

What's New in Xcode 5

Session 400

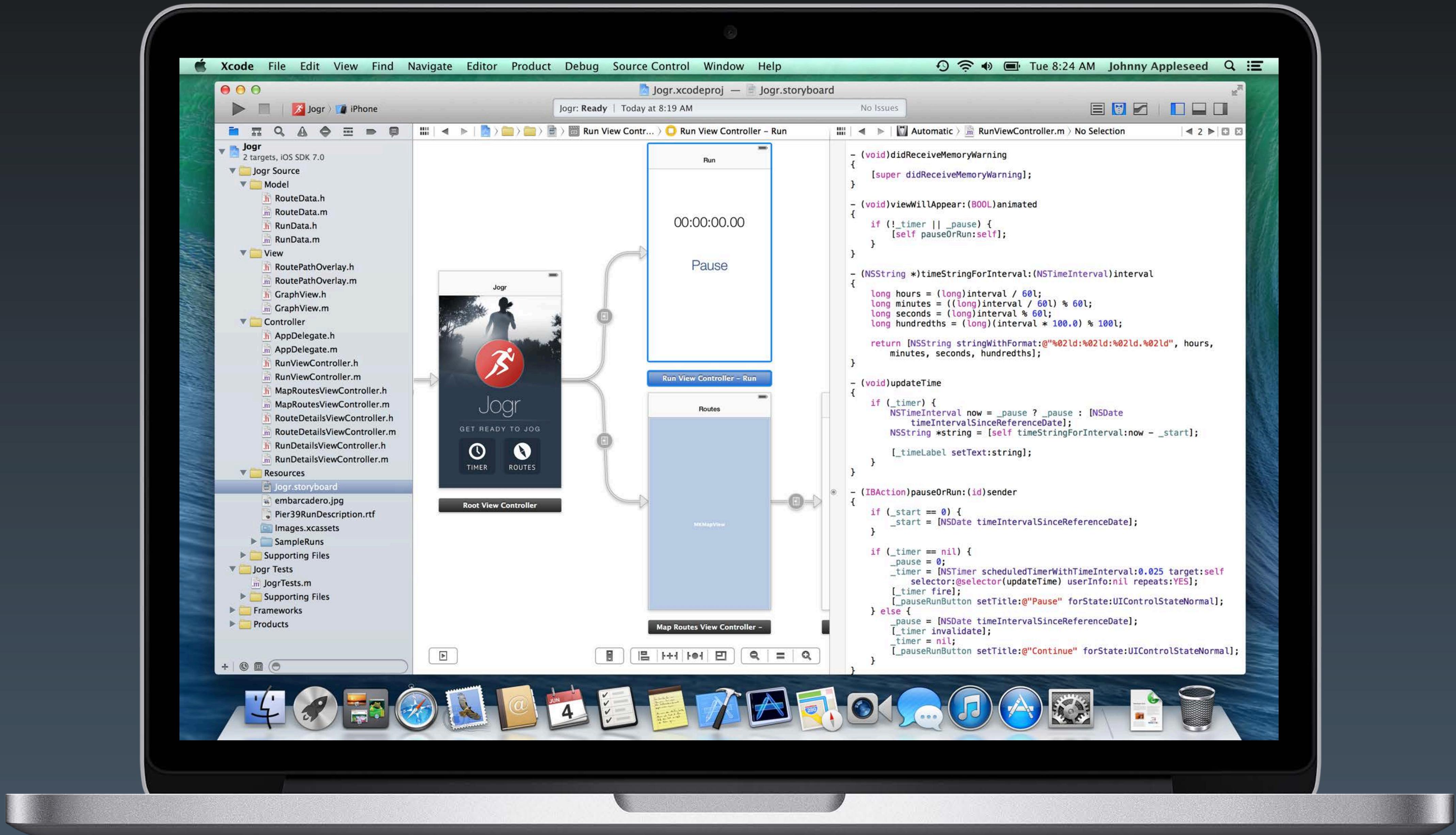
Chris Lattner

Director, Developer Tools

These are confidential sessions—please refrain from streaming, blogging, or taking pictures



Xcode 5



Jogr.xcodeproj — Jogr.storyboard

Jogr: Ready | Today at 8:19 AM No Issues

Run View Controller - Run View Controller.m No Selection

```

- (void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
}

- (void)viewWillAppear:(BOOL)animated
{
    if (!_timer || _pause) {
        [self pauseOrRun:self];
    }
}

- (NSString *)timeStringForInterval:(NSTimeInterval)interval
{
    long hours = (long)interval / 60l;
    long minutes = ((long)interval / 60l) % 60l;
    long seconds = (long)interval % 60l;
    long hundredths = (long)(interval * 100.0) % 100l;

    return [NSString stringWithFormat:@"%02ld:%02ld:%02ld.%02ld", hours,
           minutes, seconds, hundredths];
}

- (void)updateTime
{
    if (_timer) {
        NSTimeInterval now = _pause ? _pause : [NSDate
            timeIntervalSinceReferenceDate];
        NSString *string = [self timeStringForInterval:now - _start];
        [_timeLabel setText:string];
    }
}

- (IBAction)pauseOrRun:(id)sender
{
    if (_start == 0) {
        _start = [NSDate timeIntervalSinceReferenceDate];
    }

    if (_timer == nil) {
        _pause = 0;
        _timer = [NSTimer scheduledTimerWithTimeInterval:0.025 target:self
            selector:@selector(updateTime) userInfo:nil repeats:YES];
        [_timer fire];
        [_pauseRunButton setTitle:@"Pause" forState:UIControlStateNormal];
    } else {
        _pause = [NSDate timeIntervalSinceReferenceDate];
        [_timer invalidate];
        _timer = nil;
        [_pauseRunButton setTitle:@"Continue" forState:UIControlStateNormal];
    }
}

```



Jogr.xcodeproj — Jogr.storyboard

Jogr: Ready | Today at 8:19 AM No Issues

Run View Contr... Run View Controller – Run Automatic RunViewController.m No Selection

```

- (void)didReceiveMemoryWarning
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    long minutes = ((long)interval / 60l) % 60l;
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           minutes, seconds, hundredths];
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        _timer = nil;
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    }
}

```



Jogr.xcodeproj — Jogr.storyboard

Jogr: Ready | Today at 8:19 AM No Issues

Run View Contr... Run View Controller – Run Automatic RunViewController.m No Selection

Jogr 2 targets, iOS SDK 7.0

Jogr Source

- Model**
 - RouteData.h
 - RouteData.m
 - RunData.h
 - RunData.m
- View**
 - RoutePathOverlay.h
 - RoutePathOverlay.m
 - GraphView.h
 - GraphView.m
- Controller**
 - AppDelegate.h
 - AppDelegate.m
 - RunViewController.h
 - RunViewController.m
 - MapRoutesViewController.h
 - MapRoutesViewController.m
 - RouteDetailsViewController.h
 - RouteDetailsViewController.m
 - RunDetailsViewController.h
 - RunDetailsViewController.m
- Resources**
 - Jogr.storyboard
 - embarcadero.jpg
 - Pier39RunDescription.rtf
 - Images.xcassets
 - SampleRuns
 - Supporting Files
- Jogr Tests**
 - JogrTests.m
 - Supporting Files
- Frameworks**
- Products**

```

graph LR
    Root[Root View Controller] --> Run[Run View Controller - Run]
    Run --> Map[Map Routes View Controller - Map]
    Map --> Root
    Run --> Pause[Run View Controller - Run]
    Pause --> Root
  
```

The storyboard displays three screens:

- Root View Controller:** Shows a large red circular icon with a white runner, the word "Jogr", and buttons for "TIMER" and "ROUTES".
- Run View Controller – Run:** Shows a digital timer at "00:00:00.00" and a button labeled "Pause".
- Map Routes View Controller – Map:** Shows a map view.

Transitions are as follows:

- From Root to Run
- From Run to Map
- From Map back to Root
- From Run to Pause
- From Pause back to Root

The `RunViewController.m` code is shown on the right side of the interface:

```

- (void)didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
}

- (void)viewWillAppear:(BOOL)animated
{
    if (!_timer || _pause) {
        [self pauseOrRun:self];
    }
}

- (NSString *)timeStringForInterval:(NSTimeInterval)interval
{
    long hours = (long)interval / 60l;
    long minutes = ((long)interval / 60l) % 60l;
    long seconds = (long)interval % 60l;
    long hundredths = (long)(interval * 100.0) % 100l;

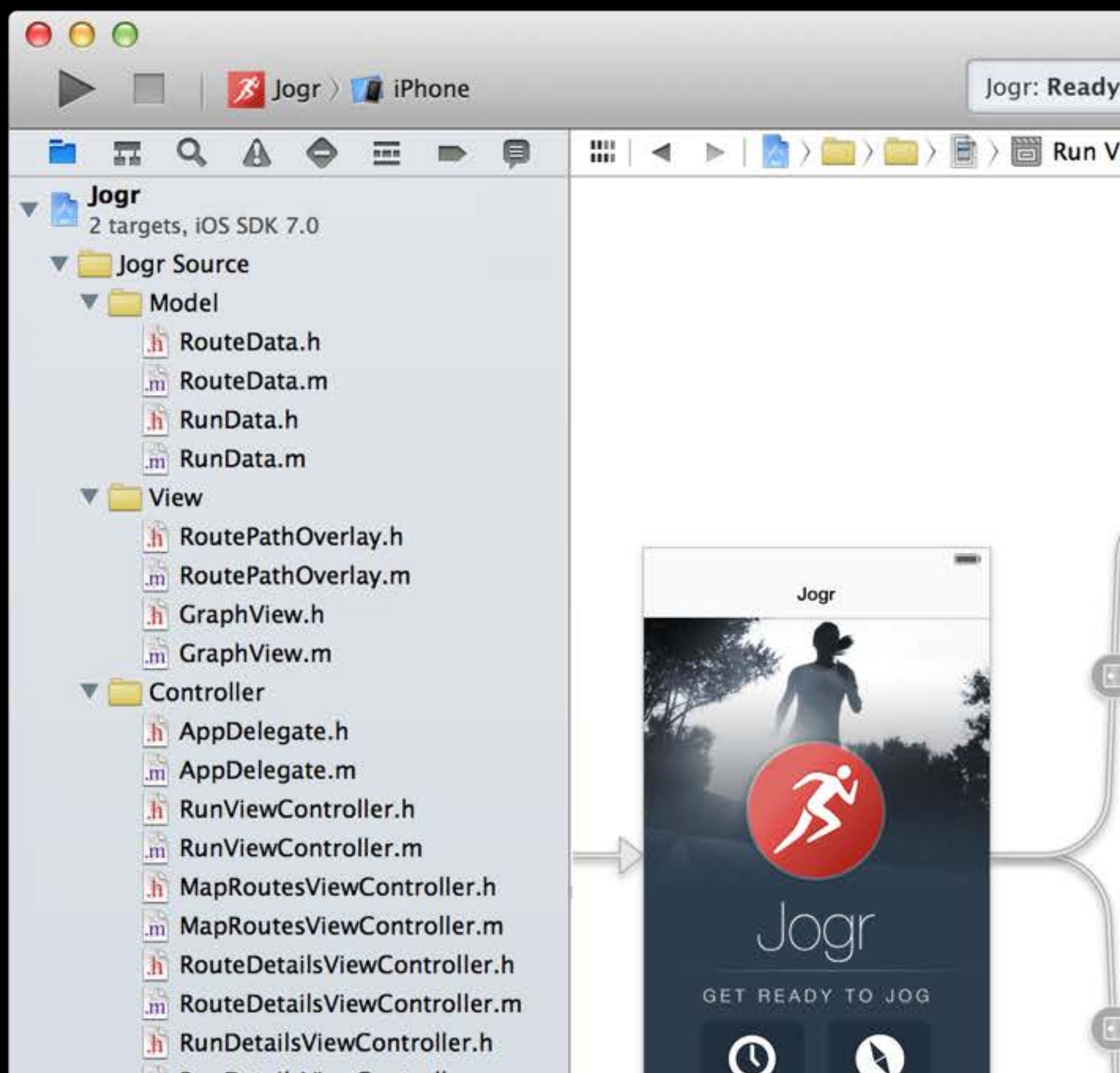
    return [NSString stringWithFormat:@"%02ld:%02ld:%02ld.%02ld", hours,
           minutes, seconds, hundredths];
}

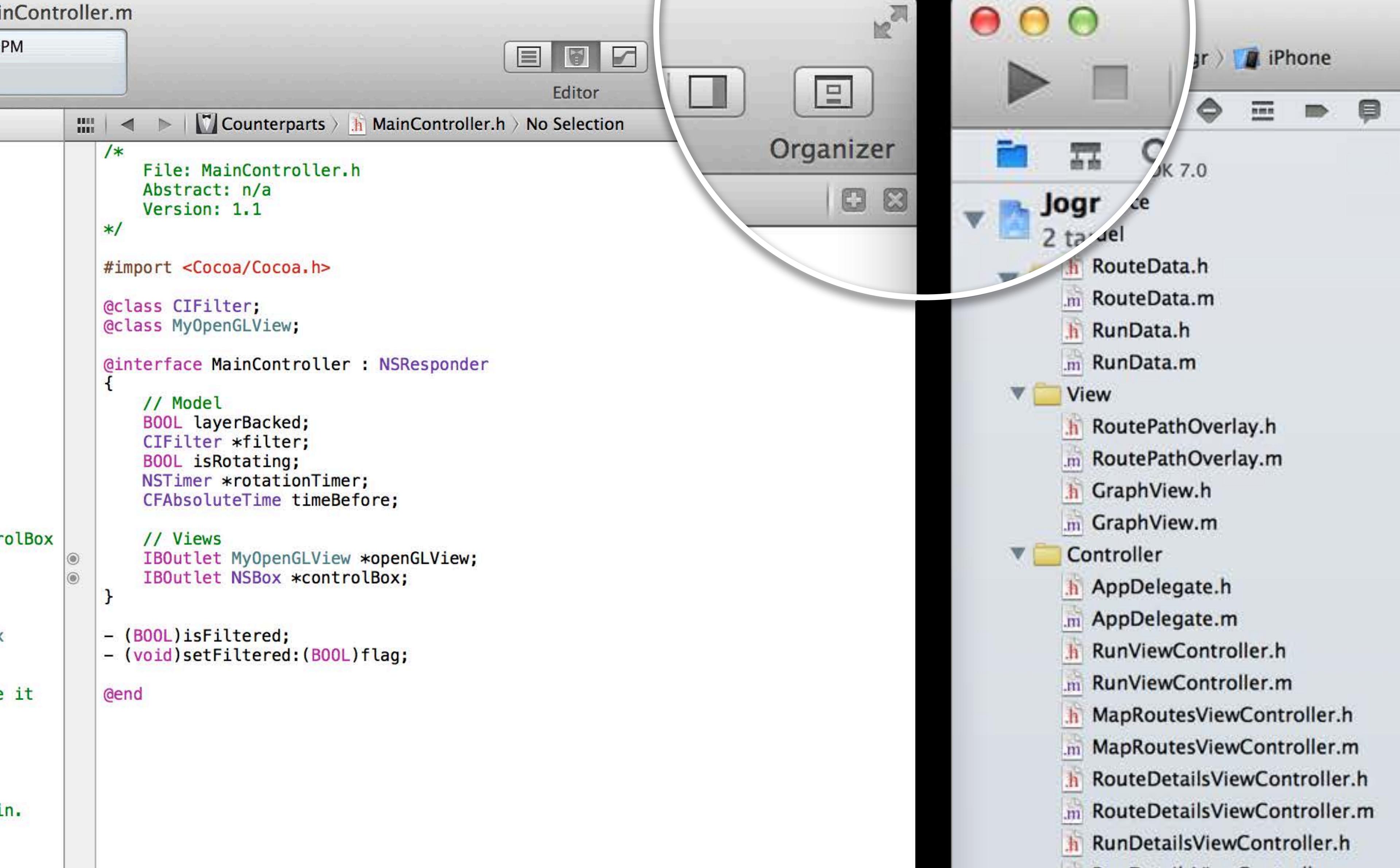
- (void)updateTime
{
    if (_timer) {
        NSTimeInterval now = _pause ? _pause : [NSDate
            timeIntervalSinceReferenceDate];
        NSString *string = [self timeStringForInterval:now - _start];

        [_timeLabel setText:string];
    }
}

- (IBAction)pauseOrRun:(id)sender
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    if (_start == 0) {
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    if (_timer == nil) {
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        [_timer fire];
        [_pauseRunButton setTitle:@"Pause" forState:UIControlStateNormal];
    } else {
        _pause = [NSDate timeIntervalSinceReferenceDate];
        [_timer invalidate];
        _timer = nil;
        [_pauseRunButton setTitle:@"Continue" forState:UIControlStateNormal];
    }
}
  
```





The screenshot shows the Xcode interface with the MainController.h file open in the Editor tab. The code defines a MainController class that inherits from NSResponder. It includes imports for Cocoa/Cocoa.h and CIFilter, and defines properties for a CIFilter, MyOpenGLView, and rotation timer. The code also includes methods for filtering and setting the filtered flag.

```
/* File: MainController.h
Abstract: n/a
Version: 1.1 */

#import <Cocoa/Cocoa.h>

@class CIFilter;
@class MyOpenGLView;

@interface MainController : NSResponder
{
    // Model
    BOOL layerBacked;
    CIFilter *filter;
    BOOL isRotating;
    NSTimer *rotationTimer;
    CFAbsoluteTime timeBefore;

    // Views
    IBOutlet MyOpenGLView *openGLView;
    IBOutlet NSBox *controlBox;
}

- (BOOL)isFiltered;
- (void)setFiltered:(BOOL)flag;
@end
```



Jogr > iPhone

Jogr: Ready | Today at 8:19 AM

No Issues

Run View Controller - R... > Run View Controller - Run

Automatic > RunViewController.m > No Selection

2 2 2 2

Jogr
2 targets, iOS SDK 7.0

Jogr Source

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 - JogrTests.m
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- Frameworks**
- Products**

```
graph LR; Root[Root View Controller] --> Map[Map Routes View Controller]; Map --> Run[Run View Controller]; Run --> RunRun[Run View Controller - Run];
```

The storyboard diagram illustrates the application's navigation flow. It starts with the **Root View Controller**, which displays a splash screen for "Jogr". From there, the user can navigate to the **Map Routes View Controller**, which shows a map with several blue route markers. Finally, the user reaches the **Run View Controller**, which displays a digital stopwatch interface with the time "00:00:00.00" and a large "Pause" button.

```
    }
    return self;
}

- (void)viewDidLoad
{
    [super viewDidLoad];
}

- (void) didReceiveMemoryWarning
{
    [super didReceiveMemoryWarning];
}

- (void)viewWillAppear:(BOOL)animated
{
    if (!_timer || _pause) {
        [self pauseOrRun:self];
    }
}

- (NSString *)timeStringForInterval:(NSTimeInterval)interval
{
    long hours = (long)interval / 60l;
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    return [NSString stringWithFormat:@"%02ld:%02ld:%02ld.%02ld", hours, minutes,
seconds, hundredths];
}

- (void)updateTime
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    } else {
        _pause = [NSDate timeIntervalSinceReferenceDate];
        [_timer invalidate];
        _timer = nil;
        [_pauseRunButton setTitle:@"Continue" forState:UIControlStateNormal];
    }
}
```

The code snippet shows the implementation of the **Run View Controller**. It includes methods for handling view loading, memory warnings, and view appearance. The core functionality is provided by the **updateTime** method, which calculates the elapsed time and formats it as a string. The **pauseOrRun** action handles the start and stop of the timer, updating the pause variable and invalidating the previous timer if one exists.

