



# Plugging Chocolatey into your Puppet

***Rob Reynolds***

*Senior Software Engineer | Puppet Labs*  
*@ferventcoder*

# Rob Reynolds

- Developer at Puppet Labs
- Creator of Chocolatey
- All around nice guy
- Making your Windows world a better place
- Windows, it's a technique



# Agenda

- Chocolatey?
- Chocolatey Provider
- Why Chocolatey?
- Creating Packages
- Host your own package server
- Announcements





# What Exactly is Chocolatey?

# Package Manager for Windows

- Behaves much like yum
- Microsoft validated
- Technologies: PowerShell  
+ NuGet packaging framework
- Does not violate distribution rights

Chocolatey 



# chocolatey.org

- Community feed
- Community maintained
- Trust issues?
- Recommendation: A business should run their own internal feed

The screenshot shows the chocolatey.org homepage. At the top, there's a navigation bar with links for Home, About, Packages, Upload, Docs\*, Project\*, Forum\*, and Shop\*. To the right of the navigation is a search bar labeled "Search Packages". Above the main content area, a banner says "A Kickstarter is coming! Sign up for the newsletter to learn more and stay up to date!" with "Log On" and "Register" buttons. The main content area has sections for "Let's get Chocolatey!", "Easy Install!", and "Chocolatey". The "Easy Install!" section contains a link "Public community feed" which is highlighted with a red box. Below this, there's a command-line interface window showing the command "c:\>choco install git" and its execution. At the bottom, there are statistics: "2,235 unique packages" and "5,254,821 total downloads".

5 Million Downloads!

# Chocolatey Puppet Provider

# Puppet Provider

The screenshot shows the 'chocolatey' module page on Puppet Forge. It includes the module icon (a blue power button), the name 'chocolatey', the author 'Rich Siegel', the project URL, and a link to report issues. A description states it's a Chocolatey package provider for puppet. Tags listed are windows, chocolatey, package, manager, puppet. Below this, instructions for installation via the command 'puppet module install rismoney-chocolatey' are provided, along with download statistics (5,537 downloads) and a link to the latest tar.gz file.

The screenshot shows the GitHub repository for 'chocolatey / puppet-chocolatey'. It displays basic repository statistics: 100 commits, 2 branches, and 2 releases. The repository URL is 'puppet-chocolatey /+'.

- puppet module install rismoney/chocolatey
- Rich is a committer
- Doesn't yet install chocolatey

# Package Resource

```
package {'name_of_package':  
  provider => chocolatey,  
  ensure   => absent, installed, latest, '1.0.0',  
  source   => 'https://some_odata_feed/;c:\\local;\\some\\network\\share',  
  install_options => '-installArgs "addtl args for native installer"',  
}  
}
```

- installable, uninstallable, upgradeable, versionable, install\_options
- Soon: holdable, uninstall\_options
- Later: virtual\_packages



# Why Chocolatey provider versus the built in provider?

# Use case: git

```
package { "Git version 1.8.4-preview20130916":  
  ensure    => installed,  
  source    => 'C:\temp\Git-1.8.4-preview20130916.exe',  
  install_options => ['/VERYSILENT']  
}  
  
package { 'git':  
  ensure    => latest,  
  provider  => chocolatey,  
}
```



- Name of package
- Source
- Manifest maintenance

# Why Chocolatey Provider?

- Synonymous with other package managers
- No edge cases like version in application names
- No edge cases like unicode symbols (em-dash, em-l-rite?) in app names
- No source needing to point to the installer. Can I get a WAT

# Make Chocolatey your default!

- Set Package resource default for provider to chocolatey on Windows
- Note: There might be better ways of doing this, follow those guidelines when conflicting :)

