

LESSON 5.2

98-365 Windows Server Administration Fundamentals

# Understand Performance Monitoring

## Lesson Overview

In this lesson, you will learn:

- Performance monitoring methods
- Monitor specific system activities
- Create a Data Collector Set
- View diagnosis reports
- Task Manager

## Anticipatory Set

1. A system on the network is running slowly, a performance report is produced, and it shows that the page file is being accessed at a high rate. What can be done to alleviate this problem?
2. Why would you create a baseline report using performance monitor on a new system?

## Performance Monitoring Methods

- Use to examine how programs you run affect your computer's performance, in both real time and by collecting log data for later analysis
- Uses performance counters, event trace data, and configuration information, which can be combined into Data Collector Sets
  - **Performance counters**—measurements of system state or activity
  - **Event trace data**—collected from trace providers, which are components of the operating system or of individual applications that report actions or events
  - **Configuration information** —collected from key values in the Windows<sup>®</sup> registry. Windows Performance Monitor can record the value of a registry key at a specified time or interval as part of a log file.



## **Performance Monitoring Methods (continued)**

The four primary objects of performance monitoring are:

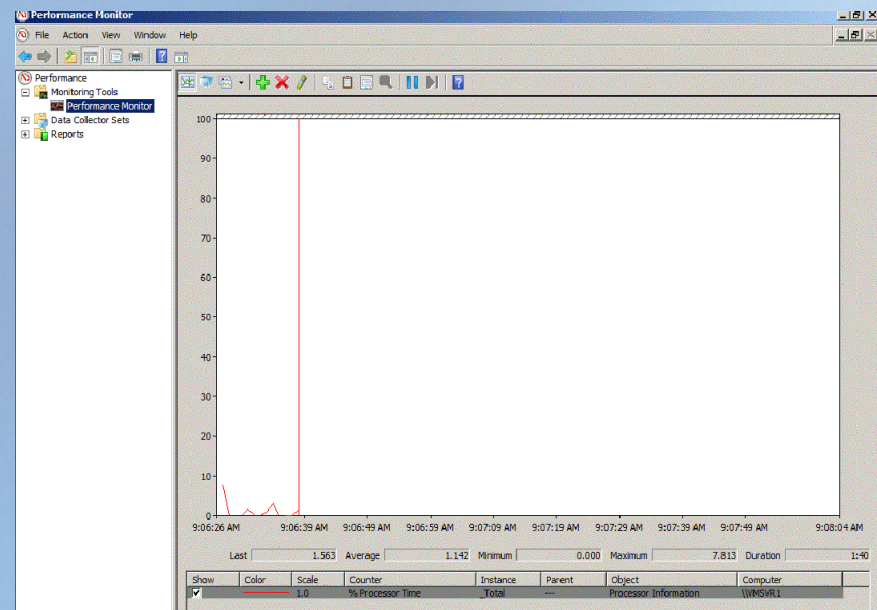
1. Disk I/O—Disk activity will impact system performance.
2. Memory—Continuous access to the page file means that the system does not have enough memory (RAM).
3. Processor—High processor activity can signify several problems ,including inadequate processor, virus, or poorly developed application.
4. Network—Network performance monitoring can determine where bottlenecks may exist as well as discovering broadcast traffic.

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# Monitor Specific System Activities

- Performance Monitor provides a visual display of built-in Windows performance counters, either in real time or as a way to review historical data.
- Add performance counters to Performance Monitor by dragging and dropping, or by creating custom Data Collector Sets.