Documentation — Objective-C Runtime Reference

objective-c language

Objective-C Runtime Reference Xcode Release Notes: Xcode User Guide: About Xcode What's New In Xcode: What's N... Source Control Management H... LLDB Quick Start Guide: Gettin...

Objective-C Runtime Reference

Declared in IONDRVLibraries.h
NSObjCRuntime.h
wintypes.h

Companion guides [Objective-C Runtime Programming Guide](#)
[The Objective-C Programming Language](#)

Overview

This document describes the OS X Objective-C 2.0 runtime library support functions and data structures. The functions are implemented in the shared library found at `/usr/lib/libobjc.A.dylib`. This shared library provides support for the dynamic properties of the Objective-C language, and as such is linked to by all Objective-C applications.

This reference is useful primarily for developing bridge layers between Objective-C and other languages, or for low-level debugging. You typically do not need to use the Objective-C runtime library directly when programming in Objective-C.

The OS X implementation of the Objective-C runtime library is unique to the Mac. For other platforms, the GNU Compiler Collection provides a different implementation with a similar API. This document covers only the OS X implementation.

The low-level Objective-C runtime API is significantly updated in OS X version 10.5. Many functions and all existing data structures are replaced with new functions. The old functions and structures are deprecated in 32-bit and absent in 64-bit mode. The API constrains several values to 32-bit ints even in 64-bit mode—class count, protocol count, methods per class, ivars per class, arguments per method, `sizeof(all arguments)` per method, and class version number. In addition, the new Objective-C ABI (not described here) further constrains `sizeof(anInstance)` to 32 bits, and three other values to 24 bits—methods per class, ivars per class, and `sizeof(a single ivar)`. Finally, the obsolete `NXHashTable` and `NXMapTable` are limited to 4 billion items.

“Deprecated” below means “deprecated in OS X version 10.5 for 32-bit code, and disallowed for 64-bit code.”

Who Should Read This Document

The document is intended for readers who might be interested in learning about the Objective-C runtime.

Because this isn’t a document about C, it assumes some prior acquaintance with that language. However, it doesn’t have to be an extensive acquaintance.

Functions by Task

Working with Classes

`class_getName`
`class_getSuperclass`
`class_setSuperclass`

Programming with Objective-C
Introduction
Defining Classes
Classes Are Blueprints for Objects
Mutability Determines Whether a Represented Value Can Be Modified
Classes Inherit from Other Classes
The Root Class Provides Base Functionality
The Interface for a Class Defines Expected Interactions
Basic Syntax
Properties Control Access to an Object’s Values
Property Attributes Indicate Data Accessibility and Storage
Method Declarations Indicate the Messages an Object Can Receive
Methods Can Take Parameters
Class Names Must Be Unique
The Implementation of a Class Provides Its Internal Behavior
Basic Syntax
Implementing Methods
Objective-C Classes Are also Objects
Exercises
Working with Objects
Objects Send and Receive Messages
Use Pointers to Keep Track of Objects
You Can Pass Objects for Method Parameters
Methods Can Return Values
Objects Can Send Messages to Themselves
Objects Can Call Methods Implemented by Their Superclasses
Objects Are Created Dynamically
Initializer Methods Can Take Arguments
Class Factory Methods Are an Alternative to Allocation and Initialization
Use `new` to Create an Object If No Arguments Are Needed
Literals Offer a Concise Object-Creation Syntax
Objective-C Is a Dynamic Language
Determining Equality of Objects
Working with `nil`
Exercises
Encapsulating Data
Properties Encapsulate an Object’s Values
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Most Properties Are Backed by Instance Variables
You Can Customize Synthesized Instance Variable Names



Documentation — Objective-C Runtime Reference

Xcode language Xcode Release Notes: Xcode User Guide: About Xcode What's New In Xcode: What's N... Source Control Management H... LLDB Quick Start Guide: Gettin...

Next

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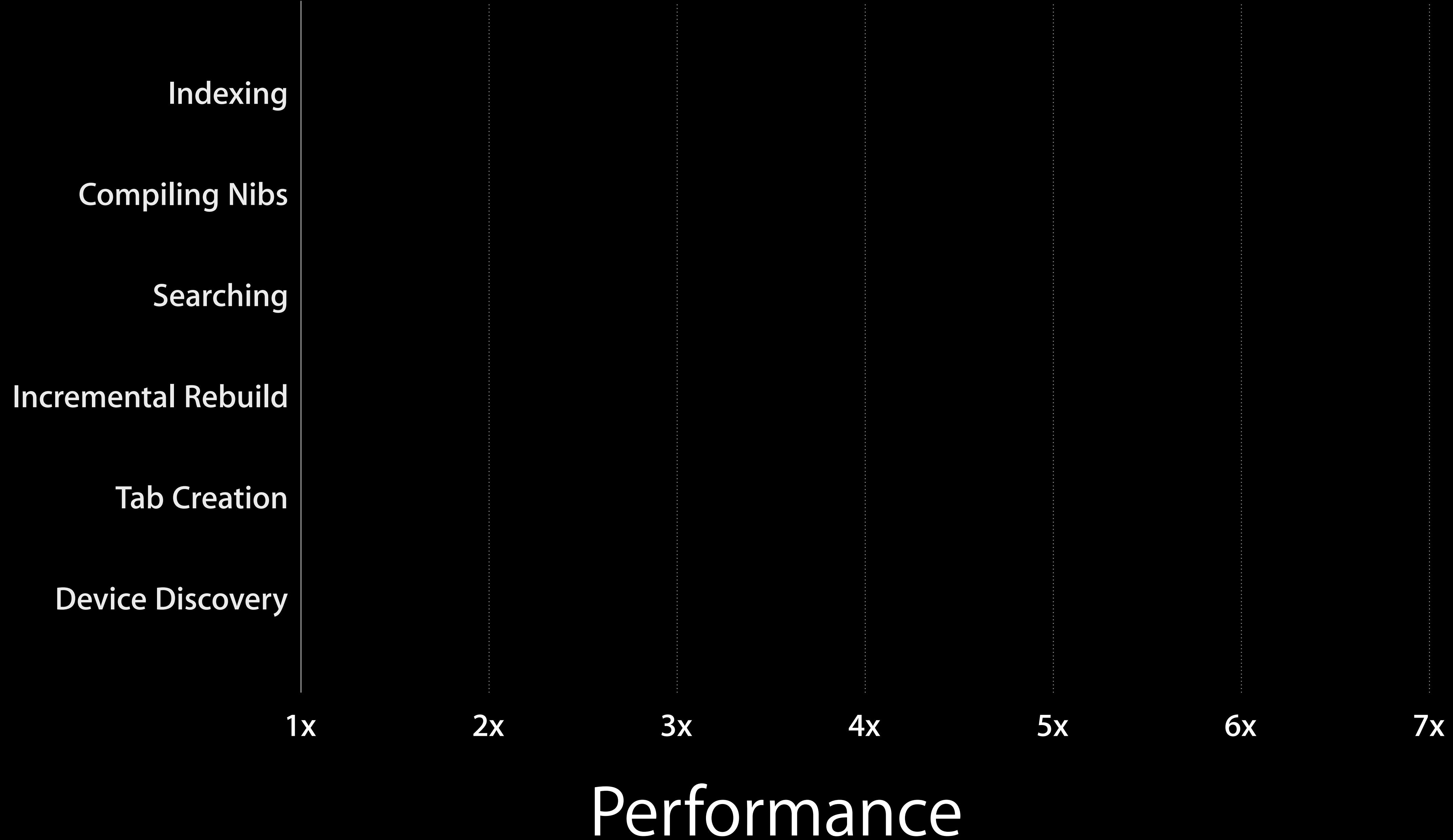
Working with Classes

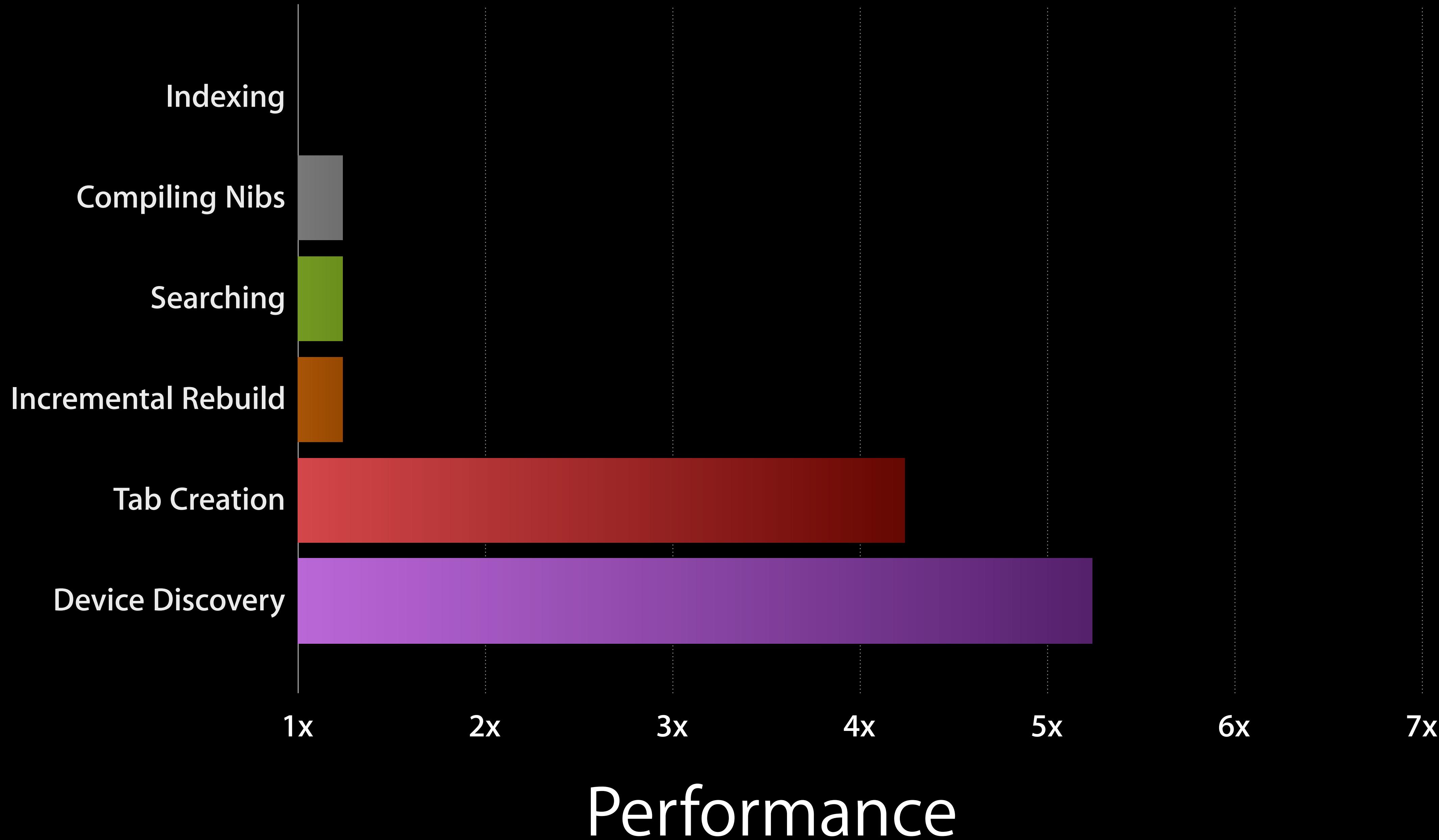
`class_getName`
`class_getSuperclass`
`class_setSuperclass`

Programming with Objective-C

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 - Declare Public Properties for Exposed Data
 - Use Accessor Methods to Get or Set Property Values
 - Dot Syntax Is a Concise Alternative to Accessor Method Calls
 - Most Properties Are Backed by Instance Variables
 - You Can Customize Synthesized Instance Variable Names

Performance







Source Control



Welcome to Xcode

Version 5.0 (5A11314l)



Create a new Xcode project

Start building a new iPhone, iPad or Mac application.



Check out an existing project

Start working on something from an SCM Repository.



Jogr

/Users/Shared/Projects



Bouncy Ball

/Users/Shared/Projects



CS 101 All Projects

/Users/Shared/Projects



CS 101 Demo1

/Users/Shared/Projects



CS 101 Demo2

/Users/Shared/Projects



TipCalculator

/Users/Shared/Projects



TextEdit

/Users/Shared/Projects



SlideShowApp

/Users/Shared/Projects



PhotoDaemonXPC

/Users/Shared/Projects



PhotosFramework

/Users/Shared/Projects



Open Other...



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PhotosFramework

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Open Other...

Check Out

Choose an item:

	Recents	Favorites	Repositories
	AwesomeApp https://github.com/JohnnyApple/AwesomeApp.git		
	RunningApp https://github.com/JohnnyApple/RunningApp.git		
 	SharedRepo.git https://github.com/JohnnyApple/SharedRepo.git		

Or enter a repository location:

Cancel

Previous

Next

The screenshot shows the Xcode interface with the following details:

