

# Gathering Information with PowerShell

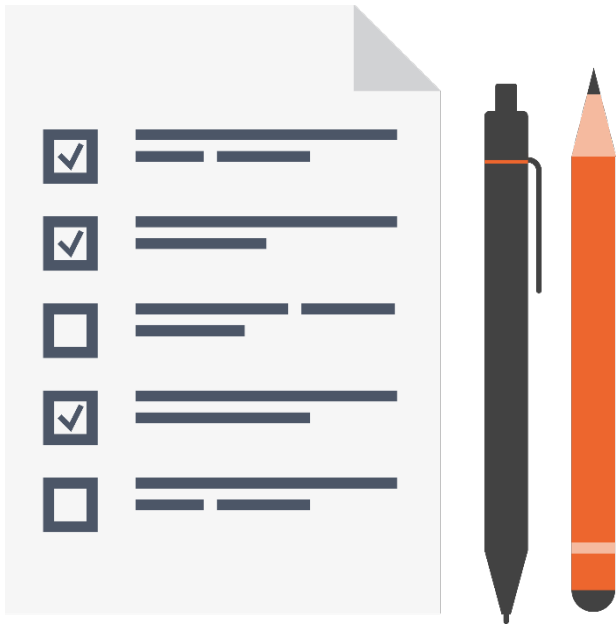


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# What We'll Cover



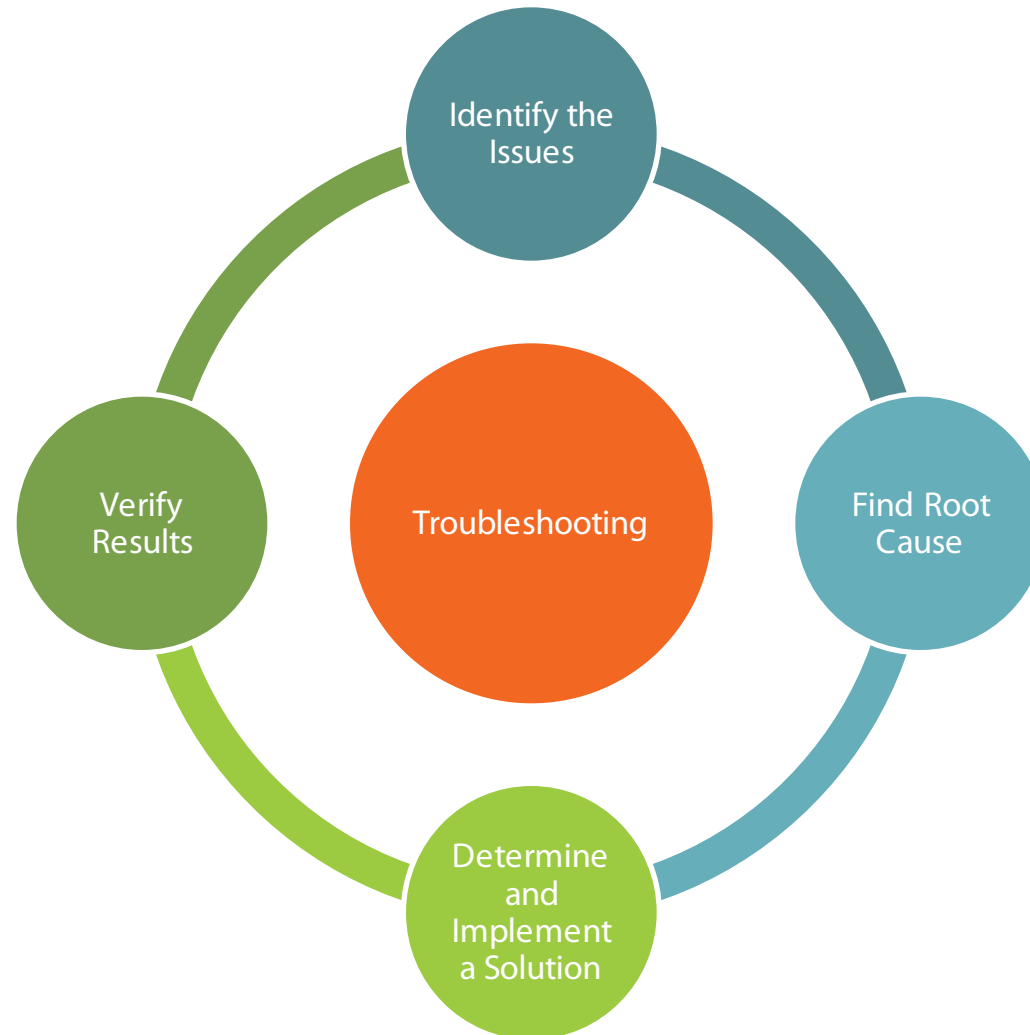
Troubleshooting Made Simple

Using Get-

Gathering Information with PowerShell

Dealing with Errors in PowerShell

# Troubleshooting Made Simple



# Gathering Information with PowerShell

Computer  
and  
Hardware

Networking

Registry

Files and  
Printers

Active  
Directory  
Objects

# Gathering Info Process

Get-Command



```
graph TD; A[Get-Command] --> B[Help]; B --> C[Get-Member];
```

Help

Get-Member

# Gathering Operating System Information

- Windows Management Instrumentation (WMI)
  - `Get-WMIobject`
- Common Information Model (CIM)
  - `Get-CimInstance`

WMI Repository

CIMv2

WIN32\_Processor

Device ID

Name

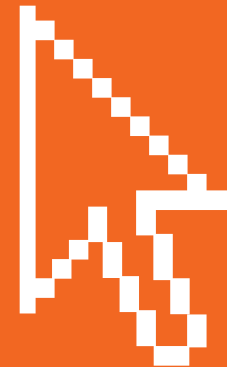
# Gathering Operating System and Hardware Information with PowerShell

`Get-Counter`

`Get-WMIObject`

`Get-CIMInstance`

`Get-Eventlog`



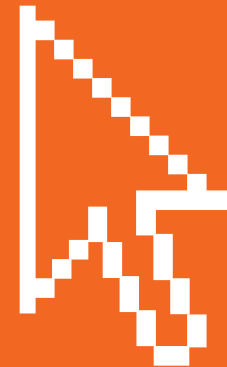
# Gathering Networking Information

`Ipconfig`

`Get-NetIPAddressConfiguration`

`Get-SMBMapping`

`New-SMBMapping`





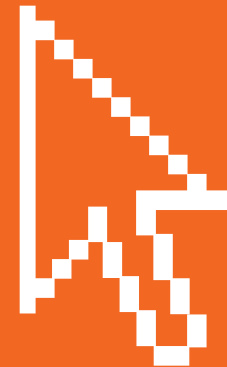
