



Chocolatey

The package manager for Windows

Modern Software Management w/ Chocolatey



Rob Reynolds

Founder

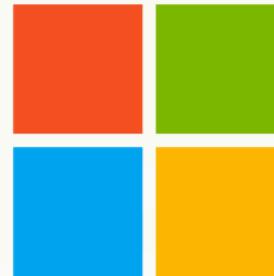
Chocolatey Software

@ferventcoder

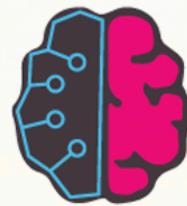




THANK YOU, THAT CONFERENCE SPONSORS!



Microsoft



nexosis®



CUNA
MUTUAL
GROUP

SKYLINE
see beyond your it



Northwestern
Mutual®

ZYMO
INTERACTIVE

GrapeCity

twilio

Rob Reynolds

- Creator and Founder of Chocolatey 
- Enjoys long walks on the beach and designing solutions that make hard things easy
- Co-wrote infrastructure framework known as the Chuck Norris Framework
- Over 10 years experience in infrastructure automation
- Obsesses over user experience
- Microsoft MVP for whatever they are calling .NET area now



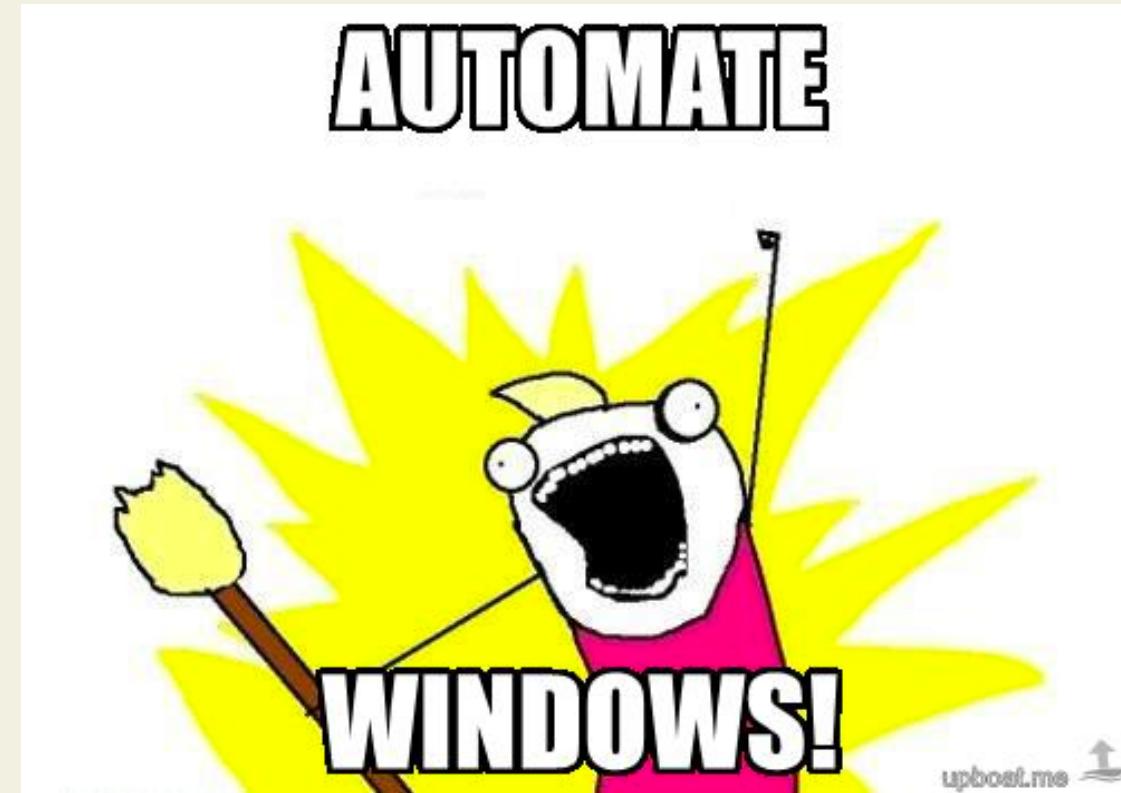


Agenda

- Chocolatey
 - Why
 - What
 - Features
- Demo
- Questions









Why Chocolatey?





**Software management may
account for 50-90% of your
automation**



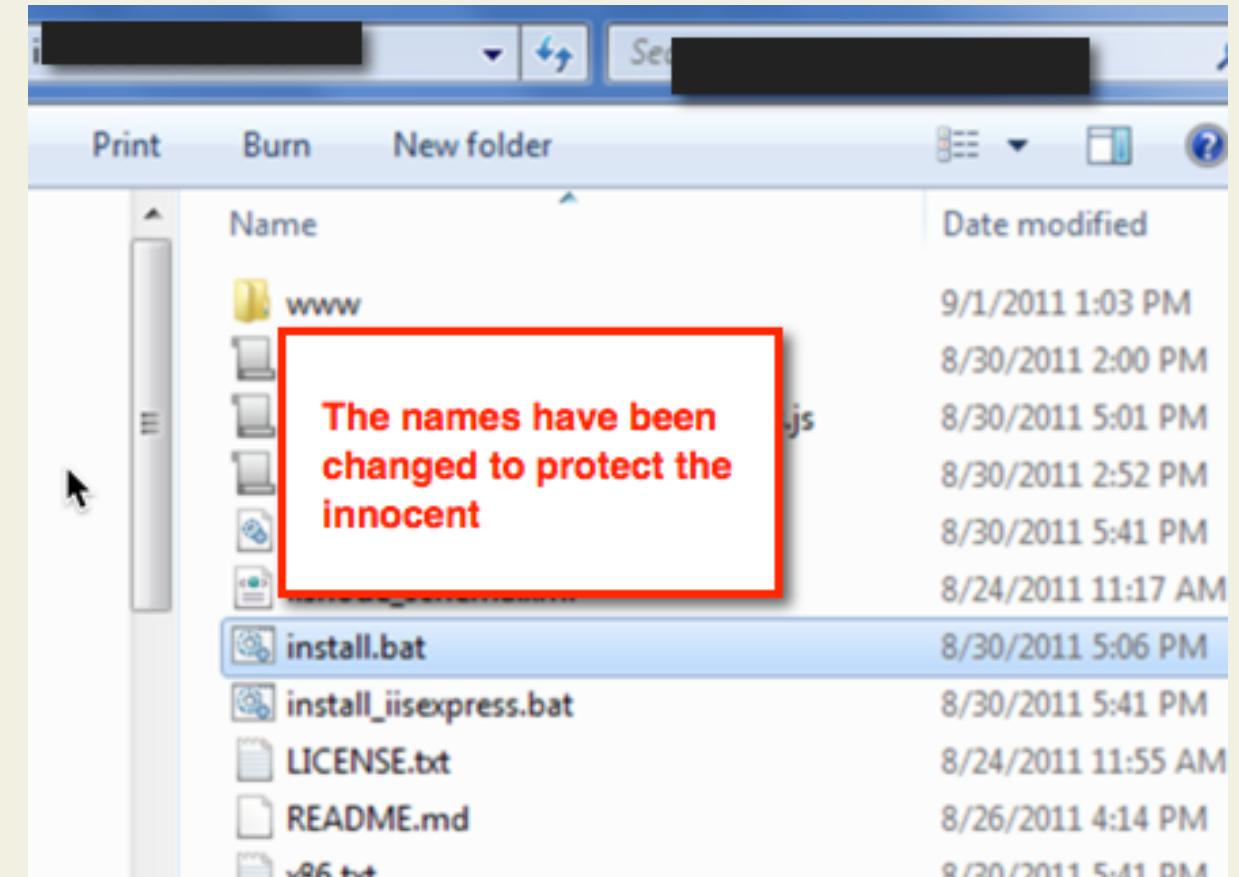
Windows Software Ecosystem

- Over 20 installer formats and thousands of installers in the wild
- Zips and other archive formats
- Software installers are messy
- Deploy internal/3rd party software using same approach?
- It's like the Wild West

