



Microsoft Windows NT 4.0  
Microsoft Windows 2000  
Microsoft Windows Server 2003



Database Administrator 2008  
Database Administrator on SQL Server® 2005  
Enterprise Administrator on Windows Server® 2008  
Server Administrator on Windows Server® 2008

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## PowerShell: From Beginner to Infinity & Beyond!



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# What is PowerShell?

Updated: September 17, 2012

Applies To: Windows PowerShell 2.0, Windows PowerShell 3.0

[This topic is pre-release documentation and is subject to change in future releases. Blank topics are included as placeholders.]

Windows PowerShell® is a task-based command-line shell and scripting language designed especially for system administration. Built on the .NET Framework, Windows PowerShell helps IT professionals and power users control and automate the administration of the Windows operating system and applications that run on Windows.

- ☺ My definition: PowerShell is an easy to use command-line shell and scripting interface or environment for automating administrative tasks on Windows based systems.

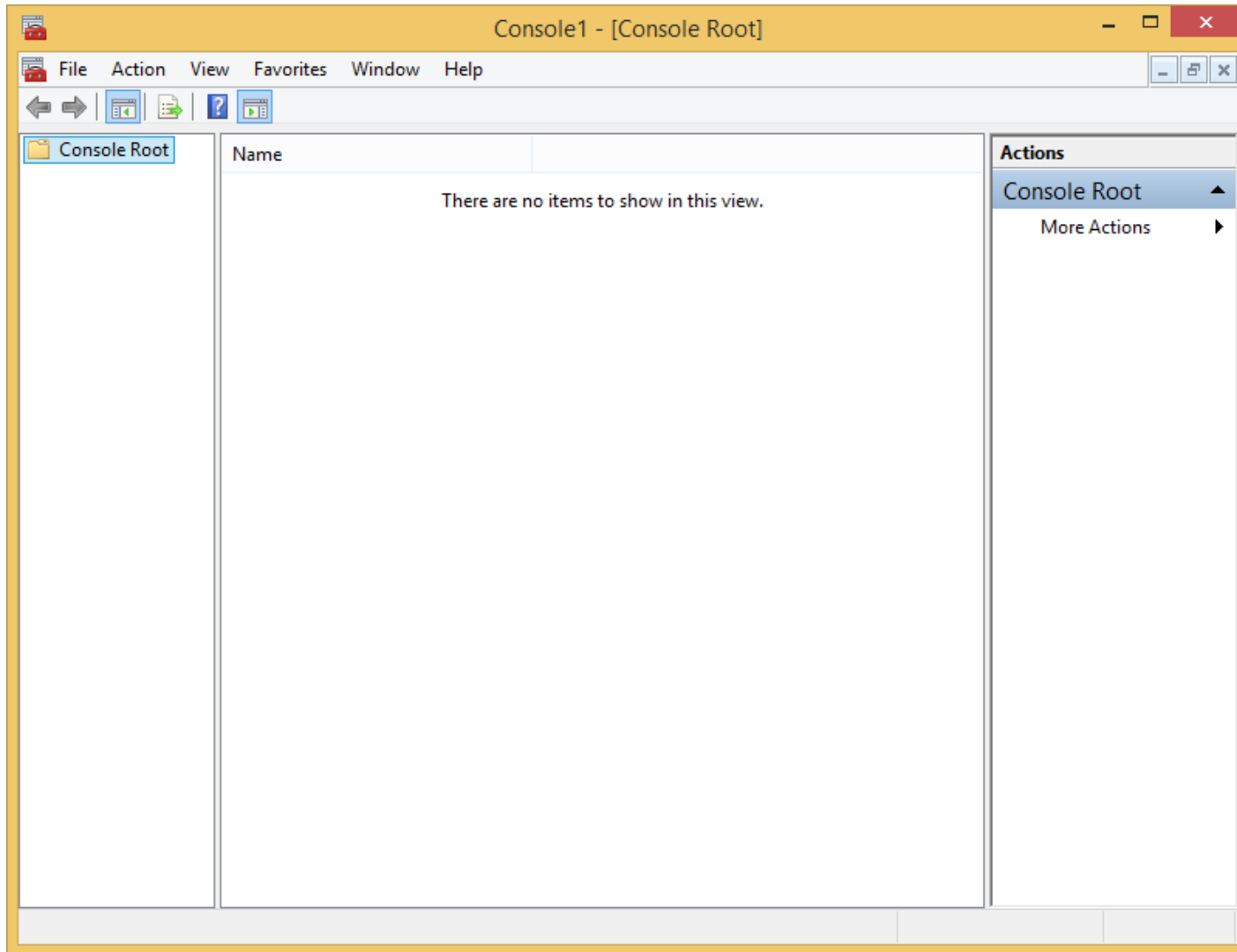
# Background Information

- PowerShell Commands are called Cmdlets
- Cmdlet is pronounced command-let (not CMD-let)
- Cmdlets are in the form of singular Verb-Noun commands

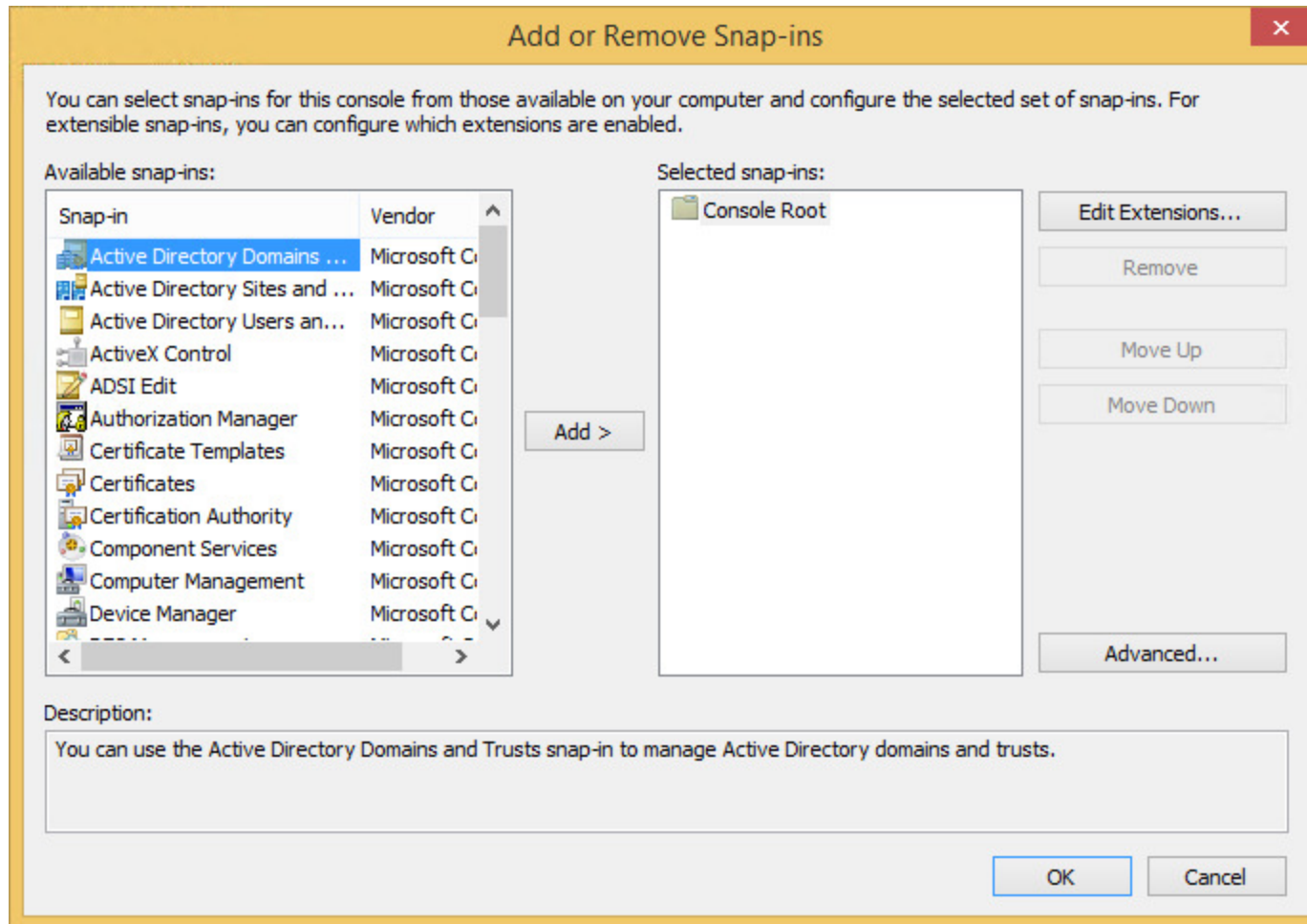
# Supported PowerShell Versions by Operating System

