POWERSHELL TRAINING TOPICS

Overview of Windows PowerShell 5.0

Understanding Windows PowerShell

- Using cmdlets
- Installing Windows PowerShell
- Deploying Windows PowerShell to down-level operating systems

Using command-line utilities

Security issues with Windows PowerShell

- Controlling execution of Windows PowerShell cmdlets
- Confirming actions
- Suspending confirmation of cmdlets

Working with Windows PowerShell

- Accessing Windows PowerShell
- Configuring the Windows PowerShell console

Supplying options for cmdlets

Working with the help options

Using Windows PowerShell cmdlets

Understanding the basics of cmdlets

Using the Get-ChildItem cmdlet

- Obtaining a directory listing
- Formatting a directory listing by using the Format-List cmdlet
- Using the Format-Wide cmdlet
- Formatting a directory listing by using Format-Table

Formatting output with Out-GridView

Taking advantage of the power of Get-Command

- Searching for cmdlets by using wildcard characters

Using the Get-Member cmdlet

- Using the Get-Member cmdlet to examine properties and methods

Using the New-Object cmdlet

- Creating and using the wshShell object

Using the Show-Command cmdlet

Windows PowerShell cmdlet naming helps you learn

- Windows PowerShell verb grouping
- Windows PowerShell verb distribution

Understanding and using Windows PowerShell providers

Understanding Windows PowerShell providers

- Understanding the alias provider
- Understanding the certificate provider
- Understanding the environment provider
- Understanding the filesystem provider
- Understanding the function provider

Using the registry provider to manage the Windows registry

- The two registry drives
- The short way to create a new registry key
- Dealing with a missing registry property

Understanding the variable provider

Using Windows PowerShell remoting and jobs

Understanding Windows PowerShell remoting

- Classic remoting
- WinRM

Using Windows PowerShell jobs

Using Windows PowerShell scripts

Why write Windows PowerShell scripts?

The fundamentals of scripting

- Running Windows PowerShell scripts
- Turning on Windows PowerShell scripting support
- Transitioning from command line to script
- Manually running Windows PowerShell scripts
- Understanding variables and constants

Using the While statement

- Constructing the While statement in Windows PowerShell
- A practical example of using the While statement
- Using special features of Windows PowerShell

Using the DoWhile statement

- Using the range operator
- Operating over an array
- Casting to ASCII values

Using the DoUntil statement

- Comparing the Windows PowerShell DoUntil statement with VBScript
- Using the Windows PowerShell Do statement

The For statement

- Using the For statement
- Using the Foreach statement
- Exiting the Foreach statement early

Using the If statement

- Using assignment and comparison operators
- Evaluating multiple conditions

The Switch statement

- Using the Switch statement
- Controlling matching behavior

Working with functions

Understanding functions

Using functions to provide ease of code reuse

Including functions in the Windows PowerShell environment

- Using dot-sourcing
- Using dot-sourced functions

Adding help for functions

- Using a here-string object for help

Using two input parameters

Using a type constraint in a function

Using more than two input parameters

Using functions to encapsulate business logic

Using functions to provide ease of modification

Understanding filters

Handling errors

Handling missing parameters

- Creating a default value for a parameter
- Making the parameter mandatory

Limiting choices

- Using PromptForChoice to limit selections
- Using Test-Connection to identify computer connectivity
- Using the -contains operator to examine the contents of an array
- Using the -contains operator to test for properties

Handling missing rights

- Using an attempt-and-fail approach
- Checking for rights and exiting gracefully

Handling missing WMI providers

Handling incorrect data types

Handling out-of-bounds errors

- Using a boundary-checking function
- Placing limits on the parameter

Using TryCatchFinally

- Catching multiple errors

Using the Windows PowerShell ISE

Running the Windows PowerShell ISE

- Navigating the Windows PowerShell ISE
- Working with the script pane
- Using tab expansion and IntelliSense

Working with Windows PowerShell ISE snippets

- Using Windows PowerShell ISE snippets to create code
- Creating new Windows PowerShell ISE snippets
- Removing user-defined Windows PowerShell ISE snippets

DevOps TOPICS

Is DevOps Right for You?

Dev and Ops on the Wrong Tracks

7 Signs of a Dysfunctional Process

Conclusion: Where to Start Your DevOps Transformation