- Project Navigator:** On the left, the project "SpinningGlobe" is listed with its structure:
 - SpinningGlobe (target)
 - ReadMe.txt
 - Interface
 - Images.xcassets
 - MainMenu.xib
 - InfoPlist.strings
 - SpinningGlobe-Info.plist
 - SpinningGlobe Source
 - APLMainController.h
 - APLMainController.m (selected)
 - APLMouseIgnoringBox.h
 - APLMouseIgnoringBox.m
 - APLOpenGLView.h
 - APLOpenGLView.m
 - APLDocumentSync.h
 - APLDocumentSync.m
 - APLScene.h
 - APLScene.m
 - APLTexture.h
 - APLTexture.m
 - main.m
 - SpinningGlobe Tests
 - SpinningGlobeTestGroup2.m
 - SpinningGlobeTests.m
 - InfoPlist.strings
 - SpinningGlobeTests-Info.plist
 - Products
 - SpinningGlobe.app
 - SpinningGlobeTests.xctest
 - SpinningGlobe.entitlements
- Editor Area:** The main window displays the code for `APLMainController.m`. The code handles the creation and animation of a control box for a globe application.
- Toolbar:** At the top, there are standard Xcode toolbar icons for file operations like Open, Save, and Find.
- Status Bar:** At the bottom, it shows the build status: "Build SpinningGlobe: Succeeded | Today at 8:10 PM" and "No Issues".

```
// Added to the class extension within the .m file - no longer in the header
- (BOOL)isFiltered;
- (void)setFiltered:(BOOL)flag;

@end

@implementation APLMainController
{
    // Model
    CIFilter *_filter;
    BOOL _isRotating;
    NSTimer *_rotationTimer;
    CFAbsoluteTime _timeBefore;
}

- (void)awakeFromNib
{
    // Make the OpenGL View layer-backed.
    [self.openGLView setWantsLayer:YES];

    // Show the control box.
    [self toggleControlBox];

    // Start the Earth rotating.
    [self startRotation];
}

/* Sets the status of the UI 'box' that allows the user to control the display of the globe as it spins around */
- (void)toggleControlBox
{
    NSBox *controlBox = self.controlBox;

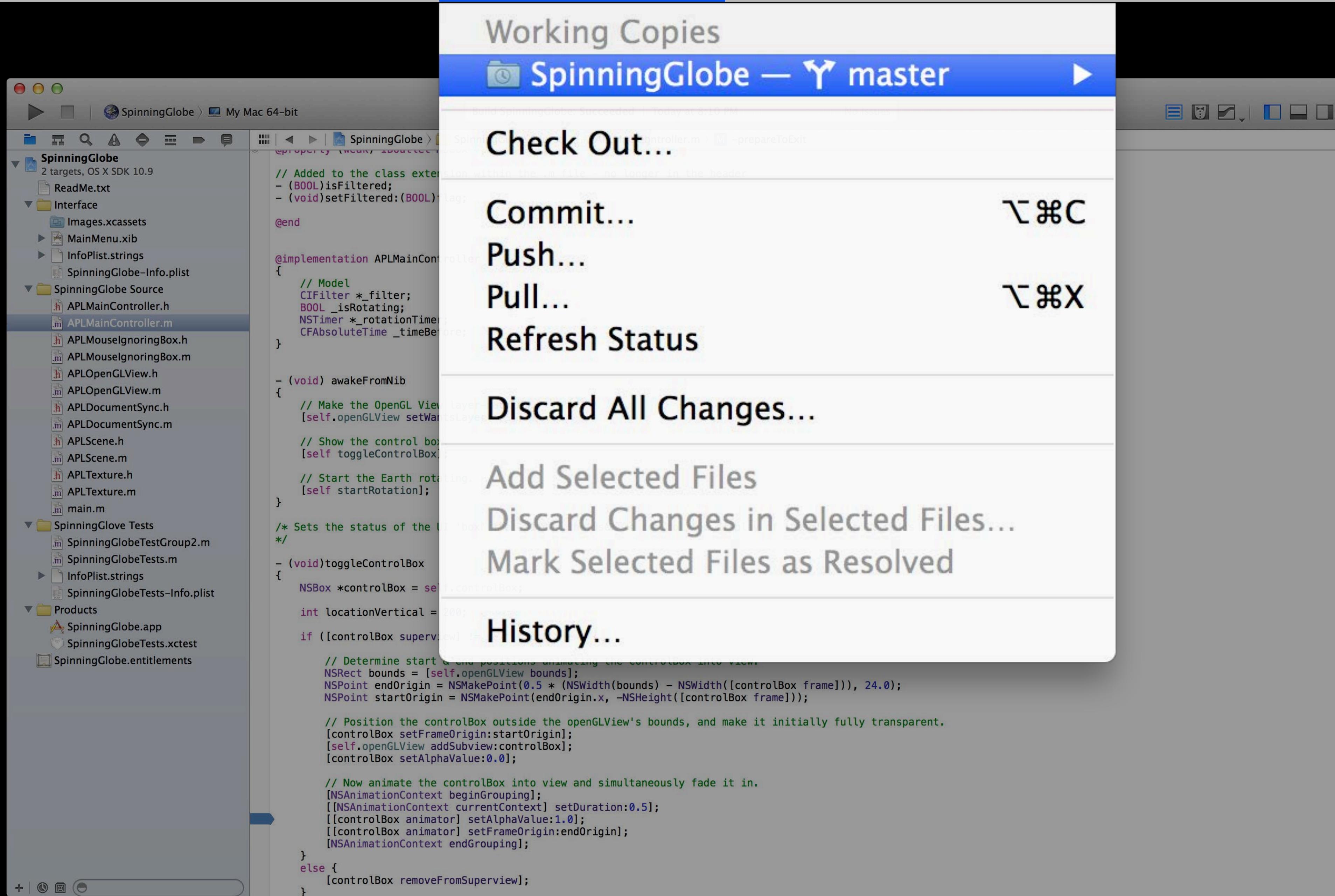
    int locationVertical = 200;

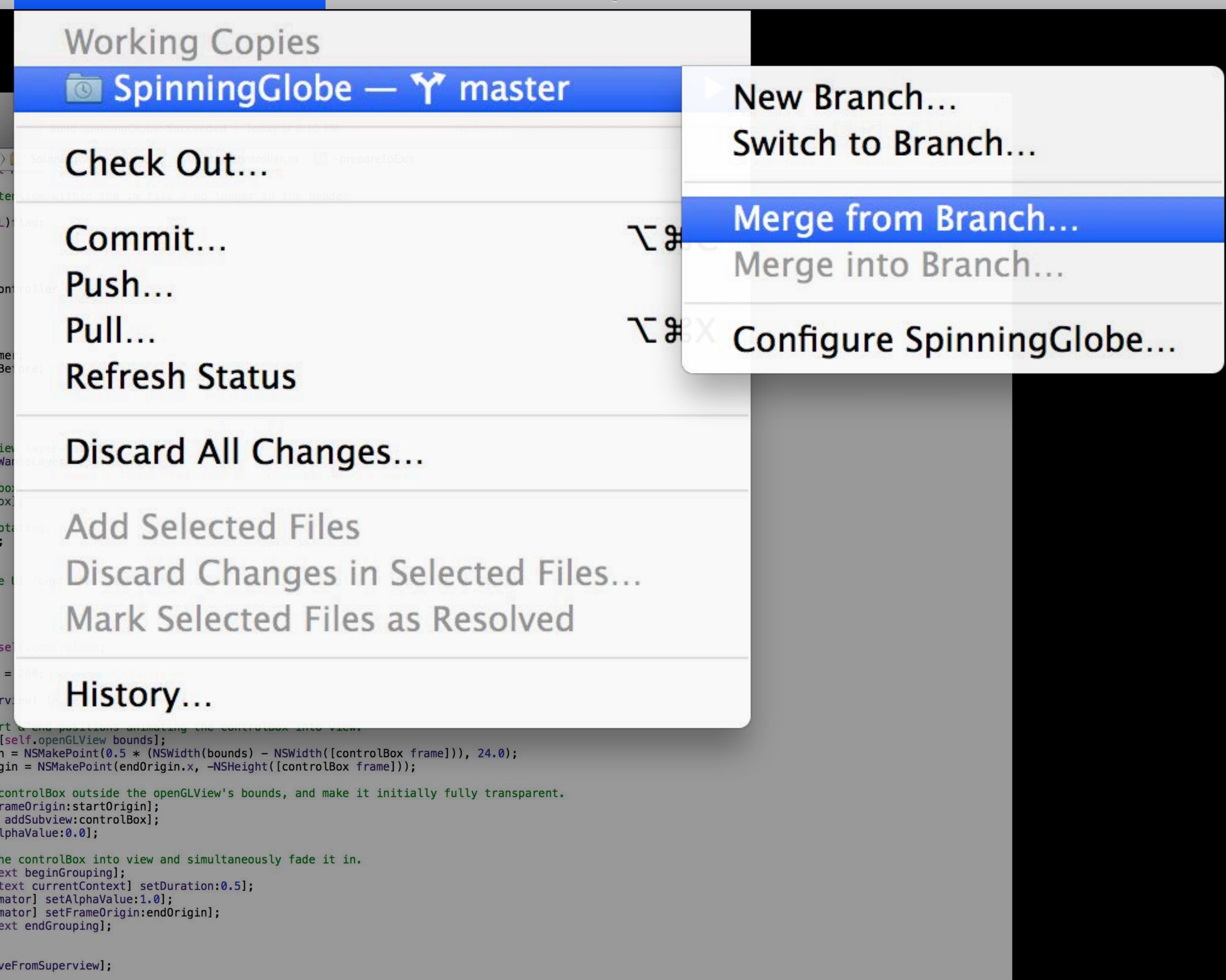
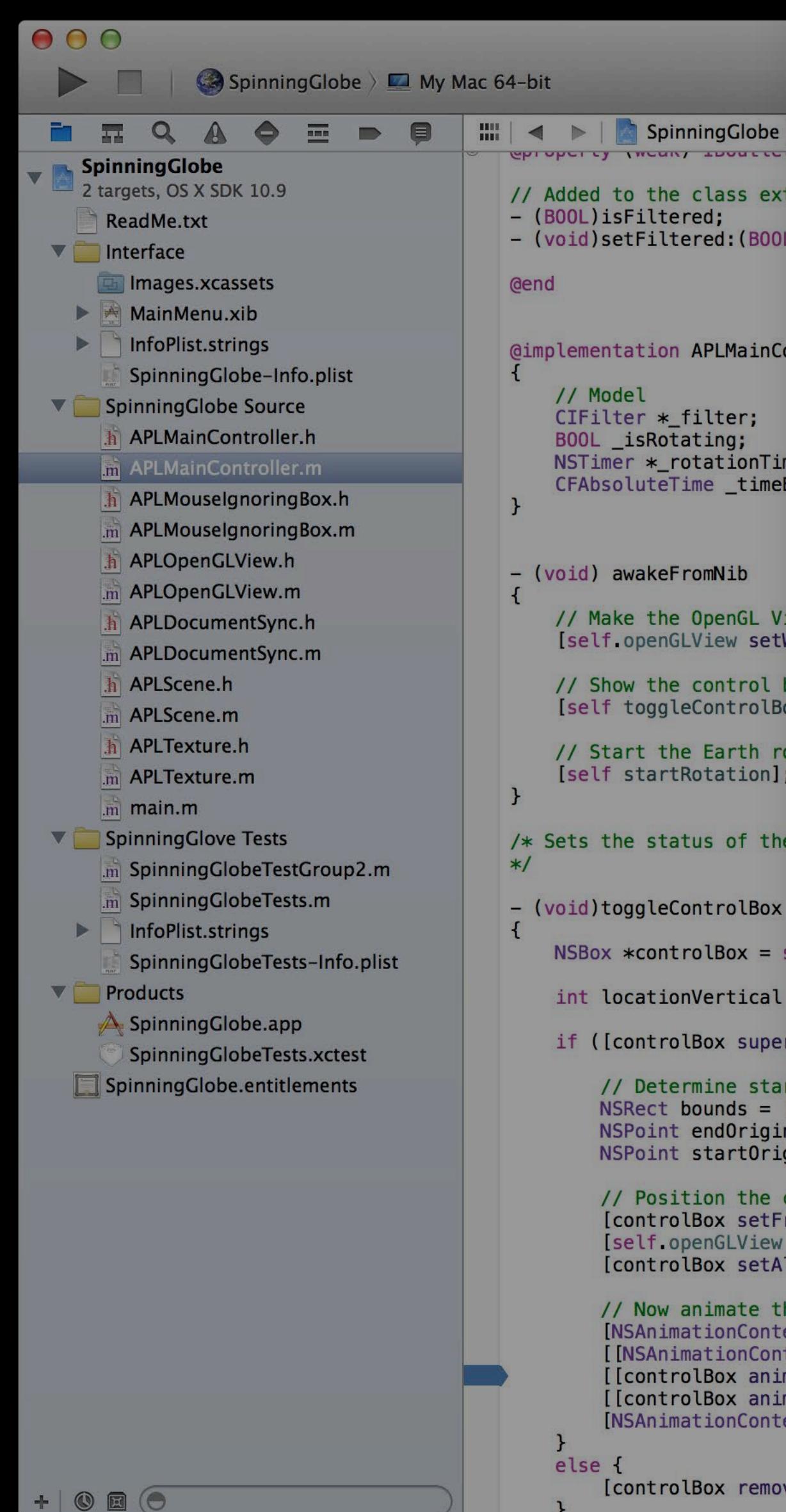
    if ([controlBox superview] != self.openGLView) {

        // Determine start & end positions animating the controlBox into view.
        NSRect bounds = [self.openGLView bounds];
        NSPoint endOrigin = NSMakePoint(0.5 * (NSWidth(bounds) - NSWidth([controlBox frame])), 24.0);
        NSPoint startOrigin = NSMakePoint(endOrigin.x, -NSHeight([controlBox frame]));

        // Position the controlBox outside the openGLView's bounds, and make it initially fully transparent.
        [controlBox setFrameOrigin:startOrigin];
        [self.openGLView addSubview:controlBox];
        [controlBox setAlphaValue:0.0];

        // Now animate the controlBox into view and simultaneously fade it in.
        [NSAnimationContext beginGrouping];
        [[NSAnimationContext currentContext] setDuration:0.5];
        [[controlBox animator] setAlphaValue:1.0];
        [[controlBox animator] setFrameOrigin:endOrigin];
        [NSAnimationContext endGrouping];
    }
    else {
        [controlBox removeFromSuperview];
    }
}
```





The screenshot shows the Xcode interface with the following details:

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- Status Bar:** At the bottom of the window, there are status indicators for the project and build status.

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- (void)setFiltered:(BOOL)flag;

@end

@implementation APLMainController
{
    // Model
    CIFilter *_filter;
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    CFAbsoluteTime _timeBefore;
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- (void)awakeFromNib
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    [self.openGLView setWantsLayer:YES];

    // Show the control box.
    [self toggleControlBox];

    // Start the Earth rotating.
    [self startRotation];
}

/* Sets the status of the UI 'box' that allows the user to control the display of the globe as it spins around */
- (void)toggleControlBox
{
    NSBox *controlBox = self.controlBox;

    int locationVertical = 200;

    if ([controlBox superview] != self.openGLView) {

        // Determine start & end positions animating the controlBox into view.
        NSRect bounds = [self.openGLView bounds];
        NSPoint endOrigin = NSMakePoint(0.5 * (NSWidth(bounds) - NSWidth([controlBox frame])), 24.0);
        NSPoint startOrigin = NSMakePoint(endOrigin.x, -NSHeight([controlBox frame]));

        // Position the controlBox outside the openGLView's bounds, and make it initially fully transparent.
        [controlBox setFrameOrigin:startOrigin];
        [self.openGLView addSubview:controlBox];
        [controlBox setAlphaValue:0.0];

        // Now animate the controlBox into view and simultaneously fade it in.
        [NSAnimationContext beginGrouping];
        [[NSAnimationContext currentContext] setDuration:0.5];
        [[controlBox animator] setAlphaValue:1.0];
        [[controlBox animator] setFrameOrigin:endOrigin];
        [NSAnimationContext endGrouping];
    }
    else {
        [controlBox removeFromSuperview];
    }
}
```

SpinningGlobe.xcodeproj — APLMainController.m

Build SpinningGlobe: Succeeded | Today at 8:10 PM No Issues

SpinningGlobe > My Mac 64-bit

SpinningGlobe Source > APLMainController.m > -prepareToExit

```
// Added to the class extension within the .m file - no longer in the header
- (BOOL)isFiltered;
- (void)setFiltered:(BOOL)flag;

@end

@implementation APLMainController
{
    // Model
    CIFilter *_filter;
    BOOL _isRotating;
    NSTimer *_rotationTimer;
    CFAbsoluteTime _timeBefore;
}

- (void)awakeFromNib
{
    // Make the OpenGL View layer-backed.
    [self.openGLView setWantsLayer:YES];

    // Show the control box.
    [self toggleControlBox];

    // Start the Earth rotating.
    [self startRotation];
}

/* Sets the status of the UI 'box' that allows the user to control the display of the globe as it spins around
 */
- (void)toggleControlBox
{
    NSBox *controlBox = self.controlBox;
    int locationVertical = 200;

    if ([controlBox.superview isKindOfClass:[NSOpenGLView class]]) {
        // Position the control box relative to the OpenGL view's bounds.
        locationVertical = (int)(0.5 * (NSWidth(self.openGLView.bounds) - NSHeight(controlBox.frame)));
        [controlBox setFrameOrigin:NSMakePoint(endOrigin.x, -locationVertical - controlBox.frame));
    }

