

# Your First Day with PowerShell

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## INTRODUCTION AND WELCOME



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Welcome  
You've wondered  
about PowerShell  
You want to begin  
learning



Who am I?  
Long time Microsoft  
MVP



Who am I?

Long time Microsoft  
MVP

Longtime Pluralsight  
author

pluralsight 



Who am I?

Long time Microsoft  
MVP

Longtime Pluralsight  
author

Author & Speaker



# Course Scenario

**Windows Admin  
with a few years  
experience**

**You realize  
learning  
PowerShell is  
important**

**What do you do  
first?**





Emphasis on  
PowerShell v5.1 on  
Windows 10

Should have admin  
rights

Or setup a lab  
environment





# AutoLab

**8GB-16GB of RAM**

**50GB-100GB free  
disk space**

**Computer that  
supports Hyper-V  
virtualization**



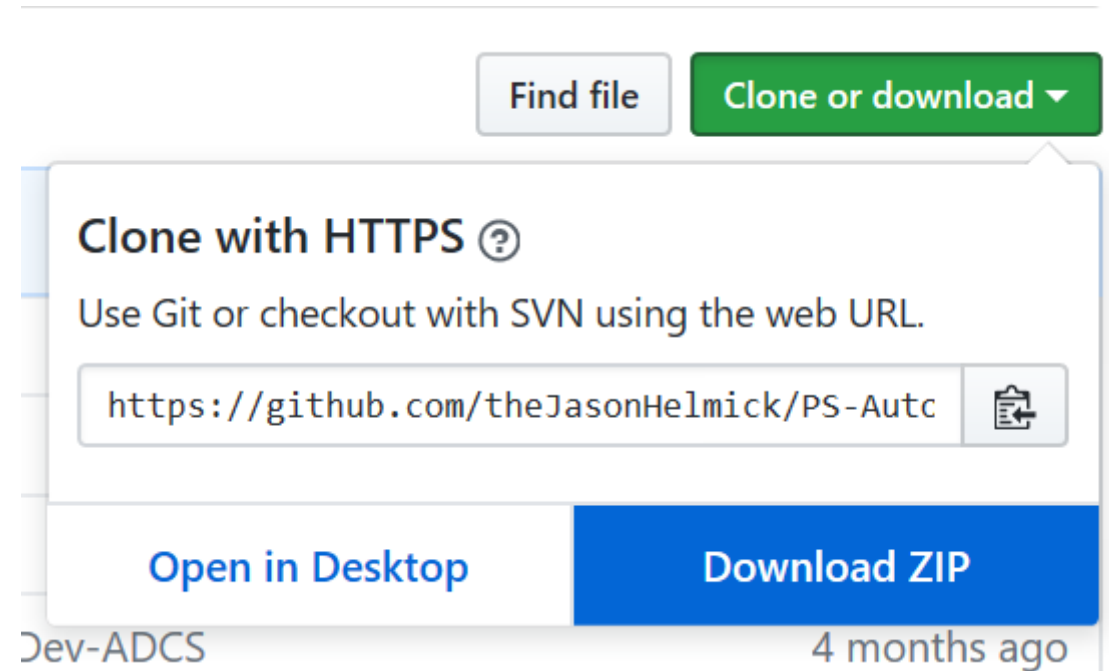
<https://github.com/theJasonHelmick/PS-AutoLab-Env>

Click “Clone or download”

Download the zip file

Extract zip file to C:\.

