Creating Great Mobile Libraries Daniel Tull

What is a library?

* A collection of code to do a particular task
* Better to do one thing well
* Often stand-alone, sometimes has dependencies

Doesn't have to be big



http://novelideasmanly.blogspot.co.uk/2007/03/library-afloat-sets-sail.html

Fit for purpose



http://www.eifl.net/ghana-library-board-mobile-library-service

Make it stand out



http://en.wikipedia.org/wiki/File:NSPublicMobileLibrary.jpg

Wait for Apple to replace it



http://www.hdelectriccompany.com/latest-news/hd-electricdemo-van-becomes-bookmobile.htm

Wait for Apple to replace it



It's aerodynamic

A little bit shiny

It runs on electric!

http://www.hdelectriccompany.com/latest-news/hd-electricdemo-van-becomes-bookmobile.htm

Version Control

* For this I will assume git

* Bring in libraries with git submodules, svn externals etc

Create a repository and add files Add submodule reference to library repository Referencing projects drag the required files in

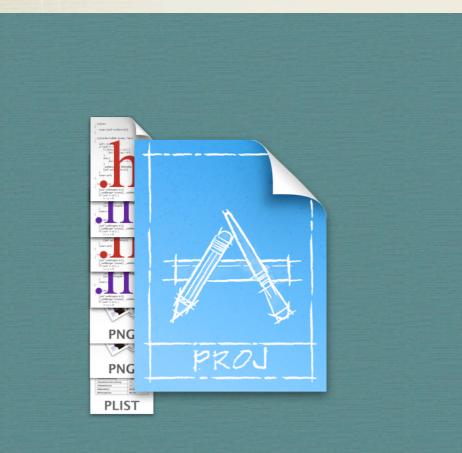


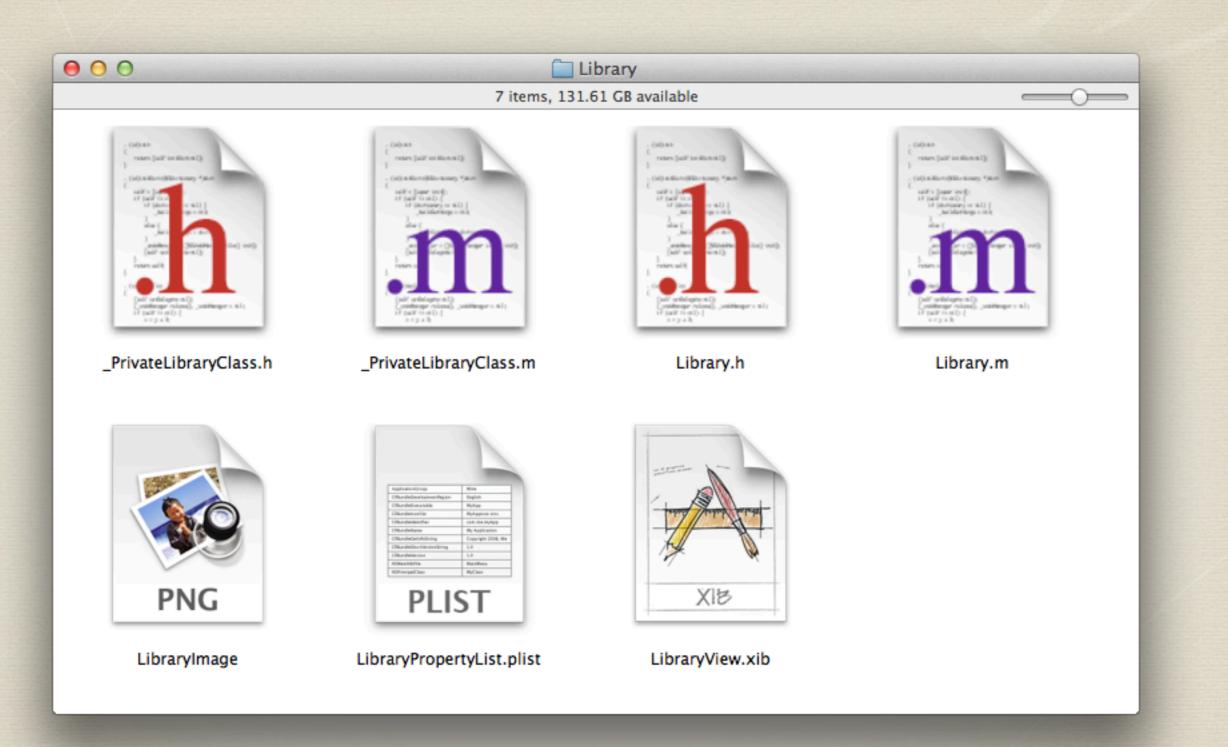
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Project Repository