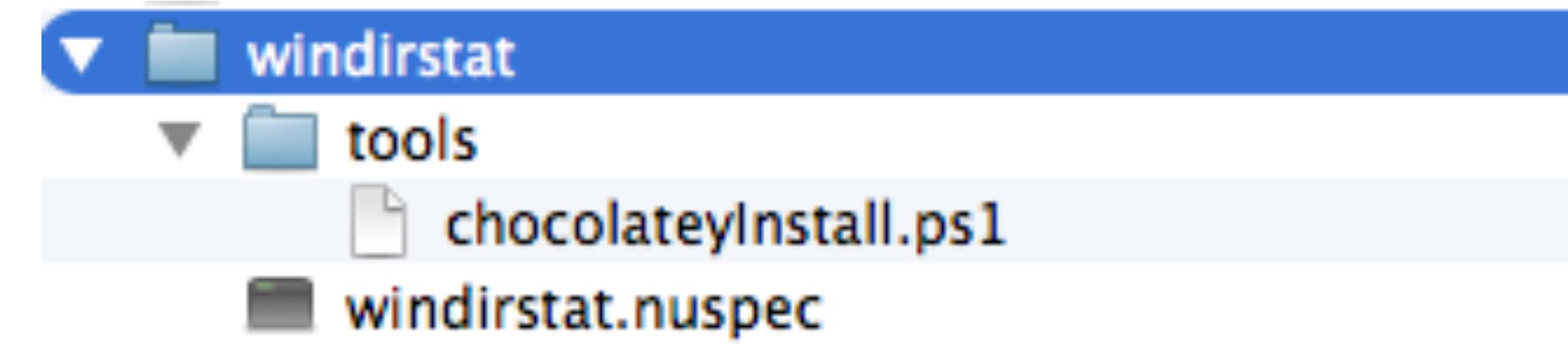
```
case $operatingsystem {  
  'windows': ... {  
    Package {  
      provider => chocolatey,  
    }  
  }  
}
```

# Chocolatey Provider Demo

# Creating Packages

# Creating Packages

- \*.nuspec
- chocolateyInstall.ps1
- Other resources like binaries / config files, etc
- Getting started / reference at [https://bit.ly/  
createchocolateypackages](https://bit.ly/createchocolateypackages)



# packagename.nuspec

```
windirstat.nuspec x
1 <?xml version="1.0"?>
2 <package xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:
  xsd="http://www.w3.org/2001/XMLSchema">
3   <metadata>
4     <id>windirstat</id>
5     <title>WinDirStat</title>
6     <version>1.1.2.20140318</version>
7     <authors>Oliver Schneider</authors>
8     <owners>Rob Reynolds</owners> ← Owners == package maintainers
9     <summary>WinDirStat - Windows Directory Statistics</summary>
0     <description>WinDirStat is a disk usage statistics viewer and
    cleanup tool for Microsoft Windows.</description>
1     <projectUrl>http://windirstat.info</projectUrl>
2     <iconUrl>https://raw.githubusercontent.com/ferventcoder/chocolatey-
      packages/master/icons/windirstat.png</iconUrl>
3     <tags>windirstat disk usage admin</tags>
4     <licenseUrl>http://www.gnu.org/licenses/gpl-2.0.html</licenseUrl>
5     <requireLicenseAcceptance>false</requireLicenseAcceptance>
6   </metadata>
7   <files>
8     <file src="tools/**" target="tools" />
9   </files>
0 </package>
```

- This is a nuget packaging specification
- Later: choco adding infrastructure, os versions, etc

