE_BUFHANDLESGETS	Oracle cache buffer handle gets
LINUX.ORACLE.CACHE_BUFHANDLESIMMI	Oracle cache buffer handle immediate misses
LINUX.ORACLE.CACHE_PROTLATCH_GETS	Oracle cache protection latch gets
LINUX.ORACLE.CACHE_PROTLATCH_MISS	Oracle cache protection latch misses
LINUX.ORACLE.CACHEBUFCHAINSIMGETS	Oracle cache buffer chain immediate gets
LINUX.ORACLE.CACHEBUFCHAINSIMMIS	Oracle cache buffer chain immediate miss
LINUX.ORACLE.CACHEBUFHANDLESIMGET	Oracle cache buffer handle immediate get
LINUX.ORACLE.CACHEBUFLRUCHAINGETS	Oracle cache buffer lru chain gets
LINUX.ORACLE.CACHEBUFLRUCHAINMIS	Oracle cache buffer lru chain misses
LINUX.ORACLE.CACHEBUFLRUCHNIMGETS	Oracle cache buffer lru chain immediate gets
LINUX.ORACLE.CACHEBUFLRUCHNIMMIS	Oracle cache buffer lru chain immediate misses
LINUX.ORACLE.CACHEPROTLATCHIMGETS	Oracle cache protection latch immediate gets
LINUX.ORACLE.CACHEPROTLATCHIMMISS	Oracle cache protection latch immediate misses
LINUX.ORACLE.CNTRLFILEPARWRTTOTWT	Oracle controlfile parallel write total
LINUX.ORACLE.CNTRLFILESEQRDTOTWTS	Oracle controlfile sequential read total
LINUX.ORACLE.CONSISTENT_GETS	Oracle consistent block reads requested
LINUX.ORACLE.DB_BLOCK_BUF_K	Oracle block buffer
LINUX.ORACLE.DB_BLOCK_GETS	Oracle blocks obtained in CURRENT mode
LINUX.ORACLE.DBFILE_PARLRDTOTWTS	Oracle databasefile parallel read total
LINUX.ORACLE.DBFILE_PARWRTTOTWTS	Oracle databasefile parallel write total
LINUX.ORACLE.DBFILE_SCATRDTOTWTS	Oracle databasefile scattered read total
LINUX.ORACLE.DBFILE_SEQ_RDTOTWTS	Oracle databasefile sequential read tota
LINUX.ORACLE.DBFILE_SNGLWRTTOTWTS	Oracle databasefile single write total waits
LINUX.ORACLE.DBWR_BUF_SCANNED	Oracle DBWR buffers scanned
LINUX.ORACLE.DBWR_CHECKPOINTS	Oracle DBWR checkpoints
LINUX.ORACLE.DBWR_CHKPOINTBUFWRIT	Oracle DBWR checkpoint buffers written
LINUX.ORACLE.DBWR_FORCED_WRITES	Oracle DBWR forced writes
LINUX.ORACLE.DBWR_FREE_BUFFOUND	Oracle DBWR free buffers found
LINUX.ORACLE.DBWR_LRU_SCANS	Oracle DBWR lru scans
LINUX.ORACLE.DBWR_MAKE_FREEREQ	Oracle DBWR make free requests
LINUX.ORACLE.DBWR_REV_BNGWRTBUF	Oracle DBWR revisited being written buffer
LINUX.ORACLE.DBWR_SUM_SCANDPTH	Oracle DBWR summed scan depth

LINUX.ORACLE.DBWR_TRANSTABLE_WRT	Oracle DBWR transaction table writes
LINUX.ORACLE.DBWR_UNDO_BLOCK_WRT	Oracle DBWR undo block writes
LINUX.ORACLE.DICTIONARY_CACHE_K	Oracle dictionary cache
LINUX.ORACLE.DIRTY_BUF_INSPECTED	Oracle dirty buffers inspected
LINUX.ORACLE.ENQUEUE_RELEASES	Oracle enqueue releases
LINUX.ORACLE.ENQUEUE_REQUESTS	Oracle enqueue requests
LINUX.ORACLE.ENQUEUE_TIMEOUTS	Oracle enqueue timeouts
LINUX.ORACLE.ENQUEUE_WAITS	Oracle enqueue waits
LINUX.ORACLE.EXECUTE_COUNT	Oracle execute count
LINUX.ORACLE.FILE_1_LENGTH_MB	Oracle file_1 length
LINUX.ORACLE.FILE_1_NAME	Oracle file_1 name
LINUX.ORACLE.FILE_1_NUMBER	Oracle file_1 number
LINUX.ORACLE.FILE_10_LENGTH_MB	Oracle file_10 length
LINUX.ORACLE.FILE_10_NAME	Oracle file_10 name
LINUX.ORACLE.FILE_10_NUMBER	Oracle file_10 number
LINUX.ORACLE.FILE_2_LENGTH_MB	Oracle file_2 length
LINUX.ORACLE.FILE_2_NAME	Oracle file_2 name
LINUX.ORACLE.FILE_2_NUMBER	Oracle file_2 number
LINUX.ORACLE.FILE_3_LENGTH_MB	Oracle file_3 length
LINUX.ORACLE.FILE_3_NAME	Oracle file_3 name
LINUX.ORACLE.FILE_3_NUMBER	Oracle file_3 number
LINUX.ORACLE.FILE_4_LENGTH_MB	Oracle file_4 length
LINUX.ORACLE.FILE_4_NAME	Oracle file_4 name
LINUX.ORACLE.FILE_4_NUMBER	Oracle file_4 number
LINUX.ORACLE.FILE_5_LENGTH_MB	Oracle file_5 length
LINUX.ORACLE.FILE_5_NAME	Oracle file_5 name
LINUX.ORACLE.FILE_5_NUMBER	Oracle file_5 number
LINUX.ORACLE.FILE_6_LENGTH_MB	Oracle file_6 length
LINUX.ORACLE.FILE_6_NAME	Oracle file_6 name
LINUX.ORACLE.FILE_6_NUMBER	Oracle file_6 number
LINUX.ORACLE.FILE_7_LENGTH_MB	Oracle file_7 length
LINUX.ORACLE.FILE_7_NAME	Oracle file_7 name
LINUX.ORACLE.FILE_7_NUMBER	Oracle file_7 number
LINUX.ORACLE.FILE_8_LENGTH_MB	Oracle file_8 length
LINUX.ORACLE.FILE_8_NAME	Oracle file_8 name
LINUX.ORACLE.FILE_8_NUMBER	Oracle file_8 number
LINUX.ORACLE.FILE_9_LENGTH_MB	Oracle file_9 length
LINUX.ORACLE.FILE_9_NAME	Oracle file_9 name
LINUX.ORACLE.FILE_9_NUMBER	Oracle file_9 number
LINUX.ORACLE.FILE_IDENT_TOT_WTS	Oracle file ident waits
LINUX.ORACLE.FILE_OPEN_TOT_WTS	Oracle file open waits
LINUX.ORACLE.FREE_BUF_INSPECTED	Oracle free buffers inspected
LINUX.ORACLE.FREE_BUF_REQUESTED	Oracle free buffers requested
LINUX.ORACLE.FREE_LIST	Oracle free list
LINUX.ORACLE.FREE_MEMORY_K	Oracle free memory
LINUX.ORACLE.GETMISSES_SUM	Oracle data dictionary cache request misses
LINUX.ORACLE.GETS_SUM	Oracle data dictionary cache requests
LINUX.ORACLE.LIBRARY_CACHE_K	Oracle library cache
LINUX.ORACLE.LOCKS_CURRENTLY_HELD	Oracle used lock entries

LINUX.ORACLE.LOG_BUFFER_K	Oracle log buffer
LINUX.ORACLE.LOGFILE_PARWRTTOTWTS	Oracle log file parallel write total waits
LINUX.ORACLE.LOGFILE_SEQRDTOTWTS	Oracle log file sequential read total waits
LINUX.ORACLE.LOGFILE_SNGLWRTTOTWT	Oracle log file single write total waits
LINUX.ORACLE.LOGFILE_SYNC_TOT_WTS	Oracle log file synchronization total waits
LINUX.ORACLE.OPENED_CURS_CUM	Oracle cumulative open cursors
LINUX.ORACLE.PARSE_COUNT_HARD	Oracle (hard) parse count
LINUX.ORACLE.PARSE_COUNT_TOTAL	Oracle (total) parse count
LINUX.ORACLE.PHYS_BLK_READS_1	Oracle file_1 physical block reads
LINUX.ORACLE.PHYS_BLK_READS_10	Oracle file_10 physical block reads
LINUX.ORACLE.PHYS_BLK_READS_2	Oracle file_2 physical block reads
LINUX.ORACLE.PHYS_BLK_READS_3	Oracle file_3 physical block reads
LINUX.ORACLE.PHYS_BLK_READS_4	Oracle file_4 physical block reads
LINUX.ORACLE.PHYS_BLK_READS_5	Oracle file_5 physical block reads
LINUX.ORACLE.PHYS_BLK_READS_6	Oracle file_6 physical block reads
LINUX.ORACLE.PHYS_BLK_READS_7	Oracle file_7 physical block reads
LINUX.ORACLE.PHYS_BLK_READS_8	Oracle file_8 physical block reads
LINUX.ORACLE.PHYS_BLK_READS_9	Oracle file_9 physical block reads
LINUX.ORACLE.PHYS_BLK_WRITES_1	Oracle file_1 physical block writes
LINUX.ORACLE.PHYS_BLK_WRITES_10	Oracle file_10 physical block writes
LINUX.ORACLE.PHYS_BLK_WRITES_2	Oracle file_2 physical block writes
LINUX.ORACLE.PHYS_BLK_WRITES_3	Oracle file_3 physical block writes
LINUX.ORACLE.PHYS_BLK_WRITES_4	Oracle file_4 physical block writes
LINUX.ORACLE.PHYS_BLK_WRITES_5	Oracle file_5 physical block writes
LINUX.ORACLE.PHYS_BLK_WRITES_6	Oracle file_6 physical block writes
LINUX.ORACLE.PHYS_BLK_WRITES_7	Oracle file_7 physical block writes
LINUX.ORACLE.PHYS_BLK_WRITES_8	Oracle file_8 physical block writes
LINUX.ORACLE.PHYS_BLK_WRITES_9	Oracle file_9 physical block writes
LINUX.ORACLE.PHYS_READS_1	Oracle file_1 physical reads
LINUX.ORACLE.PHYS_READS_10	Oracle file_10 physical reads
LINUX.ORACLE.PHYS_READS_2	Oracle file_2 physical reads
LINUX.ORACLE.PHYS_READS_3	Oracle file_3 physical reads
LINUX.ORACLE.PHYS_READS_4	Oracle file_4 physical reads
LINUX.ORACLE.PHYS_READS_5	Oracle file_5 physical reads
LINUX.ORACLE.PHYS_READS_6	Oracle file_6 physical reads
LINUX.ORACLE.PHYS_READS_7	Oracle file_7 physical reads
LINUX.ORACLE.PHYS_READS_9	Oracle file_9 physical reads
LINUX.ORACLE.PHYS_WRITES_1	Oracle file_1 physical writes
LINUX.ORACLE.PHYS_WRITES_10	Oracle file_10 physical writes
LINUX.ORACLE.PHYS_WRITES_2	Oracle file_2 physical writes
LINUX.ORACLE.PHYS_WRITES_3	Oracle file_3 physical writes
LINUX.ORACLE.PHYS_WRITES_4	Oracle file_4 physical writes
LINUX.ORACLE.PHYS_WRITES_5	Oracle file_5 physical writes
LINUX.ORACLE.PHYS_WRITES_6	Oracle file_6 physical writes
LINUX.ORACLE.PHYS_WRITES_7	Oracle file_7 physical writes
LINUX.ORACLE.PHYS_WRITES_8	Oracle file_8 physical writes
LINUX.ORACLE.PHYS_WRITES_9	Oracle file_9 Physical writes
LINUX.ORACLE.PHYSICAL_READS	Oracle physical reads
LINUX.ORACLE.PHYSICAL_WRITES	Oracle physical disk writes