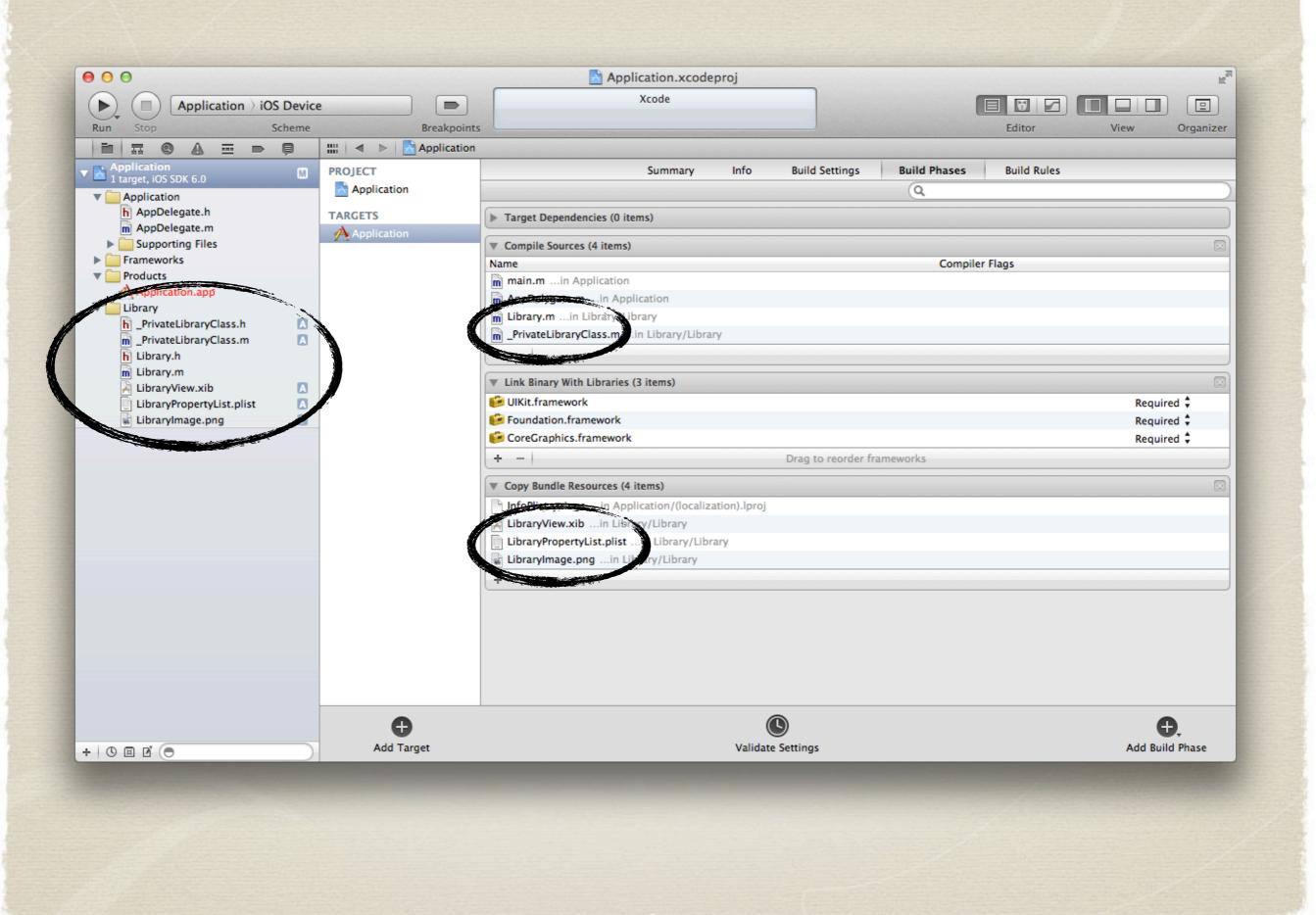
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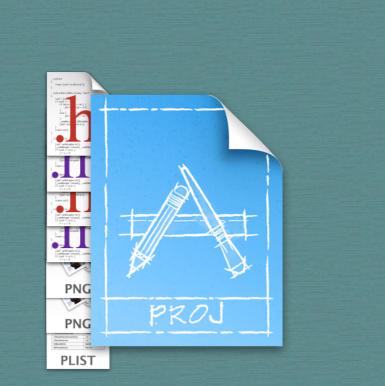
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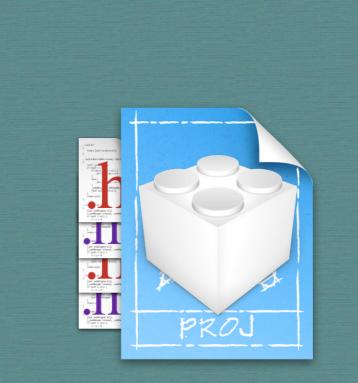