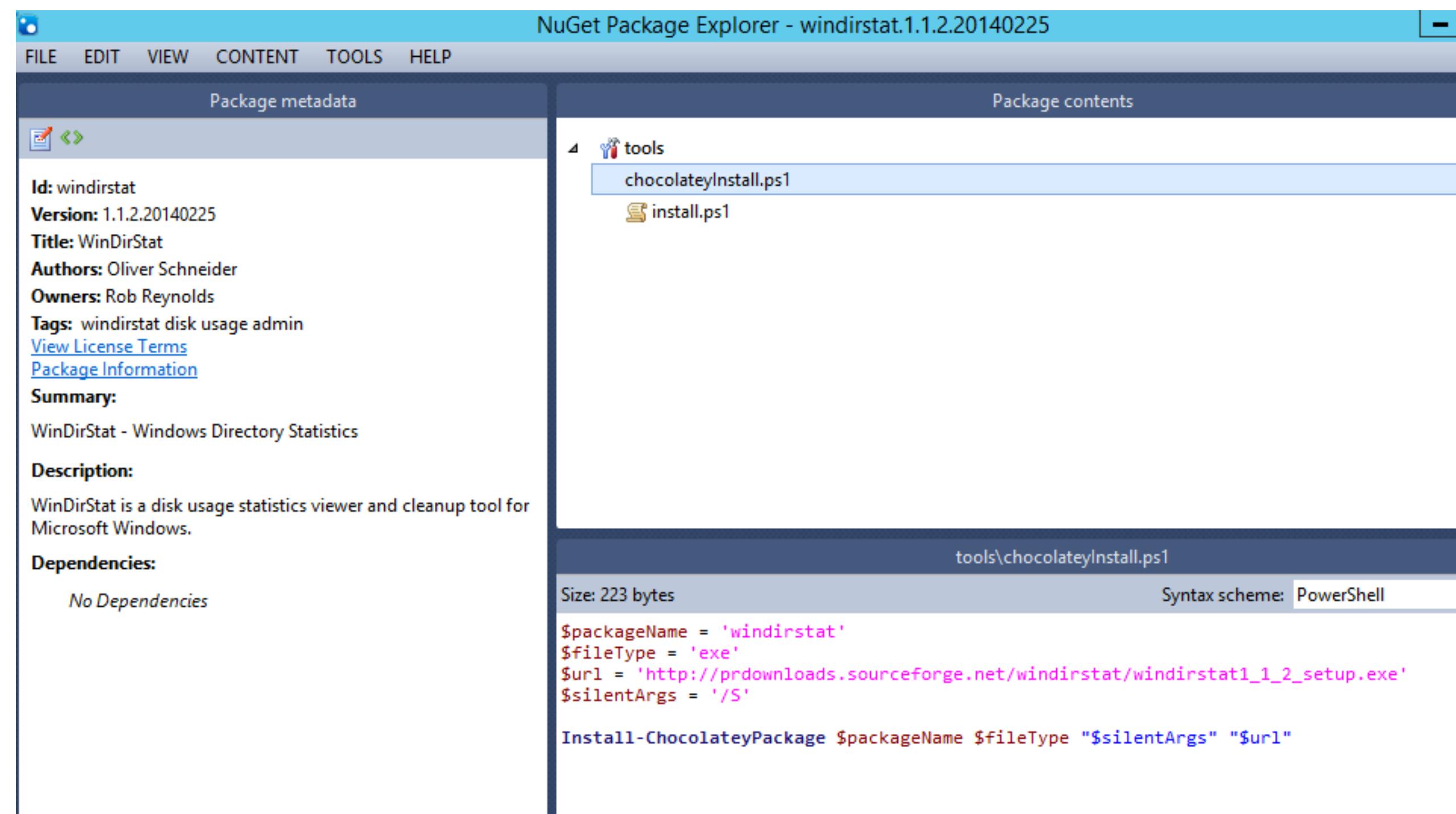
# chocolateyInstall.ps1

- Helpers / Functions
- Reduce work
- PowerShell, you can do *anything*
- *Function reference*  
<http://bit.ly/chocolateyfunctionreference>

```
chocolateyInstall.ps1 *
```

```
1 $packageName = 'windirstat'
2 $fileType = 'exe'
3 $url = 'http://prdownloads.sourceforge.
        net/windirstat/windirstat1_1_2_setup.exe'
4 $silentArgs = '/S'
5
6 Install-ChocolateyPackage $packageName $fileType "$
        silentArgs" "$url"
7
```

