kod szkolenia: PS Adv+AI / ENG DL 5d

PowerShell Advanced + AI Automation

This course is designed for IT professionals who want to take their automation skills to the next level. Participants will learn advanced PowerShell scripting techniques and discover how to leverage the latest AI integration capabilities to automate tasks and business processes.

A new addition to the training program is a hands-on module dedicated to integrating PowerShell with the Anthropic API. This module enables participants to build custom AI-powered solutions, automate data analysis, generate content, and support decision-making processes.

The PowerShell Advanced Scripting + AI Automation course is a natural continuation of the MS-10961 or AZ-040 training courses and addresses the needs of modern organizations seeking to harness the power of artificial intelligence in the daily work of administrators and developers.

The course also serves as an updated equivalent of the retired authorized training MS-10962 - Advanced Automated Administration with Windows PowerShell, enhanced with AI-related topics and practical applications.

IMPORTANT

Before registering, we encourage you to complete the placement test referenced in the “Expected Participant Preparation” section. The test is intended to assess the participant’s current level of knowledge and skills. The result allows participants to evaluate for themselves whether the course content, as described on the website, matches their current level of expertise.

Important: The course is delivered strictly according to the published syllabus. The pace of instruction and the training agenda are fixed and identical for all participants. Completing the placement test honestly and independently helps avoid situations where the course level or pace differs from the participant’s expectations. Using external

assistance or AI tools while taking the test may distort the result and lead to an inaccurate assessment of one's actual proficiency level.

In summary, selecting the appropriate course level is the participant's responsibility, and the placement test is a tool designed to facilitate that decision. Choosing not to take the test is entirely at the participant's discretion; however, this decision may result in the rejection of complaints regarding a mismatch between the course level or pace and the participant's expectations. Independent completion of the placement test is a prerequisite for submitting such complaints successfully.

Training recipients

This course is intended for:

- Windows system administrators who want to streamline and automate their daily operations.
- IT professionals interested in modern automation techniques and AI integration.
- Individuals who want to learn how to use PowerShell to interact with external APIs (including the Anthropic API) and build their own AI-powered tools and solutions.
- Participants with a foundational knowledge of PowerShell (for example, after completing the AZ-040 or MS-10961 course) who wish to further develop their skills in advanced scripting and task automation using AI technologies.

Benefits

- Gain practical skills in developing advanced PowerShell scripts and functions
  Master techniques for creating scalable, reusable scripts that can be applied across a wide range of administrative scenarios.
- Create scripts with graphical user interfaces (GUI)
  Learn how to build user-friendly GUI applications using Windows Forms and WPF, making your tools accessible to non-technical users.
- Develop advanced pipeline-enabled functions
  Understand how to create functions that accept input from the pipeline, process multiple objects efficiently, and generate custom output objects.
- Work with Microsoft .NET Framework classes

Discover how to leverage the power of the .NET Framework within your scripts, extending PowerShell capabilities beyond built-in cmdlets.

- Integrate AI capabilities through APIs
  Gain hands-on experience integrating PowerShell with the Anthropic API, enabling the development of intelligent automation solutions that utilize AI for data analysis, content generation, and decision support.
- Implement advanced error handling and debugging techniques
  Learn professional approaches to error management and script debugging, ensuring that your automation solutions are robust, reliable, and easy to maintain.
- Manage server configurations using DSC and JEA
  Master Desired State Configuration (DSC) for consistent server configuration management and Just Enough Administration (JEA) for secure, role-based administrative access.
- Build production-ready PowerShell modules
  Learn how to package scripts into reusable modules complete with proper documentation, parameter validation, and support for standard PowerShell features such as -WhatIf and -Confirm.

Training program

1. Environment Installation and Configuration
- Configuring network settings using PowerShell
- PowerShell 7
- Git
- Visual Studio Code
- Installing and configuring Active Directory Domain Services (AD DS)

2. Creating Advanced Functions
- Converting commands into advanced functions
- Creating script modules
- Defining parameter attributes and validating input data
- Creating functions that process multiple objects
- Creating functions that accept pipeline input
- Creating custom output objects
- Documenting functions using built-in help
- Supporting the -WhatIf and -Confirm parameters

3. Working with REST APIs and the Microsoft .NET Framework in PowerShell
- Working with REST APIs
- Using Microsoft .NET Framework classes in PowerShell

4. Working with XML and JSON Files in PowerShell
- Reading, modifying, and saving XML data
- Working with JSON data

- Reading and manipulating data in custom formats

5. Script Controller Development

- Creating script controllers
- Writing script controllers that generate reports

6. Error Handling in PowerShell

- Understanding error handling
- Developing scripts with robust error handling

7. Managing Server Configuration with Desired State Configuration and Just Enough Administration

- Creating and deploying DSC configurations
- Configuring and implementing JEA

8. Analyzing and Debugging Existing Scripts

- Analyzing existing scripts
- Debugging existing scripts

9. AI Integration with PowerShell APIs

- Why PowerShell + AI
- Exploring AI API documentation
- Building a basic PowerShell + AI solution

10. Fundamentals of GUI Scripting

- Windows Forms
- Windows Presentation Foundation (WPF)

Expected preparation of the participant

Before registering for the course, participants are required to complete the placement test independently and without the use of AI tools:
https://forms.office.com/Pages/ResponsePage.aspx?id=ABtS1JDyAUOdi_Q4BuSaPW1mhqqA6vlMpdu59WrtmkFUQ0lFV0VLSEJJMkNGTjNJSERISVZEQTRNUCQlQCNjPTEu
To participate fully in the AI module (Agenda Item 9), each participant must create an account on https://platform.claude.com/ and purchase API credits by providing a valid credit card.
Detailed account setup instructions are available here:
https://www.altkomakademia.pl/app/uploads/2026/02/Tworzenie-konta-w-Anthropic-Console.pdf
Failure to create the account before the training will limit the participant's ability to complete the hands-on exercises included in this module. In such cases, the participant will only be able to attend the theoretical portion of Agenda Item 9.
Expected Knowledge and Skills
This is not a beginner-level course and is not intended for individuals who are unfamiliar with the Windows environment.
Participants should have:

- Knowledge equivalent to that provided in the AZ-040 course.
- Basic experience administering Windows Server, Windows Client, and Active Directory environments.
- The ability to create simple functions in PowerShell.
- The ability to work with English-language technical documentation and learning materials.

Hardware and Training Environment Recommendations

To improve the learning experience and increase training effectiveness, the use of a second monitor is highly recommended. While not mandatory, the absence of an additional screen may significantly reduce comfort when performing hands-on exercises during the course.

Information and technical requirements for participating in remote training sessions are available at: szkolenia

Training Includes

Included in the Course

- Electronic training materials available through the training platform: https://www.altkomakademia.pl/
- Access to the Altkom Akademia Student Portal

Training Methodology

The course combines instructor-led demonstrations with extensive hands-on practice:

- Demonstrations (40%)
- Practical Exercises (60%)

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Language

- Training: English
- Materials: English