Really simple to createEasy to drop in for the user

Need to know whether it's written for ARC
Need to know about file changes
Library unit tests not run
Warnings show up in app build
Users can see and use private library classes

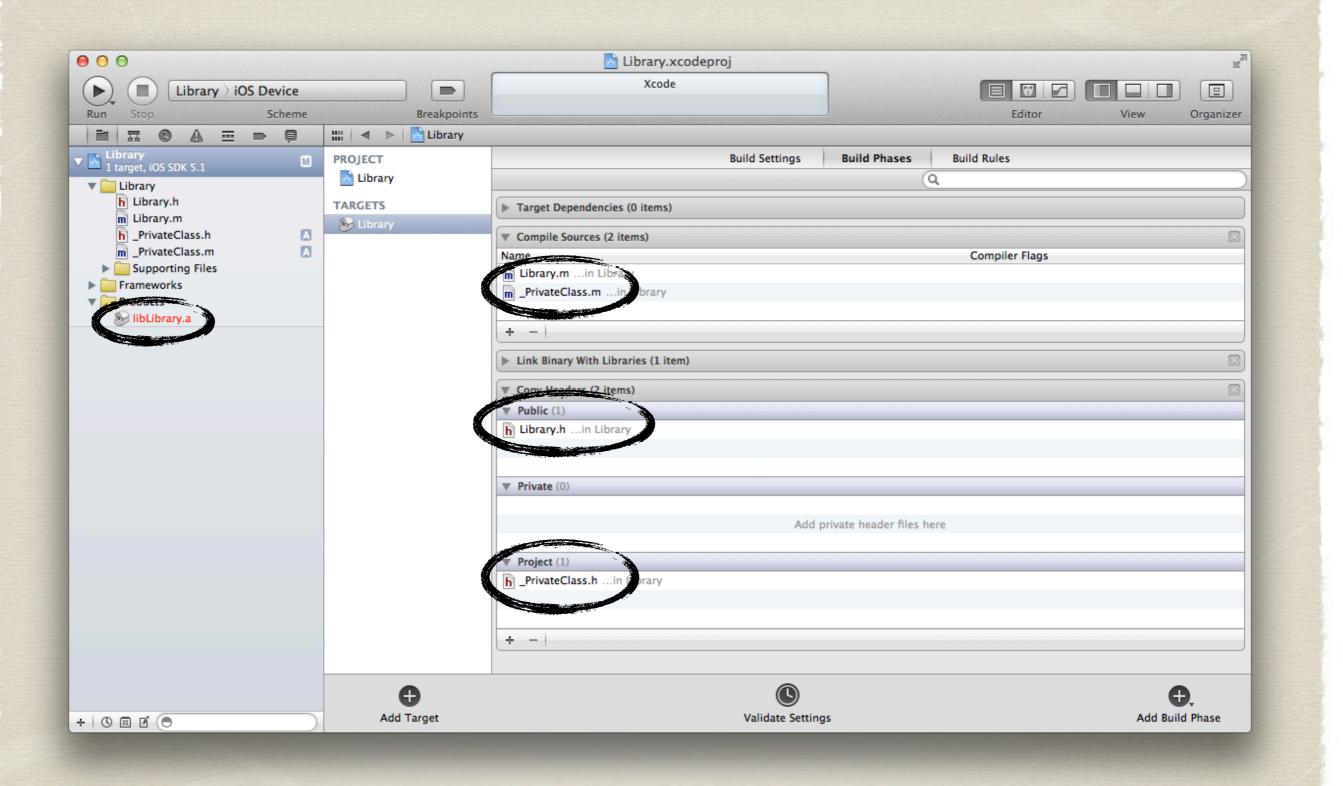
Create a new static library project Add classes to the static library target Link the library into the app project