# Create Packages Visually

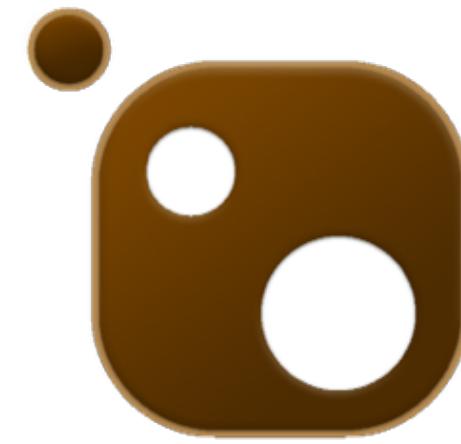


- Nuget Package Explorer  
(`choco install nugetpackageexplorer`)
- Ignore its warnings, it is geared towards NuGet proper
- **NO** content folder

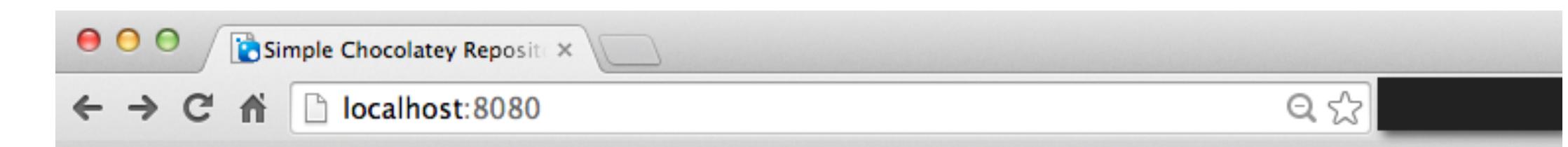
# Create Packages Demo

# Host Your Own Chocolatey Package Server

# Host Chocolatey Packages



- Now it's easy to set up your own package feed



- Make it custom/internal for business purposes.

