

VI Toolkit 1.5 Quick Reference

Host cmdlets

The below is a list of all other VMHost related Cmdlets, use the Get-Help function for example uses:

```
Get-VMHostAccount
New-VMHostAccount
Remove-VMHostAccount
Set-VMHostAccount

Get-
VMHostAdvancedConfiguration
Set-
VMHostAdvancedConfiguration

Get-
VMHostDiagnosticPartition
Set-
VMHostDiagnosticPartition

Get-
VMHostFirewallDefaultPolicy
Set-
VMHostFirewallDefaultPolicy
Get-VMHostFirewallException
Set-VMHostFirewallException

Get-VMHostFirmware
Set-VMHostFirmware

Get-VMHostModule
Set-VMHostModule

Get-VMHostNetwork
Set-VMHostNetwork

New-VMHostNetworkAdapter
Remove-VMHostNetworkAdapter
Set-VMHostNetworkAdapter

Add-VMHostNtpServer
Get-VMHostNtpServer

Remove-VMHostNtpServer

Get-VMHostService
Restart-VMHostService
Set-VMHostService
Start-VMHostService
Stop-VMHostService

Get-VMHostSnmpp
Set-VMHostSnmpp
Test-VMHostSnmpp

Get-VMHostStartPolicy
Set-VMHostStartPolicy
```

VM cmdlets

The below is a list of all other VM related Cmdlets, use the Get-Help function for example uses:

```
Get-CDDrive
New-CDDrive
Remove-CDDrive
Set-CDDrive

Get-FloppyDrive
New-FloppyDrive
Remove-FloppyDrive
Set-FloppyDrive

Get-HardDisk
New-HardDisk
Set-HardDisk

Get-NetworkAdapter
New-NetworkAdapter
Set-NetworkAdapter
Remove-NetworkAdapter

Get-VMGuest
Restart-VMGuest
Shutdown-VMGuest
Suspend-VMGuest

Get-
VMResourceConfiguration
Set-
VMResourceConfiguration

Get-VMStartPolicy
```

Folder cmdlets

The below is a list of all Folder related Cmdlets, use the Get-Help function for example uses:

```
Get-Folder
Move-Folder
New-Folder
Remove-Folder
Set-Folder
```

Other cmdlets

The below is a list of all other Cmdlets, use the Get-Help function for example uses:

```
New-CustomField
Remove-CustomField
Set-CustomField

Get-Inventory
Move-Inventory
Remove-Inventory

Get-Log
Get-LogType

Get-OSCustomizationSpec
New-OSCustomizationSpec
Remove-OSCustomizationSpec
Set-OSCustomizationSpec

Get-ScsiLun
Set-ScsiLun
Get-ScsiLunPath
Set-ScsiLunPath

Get-Stat
Get-StatInterval
New-StatInterval
Remove-StatInterval
Set-StatInterval
Get-StatType

Get-Template
New-Template
Remove-Template
Set-Template

Dismount-Tools
Mount-Tools
Update-Tools

Get-VICredentialStoreItem
New-VICredentialStoreItem

Remove-
VICredentialStoreItem

Get-VIEvent

Get-VIObjectByVIView

Get-VIToolkitConfiguration
Set-VIToolkitConfiguration
Get-VIToolkitVersion
```

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Getting Started

To find out what cmdlets are available, type:
`Get-VICommand`

To show documentation for all available cmdlets:
`Get-VIToolkitDocumentation`

For help with a cmdlet type:
`Get-Help Get-VM -Full | More`

How to connect to a VC or Host

To connect to a VMware Infrastructure server. Start a new session or re-establish a previous session with a VMware Infrastructure server.

```
$srv = Connect-VIServer -Server
10.23.115.133 -User Admin -Password
Pass01
```

To disconnect from the connected VI Server.

```
Disconnect-VIServer -Server $srv -
Confirm:$false
```

VMware Infrastructure Server

To list all the VMWare Infrastructure Servers (VMHost) on the connected VI Server and some of their properties:

```
Get-VMHost
```

To add a new VMHost:

```
Add-VMHost 10.23.113.24 -Location
(Get-Datacenter Main) -User root -
Password MyPass
```

To remove a VMHost:

```
$myVMHost = Get-VMHost 10.22.112.235
Remove-VMHost $myVMHost
```

To move a VMHost:

```
Move-VMHost (Get-VMHost 10.23.112.113)
-Destination (Get-Datacenter
MyDatacenter)
```

To change the state of a VMHost:

```
Set-VmHost -VmHost (Get-VmHost -Name
"Host01") -State "Disconnected"
```

Virtual Machine Tasks

To list all VM's on the connected VI Server and some of there properties:

```
Get-VM
```

To create a new VM:

```
$esxhost = Get-VMHost
"ESXHost01.mydomain.com"
New-VM -Name XPVM -VMHost $esxhost -
DiskMB 4000 -MemoryMB 256
```

To Remove a VM:

```
Remove-VM ( Get-VM "myVM" ) -
DeleteFromDisk
```

To Move a VM:

```
Get-VM -Name XP_VC_Tech | Move-VM -
Destination (Get-VMHost 10.23.112.235)
```

Change the configuration of a VM:

```
Set-VM -VM (Get-VM -Name "Win XP SP1")
-Name "Win XP SP2" -GuestId
"winXPProGuest" -Description "My
updated Win XP virtual machine."
```

Other VM specific cmdlets include:

```
Start-VM
Stop-VM
Suspend-VM
```

Snapshot Tasks

To list all the snapshots for all virtual machines:

```
Get-VM | Get-Snapshot
```