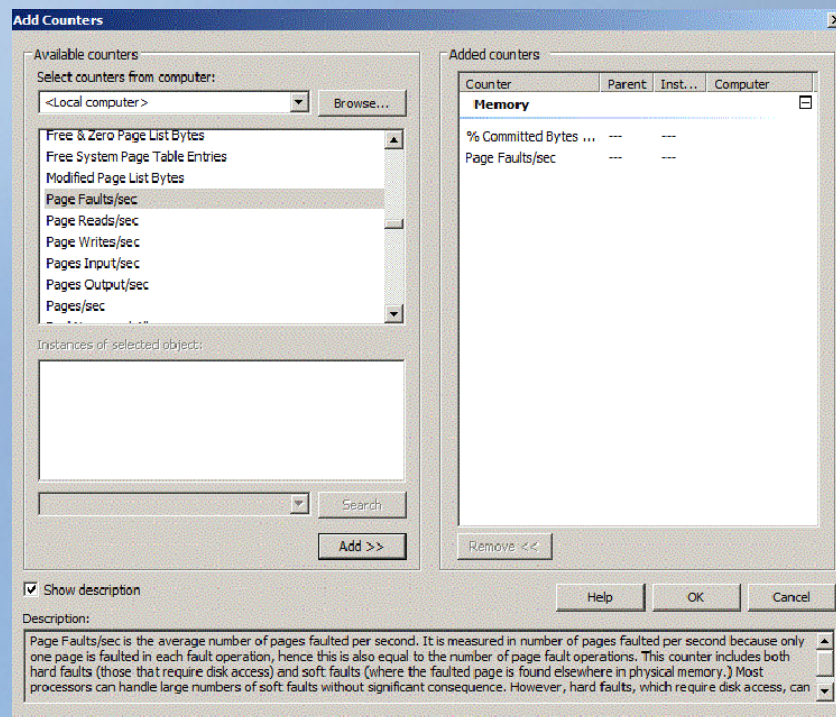


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# Monitor Specific System Activities (continued)

- Enables you to add specific performance counters to the current view

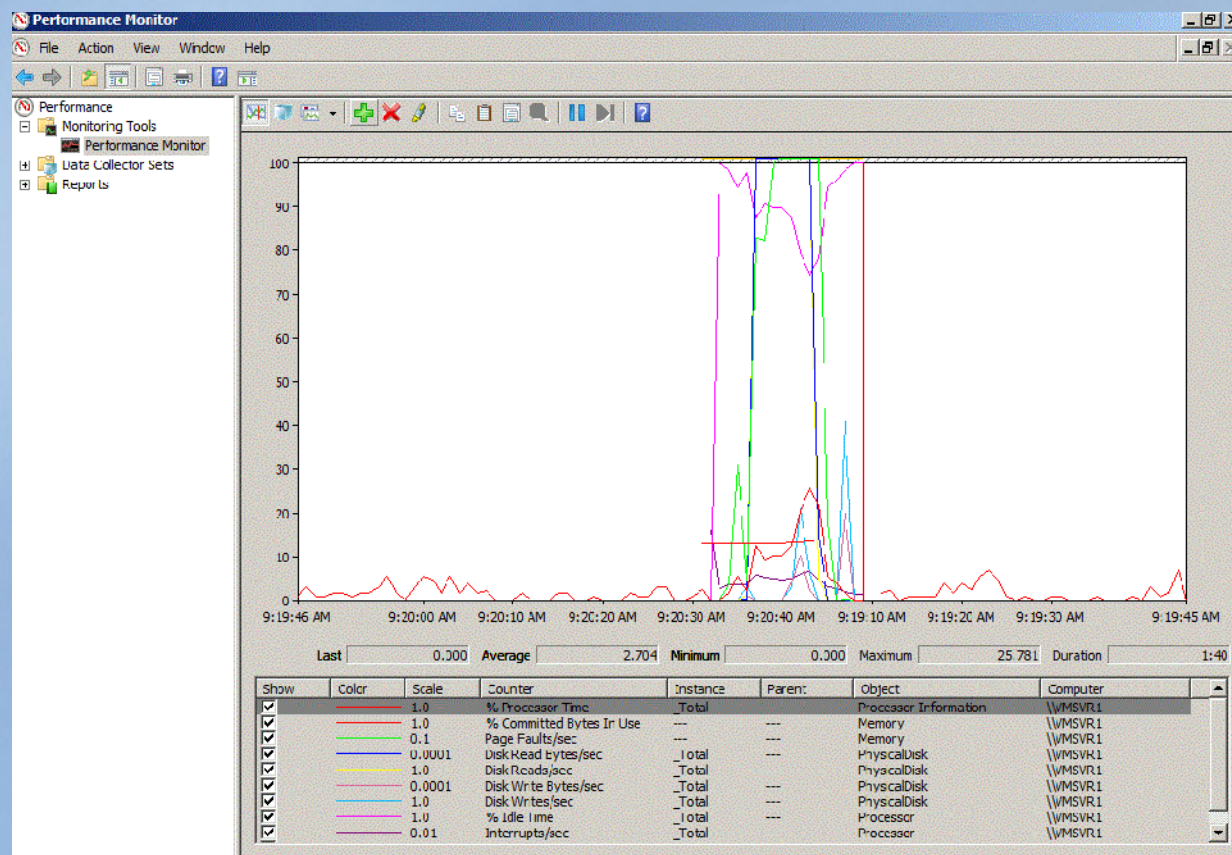




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# Monitor Specific System Activities (continued)