Windows Operating System Version	Default PowerShell Version	Supported PowerShell Versions	Default Execution Policy	Remoting Enabled by Default
Server 2003	None	1.0, 2.0	n/a	n/a
Vista	1.0*	1.0, 2.0	Restricted	No
Server 2008	1.0*	1.0, 2.0, 3.0	Restricted	No
7	2.0	2.0, 3.0, 4.0	Restricted	No
Server 2008 R2	2.0*	2.0, 3.0, 4.0	Restricted	No
8	3.0	3.0	Restricted	No
Server 2012	3.0	3.0, 4.0	Restricted	Yes
8.1	4.0	4.0	Restricted	No
Server 2012 R2	4.0	4.0	Remote Signed	Yes

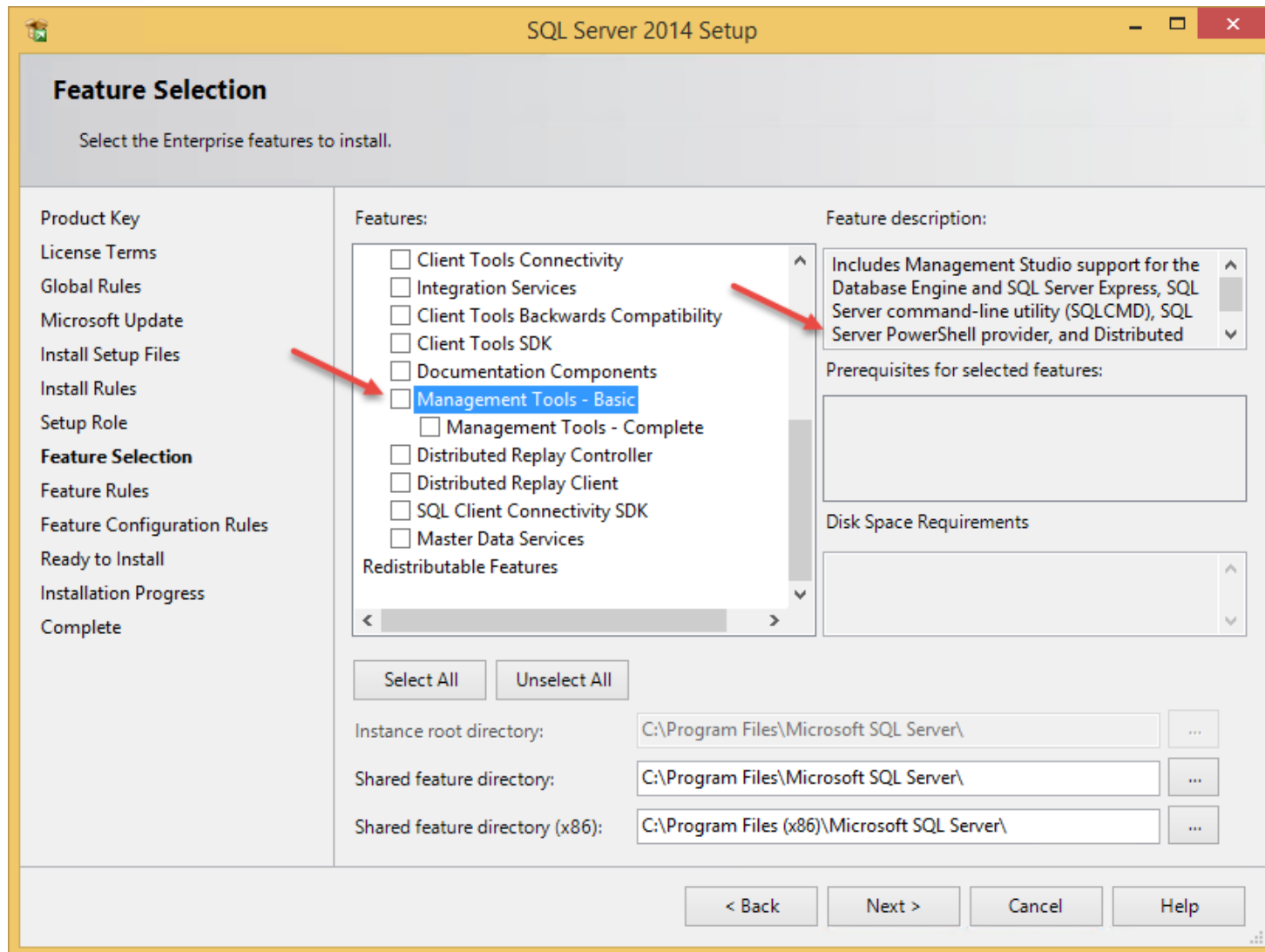
# PowerShell is like the Microsoft Management Console



