

You did what with PowerShell?!



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whoami? aka shameless plugs

■ *Donabel Santos*

- SQL Geek (I love SQL Server!), PowerShell enthusiast
- Principal, QueryWorks Solutions
 - Training, Consulting
- Instructor, BC Institute of Technology
- Blogger – sqlmusings.com
- Tweep – [@sqlbelle](https://twitter.com/sqlbelle)
- Author – some articles + upcoming PowerShell/SQL Server book



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Materials

- Presentation materials will be at my blog
- <http://www.sqlmusings.com>
 - Demo files
 - Slides
- Questions? Comments? Email me
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Agenda

- Basics/Refresher
- PowerShell V3
- PowerShell and SQL Server
 - Administration
 - Development
 - BI-related

POSH REFRESHER



What is PowerShell?

- Extensible command line shell + scripting language
 - Can create functions, cmdlets, modules
- Object-Oriented
- .NET Based
 - Allows you to utilize .NET libraries
- Why?
 - Automation
- What to remember
 - “Just” another tool
 - May be the best for some tasks, may not be the best for others
 - “Use the hammer with nails. Don’t use it as a shovel”

Refresher: PoSH Basics

- Case Insensitive
- Variables start with a dollar sign (\$)
- Comments start with a hash sign (#)
- Escape characters are backticks (`)
- Many tasks are accomplished by cmdlets
 - Action-Noun building blocks of PowerShell
- Results can be piped (|)
 - Filter left, format right
- Can natively export to text file, CSV, XML, HTML
- Before running your script, Set-ExecutionPolicy RemoteSigned

Teaser Script

```
#import SQL Server module
Import-Module SQLPS -DisableNameChecking;

$instanceName = "KERRIGAN";
$server = New-Object `
-TypeName
Microsoft.SqlServer.Management.Smo.Server `
-ArgumentList $instanceName;

#display days ago since last backup
$server.Databases | `
Select Name, RecoveryModel, LastBackupDate, `
LastDifferentialBackupDate, LastLogBackupDate | `
Format-Table -AutoSize
```


Learning PoSH for the young Jedi

```
Get-Help Get-Command -Detailed
```

```
Get-Command "*Event*" -CommandType "Cmdlet" | `
Select Name
```

