

**Why You Should -Be
Using Pester!**

Intro

- Senior Systems Engineer for an Insurance Company 💰
- twitter.com/jwmoss 👁
- github.com/jwmoss 💻
- Using Powershell for 2 years 💙
- Live outside Raleigh, North Carolina 🚜
- Published in a book about a tweet I posted in 2011 about Steve Jobs 🧐



NOT SURE IF GOOD AT POWERSHELL

OR I'M JUST FAKING IT



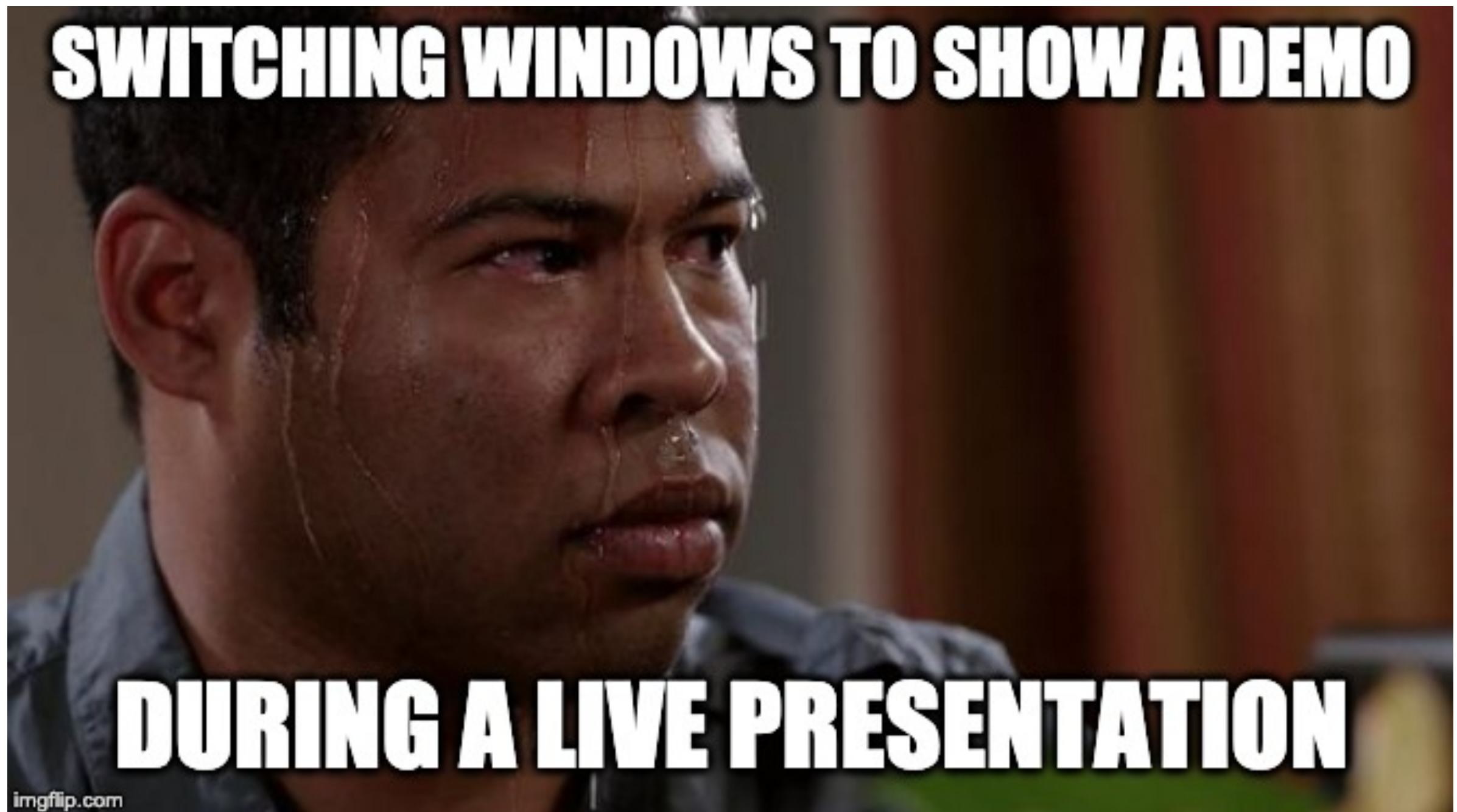
PESTER

ME

**GIVING
HELPDESK YOUR
PS MODULE
WITHOUT TESTING**

What is Pester?

- A testing framework written in Powershell
 - Unit tests: test a piece (unit) of your code, don't touch external system.
 - Integration tests: reach out to external system and tests your code.
- A way to check the thing you're doing in Powershell is actually the thing you meant to do in Powershell.
- Forces you to re-think how you write Powershell.
- Runs on Linux, macOS, or Windows.
- Comes pre-installed with Windows 10 and Windows Server 2016.
- Microsoft wants you to use this tool, read the PDF - <https://docs.microsoft.com/en-us/powershell/dsc/further-reading/whitepapers>
- **WARNING:** This presentation may turn you more into a developer than you thought was possible.



Demo!

Pester Use-Case 1

- On-boarding New Users:
 - AD Account exists
 - UPN matches email address
 - UPN matches sip address
 - Company, Department, EmployeeID, Title, City, Office, State, and Home Drive is not empty
 - Verify common AD Group memberships are set
 - Azure AD Group-Based licensing + firewall access
 - Location-based AD Groups are set
 - O365 licensing is set.

Pester Use-Case 2

- Creating new Servers:
 - AD Description is set
 - Exists in DNS
 - In the correct OU
 - Correct network based on pre-defined rules
 - Validate vCenter portgroup
 - Validate it's running/turned on
 - Validate base software installed (AV, Solarwinds, etc).

Other Uses of Pester

- **PSKoans** - <https://github.com/vexx32/PSKoans> COMING SOON TO A USERGROUP NEAR YOU! 🧐
- **DBAchecks** (SQL Server Validation) - <https://github.com/sqlcollaborative/dbachecks>
- **Operation-Validation-Framework** (Infrastructure Validation) - <https://github.com/PowerShell/Operation-Validation-Framework>
- **Vester** (Validate vSphere Configuration) - <https://github.com/WahlNetwork/Vester>

More Uses of Pester

- **Validating Active Directory Attributes** - <https://mattmcnabb.github.io/pester-lob>
- **Validating DNS Records** - <https://pshirwin.wordpress.com/2015/11/06/pester-script-to-test-dns-configuration/>
- **Skype/Lync Infrastructure Validation** - <https://sysnetdevops.com/2017/06/05/testing-infrastructure-with-pester/>
- **Domain Controller Validation** - <https://github.com/EvotecIT/PesterInfrastructureTests>
- **Citrix/XenApp Validation** - <http://citrixlab.dk/archives/812>
- **Software deployment readiness check** - <https://github.com/MathieuBuisson/DeploymentReadinessChecker>

Credit where Credit's Due

- Mark Wragg (<https://github.com/markwragg> | @markwragg)
- Jakob Jares, one of the main developers of Pester (<http://jakubjares.com/> | @nohwnd)
- Reddit https://www.reddit.com/r/PowerShell/search?q=Pester&restrict_sr=1&sort=top
- Pester Wiki - <https://github.com/pester/Pester/wiki>
- DBAChecks PS Module - <https://github.com/sqlcollaborative/dbachecks>
- The first 10 pages of Google Results for “Powershell Pester”
- The Pester Book by Adam Bertram (<https://leanpub.com/pesterbook>)

“I really wish there was a way to test or validate my Powershell code.”

–Said No One Ever (Hopefully after this talk)

Questions?