

#### PowerShell DSC

(Desired State Configuration) from the Trenches



### Get-Help -Name 'about\_Presenter'

- Mike F Robbins
- Microsoft MVP
- SAPIEN Technologies MVP





- Leader & Co-Founder of Mississippi PowerShell User Group
- Co-Author of Windows PowerShell TFM 4th Edition
- Author of Chapter 6 in the PowerShell Deep Dives book
- Winner of the Advanced Category in the 2013 Scripting Games
- Learn more about me @ mikefrobbins.com



# Write-Output 'Questions for Audience'

- IT Pro's
- Developers
- Database Administrators
- PowerShell
- PowerShell version 4 or higher
- Functions
- Modules
- Desired State Configuration
- PKI (Public Key Infrastructure)



#### Set-Content 'Information to Cover'

- Requirements
- Imperative versus Declarative Configuration
- Basics
- MOF
- LCM
- Push
- Pull
- Resources



#### Requirements

- PowerShell version 4
- KB2883200
- WinRM Service
- WinRM Listeners (Endpoints)
- Script Execution Policy –le Remote Signed
- KB3000850 (Recommended)
- PowerShell Remoting –not Required



# **Imperative**

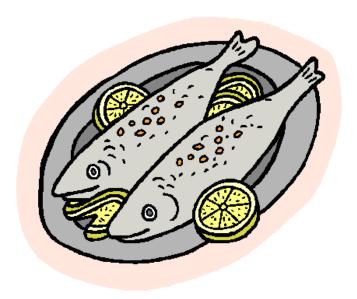
■ Describing an item in terms of specific instructions which changes its state.





#### **Declarative**

■ Describe what you're trying to achieve without instructing how to perform the specific actions to achieve the state.





#### Idempotent

- Desired state is reached regardless of current state.
- Current state is irrelevant.
- Produces the same results if executed once or multiple times.
- Can be repeated or retried as often as necessary without causing unintended effects.
- Non-idempotent operations may need to keep track of whether or not the operation was already performed and what the current state is.



#### Start-Process 'Demo'

Demo Code: github.com/mikefrobbins/Presentations





# Select-Object -Property 'Resources'

- PowerShell.org
- Microsoft Virtual Academy
- PowerShell Virtual Chapter of SQL PASS
- PowerShell Magazine
- GitHub
- User Groups
- <u>Blogs</u>
- Twitter
- Windows Desired State Configuration Revealed book
- <u>Learning PowerShell DSC book</u>



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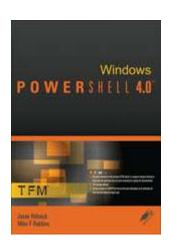




# Get-Contact –Identity 'Presenter'

■ Blog: <u>mikefrobbins.com</u> (or MrPowerShell.com)





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