

Adventures in Cross Platform Apps

Saul Mora

saul@magicalpanda.com

Cross Platform



THE
C
PROGRAMMING
LANGUAGE

Brian W. Kernighan • Dennis M. Ritchie

PRENTICE-HALL SOFTWARE SERIES



titaniumTM



Phone**Gap**



monotouch





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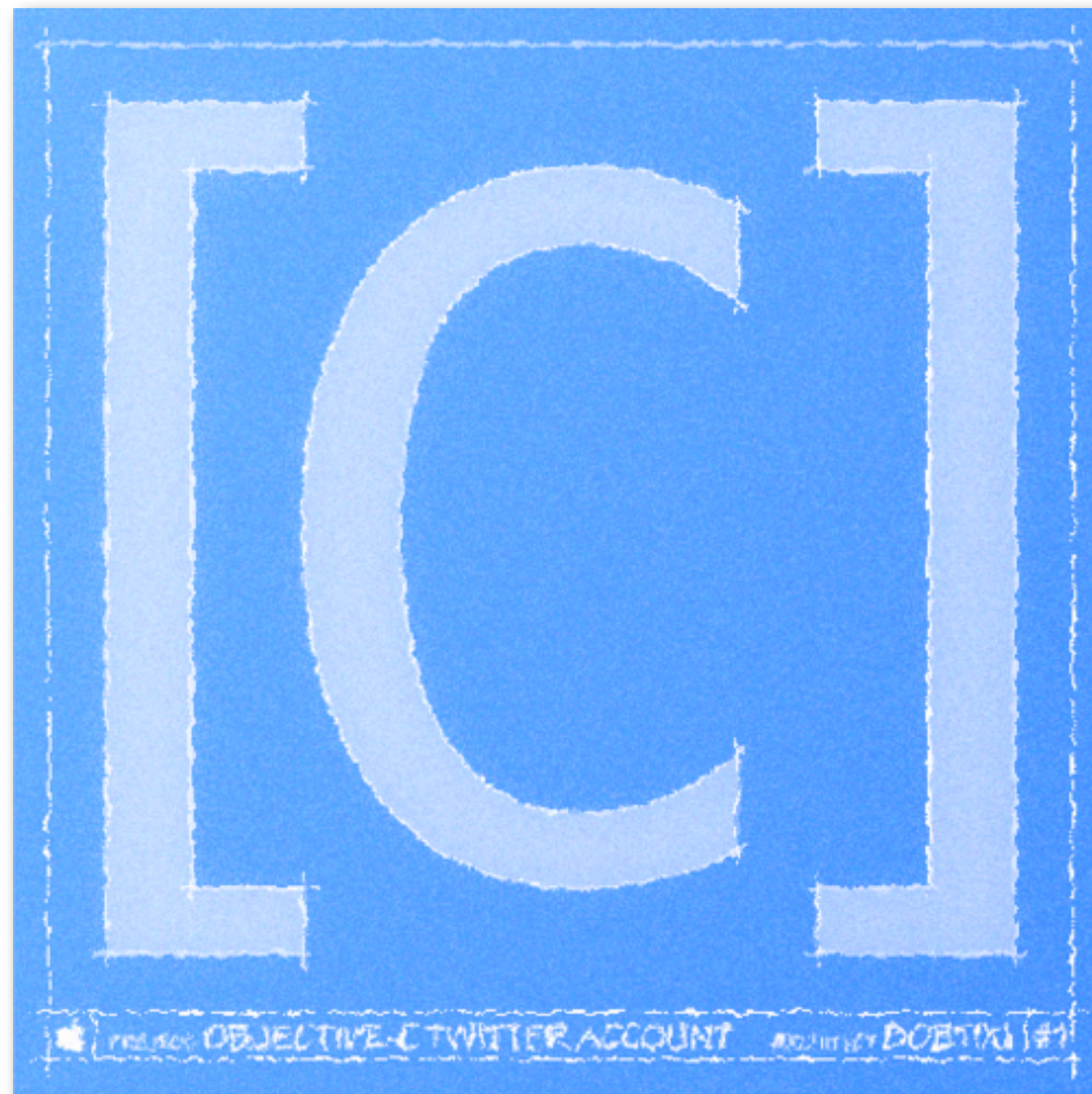
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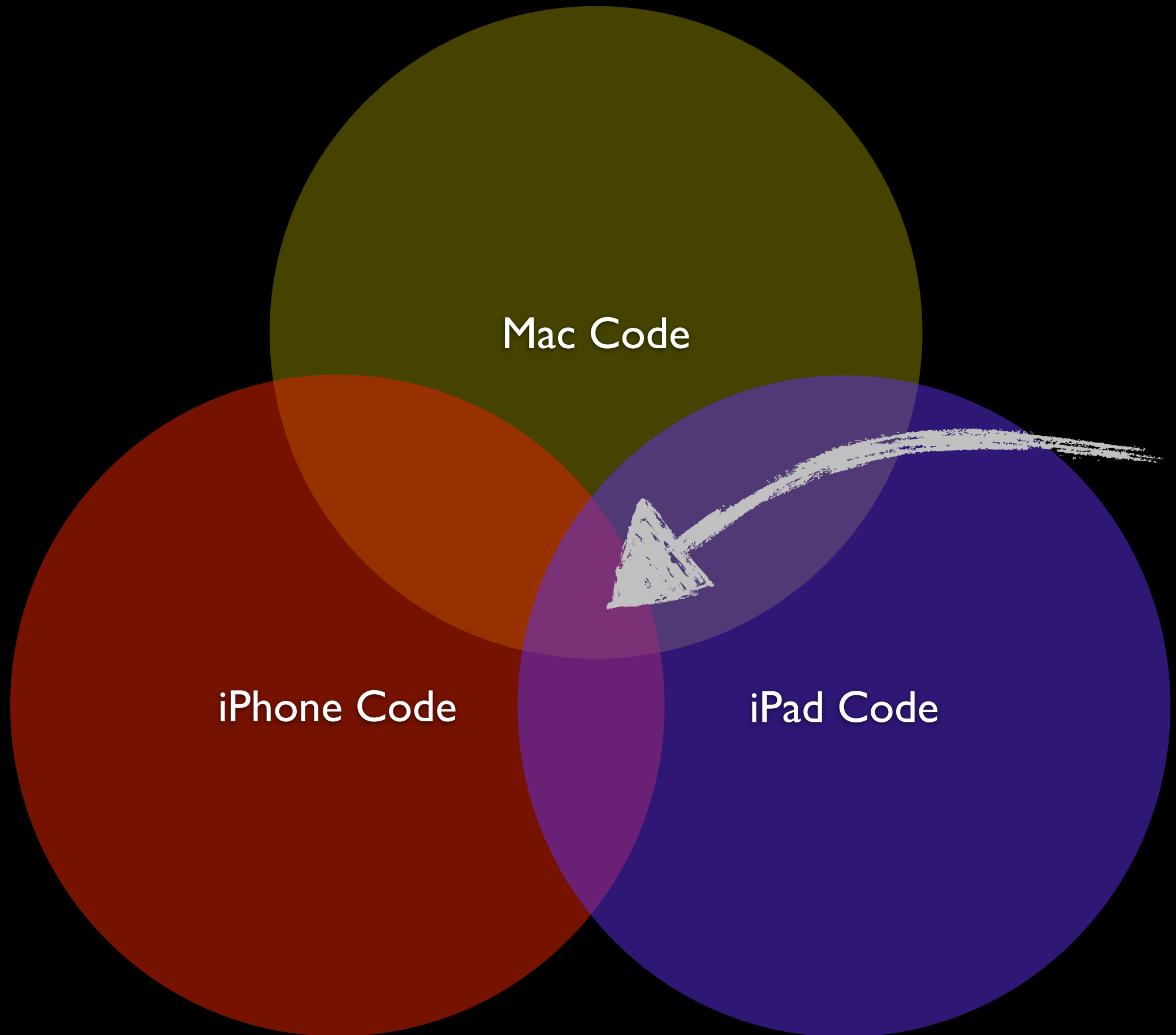
What goal are we
trying to achieve?

