

# Click Free Application Deployment

With The Magic Of  
PowerShell and Chocolatey

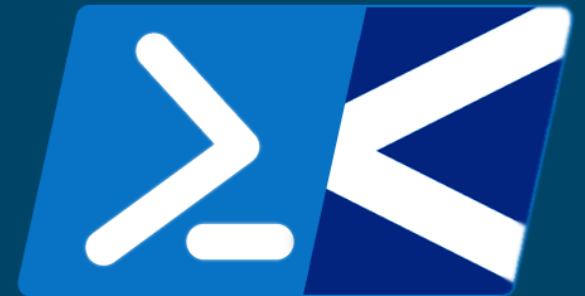
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## Who Am I?

- Paul Broadwith, Glasgow, Scotland
- 25+ years in defence, government, financial sectors
- Lead Engineer on Boxstarter and Chocolatey  
cChoco DSC Resource





## In This Session

- Understand what Chocolatey is;
- Understand the difference between packages and installers;
- Be able to create a package;
- Learn how to work with installers that won't install silently;
- Learn to use Pester to test your packages;
- Learn what the Chocolatey Community Repository;
- Learn how to keep your package continually updated;

A raccoon with its hands clasped in prayer, looking directly at the camera. The raccoon has a black and white striped face and is standing on a dark, textured surface. The background is a blurred natural setting with brown and green tones.

# **TO DO LIST:**

- 1. CLOSE OPPORTUNITIES**
- 2. TAKE OVER THE WORLD**

What is Chocolatey?

# History Of Package Managers

Linux has:

```
apt install -y powershell
```

```
yum install -y powershell
```

Mac has:

```
brew cask install powershell
```

Windows has:

```
click Next, click Next, click Next
```

# What is Chocolatey?

- Chocolatey is a package manager for Windows
- Created by Rob Reynolds (@ferrentcoder)
- First version released on 23 March 2011
- Now Windows has:

```
choco install powershell-core -y
```







# Chocolatey Prerequisites

- Windows 7+ / Server 2003+
- Windows PowerShell 2 / .NET 4\*
- Not Nano ☹
  - (see GitHub issue #1371 - <https://github.com/chocolatey/choco/issues/1371>)

\* Some functionality requires .NET 4.5

# Fundamental Tenet of Chocolatey



Chocolatey Manages Packages

Packages Manage Installers

Chocolatey Does Not Manage Installers

What is a Chocolatey package?

# What Is A Chocolatey Package?

- Special Zip file with a `.nupkg` extension;
- Commonly called 'nupkeg' or 'noo package' due to file extension;
- It contains metadata, PowerShell scripts and sometimes other files;
- Builds on NuGet package framework while remaining compatible with v2 repositories;



`packagename.nuspec`



`chocolateyInstall.ps1`



`installer.msi`

# What Can A Chocolatey Package Do?

- Chocolatey ❤️ PowerShell;
- PowerShell scripts install, upgrade and uninstall software;
- Almost anything you can do in PowerShell you can do with a Chocolatey package;



chocolateyInstall.ps1



chocolateyBeforeModify.ps1



chocolateyUninstall.ps1



[Google Search](#) [I'm Feeling Lucky](#)

# DEMO

Lets Look At Chocolatey  
Packages



# Chocolatey Community Repository

Everything you wanted to know but  
were too afraid to ask.

# Chocolatey Community Repository

- Repository is at [chocolatey.org](https://chocolatey.org) hosted by Chocolatey;
- Chocolatey uses it as the default chocolatey package source;
- Vast majority of packages created by volunteer maintainers;
- Some vendors maintain their own packages;
- Repository is for the many and not the few - use is monitored;
- Licensing is important - does not have redistribution rights;

# Chocolatey Community Repository

- Monthly website stats as of February 2019:
- 1.4 B requests;
- 221.7 TB of data;
- 1.1M unique visitors

7,125 / 74,477

unique packages / total packages

637,335,313

total community package installs

5,274

Known good packages

# Excessive Community Repository Use



## Rate Limiting – 1 hour block

- Downloads of Chocolatey Package: 5
- Downloads of ANY OTHER Package: 20



## Monthly Download Monitoring – fixed block

- Tens of thousands of package downloads over a specific period

# Community Repository Package Checks



**Push**

← `choco push mypackage.1.0.0.nupkg --apikey=123456`



**Received**



**Approved**



# Organizational Community Repository Use

- Not recommended for direct use by organisations:
  - Reliability;
  - Trust;
  - Bandwidth;
  - Distribution rights;
- Recommend you create package repository with Artifactory, Nexus or ProGet;
- Disable Chocolatey Community Repository:  
`choco source disable --name=chocolatey`

# DEMO

## Testing Your Packages and Keeping Them Updated

## Summary

- We know what Chocolatey is;
- We know how to create a package and how to use the template;
- Learned how to deal with troublesome installers;
- Use Pester to test our packages;
- Learn what happens when you submit a package to the Chocolatey Community Repository;
- What to use to keep your package continually updated;



Questions?

Thank You!

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