

Understanding Performance Monitor

Performance Monitor is a graphical tool for measuring the performance of your own computer or other computers on a network. On each computer, you can view the behavior of objects, such as processors, memory, cache, threads, and processes. Each of these objects has an associated set of counters that provide information about device usage, queue lengths, delays, and information used to measure throughput and internal congestion.

It provides charting, alerting, and reporting capabilities that reflect both current activity and ongoing logging. You can open, browse, and chart log files later as if they reflected current activity.

The following overview lists how you use Performance Monitor to view the performance of objects:

- Simultaneously view data from any number of computers.
- View and dynamically change charts reflecting current activity and showing counter values that are updated at a user-defined frequency.
- Export data from charts, logs, alert logs, and reports to spreadsheet or database programs for further manipulation and printing.
- Add system alerts that list events in the Alert Log and notify you either by reverting to Alert view, logging the event in Event Viewer's Application log, or issuing a network alert.
- Run a predefined program either every time or only the first time a counter value goes over or under a user-defined value.
- Create log files containing data about objects on different computers.
- Append selected sections of existing log files to a single file, forming a long-term archive.
- View current-activity reports or create reports from existing log files.
- Save individual chart, alert, log, and report settings, or save the entire workspace setup to reuse when needed.

Starting and Quitting Performance Monitor

Performance Monitor consists of four main windows, which you display by clicking **Chart, Alert, Log, or Report** on the **View** menu. These windows contain different information and have only the menu bar, status bar, and toolbar in common. You can press the F1 key to see Help about any Performance Monitor command.

On the **Options** menu, **Data From** is available in any of the four windows. Use this command to switch from working with current values for current activity (real time data) to viewing and manipulating existing log files. The default is current activity.

To quit Performance Monitor, click **Exit** on the **File** menu. Be sure to save your individual chart, alert, log, or report settings or the entire workspace to a file before quitting, unless you are sure you will not need that exact combination of settings again.

See Also

[Saving Settings](#)

[Organizing Your Screen](#)

Saving Settings

To save settings for one Performance Monitor window

- 1 On the **File** menu, click the corresponding **Save Settings** command.
If you have not already assigned a filename, the **Performance Monitor - Save As** dialog box appears.
- 2 Enter a name in **File name**, and click **Save**.

The assigned filename now appears in the status bar.

To simultaneously save settings from all four windows

- 1 On the **File** menu, click **Save Workspace**.
- 2 In the Performance Monitor - **Save Workspace As** dialog box, enter a name in File name, and click **Save**.

See Also

[Working with Information on Current Activity](#)

[Working with Information from Log Files](#)

Organizing Your Screen

To show or hide a display option

- ▶ On the **Options** menu, click the display options you want: **Menu and Title**, **Toolbar**, **Status Bar**, and **Always On Top**.

A check mark appears by selected commands.

To hide the menu bar and title bar

- ▶ Double-click anywhere in the display area that does not contain text.
Double-click again to display the menu bar and title bar.

To move the window while the title bar is hidden

- ▶ Click anywhere in the display area that does not contain text and drag.

To turn on chart highlighting

- ▶ Press CTRL+H.
The selected counter in the legend changes to white.
To stop highlighting selected counters, press CTRL+H again.

Note

- You can view any of four Performance Monitor windows: Chart, Alert, Log, or Report. The only consistent elements in the four windows are the display options: **Menu and Title**, **Toolbar**, **Status Bar**, and **Always On Top**. By showing or hiding any of these options, you can vary the amount of screen space available for display. **Always On Top** ensures that Performance Monitor, even when no longer the active window, stays visible over any other window on the display.

See Also

[Working with Information on Current Activity](#)

[Working with Information from Log Files](#)

Understanding Objects, Counters, and Instances

When monitoring a system, you are really monitoring the behavior of its objects. In the Windows NT operating system, an object is a standard mechanism for identifying and using a system resource. Objects are created to represent individual processes, sections of shared memory, and physical devices. Performance Monitor groups the counters by object type. A unique set of counters exists for the processor, memory, cache, hard disk, processes, and other object types that produce statistical information. Certain object types and their respective counters are present on all systems. However, other counters, such as application-specific counters (such as Exchange), appear only if the computer is running the associated software.

Each object type can have several instances. For example, the Processor object type will have multiple instances if a system has multiple processors. The PhysicalDisk object type has two instances if a system has two disks. Some object types, such as Memory and Server, do not have instances. If an object type has multiple instances, each instance may be used with the same set of counters. The data is then tracked for each instance.

Two object types, Process and Thread, have a particularly close relationship. A Windows NT process is created when a program runs. A process may be either an application (such as Microsoft Word or Corel Draw), a service (such as Event Log or Computer Browser), or a subsystem (such as the print spooler or POSIX). In addition to an executable program, every process consists of a set of virtual-memory addresses and at least one thread.

Threads are objects within processes that execute program instructions. They allow concurrent operations within a process and enable one process to simultaneously execute different parts of its program on different processors. Each thread running on a system shows up as an instance for the Thread object type and is identified by association with its parent process. For example, if Print Manager has two active threads, Performance Monitor identifies them as Thread object instances Printman ==> 0 and Printman ==> 1.

Note

- Instances of the Process object-type appear as numbers if they are internal system processes. Other types of processes are identified by the name of the executable file. Only 32-bit processes appear in the Instances box; 16-bit applications running in a Virtual DOS Machine (VDM) do not appear unless they are started in a separate memory space.

See Also

[Activating the Physical and Logical Disk Counters](#)

Activating the Physical and Logical Disk Counters

To activate the physical and logical disk counters

- 1 Log on as a member of the Administrators group.
- 2 At the command prompt, type **diskperf** to view Help on how to turn on and turn off **diskperf**, and how to specify a remote computer.

It will also state whether or not the disk performance counters have been activated already on that computer.

- 3 Restart the computer to activate the disk-performance counters.

Notes

- You do not need special privileges to open Performance Monitor, but must be logged on as a member of the Administrators group to use the diskperf command.
- Disk counters can increase disk access time by approximately 1.5% on 386 processors.