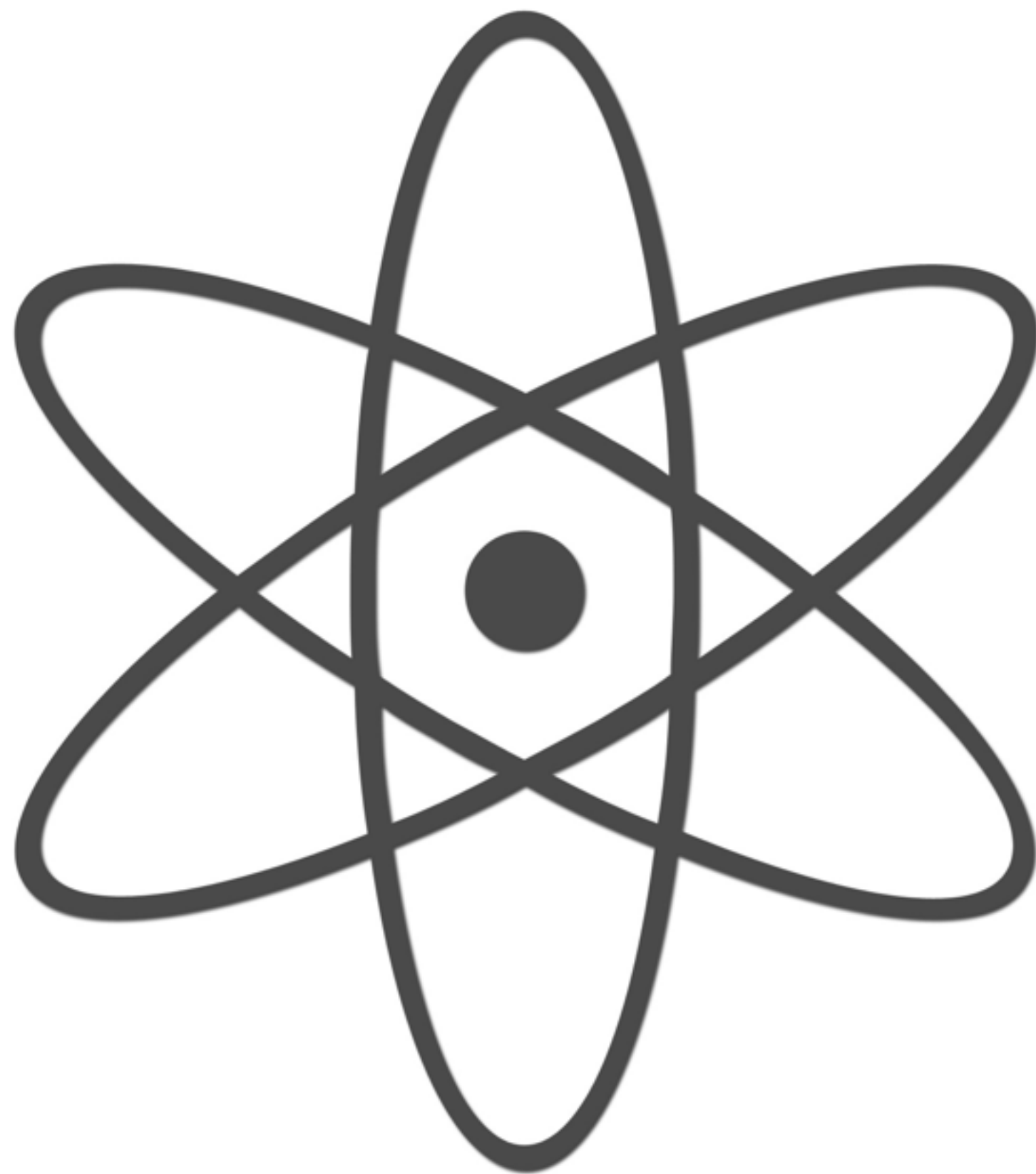




Goals

- Build a Great User Experience
- Maintain control of the Code







Architecture



Single Responsibility

Open Closed

Liskov Substitution

Interface Segregation

Dependency Inversion

MVC

Models : Functions

Views : Presentation

Controllers : Flow

MVC





Twitterrific for mac



Twitterrific \$9.95

Requires: Mac OS X 10.6 or later, Twitter account

Download: Twitterrific 4.4.9 (4.8 MB)

About Twitterrific for Mac

Twitterrific is a fun application that lets you read and publish posts or "tweets" to the **Twitter** community website. The application's user interface is clean, concise and designed to take up a minimum of real estate on your Mac's desktop.

To get started, visit the **Twitter home page** to sign up for an account for use with Twitterrific. Twitter accounts are free, take only minutes to set up and are a great way to stay connected with people around the globe.



Twitterrific is Multi-Platform

Twitterrific is also available for your iPad, iPhone, and iPod Touch. Visit twitterrific.com for more info on the platform of your choice:

Mac | iPad | iPhone & iPod Touch

Our Products

IconBuilder for Macintosh

IconBuilder for Windows

iPulse

xScope



Twitterrific

Version History

Support

Flare

Registration Lookup



Your cart is empty

Support Our Efforts

Twitterrific can be used **free of charge**. Development is funded in part by inline **Ads via The Deck**.

Registering the program removes all advertising, enables multiple accounts, & helps support future improvements.

Upgrading

Process Your Free Upgrade →

If you bought Twitterrific **after** 01.Nov.10, you are entitled to a free upgrade to version 4.

Purchase Product Upgrade →

The upgrade fee is \$7.95 for those who bought Twitterrific **prior** to 01.Nov.10.

You can find out your previous serial number as well as your purchase date using our **Registration Lookup** page.

About Twitterrific for Mac

Twitterrific is a fun application that lets you read and publish posts or "tweets" to the **Twitter** community website. The application's user interface is clean, concise and designed to take up a minimum of real estate on your Mac's desktop.

To get started, visit the **Twitter home page** to sign up for an account for use with Twitterrific. Twitter accounts are free, take only minutes to set up and are a great way to stay connected with people around the globe.



Twitterrific is Multi-Platform

Twitterrific is also available for your iPad, iPhone, and iPod Touch. Visit twitterrific.com for more info on the platform of your choice:

[Mac](#) | [iPad](#) | [iPhone & iPod Touch](#)

Twitter
Develop
Ads via

Registr
advert
& help

Upgr

Proce

If you
01.No
upgra

Purch

The up
bough

You can
numbe
using o

Chameleon



<http://chameleonproject.org/>

TwUI

<https://github.com/twitter/twui>

Repositories

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GitHub

casademora

CocoaPods

PRIORITYP...TSYSTEMS

ForgeApps

Appsterdam

Filter repositories

Objective-C implementation of the {{ mustache }} template engine, for both Mac...

Clone to Computer

skabber/GroupA

No description

Clone to Computer

spllr/gurusementro-to-programming

No description

Clone to Computer

casademora/InAppSettingsKit

This iPhone framework allows settings to be in-app in addition to being in the S...

Clone to Computer

casademora/jekyll

Jekyll is a blog-aware, static site generator in Ruby

Clone to Computer

casademora/KTDownloadManager

Downloads and caches data retrieved from the web. Written for iOS.

Clone to Computer

casademora/KTOneFingerRotationGestureRecognizer

KTOneFingerRotationGestureRecognizer is a custom UIGestureRecognizer for...

Clone to Computer

casademora/KTPhotoBrowser

KTPhotoBrowser is a lightweight photo browser library for the iPhone and iPod t...

Clone to Computer

l33tappz/l33tappz.github.com

homepage

Clone to Computer

+

Updated on 6/27/12 at 7:08 PM

What do these libraries
really provide?



VS.

