



Chocolatey

The package manager for Windows

Chocolatey Package Management with ProGet



Rob Reynolds

Founder

Chocolatey Software

@ferventcoder





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 / Chocolatey for Business (C4B)
- ProGet
- Demo
- Questions





Why Chocolatey?





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



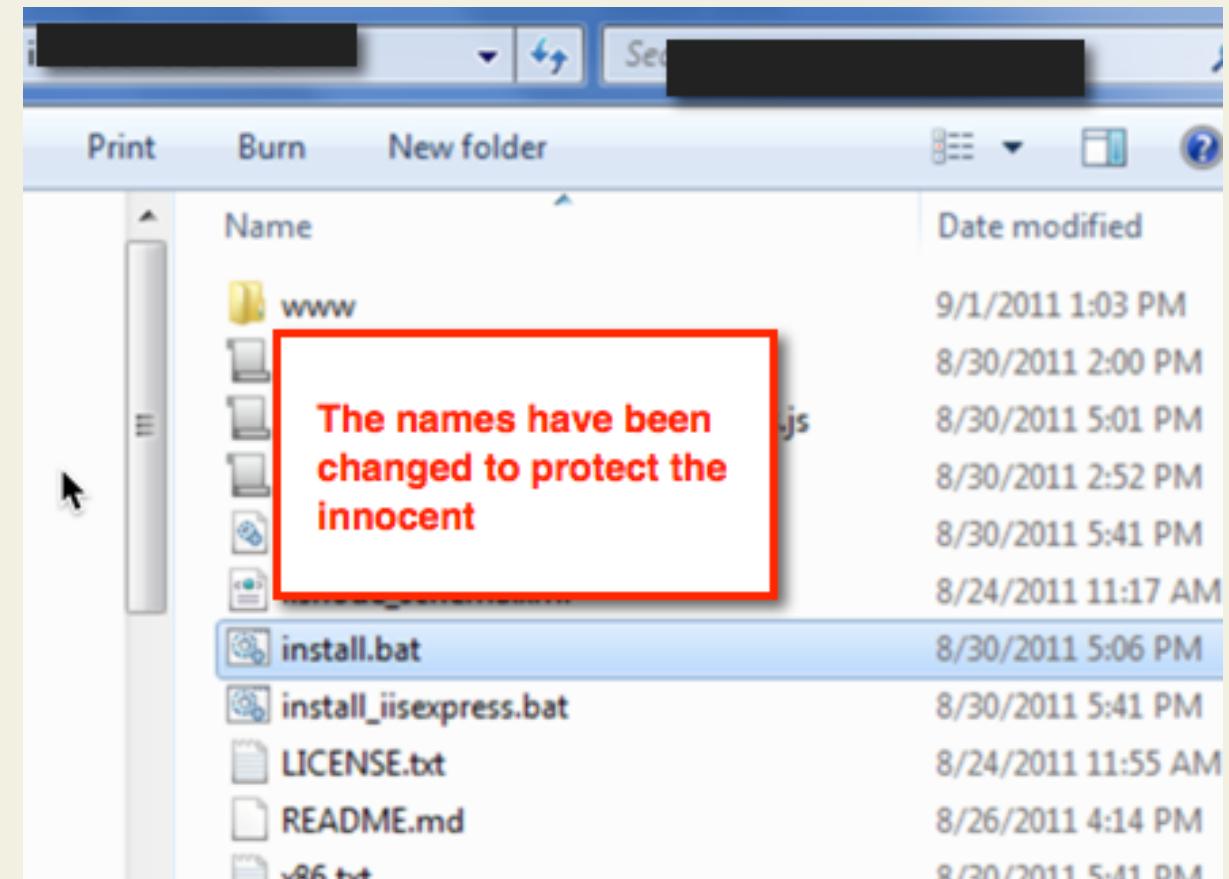
Windows Software Ecosystem

- 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 menu bar includes File, Edit, Search, View, Encoding, Language, Settings, Macro, Run, Plugins, Window, and ?.