LINUX.ORACLE.PINS_SUM	Oracle library cache PIN requests
LINUX.ORACLE.RECURSIVE_CALLS	Oracle recursive calls
LINUX.ORACLE.REDO_ALLOC_GETS	Oracle redo allocation gets
LINUX.ORACLE.REDO_ALLOC_IMGETS	Oracle redo allocation immediate gets
LINUX.ORACLE.REDO_ALLOC_IMMISSES	Oracle redo allocation immediate misses
LINUX.ORACLE.REDO_ALLOC_MISSES	Oracle redo allocation misses
LINUX.ORACLE.REDO_COPY_GETS	Oracle redo copy gets
LINUX.ORACLE.REDO_COPY_IMGETS	Oracle redo copy immediate gets
LINUX.ORACLE.REDO_COPY_IMMISSES	Oracle redo copy immediate misses
LINUX.ORACLE.REDO_COPY_MISSES	Oracle redo copy misses
LINUX.ORACLE.REDO_LOGSPACE_REQ	Oracle redo logspace requests
LINUX.ORACLE.REDO_SYNCH_WRITES	Oracle redo entries to be synced on disk
LINUX.ORACLE.REDO_WRT_GETS	Oracle redo write gets
LINUX.ORACLE.REDO_WRT_IMGETS	Oracle redo write immediate gets
LINUX.ORACLE.REDO_WRT_IMMISSES	Oracle redo write immediate misses
LINUX.ORACLE.REDO_WRT_MISSES	Oracle redo write misses
LINUX.ORACLE.REFRSHCNTRLFCOMTOTWT	Oracle controlfile refresh command total
LINUX.ORACLE.RELOADS_SUM	Oracle library cache object disk reloads
LINUX.ORACLE.ROLLBACK_1_GETS	Oracle rollback_1 reads
LINUX.ORACLE.ROLLBACK_1_HIT%	Oracle rollback_1 hit %
LINUX.ORACLE.ROLLBACK_1_IO	Oracle rollback_1 IO
LINUX.ORACLE.ROLLBACK_1_NAME	Oracle rollback_1 segment name
LINUX.ORACLE.ROLLBACK_1_USN	Oracle rollback_1 segment number
LINUX.ORACLE.ROLLBACK_1_WAITS	Oracle rollback_1 waits
LINUX.ORACLE.ROLLBACK_1_WRITES	Oracle rollback_1 writes
LINUX.ORACLE.ROLLBACK_10_GETS	Oracle rollback_10 reads
LINUX.ORACLE.ROLLBACK_10_HIT%	Oracle rollback_10 hit %
LINUX.ORACLE.ROLLBACK_10_IO	Oracle rollback_10 IO
LINUX.ORACLE.ROLLBACK_10_NAME	Oracle rollback_10 segment name
LINUX.ORACLE.ROLLBACK_10_USN	Oracle rollback_10 segment number
LINUX.ORACLE.ROLLBACK_10_WAITS	Oracle rollback_10 waits
LINUX.ORACLE.ROLLBACK_10_WRITES	Oracle rollback_10 writes
LINUX.ORACLE.ROLLBACK_2_GETS	Oracle rollback_2 reads
LINUX.ORACLE.ROLLBACK_2_HIT%	Oracle rollback_2 hit %
LINUX.ORACLE.ROLLBACK_2_IO	Oracle rollback_2 IO
LINUX.ORACLE.ROLLBACK_2_NAME	Oracle rollback_2 segment name
LINUX.ORACLE.ROLLBACK_2_USN	Oracle rollback_2 segment number
LINUX.ORACLE.ROLLBACK_2_WAITS	Oracle rollback_2 waits
LINUX.ORACLE.ROLLBACK_2_WRITES	Oracle rollback_2 writes
LINUX.ORACLE.ROLLBACK_3_GETS	Oracle rollback_3 reads
LINUX.ORACLE.ROLLBACK_3_HIT%	Oracle rollback_3 hit %
LINUX.ORACLE.ROLLBACK_3_IO	Oracle rollback_3 IO
LINUX.ORACLE.ROLLBACK_3_NAME	Oracle rollback_3 segment name
LINUX.ORACLE.ROLLBACK_3_USN	Oracle rollback_3 segment number
LINUX.ORACLE.ROLLBACK_3_WAITS	Oracle rollback_3 waits
LINUX.ORACLE.ROLLBACK_3_WRITES	Oracle rollback_3 writes
LINUX.ORACLE.ROLLBACK_4_GETS	Oracle rollback_4 reads
LINUX.ORACLE.ROLLBACK_4_HIT%	Oracle rollback_4 hit %
LINUX.ORACLE.ROLLBACK_4_IO	Oracle rollback_4 IO

LINUX.ORACLE.ROLLBACK_4_NAME	Oracle rollback_4 segment name
LINUX.ORACLE.ROLLBACK_4_USN	Oracle rollback_4 segment number
LINUX.ORACLE.ROLLBACK_4_WAITS	Oracle rollback_4 waits
LINUX.ORACLE.ROLLBACK_4_WRITES	Oracle rollback_4 writes
LINUX.ORACLE.ROLLBACK_5_GETS	Oracle rollback_5 reads
LINUX.ORACLE.ROLLBACK_5_HIT%	Oracle rollback_5 hit %
LINUX.ORACLE.ROLLBACK_5_IO	Oracle rollback_5 IO
LINUX.ORACLE.ROLLBACK_5_NAME	Oracle rollback_5 segment name
LINUX.ORACLE.ROLLBACK_5_USN	Oracle rollback_5 segment number
LINUX.ORACLE.ROLLBACK_5_WAITS	Oracle rollback_5 waits
LINUX.ORACLE.ROLLBACK_5_WRITES	Oracle rollback_5 writes
LINUX.ORACLE.ROLLBACK_6_GETS	Oracle rollback_6 gets
LINUX.ORACLE.ROLLBACK_6_HIT%	Oracle rollback_6 hit %
LINUX.ORACLE.ROLLBACK_6_IO	Oracle rollback_6 IO
LINUX.ORACLE.ROLLBACK_6_NAME	Oracle rollback_6 segment name
LINUX.ORACLE.ROLLBACK_6_USN	Oracle rollback_6 segment number
LINUX.ORACLE.ROLLBACK_6_WAITS	Oracle rollback_6 waits
LINUX.ORACLE.ROLLBACK_6_WRITES	Oracle rollback_6 writes
LINUX.ORACLE.ROLLBACK_7_GETS	Oracle rollback_7 reads
LINUX.ORACLE.ROLLBACK_7_HIT%	Oracle rollback_7 hit %
LINUX.ORACLE.ROLLBACK_7_IO	Oracle rollback_7 IO
LINUX.ORACLE.ROLLBACK_7_NAME	Oracle rollback_7 segment name
LINUX.ORACLE.ROLLBACK_7_USN	Oracle rollback_7 segment number
LINUX.ORACLE.ROLLBACK_7_WAITS	Oracle rollback_7 waits
LINUX.ORACLE.ROLLBACK_7_WRITES	Oracle rollback_7 writes
LINUX.ORACLE.ROLLBACK_8_GETS	Oracle rollback_8 reads
LINUX.ORACLE.ROLLBACK_8_HIT%	Oracle rollback_8 hit %
LINUX.ORACLE.ROLLBACK_8_IO	Oracle rollback_8 IO
LINUX.ORACLE.ROLLBACK_8_NAME	Oracle rollback_8 segment name
LINUX.ORACLE.ROLLBACK_8_USN	Oracle rollback_8 segment number
LINUX.ORACLE.ROLLBACK_8_WAITS	Oracle rollback_8 waits
LINUX.ORACLE.ROLLBACK_8_WRITES	Oracle rollback_8 writes
LINUX.ORACLE.ROLLBACK_9_GETS	Oracle rollback_9 reads
LINUX.ORACLE.ROLLBACK_9_HIT%	Oracle rollback_9 hit %
LINUX.ORACLE.ROLLBACK_9_IO	Oracle rollback_9 IO
LINUX.ORACLE.ROLLBACK_9_NAME	Oracle rollback_9 segment name
LINUX.ORACLE.ROLLBACK_9_USN	Oracle rollback_9 segment number
LINUX.ORACLE.ROLLBACK_9_WAITS	Oracle rollback_9 waits
LINUX.ORACLE.ROLLBACK_9_WRITES	Oracle rollback_9 writes
LINUX.ORACLE.ROLLBACK_GETS	Oracle rollback gets
LINUX.ORACLE.ROLLBACK_WAITS	Oracle rollback waits
LINUX.ORACLE.ROLLBACK_WRITES	Oracle rollback writes
LINUX.ORACLE.SES_CURSORCACHE_HITS	Oracle session cursor cache hits
LINUX.ORACLE.SESSION_PGA_MEM	Oracle session PGA memory
LINUX.ORACLE.SESSION_PGA_MEM_MAX	Oracle session maximum PGA memory
LINUX.ORACLE.SESSION_UGA_MEM	Oracle session UGA memory
LINUX.ORACLE.SESSION_UGA_MEM_MAX	Oracle session maximum UGA memory
LINUX.ORACLE.SORTS_DISC	Oracle sorts requiring disk write
LINUX.ORACLE.SORTS_MEMORY	Oracle sorts performed in memory

