

Command Enhancements

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THE GLOBAL STANDARD IN PROFESSIONAL COMPUTER TRAINING



Get-Command

New command type

- Workflow
- `PS C:\> gcm -commandtype Workflow`

List commands only from currently imported modules

- Default is everything from all modules
- `PS C:\> gcm -listimported`

Get commands that use a given parameter name or type

- Wildcards allowed
- `PS C:\> gcm -parametername pssession`



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Get-Childitem Attributes

No more filtering with `Where-Object` to get only files

New filtering attributes

- File
- Directory
- ReadOnly
- Hidden
- System
- `PS C:\> dir c:\work -file | measure length -sum`

You can also use `-Attributes`



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New-PSDrive

Persistent mapping

- PSDrive name must be a letter
- Creates a Windows drive mapping
- Mapped drives are stored per user

Use credentials when mapping a UNC

- PS C:\> new-psdrive -name T
-psprovider filesystem -root \\chi-
fp01\temp -credential \\globomantics\jeff
-persist



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Select-Object Optimization

Cmdlet now stops
after reaching first X
number of objects

Cmdlet skips creating
or processing objects
when using `-Index`

Use `-Wait` to not use
these optimizations
(v2 behavior)



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Restart-Computer

Parameter `-Wait` primarily used in workflows

- Does not work for the local computer

You can specify what to wait `-For`

- PowerShell (default)
- WinRM
- WMI

You can specify the `-Delay` between checks

- Default is 5 seconds
- PS C:\> Restart-computer SRV02 -wait WMI
-delay 10



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Restart-Computer

You can specify a `-Timeout` duration in seconds

Remote computer can run v2 or v3 with remoting enabled

You can specify the `-Protocol` used to restart the computer

- DCOM (default)
- WSMAN



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Export-CSV

We can now append to an existing CSV file with `-Append`

- Appended data should follow the same property header

If not, only properties that match header will be exported

- `PS C:\> dir c:\work*.txt | Export-Csv R:\Data.csv -append`



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Invoke-Command

Run commands on disconnected sessions using `-Disconnected`

Run command in current scope using `-NoNewScope`

Remoting improvements covered in separate lessons



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Send-MailMessage

We can now specify the SMTP port ([-Port](#))

Useful for services like Gmail

- PS C:\> Send-MailMessage -To jeff@globomantics.com -from me@gmail.com -subject "Identity Crisis" -SmtpServer smtp.gmail.com -Port 587 -Credential me@gmail.com -UseSsl -body "I am the walrus."

Default is still 25



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Update-TypeData

No longer need a ps1xml file to add or extend types

- PS C:\> Update-TypeData -TypeName \$type -MemberType ScriptProperty -MemberName Installed -Value { \$This.ConvertToDateTime(\$this.InstallDate) }

Type data can be added dynamically to current session

- Type data can also be dynamically removed without having to restart PowerShell using [Remove-TypeData](#)



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Add-Computer

Rename a computer upon joining

- Useful in workflows where you've renamed a computer but didn't reboot
- Use the new [-Restart](#) parameter

Use [-Force](#) to suppress confirmation



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Add-Computer

Specify local credentials
on remote computers

Specify credentials
for domain unjoin

New domain join options

- UnsecuredJoin
- JoinReadOnly
- JoinWithNewName



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Summary



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