The code in the editor 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.ps1",
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,
```



Why?

Create Application Wizard

General Information

Specify information about this application

Name: Microsoft Office Professional Plus 2010

Administrator comments:

Manufacturer:

Software version:

Optional reference:

Administrative categories:

Specify the installation program for this application and the required installation rights.

Installation program: msieexec /i "ProPlusWW.msi" /q

Run installation program as 32-bit process on 64-bit clients.

Install behavior: Install for system

< Previous Summary Cancel



**Manfred Wallner**

@schusterfredl

Following



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

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





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

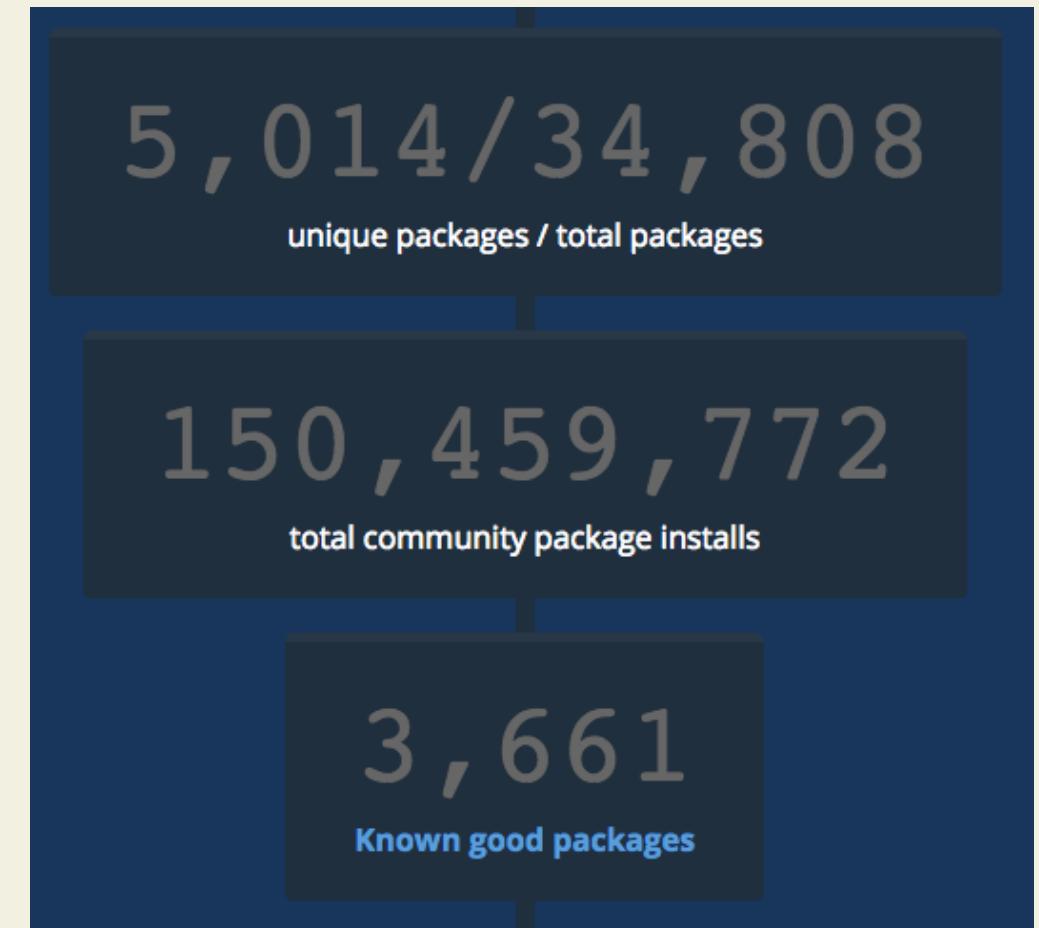
WARNING: Objects in mirror may be larger than they appear





Community Package Repository

- <https://chocolatey.org/packages>
- Community Feed / Community Maintained
- Moderated as of October 2014
- Everything goes through VirusTotal
- **Organizations Should Not Depend b/c 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

The screenshot shows the Chocolatey GUI application window. At the top is a navigation bar with tabs for 'Settings', 'Sources', and 'About'. Below the navigation bar is a search bar labeled 'Search:' with dropdown filters for 'All Versions', 'Include Prerelease', and 'refresh packages'. The main content area displays a list of software packages with their names, download counts, authors, descriptions, and tags. The packages listed are: Chocolatey 0.10.5 (58,506,660 downloads), Flash Player Plugin 25.0.0.14 (5,185,765 downloads), Google Chrome 58.0.3029.8 (3,934,381 downloads), WinRAR 5.40.0.20161221 (2,598,131 downloads), and Java SE Runtime Environment (2,282,448 downloads). Each package entry includes a 'refresh' button.

The screenshot shows the 'Settings' window of the Chocolatey GUI. The left sidebar has links for 'Options', 'Sources', and 'About'. The main area is titled 'Chocolatey Features' and contains several configuration sections with toggle switches:

- checksumFiles**: Checksum files when pulled from internet (based on package). Status: On.
- autoUninstaller**: Uninstall from programs and features without requiring an explicit uninstall script. Status: On.
- allowGlobalConfirmation**: Prompt for confirmation in scripts or bypass. Status: Off.

To the right is a table titled 'Settings' with columns for 'NAME', 'VALUE', and 'DESCRIPTION'. Some entries are truncated at the end of the table.

NAME	VALUE	DESCRIPTION
cacheLocation	c:\ProgramData\choco-cache	Cache location if not TEMP
containsLegit	true	Install has packages installed
commandEx	2700	Default timeout for command
proxy		Explicit proxy location
proxyUser		Optional proxy user
proxyPasswd		Optional proxy password
webRequest	30	Default timeout for web requests
virusCheckM	4	Minimum number of scans
virusScanner	VirusTotal	Virus Scanner Type (Generic)
genericVirus!		The full path to the command
genericVirus! [[File]]		The arguments to pass to the command
genericVirus! 0		The exit codes for the generic virus
proxyBypass!		Optional proxy bypass list
proxyBypass! true		Bypass proxy for local connections
maximumDo		The maximum download rate





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 (upcoming C4B) adds who and when





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 16.02.0.20160811
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>
```





