

Guest OS

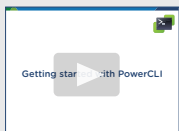
Get-VMGuestNetworkInterface
Set-VMGuestNetworkInterface
Get-VMGuestRoute
New-VMGuestRoute
Remove-VMGuestRoute
Get-VMGuest
Restart-VMGuest
Shutdown-VMGuest
Suspend-VMGuest
Invoke-VMScript
Dismount-Tools
Mount-Tools
Update-Tools
[Wait-Tools](#)
Copy-VMGuestFile

Network Operations

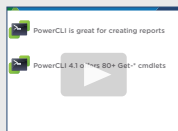
Get-iScsiHbaTarget	Get-VMGuestNetworkInterface
New-iScsiHbaTarget	Set-VMGuestNetworkInterface
Remove-iScsiHbaTarget	Get-VMGuestRoute
Set-iScsiHbaTarget	New-VMGuestRoute
Get-NicTeamingPolicy	Remove-VMGuestRoute
Set-NicTeamingPolicy	Get-VMHostFirewallDefaultPolicy
Get-OSCustomizationNicMapping	Set-VMHostFirewallDefaultPolicy
New-OSCustomizationNicMapping	Get-VMHostFirewallException
Remove-OSCustomizationNicMapping	Set-VMHostFirewallException
Set-OSCustomizationNicMapping	Get-VMHostHba
Get-ScsiController	Set-VMHostHba
New-ScsiController	Get-VMHostNetwork
Set-ScsiController	Set-VMHostNetwork
Get-ScsiLun	Get-VMHostNetworkAdapter
Set-ScsiLun	New-VMHostNetworkAdapter
Get-ScsiLunPath	Remove-VMHostNetworkAdapter
Set-ScsiLunPath	Set-VMHostNetworkAdapter
Get-VirtualPortGroup	Add-VmHostNtpServer
New-VirtualPortGroup	Get-VMHostNtpServer
Remove-VirtualPortGroup	Remove-VMHostNtpServer
Set-VirtualPortGroup	Test-VMHostSnmp
Get-VirtualSwitch	Get-VMHostSnmp
New-VirtualSwitch	Set-VMHostSnmp
Remove-VirtualSwitch	
Set-VirtualSwitch	

Virtual Machine Operations

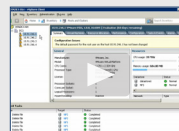
Get-VM	Get-CDDrive	New-HardDisk	Get-Snapshot	Get-UsbDevice
Move-VM	New-CDDrive	Remove-HardDisk	New-Snapshot	Remove-UsbDevice
New-VM	Remove-CDDrive	Set-HardDisk	Remove-Snapshot	Get-VMQuestion
Remove-VM	Set-CDDrive	New-NetworkAdapter	Set-Snapshot	Set-VMQuestion
Set-VM	Get-FloppyDrive	Remove-NetworkAdapter	Get-Template	Get-VMResourceConfiguration
Start-VM	New-FloppyDrive	Set-NetworkAdapter	Move-Template	Set-VMResourceConfiguration
Stop-VM	Remove-FloppyDrive	Add-PassthroughDevice	New-Template	Get-VMStartPolicy
Restart-VM	Set-FloppyDrive	Get-PassthroughDevice	Remove-Template	Set-VMStartPolicy
Suspend-VM	Copy-HardDisk	Remove-PassthroughDevice	Set-Template	
	Get-HardDisk			



Getting Started Video



Creating My First Report Video



Managing Host Profiles Video



Patching ESXi Video



Logs/Reporting/Configuration

Get-ErrorReport	Get-StatInterval
Get-Log	New-StatInterval
Get-LogType	Remove-StatInterval
Get-OSCustomizationSpec	Set-StatInterval
New-OSCustomizationSpec	Get-VICredentialStoreItem
Remove-OSCustomizationSpec	New-VICredentialStoreItem
Set-OSCustomizationSpec	Remove-VICredentialStoreItem
Get-Stat	Get-VMHostSysLogServer
Get-StatType	Set-VMHostSysLogServer
Get-VIEvent	Get-VMResourceConguration

