

Intro to PS Workshop



Agenda

- What is PowerShell
- Cmdlets
 - Common cmdlets
- PowerShell variables and usage
- Common cmdlets
 - Core cmdlets
 - Other common cmdlets
- PowerShell aliasing
- PowerShell conditionals
- PowerShell loops



So what is PowerShell?

- Basically interpreted C#
 - Interpreted vs compiled
- .NET language
 - Allows interfacing with all things .NET and windows
- Cross platform via .NET core
- Object based language

Cmdlets

- [noun]-[verb]
 - Get
 - Set
 - Remove
 - Stop
 - ConvertFrom/ConvertTo
- Generally C# compiled binaries

Exercise 1

- What does Get-Clipboard do?
- What about Set-Variable?
- How about ConvertTo-xml?

Common Cmdlets

- Get-Help
 - PS's man pages
- Get-Command
 - “I wonder if there's a cmdlet for...”
- Get-Member
 - “What methods/attributes are available to xyz cmdlet?”

Files

- Listing Files
 - Get-ChildItem
- Reading Files
 - Get-Content
- Creating Files
 - New-Item
- Writing To Files
 - Set-Content
- Moving Files
 - Move-Item
- Removing Files
 - Remove-Item

Folders

- Listing Folders/Contents of a Folder
 - Get-ChildItem
- Creating Folders
 - New-Item
- Removing Folders
 - Remove-Item
- Moving Into Directories
 - Set-Location

Exercise 2

- Create a new directory and add a file named new.txt
- List hidden files in a directory

Aliasing

- Just like in bash (and any other linux shell), PS allows for aliasing
- Get-Alias
- Set-Alias

Exercise 3

- What is another alias for changing directories?
- What are two aliases for listing directory contents?
- How about an alias to list aliases?
- Are there any aliases for Get-Help, Get-Command, or Get-Member?
 - If not, then create an alias

Variables

- Denoted by `\$`
- Can also use Cmdlets to interface with variables
 - Get-Variable
 - Set-Variable
 - Clear-Variable
 - Remove-Variable

Conditionals

- If...elif...else

Loops

- While
- Do-while
- For
- Foreach
- ForEach-Object - technically a cmdlet

Functions

```
Function Hello {
```

```
    Write-Output "Hello World"
```

```
}
```