

Advanced Automated Administration with Windows PowerShell («55318A»)

Cette formation à Windows PowerShell (basée sur l'ancien MOC 10962) permet d'apprendre à utiliser PowerShell pour automatiser des tâches administratives, créer des fonctions de script avancées, écrire des scripts de contrôleur et bien plus encore.

Durée: 3 jours

Prix : 2'550.– excl. 8.1% TVA

Documents : Support de cours numérique

Contenu

INFORMATION IMPORTANTE

Cette formation n'est pas une formation Microsoft officielle. Le contenu de cette formation est basé sur le MOC 10962, aujourd'hui abandonné par Microsoft, et développé par la communauté Microsoft.

Module 1: Creating advanced functions

This module explains how to parameterize a command into an advanced function.

Lessons

- Lesson 1: Converting a command into an advanced function
- Lesson 2: Creating a script module
- Lesson 3: Defining parameter attributes and input validation
- Lesson 4: Writing functions that accept pipeline input
- Lesson 5: Producing complex pipeline output
- Lesson 6: Using comment-based Help
- Lesson 7: Using Whatif and Confirm parameters
- Lab 1: Creating advanced functions

Exercises

- Exercise 1: Converting a command into a function
- Exercise 2: Creating a script module
- Exercise 3: Defining parameter attributes
- Exercise 4: Writing functions to accept pipeline input
- Exercise 5: Producing complex function output
- Exercise 6: Using comment-based Help
- Exercise 7: Using Whatif and Confirm parameters

Module 2: Using Microsoft .NET Framework and REST API in Windows PowerShell

This module explains how to use Microsoft .NET Framework and REST API to supplement functionality that Windows PowerShell commands provide.

Lessons

- Lesson 1: Using .NET Framework in PowerShell
- Lesson 2: Using REST API in PowerShell
- Lab 1: Using Microsoft .NET Framework and REST API in Windows PowerShell

- Exercise 1: Using .NET Framework in PowerShell
- Exercise 2: Using REST API in PowerShell

Module 3: Writing controller scripts

This module explains how to combine advanced functions that perform a specific task and a controller script that provides a user interface or automates a business process.

Lessons

- Lesson 1: Understanding controller scripts
- Lesson 2: Writing controller scripts with a user interface
- Lesson 3: Writing controller scripts that create reports
- Lab 1: Writing controller scripts

Exercises

- Exercise 1: Understanding controller scripts
- Exercise 2: Writing controller scripts with a user interface
- Exercise 3: Writing controller scripts that create reports

Module 4: Handling script errors

This module explains how to perform basic error handling in scripts.

Lessons

- Lesson 1: Understanding error handling
- Lesson 2: Handling errors in a script
- Lab 1: Handling script errors

Exercises

Exercise 1: Understanding error handling

Exercise 2: Handling errors in a script

Module 5: Using XML, JSON, and custom-formatted data

This module explains how to read, manipulate, and write data in XML and JSON format.


Lessons

- Lesson 1: Working with XML formatted data
- Lesson 2: Working with JSON formatted data
- Lesson 3: Working with custom-formatted data
- Lab 1: Working with XML and JSON formatted data

Exercises

- Exercise 1: Working with XML formatted data
- Exercise 2: Working with JSON formatted data
- Exercise 3: Working with custom-formatted data
- Exercise 4: Using PowerShell Core (Optional)

Module 6: Enhancing server management with Desired State Configuration and Just Enough Administration

This module explains how to write Desired State Configuration (DSC) configuration files, deploy those files to servers, and monitor server's configurations. This module also explains how to restrict administrative access with Just Enough Administration (JEA). 

Lessons

- Lesson 1: Implementing Desired State Configuration
- Lesson 2: Implementing Just Enough Administration
- Lab 1: Creating and deploying a DSC configuration

Exercises

- Exercise 1: Implementing Desired State Configuration
- Exercise 2: Implementing Just Enough Administration

Module 7: Analyzing and debugging scripts

This module explains how to use native Windows PowerShell features to analyze and debug existing scripts

Lessons

- Lesson 1: Debugging in Windows PowerShell
- Lesson 2: Analyzing and debugging an existing script
- Lab 1: Analyzing and debugging scripts

Exercises

Exercise 1: Debugging in Windows PowerShell

Exercise 2: Analyzing and debugging an existing script

Module 8: Understanding Windows PowerShell Workflow

This module explains the features of the Windows PowerShell Workflow technology.

Lessons

- Lesson 1: Understanding Windows PowerShell Workflows
- Lesson 2: Running Windows PowerShell Workflows
- Lab 1: Create and run Windows PowerShell Workflows

Exercises

- Exercise 1: Understanding Windows PowerShell Workflows
- Exercise 2: Running Windows PowerShell Workflows

Objectifs

- Créer des fonctions avancées avec PowerShell
- Utiliser le framework Microsoft .NET et l'API REST sur Windows PowerShell
- Gérer les erreurs de script
- Utiliser XML, JSON et des données formatées selon les préférences
- Gérer les ressources Microsoft Azure
- Analyser et résoudre des erreurs de script
- Comprendre le flux de travail de Windows PowerShell

Cette formation d'adresse aux professionnels de l'IT ayant de l'expérience avec Windows Server et l'administration des clients Windows. Les participantes et participants doivent avoir des connaissances fondamentales de Windows PowerShell. De plus, cette formation offre des conseils de scripting aux administrateurs et développeurs travaillant avec Microsoft Azure et qui s'occupent de la maintenance d'environnements de développement et de processus de déploiement.

Prérequis

Les participantes et participants doivent être des administrateurs système Windows expérimentés et/ou avoir de l'expérience en scripting ou en programmation. Les participantes et participants doivent au préalable suivre le cours suivant ou s'assurer de posséder des connaissances équivalentes :

- [Automating Administration with PowerShell – Formation intensive \(«AZ040»\)](#)

Avez-vous une question ou souhaitez-vous organiser un cours en entreprise ?

Nous vous conseillons volontiers au +41 22 738 80 80 ou romandie@digicomp.ch. Retrouvez toutes les informations détaillées concernant les dates sur www.digicomp.ch/formations-microsoft-technology/microsoft-powershell/cours-advanced-automated-administration-with-windows-powershell