# Snap-ins (and Modules) extend its functionality

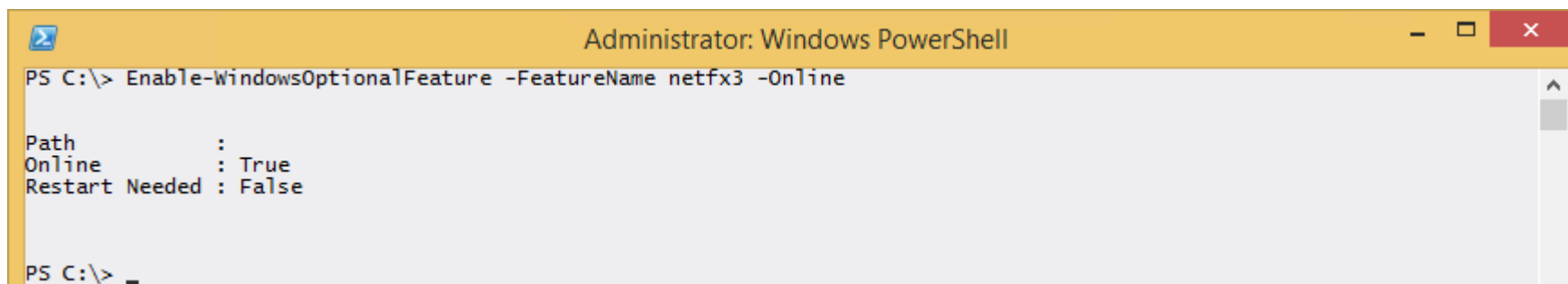


# How do I get the SQL PowerShell Module?



# Script the Installation of the SQL PowerShell Module

- Enable the .NET Framework 3.5 Feature:

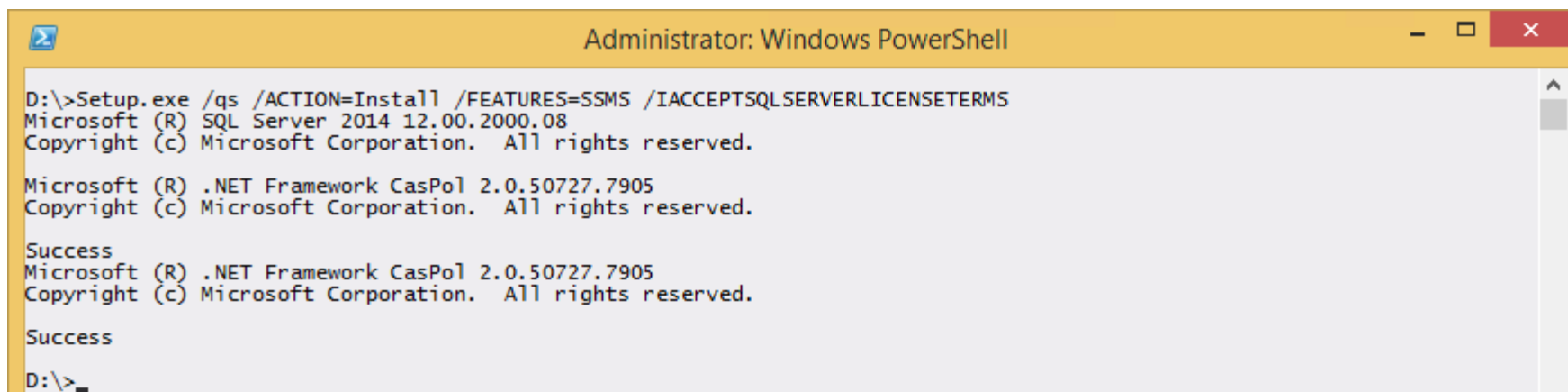


```
Administrator: Windows PowerShell
PS C:\> Enable-WindowsOptionalFeature -FeatureName netfx3 -Online

Path          :
Online        : True
Restart Needed : False

PS C:\> _
```

