DATA SHEET

PowerShell 2.0: Scripting for the IT Administrator

The ability to quickly write and deploy a script can make the difference between a task that takes a few hours and one that takes a few weeks.

The **PowerShell 2.0: Scripting for the IT Administrator** 4-day Workshop*PLUS* course provides students with the hands-on experience required to automate administrative tasks on Windows-based server and client computers by using PowerShell 2.0.

Windows administrators are confronted with numerous time-consuming activities such as reviewing thousands of users in Active Directory Users and Computers to grant dial-in permissions to a specific group of users or changing profile storage locations to point to a new network server. In enterprise environments, the ability to quickly write and deploy a script can make the difference between a task that takes only a few hours, and one that takes a few weeks.

Upon completion of this course, students will gain a deep understanding of how to use Windows PowerShell 2.0 to manage user accounts, gather important configuration information from computers, and manage services on Windows-based servers. Hands-on labs immerse students in using PowerShell in real-life scenarios.

This workshop contains **Level 300** content. Please review the target-audience information (on the next page), and contact your Microsoft Services representative to ensure that this workshop is appropriate to the student's experience and technical expertise.

Workshop*PLUS* Benefits

Incoming Assessment to baseline knowledge. It is important for students to get feedback on how much they have learned during the Workshop*PLUS* course. To accomplish that end, the Incoming Assessment measures what students know at the beginning of the course. This 25-question assessment was developed by a team of subject matter experts at Microsoft.

Outgoing Assessment to measure knowledge transfer. Students like to know how much they learned as a result of the training. At the end of the Workshop*PLUS* course, students compare their Incoming and Outgoing results. In addition, the instructor reviews the questions and discusses the answers in detail to ensure that students understand the concepts. (Note: Individual results of the Incoming and Outgoing Assessment are not provided to management.)

Action Planning Exercises to take workshop-acquired knowledge and apply it to the workplace. Applying new knowledge to the real world is key to getting the most value out of your training budget. The purpose of the Action Planning Exercises is to identify key problems or proactive opportunities in your workplace — and then to use the skills learned in this course to develop real-world action plans.

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Target Audience

To ensure the high-quality knowledge transfer students expect from this 4-day workshop, class size is limited to a maximum of 16 students, and is targeted at the following audiences:

- Windows Server and network administrators who want to automate the day-to-day management of Windows networks.

- Networking consultants who want to standardize and automate the installation and configuration of networking components.

- Technical staff who want to collect information, configure settings on computers, or manage client computers via PowerShell.

- Note: Attendees should have a minimum of 6-12 months previous experience scripting with PowerShell. (This is NOT a beginner's workshop).

Syllabus

This workshop runs a FULL 4 days. Students should anticipate consistent start and end times for each day. Early departure on any day is not recommended.

Incoming Assessment. Students take a 25-question quiz that measures their baseline knowledge.

Module 1: PowerShell Language Usage. Covers how to use parsing modes, unary and binary operators, hash tables, arrays, as well as wildcard and regular expression operators. Also covers scriptblocks and functions, function parameters and methods, PowerShell modules, and more.

Module 2: Error Handling and Debugging. Reviews the methods available to identify PowerShell code bugs in either the Command shell or the GUI-based Integrated Scripting Environment (ISE).

Module 3: The Adaptive Type System. Explains the type system used by PowerShell and how PowerShell deals with types, type adaption, and conversion. The module also covers how to extend types and object instances as well as how to build custom types.

Module 4: Remote Management. Covers managing remote computers using the new PowerShell 2.0 remoting capabilities. This module also covers the legacy means of remote management for backwards compatibility.

Module 5: Using External Code Libraries. Focuses on how to work with external code libraries, such as Microsoft .Net framework assemblies, Microsoft Component Object Model (COM) libraries, and Windows Management Instrumentation (WMI) objects.

Outgoing Assessment. Students complete the quiz again and compare Incoming and Outgoing results to measure knowledge transfer. The trainer also explains the correct answers.

Action Planning Exercises. Students develop Action Plans to improve real-world situations and/or implement proactive measures.

This workshop is just one of many available from Microsoft Services.

For more information, contact your Technical Account Manager or Services representative.