Datacenter Operations

Get-Datacenter
Set-Datacenter
New-Datacenter
Move-Datacenter
Remove-Datacenter

Cluster Operations

Get-Cluster
Set-Cluster
New-Cluster
Move-Cluster
Remove-Cluster

vCenter Update Manager

Attach-Baseline	Get-Compliance	Get-PatchBaseline
Detach-Baseline	Download-Patch	New-PatchBaseline
Get-Baseline	Get-Patch	Set-PatchBaseline
Remove-Baseline	Stage-Patch	Remediate-Inventory
		Scan-Inventory

For latest documentation, sample code, and information, visit:
<http://vmware.com/go/powercliupdate>

Resource Pool Operations

Get-ResourcePool
Set-ResourcePool
New-ResourcePool
Move-ResourcePool
Remove-ResourcePool

Virtual Machine Host Operations

Get-HAPrimaryVMHost	Remove-VMHostAccount	Get-VMHostModule	Set-VMHostService
Add-VMHost	Set-VMHostAccount	Set-VMHostModule	Start-VMHostService
Get-VMHost	Get-VMHostAdvancedConfiguration	Get-VMHostPatch	Stop-VMHostService
Move-VMHost	Set-VMHostAdvancedConfiguration	Install-VMHostPatch	Get-VMHostStartPolicy
Remove-VMHost	Get-VMHostAvailableTimeZone	Get-VMHostRoute	Set-VMHostStartPolicy
Restart-VMHost	Get-VMHostDiagnosticPartition	New-VMHostRoute	Get-VMHostSysLogServer
Set-VMHost	Set-VMHostDiagnosticPartition	Remove-VMHostRoute	Set-VMHostSysLogServer
Start-VMHost	Get-VMHostDisk	Set-VMHostRoute	
Stop-VMHost	Format-VMHostDiskPartition	Get-VMHostStorage	
Suspend-VMHost	Get-VMHostDiskPartition	Set-VMHostStorage	
Get-VMHostAccount	Get-VMHostFirmware	Get-VMHostService	
New-VMHostAccount	Set-VMHostFirmware	Restart-VMHostService	

**VMware
vSphere Client**

Scripts/Third Party Code

vSphere
Web Services
SDK

vSphere
SDK for Perl

vSphere
PowerCLI

vSphere
vCLI

VMware vSphere API

VMware vCenter™

VMware ESXi™
and ESX®

VMware ESXi
and ESX

VMware ESXi
and ESX

VMware vSphere Server

Get-AdvancedSetting	Get-CustomAttribute	Move-Folder	Set-VIPermission
New-AdvancedSetting	New-CustomAttribute	New-Folder	Get-VIPrivilege
Remove-AdvancedSetting	Remove-CustomAttribute	Remove-Folder	New-VIProperty
Set-AdvancedSetting	Set-CustomAttribute	Set-Folder	Remove-VIProperty
Get-AlarmAction	New-Datastore	Get-Folder	Get-VIRole
New-AlarmAction	Remove-Datastore	Get-Inventory	New-VIRole
Remove-AlarmAction	Set-Datastore	Move-Inventory	Remove-VIRole
Get-AlarmActionTrigger	Get-Datastore	Remove-Inventory	Set-VIRole
New-AlarmActionTrigger	Copy-DatastoreItem	Get-NetworkAdapter	Get-EsxCli
Remove-AlarmActionTrigger	Apply-DrsRecommendation	Get-Task	Get-EsxTop
Get-AlarmDefinition	Get-DrsRecommendation	Stop-Task	Get-View
Set-AlarmDefinition	Get-DrsRule	Wait-Task	Get-VIObjectByVIView
Get-Annotation	New-DrsRule	Get-VIPermission	Connect-VIServer
Set-Annotation	Remove-DrsRule	New-VIPermission	Disconnect-VIServer
	Set-DrsRule	Remove-VIPermission	

Resources

PowerGUI a graphical user interface and script editor for Microsoft Windows Powershell - <http://powergui.org>

For more information and help with the VMware vSphere PowerCLI, use the following cmdlets:

Get-VICommand

Get-PowerCLIHelp

Get-PowerCLICommunity

<http://virtu-al.net>

<http://www.lucd.info>

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

Important third party Web sites:

<http://powerscripting.net>

<http://ict-freak.nl>

<http://www.van-lieshout.com>

VMware scripting support - <http://vmware.com/go/sdksupport>

VMware PowerCLI training - <http://vmware.com/go/vsphereautomation>

Third-Party PowerCLI Training from Trainsignal: <http://trainsignal.com>

Special Thanks to our PowerCLI VIP Community members for helping us improve PowerCLI.

