

Workshop PLUS

Target Audience:

This is an introductory level course for Windows
PowerShell version 4.0. The course is targeted at IT staff with a good understanding of general systems installation, administration and troubleshooting. Previous programming and/or scripting experience is beneficial but not required for this course.

Overview

The Windows PowerShell v4.0 for IT Professionals – Part 1

WorkshopPLUS provides attendees with an introduction to using PowerShell for system and application management. Through presentations, white-board discussions, and goal-based labs, this 4-day workshop covers various topics that are designed to take the attendee from just starting out with PowerShell to an intermediate level.

Key Features and Benefits

Modules are organized by scenario and 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:

- Use PowerShell interactively
- Create scripts using the PowerShell integrated scripting environment
- Package code in script-based modules for simplified deployment and distribution

Syllabus

This workshop runs for **4** full days. Attendees should anticipate consistent start and end times for each day. Early departure on any day is not recommended.

Module 1: Introduction

This module describes the command-line shell and then introduces PowerShell and its main components and features like the ISE, workflows, desired state configuration.

Module 2: Commands 1

PowerShell commands and their syntax are discussed in this module. Key cmdlets are also covered.

Module 3: Pipeline 1

This module describes how multiple PowerShell commands can be used together to become a very powerful utility command.

Module 4: Commands 2

This module introduces how multiple commands can be combined in PowerShell language features like script blocks, functions, and remoting.

Module 5: Scripts

The concept of packaging commands into script files is introduced in this module. Script execution, command lookup precedence and using the integrated scripting environment are also covered.

Module 6: Help System

Managing and using the built-in help system are covered in this module.

Module 7: Object Models

PowerShell as an object-based language is discussed in this module, along with the associated terminology.

Module 8: Operators 1

The PowerShell scripting language provides the user with many operators. This module discusses some of them.

Module 9: Pipeline 2

This module builds on the previous pipeline module and includes intermediate level information on using the pipeline.



Syllabus Continues

Module 10: Providers

PowerShell's support for interaction with various data sources (such as file system, Windows registry, certificate store) is covered in this module.

Module 11: Variables and Data Types

This module builds on the previous Operators module and introduces more operators.

Module 12: Operators 2

The different types of variables and how they are used in PowerShell are discussed in this module.

Module 13: Arrays

Creating, managing and using arrays to store and access information are covered in this module.

Module 14: Hash Tables

Creating, managing and using hash tables are covered in this module.

Module 15: Flow Control

This module introduces looping, branching and flow control statements.

Module 16: Scopes

The concept of scopes as a protection mechanism and how to work with them are discussed in this module.

Module 17: Modules

The final module discusses PowerShell Modules as a code packaging and distribution method.

