





# Chocolatey - Package Management for Windows

Rob Reynolds, Puppet Labs



# Rob Reynolds

- Developer at Puppet Labs 
- Creator of Chocolatey 
- Background in .NET development (ASP.NET MVC, JavaScript, C#, Windows services, MSMQ)
- Co-wrote and maintained infrastructure framework known as the Chuck Norris Framework  



# Binary Package Manager for Windows

- Behaves much like Yum
- Uses NuGet packaging framework + PowerShell for automation scripts
- CLI tool - choco.exe
- GUI - ChocolateyGUI
- Allows non-centralized/private repositories

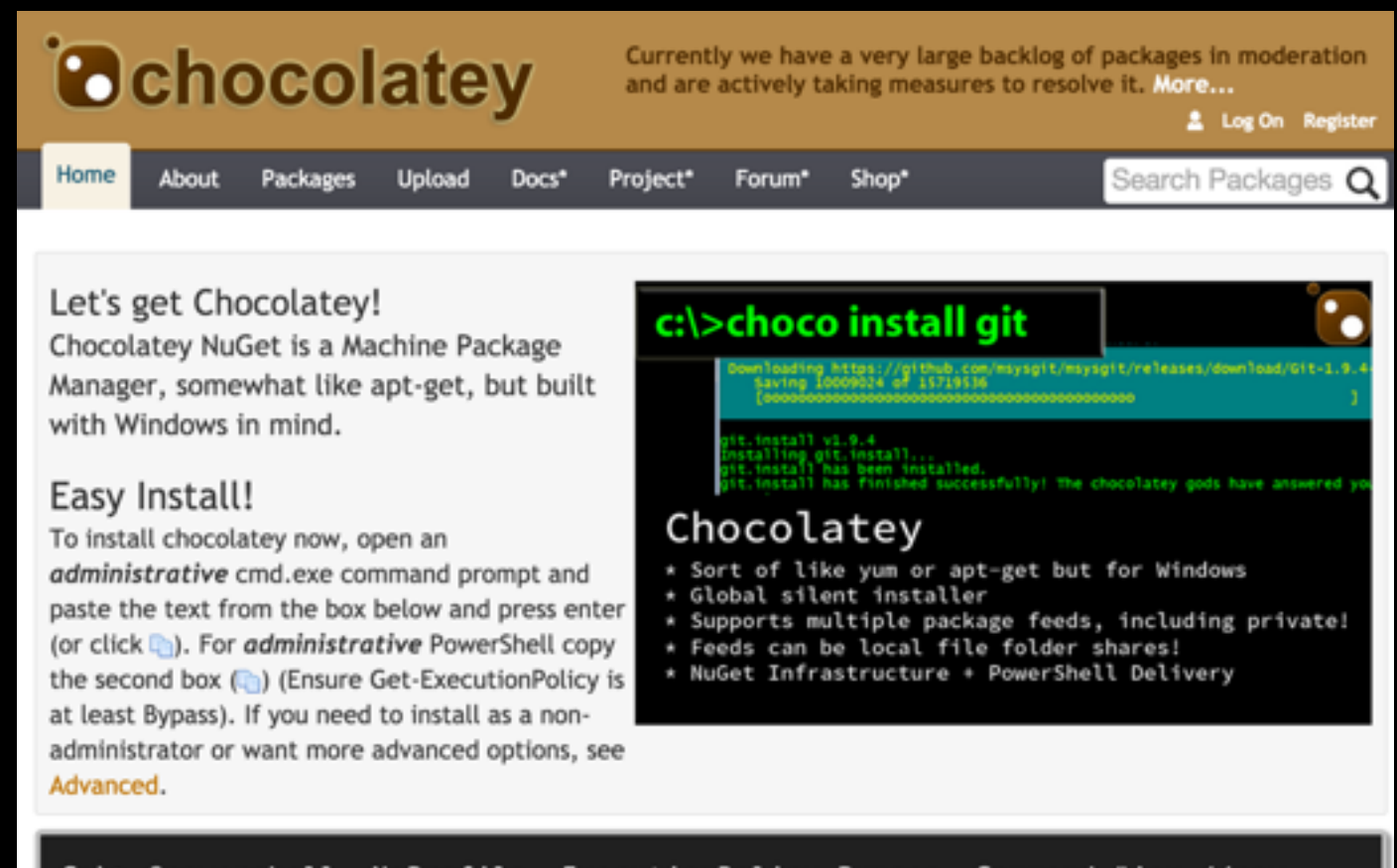


# chocolatey.org (Community Repo)

- Community Feed / Community Maintained
- Moderated as of October 2014
- A couple people have downloaded packages (1 yr ago at 5 Million)

**2,938**  
unique packages

**33,144,406**  
total downloads



- Organizations should not depend on community b/c trust and control

But Windows 10 has a  
Package Manager Built-  
in!