- Run Setup.exe with the Quiet / Simple parameters:



```
Administrator: Windows PowerShell
D:\>Setup.exe /qs /ACTION=Install /FEATURES=SSMS /IACCEPTSSQLSERVERLICENSETERMS
Microsoft (R) SQL Server 2014 12.00.2000.08
Copyright (c) Microsoft Corporation. All rights reserved.

Microsoft (R) .NET Framework CasPol 2.0.50727.7905
Copyright (c) Microsoft Corporation. All rights reserved.

Success
Microsoft (R) .NET Framework CasPol 2.0.50727.7905
Copyright (c) Microsoft Corporation. All rights reserved.

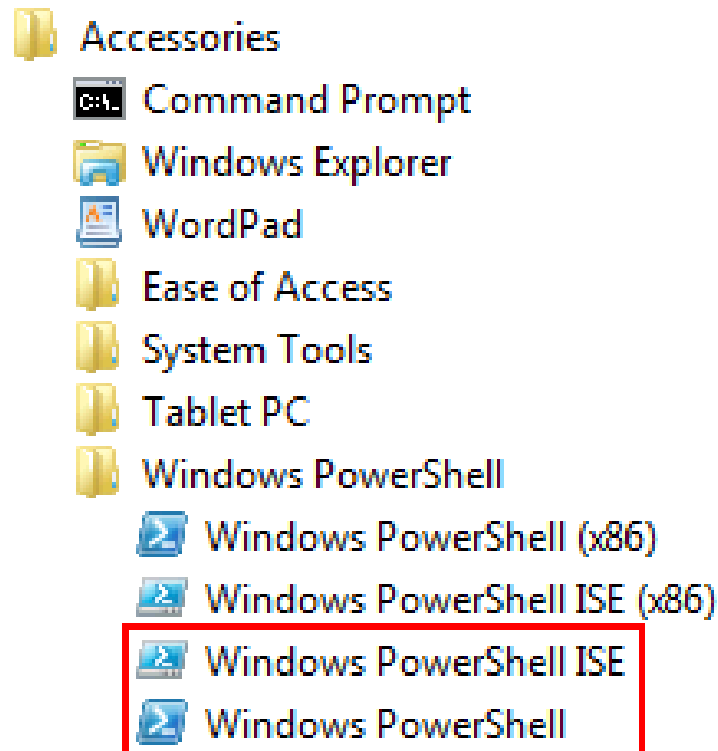
Success
D:\> _
```