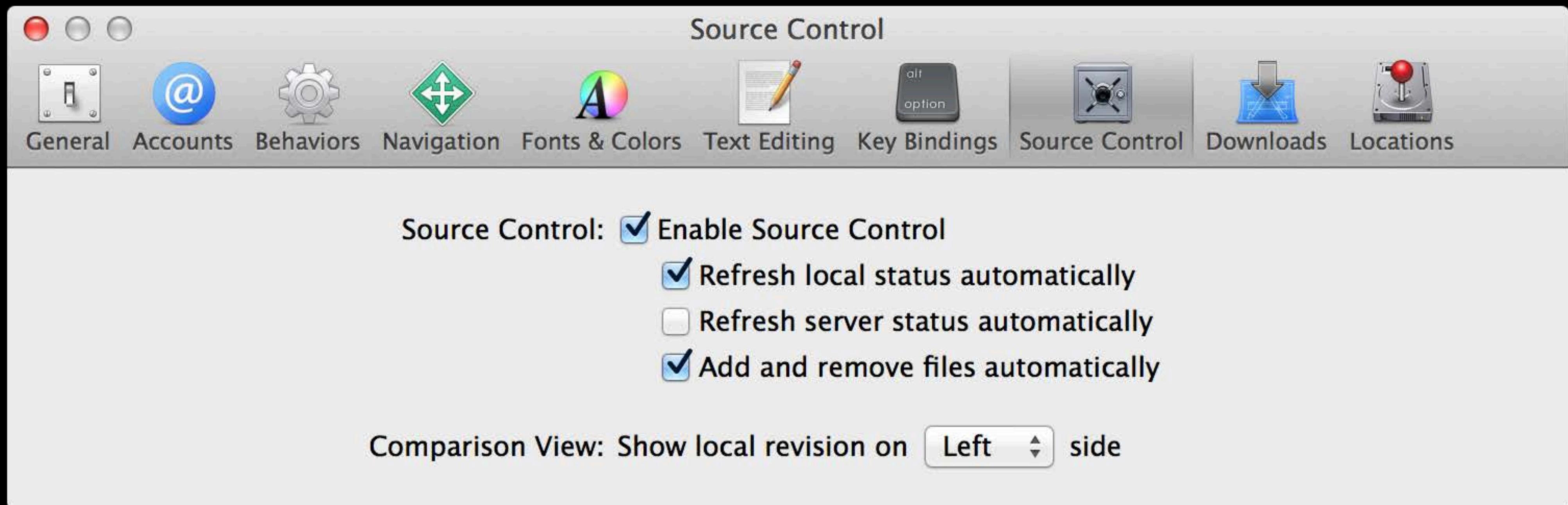
    // Now animate the controlBox into view and simultaneously fade it in.
    [NSAnimationContext beginGrouping];
    [NSAnimationContext currentContext] setDuration:0.5;
    [controlBox animator] setAlphaValue:1.0];
    [controlBox animator] setFrameOrigin:endOrigin];
    [NSAnimationContext endGrouping];
}
else {
    [controlBox removeFromSuperview];
}
```

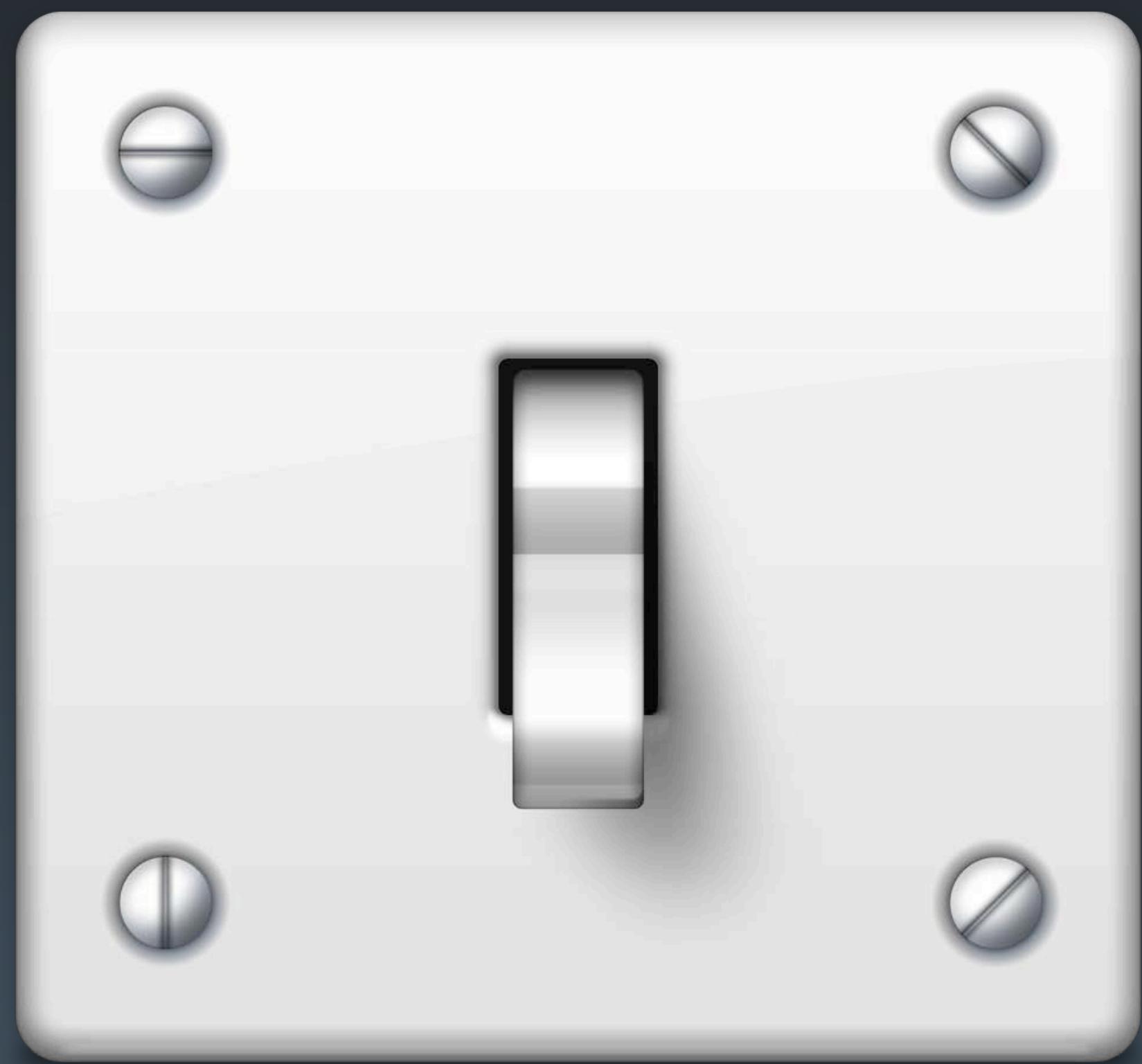
 Johnny Appleseed ceedd6178341

Jun 3, 2013, 7:54 PM Show 3 modified files 24.0;

Committing a new feature to do a proper zoom-in when the globe spins

[Open in Blame](#) [Open in Comparison](#)





Automatic Configuration

Accounts

General Accounts Behaviors Navigation Fonts & Colors Text Editing Key Bindings Source Control Downloads Locations

Apple IDs

Personal Developer Account
johnny_appleseed

Repositories

AwesomeApp
<https://japlseed@github.com/Jo...>

RunningApp
<https://github.com/JohnnyApple...>

SharedRepo.git
<https://johnnyapple@github.co...>

Servers

MacBook Pro Retina 15"
MacBook-Pro-Retina-15.local

Mini Bot Server
Mini-Bot-Server.local

Apple ID

Apple ID: johnny_appleseed

Password: ······

Description: Personal Developer Account

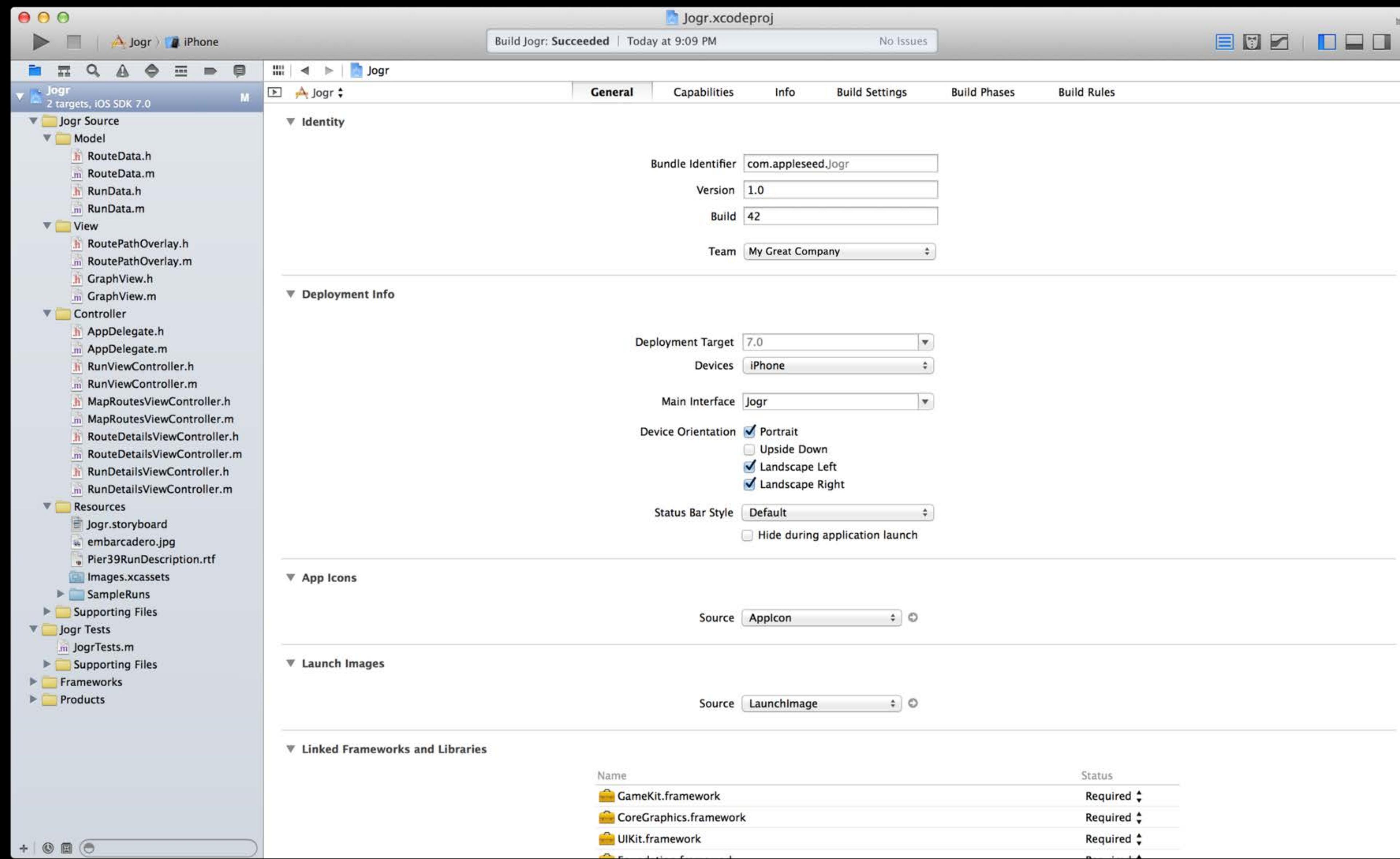
Name	iOS	Mac
My Great Company	Agent	Agent

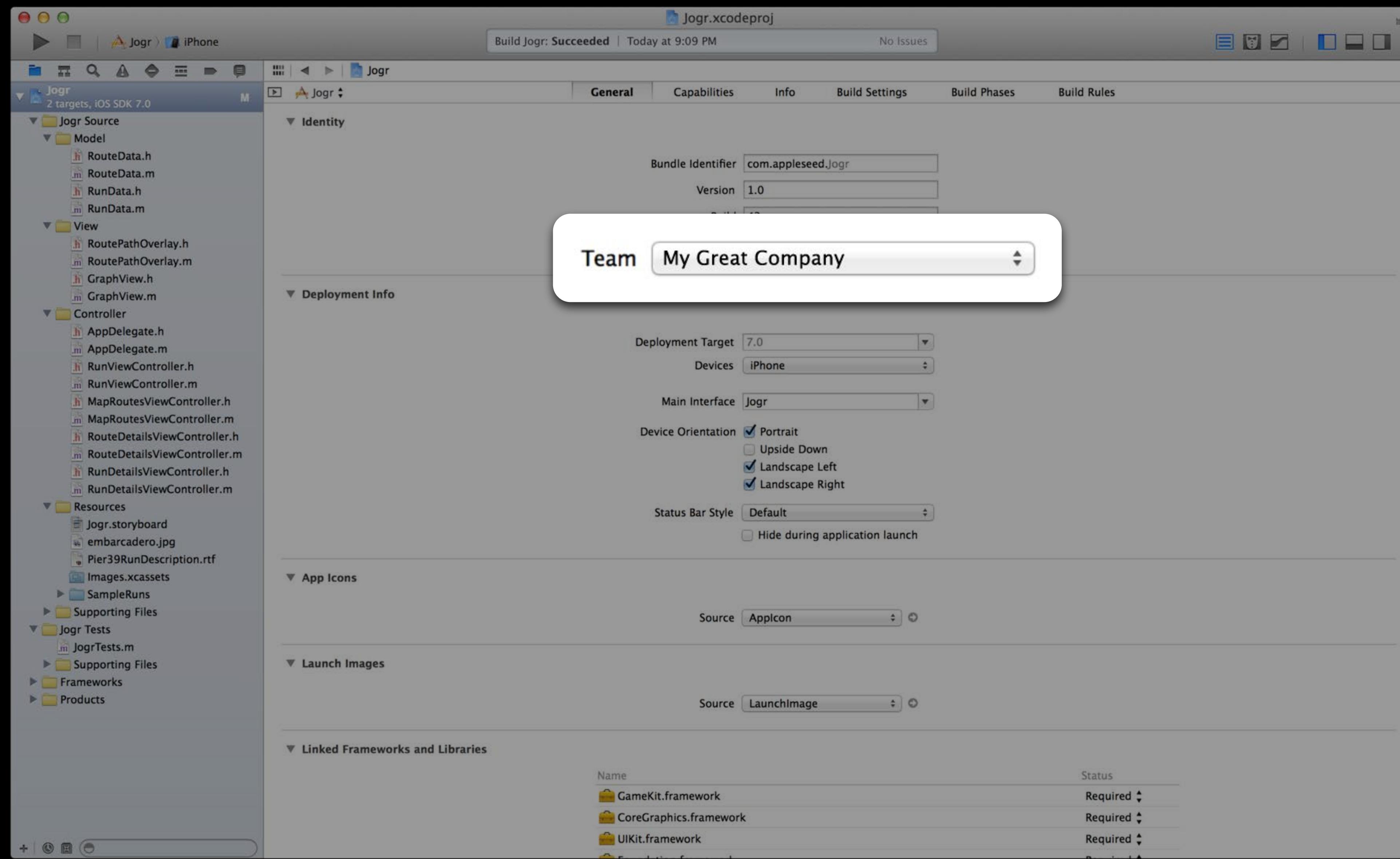
View Details...

+

-

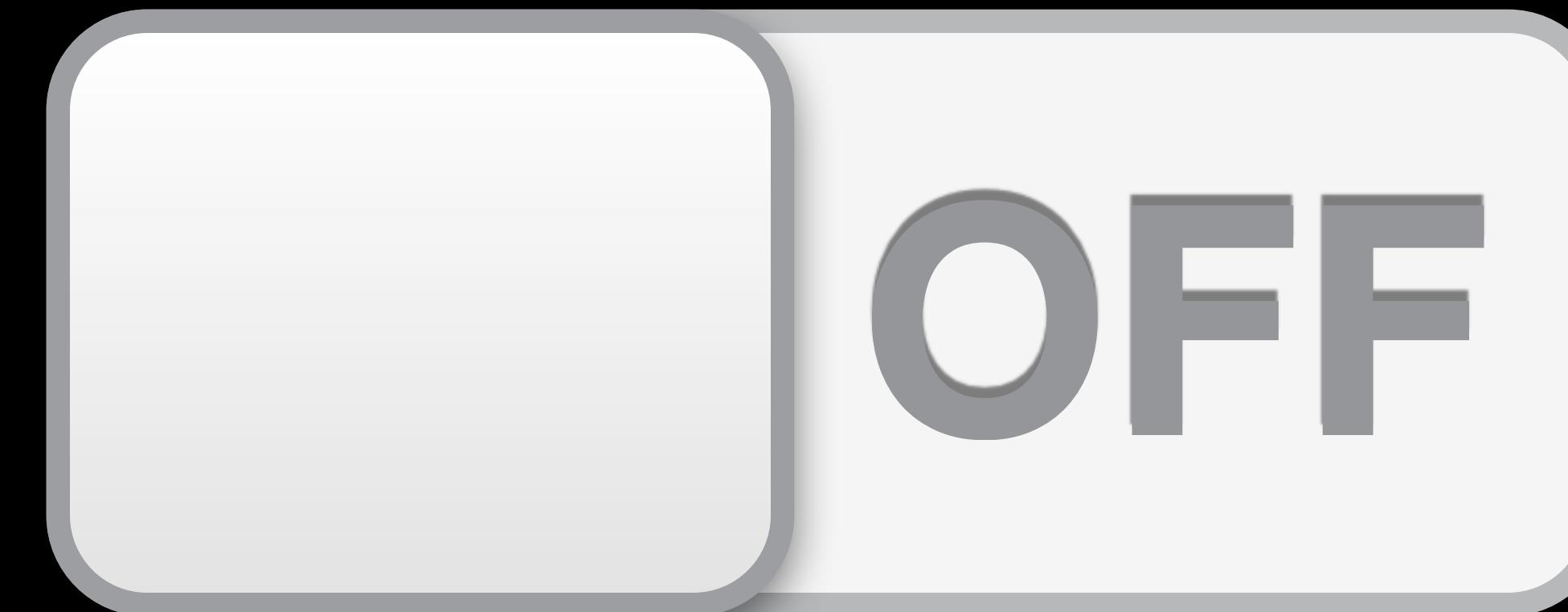
⚙

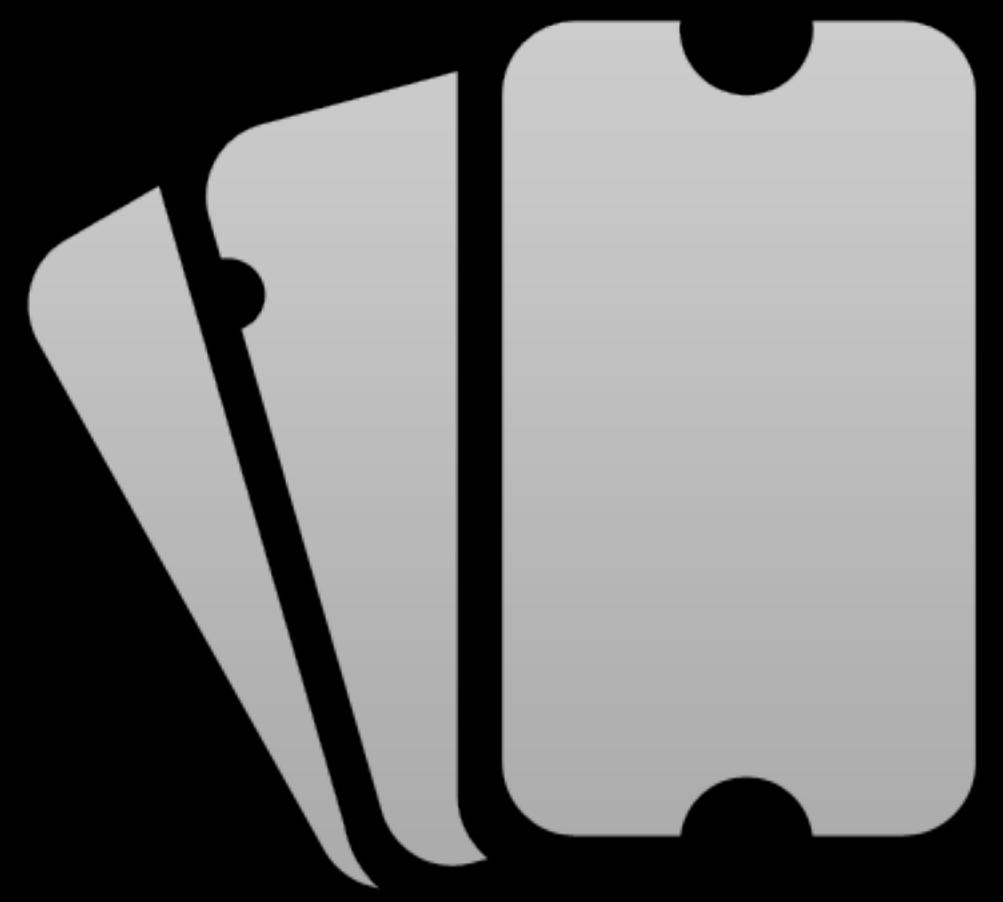




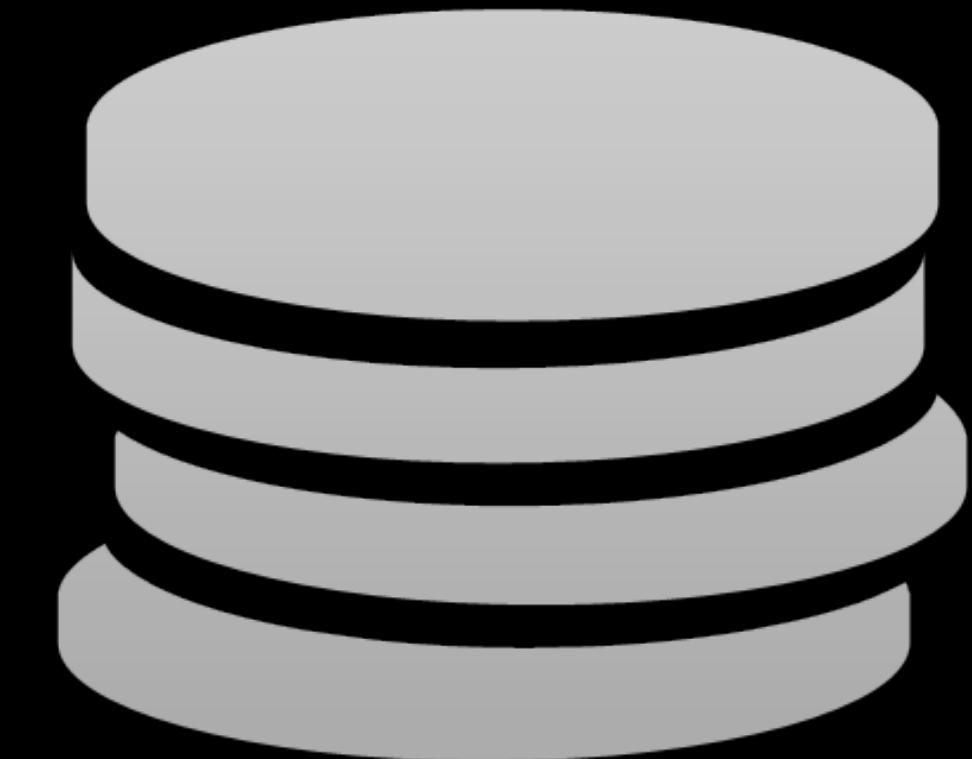


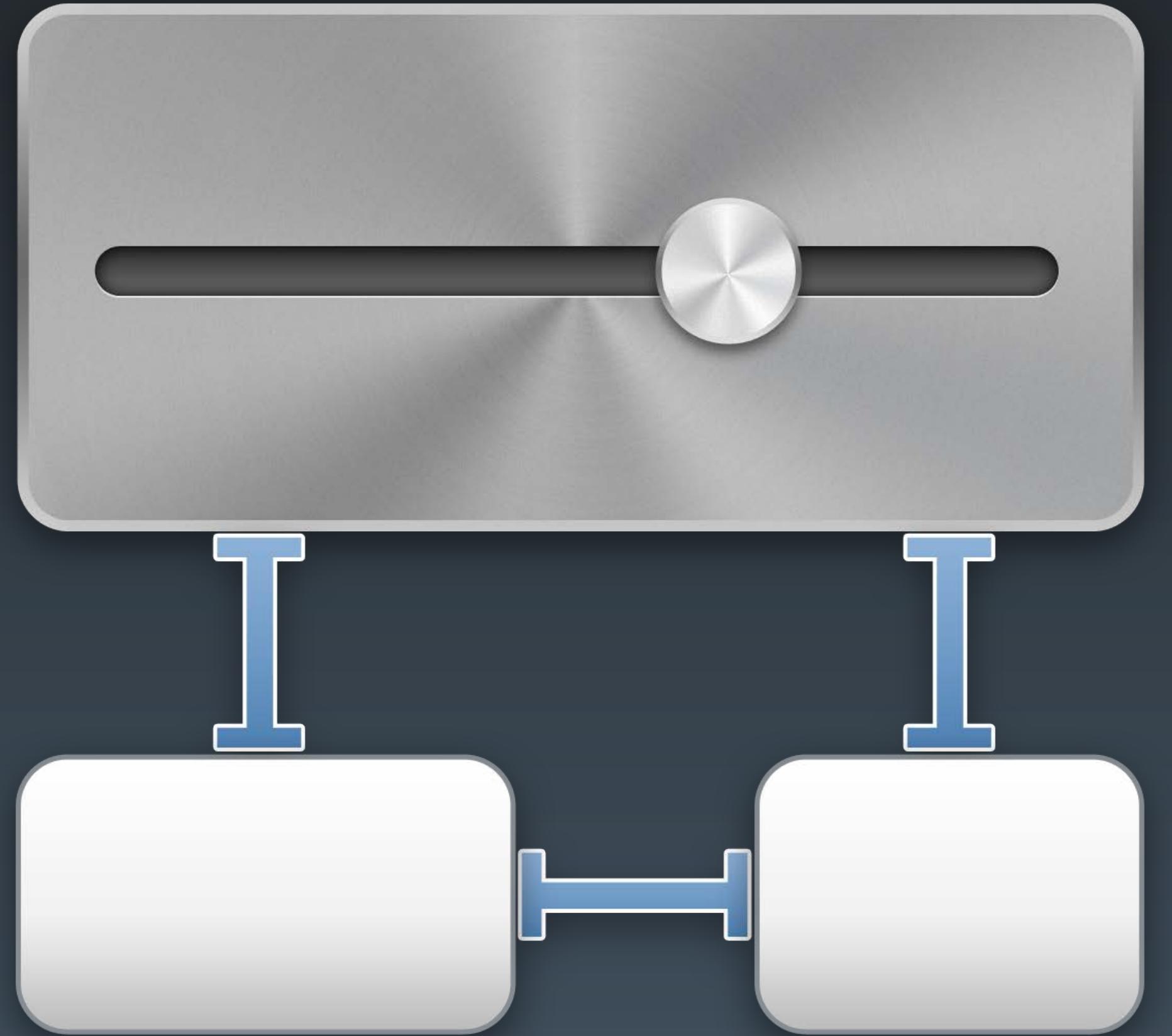
Capabilities



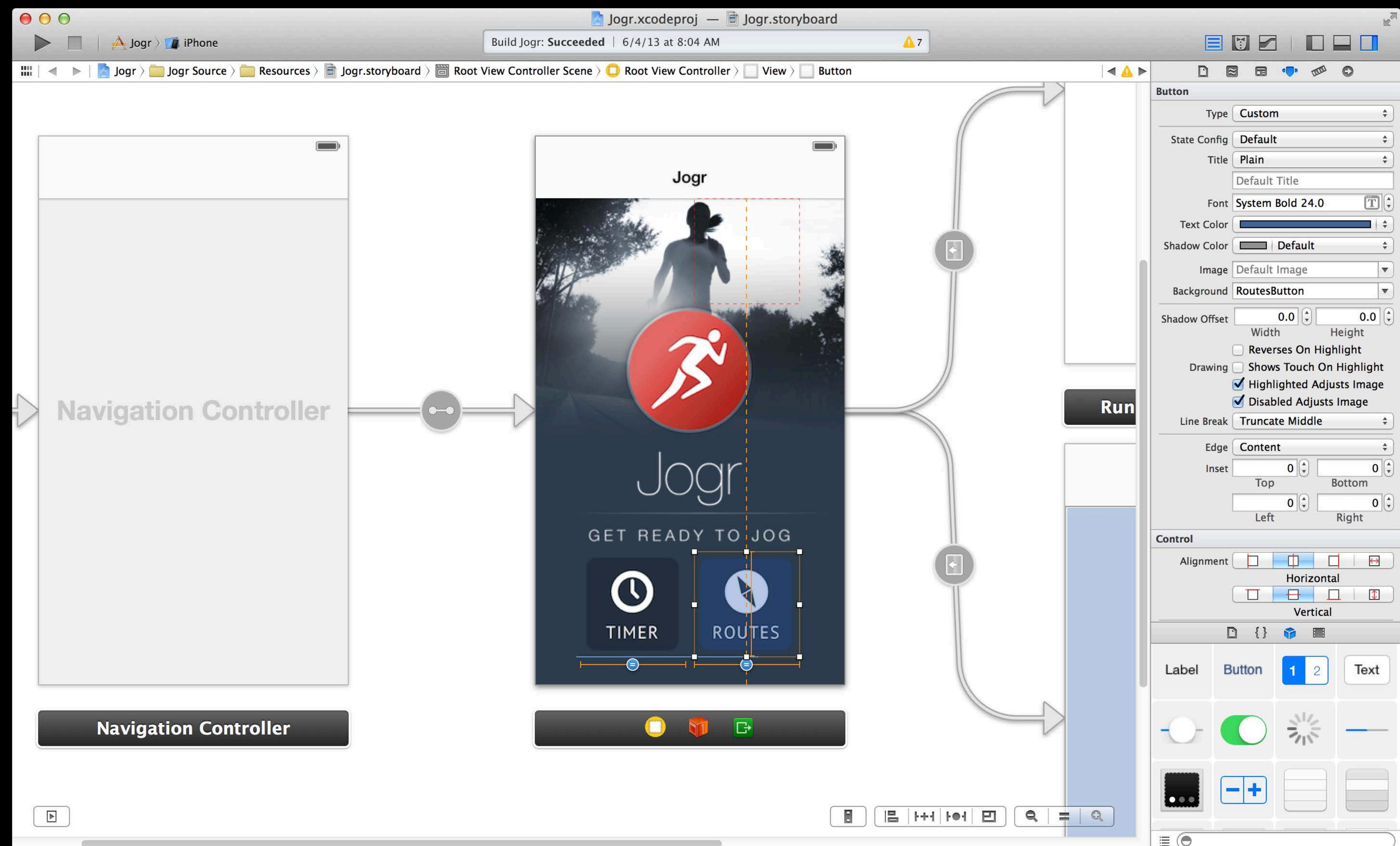


ON

A large blue button with a white rectangular outline. The word "ON" is written in white capital letters on the left side of the button.

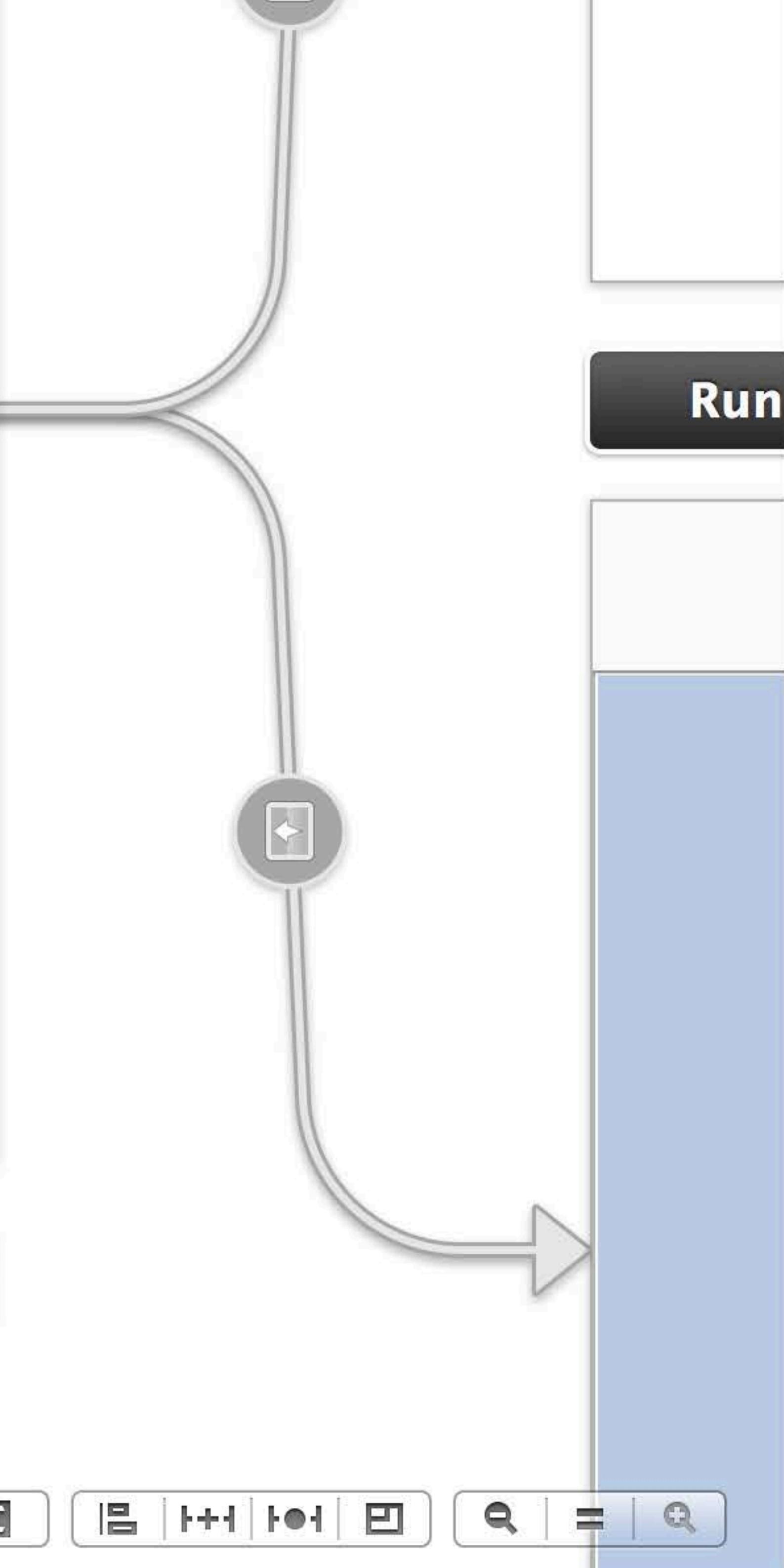


Interface Design





TimT: Can't get the button press to align properly in Keynote. May just need to highlight.