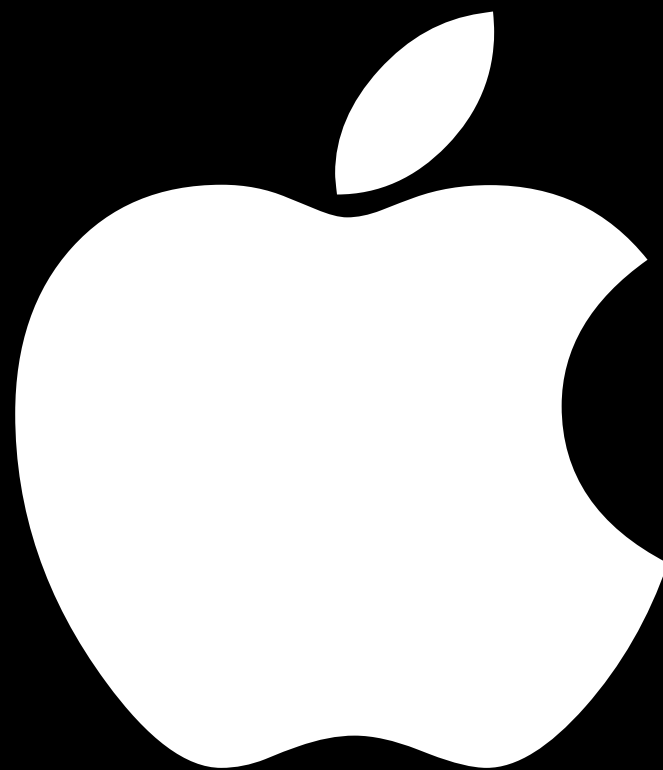












CoreFoundation

CoreMIDI

CoreData

CFNetwork

AddressBook

Foundation

CoreLocation

QuartzCore

CoreBluetooth

Accelerate

OpenAL

AVFoundation

CoreAudio

System

CoreImage

AudioUnit

CoreData

NSArrayController

NSFetchedResultsController

int

short int

Long

Long Long

uint

float

NSInteger

NSUInteger

CGFloat


```
#if __LP64__ || (TARGET_OS_EMBEDDED && !  
TARGET_OS_IPHONE) || TARGET_OS_WIN32 ||  
NS_BUILD_32_LIKE_64  
typedef long NSInteger;  
typedef unsigned long NSUInteger;  
#else  
typedef int NSInteger;  
typedef unsigned int NSUInteger;  
#endif
```

Nibs/Xibs

Auto Layout

Mac

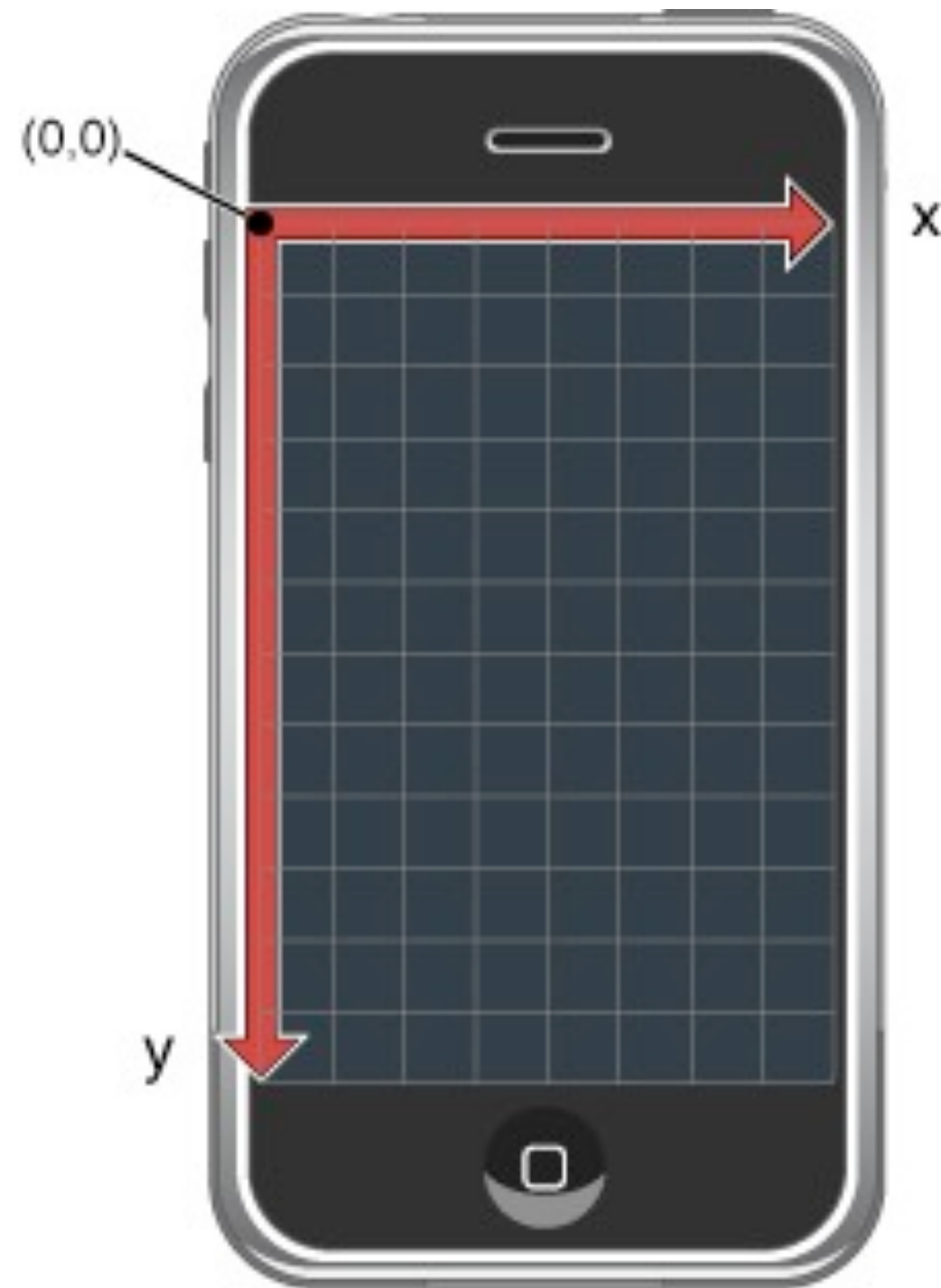


Frame rectangle at (5.0, 5.0), size (73.0, 88.0)



Bounds rectangle at (0.0, 0.0), size (73.0, 88.0)