Sort of...

# OneGet aka PowerShell PackageManagement

- Package Management may be a misnomer
- OneGet is **NOT** a package manager. It's a package manager *aggregator*.
- The PowerShell Provider *is* included.
- It knows how to bootstrap providers.
- Chocolatey will have a provider for OneGet.

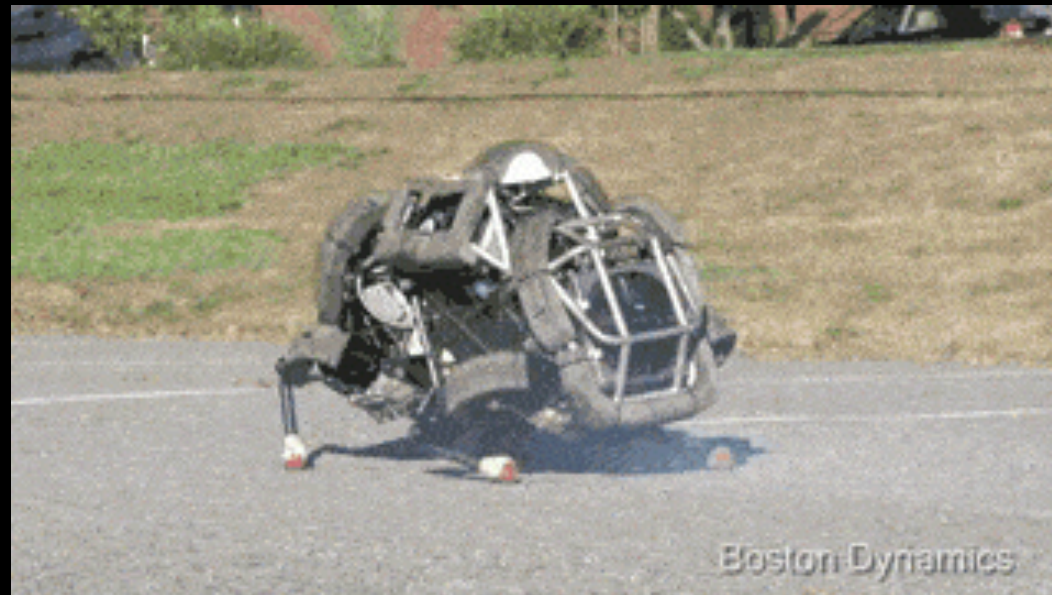
# Building on an Existing Windows Ecosystem



# Windows Software Ecosystem

- State of The Union:
- Thousands of existing installers and archive files
- It's like the ultimate Wild West for a packaging system





Unify the Windows Packaging  
Ecosystem?



