



Microsoft® Premier Educate Program

Building on the foundation of Vital Signs: Performance Monitoring Windows Server Workshop

Taking your IT administrators deeper into analysis topics and tools to analyze and resolve performance and stability issues

Workshop - Vital Signs Advanced

Overview

The Vital Signs: Performance Monitoring Windows Server workshop teaches skilled IT administrators the basic concepts of analyzing performance issues. This three-day Vital Signs Advanced workshop extends the foundation of this knowledge and introduces the students to more advanced topics like:

- Analysis in virtualization scenarios.
- Storage analysis best practices.
- How Windows manages memory.
- How much Pagefile is actually needed.
Powerful new tools like the Xperf, the Debugging tools for Windows, and key SysInternals utilities.

Upon completion of the Vital Signs Workshop, students who diligently apply those key learnings will bring significant reduction in, the number of stability or performance issues and their time to closure.

Technical Highlights

Upon completion of the Vital Signs Workshop, students who diligently apply those principles will bring significant reduction in the number of stability or performance issues and in their time to closure. They will be able to:

- Resolve problematic issues faster.
- Understand storage analysis and provide servers with the I/O performance needed to meet latency targets.
- Understand how to analyze performance in a Virtual environment.
- Improve Storage analysis techniques.



Target Audience

To ensure the high-quality knowledge transfer expected from this **three**-day workshop, class size is limited to a maximum of 16 students, who meet the following criteria:

- Previous attendance of the Vital Signs: Performance Monitoring Windows Server Workshop
- Usage of Performance Monitor for at least 20-25 hours to help possess good analysis skills

Syllabus

Advanced performance analysis techniques, Part I: Virtualization and Performance Analysis

This part discusses, what to look for, what works, what does not, and optimization when using Virtual Machines (VMs) of any major Hypervisor (VMware, Xen, Hyper-V)

Advanced performance analysis techniques, Part II: Advanced Memory Analysis

This part describes how memory works and provides an in-depth understanding of what is really occurring. This is highly useful when Vista/Win7/Windows Server references all memory as cache to see how much is really committed and how much is really free.

Advanced performance analysis techniques, Part III: Deciding optimal Redundant Array of Independent Disks (RAID) configurations and Cluster sizes

Best practices and tests that generally help to indicate Queue depth, RAID type, Cache configuration of Read vs. Write, and cluster size to determine maximum performance for a specific OS and role, are discussed in this part.

Advanced performance analysis techniques, Part IV: Finding leaks using advanced analysis tools

This part discusses the best practices and tests that generally help to indicate who is causing User mode or Kernel mode system leaks and processes to take selected dump captures. Poolmon, Poolsnap, Process Explorer,

Process Monitor, DebugDiag, NotMyFault, and Dumpchk scenarios are also discussed.

Advanced performance analysis techniques, Part V: Xperf

This part covers the new Advanced performance tool that can map load to a function call inside of a process, and associated case study and labs. This training is essential for Windows Vista/Windows 7/Windows Server 2008 operating systems that are experiencing stability or performance issues.

Advanced performance Xperf case studies, Part VI: IX

This part helps students to understand the Slow Boot, Disk, Processor, and Networking analysis capabilities of Xperf. The case studies pertaining to this will be provided.

For more information about Consulting and Support solutions from Microsoft, contact your Microsoft Services representative or visit www.microsoft.com/services