



What Can't PowerShell Do?

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Who Am I?

- Microsoft Team Lead
- SQL Server DBA
- (MCITP: Database Administration in 2005 and 2008)
- In IT industry for 11 years. DBA for 6 years. I've been with PTI for 4 years.
- Worked for various industries such as large insurance companies, government entities, large and small corporations, hospitals and medical related businesses and on and on



Agenda



- Quick overview of PoSH
- Create script
- Snazzify script at multiple levels
- Show cool examples of other scripts
- Questions/discussion

What is this PowerShell thing?



Fluffy Definition: extensible command-line shell and associated scripting language from Microsoft

My definition: awesome and easy way for me to create things to make my administration life easier



Let's Dig In



- Cmdlet: utilities in Powershell (stuff you can do) ...in verb-noun format for most part.

Example = `get-service`, `format-list`, `out-file`

- Piping: `|` passes output from cmdlet to cmdlet from left to right

Example = `get-process | sort-object CPU`

- Variables: start with `$`

Example = `$servers = 'LPT-HOPE\HOPE'`

- Comments: `#` or `<# comment #>` (in 2.0)

Help is Always Near



- Get-help: displays information about Windows Powershell cmdlets and concepts
- Get-command: gets basic information about cmdlets and about other elements of Windows Powershell commands.
- Get-member: helps you figure out what methods/properties are available on a cmdlet

How to talk to SQL Server?



- ❑ Powershell can be ran across multiple versions of SQL Server (2000, 2005, 2008) when you use SMO assemblies to communicate with SQL Server.
- ❑ `[reflection.assembly]::LoadWithPartialName("Microsoft.SqlServer.Smo")`
- ❑ `$sqlServer = new-object ("Microsoft.SqlServer.Management.Smo.Server") "LPT-HOPE\HOPE"`
- ❑ Can use .NET classes to talk to SQL Server also:
`$db = new-object System.Data.SqlClient.SqlDataAdapter ($command, $cnxt)`
- ❑ With 2008 they loaded all this up and loaded it into provider so can navigate SQL Server like a drive letter.
- ❑ `Sqlps.exe`

Profiles



A profile allows you to customize your PowerShell world. You can save functions, load assemblies, and store aliases. All things put into your profile will load each time PowerShell starts. There are 4 different profiles available that run at different levels. This will be user profile (only for particular user and only within PowerShell).

- ❑ To figure out if you have one:
Test-path \$profile
- ❑ To quickly edit:
notepad \$profile

Ok Let's Get To It



Now let's get started on the script.

Going to start with basics of script and build step by step getting fancier as we go along.

References



Lots of good information out there on PowerShell. Here are some of my favorites:

- Allen White -
http://sqlblog.com/blogs/allen_white/default.aspx
twitter: @SQLRunr

- SQL Variant - <http://sqlvariant.com/wordpress/>
twitter - @SQLvariant

- Ed Wilson (scripting guy) -
<http://technet.microsoft.com/en-us/scriptcenter>
@ScriptingGuys

- Dr. Thomas Weltner -
<http://powershell.com/cs/blogs/ebook/>



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Thank You!

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