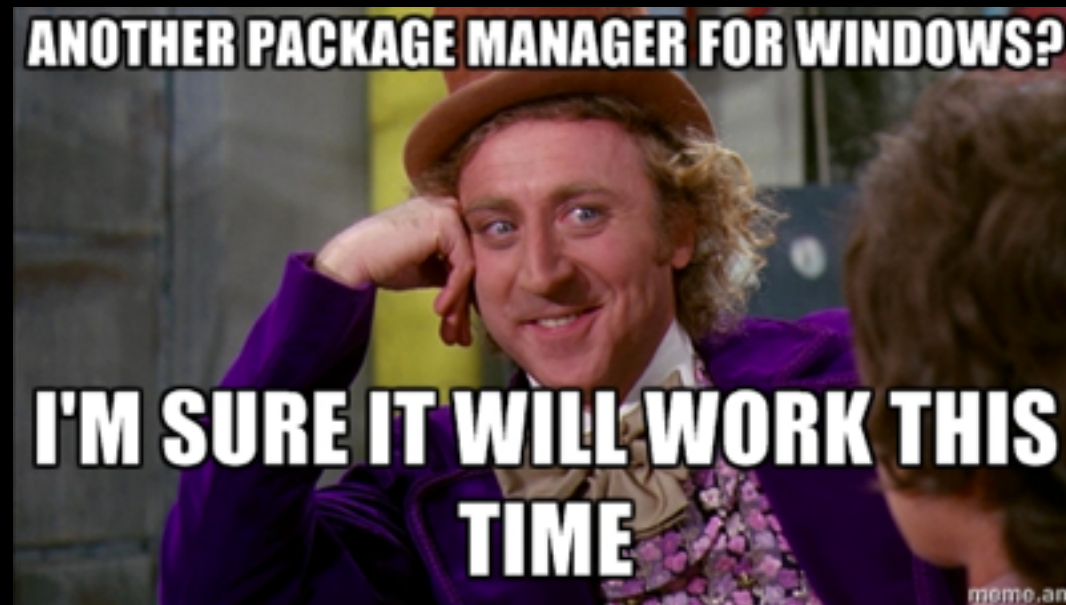
Unify the Windows Packaging  
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# Unify the ecosystem

- Abstracts (builds on top of) the existing ecosystem and provide a single unifying interface



**Tell Me More About Chocolatey**

# Full Rewrite - 2014

- Started March 2014, first release in 0.9.9 in March 2015.
- C# - b/c already wrote production code while learning language
- Why?
  - Maintainability
  - Speed
  - Better library support
  - Strong techniques for security
  - Because pro/business



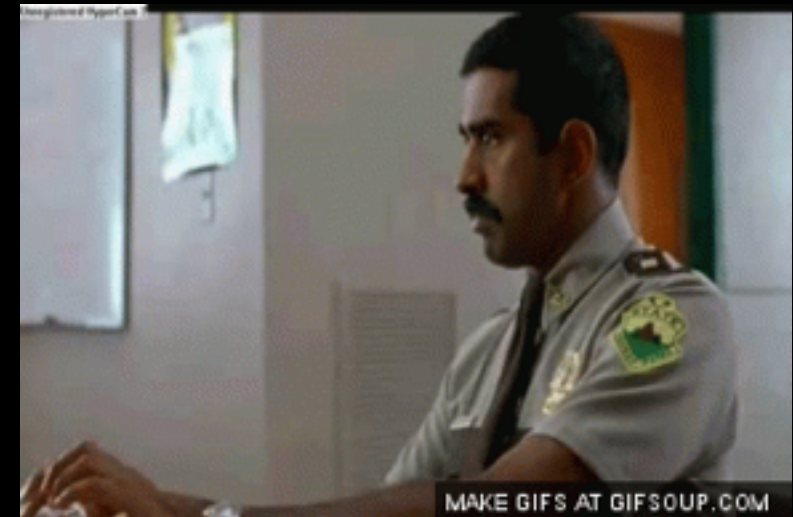
# Moderation of Community Packages

- Introduced for more predictability
- Package quality
- Safety and Security
- Starting to build trust in community repository, but still quite a long way to go



# Extending NuGet

- Enhanced nuspec with provides, conflicts, replaces (although choco doesn't know what to do with those yet)
- Will be enhancing further: architecture, os versions, etc
  - NVRA (name version release architecture)
- Package signing (PGP) / Security Enhancements

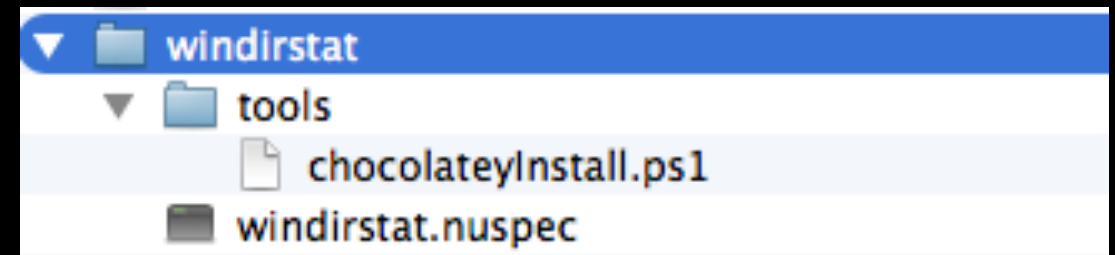


# More Future Enhancements

- More security and traceability
- Try to maintain good balance of KISS while introducing necessary complexity
- Chocolatey for Business / Enterprise General Availability