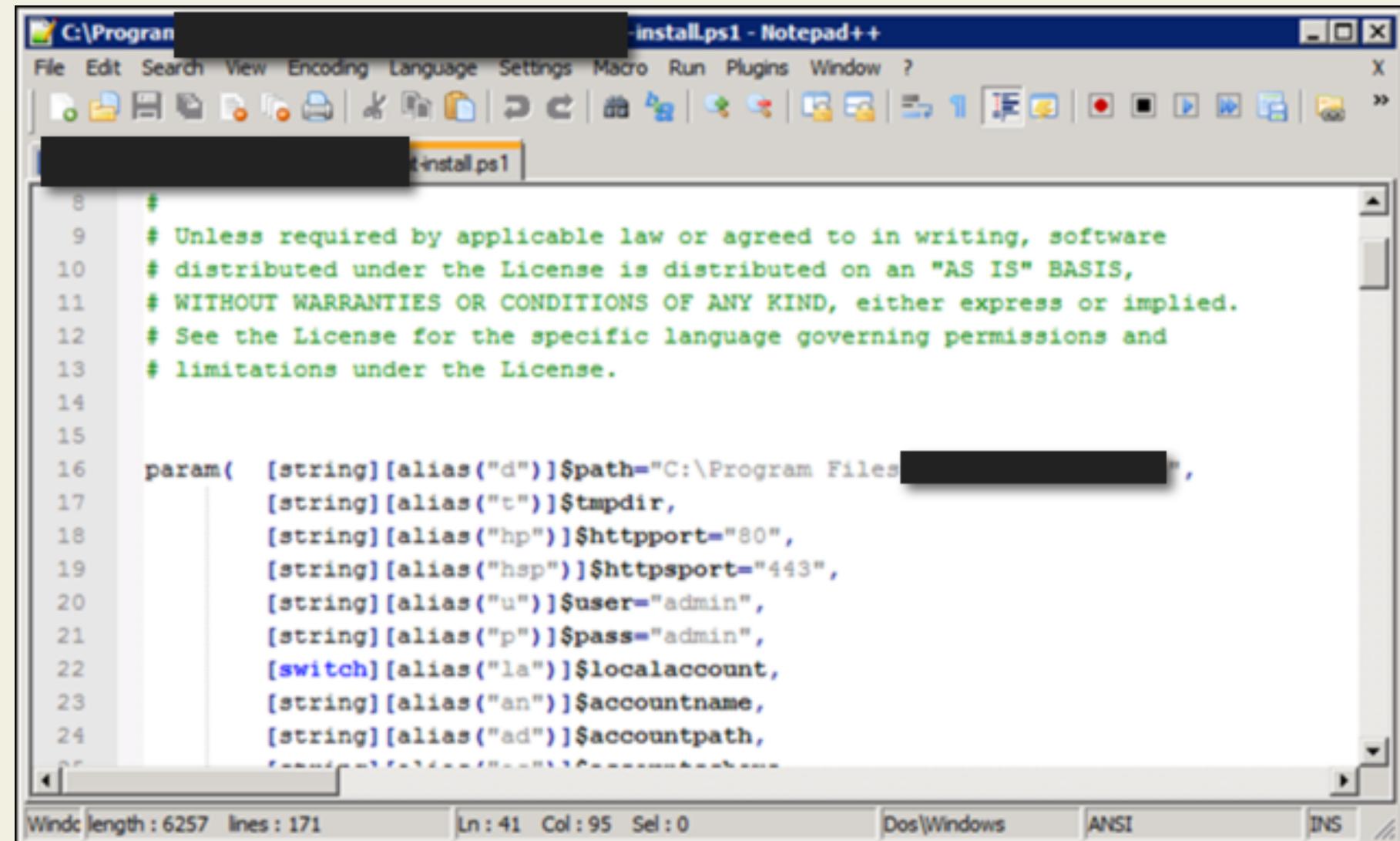


Why?

- You already deploy software
- Likely already use deployment scripts
- Delivery mechanisms
- Internal Software



Why?

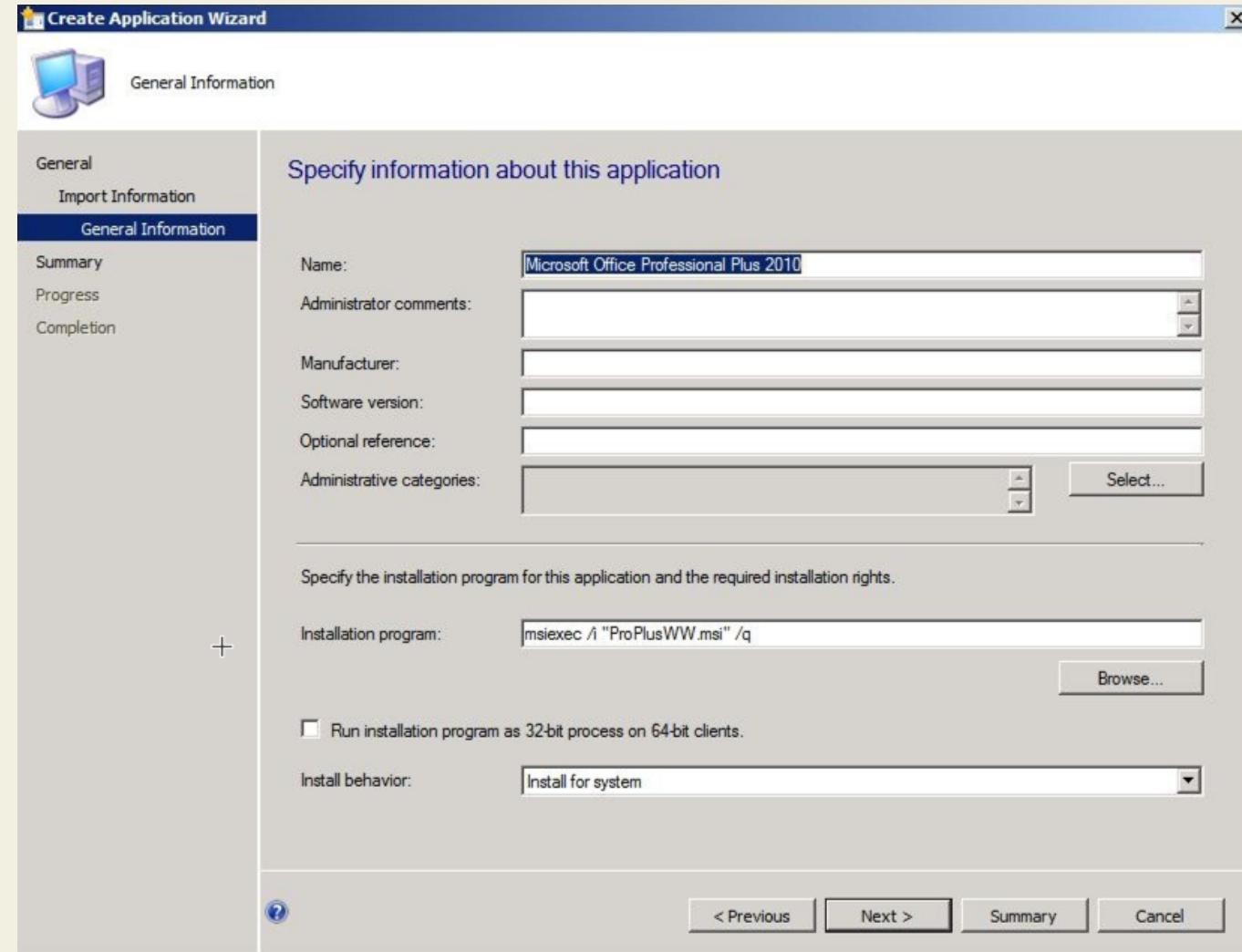


The screenshot shows a Notepad++ window with the title bar "C:\Program Files\install.ps1 - Notepad++". The file content is a PowerShell script:

```
8  #
9  # Unless required by applicable law or agreed to in writing, software
10 # distributed under the License is distributed on an "AS IS" BASIS,
11 # WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
12 # See the License for the specific language governing permissions and
13 # limitations under the License.
14
15
16 param( [string][alias("d")]$path="C:\Program Files\install\",
17       [string][alias("t")]$tmpdir,
18       [string][alias("hp")]$httpport="80",
19       [string][alias("hsp")]$httpsport="443",
20       [string][alias("u")]$user="admin",
21       [string][alias("p")]$pass="admin",
22       [switch][alias("la")]$localaccount,
23       [string][alias("an")]$accountname,
24       [string][alias("ad")]$accountpath,
```

The status bar at the bottom of the Notepad++ window displays: "Wind length : 6257 lines : 171 In : 41 Col : 95 Sel : 0 Dos\Windows ANSI INS".