LINUX.ORACLE.SORTS_ROWS	Oracle total rows sorted
LINUX.ORACLE.SQL_AREA_K	Oracle SQL area
LINUX.ORACLE.SQLNBREAKRSTTOCLNT	Oracle break/reset sent to client via SQL*Net
LINUX.ORACLE.SQLNMSGFROMCLNT	Oracle SQL*Net messages received
LINUX.ORACLE.SQLNMSGTOCLNT	Oracle SQL*Net messages sent
LINUX.ORACLE.SQLNRNDTRIPSTFRMCLNT	Oracle exchanged data via SQL*Net
LINUX.ORACLE.SQLNRNDTRPTOFRMDBLNK	Oracle exchanged data with dblink via SQL*Net
LINUX.ORACLE.SUM_DIRTY_QUEUE_LNG	Oracle dirty queue length
LINUX.ORACLE.SYSTEM_UNDO_BLOCK	Oracle system undo block
LINUX.ORACLE.SYSTEM_UNDO_HEADER	Oracle system undo header
LINUX.ORACLE.TABLESCANS_LONGTBL	Oracle (long table) tablescans
LINUX.ORACLE.TABLESCANS_SHORTTBL	Oracle (short table) tablescans
LINUX.ORACLE.TABLESPACE_1_NAME	Oracle tablespace name where file_1 belongs
LINUX.ORACLE.TABLESPACE_1_NUMBER	Oracle tablespace number where file_1 belongs
LINUX.ORACLE.TABLESPACE_10_NAME	Oracle tablespace name where file_10 belongs
LINUX.ORACLE.TABLESPACE_10_NUMBER	Oracle tablespace number where file_10 belongs
LINUX.ORACLE.TABLESPACE_2_NAME	Oracle tablespace name where file_2 belongs
LINUX.ORACLE.TABLESPACE_2_NUMBER	Oracle tablespace number where file_2 belongs
LINUX.ORACLE.TABLESPACE_3_NAME	Oracle tablespace name where file_3 belongs
LINUX.ORACLE.TABLESPACE_3_NUMBER	Oracle tablespace number where file_3 belongs
LINUX.ORACLE.TABLESPACE_4_NAME	Oracle tablespace name where file_4 belongs
LINUX.ORACLE.TABLESPACE_4_NUMBER	Oracle tablespace number where file_4 belongs
LINUX.ORACLE.TABLESPACE_5_NAME	Oracle tablespace name where file_5 belongs
LINUX.ORACLE.TABLESPACE_5_NUMBER	Oracle tablespace number where file_5 belongs
LINUX.ORACLE.TABLESPACE_6_NAME	Oracle tablespace name where file_6 belongs
LINUX.ORACLE.TABLESPACE_6_NUMBER	Oracle tablespace number where file_6 belongs
LINUX.ORACLE.TABLESPACE_7_NAME	Oracle tablespace name where file_7 belongs
LINUX.ORACLE.TABLESPACE_7_NUMBER	Oracle tablespace number where file_7 belongs
LINUX.ORACLE.TABLESPACE_8_NAME	Oracle tablespace name where file_8 belongs
LINUX.ORACLE.TABLESPACE_8_NUMBER	Oracle tablespace number where file_8 belongs
LINUX.ORACLE.TABLESPACE_9_NAME	Oracle tablespace name where file_9 belongs
LINUX.ORACLE.TABLESPACE_9_NUMBER	Oracle tablespace number where file_9 belongs
LINUX.ORACLE.UNDO_BLOCK	Oracle undo block
LINUX.ORACLE.UNDO_HEADER	Oracle undo header
LINUX.ORACLE.USER_CALLS	Oracle user calls
LINUX.ORACLE.USER_COMMITS	Oracle user transaction commits
LINUX.ORACLE.USER_ROLLBACKS	Oracle user manual rollbacks

Table A.7 Linux Oracle Data items

Solaris Oracle Data Items

Item Name	Description
SOLARIS.ORACLE.B_SENT_VIASQLNTOCLNT	Oracle data sent via SQL*Net
SOLARIS.ORACLE.BKGNDCHKPNTCOMPLTD	Oracle background checkpoints completed
SOLARIS.ORACLE.BKGNDCHKPNTSTARTED	Oracle background checkpoints started
SOLARIS.ORACLE.BRCVDVIASQLNFRMDBLNK	Oracle data received from dblink via SQL
SOLARIS.ORACLE.BRCVDVIASQLNFROMCLNT	Oracle data received via SQL*Net
SOLARIS.ORACLE.BSENTVIASQLNTODBLINK	Oracle data sent to dblink via SQL*Net

SOLARIS.ORACLE.CACHE_BUFCHAINS_GETS	Oracle cache buffer chain gets
SOLARIS.ORACLE.CACHE_BUFCHAINS_MIS	Oracle cache buffer chain misses
SOLARIS.ORACLE.CACHE_BUFHANDLES_MIS	Oracle cache buffer handle misses
SOLARIS.ORACLE.CACHE_BUFHANDLESGETS	Oracle cache buffer handle gets
SOLARIS.ORACLE.CACHE_BUFHANDLESIMMI	Oracle cache buffer handle immediate misses
SOLARIS.ORACLE.CACHE_PROTLATCH_GETS	Oracle cache protection latch gets
SOLARIS.ORACLE.CACHE_PROTLATCH_MISS	Oracle cache protection latch misses
SOLARIS.ORACLE.CACHEBUFCHAINSIMGETS	Oracle cache buffer chain immediate gets
SOLARIS.ORACLE.CACHEBUFCHAINSIMMIS	Oracle cache buffer chain immediate misses
SOLARIS.ORACLE.CACHEBUFHANDLESIMGET	Oracle cache buffer handle immediate gets
SOLARIS.ORACLE.CACHEBUFLRUCHAINGETS	Oracle cache buffer lru chain gets
SOLARIS.ORACLE.CACHEBUFLRUCHAINMIS	Oracle cache buffer lru chain misses
SOLARIS.ORACLE.CACHEBUFLRUCHNIMGETS	Oracle cache buffer lru chain immediate gets
SOLARIS.ORACLE.CACHEBUFLRUCHNIMMIS	Oracle cache buffer lru chain immediate misses
SOLARIS.ORACLE.CACHEPROTLATCHIMGETS	Oracle cache protection latch immediate gets
SOLARIS.ORACLE.CACHEPROTLATCHIMMISS	Oracle cache protection latch immediate misses
SOLARIS.ORACLE.CNTRLFILEPARWRTTOTWT	Oracle controlfile parallel write total
SOLARIS.ORACLE.CNTRLFILESEQRDTOTWTS	Oracle controlfile sequential read total
SOLARIS.ORACLE.CONSISTENT_GETS	Oracle consistent block reads requested
SOLARIS.ORACLE.DB_BLOCK_BUF_K	Oracle block buffer
SOLARIS.ORACLE.DB_BLOCK_GETS	Oracle blocks obtained in CURRENT mode
SOLARIS.ORACLE.DBFILE_PARLRDTOTWTS	Oracle databasefile parallel read total waits
SOLARIS.ORACLE.DBFILE_PARWRTTOTWTS	Oracle databasefile parallel write total waits
SOLARIS.ORACLE.DBFILE_SCATRDTOTWTS	Oracle databasefile scattered read total waits
SOLARIS.ORACLE.DBFILE_SEQ_RDTOTWTS	Oracle databasefile sequential read total waits
SOLARIS.ORACLE.DBFILE_SNGLWRTTOTWTS	Oracle databasefile single write total waits
SOLARIS.ORACLE.DBWR_BUF_SCANNED	Oracle DBWR buffers scanned
SOLARIS.ORACLE.DBWR_CHECKPOINTS	Oracle DBWR checkpoints
SOLARIS.ORACLE.DBWR_CHKPOINTBUFWRIT	Oracle DBWR checkpoint buffers written
SOLARIS.ORACLE.DBWR_FORCED_WRITES	Oracle DBWR forced writes
SOLARIS.ORACLE.DBWR_FREE_BUFFOUND	Oracle DBWR free buffers found
SOLARIS.ORACLE.DBWR_LRU_SCANS	Oracle DBWR lru scans
SOLARIS.ORACLE.DBWR_MAKE_FREEREQ	Oracle DBWR make free requests
SOLARIS.ORACLE.DBWR_REV_BNGWRTBUF	Oracle DBWR revisited being written buffer
SOLARIS.ORACLE.DBWR_SUM_SCANDPTH	Oracle DBWR summed scan depth
SOLARIS.ORACLE.DBWR_TRANSTABLE_WRT	Oracle DBWR transaction table writes
SOLARIS.ORACLE.DBWR_UNDO_BLOCK_WRT	Oracle DBWR undo block writes
SOLARIS.ORACLE.DICTIONARY_CACHE_K	Oracle dictionary cache
SOLARIS.ORACLE.DIRTY_BUF_INSPECTED	Oracle dirty buffers inspected
SOLARIS.ORACLE.ENQUEUE_RELEASES	Oracle enqueue releases
SOLARIS.ORACLE.ENQUEUE_REQUESTS	Oracle enqueue requests
SOLARIS.ORACLE.ENQUEUE_TIMEOUTS	Oracle enqueue timeouts
SOLARIS.ORACLE.ENQUEUE_WAITS	Oracle enqueue waits
SOLARIS.ORACLE.EXECUTE_COUNT	Oracle execute count
SOLARIS.ORACLE.FILE_1_LENGTH_MB	Oracle file_1 length
SOLARIS.ORACLE.FILE_1_NAME	Oracle file_1 name
SOLARIS.ORACLE.FILE_1_NUMBER	Oracle file_1 number
SOLARIS.ORACLE.FILE_10_LENGTH_MB	Oracle file_10 length
SOLARIS.ORACLE.FILE_10_NAME	Oracle file_10 name

