WINDOWS SERVER 2012 R2 INSTALLATION GUIDE

By Michael Parker



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Minimum Hard-Ware Components

Component	Minimum Requirement	Microsoft Recommended
Processor	1.4 GHz	2 GHz or faster
Memory	512 MB RAM	2 GB RAM or greater
Available Disk Space	32 GB	40 GB or greater
Optical Drive	DVD-ROM drive	DVD-ROM drive
Display	Super VGA (800x600) monitor	XGA (1024x768) monitor

Installation Guide

Step 1-

Install the windows server 2012 R2 Disc OR the ISO File

Step 2-

You will come to the starting Windows Setup Screen, click **next** on the bottom right



Step 3-

Press "Install Now" in the middle of the Windows Setup Screen



Step 4-

Enter Your Product Key in the box provided, it should be on the back of the box that Windows came in or in a message.

Step 5-

Next choose if you want to install R2 Standard- (**Server Core Installation**) or, R2 Standard-(**Server with GUI**) Gui is recommended over Server Core However you can choose either.

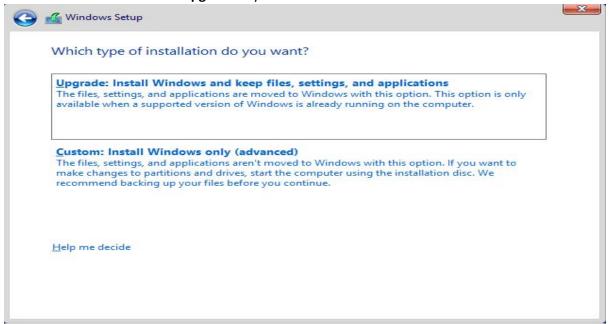


Step 6-

Accept the terms to your windows setup

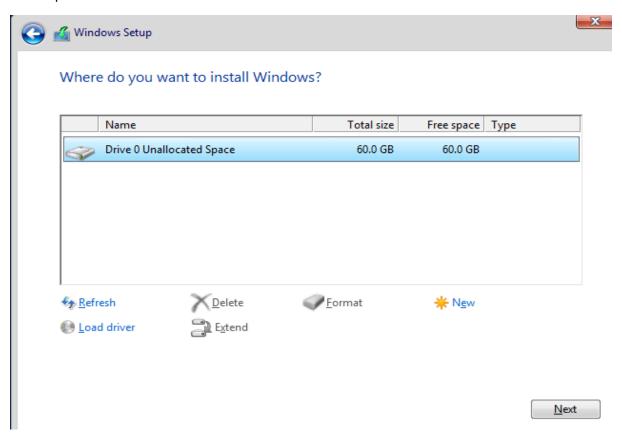
Step 7-

Select which type of installation you would like, either to **upgrade**: where you Install Windows & Keep files, settings and applications or **Custom**: where it Installs Windows only. If Blank Hard-drive choose **Custom** If not Choose **upgrade** so you don't lose files.



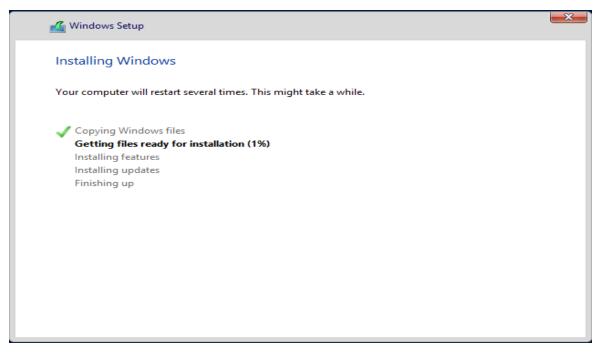
Step 8-

Choose what Drive you want to install **Windows Server R2 2012** into: Preferably the drive with the freest space.



Step 9-

Be prepared to wait a while as your Windows Server will now be installing.

