



BUILDING TRAINING SOLUTIONS  
FOR THE IT WORLD

## Exchange Administrators Guide to Scripting using the Exchange Management Shell (EMS)

<b>Days:</b>	<b>1</b>
<b>Format:</b>	<b>Instructor-Led</b>
<b>Class Code</b>	<b>50162</b>
<b>Certification Exams:</b>	<b>None</b>
<b>Certification Track:</b>	<b>None</b>

### Recommended Course Sequence

Knowledge of prerequisites noted below.

*Course content is subject to change without notice.*

### Course Description:

This one day instructor led course will provide Exchange Administrators familiar with Microsoft Exchange Server 2003 and Exchange Server 2007 a detailed overview of the Exchange Server 2007 Exchange Management Shell (EMS). This course will show Exchange Administrators how to perform common and advanced administration tasks using the Exchange Management Shell as well as how to automate other tasks and perform bulk changes to Active Directory and Exchange using EMS

### Target Student:

This course is intended for experienced Microsoft Exchange Administrators who manage Exchange 2000, Exchange 2003, and Exchange 2007 servers.

### Prerequisites:

Before attending this course, students must have:

- Working knowledge of Microsoft Windows Server 2003.
- Knowledge of Microsoft Exchange Server 2003.
- Knowledge of Exchange 2000 Server is beneficial but not necessary.

### At Course Completion:

Upon successful completion of this course, students will be able to:

- Explain the purpose of Exchange Management Shell and the underlying Windows PowerShell technology.
- Explain the concept of cmdlets.
- Perform some key Exchange Server tasks using Exchange Management Shell cmdlets.
- Get help about cmdlets and conceptual topics.
- View and format output data.
- Use extra productivity features presented by Exchange Management Shell.
- Create reusable script files.
- Create and use aliases.
- Create functions.
- Call functions from within scripts and from the command line.
- Create and use filters.
- Declare and use variables.
- Use operators to invoke arithmetic, assignment, and other actions on variables.
- Use flow control statements to create logic within scripts and functions.
- Use Exchange Management Shell cmdlets to manage features of the Mailbox Server Role.
- Use Exchange Management Shell cmdlets to manage recipients.
- Use Exchange Management Shell cmdlets to manage features of the Client Access Server Role.

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- Use Exchange Management Shell cmdlets to manage transport server features.
- Use monitoring cmdlets to ensure that your Exchange Server 2007 environment is operating properly.
- Generate reports, and export data using exporting cmdlets.
- Take hints from Exchange Management Console and modify them to suit your requirements.
- Troubleshoot and validate scripts.
- Work with arrays, CSV files, and secure strings to enable bulk management.
- Configure the EMS environment to pre-load useful functions, aliases, and variables.
- Explain script execution modes and security applied to EMS scripts from various sources.
- Secure EMS scripts using digital signatures.

## Course Outline

### Module 1: Introduction to EMS Scripting

This module provides students with an introduction to the Exchange Management Shell (EMS) and how to use its features to enhance productivity.

Lessons
<ul style="list-style-type: none"><li>■ What Is the Exchange Management Shell?</li><li>■ Using the Exchange Management Shell</li><li>■ Working with Command Output</li><li>■ Extra Productivity Features</li></ul>
Lab : Introduction to EMS Scripting
<ul style="list-style-type: none"><li>■ EMS Basics</li><li>■ Using EMS Providers and Drives</li><li>■ Performing Simple Exchange Management Tasks</li><li>■ Getting Help</li><li>■ Working with Command Output</li></ul>

### Module 2: Leveraging the EMS environment

This module explains that the EMS is an immensely powerful tool that can script and automate key administrative tasks.

Lessons
<ul style="list-style-type: none"><li>■ Script Files and Aliases</li><li>■ Functions</li><li>■ Variables</li><li>■ Operators</li><li>■ Flow Control</li></ul>
Lab : Automating Administrative Tasks
<ul style="list-style-type: none"><li>■ Working with Variables</li><li>■ Creating Script Files</li><li>■ Writing Reusable Functions</li><li>■ Creating Complex Scripts Using Flow Control Logic</li></ul>

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## Module 3: Administering Microsoft Exchange Server 2007 Using the EMS cmdlets

This module examines up close the specific Microsoft Exchange Server 2007-related tasks they may wish to employ for when they write administrative scripts and on an ad hoc basis.

Lessons
<ul style="list-style-type: none"><li>■ Managing Mailbox Features</li><li>■ Managing Recipients</li><li>■ Managing Client Access Features</li><li>■ Managing Transport Servers</li><li>■ Monitoring the Exchange Environment</li><li>■ Exporting Data and Creating Reports</li></ul>
Lab : Managing Exchange Server 2007 Using the Exchange Management Shell
<ul style="list-style-type: none"><li>■ Administering Mailbox Server Role Features</li><li>■ Managing Client Access Features</li><li>■ Working with Hub Transport Server Queues</li><li>■ Conducting Operational Monitoring Using the Exchange Management Shell</li></ul>
Lab : Exporting Data and Creating Reports
<ul style="list-style-type: none"><li>■ Exporting Data in CSV and XML Formats</li><li>■ Reporting on the Exchange Environment</li></ul>

## Module 4: Creating Exchange Administrative Scripts

This module examines the most frequently used procedures that successful EMS users employ. EMS is a very powerful tool for automating routine tasks, and students can create reusable scripts that let them perform virtually any task within the Exchange environment and provide special logic to the script flow. To fully master scripting with EMS, they must understand some key concepts about troubleshooting and debugging, bulk-enabling, and securing their scripts.

Lessons
<ul style="list-style-type: none"><li>■ Real-Word Scripting</li><li>■ Configuring the Environment</li></ul>
Lab : Creating Administrative Scripts
<ul style="list-style-type: none"><li>■ Customizing EMS Profiles</li><li>■ Creating Administrative Scripts</li><li>■ Troubleshooting Scripts</li></ul>