Working with Information on Current Activity

To work in any view with information on current activity

- 1 On the **File** menu, click **New** to open a new settings file.
Or, click **Open** for an existing settings file.
- 2 On the **Edit** menu, click **Add To** or **Edit**.
The **Add to** dialog box or **Edit** dialog box appears,
- 3 Select, change, and then save settings for one or more computers and the appropriate objects, counters, and instances.
- 4 On the **File** menu, click **Save Settings As** to save selections in a new settings file.
Or, click **Save Settings** to update the current settings file.
- 5 On the **View** menu, click **Chart**, **Alert**, **Log**, or **Report** to change settings for another window; then repeat steps 2 through 4 until you have the settings you want.

Notes and Tips

- If you have related information in all four windows, click **Save Workspace** on the **File** menu to save the current settings for all four windows.
- You can open a separate chart (.pmc), alert (.pma), log (.pml), or report (.pmr) settings file, or a workspace (.pmw) file that contains settings for all four windows.

See Also

[Saving Settings](#)

[Selecting a Different Computer](#)

Selecting a Different Computer

To select a different computer

- 1 On the **Edit** menu, click **Add To**.
- 2 In the **Add to** dialog box, enter the computer name in **Computer**.
Or, click the button at the right end of the box to display the **Select Computer** dialog box, and select a computer name.
- 3 Double-click the name of the appropriate domain controller or workgroup to display a list of the servers and workstations connected to it.
- 4 Select the name of the server that you want to monitor, and click **Add**.

Notes

- **Add** is not available in the **Add to** dialog box while Performance Monitor searches for a computer. If the computer is found, the **Add** is enabled again, and the boxes show the default settings of that computer. If the computer is not found, a message appears and you revert back to your own computer's default settings.
- If you want to add more counters or objects for a computer that has already been selected, you may also select that counter or object from the screen display before choosing the **Add To** command. The corresponding computer will then appear as the default computer.

See Also

[Working with Information on Current Activity](#)

[Working with Information from Log Files](#)

Clearing the Display vs. Deleting Selections

To clear the values displayed on the screen

- ▶ On the **Edit** menu, click **Clear Display**.

To delete a selection

- 1 Select the legend, log, or report item that you want to delete.
- 2 On the **Edit** menu, click **Delete**.

Note

- You can use the same approach in all four views to delete either a full screen of information or a single selection.

See Also

[Working with Information on Current Activity](#)

[Working with Information from Log Files](#)

Updating the Display

To update the screen display in any view

- ▶ On the **Options** menu, click **Update Now**.

To change the updating method for an individual view

- 1 If necessary, select the appropriate window on the **View** menu, and then click **Chart**, **Alert**, **Log**, or **Report** on the **Options** menu.
- 2 In the **Options** dialog box, click either **Periodic Update** or **Manual Update**.
- 3 If you selected **Periodic Update**, type a number in **Interval (seconds)** to specify the time between updates.

Notes

- You can set separate updating **Options** or switch to manual updates for the individual views.
- Time-interval settings also affect the amount of memory and processor time used by Performance Monitor. Monitoring is generally not a large burden on processor time or memory unless you retrieve data very frequently from a large number of computers.

See Also

[Working with Information on Current Activity](#)

[Working with Information from Log Files](#)

Printing a Snapshot of the Window Display

To print a snapshot of the current window

- 1 Press ALT + PRINTSCREEN to copy a view of the active window.
If Performance Monitor is maximized, press PRINTSCREEN to copy the whole desktop.
- 2 Click **Start**, point to **Programs**, point to **Accessories**, and click **Paint**.
- 3 On the **Edit** menu, click **Paste**.
- 4 Click **Print**.

Tip

- If you want to save the bitmap to a file, click **Save As** on the **File** menu

See Also

[Exporting Data](#)

[Working with Information on Current Activity](#)

[Working with Information from Log Files](#)

Exporting Data

To export data to a spreadsheet or database program

- 1 On the **File** menu, click **Export**.
The **Performance Monitor - Export As** dialog box appears.
- 2 In Save as, click either **Export TSV Files** (*.tsv) or **Export CSV Files** (*.csv).
- 3 Enter a path name (including the appropriate extension for the column delimiter) for the file that you want to export, and click **Save**.

You can now open the exported file from within your spreadsheet or database program and work with the information.

Note

- The columns in TSV files are separated by tabs. The columns in CSV files are separated by commas.

See Also

[Printing a Snapshot of the Window Display](#)

[Working with Information on Current Activity](#)

[Working with Information from Log Files](#)

Working with Information from Log Files

To work in any view with information from log files

- 1 On the **Options** menu, click **Data From**, enter an existing log file in **Log File**, and click **OK**.
1 Or, click **Open** on the **File** menu to open an existing settings file or workspace.
- 2 On the **Edit** menu, click **Time Window** to change the starting and stopping times (if necessary).
- 3 On the **Edit** menu, either **Add To** or **Edit** and make or change any of the following settings or selections:
 - The computers you want to monitor.
 - The objects, counters, and instances you want to monitor.
 - The manner in which selections are represented.
- 4 On the **File** menu, click **Save** (to update the existing settings file) or **Save As** (to create a new file).
- 5 On **Options** menu, click **Chart**, **Alert**, **Log**, or **Report** to change any available options, if necessary.
- 6 Repeat the process in each view, as needed.

Tip

- If you have related information in all four windows, click **Save Workspace** on the **File** menu to save the settings for all four windows in a single file.

See Also

[Working with Information on Current Activity](#)

[Selecting a Different Computer](#)

[Saving Settings](#)

[Understanding Objects, Counters, and Instances](#)

Working with Charts

To view the Chart window

- ▶ On the **View** menu, click **Chart**.

To open an existing chart settings file

- 1 On the **File** menu, click **Open**.
- 2 In the **Performance Monitor - File Open** dialog box, enter the path name for the .pmc file containing the selections that you want to reuse, and click **Open**.

To create a new blank chart

- ▶ On the **File** menu, click **New Chart**.

Notes and Tips

- For help understanding a selected counter, click **Explain** in the **Add To Chart** dialog box.
- You can create custom charts to monitor the current performance of selected counters and instances, such as the following:
 - Investigating why a computer or application is slow or inefficient.
 - Continuously monitoring systems to find intermittent performance bottlenecks.
 - Discovering why you need to increase capacity.
- If you switch to Chart from another view and have not created or opened a chart in your current session, the Chart window is blank.