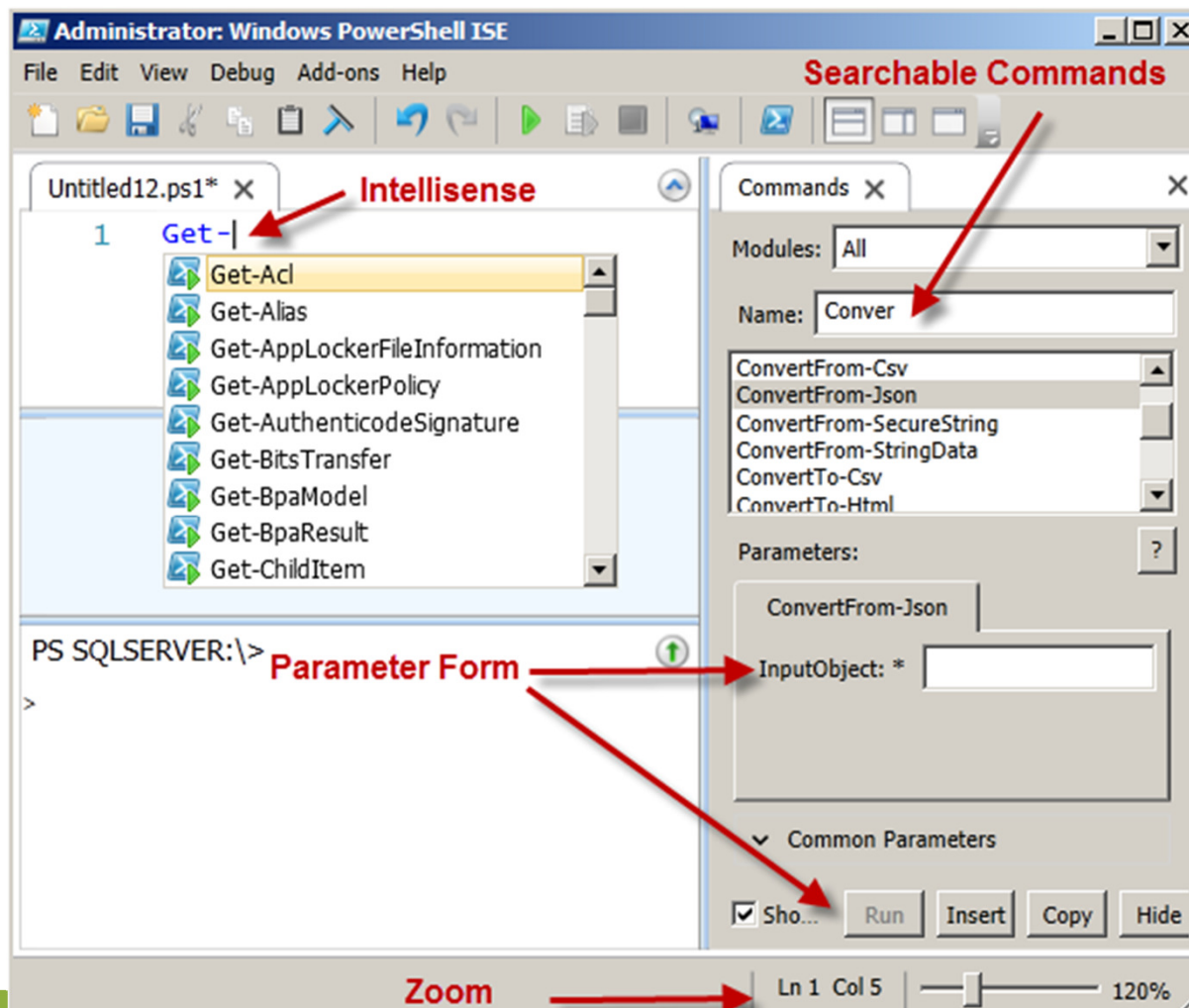
```
$failed = Get-EventLog -LogName "Security" | `
Where {$_.Message -like "*failed*"}
```

```
$failed | Get-Member
```

POSH V3 GOODNESS



PowerShell V3 (CTP) ISE tour



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POSH AND SQL SERVER



SQL Server 2008 and PowerShell V2

- Mini Shell
 - Limited, pre-packaged PowerShell for SQL Server
 - Accessible from SSMS
- SMO
 - SQL Server Management Objects
 - No getting away from SMO ... yet
 - Not a lot of SQL Server cmdlets, but can still get things done
- Snapins/Modules

