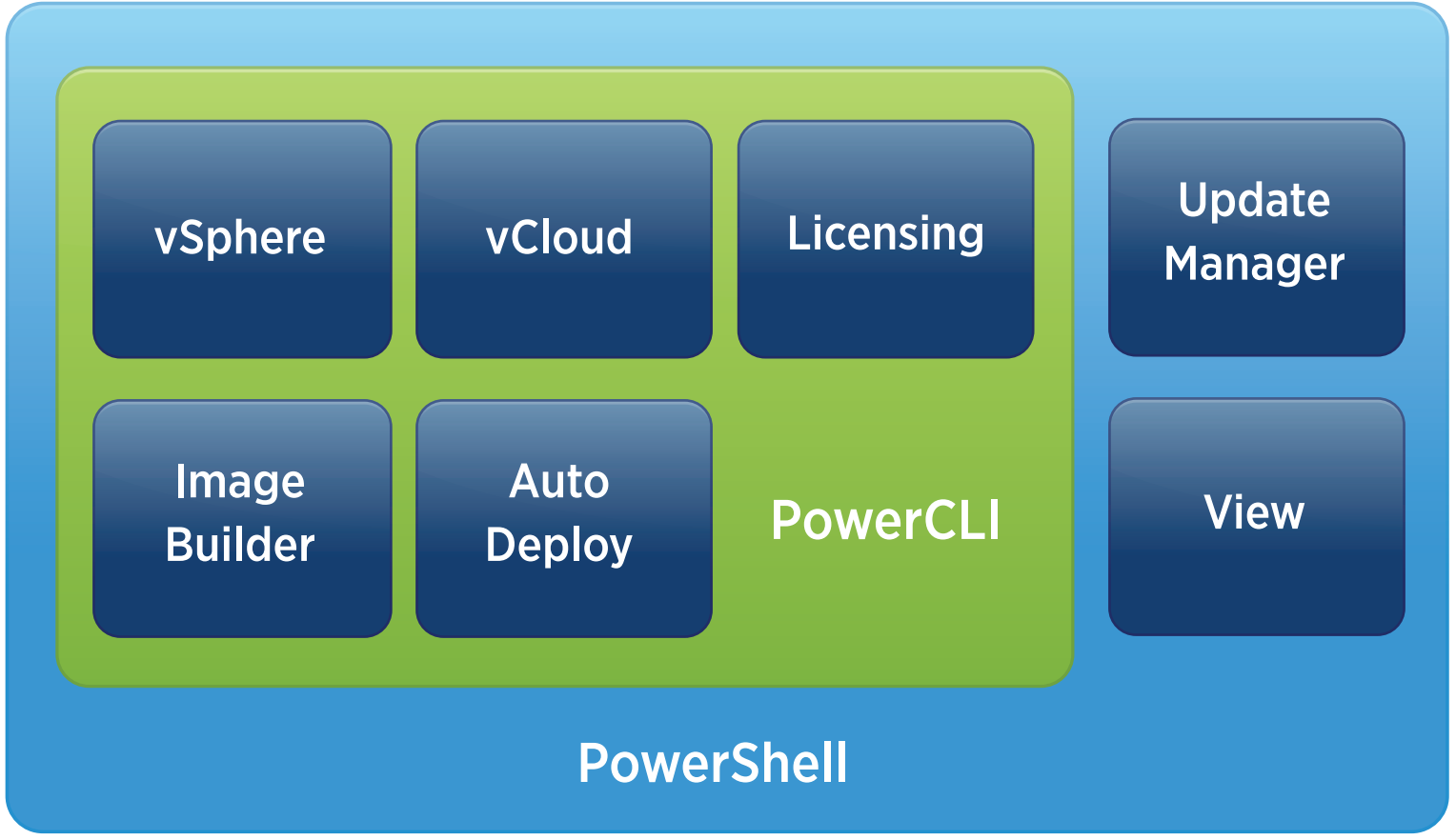


VMware Management with PowerCLI 5.0



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| Guest OS <ul style="list-style-type: none">Dismount-ToolsMount-ToolsUpdate-ToolsWait-ToolsGet-VMGuestRestart-VMGuestShutdown-VMGuestSuspend-VMGuestCopy-VMGuestFileGet-VMGuestNetworkInterfaceSet-VMGuestNetworkInterfaceGet-VMGuestRouteRemove-VMGuestRouteInvoke-VMScript | Network Operations <ul style="list-style-type: none">Get-ScsiHbaTargetRemove-ScsiHbaTargetNew-ScsiHbaTargetSet-ScsiLunPathSet-NicTeamingPolicyGet-OSCustomizationNicMappingNew-OSCustomizationNicMappingSet-OSCustomizationNicMappingGet-ScsiControllerNew-ScsiControllerSet-ScsiControllerGet-ScsiLunSet-ScsiLunGet-ScsiLunPathSet-ScsiLunPathGet-VirtualPortGroupNew-VirtualPortGroupSet-VirtualPortGroupGet-VirtualSwitchNew-VirtualSwitchRemove-VirtualSwitchSet-VirtualSwitch | Logs/Reporting/Configuration <ul style="list-style-type: none">Get-ErrorReportGet-LogGet-OSCustomizationSpecNew-OSCustomizationSpecRemove-OSCustomizationSpecGet-StatGet-StatIntervalRemove-StatIntervalSet-StatIntervalGet-StatTypeGet-VI-CredentialStoreItemNew-VI-CredentialStoreItemRemove-VI-CredentialStoreItemGet-VMHostDefaultPolicySet-VMHostDefaultPolicyGet-VMHostSyslogServerSet-VMHostSyslogServerGet-VMResourceConcurationSet-VMResourceConcurationGet-VIEventSet-VIEventGet-VIPropertySet-VIProperty | Datacenter Operations <ul style="list-style-type: none">Get-DatacenterMove-DatacenterRemove-DatacenterSet-Datacenter | Cluster Operations <ul style="list-style-type: none">Get-ClusterGet-DatastoreClusterNew-ClusterRemove-ClusterSet-Cluster | Resource Pool Operations <ul style="list-style-type: none">Get-ResourcePoolNew-ResourcePoolRemove-ResourcePoolSet-ResourcePool | vCenter Update Manager <ul style="list-style-type: none">Attach-BaselineDetach-BaselineGet-BaselineRemove-BaselineGet-ComplianceDownload-PatchGet-PatchStage-PatchGet-PatchBaselineNew-PatchBaselineSet-PatchBaselineRemediate-InventoryScan-Inventory | Virtual Machine Host Operations <ul style="list-style-type: none">Get-AdvancedSettingNew-AdvancedSettingRemove-AdvancedSettingSet-AdvancedSettingGet-AlarmActionNew-AlarmActionRemove-AlarmActionGet-AlarmActionTriggerNew-AlarmActionTriggerRemove-AlarmActionTriggerGet-AlarmDefinitionSet-AlarmDefinitionGet-AnnotationSet-AnnotationGet-CustomAttributeNew-CustomAttributeRemove-CustomAttributeSet-CustomAttributeGet-ExsTopMove-FolderNew-FolderRemove-FolderSet-FolderGet-InventoryMove-InventoryRemove-InventoryGet-NetworkAdapterSet-NetworkAdapterGet-TaskNew-TaskRemove-TaskWait-TaskConnect-VIServerDisconnect-VIServerGet-VIObjectByVIViewGet-VIPermissionRemove-VIPermissionSet-VIPermissionGet-VIPrivilegeRemove-VIPrivilegeNew-VIPropertyRemove-VIPropertyGet-VIRoleNew-VIRoleRemove-VIRoleSet-VIRoleConnect-VIServerDisconnect-VIServer | Virtual Machine Host Operations <ul style="list-style-type: none">Get-HAPrimaryVMHostAdd-VMHostGet-VMHostMove-VMHostRemove-VMHostRestart-VMHostSet-VMHostAccountRemove-VMHostAccountSet-VMHostAccountGet-VMHostAdvancedConfigurationSet-VMHostAdvancedConfigurationGet-VMHostAuthenticationSet-VMHostAuthenticationGet-VMHostAvailableTimeZoneSet-VMHostAvailableTimeZoneGet-VMHostDiagnosticPartitionSet-VMHostDiagnosticPartitionGet-VMHostDiskFormat-VMHostDiskPartitionGet-VMHostDiskPartitionSet-VMHostFirmwareGet-VMHostFirmwareSet-VMHostModuleGet-VMHostModuleSet-VMHostModuleInstall-VMHostPatchGet-VMHostProfileRequiredInputNew-VMHostRouteRemove-VMHostRouteSet-VMHostRouteGet-VMHostRouteRestart-VMHostServiceSet-VMHostServiceStart-VMHostServiceStop-VMHostServiceGet-VMHostStorageSet-VMHostStorageGet-VMHostStartPolicySet-VMHostStartPolicyGet-VMHostSyslogServerSet-VMHostSyslogServer | Auto Deploy Operations <ul style="list-style-type: none">Switch-ActiveDeployRuleSetRepair-DeployImageCacheAdd-DeployRuleCopy-DeployRuleNew-DeployRuleRemove-DeployRuleSet-DeployRuleGet-DeployRuleSetSet-DeployRuleSetTest-DeployRuleSetComplianceApply-ESXImageProfileGet-VMHostAttributesGet-VMHostImageProfileGet-VMHostMatchingRules | vCloud Operations <ul style="list-style-type: none">Connect-CloudDisconnect-CloudSearch-CloudGet-CloudCatalogGet-CloudExternalNetworkGet-CloudUserGroupGet-CloudMediaGet-CloudNetworkPoolGet-CloudOrganizationGet-CloudOrganizationNetworkGet-CloudOrganizationVDCGet-CloudProviderVDCGet-CloudUserRoleGet-CloudUserImport-CloudVAppTemplateGet-CloudVAppTemplateGet-CloudVAppImport-CloudVAppGet-CloudViewGet-ViewByCloudViewGet-CloudVM | vApps <ul style="list-style-type: none">Export-vAppImport-vAppMove-vAppNew-vAppRemove-vAppSet-vAppStart-vAppStop-vApp | Host Profiles <ul style="list-style-type: none">Apply-VMHostProfileExport-VMHostProfileGet-VMHostProfileImport-VMHostProfileNew-VMHostProfileRemove-VMHostProfileSet-VMHostProfileTest-VMHostProfileCompliance | PowerCLI Settings <ul style="list-style-type: none">Get-ErrorReportGet-PowerCLICommunityGet-PowerCLIConfigurationSet-PowerCLIConfigurationGet-PowerCLIDocumentationGet-PowerCLIVersion | PowerCLI Books <ul style="list-style-type: none">Automating vSphere Administration ISBN-10: 0470890797vSphere 4.0 Quick Start Guide ISBN-10: 1439263450Managing VMware Infrastructure with Windows PowerShell ISBN-10: 0982131402 | Resources <ul style="list-style-type: none">For more information and help with the VMware vSphere PowerCLI, use the following cmdlets:<ul style="list-style-type: none">Get-PowerCLICommunityGet-PowerCLIHelpGet-VICommandImportant third-party Web sites:<ul style="list-style-type: none">http://virtu-ai.nethttp://www.lucdo.infohttp://get-scripting.blogspot.comVMware scripting support - http://www.vmware.com/go/skdsupportvSphere PowerCLI training - http://www.vmware.com/go/vsphereautomationThird-party PowerCLI training from Trainsignal: http://trainsignal.comSpecial thanks to our PowerCLI VIP community members for helping us improve PowerCLI. |
