

# Course : PowerShell, advanced

Practical course - 2d - 14h00 - Ref. EPF

Price : 1610 CHF E.T.

★★★★☆ 4,4 / 5

BEST

This training course will enable you to deepen your knowledge of PowerShell. You'll learn how to create Windows-style forms, integrate C# code, HTML code and XML into a PowerShell script, and manage jobs. You'll also learn how to create DSC scripts and workflows.

## Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Automate Windows administration tasks with PowerShell
- ✓ Managing users with PowerShell scripts
- ✓ Creating, deleting and searching for objects in AD with PowerShell
- ✓ Writing a DSC (Desired State Configuration) script

## Intended audience

Systems and network technicians, administrators and engineers.

## Prerequisites

Good knowledge of the Windows operating system, PowerShell, AD or equivalent to the course "PowerShell, automating Windows administration" (ref. ATU).

## Course schedule

### 1 Syntax reminder

- Variables, operators and control structures.
- Pipelines: flow behavior and parameterization.
- Code simplification, the PipelineVariable.
- Where-objects filters, foreach loops.
- Variables and operator types.

### Hands-on work

Use of the first commands, various cmdlettes, the pipe, PipelineVariable and filters.

### PARTICIPANTS

Systems and network technicians, administrators and engineers.

### PREREQUISITES

Good knowledge of the Windows operating system, PowerShell, AD or equivalent to the course "PowerShell, automating Windows administration" (ref. ATU).

### TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

### ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.

Participants also complete a placement test before and after the course to measure the skills they've developed.

## 2 Classes in PowerShell 5

- Creating classes. Inheritance.
- Create properties and methods.
- The Enum.

### Hands-on work

Create an Audit\_test class, use ENUM, implement inheritance.

## 3 XAML forms

- Basic principle and creation of the XAML model.
- Using WPF. Coding in ISE.

### Hands-on work

Creation of an XAML form for IT asset management.

## 4 Using .NET

- Use object libraries to manipulate system components.
- Load .Net classes.
- Available classes, properties and methods.
- Add C#, HTML and CSS code to a PowerShell script.

### Hands-on work

Creation of a simple class in C#, integration into a PS1 script, creation of a script to list available classes.

## 5 Workflow, DSC

- Definition of DSC, workflow.
- Simple operation of DSC and workflow.

### Hands-on work

Install a DSC application and a DHCP role. Create a DSC script for copying folders/files to servers and create a workflow for massively pinging IP addresses in parallel.

## 6 Module creation, manifest creation

- Function of a PowerShell module.
- Creation of a module, integration into the workstation.
- Add script, param, customize.
- Detailed help added.

### Hands-on work

Creation of an asset management module, a pinging module for selecting network identifiers, IP addresses to be pinged or a list of computers.

### TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

### TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

### ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

## 7 Job management, remoting

- Introduction, WinRM functions.
- What is a job?
- The various cmdlets for managing jobs (get-job, receive-job, wiat-job, start-job...).
- The different states of a job.

### Hands-on work

Creation of a script using jobs and Winrm to manage a set of servers.

## Dates and locations

### REMOTE CLASS

2026 : 25 June, 1 Oct., 26 Nov.