

# Automating Administration with Windows Powershell, On Demand 10961

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Seminar



Zurzeit keine Termine



Teilnahmebescheinigung



E-Learning



40 Unterrichtseinheiten

Seminarnummer: 29401 | Herstellernummer: OD10961

Stand: 04.05.2024. Alle aktuellen Informationen finden Sie unter <https://akademie.tuv.com/s/29401>

Learn how with Windows PowerShell 4.0, you can remotely manage multiple Windows based servers and automate day to day management and administration tasks. Details zu MOC On Demand Trainings finden Sie unter den Hinweisen weiter unten.

## Nutzen

In dieser MOC on Demand Version ist eine original MOC Unterlage in digitaler Form enthalten.

After completing this course, students will be able to:

- Understand the basic concepts behind Windows PowerShell
- Work with the Pipeline
- Understand How the Pipeline Works
- Use PSProviders and PSDrives
- Format Output
- Use WMI and CIM
- Prepare for Scripting
- Moving From a Command to a Script to a Module
- Administer Remote Computers
- Put the various Windows PowerShell components together
- Use Background Jobs and Scheduled Jobs
- Use Advanced PowerShell Techniques and Profiles

# Zielgruppe

This MOC on Demand course is intended for IT Professionals already experienced in general Windows Server and Windows Client administration or already experienced in administering and supporting Application servers and services including applications like Exchange, SharePoint, and SQL. It is broadly intended for students who want to use Windows PowerShell to automate administrative tasks from the command line, using any Microsoft or independent software vendor (ISV) product that supports Windows PowerShell manageability.

This course is not intended to be a scripting or programming course, and includes only basic coverage of scripting and programming topics. Students are not expected to have prior scripting or programming experience, and are not expected to have prior Windows PowerShell experience

## Voraussetzungen

Before attending this course, students must have:

- Previous Windows Server and Windows Client management knowledge and hands on experience.
- Experience installing and configuring Windows Server into existing enterprise environments, or as standalone installations.
- Knowledge and experience of network adapter configuration, basic Active Directory user administration, and basic disk configuration.
- Knowledge and hands on experience specifically with Windows Server 2012/Windows Server 2012 R2 and Windows 8/Windows 8.1 would be of benefit but is not essential.

## Inhalte des Seminars

### Module 1: Getting Started with Windows PowerShell

This module introduces students to Windows PowerShell, its purpose and history. The module will also cover the basics of using the shell, including the help system, command syntax, command discovery explaining the use of the two built-in host applications.

#### Lesson

- Overview and Background
- Finding and Learning Commands
- Running Commands

#### Lab : Configuring Windows PowerShell

#### Lab : Finding and Running Basic Commands

### Module 2: Working with the Pipeline

This module covers the Windows PowerShell pipeline along with a number of additional techniques and

commands, including customizing command output, exporting and converting data, sorting objects, filtering objects, and enumerating objects allowing for the overall retrieval, manipulation and displaying of data.

#### Lesson

- Understanding the Pipeline
- Selecting, Sorting, and Measuring Objects
- Converting, Exporting, and Importing Objects
- Filtering Objects Out of the Pipeline
- Enumerating Objects in the Pipeline

Lab : Using the Pipeline

Lab : Converting, Exporting, and Importing Objects

Lab : Filtering Objects

Lab : Enumerating Objects

### Module 3: Understanding How the Pipeline Works

This module explains the underlying details of how Windows PowerShell passes objects from command to command within the pipeline. Having seen it in action in the previous module will now get to see some of the theory under the hood. The emphasis will be on two specific techniques used by the shell and students will learn to explain the pipeline operation, predict command behavior and allows them construct more useful, predictable commands.

#### Lesson

- Passing Data in the Pipeline By Value
- Passing Data in the Pipeline By Property Name

Lab : Working with Pipeline Parameter Binding

### Module 4: Using PSProviders and PSDrives

This module explains the purpose and use of Windows PowerShell PSProviders and PSDrives, and shows students how to use these useful components for administrative tasks. Students will also learn to use the -item\* commands to manipulate items within a PSDrive.

#### Lesson

- Using PSProviders
- Using PSDrives

Lab : Using PSProviders and PSDrives

### Module 5: Formatting Output

This module demonstrates how to format command output and how to create custom output elements.

#### Lesson

- Using Basic Formatting
- Using Advanced Formatting
- Redirecting Formatted Output

Lab : Formatting Output

### Module 6: Querying Management Information by Using WMI and CIM

This module explains Windows Management Instrumentation (WMI) and Common Information Model (CIM), and shows students how to retrieve and in some cases modify management information about local and remote computers.

#### Lesson

- Understanding WMI and CIM
- Querying Data with WMI and CIM
- Making Changes by Using WMI and CIM

Lab : Working with WMI and CIM

### Module 7: Preparing for Scripting

This module prepares students for writing scripts with Windows PowerShell, covering the Windows PowerShell security model and the use of variables.

#### Lesson

- Using Variables
- Scripting Security

Lab : Working with Security in Windows PowerShell

### Module 8: Moving From a Command to Script to Module

This module shows students how to take a command that runs well in the console and turn it into a parameterized, reusable script, and how to evolve that script into a standalone script module. Students will learn the foundations needed to create their own reusable tools.

#### Lesson

## Wichtige Hinweise

MOC On Demand Trainings sind original Microsoft Trainings, in denen Sie zeit- und ortsungebunden lernen können. Diese Trainings enthalten:

- Zugang zum offiziellen Microsoft Video on Demand Kurs für 90 Tage ab dem ersten Zugriff.
- Einen Lab-Online-Zugang für praktische Übungen, der ab Kauf 6 Monate gültig ist.
- Eine originale MOC Schulungsunterlage in digitaler Form, wie sie auch in den Live-Trainings eingesetzt wird.

## Terminübersicht und Buchung

Buchen Sie Ihren Wunschtermin jetzt direkt online unter <https://akademie.tuv.com/s/29401> und profitieren Sie von diesen Vorteilen:

- Schneller Buchungsvorgang
- Persönliches Kundenkonto
- Gleichzeitige Buchung für mehrere Teilnehmer:innen

Alternativ können Sie das Bestellformular verwenden, um via Fax oder E-Mail zu bestellen.