iOS

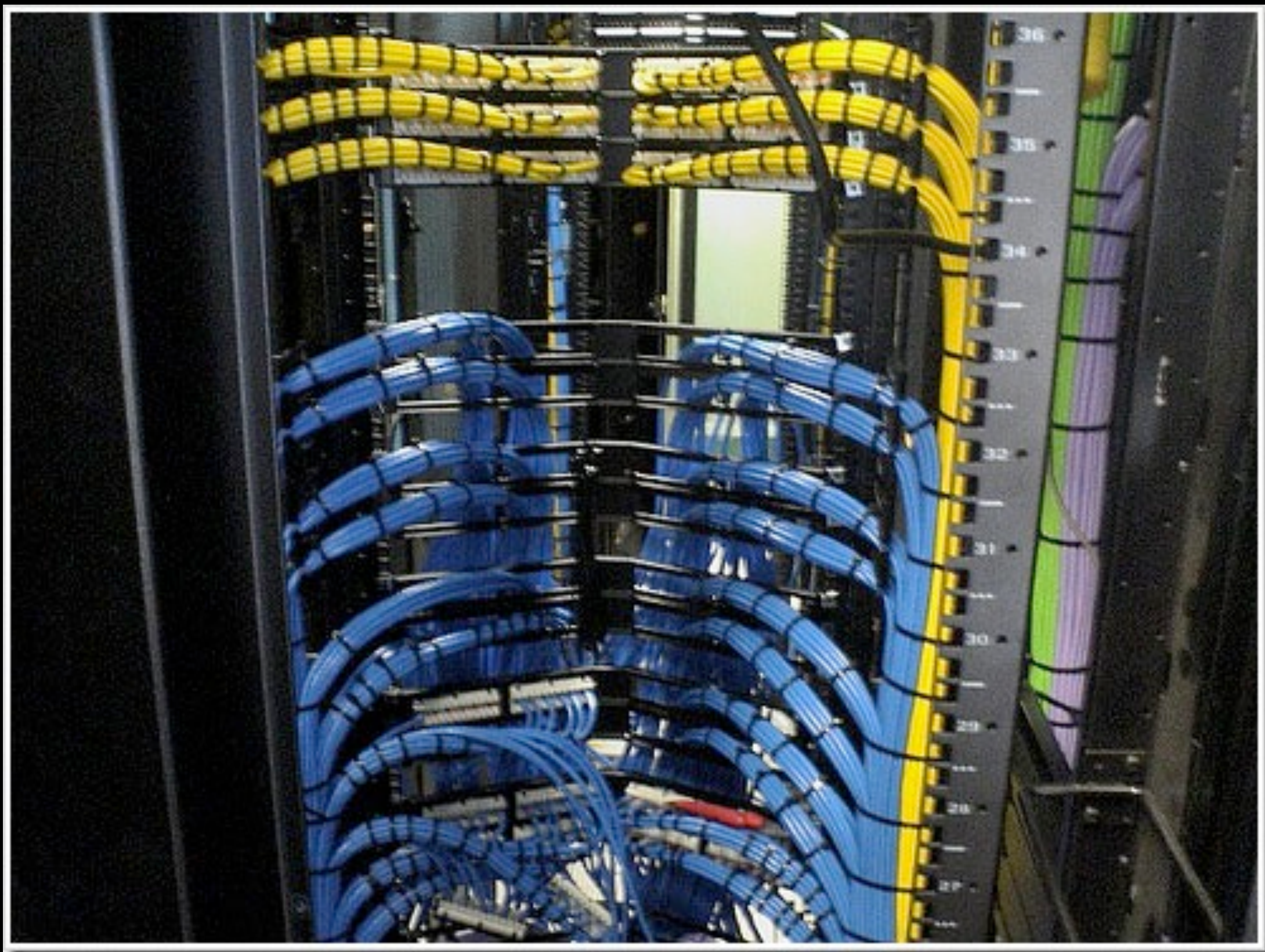


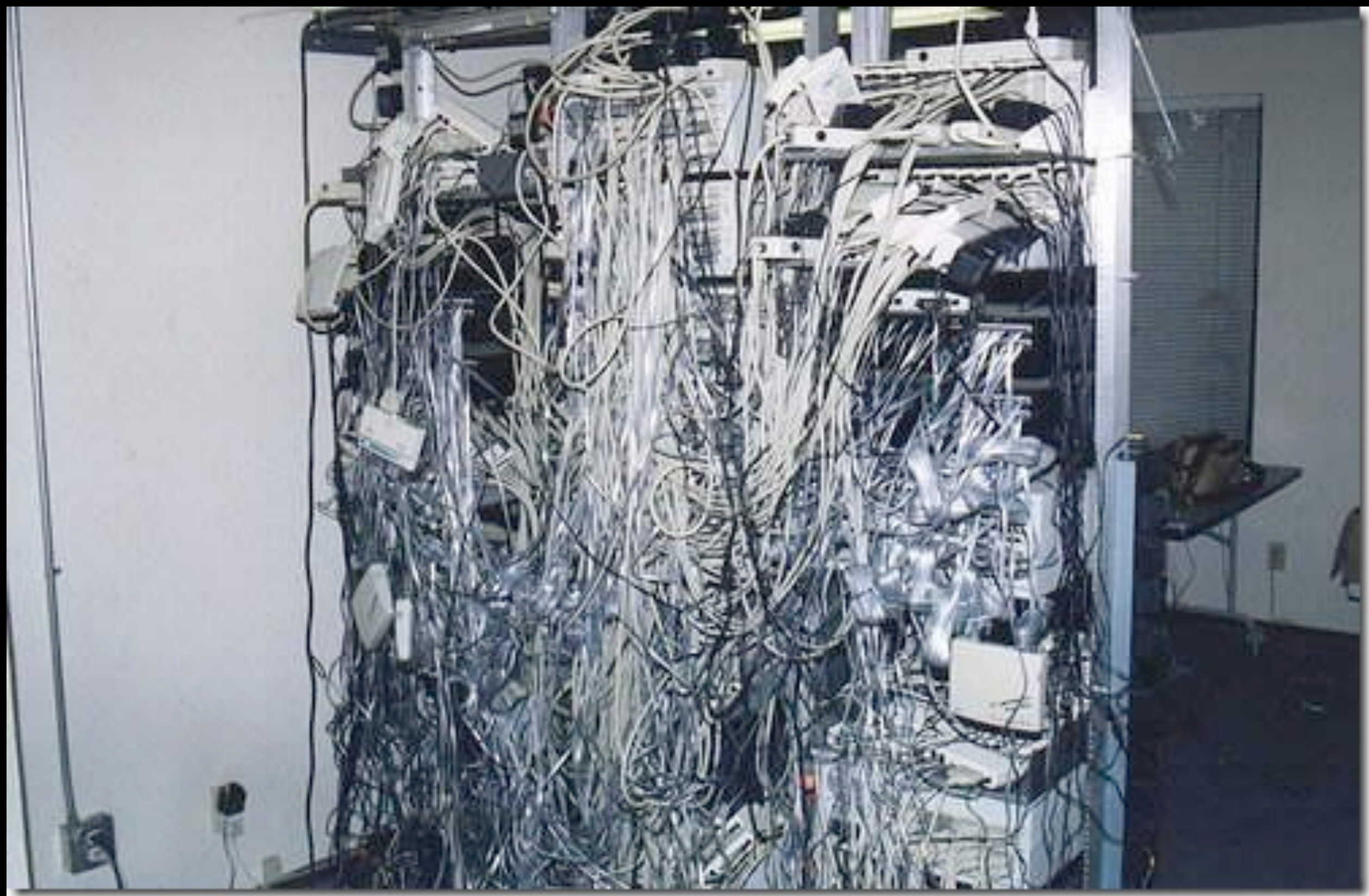
code



Xcode

Organize your Code





▼ Application	Sep 26, 2012 10:22 P
▼ Controllers	Sep 26, 2012 9:49 PM
ExampleView~ipad.xib	Sep 26, 2012 9:49 PM
ExampleView~iphone.xib	Sep 26, 2012 9:49 PM
ExampleViewController.h	Jun 28, 2012 9:48 PM
ExampleViewController.m	Jun 27, 2012 11:54 P
▶ Delegate	Sep 26, 2012 10:22 P
▼ Helpers	Sep 26, 2012 10:22 P
▼ Models	Jun 27, 2012 10:14 P
▼ Support	Sep 26, 2012 9:18 PM
▼ iOS	Sep 26, 2012 10:13 P
__PROJECTNAMEASIDENTIFIER__IOS-Info.plist	Jun 27, 2012 11:52 P
__PROJECTNAMEASIDENTIFIER__IOS-Prefix.pch	Jun 27, 2012 10:39 P
▶ en.lproj	Jun 27, 2012 10:39 P
main.m	Jun 27, 2012 10:39 P
MainWindow~ipad.xib	Sep 26, 2012 10:23 P
MainWindow~iphone.xib	Sep 26, 2012 10:25 P
▶ Mac	Sep 26, 2012 10:14 P
▼ Views	Jun 27, 2012 10:14 P
MacAndiOS.xcodeproj	Sep 26, 2012 9:51 PM
▶ Provisions	Today 4:46 PM
▼ Resources	Today 4:47 PM
▶ Images	Sep 26, 2012 11:39 P
▶ Scripts	Today 4:47 PM
▶ Server	Today 4:47 PM
▼ Tests	Today 4:48 PM

Support	Sep 26, 2012 9:18 PM
▼ iOS	Sep 26, 2012 10:13 PM
___PROJECTNAMEASIDENTIFIER___iOS-Info.plist	Jun 27, 2012 11:52 PM
___PROJECTNAMEASIDENTIFIER___iOS-Prefix.pch	Jun 27, 2012 10:39 PM
▶ en.lproj	Jun 27, 2012 10:39 PM
main.m	Jun 27, 2012 10:39 PM
MainWindow~ipad.xib	Sep 26, 2012 10:23 PM
MainWindow~iphone.xib	Sep 26, 2012 10:25 PM
▶ Mac	Sep 26, 2012 10:14 PM
▼ Views	Jun 27, 2012 10:14 PM
MacAndiOS.xcodeproj	Sep 26, 2012 9:51 PM
▶ Provisions	Today 4:46 PM
▼ Resources	Today 4:47 PM
▶ Images	Sep 26, 2012 11:39 PM
▶ Scripts	Today 4:47 PM
▶ Server	Today 4:47 PM
▼ Tests	Today 4:48 PM
ExampleSpec.m	Jun 27, 2012 11:43 PM
ExampleTestCase.m	Jun 27, 2012 10:47 PM
▶ Fixtures	Today 4:48 PM
▼ Support	Sep 26, 2012 10:14 PM
___PROJECTNAMEASIDENTIFIER___Tests-Info.plist	Jun 27, 2012 10:12 PM
___PROJECTNAMEASIDENTIFIER___Tests-Prefix.pch	Jun 27, 2012 11:45 PM
▶ en.lproj	Jun 27, 2012 10:12 PM
▶ Frameworks	Jun 27, 2012 11:40 PM
▼ Vendor	Jun 27, 2012 10:14 PM

