

2433 – Microsoft Visual Basic Scripting Edition and Microsoft Windows Script Host Essentials

Vendor Course Code: 2433

Course Length: 3 days

Overview: This three-day instructor-led course provides students with the knowledge and skills to manage Windows networks by using the Windows Script Host (WSH) and the Microsoft Visual Basic, Scripting Edition (VBScript) language. During the course, students will work on real-world scripts that they can use to manage computers running Windows Vista, Windows XP, and Windows Server 2003 operating systems. This course also provides an overview of other technologies where students can use script, such as Active Directory Service Interfaces (ADSI) and Windows Management Instrumentation (WMI).

Skills Gained: After completing this course, students will be able to:

- Run and work with scripts, including writing, debugging, and troubleshooting.
- Write scripts that access objects and use an object browser.
- Use Visual Basic, Scripting Edition to create effective and efficient administrative scripts.
- Create error-handling routines and use a debugger to locate and fix logic problems in scripts.
- Use Visual Basic, Scripting Edition to interact with ADSI.
- Call logon scripts from batch files, perform common tasks using logon scripts, and assign logon scripts to users.
- Use scheduling in scripts, send e-mails, manage the registry, and work with drives, folders, and files using scripts.
- Write scripts that gather information and automate common management tasks by using WMI.

Key Topics:

Module 1: Overview of Windows Scripting Technologies

This module introduces Windows Script Host (WSH) and how to work with script files. It explains basic scripting concepts such as how WSH functions and what types of scripts can be run by using WSH.

Lessons
Windows Scripting Technologies
Introducing WSH
Running Scripts
Working with Scripts

Lab: Configuring and Using WSH
Configuring WSH
Reviewing the WSH and VBScript Documentation
Using Windows Script Files
Using an IDE to Edit Script Files

After completing this module, students will be able to:

- Describe the Windows Scripting Technologies.
- Describe WSH.
- Run scripts.
- Work with scripts, including writing, debugging and troubleshooting.

Module 2: Objects in VBScript and WSH

This module introduces object models and objects, and explains how to interact with objects in your scripts. It describes how to access objects and the functionality that they provide by using Visual Basic, Scripting Edition and Windows Script Host.

Lessons

Object Terminology
Creating and Manipulating Objects
Object Models
Common Object Models

Lab: Objects in VBScript and WSH
Manipulating the Scripting Object Model
Manipulating the WSH Object Model
Automating Microsoft Office Word

After completing this module, students will be able to:

- Describe how scripts use objects.
- Describe object terminology.
- Explain how to use an object browser.
- Describe how scripts interact with the Component Object Model (COM).
- Explain the use of various object models.

Module 3: Script Logic

This module describes how the Visual Basic, Scripting Edition scripting language provides an effective, efficient, and powerful framework that you can use to write administrative scripts. It explains script rules and logic, and how to use effective script layouts.

Lessons
Fundamental VBScript Rules
Variables, Constants, and Data Types
Operators
Conditions and Loops
Procedures
Script Layout

Lab: Script Logic
Creating Script Templates
Using and Creating Code Snippets
Adding Constants, Variables, Loops, and Conditional Structures to Scripts
Adding Procedures to Scripts

After completing this module, students will be able to:

- Describe the rules of the Visual Basic, Scripting Edition language.
- Declare and use variables, constants, and data types in your scripts.
- Use Visual Basic, Scripting Edition language operators.
- Construct conditional code and looping structures.
- Declare and use Sub and Function procedures.
- Determine an effective script layout.

Module 4: Error Handling and Debugging

This module introduces error handling. When errors occur, it is important to know how to deal with them. The module also discusses some approaches to debugging, including the use of a debugger application.

Lessons
Error Handling
Debugging

Lab: Error Handling and Debugging
Trapping Run-Time Errors
Debugging VBScript

After completing this module, students will be able to:

- Describe the types of errors that may be present in code written in Visual Basic, Scripting Edition.
- Write code that handles run-time errors.
- Use the Microsoft Script Debugger to locate and fix logic errors.