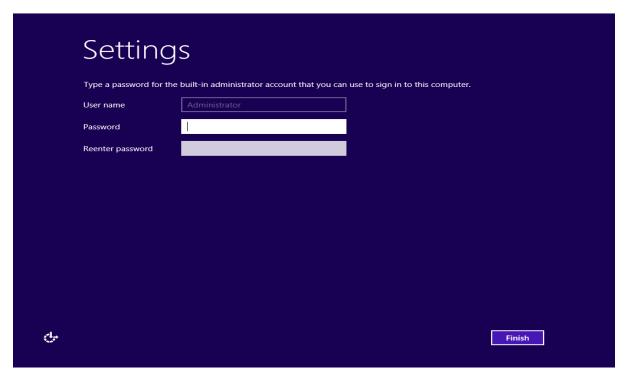


Step 10-

Don't worry if the screen goes black as windows is being configured.

Step 11-

Set your user name and password that you would like.

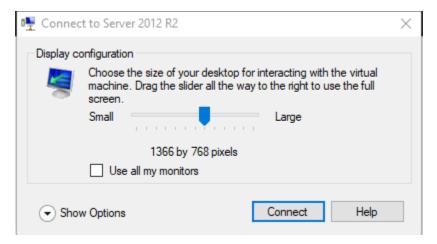


Step 12-

Sign in to your computer with the details you just entered in **Step 11**

Step 13-

Set your display configuration for your server

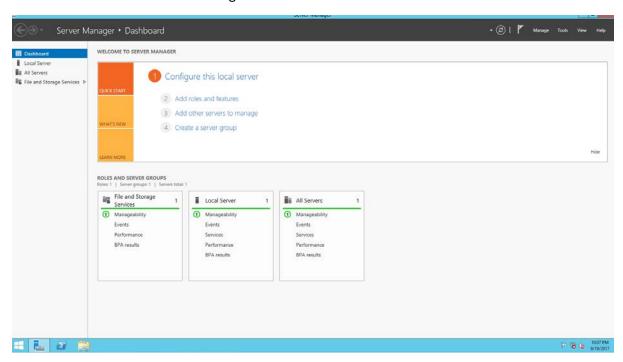


Step 14-

Server R2 will now reboot itself and prompt you to log in again-

Step 15-

Congratulations you should now be on the server manager page which means that you have a **Server R2 installed** but with no active configurations.



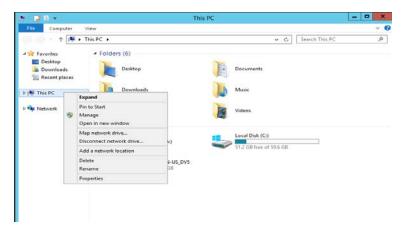
Changing Host Name on Windows Server 2012 R2

Step 1-

Press the windows button and navigate to "My PC"

Step 2-

Right click on "My Pc" and click on the last option "properties"



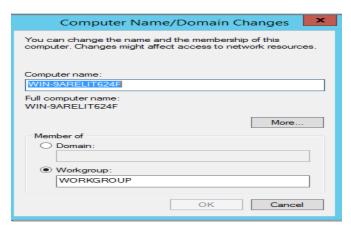
Step 3-

You will now be on the **System Information**, if you look towards the bottom right of your screen you will see "**Change Settings**" with a shield before the name.



Step 4-

You will now see that **System properties** is now open, click on "**change**" and then rename your **computer/host name**, you can also change if you want to be part of a **workgroup** or **Domain** by simply selecting either below your name change.



Step 5-

Next simply select "ok" and then restart your server.