- chocolatey.server package

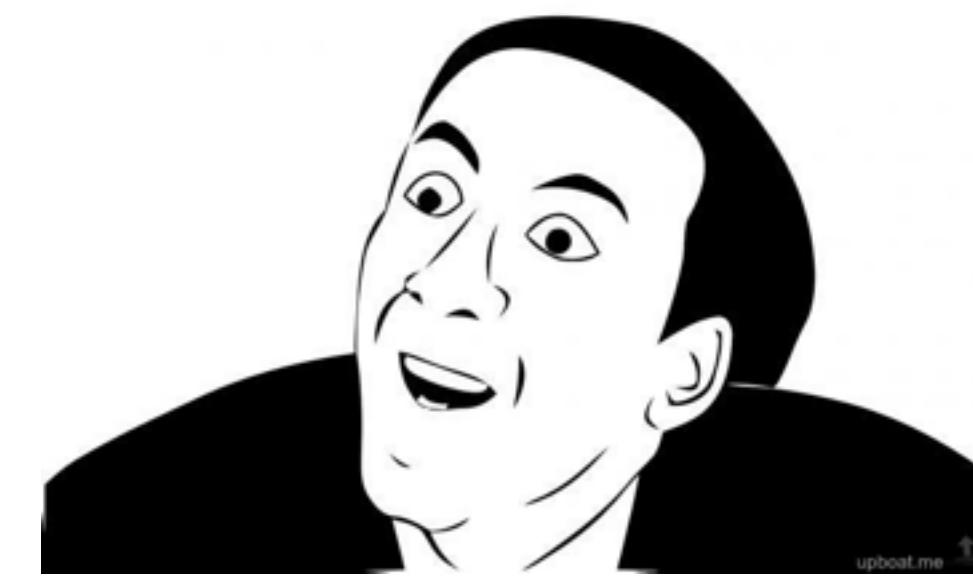
- Beta

- Simple server

# Chocolatey Package Server Demo

# Announcements

YOU DON'T SAY



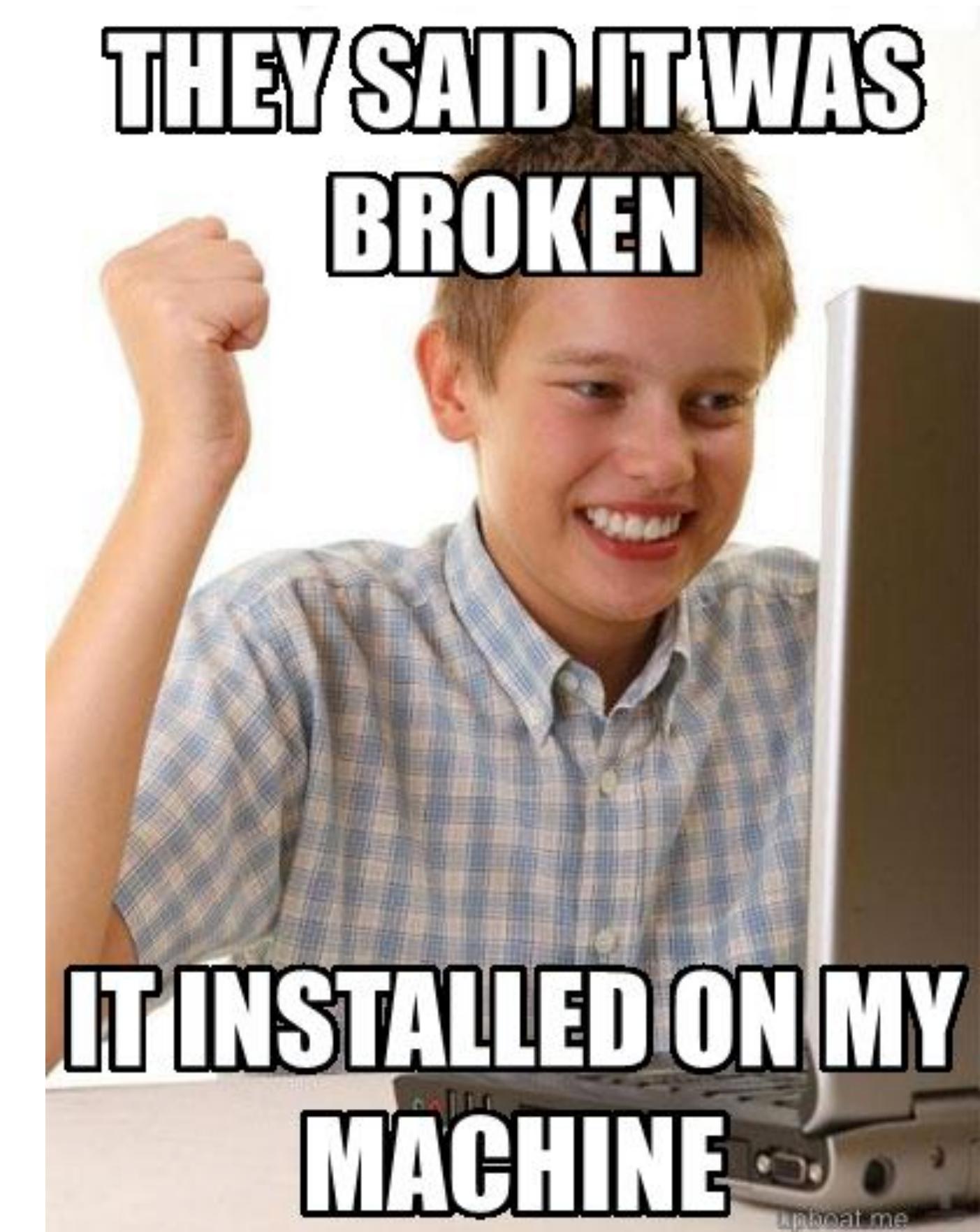
# So it's been a year

- A year ago we:
  - were on Choco v0.9.8.20
  - the chocolatey puppet module was just fixed
  - and no easy way to install a private choco server