Reboot before running setup



Open elevated PowerShell prompt

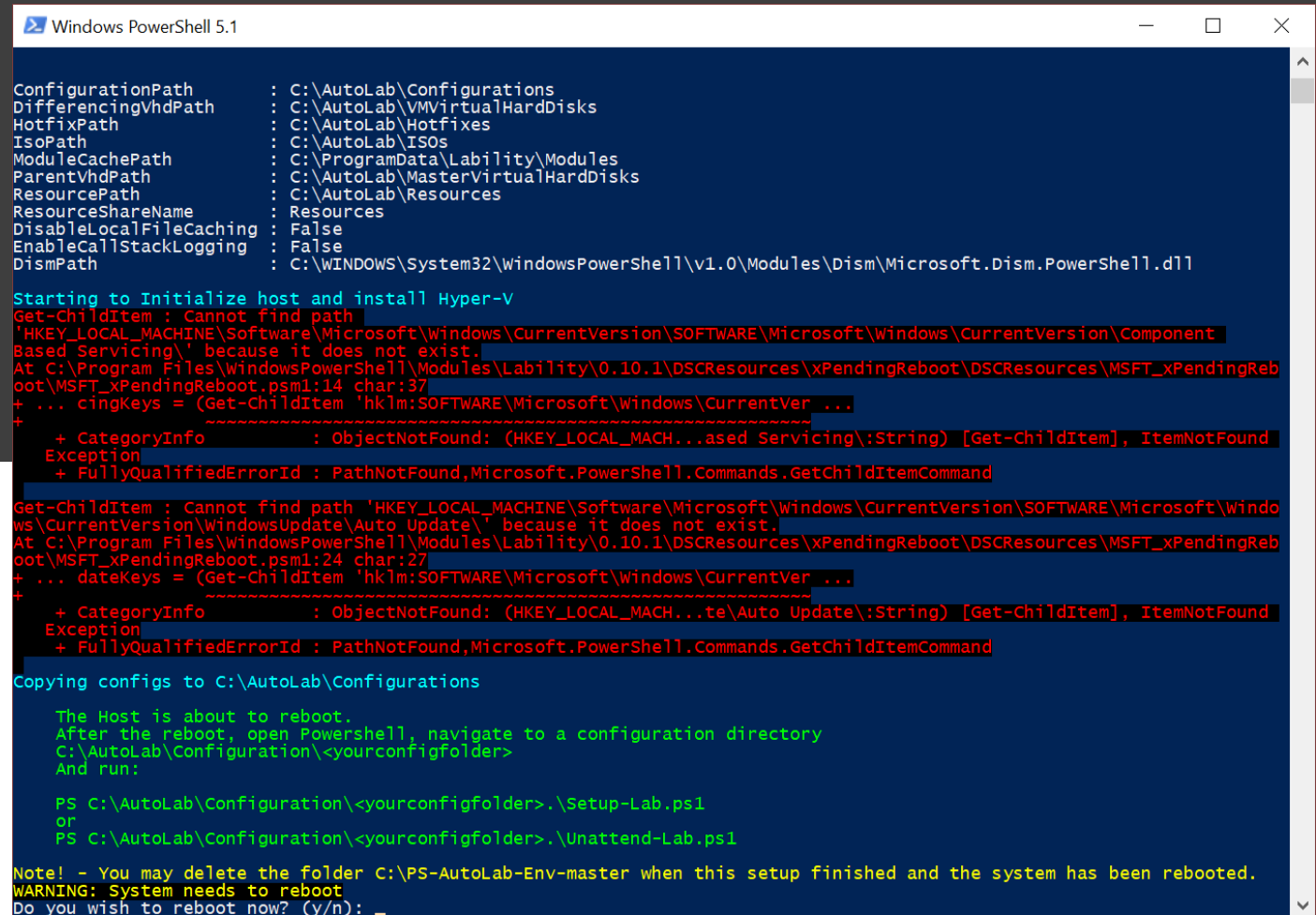
Type: `cd C:\PS-AutoLab-Env-master`

Type: `.\Setup-Host.ps1`

Follow prompts

Some errors are ok

Reboot as necessary



```
Windows PowerShell 5.1

ConfigurationPath      : C:\AutoLab\Configurations
DifferencingVhdPath    : C:\AutoLab\VMVirtualHardDisks
HotfixPath             : C:\AutoLab\Hotfixes
IsoPath               : C:\AutoLab\ISOs
ModuleCachePath        : C:\ProgramData\Lability\Modules
ParentVhdPath          : C:\AutoLab\MasterVirtualHardDisks
ResourcePath           : C:\AutoLab\Resources
ResourceShareName      : Resources
DisableLocalFileCaching : False
EnableCallStackLogging : False
DismPath               : C:\WINDOWS\System32\WindowsPowerShell\v1.0\Modules\Dism\Microsoft.Dism.PowerShell.dll

Starting to initialize host and install Hyper-V
Get-ChildItem : Cannot find path
'HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\SOFTWARE\Microsoft\Windows\CurrentVersion\Component
Based Servicing' because it does not exist.
At C:\Program Files\WindowsPowerShell\Modules\Lability\0.10.1\DSCResources\xPendingReboot\DSCResources\MSFT_xPendingReb
oot\MSFT_xPendingReboot.psml:14 char:37
+ ... cingKeys = (Get-ChildItem 'hk1m:SOFTWARE\Microsoft\Windows\CurrentVer ...
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (HKEY_LOCAL_MACH...ased Servicing:String) [Get-ChildItem], ItemNotFound
Exception
+ FullyQualifiedErrorId : PathNotFound,Microsoft.PowerShell.Commands.GetChildItemCommand

Get-ChildItem : Cannot find path 'HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\SOFTWARE\Microsoft\windo
ws\CurrentVersion\WindowsUpdate\Auto Update\' because it does not exist.
At C:\Program Files\WindowsPowerShell\Modules\Lability\0.10.1\DSCResources\xPendingReboot\DSCResources\MSFT_xPendingReb
oot\MSFT_xPendingReboot.psml:24 char:27
+ ... dateKeys = (Get-ChildItem 'hk1m:SOFTWARE\Microsoft\Windows\CurrentVer ...
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (HKEY_LOCAL_MACH...te\Auto Update:String) [Get-ChildItem], ItemNotFound
Exception
+ FullyQualifiedErrorId : PathNotFound,Microsoft.PowerShell.Commands.GetChildItemCommand

Copying configs to C:\AutoLab\Configurations

The Host is about to reboot.
After the reboot, open Powershell, navigate to a configuration directory
C:\AutoLab\Configuration\<yourconfigfolder>
And run:

PS C:\AutoLab\Configuration\<yourconfigfolder>.\Setup-Lab.ps1
or
PS C:\AutoLab\Configuration\<yourconfigfolder>.\Unattend-Lab.ps1

Note! - You may delete the folder C:\PS-AutoLab-Env-master when this setup finished and the system has been rebooted.
WARNING: System needs to reboot
Do you wish to reboot now? (y/n):
```