SOLARIS.ORACLE.FILE_10_NUMBER	Oracle file_10 number
SOLARIS.ORACLE.FILE_2_LENGTH_MB	Oracle file_2 length
SOLARIS.ORACLE.FILE_2_NAME	Oracle file_2 name
SOLARIS.ORACLE.FILE_2_NUMBER	Oracle file_2 number
SOLARIS.ORACLE.FILE_3_LENGTH_MB	Oracle file_3 length
SOLARIS.ORACLE.FILE_3_NAME	Oracle file_3 name
SOLARIS.ORACLE.FILE_3_NUMBER	Oracle file_3 number
SOLARIS.ORACLE.FILE_4_LENGTH_MB	Oracle file_4 length
SOLARIS.ORACLE.FILE_4_NAME	Oracle file_4 name
SOLARIS.ORACLE.FILE_4_NUMBER	Oracle file_4 number
SOLARIS.ORACLE.FILE_5_LENGTH_MB	Oracle file_5 length
SOLARIS.ORACLE.FILE_5_NAME	Oracle file_5 name
SOLARIS.ORACLE.FILE_5_NUMBER	Oracle file_5 number
SOLARIS.ORACLE.FILE_6_LENGTH_MB	Oracle file_6 length
SOLARIS.ORACLE.FILE_6_NAME	Oracle file_6 name
SOLARIS.ORACLE.FILE_6_NUMBER	Oracle file_6 number
SOLARIS.ORACLE.FILE_7_LENGTH_MB	Oracle file_7 length
SOLARIS.ORACLE.FILE_7_NAME	Oracle file_7 name
SOLARIS.ORACLE.FILE_7_NUMBER	Oracle file_7 number
SOLARIS.ORACLE.FILE_8_LENGTH_MB	Oracle file_8 length
SOLARIS.ORACLE.FILE_8_NAME	Oracle file_8 name
SOLARIS.ORACLE.FILE_8_NUMBER	Oracle file_8 number
SOLARIS.ORACLE.FILE_9_LENGTH_MB	Oracle file_9 length
SOLARIS.ORACLE.FILE_9_NAME	Oracle file_9 name
SOLARIS.ORACLE.FILE_9_NUMBER	Oracle file_9 number
SOLARIS.ORACLE.FILE_IDENT_TOT_WTS	Oracle file ident waits
SOLARIS.ORACLE.FILE_OPEN_TOT_WTS	Oracle file open waits
SOLARIS.ORACLE.FREE_BUF_INSPECTED	Oracle free buffers inspected
SOLARIS.ORACLE.FREE_BUF_REQUESTED	Oracle free buffers requested
SOLARIS.ORACLE.FREE_LIST	Oracle free list
SOLARIS.ORACLE.FREE_MEMORY_K	Oracle free memory
SOLARIS.ORACLE.GETMISSES_SUM	Oracle data dictionary cache request misses
SOLARIS.ORACLE.GETS_SUM	Oracle data dictionary cache requests
SOLARIS.ORACLE.LIBRARY_CACHE_K	Oracle library cache
SOLARIS.ORACLE.LOCKS_CURRENTLY_HELD	Oracle used lock entries
SOLARIS.ORACLE.LOG_BUFFER_K	Oracle log buffer
SOLARIS.ORACLE.LOGFILE_PARWRTTOTWTS	Oracle log file parallel write total waits
SOLARIS.ORACLE.LOGFILE_SEQRDTOTWTS	Oracle log file sequential read total waits
SOLARIS.ORACLE.LOGFILE_SNGLWRTTOTWT	Oracle log file single write total waits
SOLARIS.ORACLE.LOGFILE_SYNC_TOT_WTS	Oracle log file synchronization total waits
SOLARIS.ORACLE.OPENED_CURS_CUM	Oracle cumulative open cursors
SOLARIS.ORACLE.PARSE_COUNT_HARD	Oracle (hard) parse count
SOLARIS.ORACLE.PARSE_COUNT_TOTAL	Oracle (total) parse count
SOLARIS.ORACLE.PHYS_BLK_READS_1	Oracle file_1 physical block reads
SOLARIS.ORACLE.PHYS_BLK_READS_10	Oracle file_10 physical block reads
SOLARIS.ORACLE.PHYS_BLK_READS_2	Oracle file_2 physical block reads
SOLARIS.ORACLE.PHYS_BLK_READS_3	Oracle file_3 physical block reads
SOLARIS.ORACLE.PHYS_BLK_READS_4	Oracle file_4 physical block reads
SOLARIS.ORACLE.PHYS_BLK_READS_5	Oracle file_5 physical block reads

SOLARIS.ORACLE.PHYS_BLK_READS_6	Oracle file_6 physical block reads
SOLARIS.ORACLE.PHYS_BLK_READS_7	Oracle file_7 physical block reads
SOLARIS.ORACLE.PHYS_BLK_READS_8	Oracle file_8 physical block reads
SOLARIS.ORACLE.PHYS_BLK_READS_9	Oracle file_9 physical block reads
SOLARIS.ORACLE.PHYS_BLK_WRITES_1	Oracle file_1 physical block writes
SOLARIS.ORACLE.PHYS_BLK_WRITES_10	Oracle file_10 physical block writes
SOLARIS.ORACLE.PHYS_BLK_WRITES_2	Oracle file_2 physical block writes
SOLARIS.ORACLE.PHYS_BLK_WRITES_3	Oracle file_3 physical block writes
SOLARIS.ORACLE.PHYS_BLK_WRITES_4	Oracle file_4 physical block writes
SOLARIS.ORACLE.PHYS_BLK_WRITES_5	Oracle file_5 physical block writes
SOLARIS.ORACLE.PHYS_BLK_WRITES_6	Oracle file_6 physical block writes
SOLARIS.ORACLE.PHYS_BLK_WRITES_7	Oracle file_7 physical block writes
SOLARIS.ORACLE.PHYS_BLK_WRITES_8	Oracle file_8 physical block writes
SOLARIS.ORACLE.PHYS_BLK_WRITES_9	Oracle file_9 physical block writes
SOLARIS.ORACLE.PHYS_READS_1	Oracle file_1 physical reads
SOLARIS.ORACLE.PHYS_READS_10	Oracle file_10 physical reads
SOLARIS.ORACLE.PHYS_READS_2	Oracle file_2 physical reads
SOLARIS.ORACLE.PHYS_READS_3	Oracle file_3 physical reads
SOLARIS.ORACLE.PHYS_READS_4	Oracle file_4 physical reads
SOLARIS.ORACLE.PHYS_READS_5	Oracle file_5 physical reads
SOLARIS.ORACLE.PHYS_READS_6	Oracle file_6 physical reads
SOLARIS.ORACLE.PHYS_READS_7	Oracle file_7 physical reads
SOLARIS.ORACLE.PHYS_READS_9	Oracle file_9 physical reads
SOLARIS.ORACLE.PHYS_WRITES_1	Oracle file_1 physical writes
SOLARIS.ORACLE.PHYS_WRITES_10	Oracle file_10 physical writes
SOLARIS.ORACLE.PHYS_WRITES_2	Oracle file_2 physical writes
SOLARIS.ORACLE.PHYS_WRITES_3	Oracle file_3 physical writes
SOLARIS.ORACLE.PHYS_WRITES_4	Oracle file_4 physical writes
SOLARIS.ORACLE.PHYS_WRITES_5	Oracle file_5 physical writes
SOLARIS.ORACLE.PHYS_WRITES_6	Oracle file_6 physical writes
SOLARIS.ORACLE.PHYS_WRITES_7	Oracle file_7 physical writes
SOLARIS.ORACLE.PHYS_WRITES_8	Oracle file_8 physical writes
SOLARIS.ORACLE.PHYS_WRITES_9	Oracle file_9 Physical writes
SOLARIS.ORACLE.PHYSICAL_READS	Oracle physical reads
SOLARIS.ORACLE.PHYSICAL_WRITES	Oracle physical disk writes
SOLARIS.ORACLE.PINS_SUM	Oracle library cache PIN requests
SOLARIS.ORACLE.RECURSIVE_CALLS	Oracle recursive calls
SOLARIS.ORACLE.REDO_ALLOC_GETS	Oracle redo allocation gets
SOLARIS.ORACLE.REDO_ALLOC_IMGETS	Oracle redo allocation immediate gets
SOLARIS.ORACLE.REDO_ALLOC_IMMISSES	Oracle redo allocation immediate misses
SOLARIS.ORACLE.REDO_ALLOC_MISSES	Oracle redo allocation misses
SOLARIS.ORACLE.REDO_COPY_GETS	Oracle redo copy gets
SOLARIS.ORACLE.REDO_COPY_IMGETS	Oracle redo copy immediate gets
SOLARIS.ORACLE.REDO_COPY_IMMISSES	Oracle redo copy immediate misses
SOLARIS.ORACLE.REDO_COPY_MISSES	Oracle redo copy misses
SOLARIS.ORACLE.REDO_LOGSPACE_REQ	Oracle redo logspace requests
SOLARIS.ORACLE.REDO_SYNCH_WRITES	Oracle redo entries to be synced on disk
SOLARIS.ORACLE.REDO_WRT_GETS	Oracle redo write gets
SOLARIS.ORACLE.REDO_WRT_IMGETS	Oracle redo write immediate gets