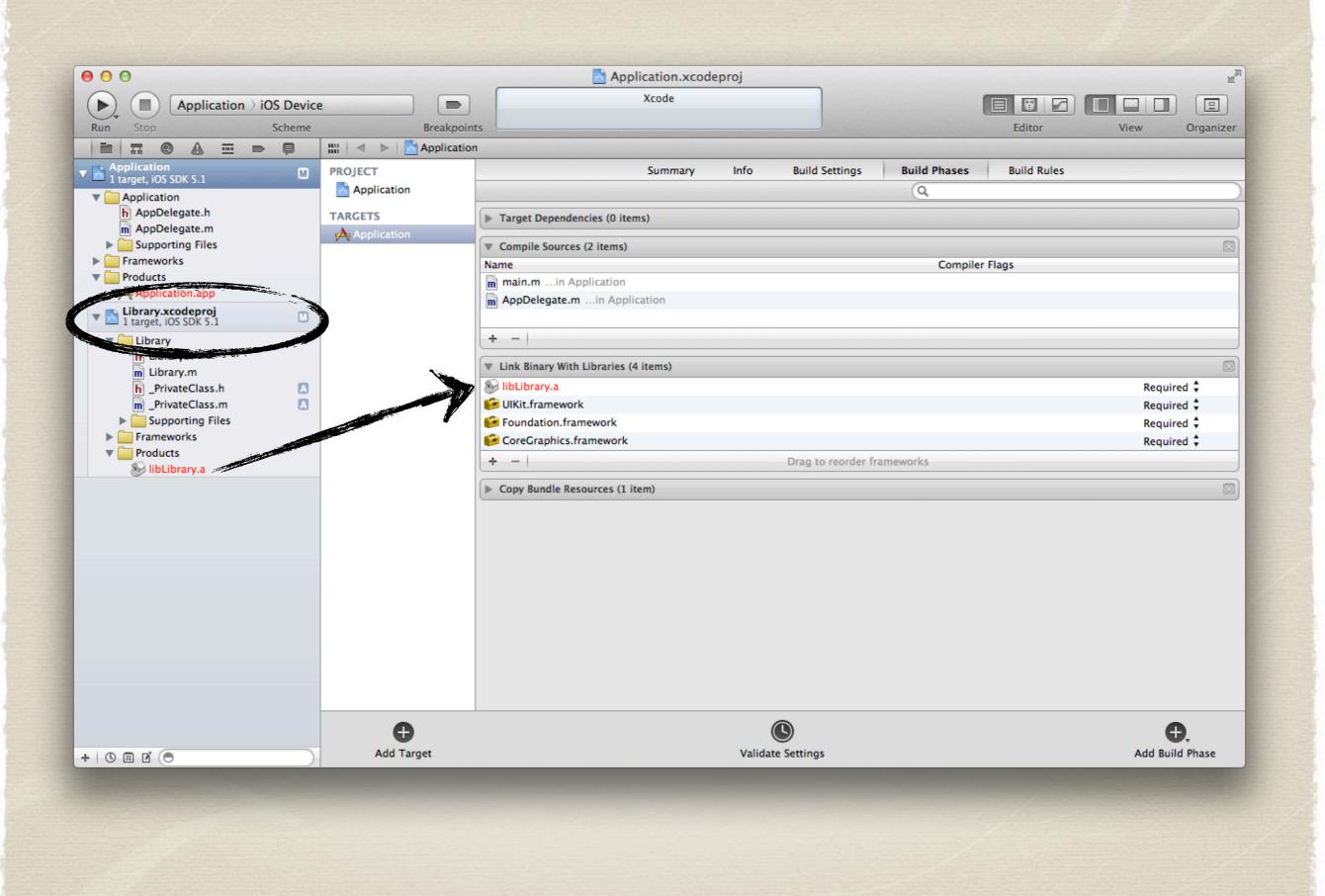


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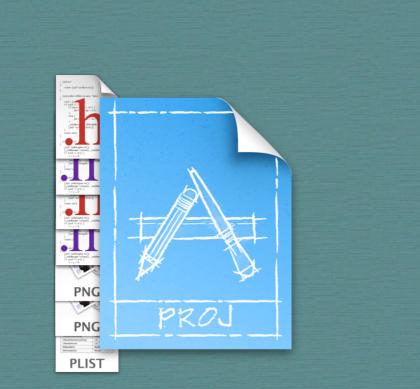


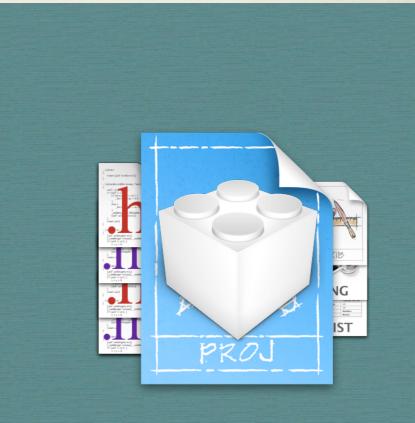


