



POWERSHELL v3.0 EASY RIDER

Jeffery Hicks

Windows PowerShell MVP

jhicks@jdhitsolutions.com



AGENDA

- New Help Options
- Default Parameter Values
- Simplified Syntax
- Improved Tab Completion
- Redirection Options
- Improved ISE Experience
- Q&A



WHO AM I?

- Windows PowerShell MVP
- PowerShell Author
 - Windows PowerShell 2.0: TFM (with Don Jones)
 - Managing Active Directory with Windows PowerShell: TFM 2nd Ed.
- Prof. PowerShell
- IT trainer and consultant
- <http://jdhitsolutions.com/blog>
- <http://twitter.com/jeffhicks>



A NOTE...

- All demos will be made available
- Demos are written mostly as one-liners.
- Using the most current publicly available CTP on Windows 7



NEW HELP OPTIONS

- Help can now be updated via download
- Use the Update-Help cmdlet
- Can limit to certain modules
- Default download limit is once a day
- Download from a local source



DEFAULT PARAMETER VALUES

- Define a hash table of cmdlets and default parameter values
- Stored in automatic variable `$PSDefaultParameterValues`
- Always used unless you specify a different value

```
$PSDefaultParameterValues.Add("get-wmiobject:class", "win32_operatingsystem")
```



SIMPLIFIED SYNTAX

- The `$_` has always confused people
- Most commonly used in Where-Object and ForEach-Object
- Script block with `$_` is optional

```
PS C:\> get-service | where status -eq  
"running"
```

- Or you can still use original



SIMPLIFIED SYNTAX

- Get-Command searches all modules whether loaded or not
- Get-Help searches all modules whether loaded or not
- If you know a command, run it. PowerShell will load the module for you.



IMPROVED TAB COMPLETION

- Mid line tabbing no longer wipes your command
- Tab completion for parameter values
 - Limited to core cmdlets
- Tab completion for enumerations



REDIRECTION OPTIONS

- Redirect streams to Unicode text files

Stream	Value
Pipeline (Success)	1
Errors	2
Warning	3
Verbose	4
Debug	5

- Write >
- Append >>
- Merge >&



REDIRECTION OPTIONS

```
PS C:\> get-wmiobject win32_logicaldisk  
-comp "F00","client2" 2>err.txt
```

```
PS C:\> c:\scripts\myscript.ps1 -verbose  
2>err.txt 3>warn.txt 4>verbose.txt
```

```
PS C:\> c:\scripts\myscript.ps1 2>&1  
1>data.txt
```

- Merge only to success



IMPROVED ISE EXPERIENCE

- Syntax parsing
- Intellisense
- Most Recent File List
- Autosave
- Snippets
- Integrated Command Help



IMPROVED ISE EXPERIENCE

The screenshot displays the Windows PowerShell ISE interface. The main editor window shows a PowerShell script with line numbers 19 through 44. A help window titled "Group-Object Help" is open, displaying the following information:

- Find:** [Search box] [Previous] [Next] [Settings]
- Synopsis**
Groups objects that contain the same value for specified properties.
- Syntax**
Group-Object [-AsHashTable] [-AsString] [[-Property] <Object[]>] [-CaseSensitive] [-Culture <string>] [-InputObject <pobject>] [-NoElement] [<CommonParameters>]
- Description**
The Group-Object cmdlet displays objects in groups based on the value of a specified property. Group-Object returns a table with one row for each property value and a column that displays the number of items with that value.
If you specify more than one property, Group-Object first groups them by the values of the first property, and then, within each property group, it groups by the value of the next property.
- Parameters**
-AsHashTable <SwitchParameter>

The background script in the editor includes the following code:

```
19  
20  
21 Write-Verbose "$(Get-Date) Finished testing conn  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39 1..10 | foreach { $_*2  
40  
41 write-host "done  
42 ~  
43 ~  
44 ~
```

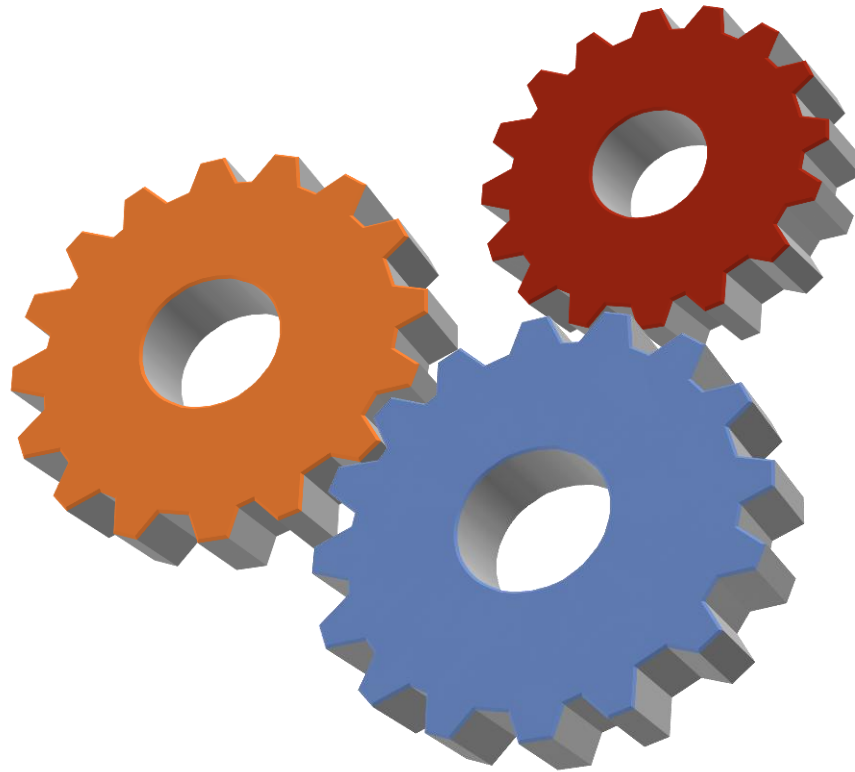
The right-hand pane, titled "Commands", shows a list of modules and a search field. The "Group-Object" command is selected, and its parameters are listed below:

- Modules: All
- Name: [Search box]
- Get-WmiObject
- Get-WSManCredSSP
- Get-WSManInstance
- Group-Object
- Hi: [Dropdown]
- Parameters: [?]
- AsHashTable
- AsString
- CaseSensitive
- Culture: [Text box]
- InputObject: [Text box]
- NoElement
- Property: [Text box]
- Common Parameters [Dropdown]
- Show On Startup
- Run [Insert] [Copy] [Hide]

The status bar at the bottom indicates "Ln 29 Col 2" and "160%".



DEMOS



RESOURCES

- Windows PowerShell Team blog
(<http://blogs.msdn.com/powershell>)
- The Lonely Administrator
(<http://jdhitsolutions.com/blog>)
- Prof. PowerShell
(<http://mcpmag.com/articles/list/prof-powershell.aspx>)



QUESTIONS



THANK YOU

- <http://jdhitsolutions.com/blog>
- jhicks@jdhitsolutions.com
- [Twitter.com/JeffHicks](https://twitter.com/JeffHicks)
- On G+ as Jeffery Hicks

