

# VMware vSphere: Automation with vSphere PowerCLI

## Overview

This hands-on training course introduces the use of VMware vSphere™ PowerCLI to automate VMware vSphere 4. This course demonstrates ways to automate tasks that can reduce your IT costs while improving efficiency, availability, flexibility, and manageability.

## Course Objectives

By the end of the course, you should understand how to use vSphere PowerCLI to perform the following tasks:

- Automate VMware® ESX™ configuration
- Automate the provisioning of virtual machines
- Automate changes to virtual machine configuration
- Automate cluster operations
- Automate reporting

## Target Audience

This course is designed for technical persons responsible for managing ESX, VMware ESXi, and VMware vCenter™ Server, including IT managers, system architects, and system administrators.

## Prerequisites

System administration experience on Microsoft Windows or Linux operating systems and completion of either the VMware vSphere: Install, Configure, Manage or the VMware vSphere: Fast Track course. Also scripting experience in one of the following languages: Windows PowerShell, Windows PowerShell, VBScript, Perl, UNIX shell scripts, Python, or other languages with variables and control structures.

## Pricing and Scope

- Two (2) days of instructor-led classroom training
- 40% lecture, 60% hands-on lab
- Individual enrollment available at convenient locations worldwide: <http://www.vmware.com/education>
- Contact your VMware representative for pricing information.
- Onsite training available for companies that want the benefits of an instructor-led classes without travel
- Contact VMware Education to discuss facility requirements for onsite training at [education@vmware.com](mailto:education@vmware.com).

## Course Outline

### Module 1: Course Introduction

### Module 2: Introduction to vSphere PowerCLI

- Define the main vSphere PowerCLI object
- Define the main commandlets in vSphere PowerCLI
- Connect to a vSphere infrastructure
- Get help for commandlets

### Module 3: Automating ESX Host Configuration

- Automate configuration of virtual switches on ESX hosts
- Automate configuration of datastores on ESX hosts

### Module 4: Virtual Machine Provisioning, Configuration, and Protection

- Automate creation of virtual machines
- Change virtual machine settings programmatically
- Run vSphere PowerCLI scripts in virtual machines
- Automate virtual machine protection

### Module 5: Automating Cluster Operations

- Automate virtual machine storage migration
- Automate VMware vMotion™
- Create a VMware Distributed Resource Scheduler/VMware High Availability cluster
- Automate cluster configuration
- Automate resource pool creation and configuration

### Module 6: Automating Reporting

- Automate reporting about virtual machines
- Automate reporting about ESX hosts
- Automate reporting about clusters



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