

# Dependencies Done Right

@MicheleTitolo

What we'll cover



《COCOPODS》

WOMEN WHO  
CODE



# What is CocoaPods?

# Objective-C Library Dependency Manager

CocoaPods' goal is to improve discoverability of, and engagement in, third party open-source libraries, by creating a more centralized ecosystem.

Specify dependencies

Specify dependencies,  
intelligently



Specify Versions

# Dependency Resolution

How are CocoaPods different  
than submodules?

*Always explicit versions*

Submodule dependencies  
are messy

# Installing CocoaPods

Written in Ruby

```
$ sudo gem install cocoapods
```



Adds `pod` command

pod setup

# CocoaPods/Specs

What's a podspec?

A Podspec, or Spec, describes a version of a Pod library.

```
Pod::Spec.new do |s|
  s.name           = 'Reachability'
  s.version        = '3.1.0'
  s.license        = :type => 'BSD'
  s.homepage       = 'https://github.com/tonymillion/Reachability'
  s.authors        = 'Tony Million' => 'tonymillion@gmail.com'
  s.summary        = 'ARC and GCD Compatible Reachability Class for  
iOS and OS X.'
  s.source         = :git => 'https://github.com/tonymillion/Reachability.git', :tag => 'v3.1.0'
  s.source_files   = 'Reachability.h,m'
  s.framework      = 'SystemConfiguration'
  s.requires_arc   = true
end
```

# Semantic Versioning

pod 'Reachability', '~> 3.0.1'



```
s.dependency 'Reachability', '~> 3.0.1'  
s.dependency 'Reachability', '~> 3.0.4'
```

So now we have specs

Keeps track of pods  
~/.cocoapods/repos

```
$ pod search coredata
```

# Creating a Podfile

Lists your app's dependencies

Settings for installing pods

```
platform :ios, '6.0'

inhibit_all_warnings!

pod 'ObjectiveSugar', '~> 0.5'

target :test do
  pod 'OCMock', '~> 2.0.1'
end
```



prepare

# Running pod install

Adds everything  
to your project

Run with `--verbose`

```
$ pod install --verbose
```

Analyzing dependencies

Updating spec repositories

Updating spec repo `master`

```
$ /usr/bin/git pull
```

Already up-to-date.

Finding Podfile changes

- AFNetworking
- MagicalRecord

Resolving dependencies of `Podfile`

Resolving dependencies for target `Pods' (iOS 7.0)

- MagicalRecord (= 2.2)
- AFNetworking (= 2.0.0)

Comparing resolved specification to the sandbox manifest

- AFNetworking
- MagicalRecord

Downloading dependencies

Under the hood

Loads specs

Loads spec dependency specs



Figures out the correct version

# Manual conflict resolution

Your version wins

Loads all the sources

Creates the new files

Podfile.lock

MyApp.xcworkspace

Pods.xcodeproj



/Pods

[http://www.objc.io/issue-6/  
cocoapods-under-the-  
hood.html](http://www.objc.io/issue-6/cocoapods-under-the-hood.html)

# Troubleshooting

Mavericks

```
$ sudo gem install cocoapods
```

Fixed in 0.27 for system Ruby

The sandbox is not in sync

Manifest.lock



```
$ pod install
```

Can't find libPods

**ONLY\_ACTIVE\_ARCHS=NO**

`$( inherited )`

Pods not installed on  
multiple targets

link\_with

[guides.cocoapods.org](https://guides.cocoapods.org)

There's a button to edit the  
guide



# FAQ

# Private Pods

Theory

You can add a .podspec  
to anything

Any remote can be a pod

Setup

Create your own  
Specs repository

└─ [SPEC\_NAME]  
    └─ [VERSION]  
        └─ [SPEC\_NAME].podspec



```
$ pod repo add NAME SOURCE_URL  
$ cd ~/.cocoapods/NAME  
$ pod repo lint .
```

Specify any remote  
that has a .podspec

Specify a .podspec

Should I check in  
my Pods folder?

Checking it in

Pod sources are  
always available

Fewer dependency conflicts

Larger repository



Recreating on the fly

Smaller commits

Smaller repository

Internet required

# Best Practices

Switching from submodules

Figure out closest tagged  
version of submodule

Remove submodule



.gitmodules

.git/config

.git/modules/some\_lib

```
rm -rf /path/to/some_lib
```

[http://davidwalsh.name/git-  
remove-submodule](http://davidwalsh.name/git-remove-submodule)

Add library to Podfile

Run `pod install`

Do I need this dependency?



# How to pick a good dependency

# Commits

# Stars, Watchers, and Forks

Open : Closed Issues

# Pull Requests

Where to get help?

- [groups.google.com/forums/cocoapods](https://groups.google.com/forums/cocoapods)
- StackOverflow
- Check CocoaPods/CocoaPods Issues

# Questions

@MicheleTitolo