

Using Windows PowerShell

A 5 day **Hands on** training course



Description

This course is intended for IT Professionals who are already experienced in general Windows Server and Windows Client administration, and who want to learn more about using Windows PowerShell for administration. No prior experience with any version of Windows PowerShell, or any scripting language, is assumed. This course is also suitable for IT Professionals already experienced in server administration, including Exchange Server, SharePoint Server, SQL Server, System Center, and others.



Key outcomes

By the end of the course delegates will be able to:

- ✓ Work with Windows PowerShell pipeline.
- ✓ Query system information by using WMI and CIM.
- ✓ Work with variables, arrays, and hash tables.
- ✓ Write advanced scripts in Windows PowerShell.
- ✓ Administer remote computers.
- ✓ Use advanced Windows PowerShell techniques.



Training Approach

This structured course uses Instructor Led Training to provide the best possible learning experience. Small class sizes ensure students benefit from our engaging and interactive style of teaching with delegates encouraged to ask questions throughout the course. Quizzes follow each major section allowing checking of learning. Hands on sessions are used throughout to allow delegates to consolidate their new skills.



Details

Who will benefit?

IT professionals

Prerequisites

Supporting Windows server.

Duration: 5 days

Customer rating: ★★★★★

Generic Training



Generic training compliments product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".

"Friendly environment with expert teaching that teaches the why before the how."
G.C. Fasthosts

Small Class Sizes



We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.

"Excellent course. The small class size was a great benefit..."
M.B. IBM

Hands On Training



The majority of our courses use hands on sessions to reinforce the theory.

"Not many courses have practice added to it. Normally just the theoretical stuff is covered."
J.W. Vodafone

Our Courseware



We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.

"Comprehensive materials that made the course easy to follow and will be used as a reference point."
V.B. Rockwell Collins

Customise Your Course



Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.

"I was very impressed by the combination of practical and theory. Very informative. Friendly approachable environment, lots of hands on."
S.R. Qinetiq

Using Windows PowerShell

Course Content

Getting started with Windows PowerShell

Overview and background of Windows PowerShell, Understanding command syntax, Finding commands.
Lab : Configuring Windows PowerShell console & ISE application.

Lab : Finding and running basic commands, Using the About files.

Cmdlets for administration

Active Directory administration cmdlets, Network configuration cmdlets, Other server administration cmdlets.

Lab : Windows Administration.

Creating and managing Active Directory objects, Configuring network settings on Windows Server, Creating a web site.

Working with the Windows PowerShell pipeline

Understanding the pipeline, Selecting, sorting, and measuring objects, Filtering objects out of the pipeline, enumerating objects in the pipeline, Sending pipeline data as output.

Lab : Using the pipeline. Selecting, sorting, and displaying data.

Lab : Filtering objects.

Lab : Enumerating objects.

Lab : Sending output to a file.

Exporting user information to a file.

Understanding how the pipeline works

Passing the pipeline data, Advanced considerations for pipeline data.

Lab : Working with pipeline parameter binding.

Predicting pipeline behaviour.

Using PSProviders and PSDrives

Using PSProviders, Using PSDrives.

Lab : Using PSProviders and PSDrives

Creating files and folders on a remote computer,

Creating a registry key for your future scripts, Create a new Active Directory group.

Querying system information by using WMI and CIM

Understanding WMI and CIM, Querying data by using WMI and CIM, Making changes with WMI/CIM.

Lab : Working with WMI and CIM.

Querying information by using WMI, Querying information by using CIM, Invoking methods.

Working with variables, arrays, and hash tables

Manipulating variables, arrays and hash tables.

Lab : Working with variables, Using arrays, Using hash tables.

Basic scripting

Introduction to scripting, Scripting constructs, Importing data from files.

Lab : Basic scripting.

Setting a script, Processing an array with a ForEach loop, Processing items by using If statements, Creating a random password, Creating users based on a CSV file.

Advanced scripting

Accepting user input, Overview of script documentation, Troubleshooting and error handling, Functions and modules.

Lab : Accepting data from users.

Querying disk information from remote computers, Updating the script to use alternate credentials, Documenting a script.

Lab : Implementing functions and modules.

Creating a logging function, Adding error handling to a script, Converting a function to a module.

Administering Remote Computers

Using basic Windows PowerShell remoting, Using advanced Windows PowerShell remoting techniques, Using PSSessions.

Lab : Using basic remoting.

Enabling remoting on the local computer, Performing one-to-one remoting, Performing one-to-many remoting.

Lab : Using PSSessions.

Using implicit remoting, Managing multiple computers.

Using background jobs and scheduled jobs

Using background jobs, Using scheduled jobs.

Lab : Using background jobs and scheduled jobs.

Starting and managing jobs, Creating a scheduled job.

Using advanced Windows PowerShell techniques

Creating profile scripts, Using advanced techniques.

Lab : Practicing advanced techniques.

Creating a profile script, Verifying the validity of an IP address, Reporting disk information, Configuring NTFS permissions, Creating user accounts with passwords from a CSV file.

Lab : Practicing script development (optional)