Why?



**Manfred Wallner**

@schusterfredl

Following

▼

when you replace a coworker's multi-100-line
batch 'installer' with a single line of 'choco install'
@chocolateynuget 😂 #greattool

RETWEETS

5

LIKES

13



4:04 AM - 16 Mar 2017



5

13

**Jeffrey Snover**

@jsnover

Following



If you are skipping DevOps, you will become the next generation of "Cobol" programmers:
Valuable but to an ever shirking group of employers

RETWEETS

80

LIKES

109



10:00 AM - 19 Apr 2017



15



80



109



But Seriously, Why Chocolatey?

- Reporting
- Features
- Offline
- Secure
- Flexibility
- Beyond Programs and Features
- Beyond just running installers
- Integrates with everything

Will Button
@wfbutton

Follow

Created my first @chocolateynuget package. It was a pretty #awesome experience.

RETWEETS LIKES

3 4

11:26 PM - 31 May 2016

3 4





But Seriously, Why Chocolatey?

- Focused solution - does 1 thing very well for over 6+ years
- Uses PowerShell - not learning new or proprietary technologies
- One approach for all software management - 3rd party and internal
- Reinventing Chocolatey could cost over \$1 million
- Hundreds of other companies are using it, there must be a reason



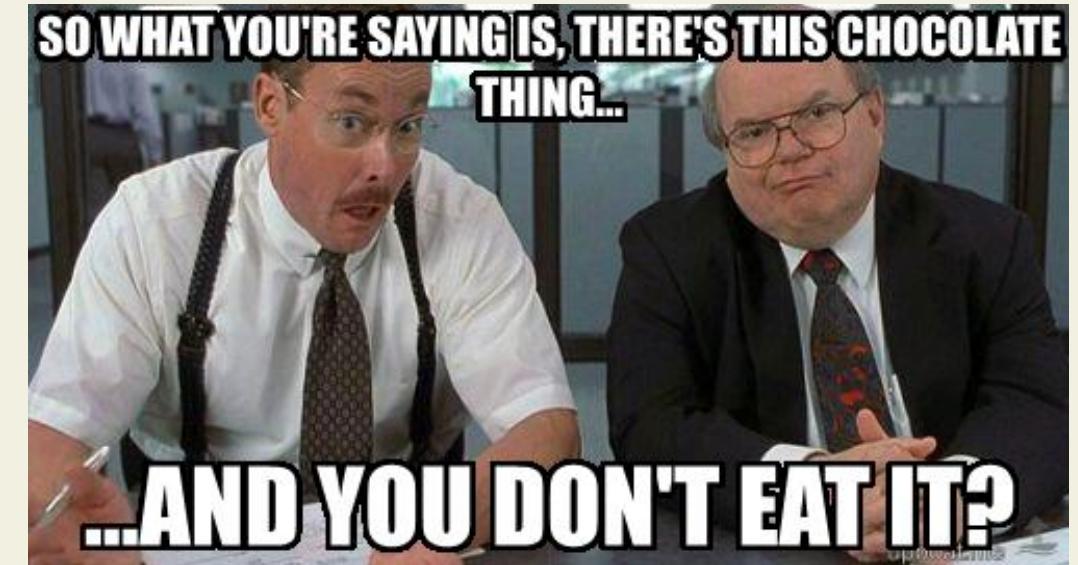


What is Chocolatey?



What is Chocolatey?

- Software Management
- PowerShell
- Fancy zip files = “packages”
- Packages are independent software deployment artifacts
- Takes your deployment scripts to the next level





Chocolatey - Sane Software Management

- Easily manage the software lifecycle
- Native installers, zips, binaries
- PowerShell module simplifies work
- Packages are independent building blocks
- Integrates with configuration management and RMM tools
- Business friendly features





Chocolatey - The Approach

6+ years - proven technology

- Single, unifying interface - control the chaos
- Decentralized - multiple places to get packages, including internal
- PowerShell
- Flexible
- Secure
- Reliable





Organizational / Internal Use



Understanding Chocolatey and Packaging

Community Package Repository

- Public domain
- Distribution rights
- Has Internet dependencies - failure point
- Possible trust issues for organizations

Organizational Use

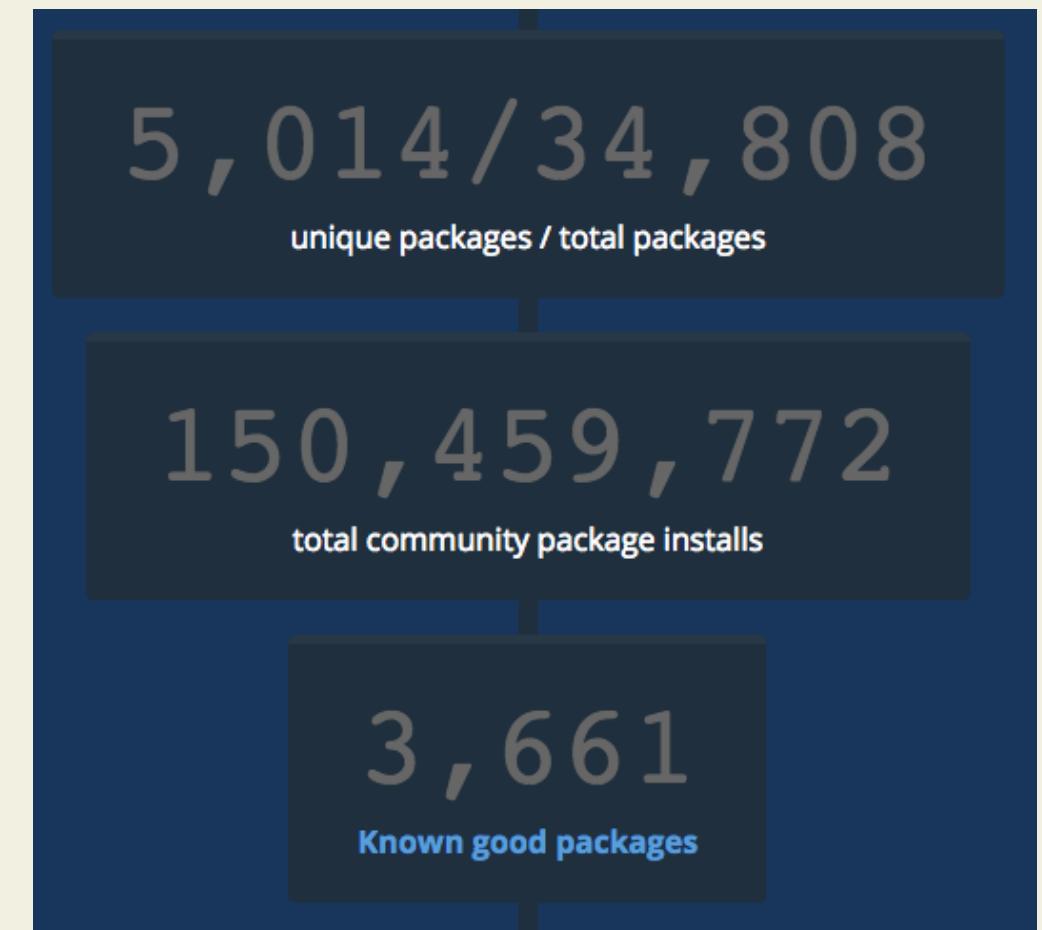
- Internal / Offline
- Many thousands of packages larger
- Reliability