SOLARIS.ORACLE.REDO_WRT_IMMISSES	Oracle redo write immediate misses
SOLARIS.ORACLE.REDO_WRT_MISSES	Oracle redo write misses
SOLARIS.ORACLE.REFRSHCNTRLFCOMTOTWT	Oracle controlfile refresh command total
SOLARIS.ORACLE.RELOADS_SUM	Oracle library cache object disk reloads
SOLARIS.ORACLE.ROLLBACK_1_GETS	Oracle rollback_1 reads
SOLARIS.ORACLE.ROLLBACK_1_HIT%	Oracle rollback_1 hit %
SOLARIS.ORACLE.ROLLBACK_1_IO	Oracle rollback_1 IO
SOLARIS.ORACLE.ROLLBACK_1_NAME	Oracle rollback_1 segment name
SOLARIS.ORACLE.ROLLBACK_1_USN	Oracle rollback_1 segment number
SOLARIS.ORACLE.ROLLBACK_1_WAITS	Oracle rollback_1 waits
SOLARIS.ORACLE.ROLLBACK_1_WRITES	Oracle rollback_1 writes
SOLARIS.ORACLE.ROLLBACK_10_GETS	Oracle rollback_10 reads
SOLARIS.ORACLE.ROLLBACK_10_HIT%	Oracle rollback_10 hit %
SOLARIS.ORACLE.ROLLBACK_10_IO	Oracle rollback_10 IO
SOLARIS.ORACLE.ROLLBACK_10_NAME	Oracle rollback_10 segment name
SOLARIS.ORACLE.ROLLBACK_10_USN	Oracle rollback_10 segment number
SOLARIS.ORACLE.ROLLBACK_10_WAITS	Oracle rollback_10 waits
SOLARIS.ORACLE.ROLLBACK_10_WRITES	Oracle rollback_10 writes
SOLARIS.ORACLE.ROLLBACK_2_GETS	Oracle rollback_2 reads
SOLARIS.ORACLE.ROLLBACK_2_HIT%	Oracle rollback_2 hit %
SOLARIS.ORACLE.ROLLBACK_2_IO	Oracle rollback_2 IO
SOLARIS.ORACLE.ROLLBACK_2_NAME	Oracle rollback_2 segment name
SOLARIS.ORACLE.ROLLBACK_2_USN	Oracle rollback_2 segment number
SOLARIS.ORACLE.ROLLBACK_2_WAITS	Oracle rollback_2 waits
SOLARIS.ORACLE.ROLLBACK_2_WRITES	Oracle rollback_2 writes
SOLARIS.ORACLE.ROLLBACK_3_GETS	Oracle rollback_3 reads
SOLARIS.ORACLE.ROLLBACK_3_HIT%	Oracle rollback_3 hit %
SOLARIS.ORACLE.ROLLBACK_3_IO	Oracle rollback_3 IO
SOLARIS.ORACLE.ROLLBACK_3_NAME	Oracle rollback_3 segment name
SOLARIS.ORACLE.ROLLBACK_3_USN	Oracle rollback_3 segment number
SOLARIS.ORACLE.ROLLBACK_3_WAITS	Oracle rollback_3 waits
SOLARIS.ORACLE.ROLLBACK_3_WRITES	Oracle rollback_3 writes
SOLARIS.ORACLE.ROLLBACK_4_GETS	Oracle rollback_4 reads
SOLARIS.ORACLE.ROLLBACK_4_HIT%	Oracle rollback_4 hit %
SOLARIS.ORACLE.ROLLBACK_4_IO	Oracle rollback_4 IO
SOLARIS.ORACLE.ROLLBACK_4_NAME	Oracle rollback_4 segment name
SOLARIS.ORACLE.ROLLBACK_4_USN	Oracle rollback_4 segment number
SOLARIS.ORACLE.ROLLBACK_4_WAITS	Oracle rollback_4 waits
SOLARIS.ORACLE.ROLLBACK_4_WRITES	Oracle rollback_4 writes
SOLARIS.ORACLE.ROLLBACK_5_GETS	Oracle rollback_5 reads
SOLARIS.ORACLE.ROLLBACK_5_HIT%	Oracle rollback_5 hit %
SOLARIS.ORACLE.ROLLBACK_5_IO	Oracle rollback_5 IO
SOLARIS.ORACLE.ROLLBACK_5_NAME	Oracle rollback_5 segment name
SOLARIS.ORACLE.ROLLBACK_5_USN	Oracle rollback_5 segment number
SOLARIS.ORACLE.ROLLBACK_5_WAITS	Oracle rollback_5 waits
SOLARIS.ORACLE.ROLLBACK_5_WRITES	Oracle rollback_5 writes
SOLARIS.ORACLE.ROLLBACK_6_GETS	Oracle rollback_6 gets
SOLARIS.ORACLE.ROLLBACK_6_HIT%	Oracle rollback_6 hit %
SOLARIS.ORACLE.ROLLBACK_6_IO	Oracle rollback_6 IO

SOLARIS.ORACLE.ROLLBACK_6_NAME	Oracle rollback_6 segment name
SOLARIS.ORACLE.ROLLBACK_6_USN	Oracle rollback_6 segment number
SOLARIS.ORACLE.ROLLBACK_6_WAITS	Oracle rollback_6 waits
SOLARIS.ORACLE.ROLLBACK_6_WRITES	Oracle rollback_6 writes
SOLARIS.ORACLE.ROLLBACK_7_GETS	Oracle rollback_7 reads
SOLARIS.ORACLE.ROLLBACK_7_HIT%	Oracle rollback_7 hit %
SOLARIS.ORACLE.ROLLBACK_7_IO	Oracle rollback_7 IO
SOLARIS.ORACLE.ROLLBACK_7_NAME	Oracle rollback_7 segment name
SOLARIS.ORACLE.ROLLBACK_7_USN	Oracle rollback_7 segment number
SOLARIS.ORACLE.ROLLBACK_7_WAITS	Oracle rollback_7 waits
SOLARIS.ORACLE.ROLLBACK_7_WRITES	Oracle rollback_7 writes
SOLARIS.ORACLE.ROLLBACK_8_GETS	Oracle rollback_8 reads
SOLARIS.ORACLE.ROLLBACK_8_HIT%	Oracle rollback_8 hit %
SOLARIS.ORACLE.ROLLBACK_8_IO	Oracle rollback_8 IO
SOLARIS.ORACLE.ROLLBACK_8_NAME	Oracle rollback_8 segment name
SOLARIS.ORACLE.ROLLBACK_8_USN	Oracle rollback_8 segment number
SOLARIS.ORACLE.ROLLBACK_8_WAITS	Oracle rollback_8 waits
SOLARIS.ORACLE.ROLLBACK_8_WRITES	Oracle rollback_8 writes
SOLARIS.ORACLE.ROLLBACK_9_GETS	Oracle rollback_9 reads
SOLARIS.ORACLE.ROLLBACK_9_HIT%	Oracle rollback_9 hit %
SOLARIS.ORACLE.ROLLBACK_9_IO	Oracle rollback_9 IO
SOLARIS.ORACLE.ROLLBACK_9_NAME	Oracle rollback_9 segment name
SOLARIS.ORACLE.ROLLBACK_9_USN	Oracle rollback_9 segment number
SOLARIS.ORACLE.ROLLBACK_9_WAITS	Oracle rollback_9 waits
SOLARIS.ORACLE.ROLLBACK_9_WRITES	Oracle rollback_9 writes
SOLARIS.ORACLE.ROLLBACK_GETS	Oracle rollback gets
SOLARIS.ORACLE.ROLLBACK_WAITS	Oracle rollback waits
SOLARIS.ORACLE.ROLLBACK_WRITES	Oracle rollback writes
SOLARIS.ORACLE.SES_CURSORCACHE_HITS	Oracle session cursor cache hits
SOLARIS.ORACLE.SESSION_PGA_MEM	Oracle session PGA memory
SOLARIS.ORACLE.SESSION_PGA_MEM_MAX	Oracle session maximum PGA memory
SOLARIS.ORACLE.SESSION_UGA_MEM	Oracle session UGA memory
SOLARIS.ORACLE.SESSION_UGA_MEM_MAX	Oracle session maximum UGA memory
SOLARIS.ORACLE.SORTS_DISC	Oracle sorts requiring disk write
SOLARIS.ORACLE.SORTS_MEMORY	Oracle sorts performed in memory
SOLARIS.ORACLE.SORTS_ROWS	Oracle total rows sorted
SOLARIS.ORACLE.SQL_AREA_K	Oracle SQL area
SOLARIS.ORACLE.SQLNBREAKRSTTOCLNT	Oracle break/reset sent to client via SQL*Net
SOLARIS.ORACLE.SQLNMSGFROMCLNT	Oracle SQL*Net messages received
SOLARIS.ORACLE.SQLNMSGTOCLNT	Oracle SQL*Net messages sent
SOLARIS.ORACLE.SQLNRNDTRIPSTFRMCLNT	Oracle exchanged data via SQL*Net
SOLARIS.ORACLE.SQLNRNDTRPTOFRMDBLNK	Oracle exchanged data with dblink via SQL*Net
SOLARIS.ORACLE.SUM_DIRTY_QUEUE_LNG	Oracle dirty queue length
SOLARIS.ORACLE.SYSTEM_UNDO_BLOCK	Oracle system undo block
SOLARIS.ORACLE.SYSTEM_UNDO_HEADER	Oracle system undo header
SOLARIS.ORACLE.TABLESCANS_LONGTBL	Oracle (long table) tablescans
SOLARIS.ORACLE.TABLESCANS_SHORTTBL	Oracle (short table) tablescans
SOLARIS.ORACLE.TABLESPACE_1_NAME	Oracle tablespace name where file_1 belongs
SOLARIS.ORACLE.TABLESPACE_1_NUMBER	Oracle tablespace number where file_1 belongs

