

# Kurs-Dokumentation



## Zentrum für Informatik ZFI AG

# Automating Administration with Windows PowerShell (WSP)

<http://mobile.zfi.ch/WSPS>

Weitere Infos finden Sie unter [mobile.zfi.ch](http://mobile.zfi.ch) oder via Adresse:

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<b>Titel</b>	<b>Automating Administration with Windows PowerShell</b>
<b>Untertitel</b>	
<b>Einleitung</b>	<p>Learn how with Windows PowerShell 3.0, you can remotely manage single or multiple Windows-based servers and automate day-to-day management and administration tasks.</p> <p>This course provides students with the fundamental knowledge and skills to use Windows PowerShell 3.0 for administering and automating administration of Windows based servers. It focuses on primary Windows PowerShell command-line features and techniques, and will provide prerequisite skills supporting many different Microsoft products. This includes Windows Server, Windows Client, Exchange Server, SharePoint Server, SQL Server, System Center, and more. In keeping with that goal, this course will not focus on any one of those products, although Windows Server (which is the common platform for all of those) will serve as the example for the techniques being taught.</p> <p>In this course you will learn to execute and monitor scripts more efficiently through more robust session connectivity, workflow capabilities, improved job scheduling, and Windows PowerShell Web Access. Learn Windows PowerShell with greater ease through improved cmdlet discovery and simplified, consistent syntax across all cmdlets. Write Windows PowerShell scripts quicker and more intuitively through the new Integrated Scripting Environment (ISE) that enables script sharing, which connects IT pros to a larger Windows PowerShell user community. Learn all this and more in this five-day Microsoft Official Course in Windows PowerShell v3.0</p>
<b>Ihr Nutzen</b>	<p>After completing this course, students will be able to:</p> <ul style="list-style-type: none"><li>- Understand the basic concepts behind Windows PowerShell</li><li>- Work with the Pipeline</li><li>- Understand How the Pipeline Works</li><li>- Use PSProviders and PSDrives</li><li>- Format Output</li><li>- Use WMI and CIM</li><li>- Prepare for Scripting</li><li>- Moving From a Command to a Script to a Module</li><li>- Administer Remote Computers</li><li>- Put the various Windows PowerShell components together</li><li>- Use Background Jobs and Scheduled Jobs</li></ul>

Voraussetzungen	<p><b>- Use Advanced PowerShell Techniques and Profiles</b></p> <p>Before attending this course, students must have:</p> <ul style="list-style-type: none"> <li>- Previous Windows Server and Windows Client management knowledge and hands on experience.</li> <li>- Experience Installing and Configuring Windows Server into existing enterprise environments, or as standalone installations.</li> <li>- Knowledge and experience of network adapter configuration, basic Active Directory user administration, and basic disk configuration.</li> <li>- Knowledge and hands on experience specifically with Windows Server 2012 and Windows 8 would be of benefit but is not essential.</li> </ul>
Teilnehmerkreis	<p>This 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 Exchange, SharePoint, SQL etc 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.</p> <p>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</p>
Unterlagen Folgekurse Inhalt	<p><b>Module 1: Getting Started with Windows PowerShell</b></p> <ul style="list-style-type: none"> <li>- Overview and Background</li> <li>- Finding and Running Commands</li> </ul> <p><b>Module 2: Working with the Pipeline</b></p> <ul style="list-style-type: none"> <li>- Working with the Pipeline</li> <li>- Exporting, Importing and Converting Data</li> <li>- Filtering Objects Out of the Pipeline</li> <li>- Enumerating Objects in the Pipeline</li> </ul>

**Module 3: Understanding How the Pipeline Works**

- Passing Data in the Pipeline ByValue
- Passing Data in the Pipeline ByPropertyName

**Module 4: Using PSProviders and PSDrives**

- Understanding PSProviders and PSDrives
- Using PSDrives

**Module 5: Formatting Output**

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

**Module 6: Using WMI and CIM**

- Understanding WMI/CIM
- Querying Data with WMI/CIM
- Making Changes with WMI/CIM

**Module 7: Prepare for Scripting**

- Using Variables
- Scripting Security
- Working with Alternate Credentials

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

- Moving From Command to Script
- Moving From Script to Function to Module

- Implementing Basic Error Handling
- Using Basic Scripting Constructs
- Further Exploration in Scripting

#### **Module 9: Administering Remote Computers**

- Using Basic Remoting
- Using Remote Sessions
- Using Remoting for Delegated Administration

#### **Module 10: Putting it All Together**

- Planning the Script

#### **Module 11: Using Background Jobs and Scheduled Jobs**

- Using Background Jobs
- Using Scheduled Jobs

#### **Module 12: Using Advanced PowerShell Techniques and Profiles**

- Using Advanced PowerShell Techniques
- Creating Profile Scripts

#### **Beitrag**

**Der Teilnehmerbeitrag versteht sich rein netto. Das ZFI ist (gemäss MwSt-Gesetz) nicht Mehrwertsteuerpflichtig und erhebt somit keine MwSt. Bei länger als einen Monat dauernden Lehrgängen ist die Zahlung des Teilnehmerbeitrages in mehreren Raten möglich (pro rata temporis).**