Properties panel for the "Run" button:

- Image:** Default Image
- Background:** RoutesButton
- Shadow Offset:** 0.0 (Width), 0.0 (Height)
- Drawing:**
 - Reverses On Highlight
 - Shows Touch On Highlight
 - Highlighted Adjusts Image
 - Disabled Adjusts Image
- Line Break:** Truncate Middle
- Edge:** Content
- Inset:** Top: 0, Bottom: 0, Left: 0, Right: 0
- Control:**
 - Horizontal Alignment:** Left, Center, Right, Justify, Fill
 - Vertical Alignment:** Top, Middle, Bottom, Justify, Fill
- Label:** Button
- Text:** 1 (selected), 2



Image Default Image

Background RoutesButton

Shadow Offset 0.0 0.0

Width Height

Reverses On Highlight

Drawing Shows Touch On Highlight

Highlighted Adjusts Image

Disabled Adjusts Image

Line Break Truncate Middle

Edge Content

Inset 0 0

Top Bottom

Left Right

Control

Alignment

Horizontal

Vertical

Update Frames ⌘⌘=

Update Constraints ⌘=

Add Missing Constraints

Reset to Suggested Constraints ⌘⌘⌘=

Clear Constraints ⌘⌘=

- Update All Frames in View Controller
- Update All Constraints in View Controller
- Add Missing Constraints in View Controller
- Reset to Suggested Constraints in View Controller
- Clear All Constraints in View Controller



Asset Catalog



Image Slicing

Demo

Moving your app to iOS 7

Jon Hess



Compiler and Language

Apple LLVM

llvm-gcc 4.2

Apple LLVM 5



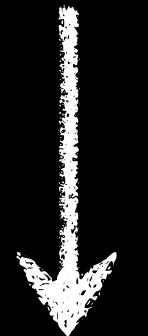
.m

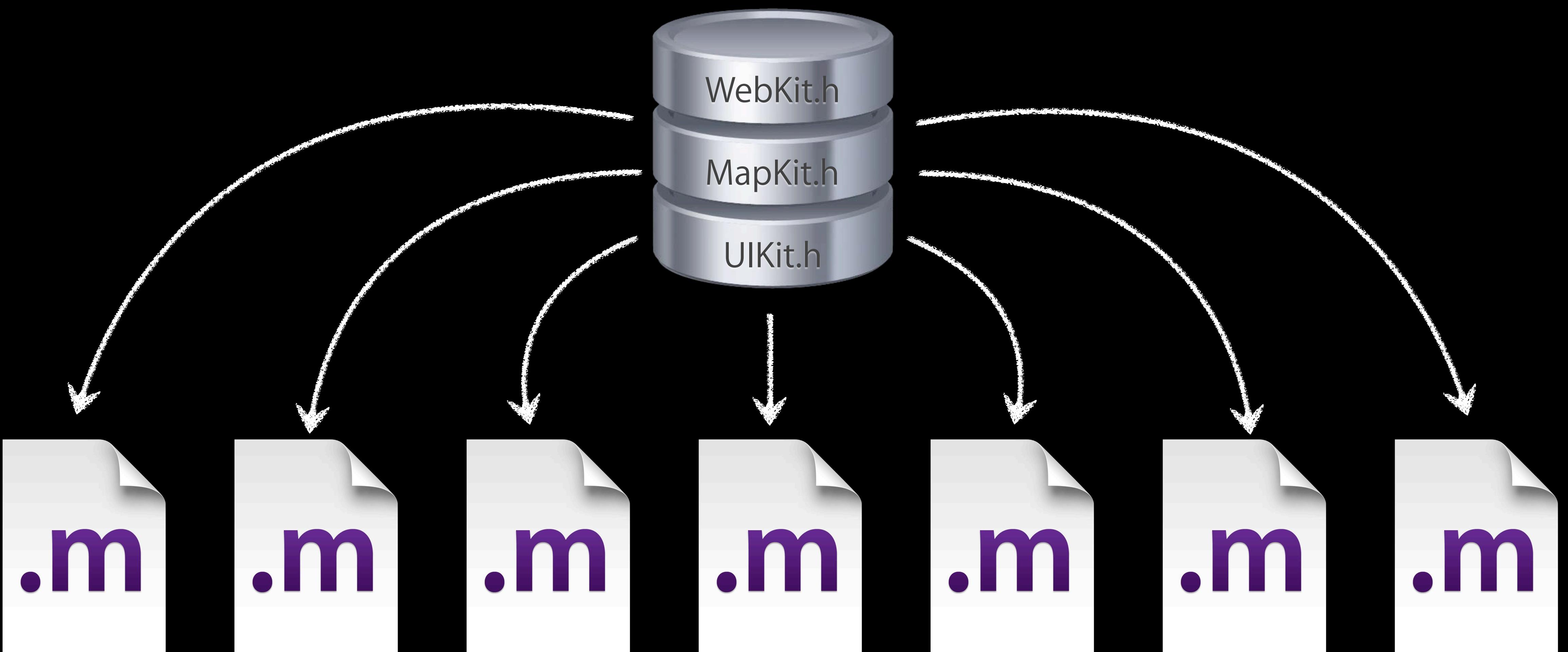


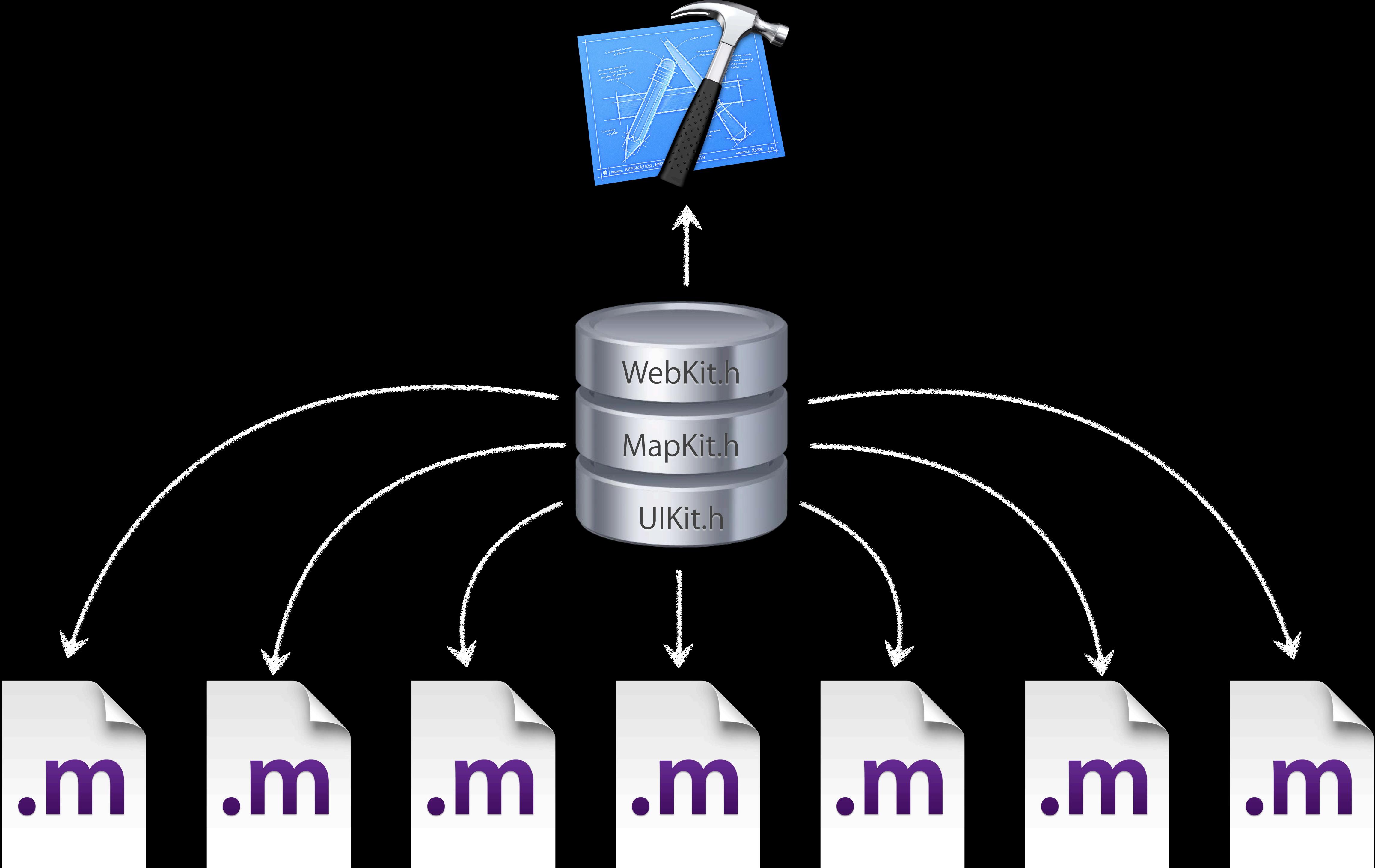


Modules











Reduced .pch management

Automatically link frameworks

Faster build, analyze & index

2.3X



Generalized attributes

User-defined literals

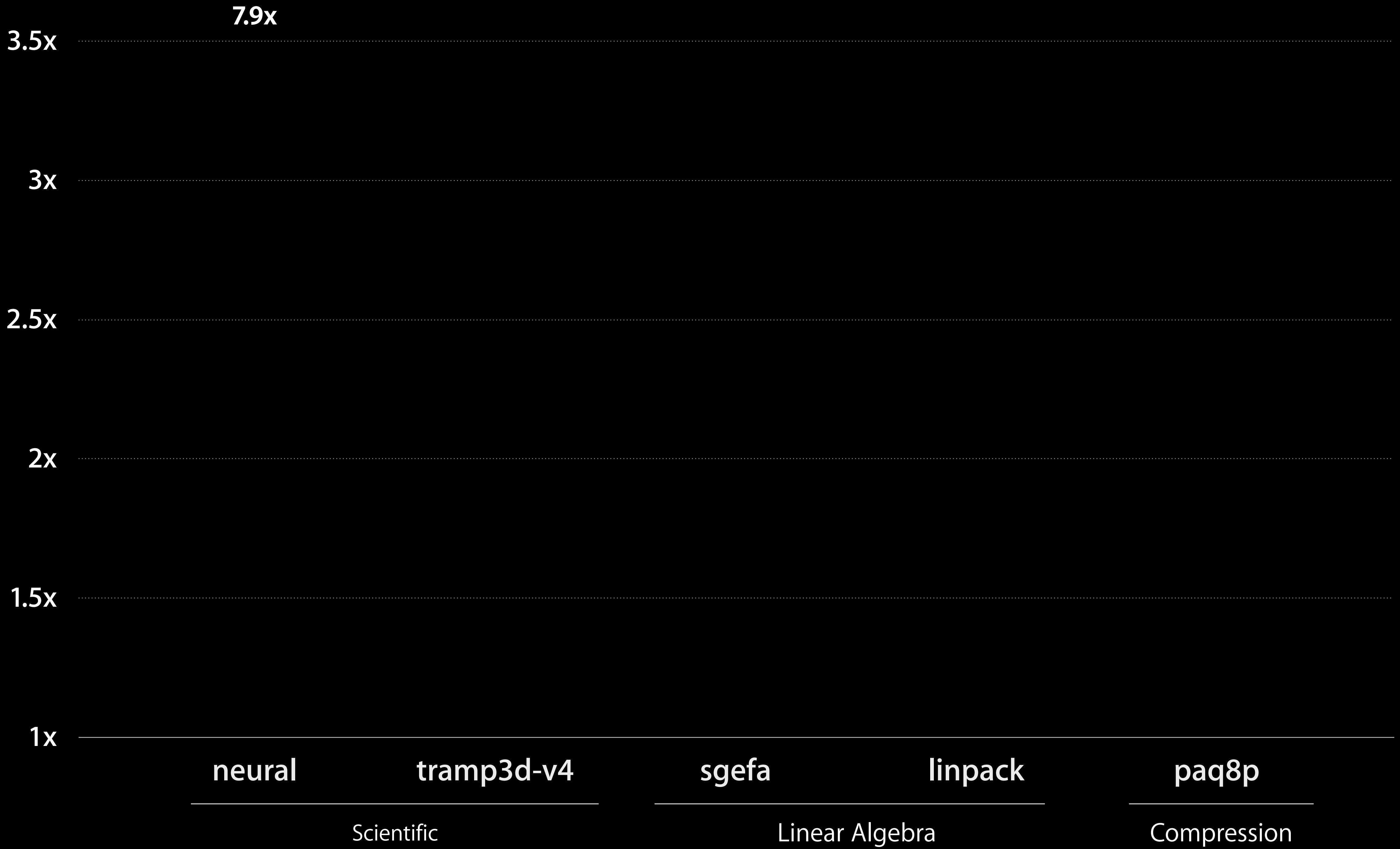
Inheriting constructors

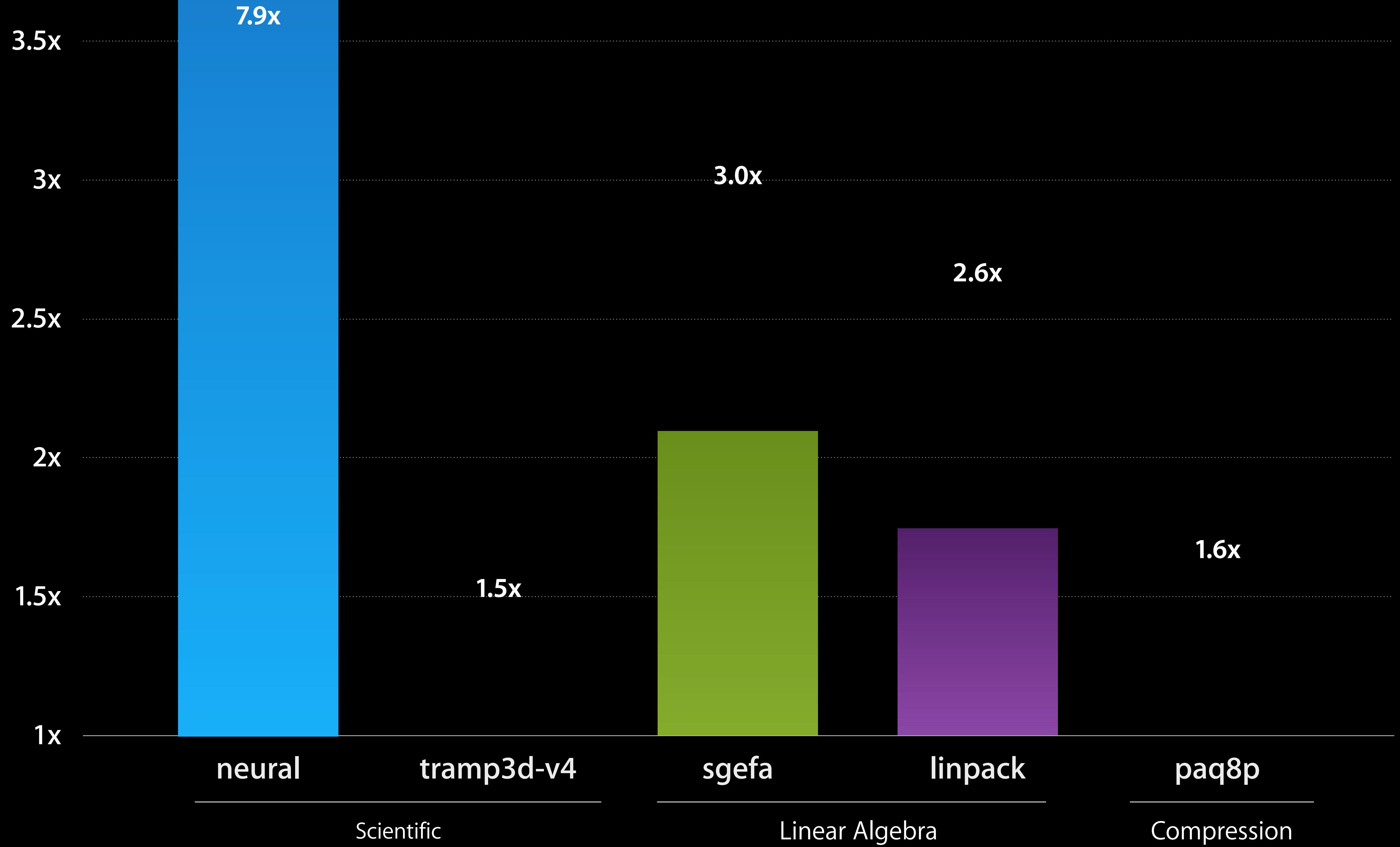
Alignment - alignof/alignas

Unrestricted unions

UCNs in literals

Auto-Vectorizer







Built right into OS X

No additional download

Unix tools upgraded with Xcode