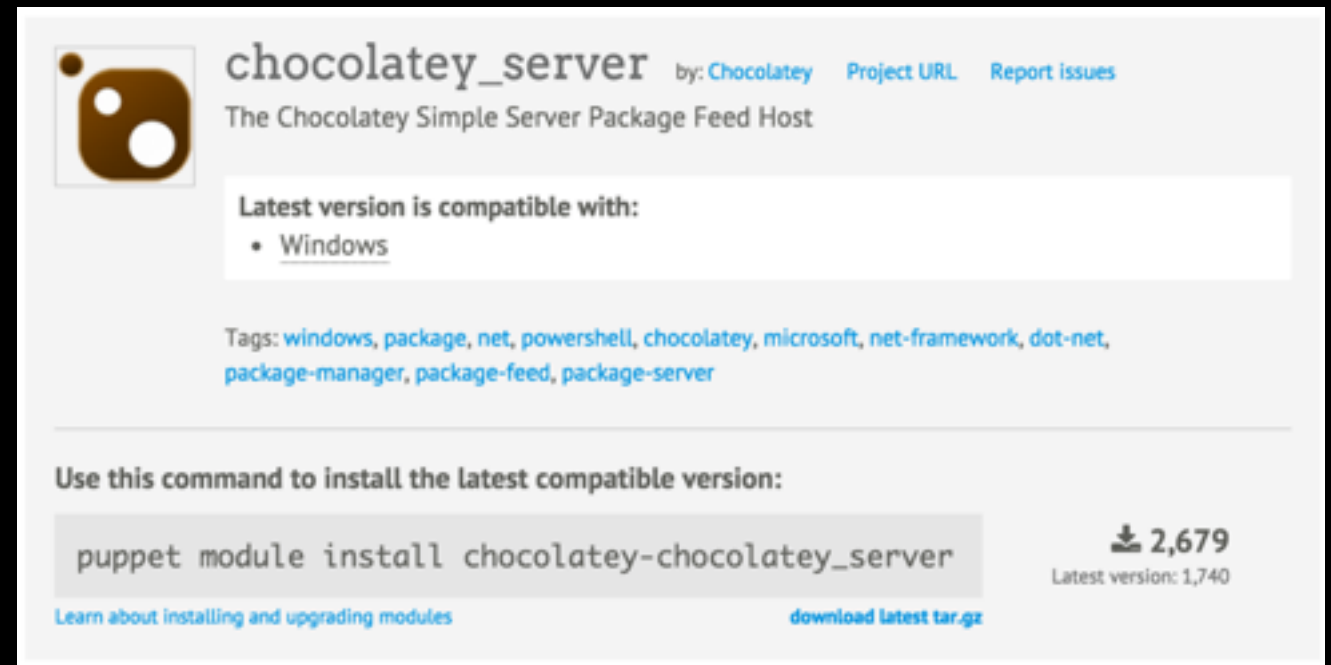
# Creating Packages

- `choco new -h`
- Create organizational templates!
- `*.nuspec`
- `chocolateyInstall.ps1`
- Other resources like binaries /  
config files, etc
- Getting started / reference at  
<http://bit.ly/choco-create>



# Hosting Your Own Packages

- With Puppet - chocolatey/chocolatey\_server module
- Non-Windows Hosting
  - Artifactory
  - Sonatype Nexus
- NuGet Gallery proper
- ProGet / MyGet
- <https://bit.ly/choco-package-server>



# Configuration Management Integration

- Puppet Labs - [https://bit.ly/choco\\_puppet](https://bit.ly/choco_puppet) (Approved, soon Supported)



- Chef - [https://bit.ly/choco\\_chef](https://bit.ly/choco_chef)



- Ansible - [https://bit.ly/choco\\_ansible](https://bit.ly/choco_ansible)



- Saltstack - [https://bit.ly/choco\\_salt](https://bit.ly/choco_salt)



- PowerShell DSC - [https://bit.ly/choco\\_dsc](https://bit.ly/choco_dsc)



# Thank you

- Join the newsletter for announcements - <https://chocolatey.org/#newsletter>
- ferventcoder { twitter, github, gmail }