See Also

[Adding Chart Selections](#)

Adding Chart Selections

To add objects, counters, and instances to a chart

- 1 On the **Edit** menu, click **Add To Chart**.

The **Add To Chart** dialog box appears with the default settings and your workstation or server listed in the **Computer** box.

- 2 In the **Object** box, select an available object to monitor.

The **Counter** and **Instance** boxes change to display the available items for that object on the chosen computer.

- 3 In **Counter**, select one or more counters.

For a definition of the selected counter, click **Explain**.

- 4 In **Instance**, select one or more instances, if appropriate.

- 5 If you do want different color, scale, and line width and style settings from the default, make selections now, and then click **Add**.

- 6 Repeat the steps 2 through 5 for any additional objects or computers that you want to monitor, and then click **Done**.

If you want to save your chart selections in a settings file, click **Save Chart Settings As** on the **File** menu.

Notes and Tips

- The scale factor you select is applied to all the currently selected counters. The factor displayed is multiplied by the counter value, and the product is charted. Notice, however, that the value bar continues to show the actual value, not the scaled value.
- A list of your selections appears in the legend at the bottom of the window, and Performance Monitor displays the changing values of your selections on the chart. Notice that each displayed value is usually an average over the last two data reads, which are separated by the length of the time interval.

See Also

[Selecting a Different Computer](#)

[Understanding Objects, Counters, and Instances](#)

[Changing Chart Selections](#)

Changing Chart Selections

To change the way a selected counter appears on the chart

- 1 In the legend, select the counter that you want to change.
- 2 On the **Edit** menu click **Edit Chart Line**.

The **Edit Chart Line** dialog box appears.

- 3 Change any of the available options, as needed:
 - In **Color**, select a different line color.
 - In **Scale**, select the scale of the vertical display of the line.
 - In **Width**, select the width of the line.
 - In **Style**, select a solid line or dashed-line pattern.

- 4 When you have finished making selections, click **OK**.

If you want to update chart selections that have been saved in a settings file, click **Save Chart Settings** on the **File** menu.

Note

- To turn the chart-highlighting mode on and change the color of the selected counter to white, press CTRL+H. To stop highlighting selected counters, press CTRL+H again.

See Also

[Changing the Chart Options](#)

Changing the Chart Options

To change chart options

- 1 On the **Options** menu, click **Chart**.
- 2 In the **Chart Options** dialog box, select the options that you want to display.
- 3 In **Vertical Maximum**, type the maximum value to which the vertical axis should extend.
- 4 In **Update Time**, select either **Manual Update** or **Periodic Update**, and then type a number in the **Interval** box to determine the time (in seconds) between chart updates.
- 5 In **Gallery**, click **Graph** or **Histogram** as the format.

Note

- The **Graph Time** value displayed in the value bar shows the time (in seconds) that it takes to create a complete chart across the window.

See Also

[Adding Chart Selections](#)

Working with Logs

To view the Log window

- On the **View** menu, click **Log**.

If you are switching from another view, the Log window is blank unless you already created or opened a log file during that session or from the command prompt.

To open an existing log settings file

- 1 On the **File** menu, click **Open**.
- 2 In the Performance Monitor-**File Open** dialog box, enter the path name for the .pml file containing the selections that you want to reuse.

If there is a log filename associated with that log settings file, be aware that Performance Monitor will start logging data to that log upon opening that settings file.

- 3 Click **Open**.

To create a new blank log file

- On the **File** menu, click **New Log Settings**.

Note

- If you switch to Log from another view and have not created or opened a log in your current session, the Log window is blank.
- You can collect data from multiple systems into a single log file. For capacity planning, you need to view trends over a longer period, which requires the ability to create a log file and to produce reports from that file.

See Also

[Adding to a Log](#)

Adding to a Log

To add objects to a log

- 1 On the **Edit** menu, click **Add To Log**.

The **Add To Log** dialog box appears with the default settings and your workstation or server listed in the **Computer** box.

- 2 In **Objects**, select an available object or set of objects to monitor; then click **Add**.
- 3 Repeat the process for any additional computers that you want to monitor; then click **Done**.

To save log selections in a settings file

- 1 On the **File** menu, click **Save Log Settings As**.
- 2 In the **Performance Monitor - Save As** dialog box, enter a path name for the file that will contain the selections that you want to reuse; then click **OK**.

Note

- Performance Monitor saves the log filename with the log-settings file and will start logging data to that file upon reopening that settings file.

See Also

[Selecting a Different Computer](#)

[Understanding Objects, Counters, and Instances](#)

[Changing the Log Options](#)

Changing the Log Options

To change the log options

- 1 On the **Options** menu, click **Log**.
- 2 In **Log File**, type a name for the log file that you are creating.
- 3 In **Update Time**, click either **Manual Update** or **Periodic Update**, and then enter a number in the **Interval** box for the time (in seconds) between log updates.
- 4 If you do not want to start logging yet, click **Save**.

To start or stop logging

- 1 On the **Options** menu, click **Log**.
- 2 In the **Log Options** dialog box, click **Start Log**.
If **Start Log** is not enabled, you must first enter a log filename and add objects to log.
- 3 To stop logging, click **Stop Log**.

Notes

- If you enter the name of an existing log file when you change log options, new data will be appended to the old data. To replace the old data, you must first delete the file and then create a new one with the old name.
- After you start logging, a log symbol with the changing total-file size appears on the right side of the status bar and remains there in all four views.
- When a remote computer from which you are logging data shuts down, a bookmark comment is added to the log file. Another bookmark comment is added when that computer reconnects and logging starts again.

See Also

[Adding Bookmarks](#)

Adding Bookmarks

To add a bookmark

- 1 On the **Options** menu, click **Bookmark**.
- 2 In **Bookmark Comment**, type a comment.
- 3 Click **Add**.

See Also

[Changing the Log Options](#)

Working with Alerts

To view the Alert window

- On the **View** menu, click **Alert**.

To open an existing alert log settings file

- 1 On the **File** menu, click **Open**.
- 2 In the **Performance Monitor - File Open** dialog box, enter the path name for the .pma file containing the selections that you want to reuse.
- 3 Click **Open**.

