Level Up with PowerShell

Using PowerShell to stop global warming and increase your raw animal magnetism

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I’m a developer.
Why should I learn PowerShell?

- Developers don’t just develop
- Don’t Repeat Yourself (DRY)
- It’s leverages existing .NET skills
- Sometimes quick and dirty is enough

What are somethings that I can do with PowerShell?

Where do I start?

- PowerShell console
- PowerShell ISE (Integrated Scripting Environment)
- Set the Execution Policy

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Some Cmdlets to remember

Get-Help – Get help for a specific command

Get-Command – Get a list of available commands

Get-Member – Get the properties of an object

Measure-Object – Gets a count of a collection

Out-GridView – Output to a graphical window

Format-Table – Format the output as a table

Format-List – Format the output as a key/value list

Set-Alias – Create your own aliases

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PowerShell Basics

- Variables are designated with a dollar sign $variable
- Arrays are declared using @(1,2,3) syntax
- Hash tables are declared using @{a=1; b=2; c=3} syntax
- You can filter collections with Where-Object (where or ?)
- Comparisons use -eq, -gt, -lt, -ne, -like, etc…
- You can modify what is selected with Select-Object (select)
- Sort output with Sort-Object (sort)
- Pipe the output of one command to another
- Setup common scripts using your PowerShell profile

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Execution control

- if else statement
- for loop
- foreach (%) loop
  - $_ is the reference to the current item
- do while loop
- while loop
- do until loop

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Functions

- Denoted with the keyword function
- Can have 0..N parameters
- Parameters are passed in without parentheses and commas
- The Function: PSDrive lets you view the existing functions

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Tips, Tricks & Gotchas

- You can use single or double quotes, but variables are only expanded when using double quotes
- The back tick (`) is the escape character
- Use ( ) to force evaluation of an expression
- Use -WhatIf to see what would happen if you executed something

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Error handling

```
try { Code to execute… }
catch [ExceptionType] { Handle the error… }
finally { This code always runs… }
```

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Using .NET components

- Call static methods

```
$results = [System.Math]::Sqrt(9)
```

- Create a new object

```
$stack = New-Object System.Collections.Stack($null)
```

- Create a new type

```
Add-Type –TypeDefinition  @“{C# Code }”@
```

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Demo Time

Learn More

- Websites
  - PowerShell.org
  - blogs.technet.com/b/heyscriptingguy
  - blogs.msdn.com/b/powershell
  - pscx.codeplex.com
- Books
  - Windows PowerShell for Developers by Douglas Finke

Thank you

Slides available on my github site

https://github.com/brentestewart/PowerShellTalk

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