UI_USER_INTERFACE_IDIOM()

```
//UIDevice.h
```

```
#define UI_USER_INTERFACE_IDIOM() (
    [[UIDevice currentDevice]
    respondsToSelector:@selector(
    userInterfaceIdiom)] ?
    [[UIDevice currentDevice]
    userInterfaceIdiom] :
    UIUserInterfaceIdiomPhone
)
```



```
/* The UI_USER_INTERFACE_IDIOM()
macro is provided for use when
deploying to a version of the iOS
less than 3.2. If the earliest
version of iPhone/iOS that you will
be deploying for is 3.2 or greater,
you may use -[UIDevice
userInterfaceIdiom] directly.
*/
```

[UIDevice userInterfaceIdiom]

UIDevice.userInterfaceIdiom

[UIDevice userInterfaceIdiom]

```
UIUserInterfaceIdiom deviceIdiom = ...;  
if (deviceIdiom == UIUserInterfaceIdiomPad)  
{  
    [self dismissViewControllerAnimated:YES  
        completion:nil];  
}  
else  
{  
    [self.navigationController  
        popViewControllerAnimated:YES];  
}
```

Colloquies

Connections

ideveloperlive



Connections

Freenode

Internet Relay Chat Server

Description Freenode

Address chat.freenode.net



Push Notifications

On >

Network Identity

Nickname casademora

Real Name Saul

Automatic Actions

Connect at Launch

ON

Join Rooms

1 >

Allow Multitasking

ON

Advanced >

Delete Connection



AT&T



11:43 PM



100%



Connections

Freenode

Internet Relay Chat Server

Description Freenode

Address chat.freenode.net



Push Notifications

Off



Network Identity

Nickname casademora

Real Name Saul

Automatic Actions



Connections

Connections



Colloquies

Colloquies





New Connection

Nickname:

saul

Server Protocol:

IRC (Internet Relay Chat)

Chat Server:

irc.freenode.net



Details



Remember this connection

Proxy:

None

Edit...

Chat Server Port:

6667



SSL Connection

Username:

saul

Server Password:

Real Name:

Saul Mora

Join Rooms:



