

### Recovery

The *Diskpart.exe* command utility can be used to manage hard drives and volumes on the local machine.

To get help with a specific command type the command with */?*. For example, to get help with the 'list' Diskpart command type: *list /?*

Use the *list volume* option to display information about the disk volumes

To get help on how to load a registry hive into memory from disk, type: *reg load /?*

The following command will load the HKLM registry hive file located in 'D:\Windows\System32\config\software' into a key file called WindowsSoftware  
`reg load HKLM\WindowsSoftware D:\Windows\System32\config\software`

Unload the HKLM\WindowsSoftware registry hive.  
`reg unload HKLM\WindowsSoftware`

### Reg backup and restore

Backup the entire HKLM registry key to a file called HKLM.reg in the C:\Backup directory.  
`reg export HKLM C:\Backup\HKLM.reg`

To create a Registry Hive file backup of the HKLM\Software registry keys  
`reg save HKLM\Software C:\Backup\HKLMSoftware.hiv`

Display all the currently available registry PSDrives:  
`Get-PSDrive -PSProvider registry`

Display the keys and values under the HKCU\Control Panel key  
`Get-ChildItem "HKCU:\Control Panel" -recurse`

Display the keys and values under the HKCU\Control Panel key whose name contains the string "Mouse".  
`Get-ChildItem "HKCU:\Control Panel" -recurse | where name -like "Mouse"`

Display the content of the HKCU\Control Panel\Mouse\DoubleClickSpeed value.  
`Get-ItemProperty "HKCU:\Control Panel\Mouse" -name DoubleClickSpeed`

Notice this value is set to 500. Change the value to 700.  
`Set-ItemProperty "HKCU:\Control Panel\Mouse" -name DoubleClickSpeed -value 700`

### AD Restore

To find the Windows feature name of the Windows Server Backup, type:  
`Get-WindowsFeature "**backup**"`

This should return a single feature, the Windows-Server-Backup feature. To install the feature, type:  
`Get-WindowsFeature "**backup**" | Install-WindowsFeature`

To start a System State backup of the Domain controller, type:  
`wbadmin start systemstatebackup -backupTarget:E -quiet`

To start the server in DSRM mode, type the following command:  
`bcdedit /set safeboot dsrepair` and then reboot

The following command will list all of the backup file versions available on the local machine.  
`wbadmin get versions -backuptarget:E:`

`wbadmin start systemstaterestore -version:<MM/DD/YYYY-HH:MM> -backuptarget:E: -quiet`

Start another command prompt and type:  
`ntdsutil`

Set the local NTDS store as the active instance  
`activate instance NTDS`

This will start the interactive command environment. Type the following command:  
`authoritative restore`

Restore Subtree "OU=Customer Support,OU=Hamilton,DC=Acme,DC=Com"

To remove the 'safeboot' boot option and restart the server normally, open a command prompt and type the following commands:  
`bcdedit /deletevalue safeboot shutdown /r /t 0`

### Remote management

`New-NetIPAddress -interfaceAlias "Ethernet" -IPAddress 192.168.100.13 -PrefixLength 24`

`Set-DNSClientServerAddress -InterfaceAlias "Ethernet" -ServerAddresses 192.168.100.10`

`Add-Computer -DomainName acme -Credential acme\administrator -restart`

Type the following commands to enable remote event log management firewall rules:  
`netsh advfirewall firewall set rule group="Remote Event Log Management" new enable=Yes`

### Remote management (cont)

`Get-Command | Where {$_.parameters.keys -like "**ComputerName**"}`

`Get-service -ComputerName Acmeserver`

`Get-WmiObject Win32_ComputerSystem -Computername Acmeserver, WINDOWSCORESERVER`

`netsh advfirewall firewall set rule group="Windows Management Instrumentation (WMI)" new enable=yes`

### Enable-PSRemoting

From the Acmeserver virtual machine, start an Interactive PowerShell session on the Windows81-PC  
`Enter-PSSession Windows81-pc`

Install the Web Access gateway role.  
`Install-WindowsFeature -Name WindowsPowerShellWebAccess`

To configure the Windows PowerShell Web Access gateway with the default settings using a self-signed certificate, type the following:

`Install-PswaWebApplication -UseTestCertificate`

To see a list of all PSWA cmdlets, type:  
`Get-Command PSWA -CommandType cmdlet`

The following command will create an authorization rule that will allow the members of the domain admins group access to all of the Domain Controllers in the domain using the default Microsoft.Powershell configuration:  
`Add-PswaAuthorizationRule -userGroupName "acme\domain admins" -ComputerGroupName "acme\Domain Controllers" -ConfigurationName Microsoft.Powershell`