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VMware vSphere PowerCLI Quick Reference

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| Virtual Machine Operations <p>To list all VMs on the connected VMware vSphere server and some of their properties: <code>Get-VM</code></p> <p>To create a new VM: <code>\$eshost = Get-VMHost "ESXHost01.mydomain.com"</code> <code>New-VM -Name XPVM -VMHost \$eshost -DiskMB 4000 -MemoryMB 256</code></p> <p>To remove a VM: <code>Remove-VM -VM myVM -DeleteFromDisk</code></p> <p>To move a VM: <code>Get-VM -Name XP_VC_Tech Move-VM -Destination (Get-VMHost 192.168.0.10)</code></p> <p>To change the configuration of a VM: <code>Set-VM -VM "Win XP SP1" -Name "Win XP SP2" -GuestID "winXP-ProGuest" -Description "My updated Win XP virtual machine."</code></p> <p>To run a script or command inside a VM: <code>Invoke-VMScript -VM myVM -ScriptText "dir"</code></p> <p>Other VM-specific cmdlets include: <code>Start-VM</code> <code>Suspend-VM</code> <code>Stop-VM</code></p> <p>The following is a list of all other VM-related cmdlets; use the Get-Help function with the -Examples switch for example uses:</p> <pre>Get-CDrive Copy-VMGuestFile New-CDrive Get-VMGuestNetworkInterface Remove-CDrive Get-VMGuestNetworkInterface Set-CDrive Get-VMGuestRoute Get-FloppyDrive New-VMGuestRoute New-FloppyDrive Remove-VMGuestRoute Set-FloppyDrive Set-VMGuestRoute Get-HardDisk Get-VMQuestion New-HardDisk Set-HardDisk Set-HardDisk Get-VMResourceConfiguration Remove-NetworkAdapter Get-VMStartPolicy Set-NetworkAdapter Get-VMStartPolicy Get-VMGuest Set-VMStartPolicy Restart-VMGuest Set-VMStartPolicy Shutdown-VMGuest Set-VMStartPolicy Suspend-VMGuest Set-VMStartPolicy</pre> | Virtual Switch Operations <p>To list all virtual switches attached to a VM and some of their properties: <code>Get-VirtualSwitch -VM (Get-VM -Name "MS Win XP SP2")</code></p> <p>To create a new virtual switch: <code>New-VirtualSwitch -VMHost (Get-VMHost -Name 192.168.0.10) -Name Switch02</code></p> <p>To remove a virtual switch: <code>\$vs = Get-VirtualSwitch -VMHost 192.168.0.10 -Name VS23</code> <code>Remove-VirtualSwitch -VirtualSwitch \$vs</code></p> <p>To change the configuration of a virtual switch: <code>\$vs = New-VirtualSwitch -Host 192.168.0.10 -Name VirtSwitch</code> <code>Set-VirtualSwitch -VirtualSwitch \$vs -MTU 500</code></p> <p>Port Group