Step 6-

When you have restarted you will notice that your computer/host name has now been changed and you're ready to set up your IP & DNS

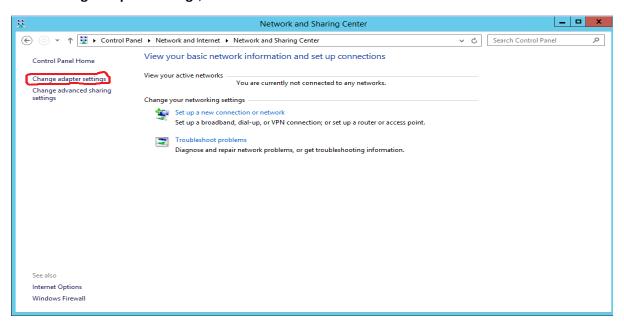
Setting Up IP Address and DNS Server for Windows Server R2

Step 1-

Click start or press the windows key on your keyboard, and go to **control panel** and click on **Network** and **Security.**

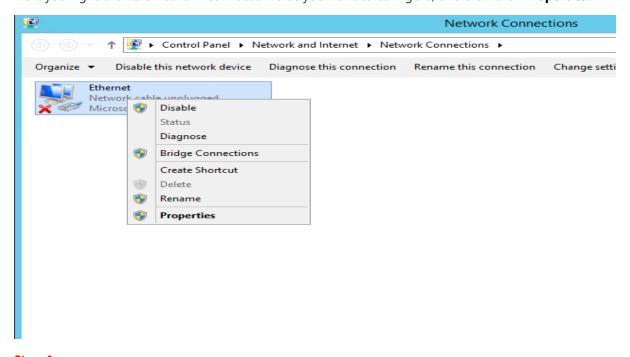
Step 2-

Click on **Network and Sharing Center**, then on the left hand side of your screen there is a button called **Change adapter Settings**, click on that.



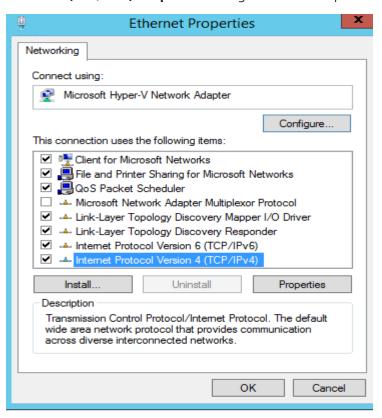
Step 3-

Next you right-click the network connection that you want to configure, and then click **Properties**.



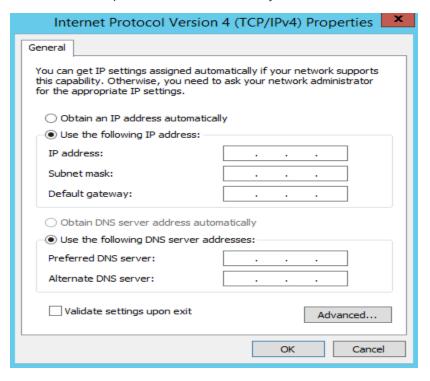
Step 4-

Select Internet Protocol Version 4 (TCP/IPv4), and then click Properties. The Internet Protocol Version 4 (TCP/IPv4) Properties Dialog Box will now open.



Step 5-

In Internet Protocol Version 4 (TCP/IPv4) Properties, on the General tab, click Use the following IP address. Then put in the IP address that you want to use.



Step 6-

Press Tab after putting in your IP address this will automatically set your Subnet Mask

Step 7-

In **Default gateway**, type the IP address of your default gateway, (Your default gateway is your IP address but you change the last digit to a 1.



Step 8-

In **Preferred DNS server**, type the IP address of your DNS server. If you plan to use the local computer as the preferred DNS server, then put in the IP address of your computer.

Step 9-

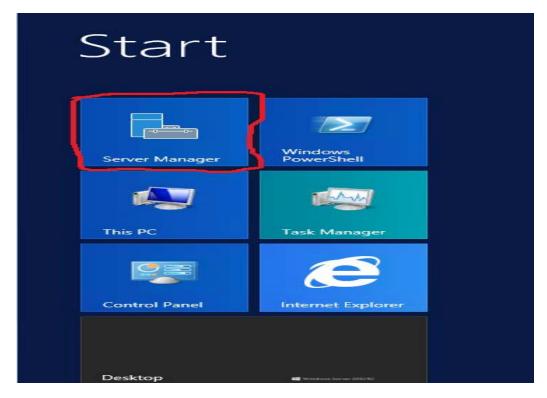
In **Alternate DNS Server**, type the IP address of your alternate DNS server, if any. If you plan to use the local computer as an alternate refer to **Step 8**.