Cancel

Connect



▼ iPhone / iPod Deployment Info

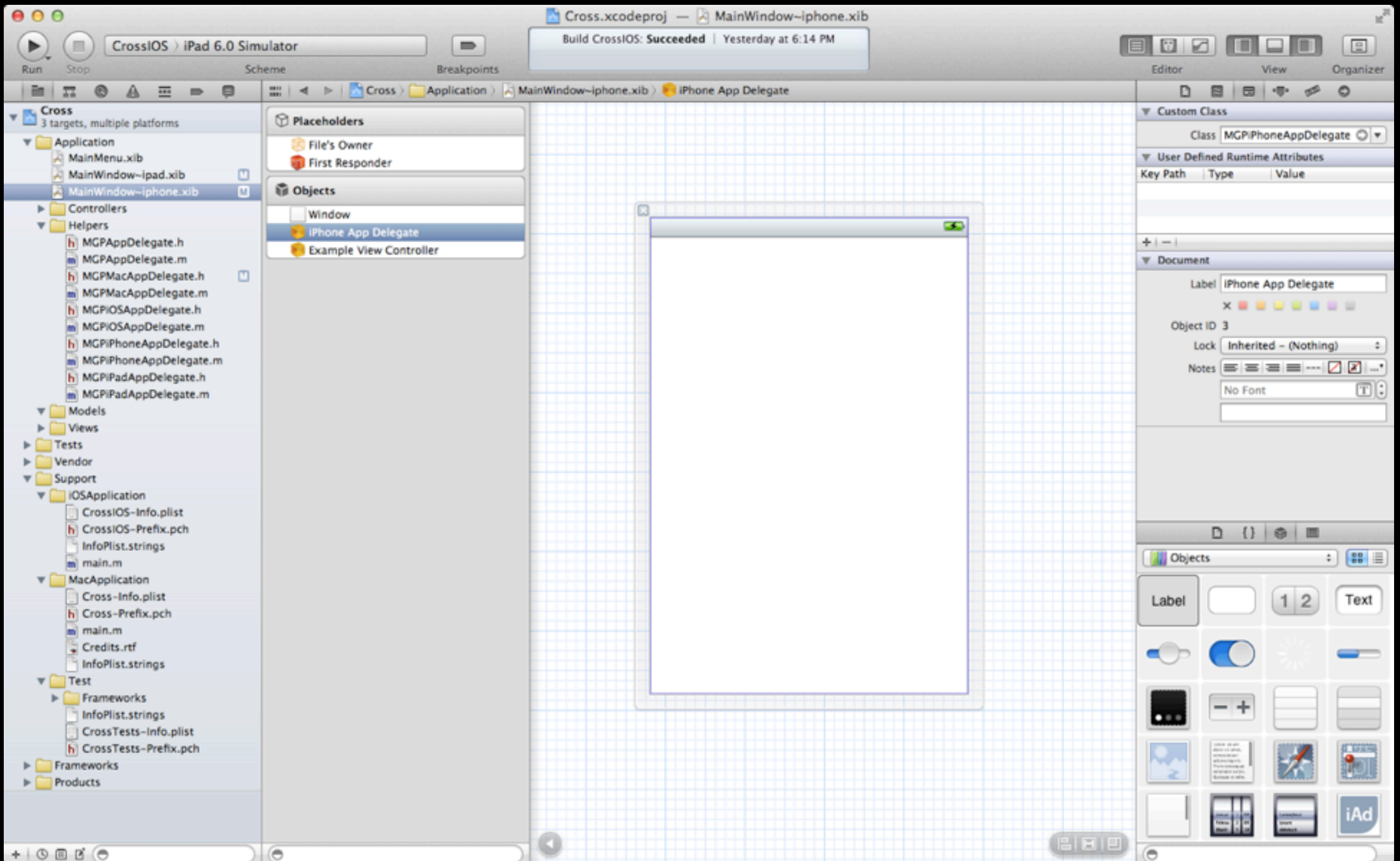
Main Storyboard

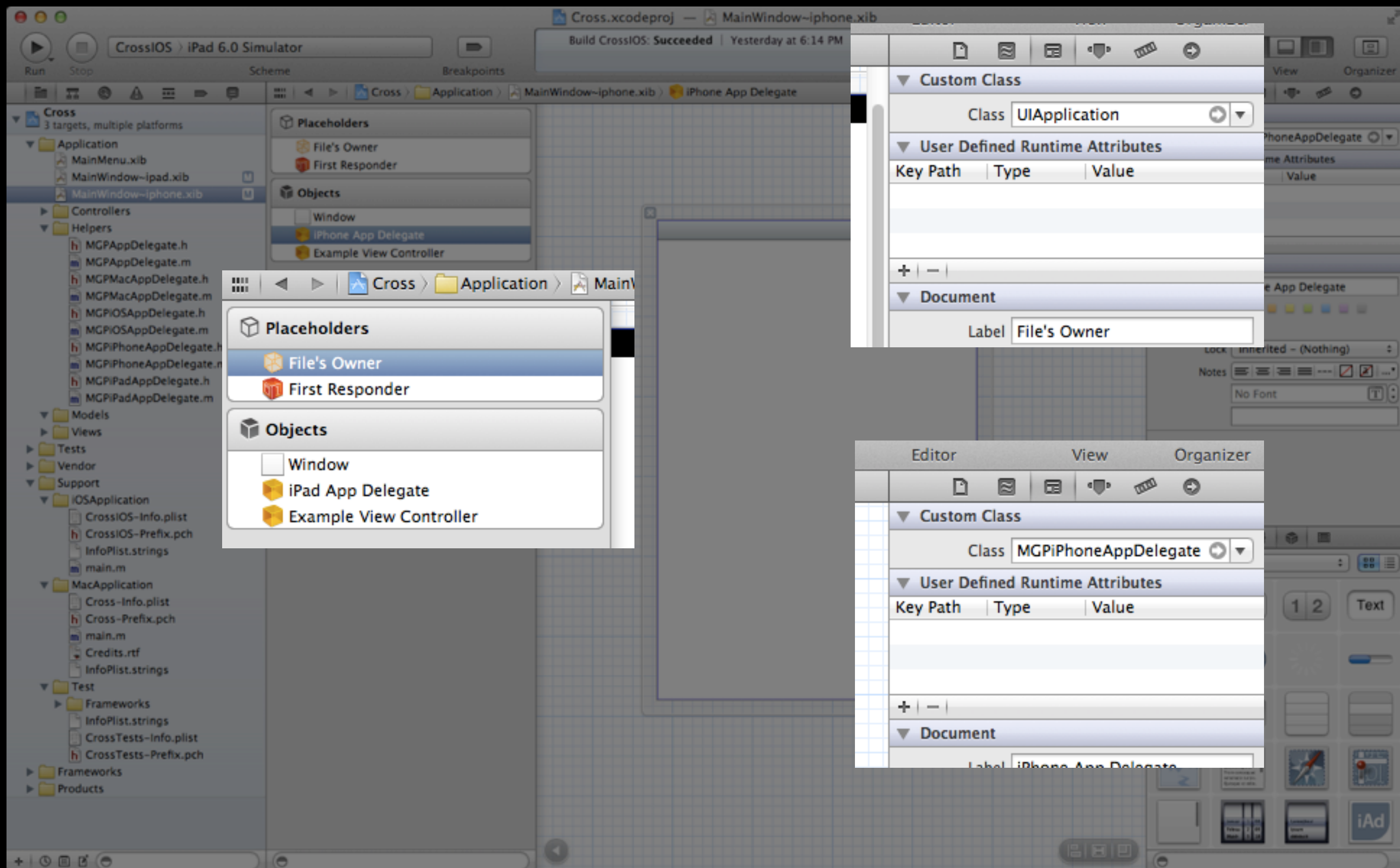
Main Interface

▼ iPad Deployment Info

Main Storyboard

Main Interface







Choose a template for your new target



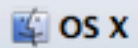
iOS

Application

Framework & Library

Other

GHUnit



OS X

Application

Framework & Library

Application Plug-in

System Plug-in

Other

GHUnit



Cocoa Application



Cocoa-AppleScript
Application



Command Line Tool



MacRuby Application



Cocoa Application

This template builds a Cocoa-based application written in Objective-C.

Cancel

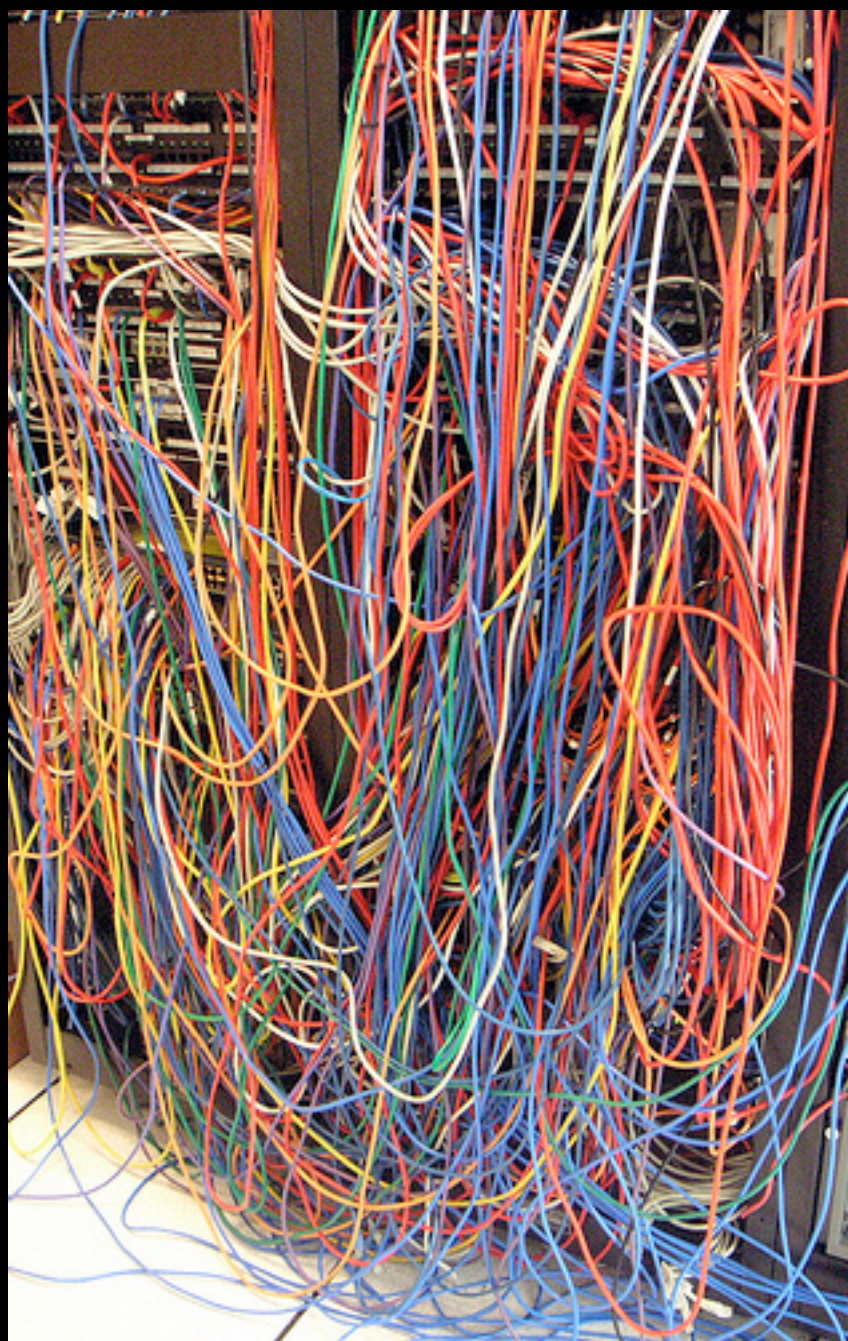
Previous

Next

```
#ifdef IPHONE_SIMULATOR
```

```
#ifdef TARGET_OS_IPHONE
```

```
#ifdef TARGET_OS_MAC
```

Protocols

CoreApp

Touch Interface

CoreApp

Desktop
Interface

```
id obj = someCustomView;  
[obj core:self  
    didUpdateData:data];
```

```
@protocol CoreAwesomeness <NSObject>
- (void) core:(Core *)core didUpdateData:(NSArray *)data;
@end
```

ACTIVISION.