To create a new blank alert log file

- On the **File** menu, click **New Alert Settings**.

Notes

- If you switch to Alert from another view and have not created or opened an alert log file in your current session, the Alert window is blank.
- You can simultaneously monitor several counters. When a counter exceeds a given value, the date and time of the event are recorded in the Alert window. An alert file can hold total of one thousand events, after which the oldest event is discarded when the next new one is added
- For help understanding what a selected counter shows, click **Explain** in the **Add To Alert dialog** box.

See Also

[Adding Alert Selections](#)

Adding Alert Selections

To add objects, counters, and instances to an alert log

- 1 On the **Edit** menu, click **Add To Alert**.
The **Add To Alert** dialog box appears with the default settings and your workstation or server listed in the **Computer** box.
- 2 In **Object**, select an available object to monitor.
- 3 In **Counter**, select one or more counters.
For a definition of the selected counter, click **Explain**.
- 4 In **Instance**, select one or more instances, if appropriate.
- 5 In **Alert If**, click **Over** or **Under**, and add a value.
- 6 In **Run Program On Alert**, click **First Time** or **Every Time**, and enter the complete path name for the program or macro that you want to run whenever the specified alert occurs; then click **Add**.
- 7 Repeat the process for any additional objects or computers that you want to, and then click **Done**.

To save alert log selections in a settings file

- 1 On the **File** menu, click **Save Alert Settings As**.
- 2 In the **Performance Monitor - Save As** dialog box, enter a path name for the new file, and click **Save**.

Notes and Tips

- Each alert value is usually an average over the last two data reads, which are separated by the length of the time interval.
- When an alert occurs while you are not in the Alert view, an alert icon appears in the status bar showing the number of alerts that have occurred since you were last in the Alert view.
- You can set the color assigned to a counter from within the **Add to Alert** dialog box if you do not want the default color selection.

See Also

[Selecting a Different Computer](#)

[Understanding Objects, Counters, and Instances](#)

[Changing Alert Selections](#)

Changing Alert Selections

To change how a selected counter is represented in the alert log

- 1 On the **Edit** menu, click **Edit Alert**.
- 2 Set changes for any of the available options:
 - In **Color**, select a different line color, if necessary.
 - In **Alert If**, click **Over** or **Under**, and enter a number for the alert-warning criteria.
 - In **Run Program on Alert**, click **First Time** or **Every Time**, and enter the complete path name for the program that you want to run whenever the specified alert occurs.
- 4 When you have finished making selections, click **OK**.

To update alert log selections that have been saved in a settings file

- On the **File** menu, click **Save Alert Settings**.

Note

- If you want to update selections that have been saved in a settings file, click **Save Alert Settings** on the **File** menu.

See Also

[Changing the Alert Options](#)

Changing the Alert Options

To change alert options

- 1 On the **Options** menu, click **Alert**.
- 2 In the Alert **Options** dialog box, click to select any combination of **Switch To Alert View**, **Log Event In Application Log**, and **Send Network Message**.
- 3 In **Network Alert**, type the name of the alert-recipient's computer in **Net Name**, but without typing backslashes (\\).
- 4 In **Update Time**, click **Manual Update** or **Periodic Update**; if you click **Periodic Update**, type a number in **Interval** to set the time (in seconds) between updates.

Note

- The Messenger service must already be started and the net name defined on the recipient's computer. To do so, at the command prompt, type `net start messenger /?` and `net name /?` to view Help information on how to use these commands

Working with Reports

To view the Report window

- On the **View** menu, click **Report**.

To open an existing report settings file

- 1 On the **File** menu, click **Open**.
- 2 In the **Performance Monitor - File Open** dialog box, enter the path name for the .pmr file containing the selections that you want to reuse.
- 3 Click **Open**.

To create a new blank report file

- On the **File** menu, click **New Report Settings**.

Notes

- If you switch to Report from another view and have not created or opened a report file in your current session, the Report window is blank.
- For help understanding a selected counter, click **Explain** in the **Add To Report** dialog box to display the **Counter Definition** box.

See Also

[Adding to a Report](#)

Adding to a Report

To add objects, counters, and instances to a report

- 1 On the **Edit** menu, click **Add To Report**.

The **Add To Report** dialog box appears with the default settings and your workstation or server listed in the **Computer** box.

- 2 In **Object**, select an available object to monitor from the list.
- 3 In **Counter**, select one or more available counters.

To see a definition of the selected counter, click **Explain**.

- 4 In **Instance** box, select one or more instances, if appropriate.
- 5 Click **Add**.

- 6 Repeat the process for any additional objects or computers that you want to monitor, and then click **Done**.

To save report selections in a settings file

- 1 On the **File** menu, click **Save Report Settings As**.
- 2 In the **Performance Monitor - Save As** dialog box, enter a path name for the file that will contain the selections that you want to reuse.
- 3 Click **Save**.

Note

- Each displayed value is usually an average over the last two data reads, which are separated by the length of the time interval.

See Also

[Selecting a Different Computer](#)

[Understanding Objects, Counters, and Instances](#)

[Changing the Report Option](#)

Changing the Report Option

To change the report time interval option

- 1 On the **Options** menu, click **Report**. Or click **Options** on the toolbar.
- 2 In the **Update Time** box, select either **Manual Update** or **Periodic Update** and then type a number in **Interval**, or open the list and select a number, to determine the time, in seconds, between updates of the report.
- 3 Click **OK**.

Note

- The Report window shows a blank screen until you add information to it by selecting objects, counters, and instances to be monitored with the **Add To Report** command on the **Edit** menu. The **Options** menu enables you to update manually the information on the screen. You can use the **Update Now** command between automatic data updates to get a current snapshot of the situation. Choosing the **Report** command on the **Options** menu enables you to select either an automatic updating frequency or only manual updates.

See Also

[Adding to a Report](#)

Selecting an Existing Log File

To select an existing log file

- 1 On the **Options** menu, click **Data From**.
- 2 In Data Values Displayed From, select Log File.
- 3 In Log File, enter the filename of the log you want to see.
- 4 Click **OK**.

Notes

- This also activates **Time Window** in the **Edit** menu.
- You can move around in a log file (that is, change the start and stop times) by using the **Time Window** command on the view's **Edit** menu. The times selected will apply to all four views.