Step 10-

Once you have put in your IP address and DNS (If you're planning on using one) Press OK and then close **Ethernet Properties.**

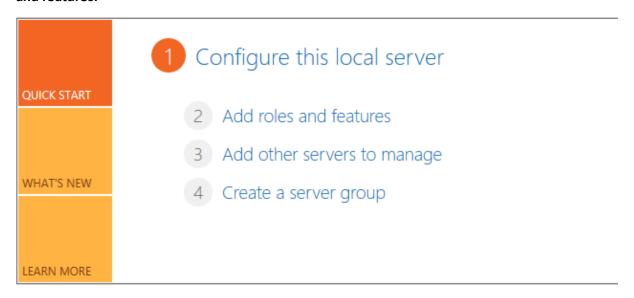
Set Up Active Directory for Windows Server & DNS Server 2012 R2

Go to your **Server Manager**, you can get there by pressing your Windows key or Clicking start and clicking on **Server Manager**-

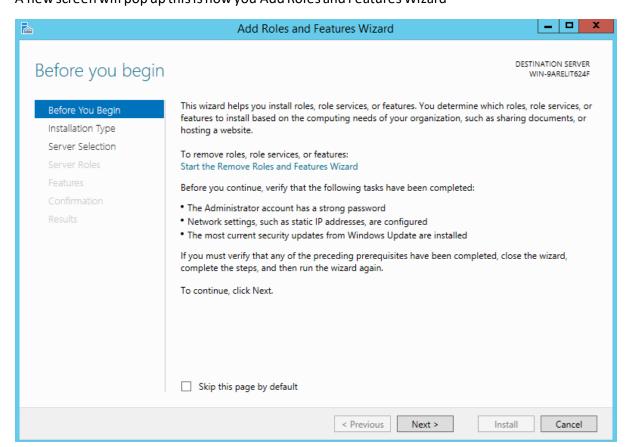


Step 1-

In the middle of your **Server Manager Page** inside of configure this local server, click on **Add roles** and features.



Step 2A new screen will pop up this is how you Add Roles and Features Wizard

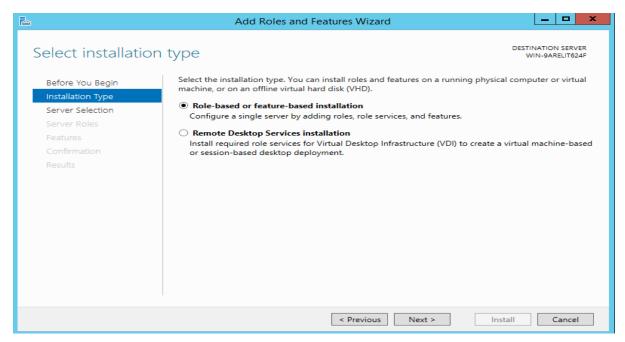


Step 3-

In this window, Tick Skip this page by default & click next

Step 4-

In this window we have to select **which server to install roles**, depending on if you're making a **Remote Desktop** or not click which options suits what you're going to be doing with your server.



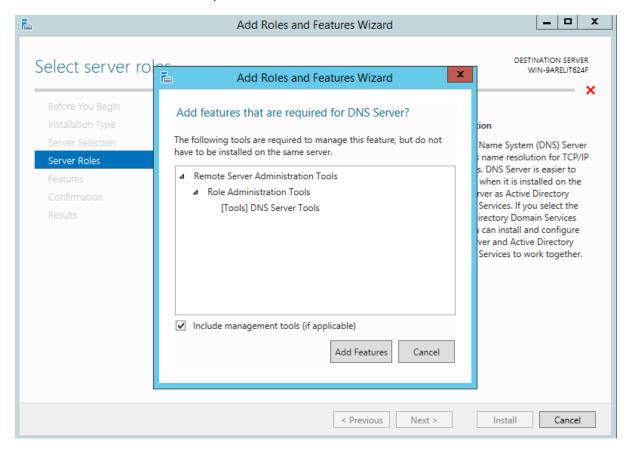
Step 5-

After you have clicked next it will bring you to your **server selection page**, you will see below your computer name and IP Address if you follow the steps earlier.