PRESENTS

PITFALL!™

(PITFALL HARRY'S JUNGLE ADVENTURE™)

Conceived and designed by David Crane
For use with the Atari® Video Computer System™



ONE PLAYER AT A TIME
USING LEFT JOYSTICK CONTROLLER

ATARI® and Video Computer System™ are trademarks of ATARI, INC.
Audio Visual concept, label and program ©1982 ACTIVISION AX-018

PITFALL!™

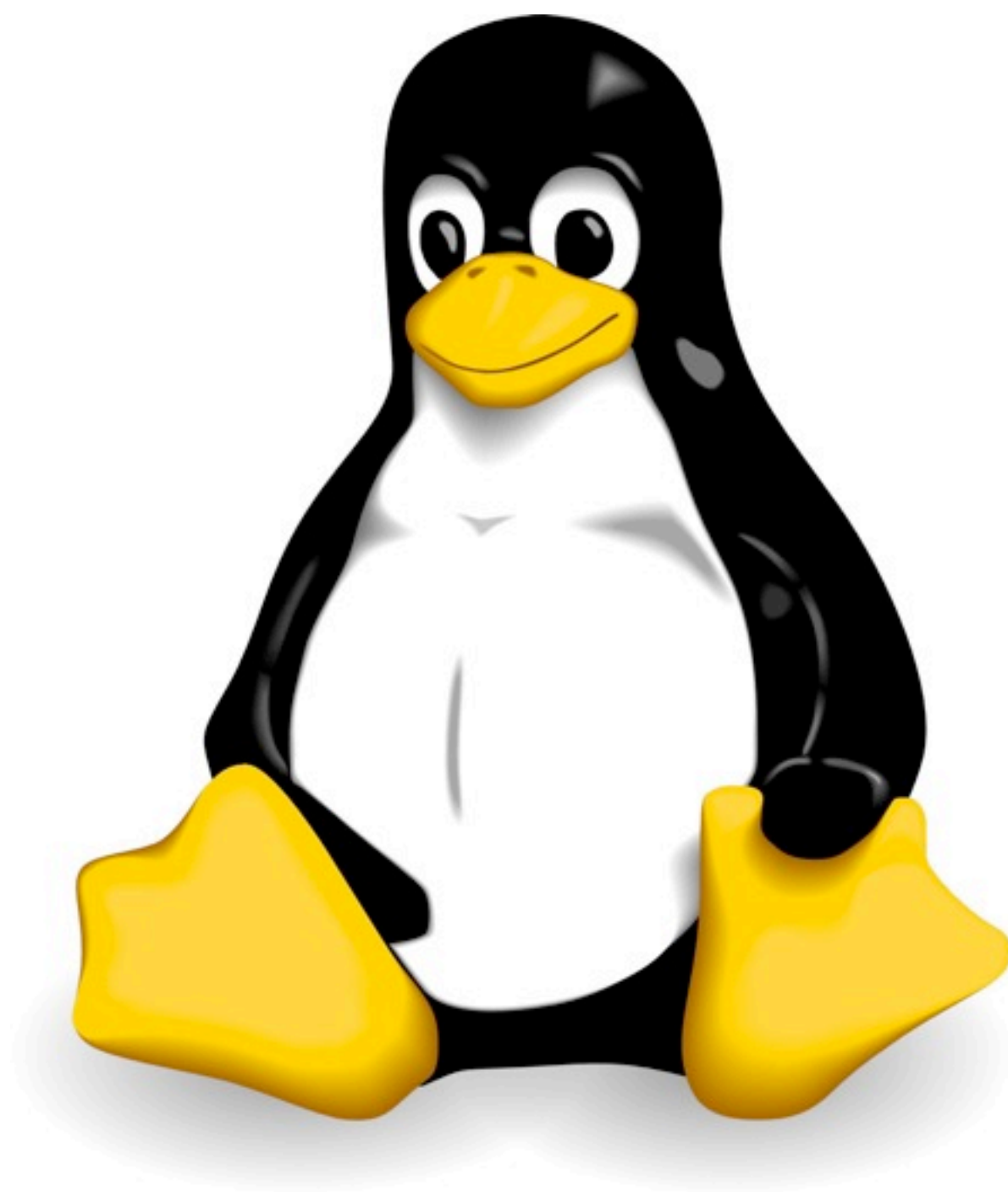
Protocols Include
Platform Information













Windows[®] 8



The Cocotron



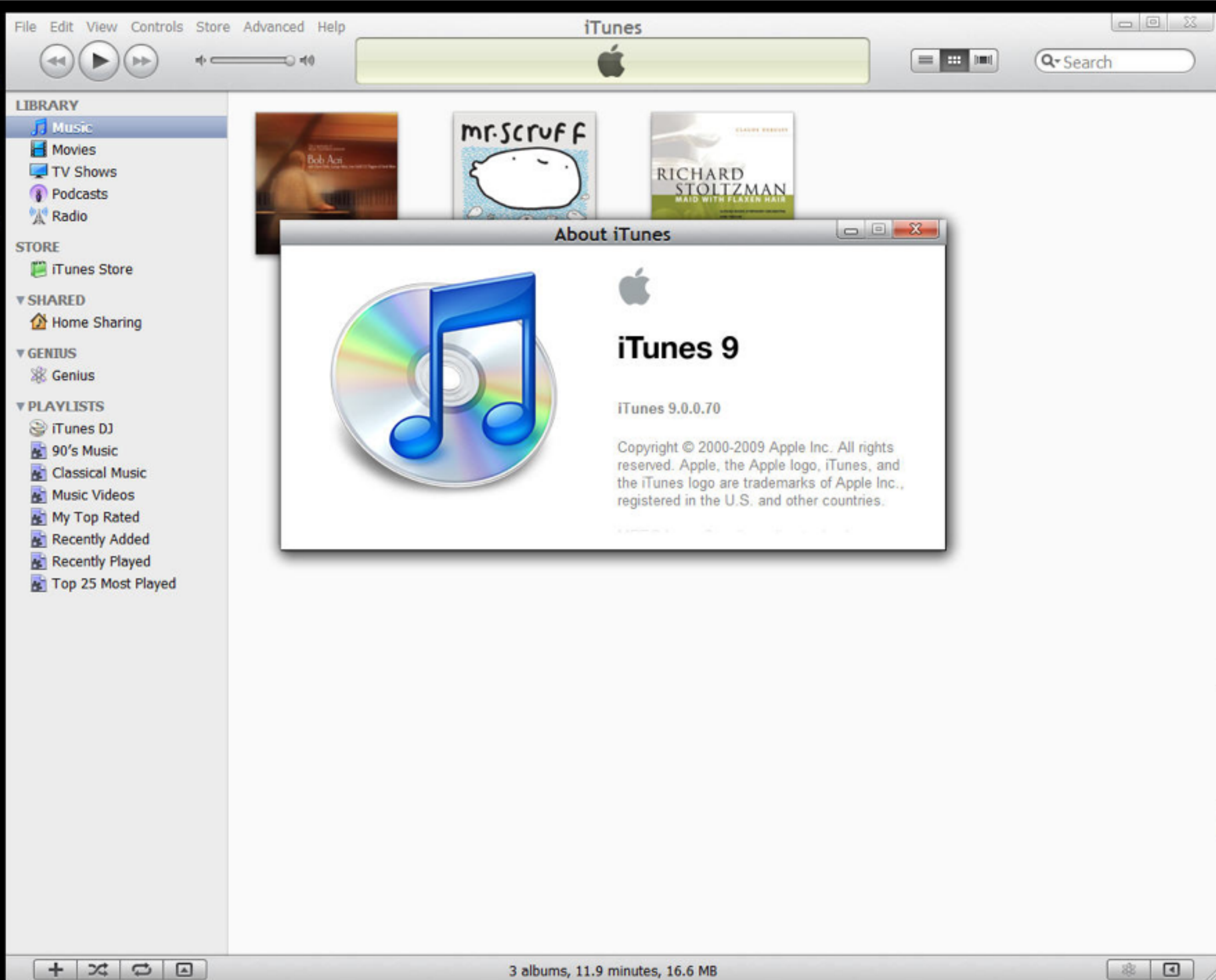
Recycle Bin



QuickTime