PowerCLI Settings

Get-ErrorReport

Get-PowerCLICommunity

Get-PowerCLIConfiguration

Set-PowerCLIConfiguration

Get-PowerCLIDocumentation

Get-PowerCLIVersion

PowerCLI Books

Automating vSphere Administration

ISBN-10: 0470890797

vSphere 4.0 Quick Start Guide

ISBN-10: 1439263450

Managing VMware Infrastructure with Windows PowerShell

SBN-10: 0982131402

vApps

Export-vApp

Get-vApp

Import-vApp

New-vApp

Remove-vApp

Set-vApp

Start-vApp

Stop-vApp

Host Profiles

Get-VMHostProfile

Set-VMHostProfile

New-VMHostProfile

Apply-VMHostProfile

Remove-VMHostProfile

Import-VMHostProfile

Export-VMHostProfile

Test-VMHostProfileCompliance

VMware vSphere PowerCLI is a powerful, easy-to-use scripting interface to manage the vSphere platform. Administrators can leverage more than 230 commandlets to simplify everyday tasks.

For latest documentation, sample code, and information, visit:

<http://vmware.com/go/powercli>

Official VMware PowerCLI Blog:

<http://blogs.vmware.com/vipowershell>

* Indicated new Comandlets for 4.1.1 Release

VMware vSphere PowerCLI Quick Reference

Virtual Machine Operations

To list all VMs on the connected VMware vSphere server and some of their 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 -VM myVM -DeleteFromDisk**

To move a VM: **Get-VM -Name XP_VC_Tech | Move-VM -Destination (Get-VMHost 192.168.0.10)**

To change the configuration of a VM: **Set-VM -VM "Win XP SP1" -Name "Win XP SP2" -GuestId "winXPProGuest" -Description "My updated Win XP virtual machine."**

To run a script or command inside a VM: **Invoke-VMScript -VM myVM -ScriptText "dir"**

Other VM-specific cmdlets include: **Start-VM** **Suspend-VM** **Stop-VM** **Restart-VM**

The following is a list of all other VM-related cmdlets; use the Get-Help function with the **-Examples** switch for example use:

Get-CDDrive	Set-VMStartPolicy	Remove-NetworkAdapter
Remove-CDDrive	Set-VMGuestNetworkInterface	Get-VMGuest
New-FloppyDrive	Set-VMQuestion	Shutdown-VMGuest
Set-FloppyDrive	Copy-VMGuestFile	Set-VMResourceConfiguration
Get-HardDisk	Get-VMGuestRoute	Get-VMStartPolicy
Set-HardDisk	New-CDDrive	Set-VMGuestRoute
Get-NetworkAdapter	Set-CDDrive	Remove-VMGuestRoute
Set-NetworkAdapter	Get-FloppyDrive	Get-VMQuestion
Restart-VMGuest	Remove-FloppyDrive	Get-VMGuestNetworkInterface
Suspend-VMGuest	New-HardDisk	New-VMGuestRoute
Get-VMResourceConfiguration	New-NetworkAdapter	

Virtual Switch Operations

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 192.168.0.10) -Name Switch02**

To remove a virtual switch: **\$vs = Get-VirtualSwitch -VMHost 192.168.0.10 -Name VS23** **Remove-VirtualSwitch -VirtualSwitch \$vs**

To change the configuration of a virtual switch: **\$vs = New-VirtualSwitch -Host 192.168.0.10 -Name VirtSwitch**
Set-VirtualSwitch -VirtualSwitch \$vs -MTU 500

Port Group Operations

To list all the port groups and some of their properties: **\$vs = Get-VirtualSwitch -VMHost 192.168.0.10 -Name Switch02**
Get-VirtualPortGroup -VirtualSwitch \$vs

To add a new port group to a virtual switch: **\$vs = Get-VirtualSwitch -VMHost 192.168.0.10 -Name Switch02**
\$vpg = New-VirtualPortGroup -VirtualSwitch \$vs -Name VPG1