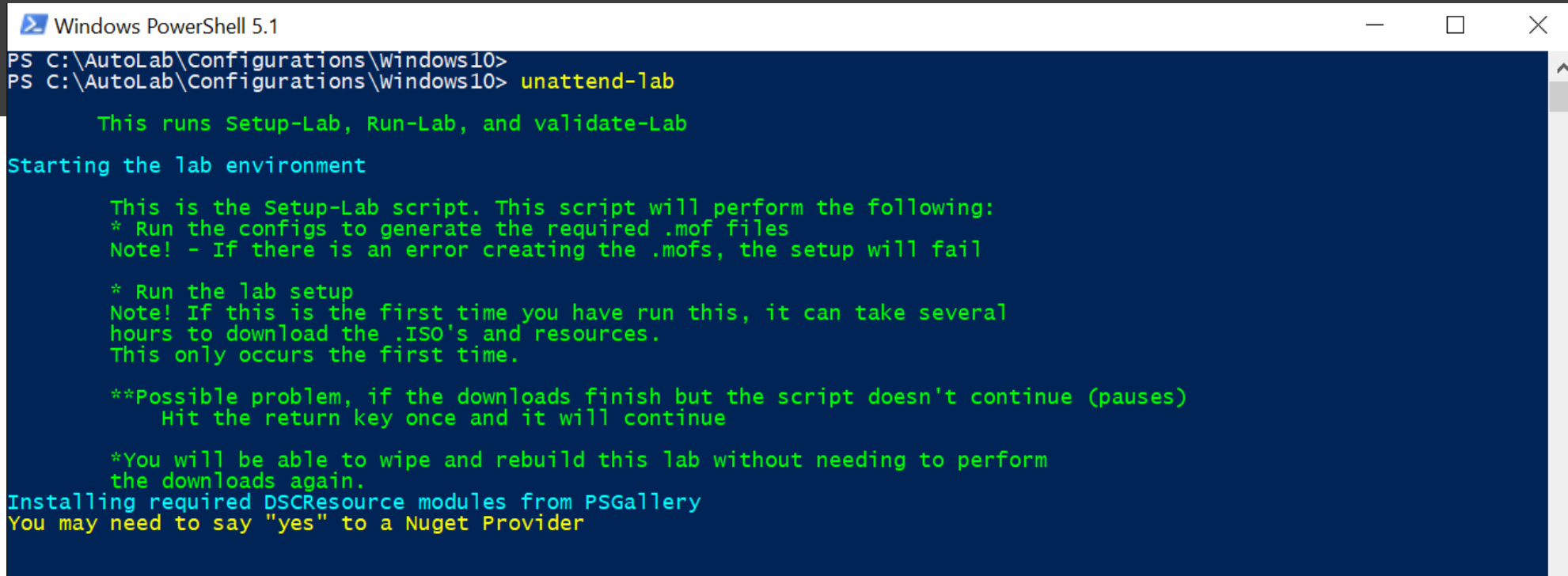
Open elevated PowerShell prompt

Type: `cd C:\Autolab\configurations\Windows10`

Read: `Instructions.md`

Run: `unattend-lab`

Wait...



```
Windows PowerShell 5.1
PS C:\AutoLab\Configurations\Windows10>
PS C:\AutoLab\Configurations\Windows10> unattend-lab

    This runs Setup-Lab, Run-Lab, and validate-Lab
Starting the lab environment

    This is the Setup-Lab script. This script will perform the following:
    * Run the configs to generate the required .mof files
    Note! - If there is an error creating the .mofs, the setup will fail

    * Run the lab setup
    Note! If this is the first time you have run this, it can take several
    hours to download the .ISO's and resources.
    This only occurs the first time.

    **Possible problem, if the downloads finish but the script doesn't continue (pauses)
        Hit the return key once and it will continue

    *You will be able to wipe and rebuild this lab without needing to perform
    the downloads again.
Installing required DSCResource modules from PSGallery
You may need to say "yes" to a Nuget Provider
```