```
/*! My custom code to remove evil strings from otherwise nice arrays.  
 * \param myArray An array that has some nasty string hiding inside  
 * \param myString A nasty string that must be removed from the array  
 * \returns A new array, copied from the passed array, minus the string  
 */  
- (NSArray*)filterArray:(NSArray*)myArray withString:(NSString*)myString;
```

```
/*! My custom code to remove evil strings from otherwise nice arrays.  
 * \param myArray An array that has some nasty string hiding inside  
 * \param myString A nasty string that must be removed from the array  
 * \returns A new array, copied from the passed array, minus the string  
 */  
- (NSArray*)filterArray:(NSArray*)myArray withString:(NSString*)myString;
```

Declaration `- (NSArray *)filterArray:(NSArray *)myArray withString:(NSString *)myString;`

Description My custom code to remove evil strings from otherwise nice arrays.

Parameters `myArray` An array that has some nasty string hiding inside
`myString` A nasty string that must be removed from the array

Returns A new array, copied from the passed array, minus the string

Declared In [APLMainController.h](#)

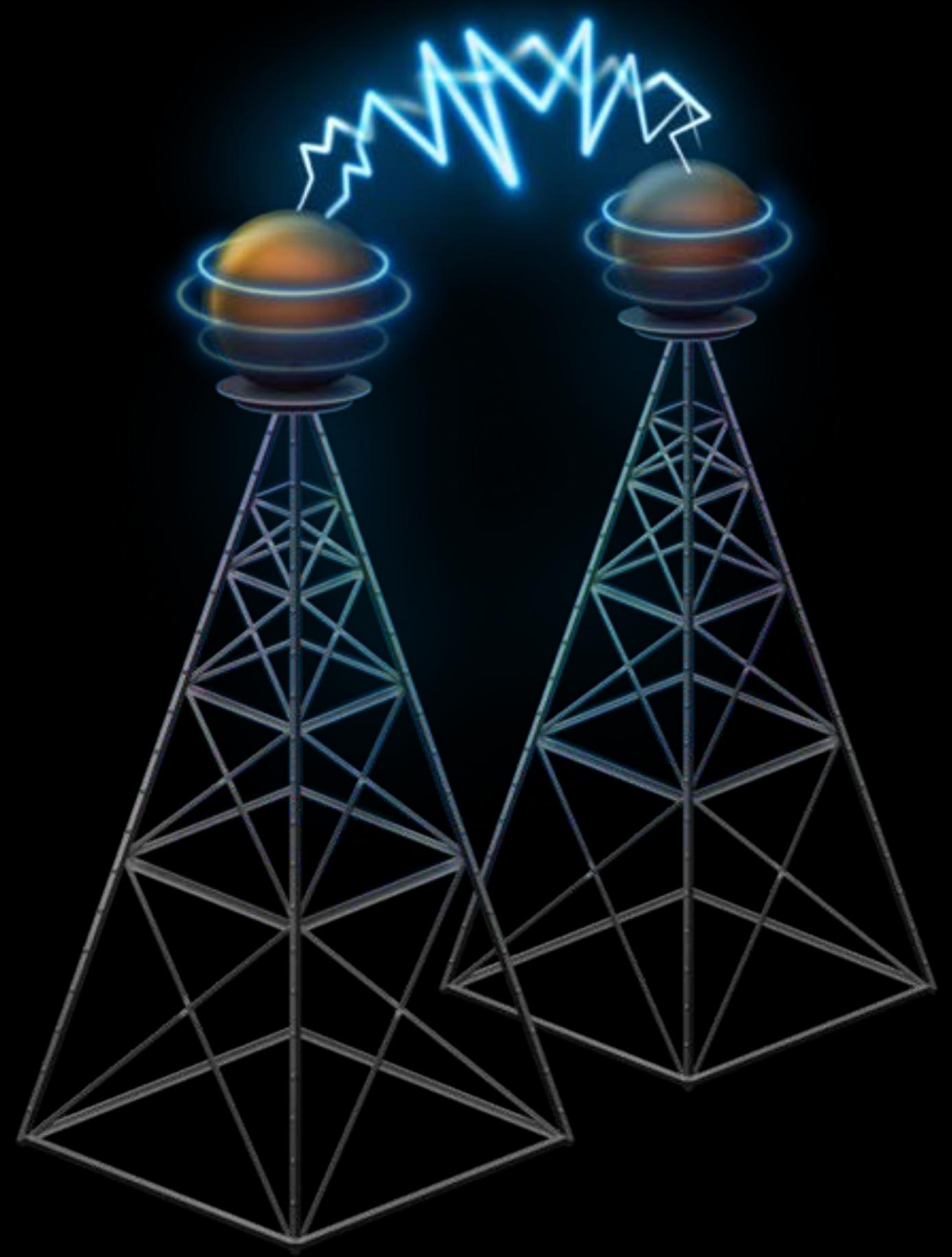


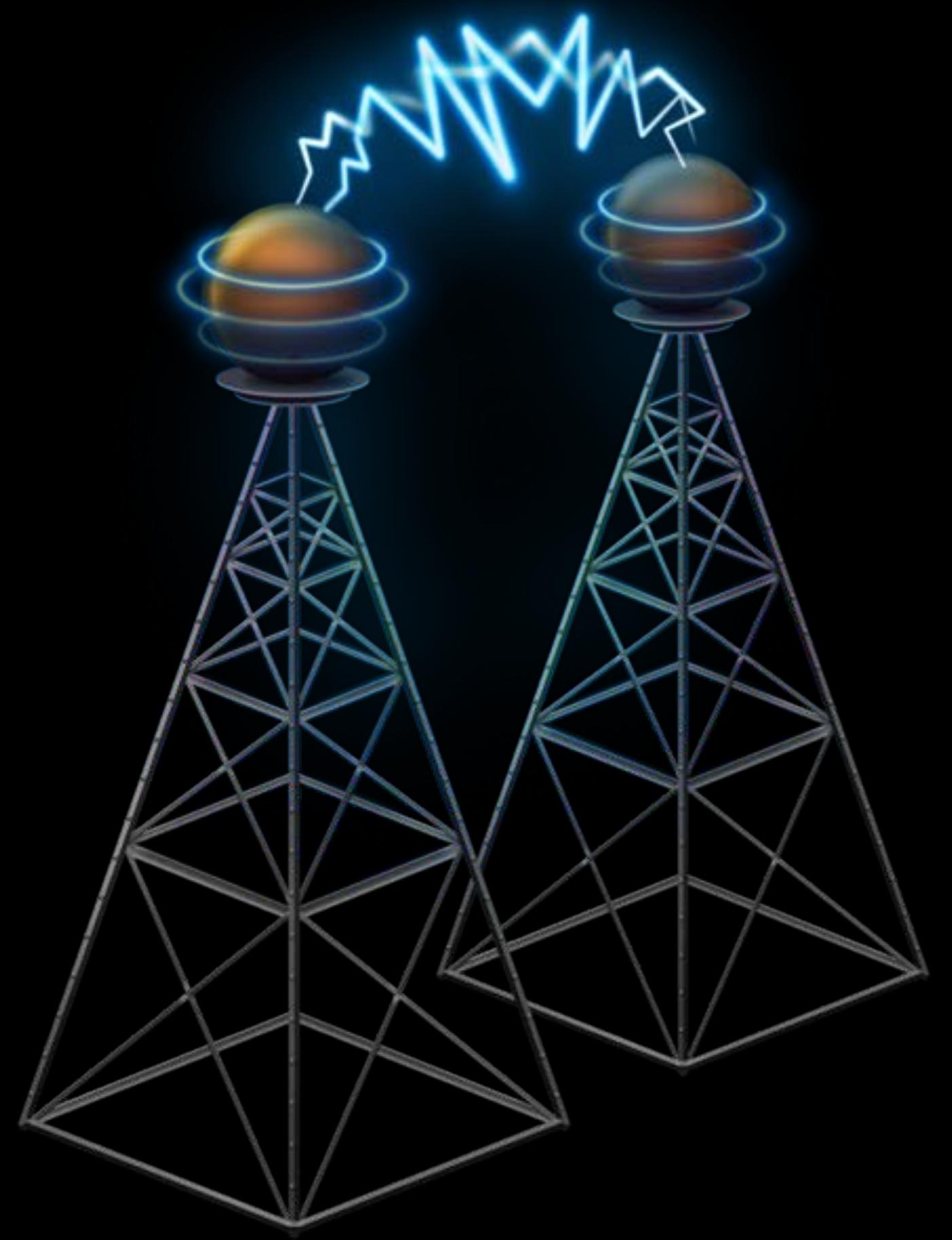
New analysis checks

Deeper Objective-C analysis

C++ constructors

Analyze a single file









Xcode Debugger



gdb



SpinningGlobe.xcodeproj — APLMainController.m

Running SpinningGlobe : SpinningGlobe No Issues

SpinningGlobe PID 33100, Paused

CPU 0% Memory 3.4 MB Energy Use iCloud

Thread 1 Queue: com.apple.main-thread

- 0 -[APLMainController toggleCon...
 - 1 -[APLMainController awakeFrom...
 - 2 -[NSSet makeObjectsPerformSel...
 - 8 NSApplicationMain
 - 9 main
 - 10 start
 - 11 start

Thread 2

Thread 3 Queue: com.apple.libdispatch-manager

Thread 4

Thread 5

Thread 6