Creating Software Deployment “Packages”





Chocolatey Packages

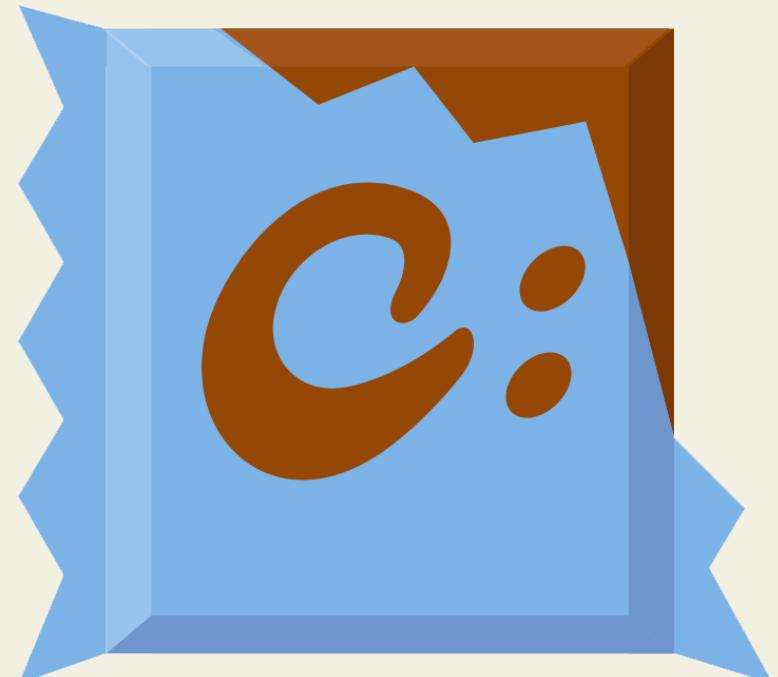
- Zip files + Versioning, Dependencies & PowerShell
- Metadata - Software Information / Package Information
- PowerShell - <https://chocolatey.org/docs/helpers-reference>
 - 30+ Built-in functions - complex tasks become 1 liners
 - Handle additional missing installer logic (like add to PATH)
 - Add options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

