Recreate MOF based DSC resources

as Class based DSC resources

Get-Help –Name 'about_Presenter'

■ Who Does Not Know Who I Am?

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Requirements

- MOF
  - Windows PowerShell version 4 or higher

- Class
  - Windows PowerShell version 5 or higher

- PSDesiredStateConfiguration #Requires WMI

- DSC –notlike 'PowerShell Core'
  - Windows
  - Linux
  - macOS

- [PowerShell Team Blog](http://mikefrobbins.com)

Introduction

- xRemoteDesktopAdmin
    - Set-TargetResource
        - Compares a string to an integer
        - Variables
            - Ensure is a string
                - Present
                - Absent
            - GetEnsure
                - 0
                - 1
        - If = $false (line 89)

- The Dark Ages

xRemoteDesktopAdmin DSC resource

```
60  #region SET RDP Settings
61  function Set-TargetResource
62  {
63      [CmdletBinding()]
64      [OutputType([System.Collections.Hashtable])]
65      param
66      (
67          [Parameter(Mandatory)]
68          [ValidateSet("Present","Absent")]
69          [System.String]$Ensure,
70
71          [ValidateSet("NonSecure", "Secure")]
72          [System.String]$UserAuthentication
73      )
74
75      switch ($Ensure) {
76          "Present" {[System.Byte]$fDenyTSConnections = 0}
77          "Absent" {[System.Byte]$fDenyTSConnections = 1}
78      }
79
80      switch ($UserAuthentication) {
81          "NonSecure" {[System.Byte]$UserAuthentication = 0}
82          "Secure" {[System.Byte]$UserAuthentication = 1}
83      }
84
85      $GetEnsure = (Get-ItemProperty -Path "HKLM:\System\Curr
86      $GetUserAuthentiation = (Get-ItemProperty -Path 'HKLM:\;
87
88      #The make it so section
89      if ($Ensure -ne $GetEnsure) {
90          Set-ItemProperty -Path 'HKLM:\System\CurrentControl:
91      }
92      if ($UserAuthentication -ne $GetUserAuthentication) {
93          Set-ItemProperty -Path 'HKLM:\System\CurrentControl:
94      }
95  }
```

Part 1 – MOF Based DSC Resource

- Demonstration of Process
  - Custom DSC Resource for RDP
  - 2014

- Requirements
  - Windows PowerShell version 4.0 or higher
    - Introduction of DSC
    - Limited to MOF

Start-Process 'Demo'

Demo Code: github.com/mikefrobbins/Presentations

Naming Convention

- 2014
  - Prefix
    - "c" for Community
    - "x" for Experimental (Microsoft Only)

- 2015
  - Let's Stop Using "c" Now
    - Steven Murawski

- 2017
  - DSC Naming Guidelines
    - PowerShell Team Blog

Required Functions

- Get-TargetResource
  - Hashtable

- Set-TargetResource
  - Test-TargetResource Fails
  - Configure non-compliant Items
  - Null

- Test-TargetResource
  - Determine Compliance
  - Boolean

Possible Improvements

- Private Functions
  - Eliminate Redundancy
  - Export-ModuleMember
  - FunctionsToExport

Part 2 – Class Based DSC Resources

- Requirements
  - Windows PowerShell version 5.0 or higher

- Required Methods
  - Get()
  - Set()
  - Test()
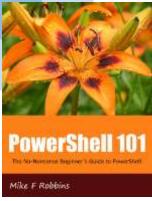
- Benefits
  - No MOF

Part 3 – Refactoring

- Enumerations

- Challenges
  - Classes
    - Debugging
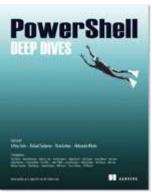   - Versioning
    - Testing

Select-Object –Property 'Resources'

- PowerShell.org

- Microsoft Virtual Academy

- PowerShell Magazine

- Planet PowerShell

- User Groups

- PowerShell Community Videos

- Twitter

- Slack

Get-Contact –Identity 'Presenter'

- Blog: mikefrobbins.com (or MrPowerShell.com)

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