Player



iTunes



t
d



3 albums, 11.9 minutes, 16.6 MB

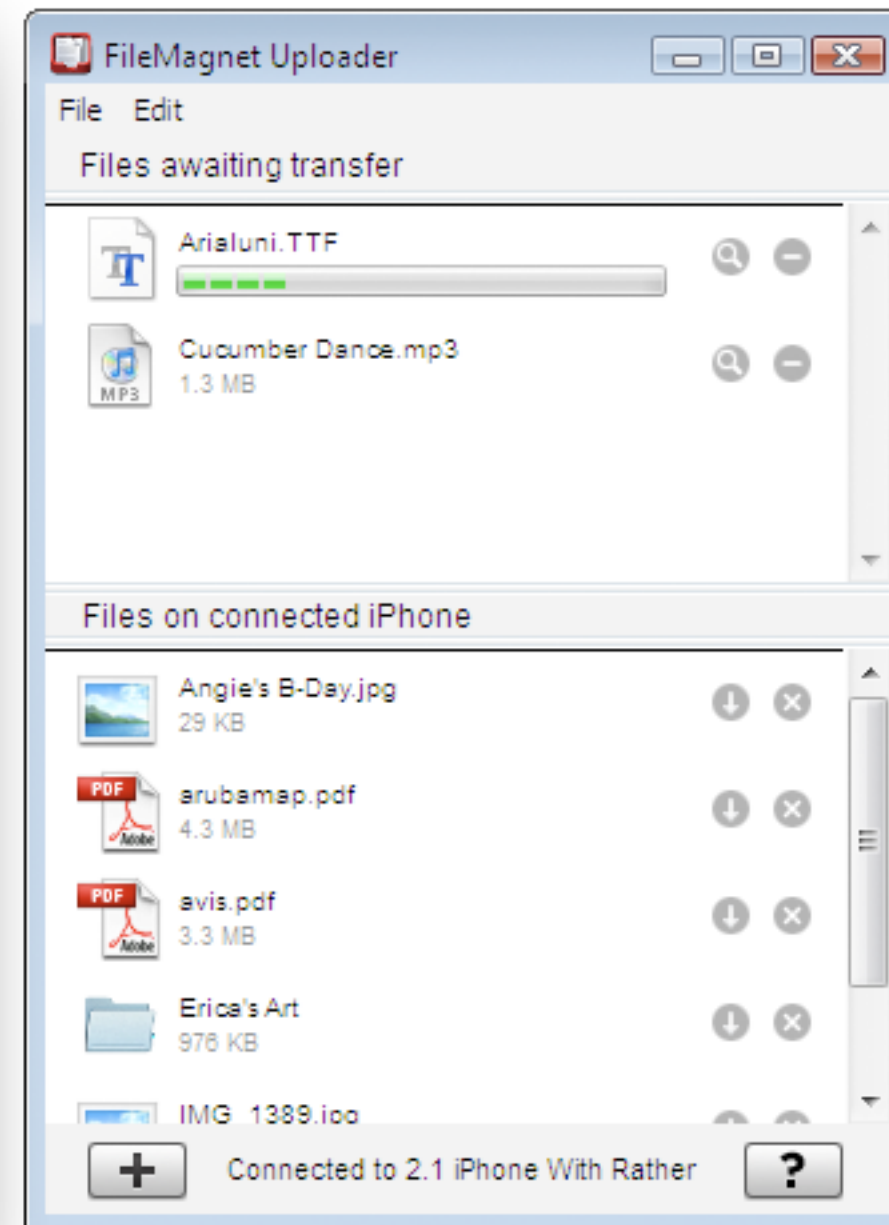
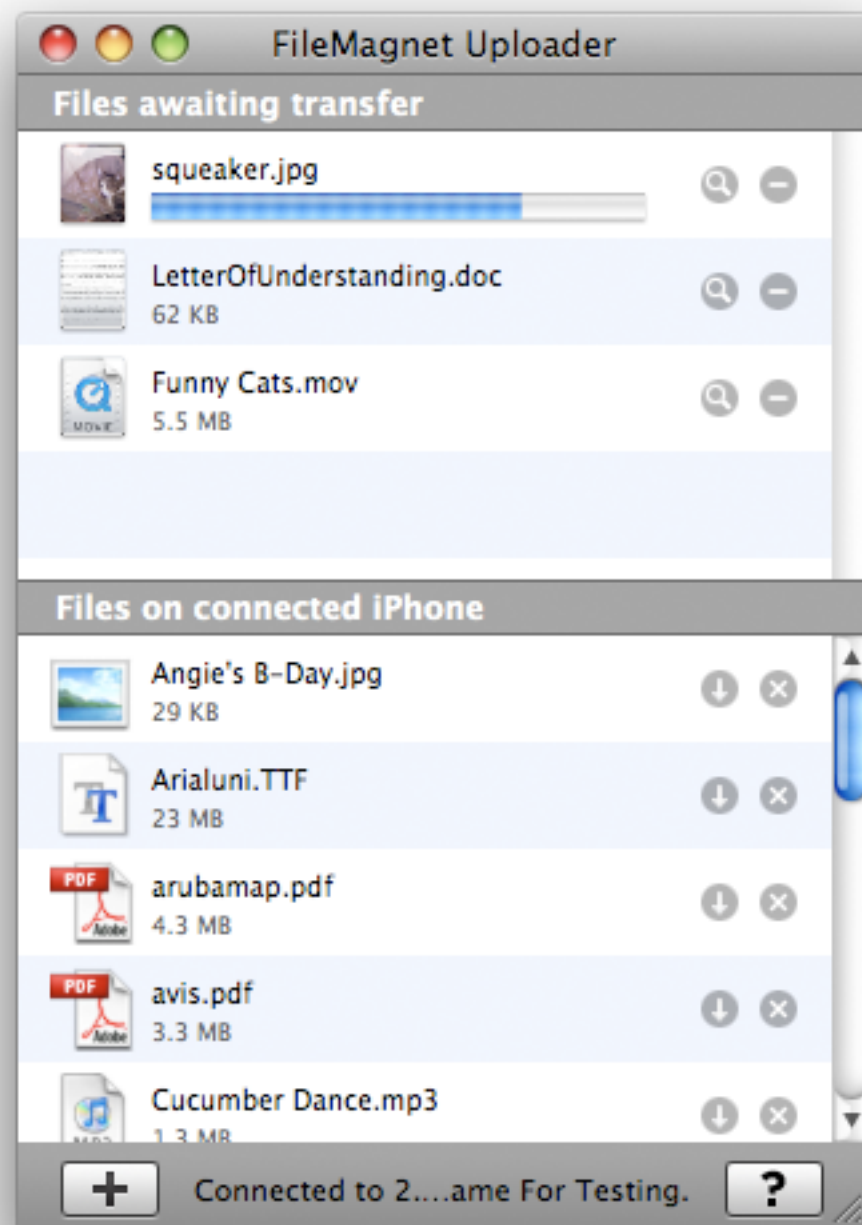
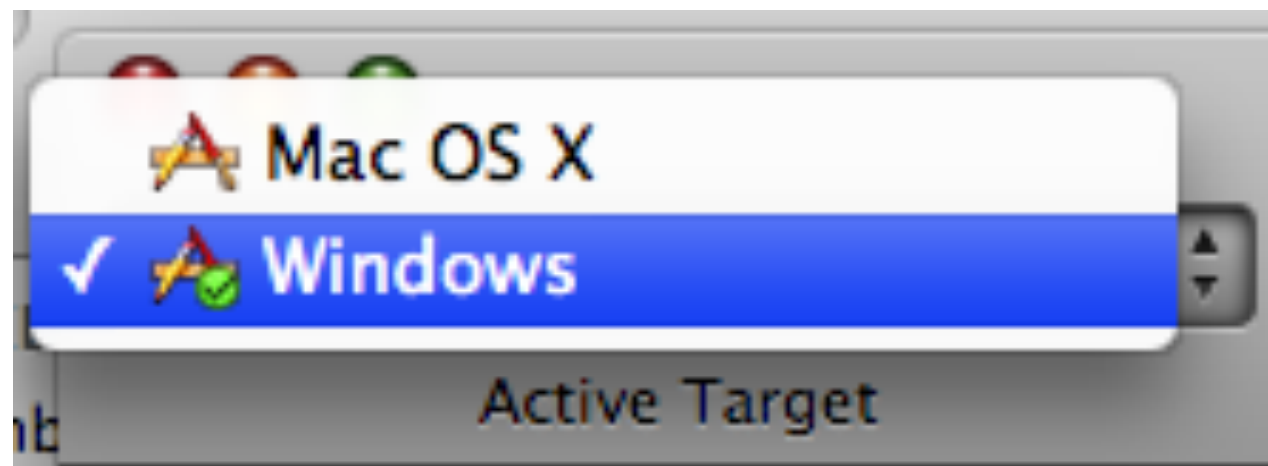
Windows 7

Evaluation copy. Build 7100

EN

11:50 PM

9/16/2009





cocotron.org

CFLite

opensource.apple.com

Summary

- Think about application architecture
- Embrace platform differences
- Use the language and tools together to make your app cross platform

References

- Writing Portable Code
- The Pragmatic Programmer
- Clean Code

謝