Do not cross this line to external / internet

WARNING: Objects in mirror may be larger than they appear

Community Package Repository

- <https://chocolatey.org/packages>
- Community Feed / Community Maintained
- Moderated as of October 2014
- Everything goes through VirusTotal
- **Organizations Should Avoid**
 - **Not Fully Reliable - public repo means subject to distribution rights (download CDN cache feature helps)**
 - **Trust and Control**





Sweet Features





FOSS vs Chocolatey for Business (C4B)



- **Chocolatey open source (FOSS) == package management**
 - Works well in organizational use
- **C4B == complete software management**
 - Smoother experience
 - Builds on top of FOSS
 - Better system integration, endpoint management, etc
 - Better visual interfaces (GUIs)
 - Features geared specifically towards organizational use



Smart Installs / Smarter Upgrades

```
Administrator: Windows PowerShell
PS C:\packages> choco install git.install --source . -y
Chocolatey v0.9.10-beta1-426-g3c8b16e Business
Installing the following packages:
git.install
By installing you accept licenses for the packages.

git.install v2.8.4
Loading 'chocolatey.licensed' extension.
Copying git.install
  from 'C:\ProgramData\chocolatey\lib\git.install\tools\files\Git-2.8.4-64-bit.exe'
Virus checking skipped/turned off. Not verifying 'Git-2.8.4-64-bit.exe'
Installing Git-2.8.4-64-bit.exe...

Git-2.8.4-64-bit.exe has been installed.
WARNING: Git installed - You may need to close and reopen your shell for PATH changes to take effect.
Environment Vars (like PATH) have changed. Close/reopen your shell to see the changes (or in powershell/cmd.exe just type `refreshenv`).
The install of git.install was successful.
Software installed to 'C:\Program Files\Git\' ←

Chocolatey installed 1/1 package(s). 0 package(s) failed.
See the log for details (C:\ProgramData\chocolatey\logs\chocolatey.log).
PS C:\packages> git
git : The term 'git' is not recognized as the name of a cmdlet, function, script file, or operable program. Check the spelling of the name, or if a path was included, verify that the path is correct and try again.
At line:1 char:1
+ git
+ ~~~
  + CategoryInfo          : ObjectNotFound: (git:String) [], CommandNotFoundException
  + FullyQualifiedErrorId : CommandNotFoundException

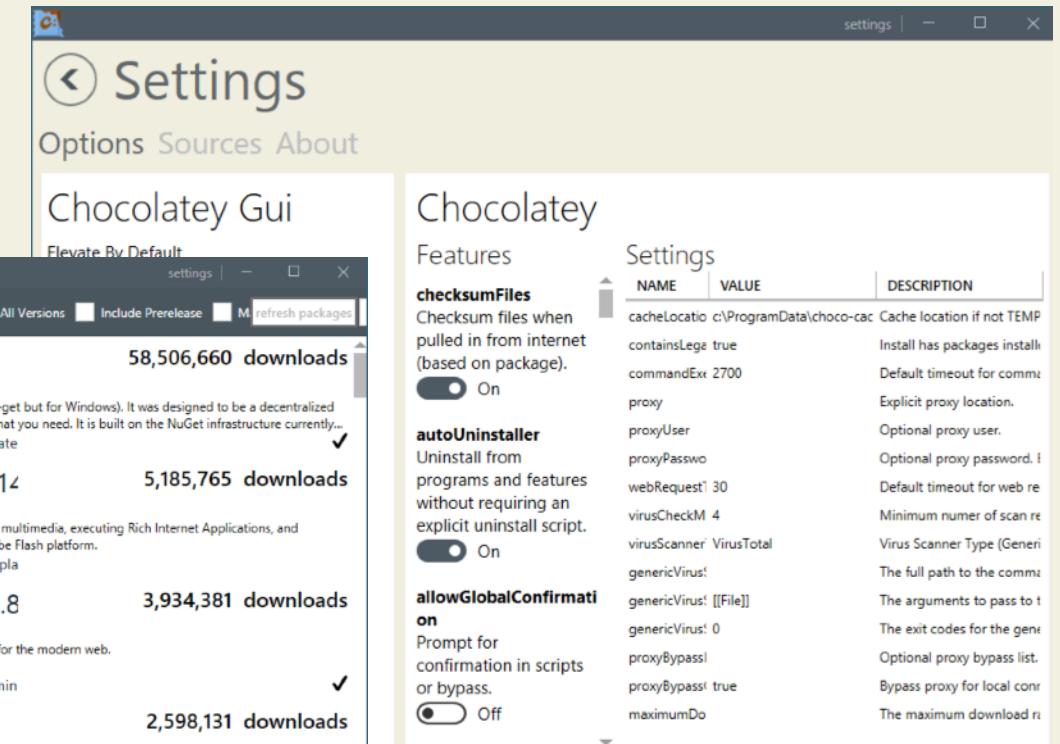
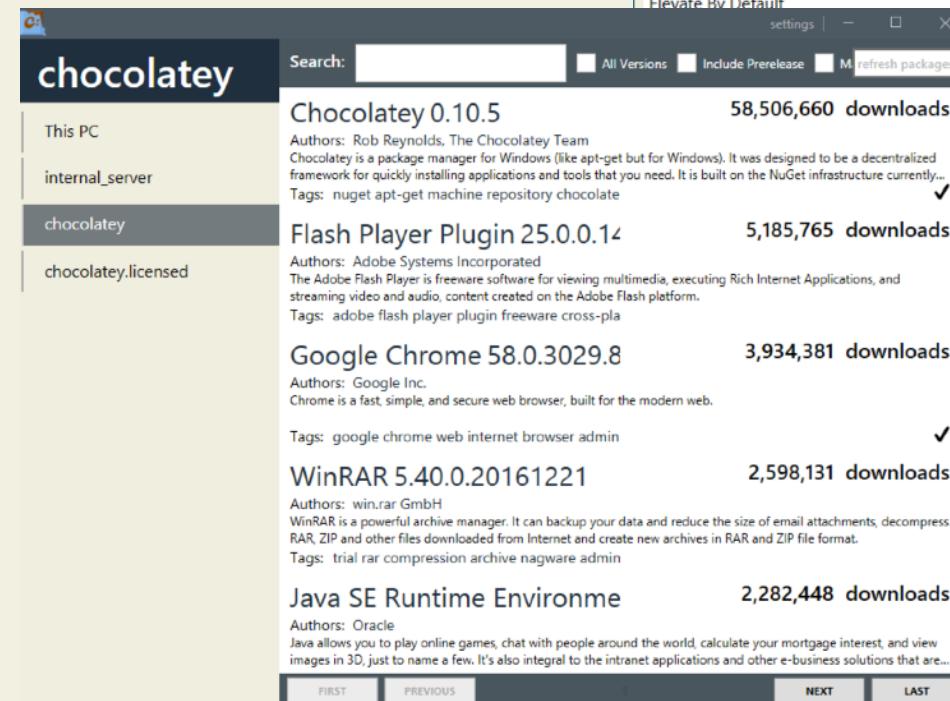
PS C:\packages> refreshenv ←
Refreshing environment variables from the registry...
Finished
PS C:\packages> git
usage: git [--version] [--help] [-c <path>] [-c name=value]
           [--exec-path=<path>] [--html-path] [--man-path] [--info-path]
```

- Track software installation in Programs & Features to map packages to system installs
- Track environment variable changes
- Leave out guesswork by reporting on software installation location
- Upgrades - Use XML Document Transform (XDT) for .NET configuration file changes
- Exclusive to Chocolatey - Use new tools / commands without closing / re-opening your shell for environment changes to take effect



Graphical Interface - ChocolateyGUI

- Configure Chocolatey
- Manage software installations



Automatic Uninstallation

```
PS C:\packages> choco uninstall 1password -y
Chocolatey v0.9.10-beta1-422-g335bc01 Business
Uninstalling the following packages:
1password

1password v4.6.0.598
Running auto uninstaller...
Auto uninstaller has successfully uninstalled 1password.
1password has been successfully uninstalled.