See Also

[Changing the Time Window](#)

[Working with Information from Log Files](#)

Changing the Time Window

To change the time window for the logged information

- 1 On the **Edit** menu, click **Time Window**.
- 2 In the **Input Log File Timeframe** dialog box, use one or a combination of both of the following methods to specify how much information you want to display.
 - To change the starting and stopping points to be used, drag the corresponding end of the time-interval slider.
 - To use bookmarks as starting or stopping points, select the appropriate bookmark and click either **Set As Start** or **Set As Stop**.
- 3 Click **OK**.

The screen display changes to reflect the selected time frame.

Notes

- Changing the times is easiest to do in the Chart window. Add your selections to the chart first. You can then move the **Input Log File Timeframe** dialog box out of the way so you can see the gray vertical lines move on the chart as you move the ends of the slide bar. Set up a time window with this method that is appropriate for your needs and then set your alerts, create reports, or relog the data.
- In charting, when you drag the ends of the slider, you also move two gray vertical lines on the chart.

See Also

[Selecting an Existing Log File](#)

[Adding Bookmarks](#)

Charting Input Log Files

To chart an input log file

- 1 On the **Options** menu in the Chart view window, click **Data From**.
- 2 Select a log filename from either your own computer or another one on the network.
- 3 On the **Edit** menu, click any of the following:
 - **Add to Chart**, to choose the counters and computers from which to chart.
 - **Edit Chart Line**, to change selection settings.
 - **Delete From Chart**, to remove any counters that are not of interest.
 - **Time Window**, to change the displayed starting and stopping points.
- 4 On the **Options** menu, click **Chart** to hide or display any items, change the vertical maximum, or change from a graph format to a histogram.
- 5 On the **File** menu, click any of the following commands:
 - **Save Chart Settings As**, to update changes made to the current chart-settings file or to create a new file for these setting selections.
 - **Export Chart**, to export the data from the displayed chart to a spreadsheet or database program.

See Also

[Selecting an Existing Log File](#)

[Exporting Data](#)

Setting Alerts on Input Log Files

To set alerts on an input log file

- 1 On the **Options** menu in the Alert view window, click **Data From**.
- 2 Select a log filename from either your own computer or another one on the network.
- 3 On the **Edit** menu, click any of the following commands:
 - **Add To Alert**, to choose the counters and computers from which to set alerts.
 - **Edit Alert Entry**, to change selection settings.
 - **Delete Alert**, to remove any counters that are not of interest.
 - **Time Window**, to change the displayed starting and stopping points.
- 4 On the **Options** menu, click **Alert** to select the update-time interval.
- 5 On the **File** menu, click any of the following commands:
 - **Save Alert Settings As**, to update changes made to the current alert settings file or to create a new file for these setting selections.
 - **Export Alert**, to export the data from the alert log to a spreadsheet or database program.

See Also

[Selecting an Existing Log File](#)

[Exporting Data](#)

Relogging Input Log Files

To relog an input log file

- 1 On the **Options** menu in the Log view window, click **Data From**.
- 2 Select a log filename from either your own computer or another one on the network.
- 3 On the **Edit** menu, click any of the following commands:
 - **Add To Log**, to choose the objects and computers from which to relog.
 - **Delete From Log**, to remove any objects that are not needed.
 - **Time Window**, to change the displayed starting and stopping points.
- 4 On the **Options** menu, click **Log** to change the log filename, the logging interval, and to start or stop relogging.
- 5 On the **File** menu, click any of the following:
 - **Save Log Settings As**, to update changes made to the current log settings file or to create a new file for these setting selections.
 - **Export Log**, to export the log setting to a spreadsheet or database program.

Notes

- If you select an existing log file for output, the data will be appended to the end of the file, thus creating a single, smaller archive file. To enable the Relog File, you must first provide a filename and select some objects to log.
- By changing certain options when relogging, you can significantly condense large log files. You can relog with a longer time interval either all or only selected objects in an existing log file. You can also change the start and stop times and relog only the data within that time frame.

See Also

[Selecting an Existing Log File](#)

[Exporting Data](#)

Reporting Based on Input Log Files

To create a report from an input log file

- 1 On the **Options** menu in the Report view window, click **Data From**.
- 2 Select a log filename from either your own computer or another one on the network.
- 3 On the **Edit** menu, click any of the following:
 - **Add To Report**, to choose which counters from which computers to display in the report.
 - **Delete From Report**, to remove any counters that are not interesting or needed.
 - **Time Window**, to change the displayed starting and stopping points.
- 4 On the **File** menu, click any of the following commands:
 - **Save Report Settings As**, to update changes made to the current report settings file or to create a new file for these settings selections.
 - **Export Report**, to export the data from the report to a spreadsheet or database program.

Note

- You can create simple reports from existing log files the same as you would with current activity values. However, here the values shown represent the counter values over the selected time frame.

See Also

[Selecting an Existing Log File](#)

[Exporting Data](#)

Installing the Network Monitor Agent

To install the Network Monitor Agent on a Windows NT computer

- 1 In Control Panel, double-click the **Network** icon.
- 2 Click the **Services** tab, and then click **Add**.
- 3 In **Network Service**, click **Network Monitor Agent**, and then click **OK**.

Follow the instructions on screen for providing a path to the Windows NT distribution files and completing Setup.

Note

- The Network Monitor Agent collects statistics from the computer's network adapter card by putting it in promiscuous mode. You can view the statistics using Performance Monitor.

See Also

[Adding Network Monitor Agent Performance Counters](#)

Adding Network Monitor Agent Performance Counters

To add performance counters provided by Network Monitor Agent

- 1 On the **Edit** menu, click **Add To Chart**.
- 2 Under **Object** in the **Add To Chart** dialog box, click **Network Segment**.
- 3 In **Counter**, select the counters that you want to chart.

If necessary, you can select other options now, before you click **Done**.

Note

- The Network Segment object and associated counters are available only if the Network Monitor Agent is installed.

See Also

[Installing the Network Monitor Agent](#)

Enabling Windows NT Event Error Logging

To log Performance Monitor errors to the Event Viewer application log

- 1 Start Registry Editor (regedt32.exe).
- 2 On the HKEY_CURRENT_USER subtree, go to the following key:
 \Software\Microsoft\PerfMon
- 3 Double-click **ReportEventsToEventLog**.
- 4 Press 1, and click **OK**.

