Advanced Scripting with PowerShell for Administrators

Course code: GOC179

This five-days course builds on the basic scripting knowledge that students receive on the official GOC216 and extends their skills in advanced scripting concepts. Students will learn deep details about the PowerShell language syntax, constructs and its internal parsing mechanisms. They will obtain hands on experience developing complex administrative scripts combining various technologies such as ADSI, WMI, .NET Framework and few PowerShell extensions of different application platforms such as Exchange, SharePoint, System Center or those included with Windows Server 2012 and higher.

Who is the course for

The course is primarily designed for IT administrators who already use PowerShell or who have gained its working knowledge (e.g. at MOC10325 course). It is designed for those who want to learn advanced techniques of programming in PowerShell and learn the possibilities of Windows operating system administration both via the interface of PowerShell command line and Power Shell language scripts into the details.

What we teach you

The participants in this course will be able to administer Windows operating systems using modern techniques via a command line and related scripting technologies. They will learn basic principles of working in PowerShell environment and familiarize themselves with other tools for setting the automatic administrator´s tasks. The students will get besides other things the total overview of up to date possibilities of administration outsider a graphical user interface.

Required skills

The knowledge of courses listed in Previous Courses and Related Courses section
Good knowledge of TCP/IP and DNS technologies

Course outline

Possibilities of scripting in Windows overview

Traditional command line

External extension

WSH and WMI

Basic operation in PowerShell environment

Starting up and initial setting

Commandlets

Saving and starting up your own scripts

Use of Help

Data flow in a script

The principle and using of pipeline

Data entry

Formatting of data output

Managing variables and operators

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Basic structure of the language

Conditions

Cycles

Blocks

Function

Objects and .NET platform

Advanced features of objects

.NET Framework thoroughly

Text processing

Object pipeline

Advanced techniques

Regular expressions and their use

Processing of fault states

Work with XML format

Operation system administration

Log reading, sorting them out and recording

Interactive handling of operating system

Real time tracking

Work with PS objects

File system

Registry database

Certificate repository

Use of traditional interfaces and technologies

Establishing COM cooperation

Coexistence with WSH word

WMI technology in PowerShell environment

Advanced administration

Operating the remote devices

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Planned and automated tasks

MS Exchange 2007 server administration

Other Windows technologies

Windows Remote Management

WMIC console

WSH and Perl,Python and Ruby languages

LogParser

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