```
nsimage
// Show the control box.
[self toggleControlBox];

// Start the Earth rotating.
[self startRotation];
}

/* Sets the status of the UI 'box' that allows the user to control the display of the globe as it spins around
*/
- (void)toggleControlBox
{
    NSBox *controlBox = self.controlBox;

    APLSnapshot *testObject = [APLSnapshot alloc];
    [testObject setup];

    int locationVertical = 200;

    if ([controlBox superview] != self.openGLView) {

        // Determine start & end positions animating the controlBox into view.
        NSRect bounds = [self.openGLView bounds];
        NSPoint endOrigin = NSMakePoint(0.5 * (NSWidth(bounds) - NSWidth([controlBox frame])), 24.0);
        NSPoint startOrigin = NSMakePoint(endOrigin.x, -NSHeight([controlBox frame]));

        // Position the controlBox outside the openGLView's bounds, and make it initially fully transparent.
        [controlBox setFrameOrigin:startOrigin];
        [self.openGLView addSubview:controlBox];
        [controlBox setAlphaValue:0.0];

        // Now animate the controlBox into view and simultaneously fade it in.
        [NSAnimationContext beginGrouping];
        [[NSAnimationContext currentContext] setDuration:0.5];
        [[controlBox animator] setAlphaValue:1.0];
        [[controlBox animator] setFrameOrigin:endOrigin];
        [NSAnimationContext endGrouping];
    }
    else {
        [controlBox removeFromSuperview];
    }

    printf("locationVertical = %i\n", locationVertical);
}

- (NSArray*)filterArray:(NSArray*)myArray withString:(NSString*)myString{
{
    printf("Yep, stuff is now clean.\n");
    return myArray;
}

- (void)prepareToExit
{
    NSArray* testArray = @[@"hello", @"I", @"must", @"be", @"going"];
}
```

Thread 1: breakpoint 1.1

SpinningGlobe > Thread 1 > 0 -[APLMainController toggleControlBox]

SpinningGlobe.xcodeproj — APLMainController.m

Running SpinningGlobe : SpinningGlobe No Issues

SpinningGlobe > My Mac 64-bit

SpinningGlobe Source > APLMainController.m > -toggleControlBox

Find: nsimage

SpinningGlobe PID 33100, Paused

CPU 0% Memory 3.4 MB Energy Use iCloud

Thread 1 Queue: com.apple.main-thread

- 0 -[APLMainController toggleCon... (selected)
- 1 -[APLMainController awakeFrom... (disabled)
- 2 -[NSSet makeObjectsPerformSel... (disabled)

8 NSApp 9 main 10 start 11 start

Thread 2

Thread 3 Queue: com.apple.libdispatch-manager

Thread 4

Thread 5

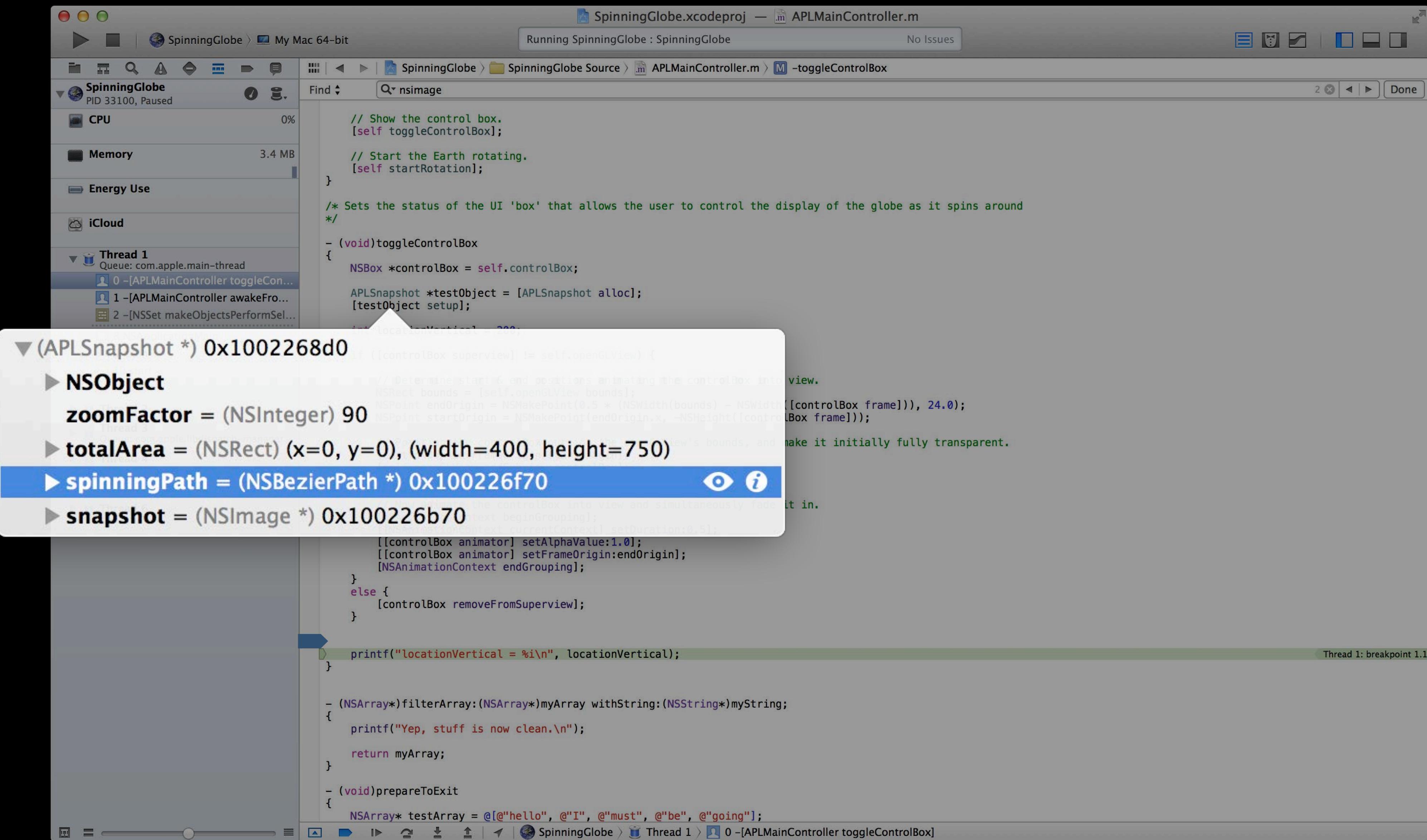
Thread 6

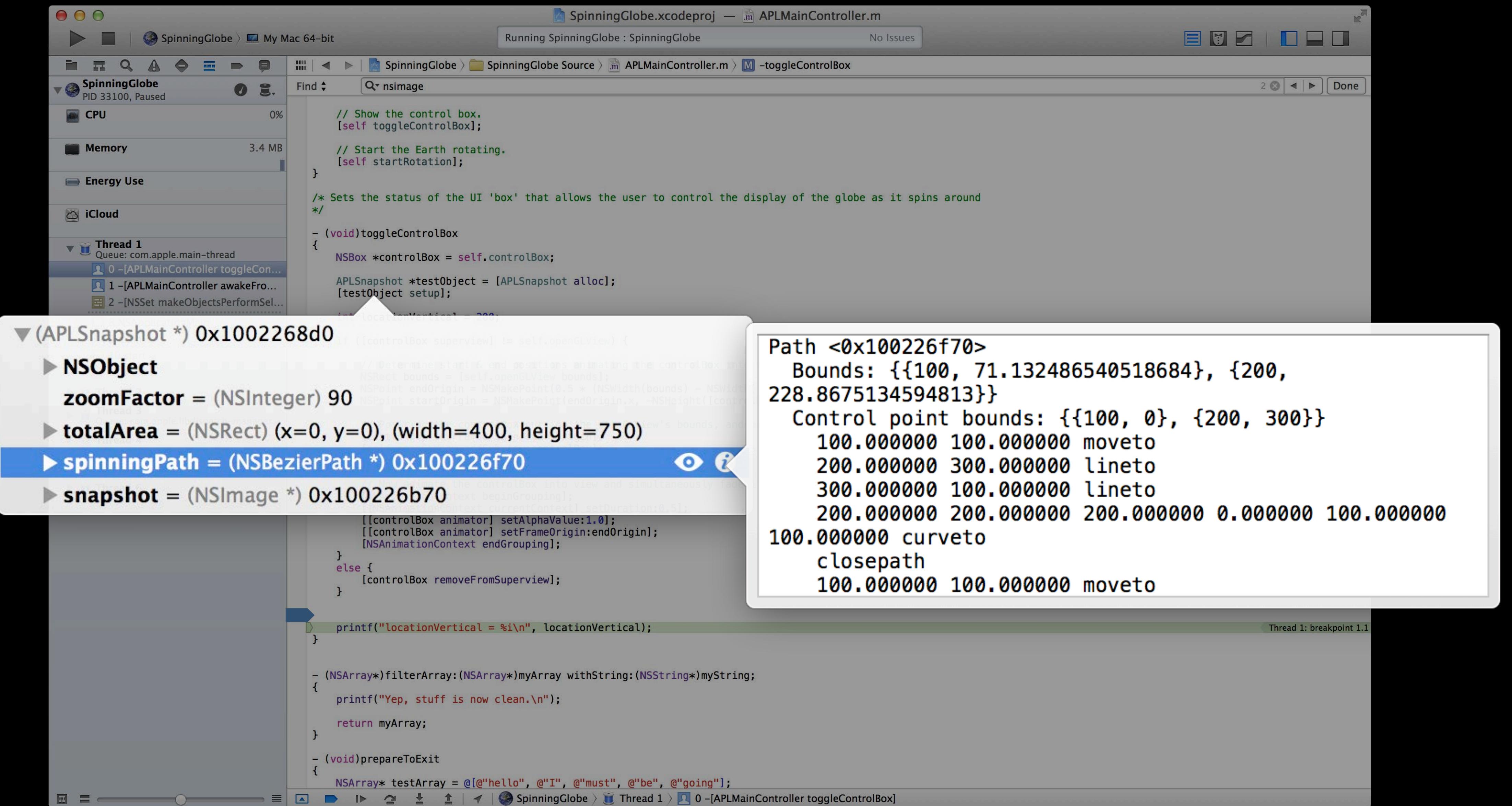
(APLSnapshot *) 0x1002268d0

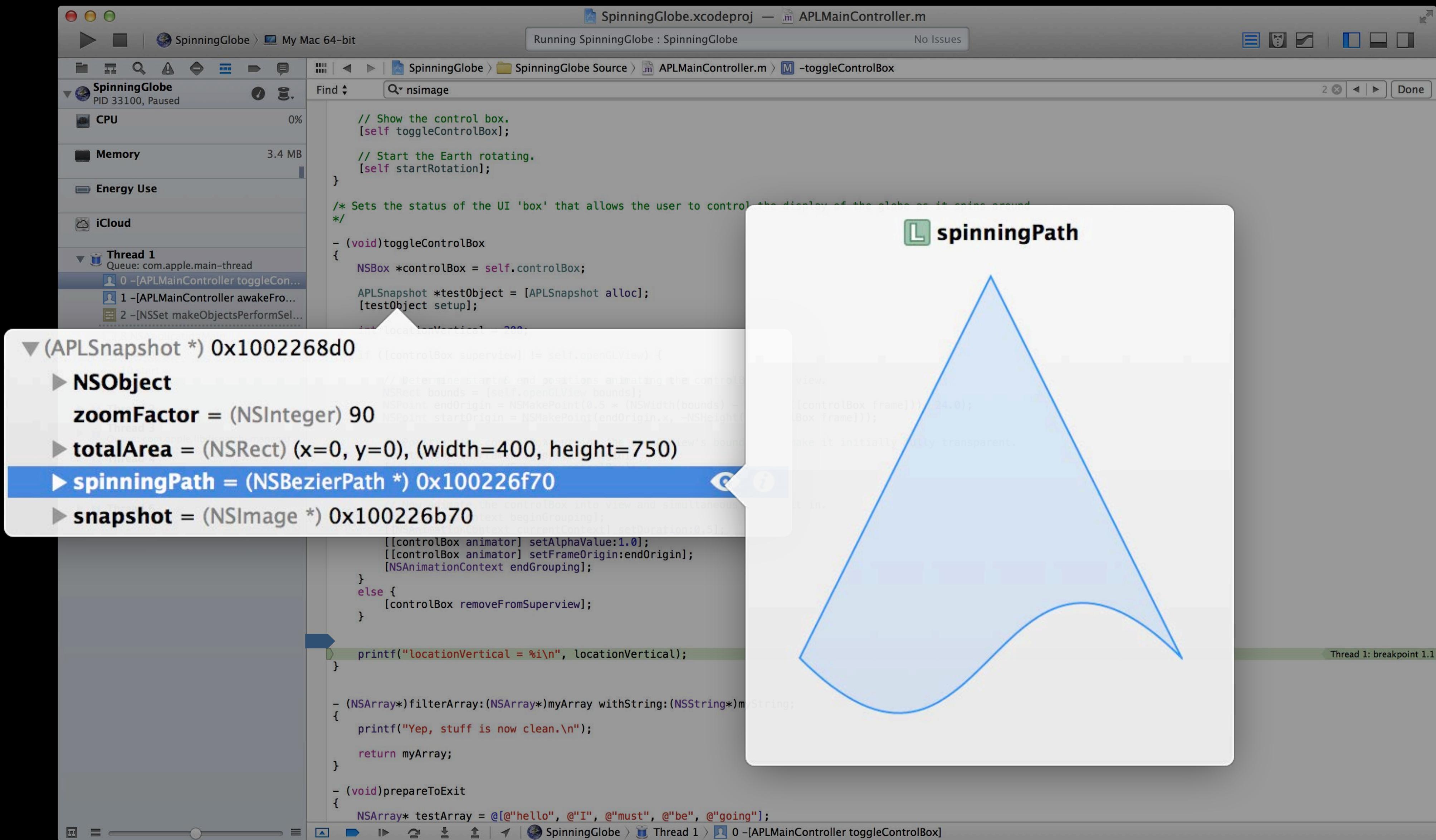
```
// Show the control box.  
[self toggleControlBox];  
  
// Start the Earth rotating.  
[self startRotation];  
}  
  
/* Sets the status of the UI 'box' that allows the user to control the display of the globe as it spins around  
*/  
  
- (void)toggleControlBox  
{  
    NSBox *controlBox = self.controlBox;  
  
    APLSnapshot *testObject = [APLSnapshot alloc];  
    [testObject setup];  
  
    // Determine start & end positions animating the controlBox into view.  
    NSRect bounds = [self.openglView bounds];  
    NSPoint endOrigin = NSMakePoint(0.5 * (NSWidth(bounds) - NSWidth([controlBox frame])), 24.0);  
    NSPoint startOrigin = NSMakePoint(endOrigin.x, -NSHeight([controlBox frame]));  
  
    // Position the controlBox outside the OpenGLView's bounds, and make it initially fully transparent.  
    [controlBox setFrameOrigin:startOrigin];  
    [self.openglView addSubview:controlBox];  
    [controlBox setAlphaValue:0.0];  
  
    // Now animate the controlBox into view and simultaneously fade it in.  
    [NSAnimationContext beginGrouping];  
    [[NSAnimationContext currentContext] setDuration:0.5];  
    [[controlBox animator] setAlphaValue:1.0];  
    [[controlBox animator] setFrameOrigin:endOrigin];  
    [NSAnimationContext endGrouping];  
}  
else {  
    [controlBox removeFromSuperview];  
}  
  
printf("locationVertical = %i\n", locationVertical);  
}  
  
- (NSArray*)filterArray:(NSArray*)myArray withString:(NSString*)myString;  
{  
    printf("Yep, stuff is now clean.\n");  
    return myArray;  
}  
  