# How Do I Start PowerShell?

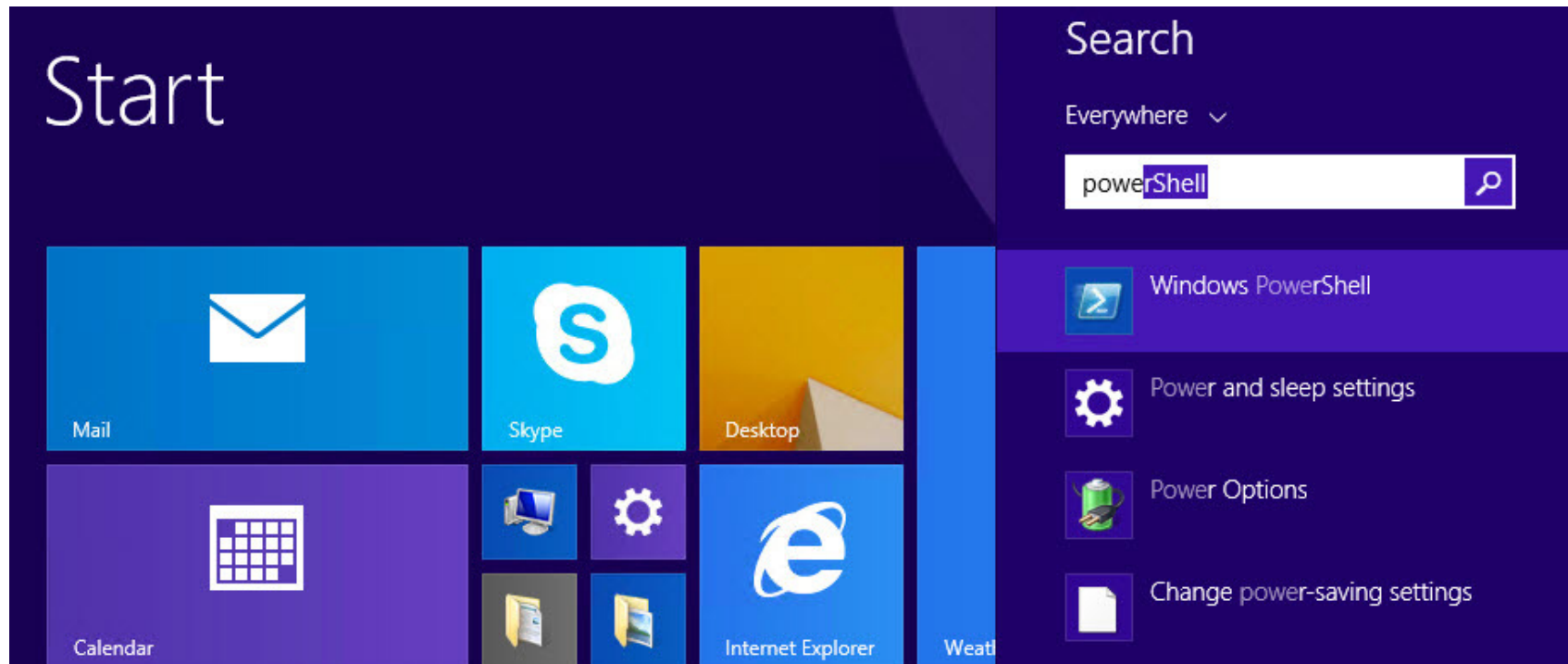
- Windows 7

- "Start > All Programs > Accessories > Windows PowerShell"



# How Do I Start PowerShell? (continued)

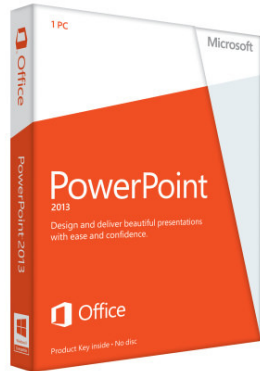
- Windows 8 or 8.1
  - Accessed from the Metro interface screen:



# How Do I Figure Out What The Commands Are?

- Learn to investigate and explore PowerShell
- Core Commands for Discovering How to Use PowerShell
  - **Get-Command**
    - Used to find what commands are available
  - **Get-Help**
    - Used to figure out how to use commands
  - **Get-Member**
    - Discover Objects, Properties, and Methods
- Select “Run as Administrator” when opening PowerShell
  - PowerShell is unable to participate in User Account Control (UAC)

- Who is here today to learn more about PowerPoint?



- Who is here today to learn more about PowerShell?



- Demo Time

# Contact Information

- My Blog: **mikefrobbins.com** or mrpowershell.com
- Twitter: **@mikefrobbins**
- Mississippi PowerShell User Group: **mspsug.com** or mspowershell.com
- Twitter: **@MSPSUG**
- Windows PowerShell TFM 4<sup>th</sup> Edition Book
- PowerShell Deep Dives Book