Other cmdlets include: **Remove-VirtualPortGroup** **Set-VirtualPortGroup**

Resource Pool Operations

To list all resource pools on the connected VMware vSphere 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**

Task Information

To list all tasks for a VMware vSphere server and some of their properties: **Get-Task** *-Server (Connect-VIServer -Server 192.168.0.10) -Status Error*

To stop a task (example: stops the task of removing the VM: **Stop-Task** *-Task (Remove-VM -VM "MS Win XP SP2" -Confirm -RunAsync)*

To wait until a task is completed before continuing: **Wait-Task** *-Task (Remove-VM -VM "MS Win XP SP2" -Confirm -RunAsync)*

Snapshot Operations

To list all the snapshots for all virtual machines: **Get-VM** | **Get-Snapshot**

To snapshot a VM: **New-Snapshot** *-VM "XP SP2" -Name BeforePatch1*

To remove a snapshot: **Remove-Snapshot** *-Snapshot \$snapshot1 -RemoveChildren*

Other cmdlets include: **Set-Snapshot**

Cluster Operations

To list all the clusters on the connected VMware vSphere 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**

API Operations

Returns a VMware vSphere.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

Another example: **(Get-View (Get-VMHost 'ESX1' | get-view).ConfigManager.VmotionSystem).SelectVnc('vmk0')**

API Reference: <http://www.vmware.com/support/developer/vcsdk/visdk41pubs/ApiReference/index.html>

vApp Operations

The following is a list of vApp cmdlets; use the Get-Help function for example uses: **New-vApp -Name MyvApp -CpuLimitMhz 4000 -CpuReservationMhz 1000 -Location (Get-VMHost MyHost)**

Other vApp cmdlets: **Remove-vApp** **Export-vApp** **Set-vApp** **Get-vApp** **Start-vApp** **Import-vApp** **Stop-vApp**

Security Operations

The following is a list of security cmdlets; use the Get-Help function for example uses: **Get-VIPermission -Entity (Get-Datacenter) -Principal Administrator**

Other security cmdlets: **Get-VIPrivilege** **Get-VIRole** **Set-VIPermission** **Set-VIRole** **New-VIPermission** **New-VIRole** **Remove-VIPermission** **Remove-VIRole**

Virtual Machine Host Operations

To list all the VMware vSphere servers (VMHost) on the connected vSphere server and some of their properties: **Get-VMHost**

To add a new VMHost: **Add-VMHost 192.168.0.10 -Location (Get-Datacenter Main) -User root -Password MyPass**

To remove a VM Host: **\$myVMHost = Get-VMHost 192.168.0.10 Remove-VMHost \$myHost**

To move a VM Host: **Move-VMHost 192.168.0.10 -Destination (Get-Datacenter MyDatacenter)**

To change the state of a VMHost: **Set-VmHost -VmHost Host01 -State "Disconnected"**

The following is a list of all other VMHost-related cmdlets: use the Get-Help function for example uses:

Get-VMHostAccount	Stop-VMHostService	Set-VMHostStartPolicy
Remove-VMHostAccount	Get-VMHostSnmp	Get-VMHostStorage
Set-VMHostAdvancedConfiguration	Test-VMHostSnmp	Get-VMHostNtpServer
Get-VMHostDiagnosticPartition	Restart-VMHost	Remove-VMHostNtpServer
Set-VMHostFirewallDefaultPolicy	Start-VMHost	Get-VMHostStartPolicy
Set-VMHostFirewallException	New-VMHostAccount	Get-VMHostSysLogServer
Get-VMHostFirmware	Set-VMHostAccount	Set-VMHostSysLogServer
Set-VMHostModule	Set-VMHostFirmware	Stop-VMHost
Get-VMHostNetwork	Get-VMHostModule	Suspend-VMHost
Remove-VMHostNetworkAdapter	Set-VMHostNetwork	*-VMHostRoute
Get-VMHostAdvancedConfiguration	New-VMHostNetworkAdapter	*-VMHostPatch
Set-VMHostDiagnosticPartition	Set-VMHostNetworkAdapter	
Get-VMHostFirewallDefaultPolicy	Add-VMHostNtpServer	
Get-VMHostFirewallException	Restart-VMHostService	
Get-VMHostService	Start-VMHostService	
Set-VMHostService	Set-VMHostSnmp	