&	Add Roles and Features Wizard	_
Select destinatio	n server DEST	INATION SERVER WIN-9ARELIT624F
Before You Begin	Select a server or a virtual hard disk on which to install roles and features.	
Installation Type Server Selection	Select a server from the server pool Select a virtual hard disk	
Server Roles	Server Pool	
Features	Filter:	
Confirmation	Titlet.	
Results	Name IP Address Operating System	
	WIN-9ARELIT624F Microsoft Windows Server 2012 R2 Star 1 Computer(s) found This page shows servers that are running Windows Server 2012, and that have been add	
	Inis page snows servers that are running Windows Server 2012, and that have been add Add Servers command in Server Manager. Offline servers and newly-added servers from collection is still incomplete are not shown.	
	< Previous Next > Install	Cancel

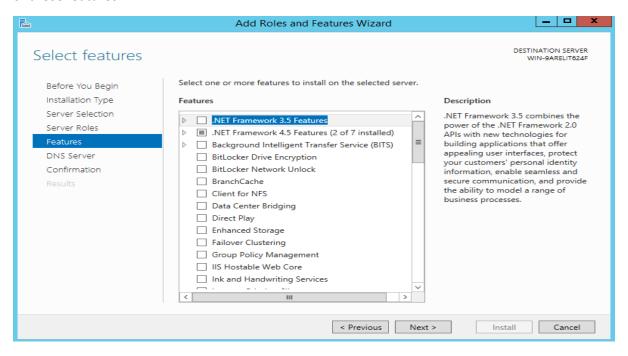
Step 6-

Select **DNS Server** and that alone, click next



Step 7-

Click on **add Features** it will then direct you to the **Features window**, click next as we don't need any of these features.



Step 8-

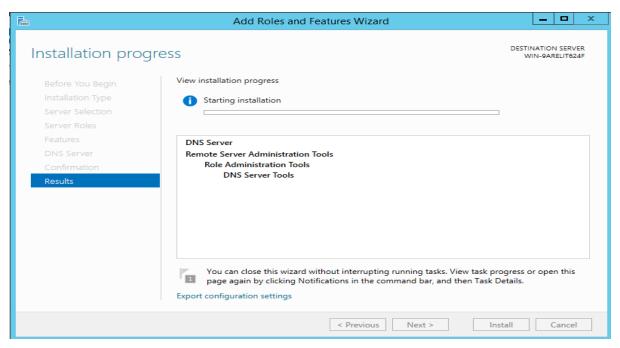
Click on Next to continue with Active Directory / DNS Install

Step 9-

Click on the Install button on the bottom right of your Confirm installation Selections

Step 10-

Do not worry if this takes a while to install, that's normal.

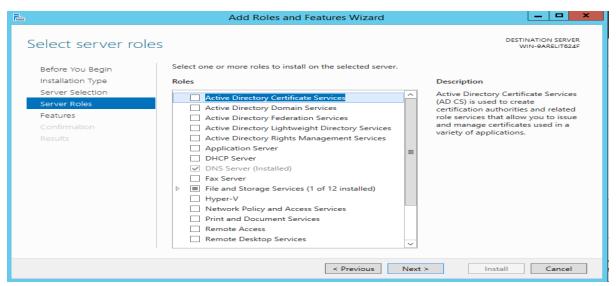


Step 11-

Once the installation simply press **close**, and your DNS server is now installed.