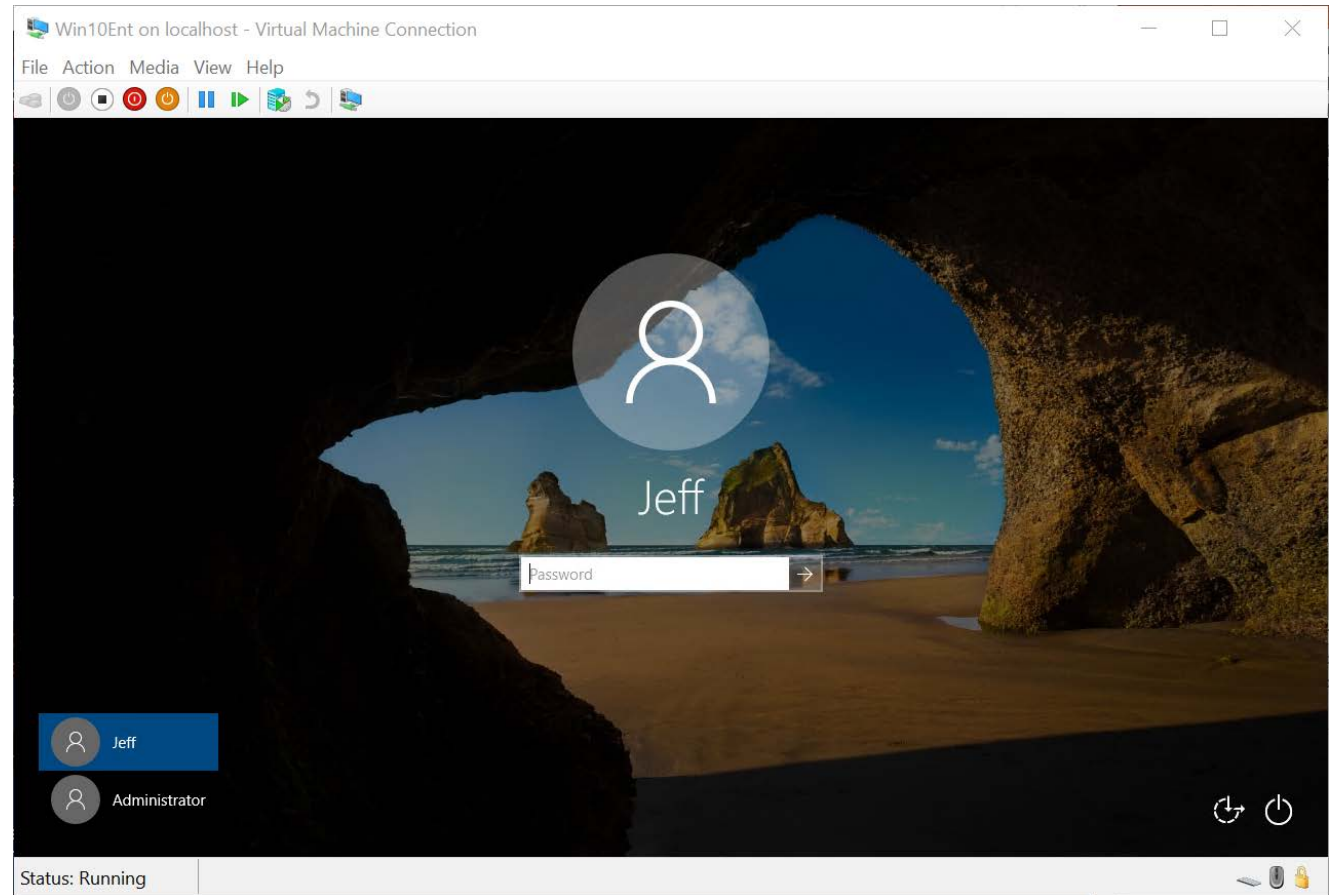


Use Hyper-V to manage  
the VM

Use Remote Desktop or  
VMConnect to connect  
to client

Logon with your  
username

P@sswOrd



# Related Material



**The Case for PowerShell – Mark Minasi**

**PowerShell: Getting Started – Michael Bender**

***Learn PowerShell in a Month of Lunches, 3<sup>rd</sup>*  
ed. by Don Jones and Jeff Hicks (Manning  
2017)**



Learning PowerShell is like  
learning a foreign language  
– use it or lose it.



# Summary



**We know where we're going**

**We know how we're going to get there**

**Get ready and let's go!**