Chocolatey uninstalled 1/1 packages. 0 packages failed.
See the log for details (C:\ProgramData\chocolatey\logs\choco.log)
```

- Exclusive to Chocolatey - Automatically uninstall over 90% of installations without uninstall script
- AutoUninstaller reduces time by not developing and managing uninstall scripts

Integrates with Everything

- <https://chocolatey.org/docs/features-infrastructure-automation>
- Puppet
- Chef (built-in), cookbook
- PowerShell DSC
- Ansible
- Saltstack
- Octopus Deploy
- Boxstarter
- SCCM
- RMM, or really anything that can run scripts





Reporting / Auditing





Inventory - Comprehensive Software Audit

```
PS C:\> choco list -lo --include-programs
1password 4.6.0.603
chocolatey 0.9.10.3
chocolatey.extension 1.4.0
chocolatey.server 0.1.1
DotNet4.0 4.0.30319.20141222
git 2.7.0.0
Googlechrome 51.0.2704.106
roundhouse 0.8.5.0
8 packages installed.

7-zip 9.22 (x64 edition)|9.22.00.0
Bitvise SSH Server 5.60 (remove only)|
ChocolateyGUI 0.13.2.0|0.13.2.0
Launchy 2.5|
Notepad++|6.4.2
Oracle VM VirtualBox Guest Additions 4.3.12|4.3.12.0
Puppet (64-bit)|3.8.3
7 applications not managed with chocolatey.
```

- Exclusive to Chocolatey - Visibility beyond just the software 'installed' in Programs & Features
- Track versions of zip archives & own internal software that is not visible in system installation.
- Get a complete view of your systems. Chocolatey reports applications in systems not directly under its management.
- Package Audit (C4B) adds who and when

```
PS C:\packages\createpackages> choco list -lo --audit -r
1password|4.6.0.598|User:vagrant|Domain:WIN2012R2X64|Original User:vagrant|Install Date:2017-07-09 16:53:17Z
7zip|16.02.0.20160811
baretail|3.50.0.20120226
```





Logging - Detailed Reporting

```
Open Highlighting Follow Tail ANSI C:\ProgramData\chocolatey\logs\chocolatey.log (5.9 MB)
0 2017-06-09 21:55:52,794 2236 [DEBUG] - Configured chocolatey.infrastructure.logging.log4net.config.xml from assembly choco, Version 0.10.7.0, Cultureneutral, PublicKeyToken=null
0 2017-06-09 21:55:52,849 2236 [DEBUG] - XmlConfiguration is now operational
0 2017-06-09 21:55:52,857 2236 [DEBUG] - Evaluating license file found at 'C:\ProgramData\chocolatey\license\chocolatey.license'.
0 2017-06-09 21:55:53,044 2236 [DEBUG] - Loading Licensed Extensions and Commands
0 2017-06-09 21:55:53,083 2236 [INFO ] - =====
0 2017-06-09 21:55:53,411 2236 [INFO ] - Chocolatey v0.10.7 Business
0 2017-06-09 21:55:53,427 2236 [DEBUG] - Chocolatey is running on Windows v 6.3.9600.0
0 2017-06-09 21:55:53,427 2236 [DEBUG] - Attempting to delete file "C:\ProgramData\chocolatey\choco.exe.old".
0 2017-06-09 21:55:53,435 2236 [DEBUG] - Attempting to delete file "C:\ProgramData\chocolatey\choco.exe.old".
0 2017-06-09 21:55:53,443 2236 [DEBUG] - Command line: "C:\ProgramData\chocolatey\choco.exe" upgrade chocolatey.extension -s C:\vagrant\resources\packages -y -f
0 2017-06-09 21:55:53,443 2236 [DEBUG] - Received arguments: upgrade chocolatey.extension -s C:\vagrant\resources\packages -y -f
0 2017-06-09 21:55:53,536 2236 [DEBUG] - RemovePendingPackagesTask is now ready and waiting for PreRunMessage.
0 2017-06-09 21:55:53,544 2236 [DEBUG] - CountdownTask is now ready and waiting for PostRunMessage.
0 2017-06-09 21:55:53,544 2236 [DEBUG] - Terminal services setup not necessary for this session.
0 2017-06-09 21:55:53,552 2236 [DEBUG] - SynchronizeTask is now ready and waiting for PreRunMessage.
0 2017-06-09 21:55:53,552 2236 [DEBUG] - PackagesInProgramsAndFeaturesTask is now ready and waiting for PostRunMessage.
0 2017-06-09 21:55:53,560 2236 [DEBUG] - Sending message 'PreRunMessage' out if there are subscribers...
0 2017-06-09 21:55:53,575 2236 [DEBUG] - [Pending] Removing all pending packages that should not be considered installed...
0 2017-06-09 21:55:53,599 2236 [DEBUG] - [Synchronize] Updating packages with Programs and Features
0 2017-06-09 21:55:53,599 2236 [DEBUG] - [Synchronize] Currently only supports removals. Soon will handle updates.
0 2017-06-09 21:55:53,872 2236 [DEBUG] - 7zip 16.02.0.2016811
0 2017-06-09 21:55:53,880 2236 [DEBUG] - baretail 3.50.0.20120226
0 2017-06-09 21:55:53,950 2236 [DEBUG] - Charles 3.11.5
0 2017-06-09 21:55:53,950 2236 [DEBUG] - chocolatey 0.10.7
0 2017-06-09 21:55:53,950 2236 [DEBUG] - chocolatey-agent 0.6.0
0 2017-06-09 21:55:53,950 2236 [DEBUG] - chocolatey-core.extension 1.0.4
0 2017-06-09 21:55:53,950 2236 [DEBUG] - chocolatey.extension 1.10.0
0 2017-06-09 21:55:53,958 2236 [DEBUG] - chocolatey.server 0.1.2
0 2017-06-09 21:55:53,958 2236 [DEBUG] - ChocolateyGUI 0.14.0-unstable0165
0 2017-06-09 21:55:53,958 2236 [DEBUG] - DotNet4.0 4.0.30319.20141222
0 2017-06-09 21:55:53,958 2236 [DEBUG] - DotNet4.5.2 4.5.2.20140902
0 2017-06-09 21:55:53,958 2236 [DEBUG] - git 2.7.0.0
0 2017-06-09 21:55:53,958 2236 [DEBUG] - gitextensions 2.49
0 2017-06-09 21:55:53,958 2236 [DEBUG] - GoogleChrome 55.0.2883.87
0 2017-06-09 21:55:53,966 2236 [DEBUG] - grepwin 1.6.16
0 2017-06-09 21:55:53,966 2236 [DEBUG] - InkScape 0.92.0
0 2017-06-09 21:55:53,966 2236 [DEBUG] - l10n-en-US 0.5.0.20140901
```

- Log file captures very detailed information - environment and state
- Reduces rollback / recreation necessity



Compliance – Audit Out of Date Software

- choco outdated
- Comprehensive reporting on available upgrades
- See what will upgrade on next maintenance window

```
PS C:\packages> choco outdated
Chocolatey v0.9.10-beta1-426-g3c8b16e Business
Outdated Packages
  Output is package name | current version | available version | status

nodejs|4.4.5|6.2.1|false
nodejs.install|4.4.5|6.2.1|false
notepadplusplus|6.8.1|6.9.2|false
notepadplusplus.install|6.8.1|6.9.2|false
roundhouse|0.8.5.0|0.8.6|false