Note

- The change takes effect the next time you start Performance Monitor. You might want to update the Emergency Repair Disk to reflect these changes.

New

Creates a new chart, alert settings display, log settings display, or report settings display, depending upon which window you are in.

See Also

[Working with Charts](#)

[Working with Logs](#)

[Working with Alerts](#)

[Working with Reports](#)

Save Settings

Saves the current chart, alert, log, or report settings with a previously assigned filename, depending upon which window you are in. If no name has been assigned, the **Save As** dialog box appears.

See Also

[Saving Settings](#)

Add To

Adds selections to the chart, alert, log or report, depending upon which window you are in.

See Also

[Adding Chart Selections](#)

[Adding to a Log](#)

[Adding Alert Selections](#)

[Adding to a Report](#)

Edit

Changes a selected chart line in the Chart window or an alert entry in the Alert window.

See Also

[Changing Chart Selections](#)

[Changing Alert Selections](#)

Clear Display

Clears the display.

See Also

[Clearing the Display vs. Deleting Selections](#)

Delete From

Deletes the selected item from the chart, alert log, log, or report.

See Also

[Clearing the Display vs. Deleting Selections](#)

Chart, Alert, Log, or Report

Customizes the available options in the various Performance Monitor windows.

See Also

[Changing the Chart Options](#)

[Changing the Log Options](#)

[Changing the Alert Options](#)

[Changing the Report Option](#)

New Chart

Creates a new chart.

See Also

[Working with Charts](#)

Save Chart Settings

Saves the current chart settings with a previously assigned filename. If no name has been assigned, the **Save As** dialog box appears.

See Also

[Adding Chart Selections](#)

[Saving Settings](#)

New Alert Settings

Creates a new alert settings display.

See Also

[Working with Alerts](#)

Save Alert Settings

Saves the current alert settings with a previously assigned filename. If no name has been assigned, the **Save As** dialog box appears.

See Also

[Adding Alert Selections](#)

[Saving Settings](#)

New Log Settings

Creates a new log settings display.

See Also

[Working with Logs](#)

Save Log Settings

Saves the current log settings with a previously assigned filename. If no name has been assigned, the **Save As** dialog box appears. Performance Monitor also saves the log filename with the log settings file and will start logging data to that file upon reopening that settings file.

See Also

[Adding to a Log](#)

[Saving Settings](#)

New Report Settings

Creates a new report settings display.

See Also

[Working with Reports](#)

Save Report Settings

Saves the current report settings with a previously assigned filename. If no name has been assigned, the **Save As** dialog box appears.

See Also

[Adding to a Report](#)

[Saving Settings](#)

Exit

Quits Performance Monitor.

See Also

[Starting and Quitting Performance Monitor](#)

Delete From Chart

Deletes the selected counter from the chart.

See Also

[Clearing the Display vs. Deleting Selections](#)

Delete Alert

Deletes the selected counter from the alert log.

See Also

[Clearing the Display vs. Deleting Selections](#)

Delete From Log

Deletes the selected object from the log.

See Also

[Clearing the Display vs. Deleting Selections](#)

Delete From Report

Deletes the selected item from the report.

See Also

[Clearing the Display vs. Deleting Selections](#)

Chart

Displays the Chart window.

See Also

[Working with Charts](#)

Alert

Displays the Alert window.

See Also

[Working with Alerts](#)

Log

Displays the Log window.

See Also

[Working with Logs](#)

Report

Displays the Report window.

See Also

[Working with Reports](#)

Menu and Title

Displays the menu bar and title bar at the top of the window.

Tip

- You can double-click anywhere in the display area that does not contain text information to show or hide the menu bar and title bar. To move the window while the title bar is hidden, click anywhere in the display area that does not contain text information and drag the mouse to move the window.

See Also

[Organizing Your Screen](#)

Toolbar

Displays the toolbar beneath the menu bar at the top of the window.

See Also

[Organizing Your Screen](#)

Status Bar

Displays the status bar at the bottom of the window. The status bar shows whether the data is from current activity or an existing log file.

See Also

[Organizing Your Screen](#)

Always On Top

Keeps this program window stays visible over any other window on the display, even when another window is active.

See Also

[Organizing Your Screen](#)

Update Now

Immediately updates the data in the display.

See Also

[Updating the Display](#)

Contents

Starts Help and displays the topics in Help.

Search for Help on

Opens the **Index** tab for Help. You can look up Help information by using keywords on this tab.

How to Use Help

Describes how to use Help.

About Performance Monitor

Displays version, mode, and copyright information about Performance Monitor.

Control Menu

The **Control** menu contains the following commands:

Restore

Restores the window to its former size after it has been maximized or minimized.

Move

Enables you to use the keyboard to move the window to another position.

Size

Enables you to use the keyboard to change the size of the window.

Minimize

Reduces the window to an icon.

Maximize

Enlarges the window to its maximum size.

Close

Quits Control Panel, or closes a window or dialog box.

Switch To

Opens Task List, which you can use to switch between running applications or to rearrange their windows and icons on your desktop.

File Open

Used to specify the path to a file you want to open.

Click the following buttons for information about the dialog box:

- [File name](#)
- [Files of type](#)
- [Look in](#)

See Also

[Working with Charts](#)

[Working with Logs](#)


[Working with Alerts](#)


[Working with Reports](#)


Save As

Used to save the settings for a file and assign a filename.

Click the following buttons for information about the dialog box:

 [File name](#)

 [Save as type](#)

 [Save in](#)


See Also


[Saving Settings](#)


Save Workspace As

Used to save the settings for all four windows to a single file.

Click the following buttons for information about the dialog box:

 [File name](#)

 [Save as type](#)

 [Save in](#)

See Also

[Saving Settings](#)

Export As

Used to export charts, alert logs, logs, and reports to spreadsheet or database programs for further manipulation and printing.

Click the following buttons for information about the dialog box:

- [File name](#)
- [Files of type](#)
- [Save in](#)

See Also

[Exporting Data](#)

Add to Chart

Used to select the computer to be monitored and add appropriate objects, counters, and instances.