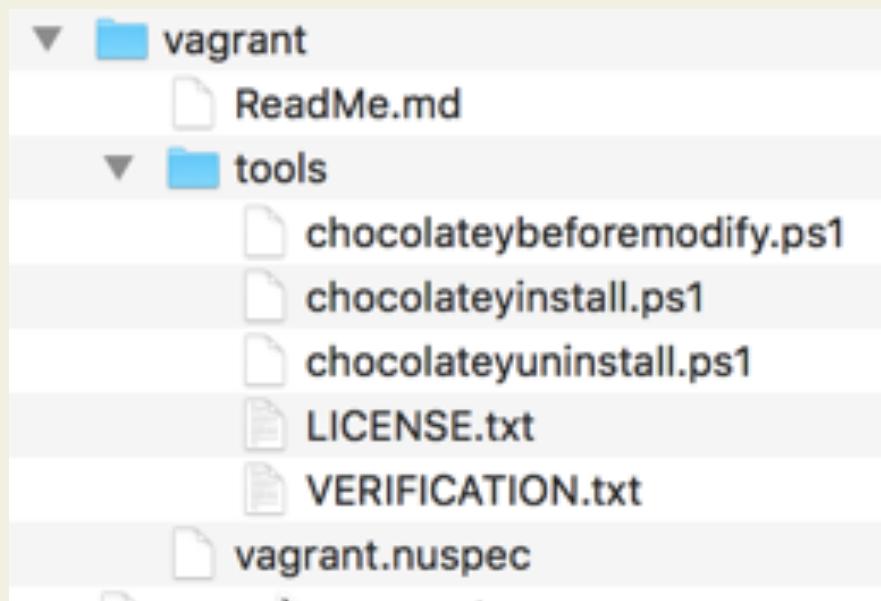




Creating Packages

- <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.

  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”

Administrator: Windows PowerShell

```
Ps c:\packages> choco new --file ..\installers\1Password-4.6.0.598.exe
chocolatey v0.9.10-beta1-422-g335bc01 Business

creating a new package specification at c:\packages\1Password
Generating package from custom template at 'C:\ProgramData\chocolatey\templates\NewFileInstaller'.
Generating template to a file
at 'C:\packages\1Password\1password.nuspec'
Generating template to a file
at 'C:\packages\1Password\tools\chocolateyinstall.ps1'
Successfully generated 1Password package specification files
at 'C:\packages\1Password'
Ps c:\packages> choco pack -1Password\1password.nuspec
```

Chocolatey Package Builder
Chocolatey for Business

General Information Nuspec Information Programs and Features

Location: C:\packages\createpackages\installers\1Password-4.6.0.598.exe

Location (64 bit):

OPTIONAL - When specifying both architectures (32-bit and 64-bit), use this for the 64-bit file

Don't embed (don't include software binaries in package)?

Output Directory: C:\

Silent Arguments:

OPTIONAL - Additional unattended arguments to be added after detected arguments (Business only)

Override Silent Arguments?

Include Before Modify Script?

Include Chocolatey Uninstall Script?

Generate

chocolateyinstall.ps1

```
7 InnoSetup
8 gs = @{
9   name      = $packageName
10  = $fileLocation
11  = 'exe'
12  gs      = "/VERYSILENT /NOCODES @($0,3010)"
13  Path     = $fileLocation
14  ion     = $toolsDir
15
16
17
18  ocolateyInstallPackage
19
```