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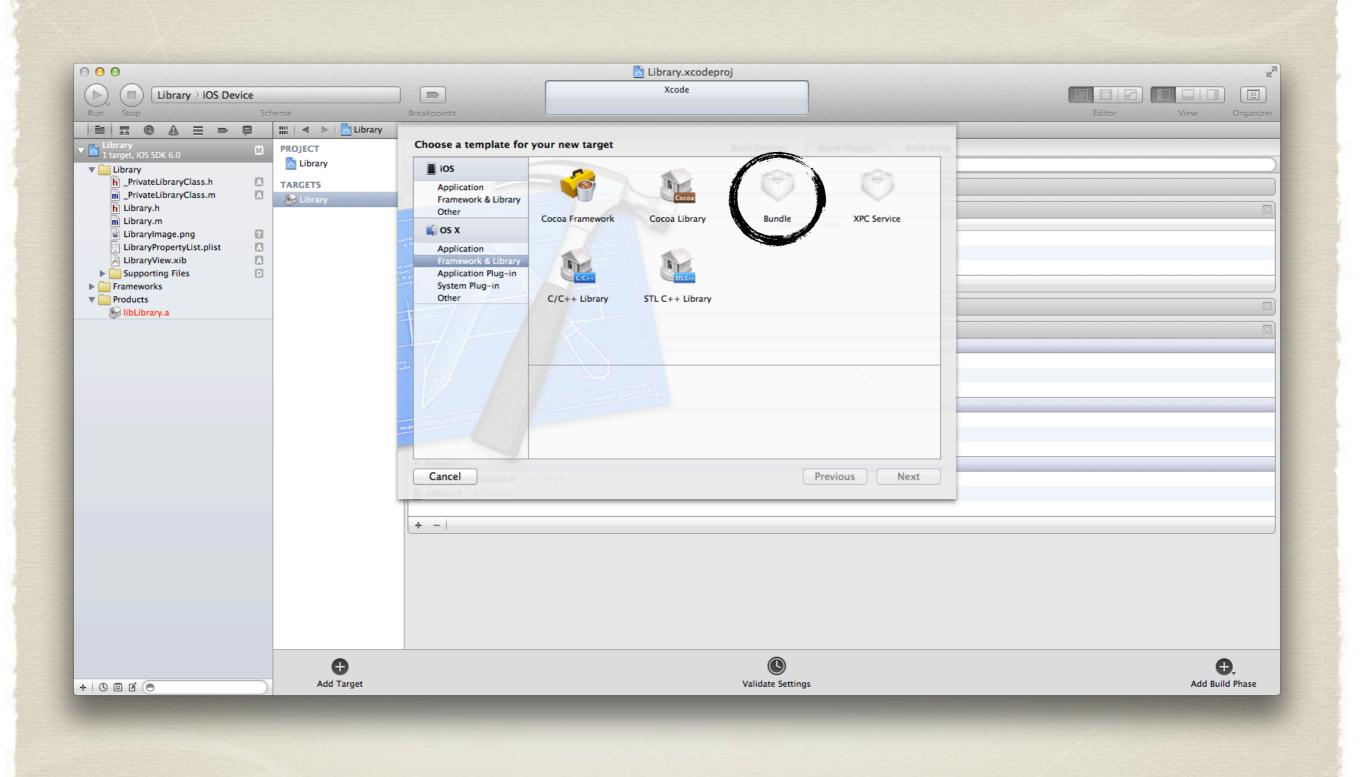
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Library Repository