# Gathering Registry Information with PowerShell

`Get-PSProvider`

`Get-Item`

`Get-ItemProperty`

`Set-ItemProperty`





This is a registry key.  
Use Get-Item to view



This is a registry key  
property. Use Get-  
ItemProperty to view

# Working with Files and Printers in PowerShell

Get-ChildItem

Copy-Item

Move-Item

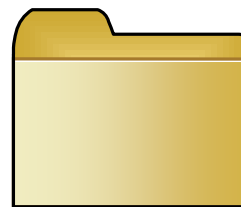
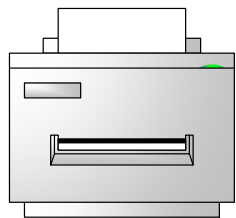
Rename-Item

Get-Printer

Add-Printer

Remove-Printer





# What is Active Directory?



# Working with Active Directory Information in PowerShell

Get-ADUser

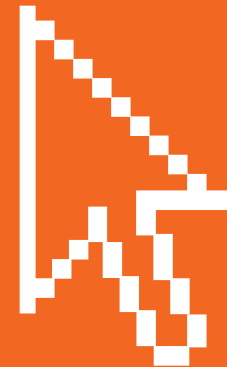
Search-ADAccount

Get-ADComputer

Get-ADGroup

Get-ADGroupMember

Add-ADGroupMember



# More Information on Active Directory



## **Windows Server Administration Fundamentals – Part 2**

- **Introduction to Active Directory**
- **AD Objects and Group Policy**

By Michael Bender

<http://www.pluralsight.com/courses/windows-server-administration-fundamentals-part2>

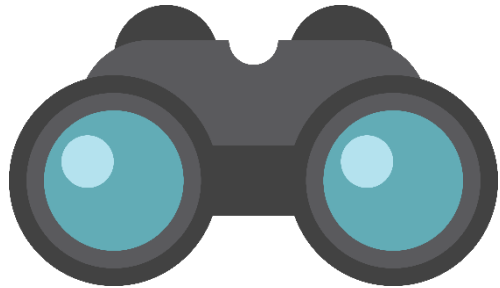
# Wrap Up

Have a set  
methodology for  
Troubleshooting

Get-Help  
Get-Command  
Get-Member

Don't mess with the  
registry!

# Next Up



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