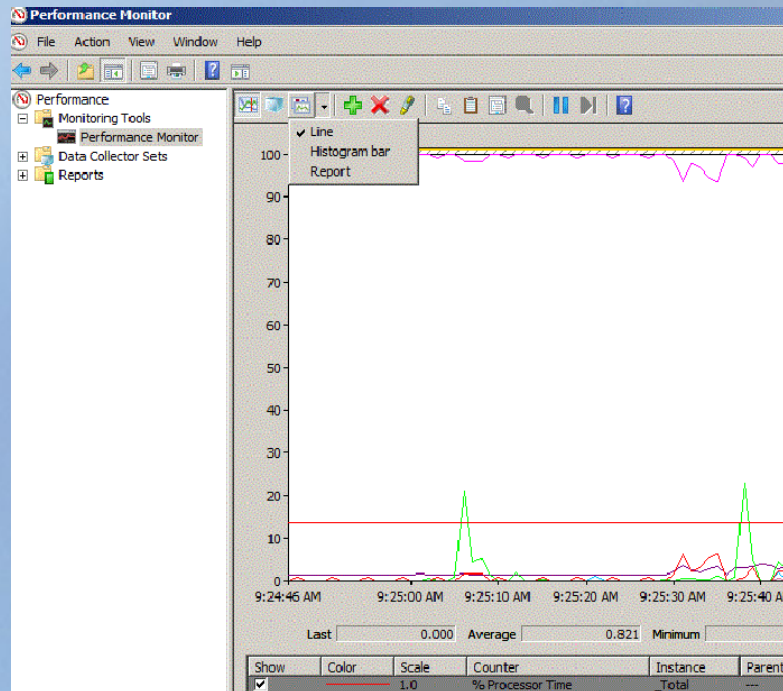


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# Monitor Specific System Activities (continued)

- You can select what format you wish to view the data.

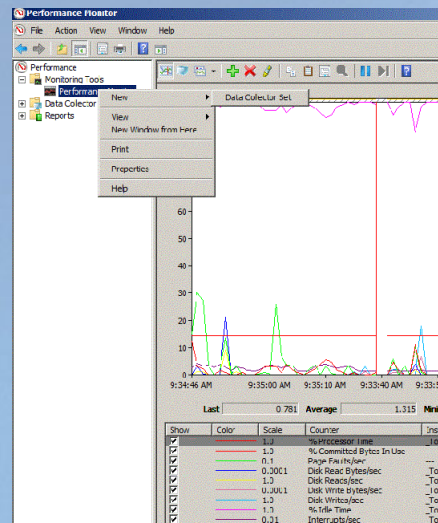


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# Create a Data Collector Set

- Real-time viewing of collectors is one way to use Performance Monitor.
  - Once you have added a combination of performance counters to your display you can save them as a Data Collector Set.
- Right-click on Performance Monitor and select New→Data Collector Set

