

## PowerShell, automatiser l'administration Windows



BPC-116 4 Days (28 Hours)

### Description

This training will teach you to master this Microsoft scripting language and automate administration tasks under Windows XP, Vista and Server 2003. You will implement PowerShell (Version 2) in areas as varied as networking, process management or the inventory of a fleet of machines.

### Who is this training for ?

#### For whom

Systems and network technicians, administrators and engineers.

#### Prerequisites

Aucune

### Training objectives

- Know basic PowerShell commands for everyday use
- Write scripts on Windows with PowerShell
- Manage users with PowerShell scripts
- Automate workstation and server administration with PowerShell

### Training program

#### Les bases du langage

- Installing PowerShell.
- Commands, cmdlets, pipelines.
- Practical work Handling aliases, profile files.
- Using the first commands.

#### Les types et opérateurs

- Variables, basic types and collections.
- Regular expressions.
- Operators (arithmetic, assignment, logic, string, redirection).
- Practical work Use variables, operators and regular expressions.

### Les structures de contrôle et les fonctions

- Loop for, while, foreach, switch.
- Functions and pipeline.
- Passing arguments to a script.
- Manipulation of XML configuration files.
- Practical work Implementation of control structures.
- Using and configuring functions.

### Gestion de l'affichage et navigation

- Output control and redirection (paging, printing).
- Move to PowerShell drives.
- Access to system environment data.

### Gestion d'erreurs

- Error categories.
- Catching an error.
- Script debugging: execution trace, strict mode.
- Windows event log.
- Practical work Debugging.
- Illustration of the use of exceptions.

### Utilisation de .NET et COM via PowerShell

- Using object libraries to manipulate system components.
- Internet access via PowerShell.
- PowerShell and the GUI: forms.
- Access to event logs, network.
- Practical work Handle WebClient objects.
- Network access.

### Utilisation de PowerShell pour l'administration

- Administer Windows with WMI.
- Manage local processes and services.
- Information collection.
- Installation inventory.
- Manipulating files and folders, keys and registry entries.
- Changing the state of a computer.
- Using printers.
- Network management tasks.
- Practical work Find the shares of a workstation.
- Test the presence of machines on the network.
- Retrieve information.
- Start and stop processes.
- Use events, services, the registry.

### Gestion de la sécurité des scripts PowerShell

- User authentication, execution strategy.
- Script signing, use of certificates.
- Password storage.