Getting Started

<http://communities.vmware.com/docs/DOC-13700>

VMware vSphere PowerCLI frequently asked questions (FAQs) link: <http://communities.vmware.com/docs/DOC-13700>

To find out what cmdlets are available: **Get-VICommand**

To show documentation for all available cmdlets: **Get-PowerCLI Documentation**

For help with a cmdlet: **Get-Help cmdlet-name -Full** | More

How to Connect to vCenter Server or ESX and ESXi

To connect to a VMware vSphere server. Start a new session or reestablish a previous session with a VMware vSphere server.

\$srv = Connect-VIServer -Server 192.168.0.10 -User Admin -Password Pass01

To disconnect from the connected vSphere server. **Disconnect-VIServer -Server \$srv -Confirm:\$false**

Datacenter Operations

To list all datacenters from a VMware vSphere server:

Get-Datacenter

To add a new datacenter: **New-Datacenter -Name France**

Other datastore cmdlets: **Move-Datacenter**
Remove-Datacenter **Set-Datacenter**

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**

EXTOP through PowerCLI

Get-ExsTop -Counter

View the fields available for VCPU counter: (Get-ExsTop -Counter -CounterName VCPU).Fields

Get-ExsTop -TopologyInfo

View the entries of a specific topology: (Get-ExsTop -TopologyInfo -Topology SchedGroup).Entries | Format-Table

Retrieve the counter values for "VCPU" and "SchedGroup" counters: Get-ExsTop -CounterName VCPU | Format-Table * -AutoSize

Get-ExsTop -CounterName SchedGroup | Format-Table * -AutoSize

Managing Events Alarms

Get-AlarmDefinition # Returns all the defined alarms on the servers you're connected to.

Get-AlarmDefinition -Name "virtual machine*" -Enabled \$false # Returns all the disabled alarm definitions with names starting with "virtual machine"

Get-VMHost hostname | Get-AlarmDefinition # 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.

Modify an alarm definition: Get-AlarmDefinition "Host memory status" | Set-AlarmDefinition -Name "Host memory" -Enabled \$false # This will rename the alarm to "Host memory" and disable it

Datastore Operations

For a list of datastores and other properties: Get-Datastore

Other datastore cmdlets include:

New-Datastore Set-Datastore

Remove-Datastore

Folder Operations

The following is a list of all folder-related cmdlets; use the Get-Help function for example uses:

Get-Folder Remove-Folder Move-Folder

Set-Folder New-Folder

Official vSphere PowerCLI Training latest course information. All courses subject to change without notice.

<http://vmware.com/go/vsphereautomation>.