To snapshot a VM:

```
New-Snapshot -VM (Get-VM -Name "XP
SP2") -Name BeforePatch1
```

To remove a snapshot:

```
Remove-Snapshot -Snapshot $snapshot1 -
RemoveChildren
```

See Also:

```
Set-Snapshot
```

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Datastore Tasks

For a list of datastores and other properties:

```
Get-Datastore
```

Other Datastore cmdlets include:

```
New-Datastore  
Remove-Datastore  
Set-Datastore
```

Datacenter Tasks

To list all datacenters from a VMware Infrastructure server:

```
Get-Datacenter
```

To add a new datacenter:

```
New-Datacenter -Name France
```

Other datastore cmdlets:

```
Move-Datacenter  
Remove-Datacenter  
Set-Datacenter
```

Running a script inside a VM

Executes the specified PowerShell script in the guest OS of each of the specified virtual machines.

```
Invoke-VMScript -VM (Get-VM myVM) -  
ScriptText "dir" -HostUser root -  
HostPassword mypass -GuestUser  
administrator -GuestPassword mypass
```

DRS Rules

Retrieve a list of DRS rules for the specified clusters:

```
Get-DrsRule -Cluster (Get-Cluster  
"Production")
```

Other DRS Rule cmdlets:

```
New-DrsRule  
Remove-DrsRule  
Set-DrsRule
```

Resource Pool Tasks

To list all Resource Pools on the connected VI Server and some of their properties:

```
Get-ResourcePool
```

To create a new resource pool:

```
$clusterRootRP = Get-ResourcePool -  
Location ( Get-Cluster  
ResearchAndDevelopmentCluster ) -Name  
Resources
```

```
New-ResourcePool -Location  
$clusterRootRP -Name  
DevelopmentResources -  
CpuExpandableReservation $true -  
CpuReservationMhz 500 -CpuSharesLevel  
high -MemExpandableReservation $true -  
MemReservationMB 500 -MemSharesLevel  
high
```

Other Resource Pool cmdlets:

```
Move-ResourcePool  
Remove-ResourcePool  
Set-ResourcePool
```

Access .Net Objects

Returns a VMware Infrastructure .Net view object by specified search criteria.

```
$vm = Get-View -ViewType  
VirtualMachine -Filter @{ "Name" = "MS  
Win XP SP2" }
```

```
$hostView = Get-View -ID  
$vm.Runtime.Host
```

```
$hostView.Summary.Runtime
```

Example 2

```
(Get-View (Get-Host 'ESX1' | get-  
view).ConfigManager.VmotionSystem).Sel  
ectVnic('vmk0')
```

Example 3

```
Get-VM | %{ Write-Host $_.Name `t ($_  
| Get-VirtualPortGroup | Select  
vlanid) }
```

Created by Virtu-AI: Visit <http://virtu-ai.net> for more examples and VI Toolkit scripts.
Thanks to C.Shanklin, S.Herold, L.Dekens & C.Bunch for their input into this document

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Virtual Switch Tasks

To list all Virtual Switches attached to a VM and some of their properties use:

```
Get-VirtualSwitch -VM (Get-VM -Name  
"MS Win XP SP2")
```

To create a new Virtual Switch:

```
New-VirtualSwitch -VMHost (Get-VMHost  
-Name 10.23.112.234) -Name Switch02
```

To Remove a Virtual Switch:

```
$vs = Get-VirtualSwitch -VMHost (Get-  
VMHost -Name 10.23.122.345) -Name VS23
```

```
Remove-VirtualSwitch -VirtualSwitch  
$vs
```

To change the configuration of a Virtual Switch:

```
$vs = New-VirtualSwitch -Host (Get-  
VMHost 10.23.115.67) -Name VirtSwitch
```

```
Set-VirtualSwitch -VirtualSwitch $vs -  
MTU 500
```

Cluster Tasks

To list all the Clusters on the connected VI Server and some of their properties:

```
Get-Cluster
```

To add a new Cluster:

```
New-Cluster -Name MyCluster -  
DRSEnabled -DRSMODE FullyAutomated
```

Other Cluster cmdlets include:

```
Move-Cluster  
Remove-Cluster  
Set-Cluster
```

Port Group Tasks

To list all the port groups and some of their properties:

```
$vs = Get-VirtualSwitch -VMHost (Get-  
VMHost -Name 10.23.112.123) -Name  
Switch02
```

```
Get-VirtualPortGroup -VirtualSwitch  
$vs
```

To add a new port group to a virtual switch:

```
$vs = Get-VirtualSwitch -VMHost (Get-  
VMHost -Name 10.23.112.123) -Name  
Switch02
```

```
$vpg = New-VirtualPortGroup -  
VirtualSwitch $vs -Name VPG1
```

Other port group cmdlets include:

```
Remove-PortGroup  
Set-PortGroup
```

Task Information

To list all tasks for a VI Server and some of their properties:

```
Get-Task -Server (Connect-VIServer -  
Server 10.23.112.235) -Status Error
```

To stop a Task (Example stops the task of removing the VM):

```
Stop-Task -Task (Remove-VM -VM (Get-VM  
-Name "MS Win XP SP2") -Confirm -  
RunAsync)
```

To wait until a task is completed before continuing:

```
Wait-Task -Task (Remove-VM -VM (Get-VM  
-Name "MS Win XP SP2") -Confirm -  
RunAsync)
```

How to Get More Information

For more information and help with the VI Toolkit use the following cmdlets

```
Get-VIToolkitDocumentation  
Get-VIToolkitCommunity
```

Make sure you visit the following sites for PowerShell Podcasts:

<http://get-scripting.blogspot.com/>
<http://powerscripting.net/>