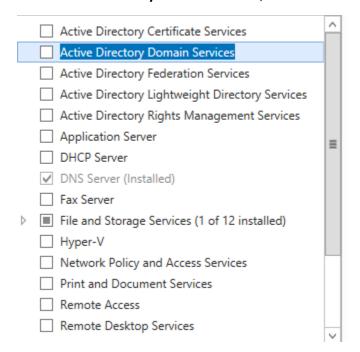
Step 12-

Go back and do steps 1-5 this will bring you back to this page



Step 13-

Select Active Directory Domain Services, which is second from the top and select next.

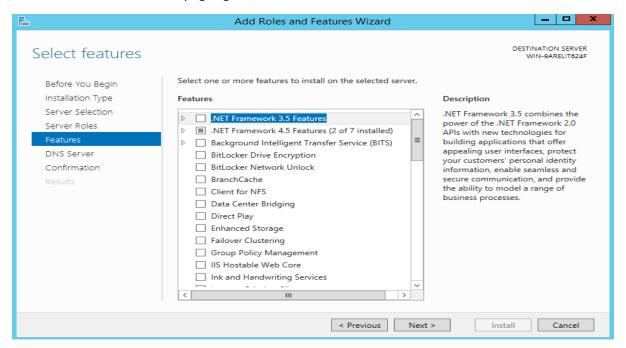


Step 14-

On the next menu click on Add Features, the same as Step 6

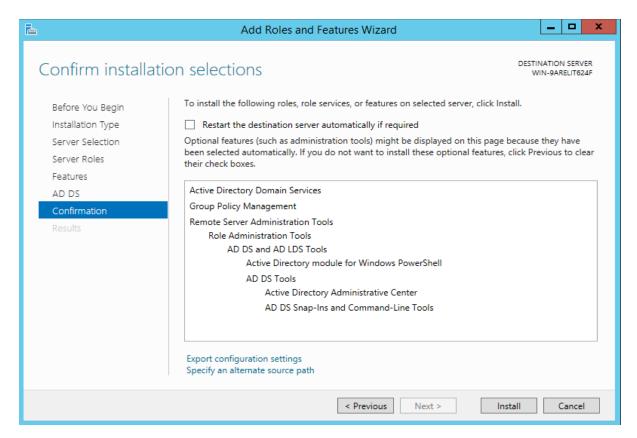
Step 15-

You will now be back on this page again, like the DNS, select Next



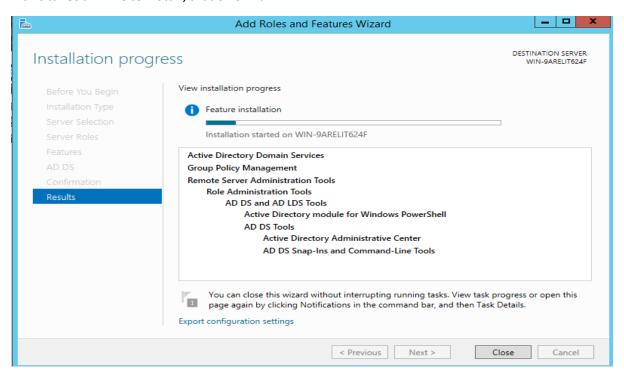
Step 16-

Click Next, Then Next again and you will be on the Confirm Installation Page,



Step 17-

Click on the **Install button** on the bottom right of your **Confirm installation Selections,** Do not worry if this takes a while to install, that's normal.

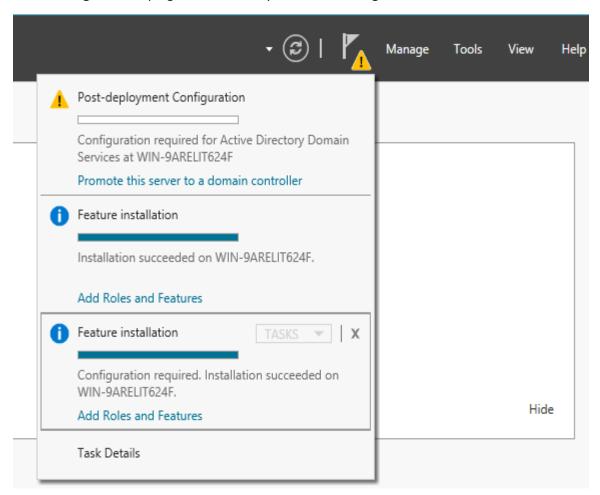


Step 18-

When your **Active Directory Domain Services** installation finishes we will begin the DC setup, so that your **ADDS** is in full swing.