# Where are we going?

# chocolatey.org Improvements

- Mark outdated
- Mark bad
- Security improvements still coming



# Chocolatey Puppet Provider

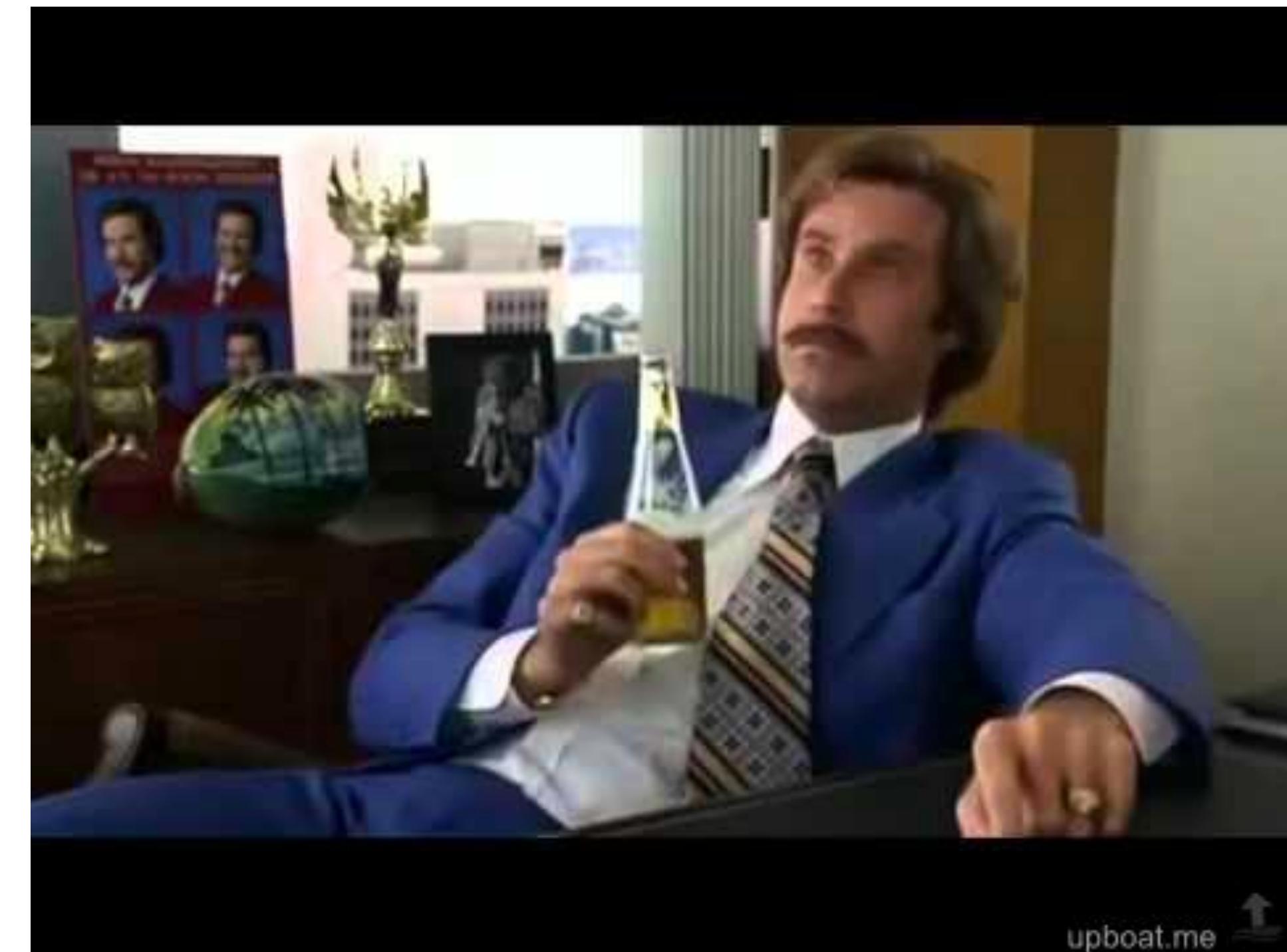
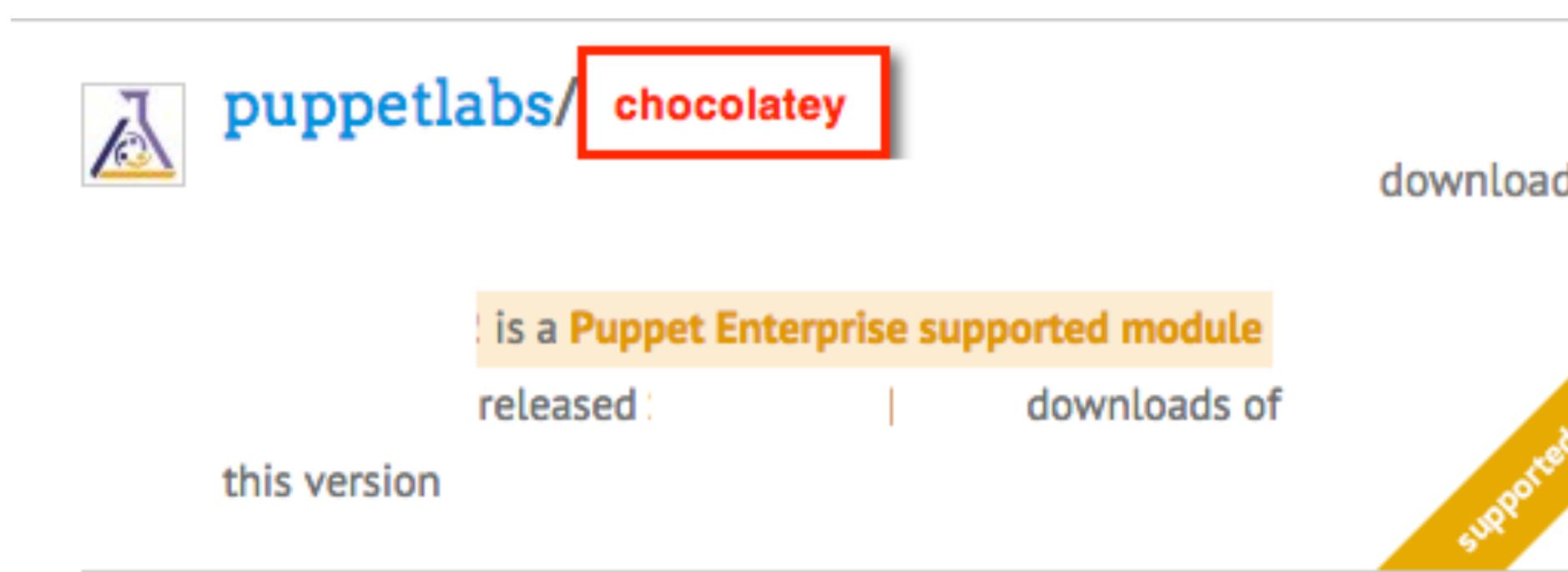