To make the graphs more readable, you can vary the scale of the displayed information and the color, width, and style of the line for each counter as you add it to the chart. You can also modify these properties after you add a selection.

Click the following buttons for information about the dialog box:

- [Computer](#)
- [Object](#)
- [Counter](#)
- [Instance](#)
- [Color](#)
- [Scale](#)
- [Width](#)
- [Style](#)
- [Explain Button](#)
- [Add Button](#)

See Also

[Adding Chart Selections](#)

Add to Alert

Used to create an alert log that enables you to monitor the current performance of selected counters and instances for objects.

Click the following buttons for information about the dialog box:

- [Computer](#)
- [Object](#)
- [Counter](#)
- [Instance](#)
- [Color](#)
- [Alert If](#)
- [Run Program on Alert](#)
- [Explain Button](#)
- [Add Button](#)
- [Done Button](#)

Notes

- With the alert log, you can monitor several counters at the same time. When a counter exceeds a given value, the date and time of the event are recorded in the Alert window. A total of one thousand events are recorded, after which the oldest event is discarded when the next new one is added. The event can also generate a network alert. When an event occurs, you can run a specific program every time or just the first time it occurs.
- When an alert occurs while you are not in the Alert view, an alert icon appears in the status bar showing the number of alerts that have occurred since you were last in the Alert view.

See Also

[Adding Alert Selections](#)

Add to Log

Used to create a log file that enables you to review at a later time the performance of counters and instances for objects.

You can also collect data from multiple systems into a single log file. Log files contain detailed data for bottleneck detection or other detailed analysis. For capacity planning, you need to view trends over a longer period, which requires the ability to create a log file and to produce reports from that file.

Click the following buttons for information about the dialog box:

- [Computer](#)
- [Objects](#)
- [Add Button](#)
- [Done Button](#)

See Also

[Adding to a Log](#)

Add to Report

Used to create reports showing current information on counter and instance values for selected objects.

The information is presented in columns for each individual instance. You can create a report on all the counters for a given object and then watch them change under various loads. You can also create reports to reflect the same information that you are charting or to monitor other specific situations.

Click the following buttons for information about the dialog box:

- [Computer](#)
- [Object](#)
- [Counter](#)
- [Instance](#)
- [Explain Button](#)
- [Add Button](#)
- [Done Button](#)

See Also

[Adding to a Report](#)

Edit Chart Line

Used to change how a selected counter is represented on the chart.

You can change the scale at which you graph the counter information to display the activity more in the center of the chart, but the actual reported values are not changed. You can also vary the color, style, and width used to make each counter's line stand out better.

Click the following buttons for information about the dialog box:

- [Color](#)
- [Scale](#)
- [Width](#)
- [Style](#)
- [Explain Button](#)

Note

- You can change only those options that are not gray.

See Also

[Changing Chart Selections](#)

Edit Alert Entry

Used to change the criterion for receiving an alert, what program to run and how often to run it, and the color used to display certain alerts.

Click the following buttons for information about the dialog box:

- [Color](#)
- [Alert If](#)
- [Run Program on Alert](#)
- [Explain Button](#)

Note

- You can change only those options that are not gray.

See Also

[Changing Alert Selections](#)

Input Log File Timeframe

Used to specify how much information you want to display.

You can select either **Scroll Bars** or **Bookmarks**, or both.

Click the following buttons for information about the dialog box:

- [Scroll Bars](#)
- [Bookmarks](#)

See Also

[Changing the Time Window](#)

Chart Options

Used to customize the charts that you create.

Click the following buttons for information about the dialog box:

- [Legend](#)
- [Value Bar](#)
- [Vertical Grid](#)
- [Horizontal Grid](#)
- [Vertical Labels](#)
- [Gallery](#)
- [Vertical Maximum](#)
- [Update Time](#)

See Also

[Changing the Chart Options](#)

Alert Options

Used to specify the alert interval and method of alert notification.

Click the following buttons for information about the dialog box:

- [Switch To Alert View](#)
- [Log Event In Application Log](#)
- [Network Alert](#)
- [Update Time](#)

See Also

[Changing the Alert Options](#)

Log Options

Used to specify the complete path and name of the log file, the log interval, and the status (Collecting or Closed) of the log file.

Click the following buttons for information about the dialog box:

- [Log File](#)
- [Update Time](#)
- [Relog File Button](#)
- [Start Log Button](#)

See Also

[Changing the Log Options](#)

Report Options

Used to change the Report Interval time for updating the information displayed in the report.

To set Update Time

- Click either **Periodic Update** or **Manual Update**.
If you click **Periodic Update**, enter a number in **Interval** to represent how often you want the report to be updated.

See Also

[Changing the Report Option](#)

Data From

Used to choose whether to view information from current activity or existing log files.

To set Data Values Displayed From

- Click one of the following:
- Click **Current Activity** to see information based on current activity.
- Click **Log File** to see information from an existing log file, and enter the log filename under **Data values displayed from**.

See Also

[Selecting an Existing Log File](#)

Add Bookmark

Used to make log files more usable by adding bookmark comments.

Bookmarks serve as reminders of the circumstances under which the file was created or by highlighting major points of interest. You can then refer to these bookmarks when you work with the log file later.

Bookmarks can be added in the Log view only when starting the log file.

Bookmark Comment

- Type an appropriate comment in the box, and then click **Add**.

See Also

[Adding Bookmarks](#)

Select Computer

Used to select a computer from the list of those contained in your log file.

Computer

- Enter the computer name.

Select Computer

Lists the names of the computers contained in the log file.

- Select the name of the computer with whose data you want to work, and then click **OK**.

See Also

[Charting Input Log Files](#)

[Setting Alerts on Input Log Files](#)

[Relogging Input Log Files](#)

[Reporting Based on Input Log Files](#)

Select Computer

Used to select a computer from the network.

Computer

- Enter the computer name.

Select Computer

- 1 Double-click the name of the appropriate domain controller or workgroup to display a list of the servers and workstations connected to it.
- 2 Select the name of the server or workstation that you want to monitor, and then click **OK**.

Note

- The first time you use **Select Computer**, there may be some delay while the program searches the accessible domains and workgroups for member computers.

See Also

[Selecting a Different Computer](#)

Open Input Log File

Used to specify the path to a log file you would like to open.