- 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'
```





Package Synchronizer (C4B)

- stay in sync w/system





Package Synchronizer (C4B) - Auto Sync

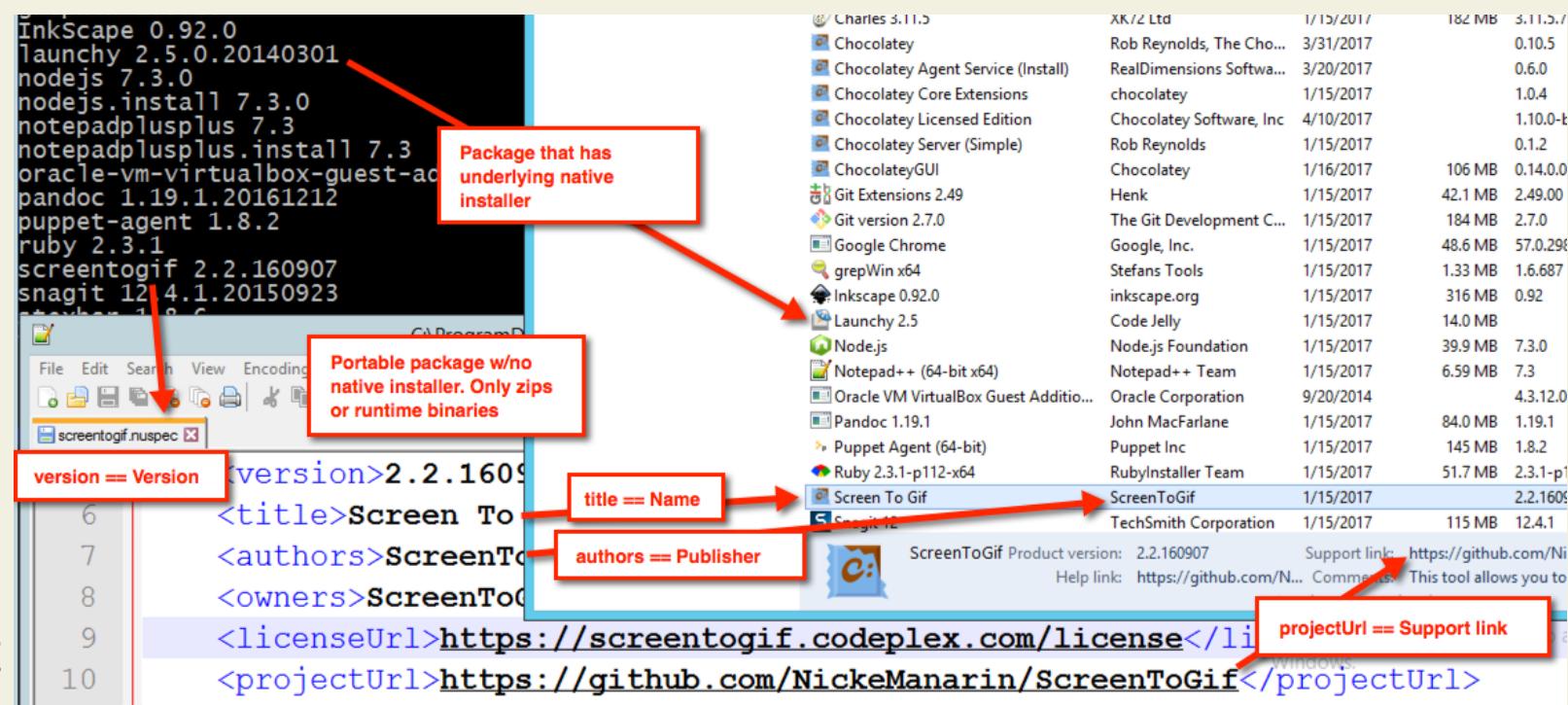
```
PS C:\> choco list -lo
Chocolatey v0.9.10-beta1-422-g335bc01 Bu
[Synchronize] Removing 1password package
tey.
chocolatey 0.9.10-beta-20160609
chocolatey.extension 1.4.0
chocolatey.server 0.1.1
DotNet4.0 4.0.30319.20141222
git 2.7.0.0
git.install 2.8.4
GoogleChrome 51.0.2704.84
Launchy 2.5.0.20140301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



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





Self-Service Installer / Background Mode (C4B)

The screenshot illustrates the Chocolatey self-service and background mode features. 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.





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)
- Package Audit (C4B)
- Choco Deploy (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





Package Repository





ProGet - Package Repository

ProGet is a Package management system that lets users host personal or enterprise feeds.





ProGet - Package Repository

- Multiple types - Chocolatey, NuGet, Bower, npm, etc
- Feed aggregation
- Connected feed filtering by package or license
- Symbol & source servers
- Multi-site replication
- Cloud storage, supporting Amazon S3 and Azure Blob package stores
- Deployment records
- Package promotion
- Others





ProGet - Package Repository

Feeds Packages Connectors Vulnerabilities License Rules

Search packages: API endpoint URL:
Ops-Team Package count: 25

Manage Feed Add Package

Chocolatey 0.10.7
Tags: nuget apt-get machine repository chocolatey

Flash Player Plugin 26.0.0.126
Tags: adobe flash player plugin freeware cross-platform browser admin

Google Chrome 59.0.3071.86
Tags: google chrome web internet browser admin

Java SE Runtime Environment 8.0.131
Tags: java runtime environment

Adobe Reader DC 2015.007.20033.02
Tags: adobereader pdf reader admin

WinRAR 5.40.0.20161221
Tags: trial rar compression archive nagware admin

Feeds Packages Connectors Vulnerabilities License Rules

↑ Feeds

ProGet Home

Create Feed

Please keep it URL friendly - the feed's name is used in the API endpoint URL, and no one likes having to escape whitespace and other characters.

Feed type: Chocolatey
(select)
Bower
Chocolatey
Docker
Maven
npm
NuGet
PowerShell
Ruby Gems
Universal
VSIX

Close





Demo





Questions?

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

- attendees eligible for 10% discount on Chocolatey for Business
 - trial it in your environment today!