- How many of you would like to see the current provider get better?
- How many of you think it would be awesome if it were a Puppet Labs supported module?
- How many of you just want chocolate?

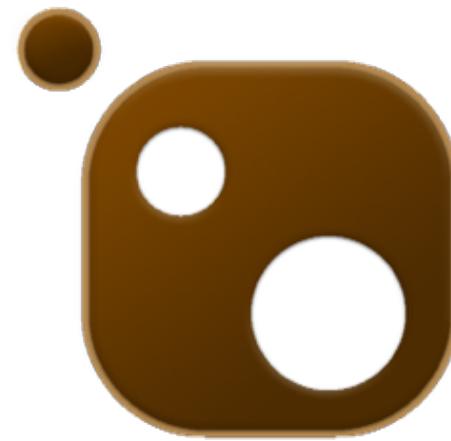


# Supported Module

- Yes, we plan to provide a Puppet Labs supported module!



# Getting Chocolatey



- Chocolatey Executable
  - First public viewing here today
  - Stability / Performance improvements
  - Help menu improvements (like, there is one now)
  - Lots of command switches
  - Global Noop

# Just how much faster is it?

- Checking upgrades across 114 packages

```
---  
-> Operation time for ( choco version all ): 00:04:44.6143216  
---  
---  
-> Operation time for ( .\choco.exe upgrade all --noop -r ): 00:00:40.5932491  
---
```

- Almost **600% increase!!!** Granted this is still slow, but package indexes are coming later

# Okay how about no network?

- choco list -lo

```
--> Operation time for ( choco list -lo ): 00:00:03.2389871
-->
- Operation time for ( .\choco.exe list -lo ): 00:00:01.1287751
-
```

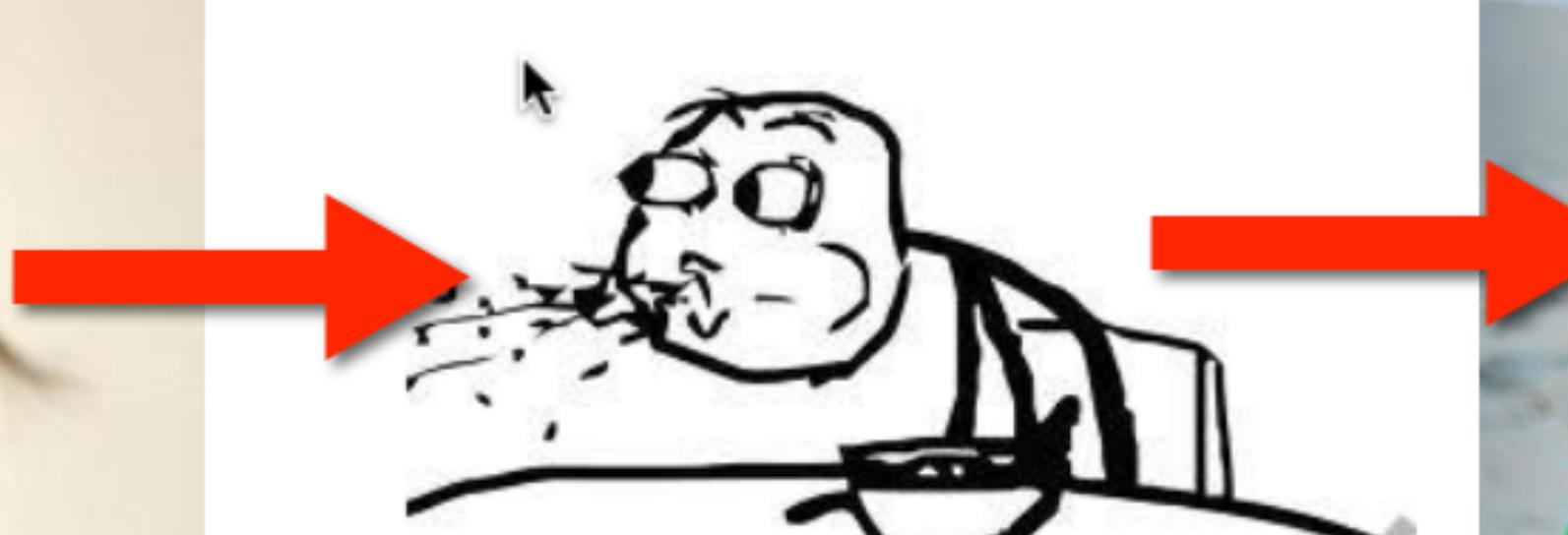
- 300% increase!



# Demo of new Chocolatey!

# Questions?

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



# Thank you!

- Other awesome things involving Windows:
  - Getting started w/Puppet on Windows (Josh Cooper) - Wed 2:20PM - Golden Gate B
  - Workshop: Puppet for Windows Users (Ethan Brown) - Wed 3:10 - Salon 2-3
  - Puppet Demo: Managing Windows with Puppet Enterprise - today/tomorrow - Nob Hill