SOLARIS.ORACLE.TABLESPACE_10_NAME	Oracle tablespace name where file_10 belongs
SOLARIS.ORACLE.TABLESPACE_10_NUMBER	Oracle tablespace number where file_10 belongs
SOLARIS.ORACLE.TABLESPACE_2_NAME	Oracle tablespace name where file_2 belongs
SOLARIS.ORACLE.TABLESPACE_2_NUMBER	Oracle tablespace number where file_2 belongs
SOLARIS.ORACLE.TABLESPACE_3_NAME	Oracle tablespace name where file_3 belongs
SOLARIS.ORACLE.TABLESPACE_3_NUMBER	Oracle tablespace number where file_3 belongs
SOLARIS.ORACLE.TABLESPACE_4_NAME	Oracle tablespace name where file_4 belongs
SOLARIS.ORACLE.TABLESPACE_4_NUMBER	Oracle tablespace number where file_4 belongs
SOLARIS.ORACLE.TABLESPACE_5_NAME	Oracle tablespace name where file_5 belongs
SOLARIS.ORACLE.TABLESPACE_5_NUMBER	Oracle tablespace number where file_5 belongs
SOLARIS.ORACLE.TABLESPACE_6_NAME	Oracle tablespace name where file_6 belongs
SOLARIS.ORACLE.TABLESPACE_6_NUMBER	Oracle tablespace number where file_6 belongs
SOLARIS.ORACLE.TABLESPACE_7_NAME	Oracle tablespace name where file_7 belongs
SOLARIS.ORACLE.TABLESPACE_7_NUMBER	Oracle tablespace number where file_7 belongs
SOLARIS.ORACLE.TABLESPACE_8_NAME	Oracle tablespace name where file_8 belongs
SOLARIS.ORACLE.TABLESPACE_8_NUMBER	Oracle tablespace number where file_8 belongs
SOLARIS.ORACLE.TABLESPACE_9_NAME	Oracle tablespace name where file_9 belongs
SOLARIS.ORACLE.TABLESPACE_9_NUMBER	Oracle tablespace number where file_9 belongs
SOLARIS.ORACLE.UNDO_BLOCK	Oracle undo block
SOLARIS.ORACLE.UNDO_HEADER	Oracle undo header
SOLARIS.ORACLE.USER_CALLS	Oracle user calls
SOLARIS.ORACLE.USER_COMMITS	Oracle user transaction commits
SOLARIS.ORACLE.USER_ROLLBACKS	Oracle user manual rollbacks

Table A.8 Solaris Oracle Data items

Image Data Items

Item_Name	Item_Description
MPE.TI-DATABASE.TI-DATABASE-CPU%	Average CPU percentage db
MPE.TI-DATABASE.TI-DATABASE-DBBEGINS/SEC	Average DBBEGIN Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-DBCLOSES/SEC	Average DBCLOSE Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-DBENDS/SEC	Average DBEND Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-DBFINDS/SEC	Average DBFIND Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-DBGETS/SEC	Average DBGET Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-DBINFOS/SEC	Average DBINFO Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-DBLOCKS/SEC	Average DBLOCK Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-DBOPENS/SEC	Average DBOPEN Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-DBPUTS/SEC	Average DBPUT Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-DBUNLOCKS/SEC	Average DBUNLOCK Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-DBUPDATES/SEC	Average DBUPDATE Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-DBXBEGINS/SEC	Average DBXBEGIN Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-DBXENDS/SEC	Average DBXEND Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-DBXUNDOS/SEC	Average DBXUNDO Intrinsics per sec
MPE.TI-DATABASE.TI-DATABASE-INTRINSICS/SEC	Average Intrinsics per sec for database
MPE.TI-DATABASE.TI-DATABASE-INTRINSIC-TIME	Average Elapsed time per intrinsic
MPE.TI-DATASET.TI-DATASET-CPU%	Average CPU percent for dataset
MPE.TI-DATASET.TI-DATASET-DBBEGINS/SEC	Average DBBEGIN Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-DBCLOSES/SEC	Average DBCLOSE Intrinsics per sec

MPE.TI-DATASET.TI-DATASET-DBDELETES/SEC	Average DBDELETE Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-DBENDS/SEC	Average DBEND Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-DBFINDS/SEC	Average DBFIND Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-DBGETS/SEC	Average DBGET Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-DBINFOS/SEC	Average DBINFO Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-DBLOCKS/SEC	Average DBLOCK Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-DBOPENS/SEC	Average DBOPEN Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-DBPUTS/SEC	Average DBPUT Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-DBUNLOCKS/SEC	Average DBUNLOCK Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-DBUPDATES/SEC	Average DBUPDATE Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-DBXBEGINS/SEC	Average DBXBEGIN Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-DBXENDS/SEC	Average DBXEND Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-DBXUNDOS/SEC	Average DBXUNDO Intrinsics per sec
MPE.TI-DATASET.TI-DATASET-INTRINSIC-CPU-TIME	Average CPU time (ms) per intrinsic
MPE.TI-DATASET.TI-DATASET-INTRINSICS/SEC	Average Intrins.per sec for dataset
MPE.TI-STATS.TI-SYSTEM-CPU%	Average TI CPU percent. for system
MPE.TI-STATS.TI-SYSTEM-DBBEGINS/SEC	Average DBBEGIN Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBCLOSES/SEC	Average DBCLOSE Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBCONTROLS/SEC	Average DBCONTROL Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBDELETES/SEC	Average DBDELETE Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBENDS/SEC	Average DBEND Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBFINDS/SEC	Average DBFIND Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBGETS/SEC	Average DBGET Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBINFOS/SEC	Average DBINFO Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBLOCKS/SEC	Average DBLOCK Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBOPENS/SEC	Average DBOPEN Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBPUTS/SEC	Average DBPUT Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBUNLOCKS/SEC	Average DBUNLOCK Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBUPDATES/SEC	Average DBUPDATE Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBXBEGINS/SEC	Average DBXBEGIN Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBXENDS/SEC	Average DBXEND Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-DBXUNDOS/SEC	Average DBXUNDO Intrinsics per sec
MPE.TI-STATS.TI-SYSTEM-INTRINSIC-CPU-TIME	Average CPU time(ms) intrins.system
MPE.TI-STATS.TI-SYSTEM-INTRINSICS/SEC	Average Intrins per sec on system

Table A.9 Image Data items

B

SeNTry Pre-Configured Pages

SeNTry

Through a partnership with Demand Technologies, Lund Performance Solutions has designed the Meta-View Web software to serve up Performance SeNTry data. The SeNTry host type was developed to enable users to quickly identify the data items appropriate for that host.

When Performance SeNTry and Meta-View are bundled as one product, Meta-View Web comes with standard SeNTry pages included. These pre-configured pages are listed/shown below.

The functionality of Meta-View Web remains the same for customers using the SeNTry collector and desiring to display data using the SeNTry host type. For information regarding installation of the Lund data service and the Demand Technologies collector, please see the Installation and Setup Guide.

SeNTry Data Items

Item_Name	Description
SENTRY.ALERT-MSG.CPU1	CPU1
SENTRY.ALERT-MSG.CPU2	CPU2
SENTRY.ALERT-MSG.MEMORY1	MEMORY1
SENTRY.ALERT-MSG.PAGEOUT	PAGEOUT
SENTRY.ALERT-MSG.QUEUELEN	QUEUELEN
SENTRY.Cache.Copy Read Hits %	Shows the percentage of cache copy read requests that did not require a disk read to access the page in the cache. A copy read is a file read operation that is satisfied by a memory copy from a page in the cache to the application's buffer. The LAN redirector uses this method for retrieving information from the cache, as does the LAN server for small transfers. This method is also used by the disk file systems.
SENTRY.Cache.Copy Reads/sec	Shows the rate at which read operations from pages of the file system cache involve a copy read.
SENTRY.Cache.Data Map Hits %	Shows the percentage of data maps in the file system cache that could be resolved without having to retrieve a page from the disk, because the page was already in physical memory.
SENTRY.Cache.Data Map Pins/sec	Shows the rate at which data maps in the file system cache resulted in pinning a page in main memory.
SENTRY.Cache.Data Maps/sec	Shows the rate at which a file system, such as NTFS, maps a page of a file into the file system cache to read the page.
SENTRY.Cache.Lazy Write Flushes/sec	Shows the rate at which the Lazy Writer thread writes to disk.
SENTRY.Cache.Lazy Write Pages/sec	Shows the rate at which the Lazy Writer thread has written to disk.
SENTRY.Cache.MDL Read Hits %	Shows the percentage of MDL read requests to the file system cache that did not require disk accesses to provide memory access to the page or pages in the cache.
SENTRY.Cache.MDL Reads/sec	Shows the rate at which read operations from the file system cache use an MDL to access the data. The LAN server uses this method for large transfers out of the server.
SENTRY.Cache.Pin Read Hits %	Shows the percentage of pin read requests that did not require a disk read to provide access to the page in the file system cache.
SENTRY.Cache.Pin Reads/sec	Shows the rate at which data is read into the file system cache before writing the data back to disk.

Item_Name	Description
	Pages read in this fashion are pinned in memory at the completion of the read.
SENTRY.Cache.Read Aheads/sec	Shows the rate at which read operations from the file system cache detect sequential access to a file. The read aheads permit the data to be transferred in larger blocks than those being requested by the application, reducing the overhead per access.
SENTRY.IP.Datagrams Received Delivered/sec	Shows the rate at which input IP datagrams are successfully delivered to IP user-protocols, including ICMP.
SENTRY.IP.Datagrams Received/sec	Shows the rate at which IP datagrams are received from the interfaces, including those in error. Datagrams Received/sec is a subset of IP\ Datagrams/sec.
SENTRY.IP.Datagrams Sent/sec	Shows the rate at which IP datagrams are supplied for transmission by local IP user-protocols (including ICMP). This counter does not include datagrams counted in IP\ Datagrams Forwarded/sec. Datagrams Sent/sec is a subset of IP\ Datagrams/sec.
SENTRY.Memory.% Committed Bytes In Use	Shows the ratio of Memory\ Committed Bytes to the Memory\ Commit Limit. Committed memory is physical memory in use for which space has been reserved in the paging file so that it can be written to disk. The commit limit is determined by the size of the paging file. If the paging file is enlarged, the commit limit increases, and the ratio is reduced.
SENTRY.Memory.Available Bytes	Shows the amount of physical memory, in bytes, available to processes running on the computer. It is calculated by summing adding the amount of space on the zeroed, free, and standby memory lists. Free memory is ready for use; zeroed memory consists of pages of memory filled with zeros to prevent later processes from seeing data used by a previous process; standby memory is memory that has been removed from a process's working set (its physical memory) en route to disk but is still available to be recalled.
SENTRY.Memory.Cache Faults/sec	Shows the rate at which faults occur when a page sought in the file system cache is not found and must be retrieved from elsewhere in memory (a soft fault) or from disk (a hard fault). This counter shows the number of faults, without regard for the number of pages faulted in each operation.
SENTRY.Memory.Page Reads/sec	Shows the rate at which the disk is read to resolve hard page faults. It shows numbers of read operations, without regard to the number of pages retrieved in each operation. Hard page faults occur when a process references a page in virtual memory that is not in its working set or elsewhere in physical memory, and must be retrieved from disk. This counter is a primary indicator of the kinds of faults that cause system-wide delays. It includes read operations to satisfy faults in the file system cache (usually requested by applications) and in noncached mapped memory files. Compare the value of Page Reads/sec to the value of Pages Input/sec to find an average of how many pages were read during each read operation.
SENTRY.Memory.Page Writes/sec	Shows the rate at which pages are written to disk to free up space in physical memory. Pages are written to disk only if they are changed while in physical memory, so they are likely to hold data, not code. This counter shows write operations, without regard to the number of pages written in each operation.
SENTRY.Memory.Pages Input/sec	Shows the rate at which pages are read from disk to resolve hard page faults. Hard page faults occur when a process refers to a page in virtual memory that is not in its working set or elsewhere in physical memory, and must be retrieved from disk. When a page is faulted, the system tries to read multiple contiguous pages into memory to maximize the benefit of the read operation. Compare Pages Input/sec to Page Reads/sec to find the average