Project Repository



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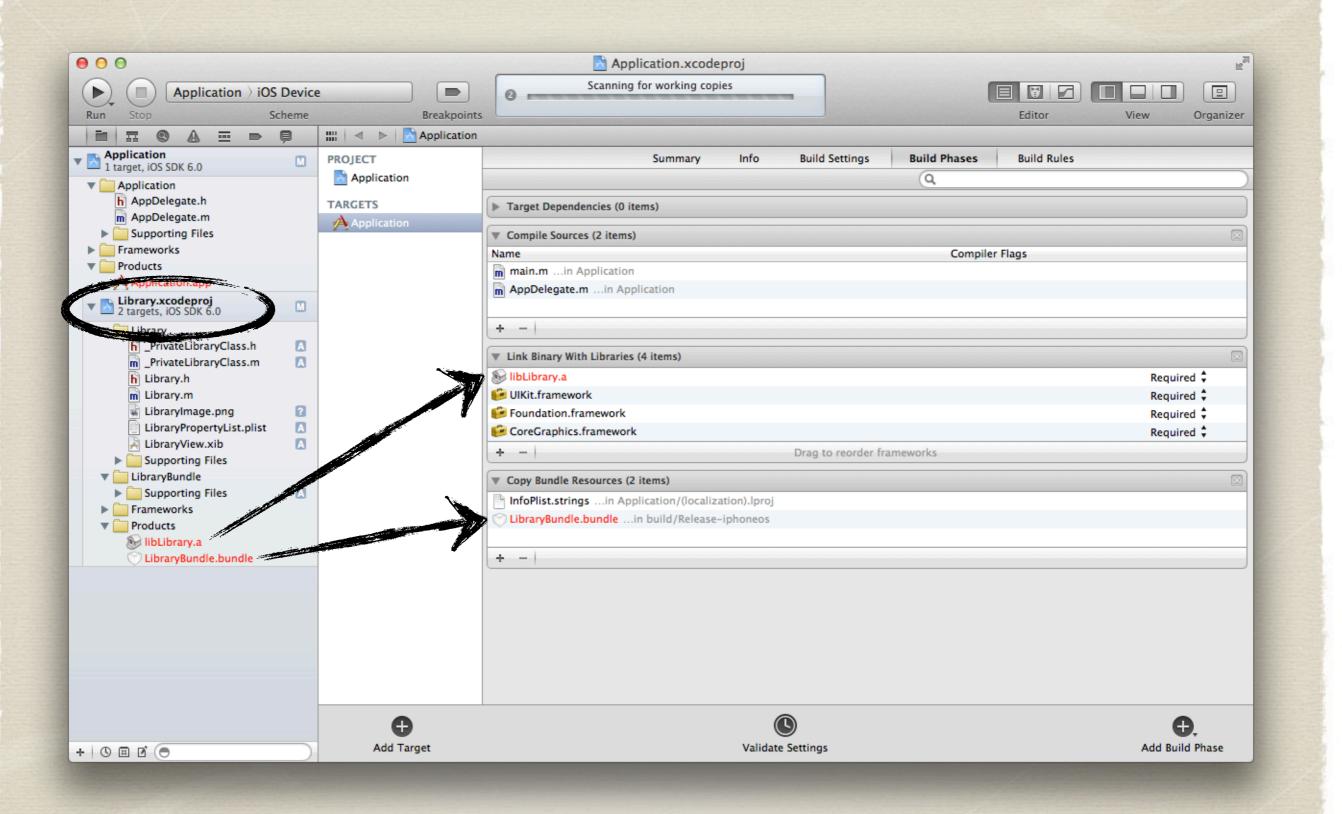
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+ (NSBundle *)bundle {

```
NSFileManager *fm = [NSFileManager new];
NSURL *mainBundleURL = [[NSBundle mainBundle] bundleURL];
NSDirectoryEnumerator *enumerator = [fm enumeratorAtURL:mainBundleURL
includingPropertiesForKeys:nil
options:NSDirectoryEnumerationSkipsHiddenFiles
errorHandler:NULL];
```