Click the following buttons for information about the dialog box:

- [File name](#)
- [Files of type](#)
- [Look in](#)

See Also

[Selecting an Existing Log File](#)

File name

Used to specify the name of the file you want to open.

Files of type

Lists the available file formats, depending on whether you are opening a chart, alert, log, report, or workspace.

Look in

Lists the available folders and files.

To see how the current folder fits in the hierarchy on your computer, click the down arrow. To see what's inside a folder, click it.

The box below **Look in** shows the folders and files in the selected location. You can double-click a folder or file in that box to open it. To open the folder one level higher, click the up folder button on the toolbar.

Save in

Lists the available folders and files.

To see how the current folder fits in the hierarchy on your computer, click the DOWN ARROW. To see what's inside a folder, click it.

The box below **Save in** shows the folders and files in the selected location. You can double-click a folder or file in that box to open it. To open the folder one level higher, click the up folder button on the toolbar.

File name

Used to specify the name of the file you want to open.

Save as type

Lists the available file extensions, depending on whether you're saving a chart, alert, log, report, or workspace.

File name

Used to specify the name of the file you want to open.

Files of type

Lists the available file formats. The formats available depend on whether you're exporting with Tab delimiters or Comma delimiters.

Computer

Used to specify the workstation or server that you want to monitor. Your workstation or server appears as the default computer.

- To monitor a different computer, enter the computer's name.

Tip

- Click **Select Computer** to see the names of the domains or workgroups to which you have access. The first time you use this, there may be some delay while the program searches the accessible domains and workgroups for member computers.

Object

Used to select an object to monitor from those that are available on the chosen computer.

Counter

Used to select one or more counters.

Tip

- For a definition of the selected counter, click **Explain**.

Instance

Used to select one or more instances if appropriate.

Color

Used to assign colors to a group of counters or simply to reflect your personal preferences.

Scale

Used to change the scale at which the information is displayed. The numbers shown in the value bar, however, are not scaled.

Width

Used to make the line thicker or thinner.

Tip

- Thick lines cannot be styled.

Style

Used to assign a different style to a new line.

Note

- Thick lines cannot be styled.

Explain Button

Displays a definition of the selected counter.

Add Button

Adds your selections.

Note

- You can continue to select additional items to monitor.

Done Button

Closes the **Add To** dialog box and returns to the display window.

Alert If

Used to change the alert warning criterion.

- Click either **Over** or **Under** and enter a value that is appropriate for that counter.

Run Program on Alert

Used to change how often the program is run or to change to a different program.

- Click either **First Time** or **Every Time**, and type the complete path name for the program that you want to run whenever the specified alert occurs.

Objects

Used to select an available object or set of objects to monitor on a selected computer.

Done Button

Closes the **Add To** dialog box and returns to the display window.

Done Button

Closes the **Add To** dialog box and returns to the display window.

Legend

Displays the legend and legend-information area.

Value Bar

Displays the values for the counters in the legend.

The chosen graph-time interval is reflected in the value bar, which also displays the last, average, minimum, and maximum values.

Vertical Grid

Displays vertical grid lines.

Horizontal Grid

Displays horizontal grid lines.

Vertical Labels

Displays labels on the vertical axis.

Gallery

Sets the information display for either **Graph** format or as a **Histogram**.

Tip

- The Histogram view is useful for viewing the simultaneous behavior of many instances of the same object.

Vertical Maximum

Sets the maximum value to which the vertical axis should extend.

Update Time

Used to set either Periodic Update or Manual Update.

Notes

- If you select **Periodic Update**, you must enter a number in **Interval** to set the time (in seconds) between updates of the charts.
- The **Graph Time** value displayed in the value bar shows the time, in seconds, that it takes to create a complete chart across the window.

Switch To Alert View

Displays the Alert window whenever an alert occurs.

Log Event In Application Log

Logs an event in Event Viewer Application log.

Network Alert

Sends a message to the specified network name when an alert occurs.

Update Time

Used to set either **Periodic Update** or **Manual Update**.

Note

- If you select **Periodic Update**, you must enter a number in **Interval** to set the time (in seconds) between updates of the alert log.

Update Time

Used to set either **Periodic Update** or **Manual Update**.

Note

- If you select **Periodic Update**, you must enter a number in **Interval** to set the time (in seconds) between updates of the charts.

Data Values Displayed From

- Click **Current Activity** to see information based on current activity.
- Click **Log File** to see information from an existing log file, and enter the log filename.

Bookmark Comment

- Type an appropriate comment in the box, and then click **Add**.

Scroll Bars

- To change the starting and stopping points to be used, drag the corresponding end of the slider.

Bookmarks

- To use bookmarks as starting or stopping points, select the appropriate bookmark and then click either **Set As Start** or **Set As Stop**.

The time interval slide bar changes to show your time window.

Log File

- In **Filename**, type a name for the log file that you are creating.
If this is the name of an existing file, the new data will be appended to the old data.

Note

- You can use **Folders** and **Drives** to specify a different folder for the log file.

Update Time

- Click either **Periodic Update** or **Manual Update**.

If you select **Periodic Update**, enter a number in **Interval** to represent how often you want the log to be updated.

Relog File Button

Relogs the selected log file.

Start Log Button

Starts logging.

A log symbol with the changing total file size appears on the right side of the status bar and remains there in all four views.

Computer

Used to enter a computer name.

Select Computer

Lists the names of the computers contained in the log file.

- Select the name of the computer you want to monitor, and then click **OK**.

Select Computer

The names of the domains or workgroups to which you have access appear in the box. The first time you use this, there may be some delay while the program searches the accessible domains and workgroups for member computers.

- 1 Double-click the name of the appropriate domain controller or workgroup to display a list of the servers and workstations connected to it.

Select the name of the server or workstation that you want to monitor.

- 2 Click **OK**.

Specifies (when **Periodic Update** is selected) how often the selected objects are logged.

Specifies that the selected objects will be logged only when you manually update the log (by clicking **Update Now** on the **Options** menu).

Specifies to automatically log data for the selected objects at the time interval specified in **Interval**.

Click this to start logging. **Start Log** is unavailable if you have not selected an object to log.

Click this to stop logging.

Click **Help Topics** for a list of Help topics.