Module 5: ADSI

This module explains how to access the functionality of Active Directory directory service through your administrative scripts. It describes ADSI and shows how ADSI enables you to automate many administrative tasks by using scripts.

Lessons

Overview of ADSI
Binding with ADSI
ADSI Objects
Searching Active Directory
Creating New ADSI Objects
Managing Security, Shares, and Services by Using ADSI

Lab A: ADO Search

Performing Searches by Using ADSI and ADO
Searching for User and Computer Information by Using ADSI and ADO

Lab B: Scripting Administrative Tasks by Using ADSI

Retrieving Properties by Using ADSI
Creating OUs, Users, and Groups by Using ADSI

After completing this module, students will be able to:

- Describe how ADSI works.
- Use scripts to bind to ADSI objects.
- Use ADSI object methods and properties in scripts.
- Search Active Directory.
- Create and modify objects in Active Directory.
- Manage security settings, shares, and services using ADSI.

Module 6: Creating Logon Scripts

This module describes the processes involved in creating and managing logon scripts, so that you can successfully deploy these scripts throughout the enterprise network. The module also describes how to create and manage logon scripts.

Lessons

Verifying the WSH Environment
Common Logon Script Tasks
Managing Logon Scripts
Troubleshooting and Best Practices

Lab A: Creating Logon Scripts

Mapping Drives
Creating Shortcuts
Assigning Logon Scripts to a User

Lab B: Assigning Logon Scripts

Configuring Scripts by Using Group Policy

After completing this module, students will be able to:

- Check that the correct version of WSH is installed.
- Call logon scripts from batch files.
- Accomplish common tasks in logon scripts.
- Assign logon scripts to users.
- Describe common issues with logon scripts.
- Describe best practices for using logon scripts.

Module 7: Administrative Scripts

This module describes how to use script to perform typical administrative tasks by using the various scripting models that are available through Windows Script Host and Visual Basic, Scripting Edition.

Lessons

Administrative Scripts
Producing Event Logs and E-Mail Messages
Managing the Registry

Controlling Drives, Folders, and Files

Lab A: Administrative Scripts
Passing Arguments to Scripts
Writing an Event to the Application Event Log

Lab B: File and E-mail Scripts
Documenting Your Computer Drives and Folders
Sending a Message and Attachment

After completing this module, students will be able to:

- Manage arguments and use scheduling in scripts.
- Add entries to Windows Event Logs and use Collaboration Data Objects (CDO) to generate e-mail messages.
- Use script to manage the registry.
- Control drives, folders, and files by using script.

Module 8: WMI

This module introduces the use of WMI to query, change, and monitor configuration settings on desktop and server systems, applications, networks, and other enterprise components. It describes how to write scripts that use the WMI Scripting library to work with WMI and create a wide range of systems management and monitoring scripts.

Lessons
WMI Overview
WMI Scripting Basics
Common Issues in WMI Scripts
Scripting Common Administrative Tasks by Using WMI

Lab: Writing WMI Scripts
Using the PrimalScript WMI Wizard
Managing Remote Resources by Using WMI
Limiting Event Log Data Returned to a Script

After completing this module, students will be able to:

- Describe how WMI works.
- Describe the three basic steps that most WMI scripts use.
- Understand what a WMI provider is.
- Know how to use the PrimalScript WMI Wizard to create WMI scripts.
- Use WMI scripts to perform common management tasks.
- Use WMI providers to manage Windows-based services.

Target Audience:

This course is intended for systems administrators who use Windows-based computers and must learn how to develop administrative scripts for their enterprise networks.

Prerequisites:

Before attending this course, students must have:

- Practical experience of using and administering Windows Server 2003.
- Practical experience of using and administering the Active Directory directory service.
- Practical experience of using and administering system security.
- Practical experience of using and administering services.
- Practical experience of using systems management information.
- Awareness of the potential uses of logon scripts.