for (NSURL *URL in enumerator)
 if ([[URL lastPathComponent] isEqualToString:@"LibraryBundle.bundle"])
 return [NSBundle bundleWithURL:URL];

return nil;

}

gist.github.com/3089554

New files will be pulled in

Guaranteed to work with ARC and MRR

Library unit tests are run when you build the app

Warnings are contained to library target

Private classes are hidden

X A little overhead to set up

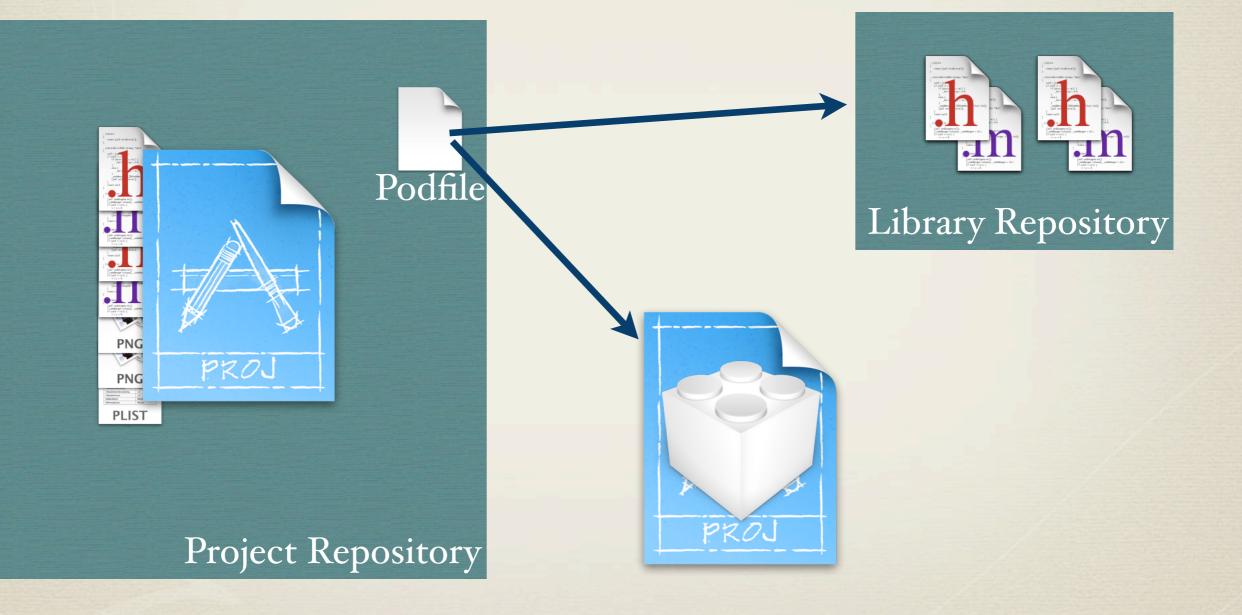
X Recursive dependencies can be a little tricky

