Course duration

- 5 days

Course Benefits

- Learn to describe the correct patterns for building modularized tools in Windows PowerShell.
- Learn to build highly modularized functions that comply with native PowerShell patterns.
- Learn to build controller scripts that expose user interfaces and automate business processes.
- Learn to manage data in a variety of formats.
- Learn to write automated tests for tools.
- Learn to debug tools.

Available Delivery Methods

Public Class
Public expert-led online training from the convenience of your home, office or anywhere with an internet connection. Guaranteed to run .

Private Class
Private classes are delivered for groups at your offices or a location of your choice.

Course Outline

1. Tool Design
    1. Tools do one thing
    2. Tools are flexible
    3. Tools look native
    4. Lab 1: Designing a Tool
    5. Design a tool
2. Start with a Command
    1. Why start with a command?
    2. Discovery and experimentation
    3. Lab 1: Designing a Tool
    4. Start with a command
3. Build a Basic Function and Module
    1. Start with a basic function

    4. Lab 1: Designing a Tool
    5. Publishing your tools
17. Basic Controllers: Automation Scripts and Menus
    1. Building a menu
    2. Using UIChoice
    3. Writing a process controller
    4. Lab 1: Designing a Tool
    5. Basic controllers
18. Proxy Functions
    1. A proxy example
    2. Creating the proxy base
    3. Modifying the proxy
    4. Adding or removing parameters
    5. Lab 1: Designing a Tool
    6. Proxy functions
19. Working with XML Data
    1. Simple: CliXML
    2. Importing native XML
    3. ConvertTo-XML
    4. Creating native XML from scratch
    5. Lab 1: Designing a Tool
    6. Working with XML
20. Working with JSON Data
    1. Converting to JSON
    2. Converting from JSON
    3. Lab 1: Designing a Tool
    4. Working with JSON data
21. Working with SQL Server Data
    1. SQL Server terminology and facts
    2. Connecting to the server and database
    3. Writing a query
    4. Running a query
    5. Invoke-SqlCmd
    6. Thinking about tool design patterns
22. Final Exam
    1. Lab problem
    2. Break down the problem
    3. Do the design
    4. Test the commands
    5. Code the tool

Class Materials

Each student will receive a comprehensive set of materials, including course notes and all the

class examples.

Class Prerequisites

Experience in the following *is required* for this PowerShell class:

- Experience in administering Windows server and client computers.
- Experience in running interactive Windows PowerShell commands from the command prompt.
- MOC0961 is strongly recommended as a prerequisite to this course.

Prerequisite Courses

Courses that can help you meet these prerequisites:

- MOC 10961B - Automating Administration with Windows PowerShell