Step 19-

Click the flag on the top right hand side of your server manager window



Step 20-

Click "Promote this server to a domain controller" below the yellow triangle & "Post-Deployment Configuration

Step 21-

Congratulations your **active directory role** is now installed on your server.

Power Shell Commands-

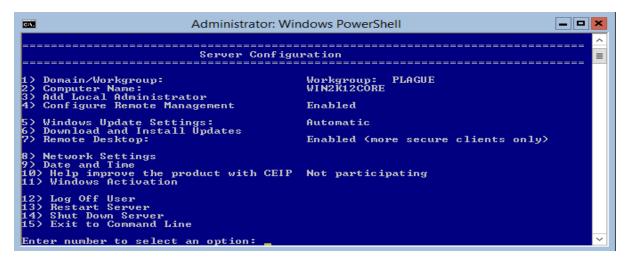
To open a new Windows PowerShell command window, on the taskbar, click Windows PowerShell.

Step 2-

At the **Windows PowerShell** command prompt, type "Help", then press ENTER to see a list of available help topics

Step 3-

Here is an example of a **PowerShell script** which shows you your **server information**:



If you put in the commands below, and test some from the command line I have provided below you will get the hang of these commands quickly, and be able to put them to use in your server.

PS C:\Users\Administrator> Get-CimInstace Win31_OperatingSystem | Select-Object Caption, InstallDate, ServicePackMajorVe rsion, OSArchitecture, BootDevice, CSName | FL

Caption : Microsoft Windows 8.1 Pro
InstallDate : 11/14/2014 10:40:36 PM
ServicePackMajorVersion : 0
DSArchitecture : 64-bit
BootDevice : \Device\HarddiskVolume1
BuildNumber : 9600

Power Shell Commands-

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Commano alias	dCmdlet name	Description of command
%	ForEach-Object	Performs an operation against each item in a collection of
?	Where-Object	input objects. Selects objects from a collection based on their property
		values.
ac	Add-Content	Appends content, such as words or data, to a file.
asnp	Add-PSSnapIn	Adds one or more Windows PowerShell snap-ins to the current session.
cat	Get-Content	Gets the contents of a file.
cd	Set-Location	Sets the current working location to a specified location.
chdir	Set-Location	Sets the current working location to a specified location.
clc	Clear-Content	Deletes the contents of an item, but does not delete the item.
clear	Clear-Host	Clears the display in the host program.
clhy	Clear-History	Deletes entries from the command history.
cli	Clear-Item	Deletes the contents of an item, but does not delete the item.
clp	Clear-ItemProperty	Deletes the value of a property but does not delete the property.
cls	Clear-Host	Clears the display in the host program.
clv	Clear-Variable	Deletes the value of a variable.
cnsn	Connect-PSSession	Reconnects to disconnected sessions
compare	Compare-Object	Compares two sets of objects.
сору	Copy-Item	Copies an item from one location to another.
ср	Copy-Item	Copies an item from one location to another.
срі	Copy-Item	Copies an item from one location to another.
срр	Copy-ItemProperty	Copies a property and value from a specified location to another location.
curl	Invoke-WebRequest	Gets content from a webpage on the Internet.
cvpa	Convert-Path	Converts a path from a Windows PowerShell path to a
dbp	Disable-PSBreakpoint	Disables the breakpoints in the current console.
del	Remove-Item	Deletes files and folders.
diff	Compare-Object	Compares two sets of objects.
dir	Get-ChildItem	Gets the files and folders in a file system drive.
dnsn	Disconnect-PSSession	Disconnects from a session.
ebp	Enable-PSBreakpoint	Enables the breakpoints in the current console.
echo	Write-Output	Sends the specified objects to the next command in the pipeline. If the command is the last command in the pipeline, the objects are displayed in the console.
epal	Export-Alias	Exports information about currently defined aliases to a file.
epcsv	Export-Csv	Converts objects into a series of comma-separated (CSV) strings and saves the strings in a CSV file.
epsn	Export-PSSession	Imports commands from another session and saves them in a Windows PowerShell module.
erase	Remove-Item	Deletes files and folders.
etsn	Enter-PSSession	Starts an interactive session with a remote computer.
exsn	Exit-PSSession	Ends an interactive session with a remote computer.
fc	Format-Custom	Uses a customized view to format the output.
fl	Format-List	Formats the output as a list of properties in which each property appears on a new line.
foreach	ForEach-Object	Performs an operation against each item in a collection of input objects.
ft	Format-Table	Formats the output as a table.
fw	Format-Wide	Formats objects as a wide table that displays only one property of each object.
gal	Get-Alias	Gets the aliases for the current session.
gbp	Get-PSBreakpoint	Gets the breakpoints that are set in the current session.
gc	Get-Content	Gets the contents of a file.
	1	
gci	Get-ChildItem	Gets the files and folders in a file system drive.
	Get-ChildItem Get-Command	Gets the files and folders in a file system drive. Gets all commands.