Chocolatey has determined 5 package(s) are outdated.
PS C:\packages>
```



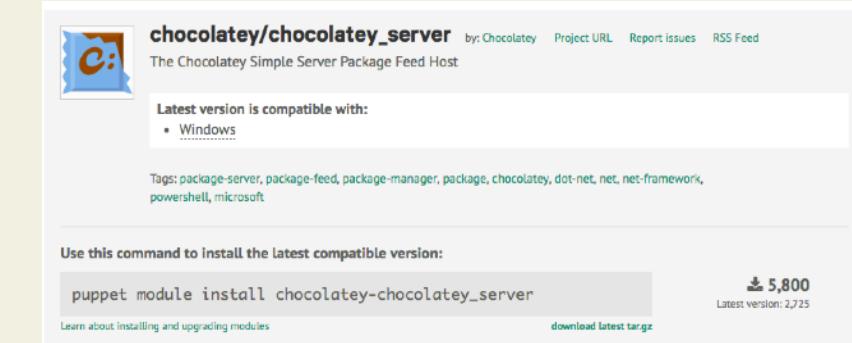
Package Repository





Hosting Your Own Package Server

- <https://chocolatey.org/docs/how-to-host-feed>
- Non-Windows Hosting
 - Artifactory 
 - Sonatype Nexus 
- NuGet Gallery proper 
- ProGet / MyGet 
- NuGet.Server / Chocolatey.Server
- Puppet - chocolatey/chocolatey_server module
- Visual Studio Team Services



The screenshot shows the Puppet module page for 'chocolatey/chocolatey_server'. The page header includes the Chocolatey logo, project URL, report issues, and RSS feed links. It states that the latest version is compatible with Windows. Below this, there's a list of tags: package-server, package-feed, package-manager, package, chocolatey, dot-net, net, net-framework, powershell, microsoft. A command to install the module is provided: `puppet module install chocolatey-chocolatey_server`. The page also shows the number of downloads (5,800) and the latest version (2,725). There are links for 'Learn about installing and upgrading modules' and 'download latest tar.gz'.





Creating Software Deployment “Packages”



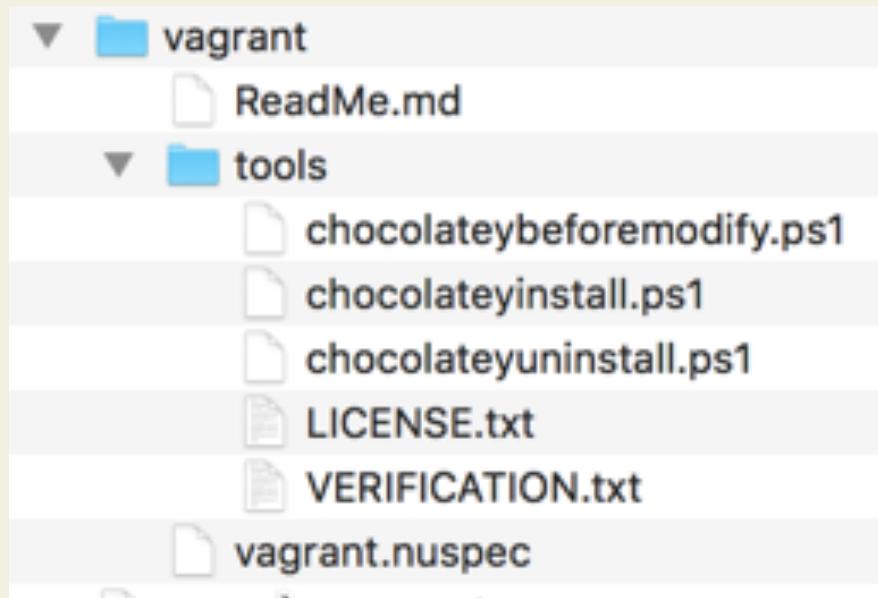
Chocolatey Packages

- Terminology: "Package" is nupkg file, "Software" is binaries or installers
- Zip files + Versioning, Dependencies & PowerShell
- Metadata - Software Information / Package Information
- PowerShell - <https://chocolatey.org/docs/helpers-reference>
 - 30+ Built-in functions - complex tasks become 1 liners
 - Handle additional missing installer logic (like add to PATH)
 - Add options missing from installer arguments
- Files - drop in binaries, native installers

Creating Packages

- <https://chocolatey.org/docs/create-packages>
- choco new
 - Generates package files with most of the work done
 - Create your own packaging templates!

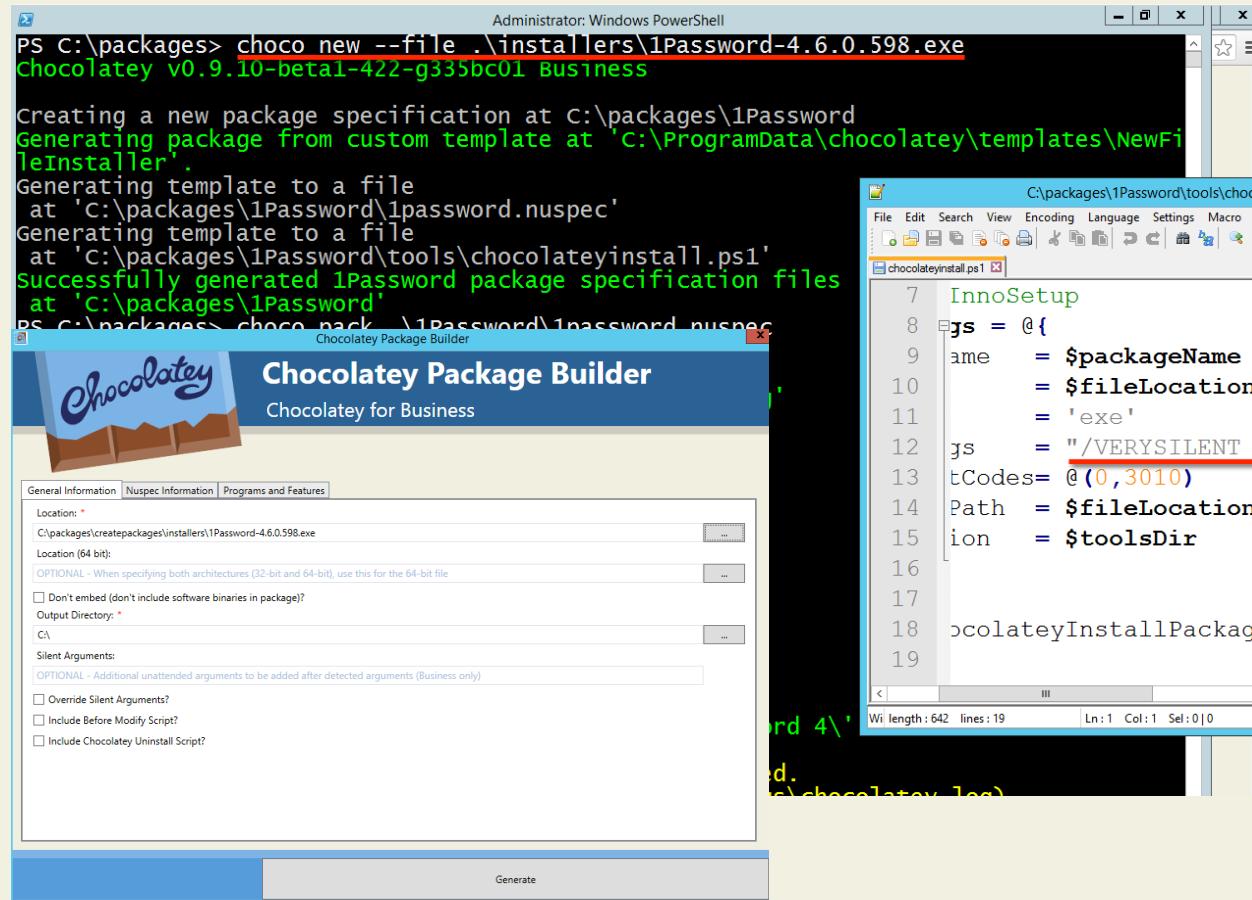




