



Microsoft Office

866-963-4440

2439 –Scripting MS Windows Management Instrumentation

2 Day

The goal of this course is to teach Microsoft Windows 2000 operating system administrators how to develop Microsoft VisualBasic Script-based scripts that use the resources of Windows Management Instrumentation (WMI). Administrators will use these scripts to perform a number of common tasks in the Microsoft Windows operating system environment.

WHO SHOULD ATTEND

This course is intended for Windows 2000 systems administrators who need to learn how to develop administrative scripts for their enterprise networks. In addition, this course benefits anyone who wants to learn about Windows Management Instrumentation.

PREREQUISITES

Before attending this course, students must have:

- Completed Course 2433, Microsoft Visual Basic Scripting Edition and Microsoft Windows Script Host Essentials, or equivalent knowledge.

AT COURSE COMPLETION

At the end of the course, students will be able to:

- Describe Windows Management Instrumentation and the Common Information Model (CIM).
- Use the WMI Software Developer Kit (SDK) Tools CIM Studio, WMI Event Registration, and WMI Event Viewer.
- Use the SDK documentation to research WMI classes.
- Describe the WMI Scripting API.
- Develop scripts that make local or remote connections to any WMI resources.
- Develop scripts that can efficiently query management data from local or remote resources.
- Develop scripts that can write to WMI local or remote resources.
- Describe the WMI event architecture.



Microsoft Office

866-963-4440

- Develop scripts that can configure, monitor, and implement WMI events.
- Identify how they can apply WMI Scripting API scripts to access future resources that use Windows Management Instrumentation.

LESSON TOPICS

Module 1: Windows Management Instrumentation (WMI)

The following topics are covered in this module:

- The Enterprise Management Challenge
- WMI Overview
- The Common Information Model
- Accessing WMI

At the end of this module, you will be able to describe Windows Management Instrumentation and the Common Information Model. This includes:

- The WMI Architecture.
- WMI classes.
- Using CIM Studio.
- Accessing WMI data by using Microsoft Excel.

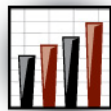
Module 2: Working with WMI Objects

The following topics are covered in this module:

- Connecting to WMI Using Scripts
- Accessing WMI Objects
- Advanced Scripting
- Security Settings

At the end of this module, you will be able to use the WMI Scripting API to develop scripts that access WMI objects. This includes:

- Using properties and methods.
- Using the WinMgmts Moniker.



Microsoft Office

866-963-4440

- Using error handling.
- Installing MSI packages.
- Managing DHCP clients.

Module 3: Querying WMI

The following topics are covered in this module:

- Enumerating Objects
- WMI Query Language
- Data Queries
- Using a Universal Query Script
- Associations and References
- Optimizing Queries
- The View Provider

At the end of this module, you will be able to develop scripts that use the WMI Query Language (WQL) to retrieve management data. This includes:

- Using the WQL syntax.
- Developing a reusable basic script query.
- Using the View Provider.
- Optimizing queries.
- Using the SNMP provider.
- Using the Event Log provider.

Module 4: Working with Events

The following topics are covered in this module:

- The WMI Event Architecture
- Scripting for Events in WMI
- Using Best Practices

At the end of this module, you will be able to implement WMI events. This includes:

- Implementing temporary and permanent event consumers.
- Differentiating between intrinsic and extrinsic events.



Microsoft Office

866-963-4440

- Using the SDK Event Registration and Event Viewer tools.
- Using the Active Script event consumer to launch scripts when events occur.

Module 5: The Future of WMI

The following topics are covered in this module:

- WMI and Microsoft Products
- WMI Enhancements in Microsoft Windows XP
- The Importance of Microsoft .NET
- References

At the end of this module, you will be able to investigate how WMI Scripting API scripts will be used with future applications and operating systems. This includes:

- Windows XP.
- .Net.