

# ADVANCED AUTOMATED ADMINISTRATION WITH WINDOWS POWERSHELL

Course Code: 821520

Focus on building more scalable and usable Windows PowerShell scripts for use in your organization.

Learn how to automate administrative tasks using Windows PowerShell 5.1. You will develop core scripting skills such as creating advanced functions, writing controller scripts, and handling script errors, and learn how to work with Windows PowerShell Workflow, the REST API and XML and JSON formatted data files. You will also learn how to use new administration tools such as Desired State Configuration (DSC) and Just Enough Administration (JEA) to configure and secure servers.

## What You'll Learn

- Create Advanced Functions
- Use Cmdlets and Microsoft .NET Framework in Windows PowerShell
- Write Controller Scripts
- Handle Script Errors
- Use XML, JSON, and custom formatted data
- Analyze and Debugging Scripts
- Understand Windows PowerShell Workflow

## Who Needs to Attend

IT professionals who want to learn how to build their own tools for broader general use in their organization, using any Microsoft product that supports Windows PowerShell manageability

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CLASSROOM LIVE

\$2,095 USD

3 Day

## Classroom Live Outline

### **Creating Advanced Functions**

- Converting a Command into an Advanced Function
- Creating a Script Module
- Defining Parameter Attributes and Input Validation
- Writing Functions that Accept Pipeline Input
- Producing Complex Function Output
- Documenting Functions by using Content-Based Help

### **Using Microsoft .NET Framework and REST API in Windows PowerShell**

- Using Microsoft .NET Framework in Windows PowerShell
- Using REST API in Windows PowerShell

### **Writing Controller Scripts**

- Understanding Controller Scripts
- Writing Controller Scripts that Show a User Interface

### **Handling Script Errors**

- Understanding Error Handling
- Handling Errors in a Script

### **Using XML, JSON, and custom-formatted data**

- Reading, Manipulating and Writing Data in XML- formatted data
- Reading, Manipulating and Writing Data in JSON- formatted data
- Reading, Manipulating and Writing Data in custom- formatted data

### **Enhancing Server Management with Desired State Configuration and Just Enough Administration**

- Understanding Desired State Configuration
- Creating and Deploying a DSC Configuration
- Implementing Just Enough Administration

### **Analyzing and Debugging Scripts**

- Debugging in Windows PowerShell
- Analyzing and Debugging and Existing Script

### **Understanding Windows PowerShell Workflow**

### Classroom Live Labs

- Converting a Command into an Advanced Function
- Creating a Script Module
- Defining Parameter Attributes and Input Validation
- Writing Functions that accept Pipeline Input
- Producing Complex Pipeline Output
- Documenting Functions by using Content-Based Help
- Supporting -Whatif and -Confirm
- Using .NET Framework in Windows PowerShell
- Using REST API in Windows PowerShell
- Writing Controller Scripts
- Writing Controller Scripts that Produce HTML reports
- Handling Errors in a Script
- Reading, Manipulating and Writing Data in XML
- Creating and Deploying a DSC Configuration
- Configuring and Using JEA
- Analyzing and Debugging and Existing Script
- Creating and Running a Windows PowerShell Workflow

# ADVANCED AUTOMATED ADMINISTRATION WITH WINDOWS POWERSHELL

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VIRTUAL CLASSROOM LIVE

\$2,095 USD

3 Day

## Virtual Classroom Live Outline

### **Creating Advanced Functions**

- Converting a Command into an Advanced Function
- Creating a Script Module
- Defining Parameter Attributes and Input Validation
- Writing Functions that Accept Pipeline Input
- Producing Complex Function Output
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### **Using Microsoft .NET Framework and REST API in Windows PowerShell**

- Using Microsoft .NET Framework in Windows PowerShell
- Using REST API in Windows PowerShell

### **Writing Controller Scripts**

- Understanding Controller Scripts
- Writing Controller Scripts that Show a User Interface

### **Handling Script Errors**

- Understanding Error Handling
- Handling Errors in a Script

### **Using XML, JSON, and custom-formatted data**

- Reading, Manipulating and Writing Data in XML- formatted data
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- Reading, Manipulating and Writing Data in custom- formatted data

### **Enhancing Server Management with Desired State Configuration and Just Enough Administration**

- Understanding Desired State Configuration
- Creating and Deploying a DSC Configuration
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- Debugging in Windows PowerShell
- Analyzing and Debugging an Existing Script

### **Understanding Windows PowerShell Workflow**

#### Virtual Classroom Live Labs

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PRIVATE GROUP TRAINING

3 Day

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