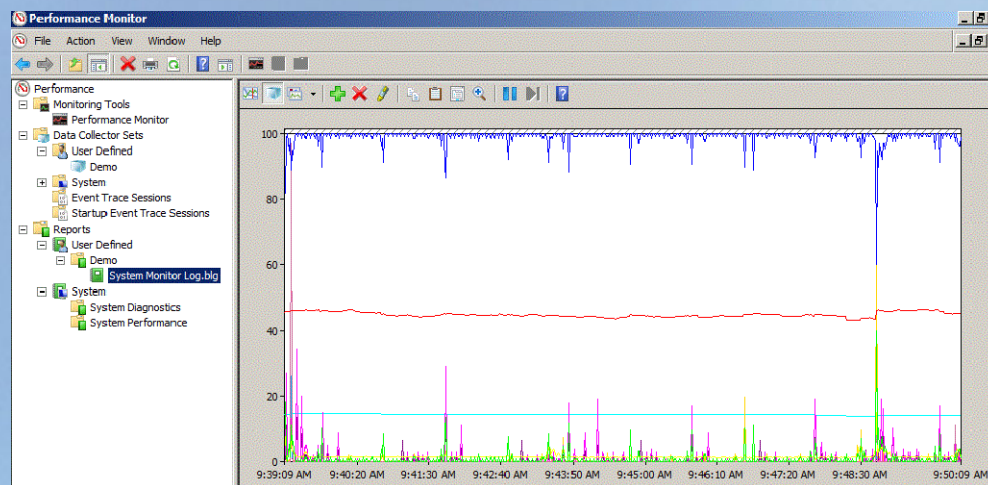


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## View Diagnosis Reports

- Expand Data Collector Sets, User Defined, and right-click on Demo and select Start.
- Wait a few moments and then expand Data Collector Sets, User Defined, and right-click on Demo and select Stop.
- Expand Reports, User Defined, and click on Demo, double-click on System Monitor Log.blg



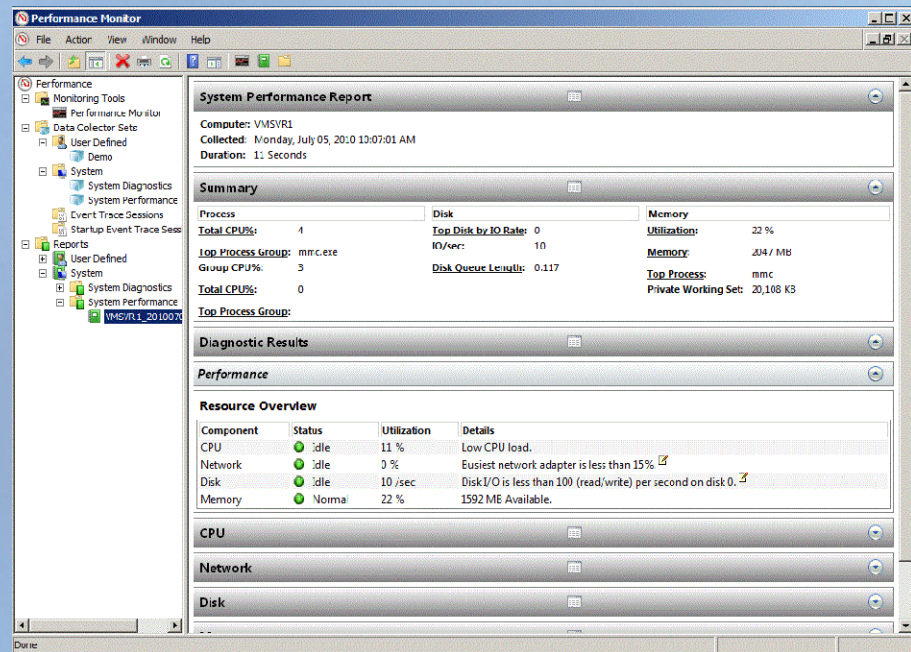


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## View Diagnosis Reports (continued)

- View system defined reports.
  - Expand Data Collector Sets, System, and right-click on System Performance and select Start.
- Wait a few moments and then expand Data Collector Sets, System, and right-click on System Performance and select Stop.
  - Expand Reports, System, click on the report under System Performance.



## Task Manager

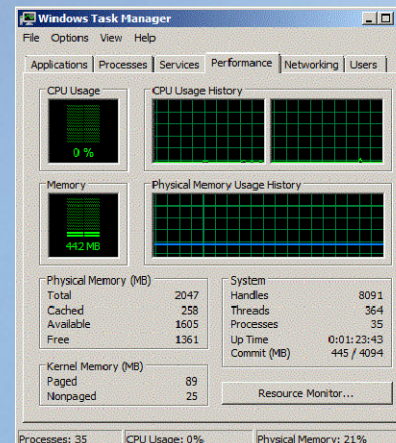
- Use to start programs, to start or to end processes, and to view a dynamic display of your computer's performance.
- Start Task Manager by one of the following actions:
  - Press Ctrl+Alt+Delete, and then click Task Manager.
  - Press Ctrl+Shift+Esc.
  - Right-click an empty area of the taskbar, and then click Start Task Manager.

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## Task Manager (continued)

- Click the Performance tab to view a dynamic overview of the performance of your computer.
  - Graphs for CPU and memory usage
  - The total number of handles, threads, and processes that are running
  - The total number of megabytes (MB) that are used for physical, kernel, and commit memory





## Lesson Review

- What Windows applications can be used to monitor performance?
- What must be created first in order to view User Defined reports?
- List the three formats in which the data collector results can be viewed.