

Getting Started with PowerCLI and VMware

Jeffery Hicks

Consultant ~ Trainer ~ Author



Level: **Introductory**



Agenda

- PowerCLI Requirements and Setup
- Working with Host servers
- Managing Virtual Machines
- Creating Management Reports
- Demo! Demo! Demo!

Our focus is on leveraging automation using Windows PowerShell for common tasks.

Slides and Demos

- Updated slides, notes, and demos will be published to <http://jdhitsolutions.com/blog>



PowerCLI Requirements

- Windows PowerShell (I recommend 2.0)
- .NET Framework 2.0 or later
- Windows XP SP2 and later
- VMware Infrastructure
 - VMware ESXi Server 3.0 or later
 - VMware VirtualCenter 2.5
 - VMware ESX 3.0 and VirtualCenter 2.0
 - VMware ESX 4.0 and vCenter 4.0
 - VMware ESX 4.0 Update 1 and vCenter 4.0 Update 1

PowerCLI Setup

- Install PowerShell
- Download 32 or 64 bit
- Run Install
- Use the VMware menu
- Or load the PSSnapin manually

Exploring the PowerCLI PSSnapin

- VMware.VimAutomation.Core
- Get-Command -module VMware.VimAutomation.Core
- about_PowerCLI_objects
- about_vimdatastore
- New PSDrives

PowerCLI Concepts

- RunAsync to create VM tasks asynchronously
- PowerCLIConfiguration
 - Single or multiple default servers
 - Connect via proxy
- Authentication
 - User and Password
 - PSCredential
 - SSPI (Security Support Provider Interface)
 - Prompt

Working with VMware Hosts

- Connect-VIServer
- Get-VMHost
- Host Networking
 - Get-VMHostNetwork
 - Get-VMHostNetworkAdapter
 - New-VMHostNetworkAdapter
 - Remove-VMHostNetworkAdapter
 - Set-VMHostNetwork
 - Set-VMHostNetworkAdapter

Managing Virtual Machines

- *-VM cmdlets
- Using VM Templates (*-Template)
- ResourcePools (*-ResourcePool)
- Networking configuration
 - Get-VMGuestNetworkInterface
 - Set-VMGuestNetworkInterface

Managing VM Guests

- *-VMGuest* cmdlets
- Stop/Shutdown/Restart
- Manage VMware Tools (*-Tools)

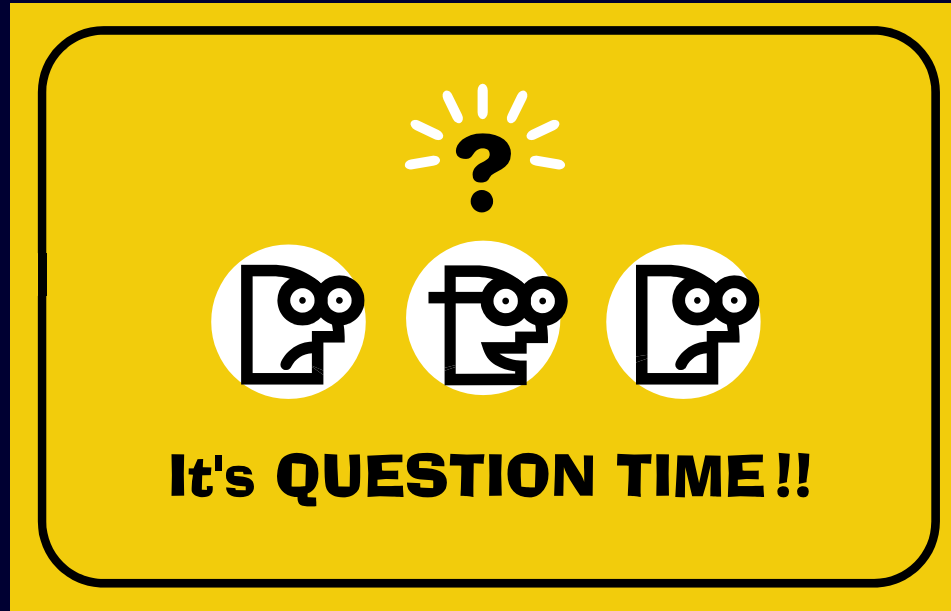
Creating Management Reports

- VM Inventory
- Performance and Statistics
- Leverage PowerShell (CSV, XML, HTML,File)

Demos



Questions & Answers



Resources

- Windows PowerShell 2.0: TFM by Don Jones & Jeffery Hicks
- Managing VMware Infrastructure with Windows PowerShell: TFM by Hal Rottenberg
- <http://www.virtu-al.net>
- <http://www.vmware.com/go/powercli>
- <http://blogs.vmware.com/vipowershell/>
- http://communities.vmware.com/community/vmtn/vsphere/automationtools/windows_toolkit?view=discussions/

Thank You!

- <http://jdhitsolutions.com/blog>
- <http://twitter.com/jeffhicks>
- jhicks@jdhitsolutions.com