

Windows PowerShell Scripting and Toolmaking

Duration: 5 Day(s)

Course Overview

This five-day instructor-led course is intended for IT Professionals who have a working knowledge of Windows PowerShell 3.0 techniques and technologies, and who want to build reusable tools by using Windows PowerShell 3.0. Students of this course may administer a wide variety of server and client products and technologies that offer Windows PowerShell integration, including Microsoft Exchange Server, Microsoft Windows Active Directory Domain Services, Microsoft SharePoint Server, and more. This course focuses on the Windows PowerShell scripting language, and on the concepts and techniques needed to produce reusable, professional tools.

Review this course online at <https://www.alta3.com/courses/55039>

Objectives

- Design reusable tools with script modules.
- Implement parameterized commands and workflows.
- Debug and handle errors within scripts effectively.
- Create custom, hierarchical command outputs.

Who Should Attend

- IT Administrators
- System Engineers
- Network Administrators
- IT Managers

Prerequisites

- Experience in administering Windows server and client computers
- Experience in running interactive Windows PowerShell commands from the command prompt
- Course 10961 is strongly recommended as a pre-requisite to this course

Course Outline

Module 1: Preparing for Scripting

1. Securing the Scripting Environment
2. Understanding Variables and Operators
3. Understanding Scripting Constructs and Scope

Module 2: Parameterizing a Command

4. Designing Parameters
5. Implementing Parameters

Module 3: Creating a Script Module

- 6. Designing Script Modules
- 7. Implementing Script Modules

Module 4: Handling Errors

- 8. Designing Error Handling
- 9. Implementing Error Handling

Module 5: Writing Commands that Use Pipeline Input and Output

- 10. Understanding Pipeline Parameter Binding
- 11. Implementing Pipeline Parameter Input

Module 6: Creating Hierarchical Command Output

- 12. Designing Complex Command Output
- 13. Implementing Complex Command Output
- 14. Using Object Hierarchies

Module 7: Debugging Scripts

- 15. Designing Scripts for Debugging
- 16. Implementing Script Debugging

Module 8: Customizing Default Formatting

- 17. Designing Formatting
- 18. Implementing Custom Formatting

Module 9: Adding Advanced Parameter Attributes and Command Documentation

- 19. Implementing Advanced Parameter Attributes
- 20. Implementing Help Documentation

Module 10: Creating Controller Scripts

- 21. Designing Script Execution
- 22. Implementing a Controller Script

Module 11: Creating HTML-Based Reports

- 23. Creating Basic HTML Reports
- 24. Creating Enhanced HTML Reports

Module 12: Creating Basic Workflows

25. Understanding Workflows

26. Implementing Workflows

Module 13: Working with XML Data

27. Understanding XML

28. Implementing XML Manipulation

Module 14: Using Advanced Scripting Techniques

29. Using External Functionality

30. Adding Graphical User Interface Elements

Module 15: Creating Proxy Functions

31. Designing Proxy Functions

32. Implementing Proxy Functions

Module 16: Building Tools in Windows PowerShell

33. Designing the Tool

34. Implementing the Tool

35. Testing the Tool