



# PowerShell DSC

(Desired State Configuration) from the Trenches



# Get-Help -Name 'about\_Presenter'

- Mike F Robbins
- Microsoft MVP on Windows PowerShell
- 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](http://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
- Idempotent
- 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



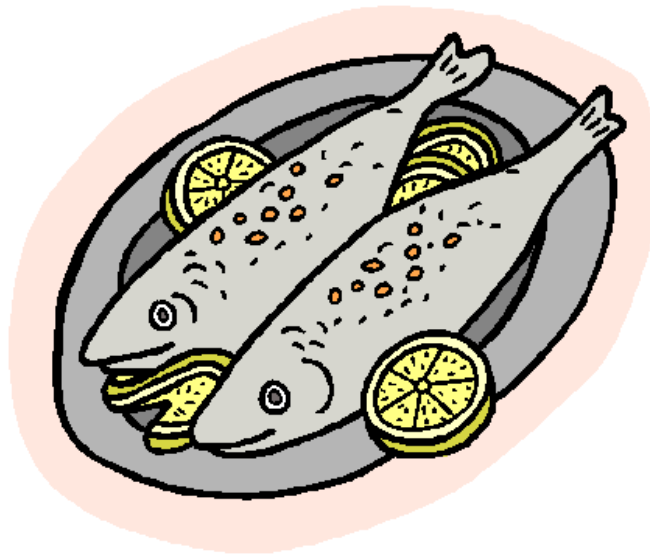
# Imperative

- 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](https://github.com/mikefrobbins/Presentations)



# Select-Object –Property ‘Resources’

- [PowerShell.org](#)
- [Microsoft Virtual Academy](#)
- [PowerShell Virtual Chapter of SQL PASS](#)
- [PowerShell Magazine](#)
- [GitHub](#)
- [User Groups](#)
- [Blogs](#)
- [Twitter](#)
- [Windows Desired State Configuration Revealed book](#)
- [Learning PowerShell DSC book](#)



# Get-Contact –Identity ‘Presenter’

- Blog: [mikefrobbins.com](http://mikefrobbins.com) (or MrPowerShell.com)



- Twitter: [@mikefrobbins](https://twitter.com/mikefrobbins)
- LinkedIn: [www.linkedin.com/in/mikefrobbins](http://www.linkedin.com/in/mikefrobbins)
- E-Mail: See [mikefrobbins.com/about/](http://mikefrobbins.com/about/)
- User Group: [mspsug.com](http://mspsug.com) (or MsPowerShell.com)