Item_Name	Description
	number of pages read into memory during each read operation
SENTRY.Memory.Pages Output/sec	Shows the rate at which pages are written to disk to free up space in physical memory. A high rate of pages output might indicate a memory shortage. Windows 2000 writes more pages back to disk to free up space when physical memory is in short supply. This counter shows numbers of pages, and can be compared to other counts of pages without conversion.
SENTRY.Memory.Pool Nonpaged Bytes	Shows the size, in bytes, of the nonpaged pool. Memory\ Pool Nonpaged Bytes is calculated differently than Process\ Pool Nonpaged Bytes, so it might not equal Process(_Total)\ Pool Nonpaged Bytes.
SENTRY.Memory.Pool Paged Bytes	Shows the size, in bytes, of the paged pool. Memory\ Pool Paged Bytes is calculated differently than Process\ Pool Paged Bytes, so it might not equal Process(_Total)\ Pool Paged Bytes.
SENTRY.Memory.System Cache Resident Bytes	Shows the size, in bytes, of pageable operating system code in the file system cache. This value includes only current physical pages and does not include any virtual memory pages not currently resident. It does not equal the System Cache value shown in Task Manager. As a result, this value may be smaller than the actual amount of virtual memory in use by the file system cache. This value is a component of Memory\ System Code Resident Bytes which represents all pageable operating system code that is currently in physical memory.
SENTRY.Memory.System Code Resident Bytes	Shows the size, in bytes, of operating system code currently in physical memory that can be written to disk when not in use. This value is a component of Memory\ System Code Total Bytes, which also includes operating system code on disk. Memory\ System Code Resident Bytes (and Memory\ System Code Total Bytes) does not include code that must remain in physical memory and cannot be written to disk.
SENTRY.Memory.System Driver Resident Bytes	Shows the size, in bytes, of pageable physical memory being used by device drivers. It is the working set (physical memory area) of the drivers. This value is a component of Memory\ System Driver Total Bytes, which also includes driver memory that has been written to disk. Neither Memory\ System Driver Resident Bytes nor Memory\ System Driver Total Bytes includes memory that cannot be written to disk.
SENTRY.Memory.Transition Faults/sec	Shows the rate at which page faults are resolved by recovering pages that were being used by another process sharing the page, or were on the modified page list or the standby list, or were being written to disk at the time of the page fault. The pages were recovered without additional disk activity. Transition faults are counted in numbers of faults; because only one page is faulted in each operation, it is also equal to the number of pages faulted.
SENTRY.Network Interface.Bytes Received/sec	Shows the rate at which bytes are received over each network adapter. The counted bytes include framing characters. Bytes Received/sec is a subset of Network Interface\Bytes Total/sec.
SENTRY.Network Interface.Bytes Sent/sec	Shows the rate at which bytes are sent over each network adapter. The counted bytes include framing characters. Bytes Sent/sec is a subset of Network Interface\Bytes Total/sec.
SENTRY.Network Interface.Output Queue Length	Shows the length of the output packet queue, in packets. If this is longer than two, there are delays and the bottleneck should be found and eliminated, if possible. Since the requests are queued by Network Driver Interface Specification (NDIS) in this implementation, this value is always 0.
SENTRY.Network Interface.Packets Outbound Errors	Shows the number of outbound packets that could not

Item_Name	Description
	be transmitted because of errors.
SENTRY.Network Interface.Packets Received Errors	Shows the number of inbound packets that contained errors preventing them from being deliverable to a higher-layer protocol.
SENTRY.PhysicalDisk.% Disk Busy	'%Disk Busy' is an indicator of disk utilization. This is a 'derived' counter that the collection service calculates from the '%Idle Time' counter as follows: %Disk Busy = 100 - %Idle Time
SENTRY.PhysicalDisk.Avg Disk Service Time	Shows the the average time it takes for a disk to respond to a read disk or write disk request. 'Avg Disk Service Time' does not include queue time (the time spent in a queue waiting for the request to be initiated on the device). This is also a 'derived' counter that the collection service calculates as follows: Avg Disk Service Time = %Disk Busy / Disk Transfers/sec
SENTRY.PhysicalDisk.Avg. Disk Queue Length	Shows the average number of both read and write requests that were queued for the selected disk during the sample interval.
SENTRY.PhysicalDisk.Avg. Disk sec/Read	Shows the average time, in seconds, of a read of data from the disk.
SENTRY.PhysicalDisk.Avg. Disk sec/Transfer	Shows the average time, in seconds, of a disk transfer.
SENTRY.PhysicalDisk.Avg. Disk sec/Write	Shows the average time, in seconds, of a write of data to the disk.
SENTRY.PhysicalDisk.Disk Reads/sec	Shows the rate of read operations on the disk.
SENTRY.PhysicalDisk.Disk Transfers/sec	Shows the rate of read and write operations on the disk.
SENTRY.PhysicalDisk.Disk Writes/sec	Shows the rate of write operations on the disk.
SENTRY.Process.% Privileged Time	Shows the percentage of elapsed time that the threads of the process have spent executing code in privileged mode. When a Windows 2000 system service is called, the service often runs in Privileged Mode to gain access to system-private data. Such data is protected from access by threads executing in user mode. Calls to the system can be explicit or implicit, such as page faults or interrupts. Unlike some early operating systems, Windows 2000 uses process boundaries for subsystem protection in addition to the traditional protection of user and privileged modes. These subsystem processes provide additional protection. Therefore, some work done by Windows 2000 on behalf of your application might appear in other subsystem processes in addition to the privileged time in your process.
SENTRY.Process.% Processor Time	Shows the percentage of elapsed time that all of the threads of this process used the processor to execute instructions. An instruction is the basic unit of execution in a computer; a thread is the object that executes instructions; and a process is the object created when a program is run. Code executed to handle some hardware interrupts and trap conditions are included in this count.
SENTRY.Process.% User Time	Shows the percentage of elapsed time that this process's threads have spent executing code in user mode. Applications, environment subsystems, and integral subsystems execute in user mode. Code executing in user mode cannot damage the integrity of the Windows NT Executive, kernel, or and device drivers. Unlike some early operating systems, Windows 2000 uses process boundaries for subsystem protection in addition to the traditional protection of user and privileged modes. These subsystem processes provide additional protection. Therefore, some work done by Windows 2000 on behalf of your application might appear in other subsystem processes in addition to the privileged time in your process.
SENTRY.Process.Creating Process ID	Shows the identifier of the process that created the current process. Note that the creating process may have terminated since this process was created and so this value may no longer identify a running

Item_Name	Description
	process.
SENTRY.Process.ID Process	Shows the unique identifier of this process. ID Process numbers are reused, so they only identify a process for the lifetime of that process.
SENTRY.Process.IO Data Operations/sec	Shows the rate at which the process is issuing read and write I/O operations. This counter counts all I/O activity generated by the process to include file, network and device I/O's.
SENTRY.Process.IO Read Operations/sec	Shows the rate at which the process is issuing read I/O operations. This counter counts all I/O activity generated by the process to include file, network and device I/O's.
SENTRY.Process.IO Write Operations/sec	Shows the rate at which the process is issuing write I/O operations. This counter counts all I/O activity generated by the process to include file, network and device I/O's.
SENTRY.Process.Page Faults/sec	Shows the rate at which page faults by the threads executing in this process are occurring. A page fault occurs when a thread refers to a virtual memory page that is not in its working set in main memory. This does not cause the page to be fetched from disk if it is on the standby list and hence already in main memory, or if it is in use by another process with whom the page is shared.
SENTRY.Process.Process	'Process' in the 'Process' object represents the 'Process Instance Name' much like 'LogicalDisk' in the 'LogicalDisk' object.
SENTRY.Process.Virtual Bytes	Shows the current size, in bytes, of the virtual address space that the process is using. Use of virtual address space does not necessarily imply corresponding use of either disk or main memory pages. Virtual space is finite, and by using too much, the process can limit its ability to load libraries.
SENTRY.Process.Working Set	Shows the current size, in bytes, of the Working Set of this process. The Working Set is the set of memory pages touched recently by the threads in the process. If free memory in the computer is above a threshold, pages are left in the Working Set of a process even if they are not in use. When free memory falls below a threshold, pages are trimmed from Working Sets. If they are needed they will then be soft-faulted back into the Working Set before leaving main memory.
SENTRY.Processor.% DPC Time	Shows the percentage of time that the processor spent receiving and servicing deferred procedure calls (DPCs) during the sample interval. DPCs are interrupts that run at a lower priority than standard interrupts. % DPC Time is a component of % Privileged Time because DPCs are executed in privileged mode. They are counted separately and are not a component of the interrupt counters.
SENTRY.Processor.% Interrupt Time	Shows the percentage of time that the processor spent receiving and servicing hardware interrupts during the sample interval. This value is an indirect indicator of the activity of devices that generate interrupts, such as the system clock, the mouse, disk drivers, data communication lines, network interface cards, and other peripheral devices. These devices normally interrupt the processor when they have completed a task or require attention. Normal thread execution is suspended during interrupts. Most system clocks interrupt the processor every 10 milliseconds, creating a background of interrupt activity.
SENTRY.Processor.% Privileged Time	Shows the percentage of non-idle processor time spent in privileged mode. Privileged mode is a processing mode designed for operating system components and hardware-manipulating drivers. It allows direct access to hardware and all memory. The alternative, user mode, is a restricted processing mode designed for applications, environment subsystems, and integral subsystems. The operating