```
<?xml version="1.0" encoding="utf-8"?>
<!-- Do not remove this test for UTF-8: if "Ω" doesn't appear as greek uppercase omega letter enclosed in quotation not this one. -->
[<package xmlns="http://schemas.microsoft.com/packaging/2015/06/nuspec.xsd">
] <metadata>
    <!-- == PACKAGE SPECIFIC SECTION == -->
    <id>vagrant</id>
    <version>1.9.2</version>
    <packageSourceUrl>https://github.com/chocolatey/chocolatey-coreteampackages/tree/master/automatic/vagrant</packageSourceUrl>
    <owners>Chocolatey Core Community Team</owners>
    <!-- ===== -->
    <!-- == SOFTWARE SPECIFIC SECTION == -->
    <title>Vagrant (Install)</title>
    <authors>Mitchell Hashimoto, John Bender, HashiCorp</authors>
    <projectUrl>https://www.vagrantup.com</projectUrl>
    <iconUrl>https://cdn.rawgit.com/chocolatey/chocolatey-coreteampackages/62469751380dc5a9f2620f4b34c08fd7c741e5a5/</iconUrl>
    <copyright>2015 - 2017 HashiCorp</copyright>
    <licenseUrl>https://github.com/mitchellh/vagrant/blob/master/LICENSE</licenseUrl>
    <requireLicenseAcceptance>true</requireLicenseAcceptance>
    <projectSourceUrl>https://github.com/mitchellh/vagrant</projectSourceUrl>
    <docsUrl>https://docs.vagrantup.com/docs</docsUrl>
    <mailingListUrl>https://groups.google.com/forum/#!forum/vagrant-up</mailingListUrl>
    <bugTrackerUrl>https://github.com/mitchellh/vagrant/issues</bugTrackerUrl>
    <tags>vagrant admin sandbox virtual machine testing VM VirtualBox VMware cross-platform foss cli</tags>
    <summary>Vagrant - Development environments made easy.</summary>
] <description>
Vagrant provides easy to configure, reproducible, and portable work environments built on top of industry-standard workflow to help maximize the productivity and flexibility of you and your team.
</description>
To achieve its magic, Vagrant stands on the shoulders of giants. Machines are provisioned on top of VirtualBox, VMw
industry-standard provisioning tools such as shell scripts, Chef, or Puppet, can be used to automatically install a
-</description>
    <releaseNotes>[CHANGELOG] (https://github.com/mitchellh/vagrant/blob/master/CHANGELOG.md)</releaseNotes>
    <!-- ===== -->
- </metadata>
] <files>
    <file src="tools\**" target="tools" />
- </files>
-</package>
```



Package Builder (C4B) - “Generate software deployment packages in seconds”



- Package Builder automatically creates high quality packaging from an installer/zip in 5-10 seconds
- Determines everything necessary for silently installing software
- Supports passing urls (and checksums) - downloads files first
- Allows customization
- Supports exe, msi, 7z, zip, msu, and msp files





Package Internalizer (C4B) - “Convert existing packages to 100% offline and reliable”

- Take advantage of existing packages without dependency on the internet
- Downloads existing package and all remote resources
- Recompiles package to use those internal resources
- Option to download and point to other locations
- Ability to host packages on private internal repositories
- Visual Interface coming

```
PS C:\packages> choco download --recompile git.install
Chocolatey v0.9.10-beta1-426-g3c8b16e Business
Downloading an existing package to C:\packages\download

git.install v2.8.4 [Approved]
Found Install-ChocolateyPackage. Inspecting values for remote resources.
Found 'https://github.com/git-for-windows/git/releases/download/v2.8.4.windows-2.8.4-32-bit.exe' for replacement.
Found 'https://github.com/git-for-windows/git/releases/download/v2.8.4.windows-2.8.4-64-bit.exe' for replacement.

Download of 'Git-2.8.4-32-bit.exe' completed.
Replacing 'https://github.com/git-for-windows/git/releases/download/v2.8.4.windows-2.8.4-32-bit.exe' with '$(Split-Path -parent $MyInvocation.MyCommand.Definition.Path)\Git-2.8.4-32-bit.exe'

Download of 'Git-2.8.4-64-bit.exe' completed.
Replacing 'https://github.com/git-for-windows/git/releases/download/v2.8.4.windows-2.8.4-64-bit.exe' with '$(Split-Path -parent $MyInvocation.MyCommand.Definition.Path)\Git-2.8.4-64-bit.exe'
Updating chocolateyInstall.ps1 with local resources.
Recompiling package.

Recompiled package files available at 'C:\packages\download\git.install'
Recompiled nupkg available in 'C:\packages'
```





How does it work?





ReactionGIFS.me



Package Synchronizer (C4B)

- stay in sync w/system





Package Synchronizer (Licensed) - Auto Sync

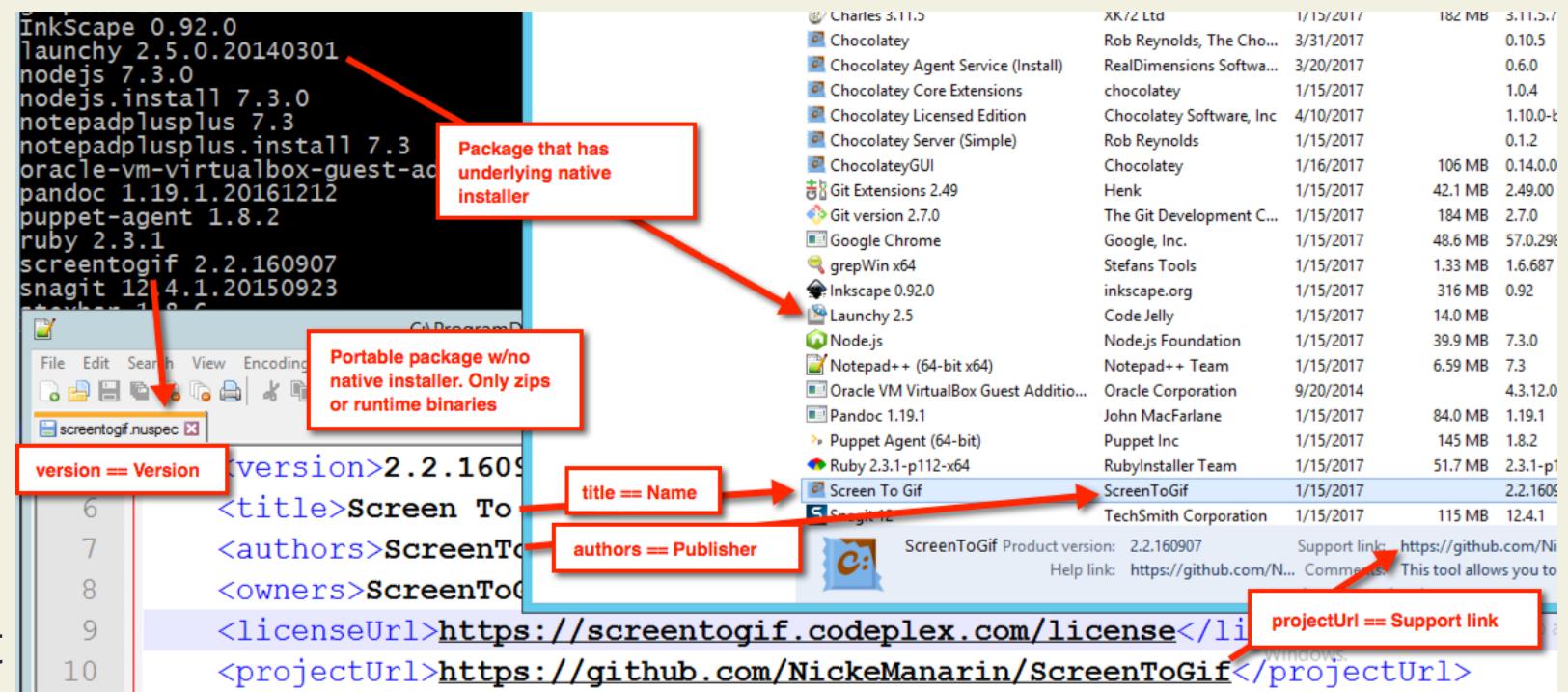
```
PS C:\> choco list -lo
Chocolatey v0.9.10-beta1-422-g335bc01 Bu
[Synchronize] Removing 1password package
tey.
chocolatey 0.9.10-beta-20160609
chocolatey.extension 1.4.0
chocolatey.server 0.1.1
DotNet4.0 4.0.30319.20141222
git 2.7.0.0
git.install 2.8.4
GoogleChrome 51.0.2704.84
Launchy 2.5.0.20140301
roundhouse 0.8.5.0
9 packages installed.
PS C:\>
```

- Chocolatey maintains state based on packages. System state can be manipulated outside of Chocolatey
- Any Chocolatey command will trigger synchronization in licensed editions of Chocolatey
- Package Synchronizer syncs with manual software removal
- Syncs w/software that automatically upgrades, such as Chrome



Package Synchronizer (C4B) - All Packages in Programs and Features

- Any Chocolatey package installed will result in an entry in Programs and Features, even if it doesn't have a native install
- Supporting legacy inventory reporting systems is now a snap
- Do not need to build MSIs / Installers for internal use just to support legacy reporting



Package Synchronizer (C4B) - Choco Sync Command

