

Windows PowerShell v4.0 for the IT Professional Part 2



WorkshopPLUS

Target Audience:

This is an intermediate to advanced level course for Windows PowerShell version 4.0. The course is ideally targeted at IT staff who have already attended "Windows PowerShell v4.0 for the IT Professional Part 1".

Previous basic PowerShell scripting experience is required!

Overview

The **Windows PowerShell v4.0 for the IT Professional Part 2** workshop is a continuation of concepts from the **Windows PowerShell v4.0 for the IT Professional Part 1** course. It provides attendees with a deeper understanding of PowerShell's capabilities for system and application management. Through presentations, white-board discussions, and hands-on labs, this 3-day workshop covers various topics that are designed to advance the attendee's PowerShell knowledge and skills.

Key Features and Benefits

Modules are organized by scenario and are designed to provide participants with expertise, tools and hands-on experience with Windows PowerShell version 4.0.

Technical Highlights

After completing this course, you will be able to:

- Execute PowerShell code remotely and in parallel
- Make your scripts more robust with error handling and correct errors more quickly
- Create advanced functions and scripts that behave similarly to cmdlets
- Use PowerShell to deploy standard and custom configurations using Desired State Configuration
- Create and execute parallel long running tasks using PowerShell Workflow

Syllabus

This workshop runs for 3 full days. Attendees should anticipate consistent start and end times for each day. Early departure on any day is not recommended.

Module 1: Review of PowerShell for the IT Professional Part 1

The workshop starts with a brief re-cap of the essential PowerShell concepts covered in the Part 1 workshop.

Module 2: Remoting

Discover how to leverage PowerShell and CIM remoting features to achieve universal script execution across your Windows environment. Create, run and manage many concurrent, long-running, background tasks in the Windows Task scheduler using the PowerShell scheduled jobs.

Modules 3 and 4: Functions

PowerShell functions can behave just like compiled Cmdlets. Add these capabilities into your own functions, including help, advanced parameters, and risk mitigation.

Module 5: Regular Expressions (Regex)

PowerShell is object-based, but the many development tools are not so friendly! Explore how PowerShell can use the UNIX administrator's tool of choice for manipulating unstructured text.

Module 6: Error Handling

PowerShell provides many strategies to deal with errors that occur during script execution. In this module, you will learn how to effectively trap and respond to runtime errors.

Module 7: Debugging

Learn the tools and techniques for finding and resolving script bugs and increase their reliability.

Module 8: Introduction to Desired State Configuration (DSC)

Create declarative statements to take control of your Windows Server configuration. This module covers the essentials of this new PowerShell 4.0 feature for administrators.

Module 9: Introduction to Workflow

"When PowerShell met Workflow!" Learn how PowerShell layers on top of Windows Workflow Foundation (WWF) to enable the creation of highly parallelizable, scalable and robust long-running tasks using the familiar syntax of a PowerShell function.