Item_Name	Description
	system switches application threads to privileged mode to obtain operating system services. % Privileged Time includes time spent servicing interrupts and DPCs. A high rate of privileged time might be attributable to a large number of interrupts generated by a failing device.
SENTRY.Processor.% Processor Time	Shows the percentage of time that the processor is executing application or operating system processes other than Idle. This counter is a primary indicator of processor activity. It is calculated by measuring the time that the processor spends executing the thread of the Idle process in each sample interval, and subtracting that value from 100%. Each processor has an Idle thread which consumes cycles when no other threads are ready to run.
SENTRY.Processor.% User Time	Shows the percentage of non-idle processor time that is spent in user mode. User mode is a restricted processing mode designed for applications, environment subsystems, and integral subsystems. The alternative, privileged mode, is designed for operating system components and allows direct access to hardware and all memory. The operating system switches application threads to privileged mode to obtain operating system services.
SENTRY.Redirector.Bytes Received/sec	Shows the rate of bytes coming in to the Redirector from the network. It includes all application data and network protocol information, such as packet headers.
SENTRY.Redirector.Bytes Total/sec	Shows the rate at which the Redirector is processing data bytes. This includes all application and file data in addition to protocol information, such as packet headers.
SENTRY.Redirector.Bytes Transmitted/sec	Shows the rate at which bytes are leaving the Redirector to the network. It includes all application data and network protocol information, such as packet headers and the like.
SENTRY.Redirector.File Read Operations/sec	Shows the rate at which applications are asking the Redirector for data. Each call to a file system or similar application program interface (API) call counts as one operation.
SENTRY.Redirector.File Write Operations/sec	Shows the rate at which applications are sending data to the Redirector. Each call to a file system or similar application program interface (API) call counts as one operation.
SENTRY.Redirector.Network Errors/sec	Shows the rate at which serious unexpected errors are occurring. Such errors generally indicate that the Redirector and one or more servers are having serious communication difficulties. For example, a Server Manager Block (SMB) protocol error generates a network error. An entry is written in the system event log, and can provide details.
SENTRY.Redirector.Reads Denied/sec	Shows the rate at which the server is unable to accommodate requests for raw reads operations. When a read operation is much larger than the server's negotiated buffer size, the Redirector requests a Raw Read which, if granted, permits the transfer of the data without much protocol overhead on each packet. To accomplish this, the server must lock out other requests: if the server is too busy, the request is denied.
SENTRY.Redirector.Server Sessions Hung	Shows the number of active sessions that are timed out and unable to proceed due to a lack of response from the remote server.
SENTRY.Server.Blocking Requests Rejected	Shows the number of times that the server has rejected blocking server message block requests (SMBs) due to insufficient count of free work items. This counter indicates whether the MaxWorkItem or MinFreeWorkItems server registry parameters might need tuning.
SENTRY.Server.Bytes Received/sec	Shows the rate at which the server is receiving bytes from the network. This counter indicates how busy the server is.

Item_Name	Description
SENTRY.Server.Bytes Transmitted/sec	Shows the rate at which the server is sending bytes on the network. This counter indicates how busy the server is.
SENTRY.Server.Context Blocks Queued/sec	Shows the rate at which work context blocks had to be placed on the server's FSP queue to await server action.
SENTRY.Server.Errors Access Permissions	Shows the number of times attempts to open files on behalf of clients have failed with the message STATUS_ACCESS_DENIED. This counter can indicate is someone is attempting to access random files to improperly access a file that was not properly protected.
SENTRY.Server.Errors Logon	Shows the number of failed logon attempts to the server. This counter can indicate whether password guessing programs are being used to crack the security on the server.
SENTRY.Server.Server Sessions	Shows the number of sessions currently active in the server. This counter indicates current server activity.
SENTRY.Server.Work Item Shortages	Shows the number of times STATUS_DATA_NOT_ACCEPTED was returned at receive indication time. This occurs when no work item is available or can be allocated to service the incoming request. This counter indicates whether the InitWorkItems or MaxWorkItems registry entries might need to be adjusted.
SENTRY.System.% Total DPC Time	Shows the percentage of time that the processor spent receiving and servicing deferred procedure calls (DPCs) during the sample interval.
SENTRY.System.% Total Interrupt Time	Shows the time the processor spends receiving and servicing hardware interrupts.
SENTRY.System.% Total Privileged Time	Shows the average percentage of non-idle time all processors spend in privileged (kernel) mode. It is the sum of Processor: % Privileged Time for all processors on the computer, divided by the number of processors. System: % Total User Time and System: % Total Privileged Time sum to % Total Processor Time, but not always to 100%. (Privileged mode is an processing mode designed for operating system components which allows direct access to hardware and all memory. The operating system switches application threads to privileged mode to access operating system services. The alternative, user mode, is a restricted processing mode designed for applications and environment subsystems). This counter displays the average busy time as a percentage of the sample time.
SENTRY.System.% Total User Time	Shows the average percentage of non-idle time all processors spend in user mode. It is the sum of Processor: % User Time for all processors on the computer, divided by the number of processors. System: % Total User Time and System: % Total Privileged Time sum to % Total Processor Time, but not always to 100%. (User mode is a restricted processing mode designed for applications, environment subsystems, and integral subsystems. The alternative, privileged mode, is designed for operating system components and allows direct access to hardware and all memory. The operating system switches application threads to privileged mode to access operating system services). This counter displays the average busy time as a percentage of the sample time.
SENTRY.System.Context Switches/sec	Shows the combined rate at which all processors on the computer are switched from one thread to another. Context switches occur when a running thread voluntarily relinquishes the processor, is preempted by a higher priority, ready thread, or switches between user-mode and privileged (kernel) mode to use an Executive or subsystem service. It is the sum of the values of Thread\Thread: Context Switches/sec for each thread running on all processors on the computer and is measured in numbers of switches. There are context switch

Item_Name	Description
	counters on the System and Thread objects.
SENTRY.System.File Read Operations/sec	Shows the combined rate of file system read requests to all devices on the computer, including requests to read from the file system cache. It is measured in numbers of read operations per second.
SENTRY.System.File Write Operations/sec	Shows the combined rate of file system write requests to all devices on the computer, including requests to write to data in the file system cache. It is measured in numbers of write operations per second.
SENTRY.System.Processor Queue Length	Shows the number of threads in the processor queue. There is a single queue for processor time even on computers with multiple processors. Therefore, you may need to divide this value by the number of processors servicing the workload. Unlike the disk counters, this counter shows ready threads only, not threads that are running. A sustained processor queue of greater than two threads generally indicates processor congestion.
SENTRY.System.Total Interrupts/sec	Shows the combined rate of hardware interrupts received and processed by all processors on the computer. This value is the sum of the values of Processor\Processor: Interrupts/sec for each processor, divided by the number of processors. It does not include DPCs, which are counted separately. This value is an indirect indicator of the activity of devices that generate interrupts, such as the system timer, the mouse, disk drivers, data communication lines, network interface cards and other peripheral devices. These devices normally interrupt the processor when they have completed a task or require attention. Normal thread execution is suspended during interrupts. Most system clocks interrupt the processor every 10 milliseconds, creating a background of interrupt activity.
SENTRY.TCP.Segments Received/sec	Shows the rate at which segments are received, including those received in error. This count includes segments received on currently established connections. Segments Received/sec is a subset of TCP: Segments/sec.
SENTRY.TCP.Segments Sent/sec	Shows the rate at which segments are sent. This value includes those on current connections, but excludes those containing only retransmitted bytes. Segments Sent/sec is a subset of TCP\ Segments/sec.

Table B.1 SeNTry Data Items

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Product Support

When you purchase product maintenance and support from Lund Performance Solutions, you benefit from the knowledge and experience of our professional support teams. Our contracted product support entitles you to receive timely updates, bug fixes, documentation and direct technical support.

Contact Information

Postal Address

Lund Performance Solutions

240 2nd Avenue SW

Albany OR 97321 USA

Internet URL

Visit the Lund Performance Solutions website at **http://www.lund.com/**.

Telephone Number

For customer and technical support, call **(541) 812-7600**, Monday through Friday during the hours of 7:00 AM, to 5:00 PM, Pacific Time, excluding major holidays.

Fax Number

Transmit fax messages to **(541) 812-7611**.

E-mail Addresses

Send e-mail messages to:

- Sales Team **info@lund.com**
- Technical Support Team **support@lund.com**
- Documentation Team **documentation@lund.com**

Technical Support

At Lund Performance Solutions, we are working hard to provide you with intuitive software products. Additionally, we try to provide superior online and printed documentation. However, if you find yourself with a technical question that you cannot answer with the tools provided, please contact our technical support team.

NOTE You must be a registered user to access Lund Performance Solutions' support services. Lund Performance Solutions' support services are subject to Lund Performance Solutions' prices, terms, and conditions in place at the time the services are used.

E-mail Tech Support

Ask questions and receive detailed answers from the technical support team by sending an email message to support@lund.com. Please include the product serial number with your question. You will receive a reply by e-mail or by telephone.

Telephone Tech Support

You can reach the technical support team by phone at **(541) 812-7600**, Monday through Friday during the hours 7:00 AM, to 5:00 PM, Pacific Time, excluding major holidays.

When you call, please be at your computer, have the product documentation in hand, and be prepared to provide the following information:

- Product name and version number.
- Type of computer hardware you are using.
- Software version number of your operating system(s).
- Exact wording of any messages that appear on your screen.
- What you were doing when the problem occurred.
- How you tried to solve the problem.

Sales

Lund Performance Solutions' professional sales team is available to answer your sales and customer support questions Monday through Friday during the hours 7:00 AM, to 5:00 PM, Pacific Time, excluding major holidays.
Please contact your account manager for information about the latest Lund Performance Solutions software and service products, upgrade options and prices, and more.

Professional IT Services

Lund's professional IT services group is a team of dedicated, experienced IT professionals who provide strategic IT solutions, system performance consulting and outsourcing, project management and migration services to the mid-range computer marketplace, worldwide.
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