Operations</p> <p>To list all the port groups and some of their properties: <code>\$vs = Get-VirtualSwitch -VMHost 192.168.0.10 -Name Switch02</code> <code>Get-VirtualPortGroup -VirtualSwitch \$vs</code></p> <p>To add a new port group to a virtual switch: <code>\$vs = Get-VirtualSwitch -VMHost 192.168.0.10 -Name Switch02</code> <code>\$vpkg = New-VirtualPortGroup -VirtualSwitch \$vs -Name VP01</code></p> <p>Other cmdlets include: <code>Remove-VirtualPortGroup</code> <code>Set-VirtualPortGroup</code></p> <p>Resource Pool Operations</p> <p>To list all resource pools on the connected VMware vSphere server and some of their properties: <code>Get-ResourcePool</code></p> <p>To create a new resource pool: <code>\$clusterResource = Get-ResourcePool -Location (Get-Cluster ResearchAndDevelopmentCluster) -Name Resources</code> <code>New-ResourcePool -Location \$clusterResource -Name DevelopmentResources -CpuSharesLevel high -MemExpandableReservation \$true -CpuReservationMB 500 -MemReservationMB 500 -MemSharesLevel high</code></p> <p>Other resource pool cmdlets: <code>Move-ResourcePool</code> <code>Remove-ResourcePool</code> <code>Set-ResourcePool</code></p> | Task Information <p>To list all tasks for a VMware vSphere server and some of their properties: <code>Get-Task -Server (Connect-VIServer -Server 192.168.0.10) -Status Error</code></p> <p>To stop a task (example: stops the task of removing the VM): <code>Stop-Task -Task (Remove-VM -VM "MS Win XP SP2" -Confirm -RunAsync)</code></p> <p>To wait until a task is completed before continuing: <code>Wait-Task -Task (Remove-VM -VM "MS Win XP SP2" -Confirm -RunAsync)</code></p> <p>Snapshot Operations</p> <p>To list all the snapshots for all virtual machines: <code>Get-VM Get-Snapshot</code></p> <p>To snapshot a VM: <code>New-Snapshot -VM "XP SP2" -Name BeforePatch1</code></p> <p>To remove a snapshot: <code>Remove-Snapshot -Snapshot \$snapshot1 -RemoveChildren</code></p> <p>Other cmdlets include: <code>Set-Snapshot</code></p> <p>Cluster Operations</p> <p>To list all the clusters on the connected VMware vSphere server and some of their properties: <code>Get-Cluster</code></p> <p>To add a new cluster: <code>New-Cluster -Name MyCluster -DRSEnabled -DRSMode FullyAutomated</code></p> <p>Other cluster cmdlets include: <code>Move-Cluster</code> <code>Remove-Cluster</code> <code>Set-Cluster</code></p> <p>API Operations</p> <p>Returns a VMware vSphere.Net view object by specified search criteria: <code>\$vm = Get-View -ViewType VirtualMachine -Filter {"Name" = "MS Win XP SP2"}</code></p> <p>HostView = <code>Get-View -ID \$vm.Runtime.Host</code></p> <p>HostView.Summary.Runtime</p> <p>Another example: <code>(Get-View (Get-VMHost "ESX1" get-vm) -ConfigManager -vMotionSystem).SelectVnc("vmdk0")</code></p> <p>API Reference: http://www.vmware.com/support/developer/vcsdk/vsd41pubs/APIReference/index.html</p> | Virtual Machine Host Operations <p>To list all the VMware vSphere servers (VMHost) on the connected vSphere server and some of their properties: <code>Get-VMHost</code></p> <p>To add a new VMHost: <code>Add-VMHost -Location (Get-Datacenter Main) -User root -Password MyPass</code></p> <p>To remove a VMHost: <code>\$myVMHost = Get-VMHost 192.168.0.10</code> <code>Remove-VMHost \$myHost</code></p> <p>To move a VMHost: <code>Move-VMHost 192.168.0.10 -Destination (Get-Datacenter MyDatacenter)</code></p> <p>To change the state of a VMHost: <code>Set-VMHost -VMHost Host01 -State "Disconnected"</code></p> <p>The following is a list of all other VMHost-related cmdlets; use the Get-Help function for example uses:</p> <pre>Restart-VMHost New-VMHostNetworkAdapter Start-VMHost Remove-VMHostNetworkAdapter Stop-VMHost Set-VMHostNetworkAdapter Suspend-VMHost Add-VMHostNtpServer Get-VMHostAccount Get-VMHostNtpServer Remove-VMHostAccount New-VMHostNtpServer +-VMHostPatch Remove-VMHostRoute Set-VMHostAdvancedConfiguration Get-VMHostService Set-VMHostAccount Set-VMHostService Get-VMHostDiagnosticPartition Get-VMHostService Get-VMHostFirewallDefaultPolicy Start-VMHostService Set-VMHostFirewallDefaultPolicy Stop-VMHostService Set-VMHostFirewallException Get-VMHostSnmpp Get-VMHostFirmware Set-VMHostSnmpp Get-VMHostModule Get-VMHostSnmpp Get-VMHostNetwork Get-VMHostStartPolicy Set-VMHostNetwork Set-VMHostSyslogServer Set-VMHostSyslogServer</pre> | Getting Started <p>http://communities.vmware.com/docs/DOC-13700</p> <p>VMware vSphere PowerCLI frequently asked questions (FAQs) link: http://communities.vmware.com/docs/DOC-13700</p> <p>To find out what cmdlets are available: <code>Get-VICommand</code></p> <p>Show documentation for all available cmdlets: <code>Get-PowerCLIDocumentation</code></p> <p>For help with a cmdlet: <code>Get-Help cmdlet-name -Full More</code></p> <p>How to Connect to vCenter Server or ESX and ESXi</p> <p>To connect to a VMware vSphere server. Start a new session or reestablish a previous session with a VMware vSphere server: <code>\$srv = Connect-VIServer -Server 192.168.0.10 -User Admin -Password Pass01</code></p> <p>To disconnect from the connected vSphere server: <code>Disconnect-VIServer -Server \$srv -Confirm:\$false</code></p> <p>Other security cmdlets:</p> <pre>New-VIPermission Get-VIPrivilege Remove-VIRole Remove-VIPermission Get-VIRole Test-VIRole Set-VIPermission New-VIRole</pre> | Security Operations <p>The following is a list of security cmdlets; use the Get-Help function for example uses: <code>Get-VIPermission -Entity (Get-Datacenter) -Principal