To get full SQLPS functionality in Shell

PoSH V2 + SQL Server 2008/R2

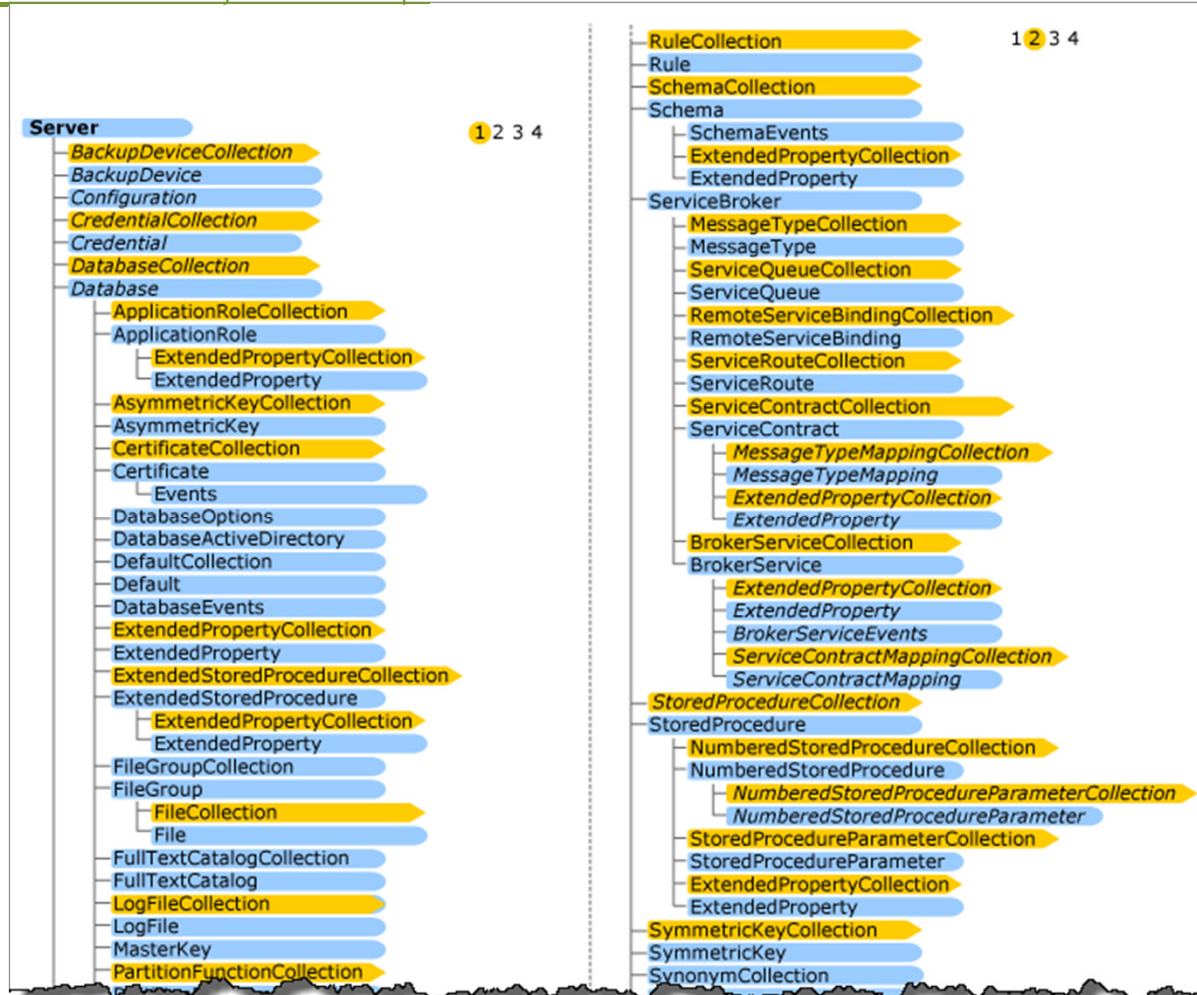
```
Get-PSSnapin -registered  
Add-PSSnapin SqlServerCmdletSnapin  
Add-PSSnapin SqlServerProviderSnapin
```

PoSH V3 + SQL Server 2012

```
Import-Module SQLPS -DisableNameChecking
```

SMO Object Model (MSDN)

<http://msdn.microsoft.com/en-us/library/ms162209.aspx>



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Demo Time!!!

ARE WE THERE YET?



Administration

- Get Server Inventory
- Script Database Objects
- Add Logins and Users
- Display Error Logs
- Perform Backup/Restore
 - “Old” way (V1, V2)
 - “New” way (V3)

Development

- Insert BLOB
- Retrieve BLOB
- Insert XML
- Retrieve XML

BI-related

- Deploy Data Source
- Create SSRS Folder
- Deploy RDL files
- Download all RDL files
- Download Reports as PDF
- Deploy SSIS package file (dtsx)

For the Nosy

- Demo on a little bit of sleuthing ...

PowerShell Resources

- PowerShell.com
 - <http://powershell.com>
- PowerShell Tip of the Day
 - <http://powershell.com/cs/blogs/tips/>
- Free PowerShell Ebook – really good!
 - <http://powershell.com/Mastering-PowerShell.pdf>

PowerShell Books

- PowerShell and SQL Server Books
 - SQL Server 2012 and PowerShell V3 Cookbook by Donabel Santos (summer 2012)
 - *Yes, shameless plug I know*
 - Microsoft SQL Server 2008 Administration with Windows PowerShell by MAK and Yan Pan
- PowerShell Books
 - PowerShell in Action by Bruce Payette
 - PowerShell in a Month of Lunches by Don Jones
 - PowerShell TFM by Don Jones
 - PowerShell in Practice by Richard Siddaway
 - PowerShell In Depth (MEAP) by Don Jones, Bruce Payette and Richard Siddaway

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Demo files

Slides

Cheatsheets

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THANK YOU!