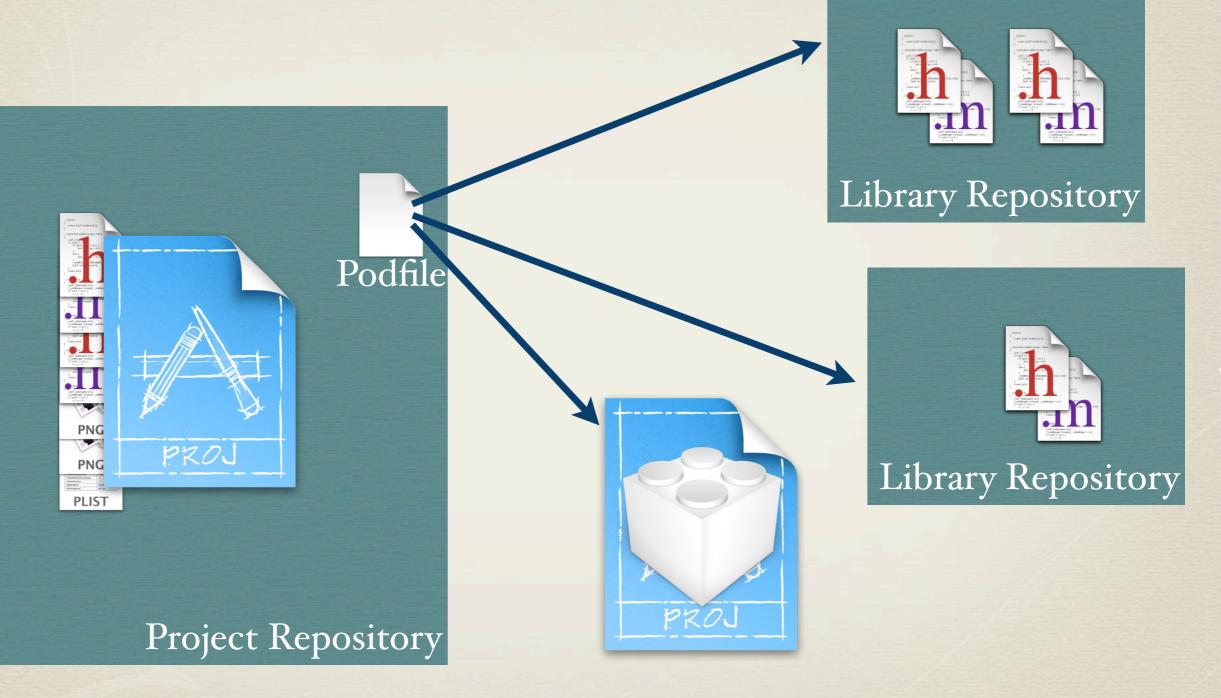
Install CocoaPods

Create a Podfile to specify the libraries

Run cocoapods

Use the created workspace instead of your app project





Independent of version control
 Link to mercurial repositories from git
 Handles dependencies
 Warnings are contained to CocoaPods static library target

X Complex to setup

X Requires knowledge of Ruby

X All members need CocoaPods to build and run app

X Unit tests likely not brought in with library code

	Drag and Drop	Static Library	CocoaPods
Contained warnings	×	-	
Build with unit tests	×	 Image: A second s	×
Build upon clone		 Image: A second s	×
VCS independent	×	×	-
Dependencies	×	×	1
Hidden classes	×	✓	×
File handling	×	✓	-
Resources	~	×(~)	-

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github.com/danielctull/DCTConnectionController/tree/develop

github.com/danielctull/DCTImageSizing

github.com/danielctull/DCTCoreDataStack

github.com/danielctull/DCTNetworkActivityIndicatorController

github.com/danielctull/DCTTextFieldValidator

Daniel Tull @danielctull

danieltull.co.uk