ACME Windows Server 2012 R2 Installation Guide

mmires Remove-Item Deletes files and folders. Immires Remove-Item Deletes files and folders. Immires Remove-Module Removes modules from the current session. Immires Rename-Item Renames an item in a Windows PowerShell provider namespace. Imp Rename-ItemProperty Renames a property of an item. Important Remove-PSSassion Closes one or more Windows PowerShell sessions (PSS renamespace). Important Remove-PSSanapin Removes Windows PowerShell sessions (PSS renamespace). Important Resolve-PSSanapin Removes Windows PowerShell sessions (PSS renamespace). Important Resolve-PSSanapin Removes Windows PowerShell sessions. Important Resolve-Path Resolves the wildcard characters in a path, and display path contents. Important Resolves the wildcard characters in a path, and display path contents. Important Resolves the wildcard characters in a path, and display path contents. Important Resolves the wildcard characters in a path, and display path contents. Important Resolves the wildcard characters in a path, and display path contents. Important Resolves the wildcard characters in a path, and display path contents. Important Resolves the wildcard characters in a path, and display path contents. Important Resolves the wildcard characters in a path, and display path contents. Important Resolves the wildcard characters in a path, and display path contents. Important Resolves the wildcard characters in a path, and display path contents. Important Resolves the wildcard characters in a path, and display resolves an instance of an existing Windows PowerShell command, or variable. Imported in the current working location of coation stack. Imported in the current working location of coation stack. Imported in the current working location of coation stack. Imported in the current session. Imported in the current session. Imported in the current session.	essions)
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	n be
gp Get-ItemProperty Gets the properties of a specified item.	
gps Get-Process Gets the processes that are running on the local compremote computer.	outer or a
group Group-Object Groups objects that contain the same value for specifi properties.	ed
gsn Get-PSSession Gets the Windows PowerShell sessions on local and re computers.	mote
gsnp Get-PSSnapIn Gets the Windows PowerShell snap-ins on the compu	ter.
gsv Get-Service Gets the services on a local or remote computer.	
gu Get-Unique Returns unique items from a sorted list.	
gwmi Get-WmiObject Gets instances of Windows Management Instrumenta (WMI) classes or information about the available class	
h Get-History Gets a list of the commands entered during the currer session.	nt
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icm Invoke-Command Runs commands on local and remote computers.	
icm Invoke-Command Runs commands on local and remote computers. iex Invoke-Expression Runs commands or expressions on the local computer	r_
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These are the most useful **shell commands** for **windows server 2012**