```
PS C:\> choco sync -r
Package Id|Display Name|Version|New Package
7zip|7-Zip 16.02 (x64)|16.2|False
oracle-vm-virtualbox-guest-additions|Oracle V
12.0|True
bitvise-ssh-server|Bitvise SSH Server 5.60 (r
PS C:\>
```

- Brings all software in Programs and Features under Chocolatey management
- Generates packaging and baselines to Chocolatey install
- Provides packaging code to take back to source control



How does it work?







Self-Service (C4B) - “Non-administrative desktop users can install/upgrade software!”



Self-Service Installer / Background Mode (C4B)

The screenshot illustrates the Chocolatey self-service installer and background mode. On the left, a Windows PowerShell window shows the command `choco install adobereader` being run. The output indicates "Running in background mode" and "Running from background service". A red arrow points from the "Running in background mode" text to a callout box titled "Background Mode / Self-Service Installer". This box lists several key features:

- Non-admin can install only from approved, configured sources
- Chocolatey Agent Service validates commands prior to running
- Output streams as it happens
- Attempted abuses are logged for further review
- Background mode only for install / upgrade (configuring commands allowed on roadmap)
- GUI on roadmap

On the right, a Google Chrome window displays the package details for "Google Chrome 56.0.2924.87". The package ID is GoogleChrome. The "Description" section includes notes about the MSI installer and the latest version of Google Chrome.

At the bottom, there are three buttons: Pin, Reinstall, and Uninstall. The "Uninstall" button is highlighted with a red border.



Package Reducer (Licensed)

- Reduce Chocolatey space usage down automatically
- Reduction on install/upgrade
- choco optimize to clean existing

```
Space reduced for 'snagit': 87.33 MB.  
Optimizing 'stexbar'  
Reducing package size for 'stexbar'...  
Reducing nupkg file size ('stexbar').  
Reducing extracted archives and installers ('stexbar')  
Reducing any cached archives / installers ('stexbar')  
Removing 'c:\ProgramData\choco-cache\stexbar\1.8.6\St  
  
Space reduced for 'stexbar': 376.09 KB.  
Optimizing 'virustotaluploader'  
Reducing package size for 'virustotaluploader'...  
Reducing nupkg file size ('virustotaluploader').  
Reducing extracted archives and installers ('virustota  
Reducing any cached archives / installers ('virustota  
Removing 'c:\ProgramData\choco-cache\virustotaluploade  
xe' ('virustotaluploader')).  
Space reduced for 'virustotaluploader': 139.92 KB.  
Optimizing 'visualstudiocode'  
Reducing package size for 'visualstudiocode'...  
Reducing nupkg file size ('visualstudiocode').  
Reducing extracted archives and installers ('visualstu  
Reducing any cached archives / installers ('visualstu  
Removing 'c:\ProgramData\choco-cache\visualstudiocode  
' ('visualstudiocode')).  
Space reduced for 'visualstudiocode': 33.75 MB.  
  
Chocolatey optimized 34 packages.  
Total space reduced overall: 626.48 MB.
```





Other Features

- <https://chocolatey.org/docs/release-notes>
- Internal sources (like ProGet)
- *choco upgrade all* - Windows update for your 3rd party and internal software
- Shimming - like symlinks but better
- Pass install arguments directly through to installer (append or override package args)
- Package Parameters to adjust logic in packages
- Handles locking on upgrades in package folders
- Great reference docs - [& https://chocolatey.org/docs/commands-reference](https://chocolatey.org/docs/commands-reference) & <https://chocolatey.org/docs/helpers-reference>
- Excellent open source support community
- 30+ built-in PowerShell Functions
- Extend functionality with your own PowerShell Modules
- Custom Package Templates
- Can manage anything on Windows



Other Features (C4B)

- <https://chocolatey.org/docs/release-notes-licensed>
- Auto-uninstaller more effective - uninstaller detection / Package Synchronizer
- Install/upgrade keeping secrets out of logs
- Ubiquitous Install Directory Option
- More built-in PowerShell functions
- Uninstall non-Chocolatey managed software
- Direct Installer - install directly from exe/msi
- Package Throttle
- Runtime malware protection
- CDN Cache
- Professional Packaging Services
- Amazing expert support team - <https://chocolatey.org/support>



Chocolatey Roadmap

- <https://chocolatey.org/docs/roadmap>
- Central Management UI (C4B)
- Choco Deploy CLI (C4B)
- WSA / Windows Nano Support
- PowerShell
PackageManagement Official Provider
- Package Enhancements
- Pack Validation
- Virtual packages
- GPG Signing
- Package Grid (C4B)
- Deferred Installer (C4B)
- Possible support on other platforms





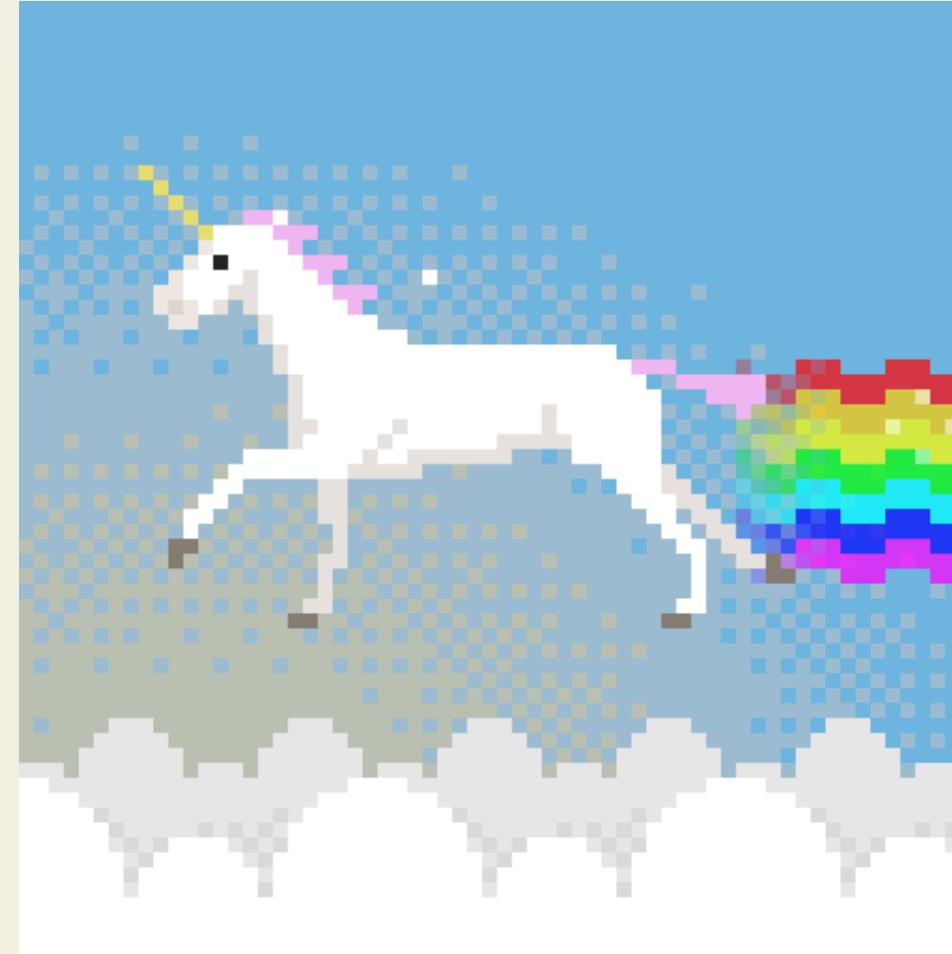
Demo





This is you







This is you on Chocolatey







Any Questions?





Questions?

[https://
chocolatey.org/
contact](https://chocolatey.org/contact)

- ferventcoder -
twitter, gmail, etc





SEE YOU NEXT YEAR!

AUGUST 6 - 8, 2018