Online		25 May 11	Unterschleißheim (AddOn) / AddOn - GY	16 Nov 11	Unterschleißheim (AddOn) / AddOn - GY
10 Jan 11	VMware Education Services	25 May 11	Köln (AddOn) / AddOn - GY	16 Nov 11	Dresden (AddOn) / AddOn - GY
13 Jan 11	VMware Education Services	25 May 11	Waldorf (AddOn) / AddOn - GY	29 Nov 11	Stuttgart / Fast Lane - Germany
Austria		25 May 11	Böblingen (AddOn) / AddOn - GY	13 Dec 11	Eschborn / Fast Lane - Germany
28 Feb 11	Wien / Magirus - Austria	25 May 11	Berlin (AddOn) / AddOn - GY	Hungary	
France		16 Jun 11	Hallbergmoos / Fast Lane - Germany	03 Feb 11	Budapest / Szamalk Ltd - Hungary
22 Feb 11	Paris la Defense 9 / IB Groupe Cegos	16 Jun 11	Hannover / Tech Data Azlan - GY	12 May 11	Budapest / Szamalk Ltd - Hungary
31 May 11	Paris la Defense 9 / IB Groupe Cegos	16 Jun 11	Leipzig / Tech Data Azlan - GY	04 Aug 11	Budapest / Szamalk Ltd - Hungary
04 Oct 11	Paris la Defense 9 / IB Groupe Cegos	06 Jul 11	Waldorf (AddOn) / AddOn - GY	20 Oct 11	Budapest / Szamalk Ltd - Hungary
Germany		06 Jul 11	Böblingen (AddOn) / AddOn - GY	15 Dec 11	Budapest / Szamalk Ltd - Hungary
13 Jan 11	Köln / Tech Data Azlan - GY	06 Jul 11	Berlin (AddOn) / AddOn - GY	Poland	
27 Jan 11	Hallbergmoos / Fast Lane - Germany	06 Jul 11	Köln (AddOn) / AddOn - GY	20 Jan 11	Warszawa / Arrow ECS Services Sp. z o.o.
09 Feb 11	Unterschleißheim (AddOn) / AddOn - GY	06 Jul 11	Unterschleißheim (AddOn) / AddOn - GY	Sweden	
09 Feb 11	Berlin (AddOn) / AddOn - GY	06 Jul 11	Dresden (AddOn) / AddOn - GY	03 Mar 11	Kista / Arrow ECS Sweden AB
09 Feb 11	Köln (AddOn) / AddOn - GY	07 Jul 11	Berlin / Fast Lane - Germany	19 May 11	Kista / Arrow ECS Sweden AB
09 Feb 11	Dresden (AddOn) / AddOn - GY	28 Jul 11	Dusseldorf / Fast Lane - Germany	The Netherlands	
09 Feb 11	Waldorf (AddOn) / AddOn - GY	18 Aug 11	Stuttgart / Fast Lane - Germany	13 Jan 11	Nieuwegein / Global Knowledge - NL
09 Feb 11	Böblingen (AddOn) / AddOn - GY	01 Sep 11	Eschborn / Fast Lane - Germany	United Kingdom	
10 Feb 11	Dusseldorf / Fast Lane - Germany	07 Sep 11	Köln (AddOn) / AddOn - GY	13 Jan 11	Edinburgh / QA-IQ Ltd
21 Feb 11	München / Tech Data Azlan - GY	07 Sep 11	Berlin (AddOn) / AddOn - GY	10 Feb 11	Leeds / QA-IQ Ltd
29 Mar 11	Berlin / Fast Lane - Germany	07 Sep 11	Unterschleißheim (AddOn) / AddOn - GY	07 Apr 11	Leeds / QA-IQ Ltd
06 Apr 11	Unterschleißheim (AddOn) / AddOn - GY	07 Sep 11	Böblingen (AddOn) / AddOn - GY	02 Jun 11	Leeds / QA-IQ Ltd
06 Apr 11	Dresden (AddOn) / AddOn - GY	07 Sep 11	Dresden (AddOn) / AddOn - GY	United States	
06 Apr 11	Waldorf (AddOn) / AddOn - GY	07 Sep 11	Waldorf (AddOn) / AddOn - GY	14 Mar 11	HP RAIL (MST) / HP Education - United States
06 Apr 11	Böblingen (AddOn) / AddOn - GY	21 Sep 11	Berlin / Fast Lane - Germany	04 Apr 11	Washington, DC / VMware Education Services
06 Apr 11	Köln (AddOn) / AddOn - GY	04 Oct 11	Dusseldorf / Fast Lane - Germany	29 Aug-01 Sep 11	Las Vegas / VMworld 2011
06 Apr 11	Berlin (AddOn) / AddOn - GY	27 Oct 11	Hallbergmoos / Fast Lane - Germany	Europe	
07 Apr 11	Hamburg / Tech Data Azlan - GY	27 Oct 11	Hallbergmoos / Fast Lane - Germany		Location and Dates coming soon/ VMworld 2011
20 Apr 11	Stuttgart / Fast Lane - Germany	08 Nov 11	Hamburg / Fast Lane - Germany		
26 Apr 11	Hamburg / Fast Lane - Germany	16 Nov 11	Waldorf (AddOn) / AddOn - GY		
19 May 11	München / Tech Data Azlan - GY	16 Nov 11	Böblingen (AddOn) / AddOn - GY		
25 May 11	Dresden (AddOn) / AddOn - GY	16 Nov 11	Berlin (AddOn) / AddOn - GY		

Assembling Tips

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5	6	7	8

Printer Settings

- File / Page Setup/ US Letter
- File / Print
- Scaling / None
- Tape together as shown