Administrator</code></p> <p>Other security cmdlets:</p> <pre>New-VIPermission Get-VIPrivilege Remove-VIRole Remove-VIPermission Get-VIRole Test-VIRole Set-VIPermission New-VIRole</pre> | ESXTOP through PowerCLI <p><code>Get-ESXTOP -Counter</code></p> <p># View the fields available for vCPU counter: <code>Get-ESXTOP -Counter -CounterName "vCPU".Fields</code></p> <p><code>Get-ESXTOP -TopologyInfo</code></p> <p># View the entries of a specific topology: <code>Get-ESXTOP -TopologyInfo -Topology SchedGroup Format-Table</code></p> <p># Retrieve the counter values for "vCPU" and "SchedGroup" counters: <code>Get-ESXTOP -CounterName "vCPU" Format-Table *-AutoSize</code> <code>Get-ESXTOP -CounterName SchedGroup Format-Table *-AutoSize</code></p> <p>Managing Events Alarms</p> <p><code>Get-AlarmDefinition</code> # Returns all the defined alarms on the servers you're connected to.</p> <p><code>Get-AlarmDefinition -Name "virtual machine" -Enabled \$false</code></p> <p># Returns all the disabled alarm definitions with names starting with "virtual machine."</p> <p><code>Get-VMHost hostname</code> <code>Get-AlarmDefinition</code> # Returns all alarms that apply to the host "hostname". Includes alarms defined on this host and alarms inherited from the parent entity, or from any ancestors in the inventory hierarchy.</p> <p>Modify an alarm definition: <code>Get-AlarmDefinition "Host memory status" Set-AlarmDefinition -Name "Host memory" -Enabled \$false</code></p> <p># This will rename the alarm to "Host memory" and disable it.</p> | Datastore Operations <p>For a list of datastores and other properties: <code>Get-Datastore</code></p> <p>Other datastore cmdlets include: <code>New-Datastore</code> <code>Remove-Datastore</code> <code>Set-Datastore</code></p> | Folder Operations <p>The following is a list of all folder-related cmdlets; use the Get-Help function for example uses:</p> <pre>Get-Folder Move-Folder New-Folder Set-Folder Remove-Folder Set-Folder</pre> | Datacenter Operations <p>To list all datacenters from a VMware vSphere server: <code>Get-Datacenter</code></p> <p>To add a new datacenter: <code>New-Datacenter -Name France</code></p> <p>Other datacenter cmdlets: <code>Move-Datacenter</code> <code>Remove-Datacenter</code> <code>Set-Datacenter</code></p> | DRS Rules <p>Retrieve a list of DRS rules for the specified clusters: <code>Get-DRSRule -Cluster (Get-Cluster "Production")</code></p> <p>Other DRS rule cmdlets: <code>New-DRSRule</code> <code>Remove-DRSRule</code> <code>Set-DRSRule</code></p> | Official vSphere PowerCLI Training latest course information. All courses subject to change without notice. http://vmware.com/go/vsphereautomation . |
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