- (void)prepareToExit  
{  
    NSArray* testArray = @[@"hello", @"I", @"must", @"be", @"going"];  
}
```

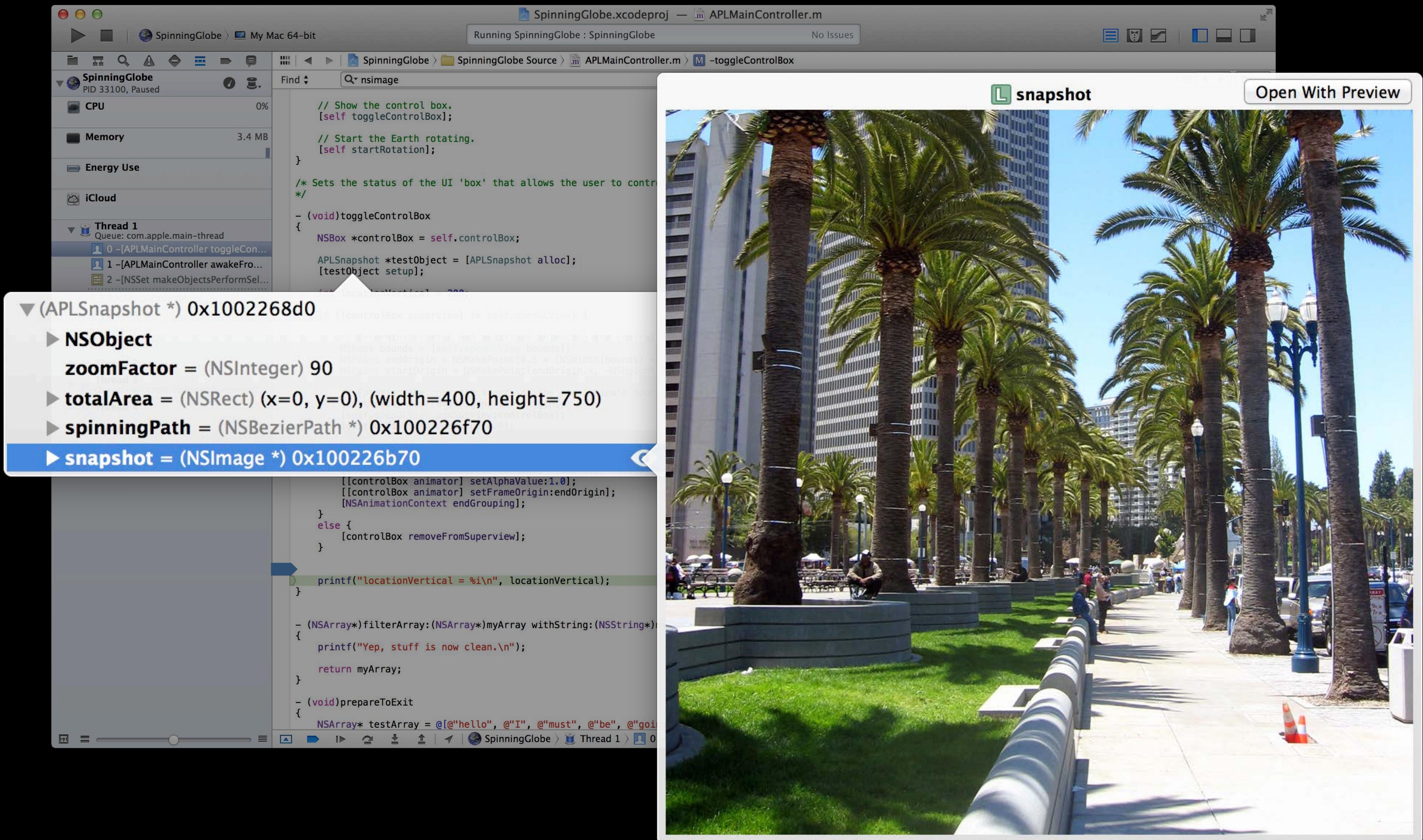
Thread 1: breakpoint 1.1

SpinningGlobe > Thread 1 > 0 -[APLMainController toggleControlBox]











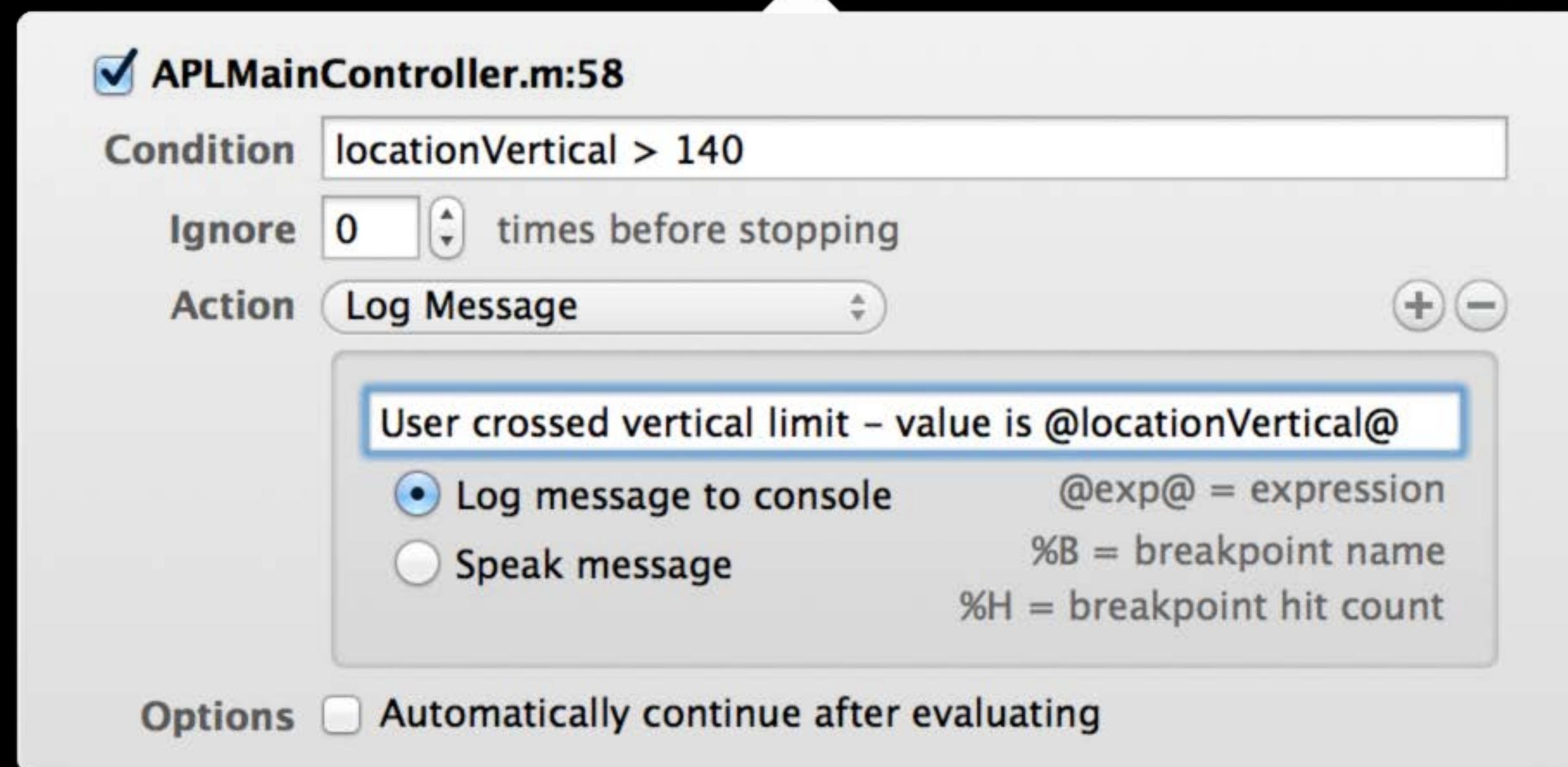
APLMainController.m:68

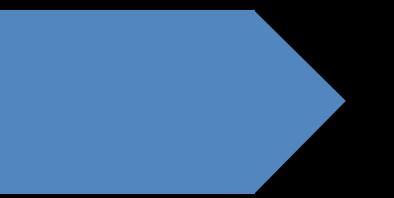
Condition `locationVertical > 140`

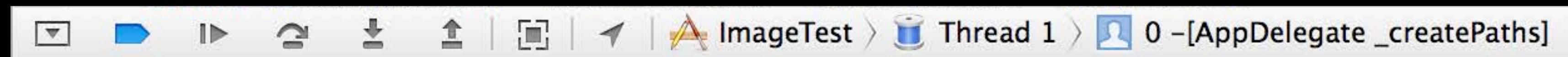
Ignore times before stopping

Action

Options Automatically continue after evaluating









Hot News

Apple's App Store Marks Historic 50 Billionth Download

May 16, 2013

CUPERTINO, California—May 16, 2013—Apple® today announced that customers have downloaded over 50 billion apps* from the revolutionary App Store™. Customers are downloading more than 800 apps per second at a rate of over two billion apps per month on the App Store. The 50 billionth app was Say the Same Thing by Space Inch, LLC, which was downloaded by Brandon Ashmore from Mentor, Ohio who received a \$10,000 App Store Gift Card to commemorate this historic milestone.

“Apple would like to thank our incredible customers and developers for topping 50 billion apps downloaded,” said Eddy Cue, Apple’s senior vice president of Internet Software and Services. “The App Store completely transformed how people use their mobile devices and created a thriving app ecosystem that has paid out over nine billion dollars to developers. We’re absolutely floored to cross this milestone in less than five years.”

The App Store opened in July 2008 with 500 apps. Since its introduction, Apple’s incredible developer community has created an app for doing almost everything imaginable on an iPhone®, iPad® and iPod touch®.

1 of 16 unread articles Status: Updated





Hot News

☰ ⌂ ⌃ ⌄ ⌅

🔍

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1 of 16 unread articles Status: Updated

- Show View Frames
- Show Alignment Rectangles
- Show View Drawing
- Show Responsive Scrolling Status





Hot News

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1 of 16 unread articles Status: Updated

- Show View Frames
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1 of 16 unread articles Status: Updated

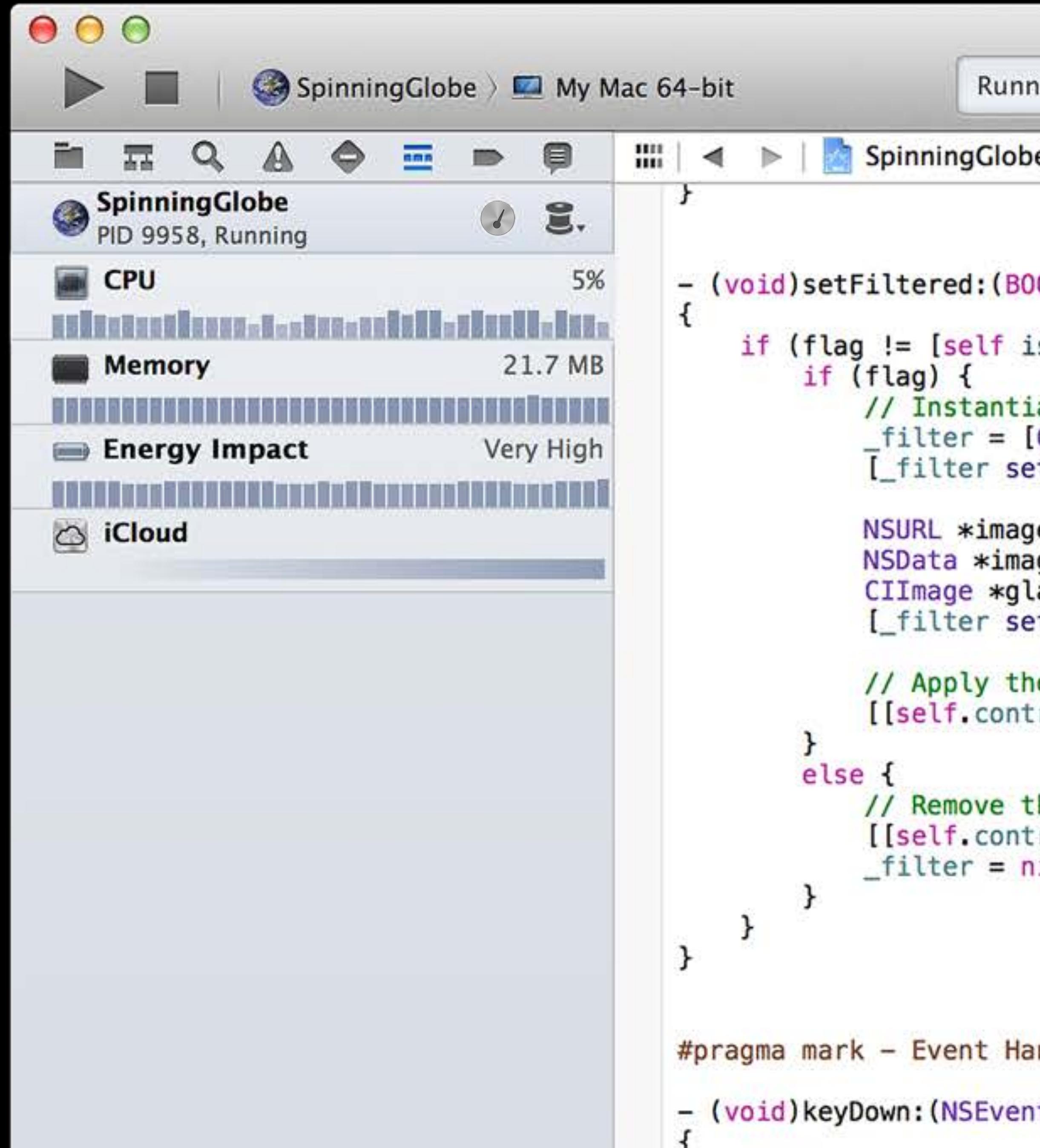
- Show View Frames
- Show Alignment Rectangles
- Show View Drawing
- Show Responsive Scrolling Status



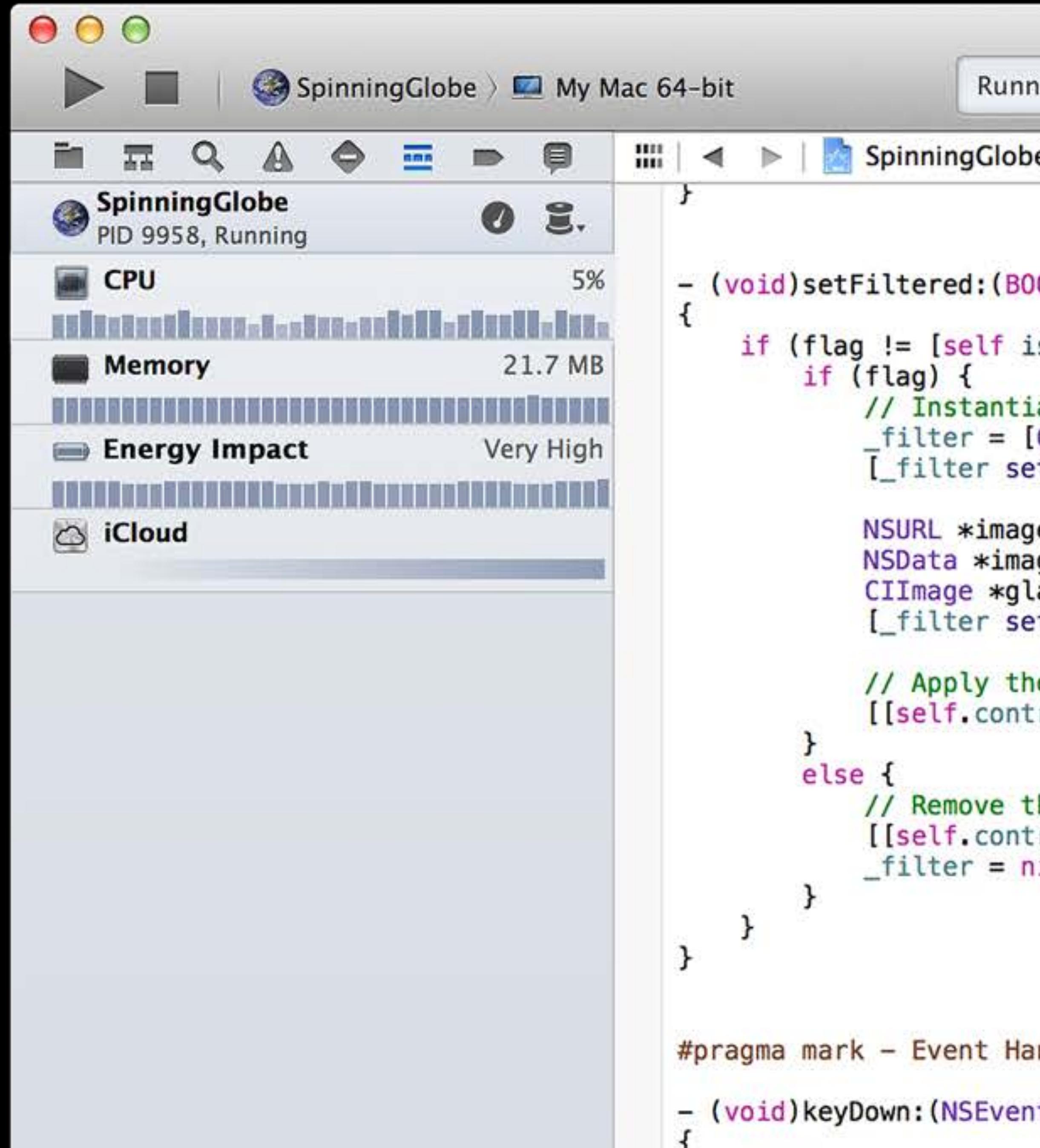


Debug Gauges

CPU
Memory
iCloud
Energy
OpenGL ES



CPU
Memory
iCloud
Energy
OpenGL ES



SpinningGlobe.xcodeproj

Running SpinningGlobe : SpinningGlobe

No Issues

SpinningGlobe PID 9958, Running

CPU 5%

Memory 21.7 MB

Energy Impact Very High

iCloud

```
}

- (void)setFiltered:(BOOL)flag
{
    if (flag != [self isFiltered]) {
        if (flag) {
            // Instantiate a Core Image "Glass Distortion" filter.
            _filter = [CIFilter filterWithName:@"CIGlassDistortion"];
            [_filter setDefaults];

            NSURL *imageUrl = [[NSBundle mainBundle] URLForResource:@"smoothtexture" withExtension:@"png"];
            NSData *imageData = [NSData dataWithContentsOfURL:imageUrl];
            CIImage *glassImage = [CIImage imageWithData:imageData];
            [_filter setValue:glassImage forKey:@"inputTexture"];

            // Apply the glass distortion to filter the OpenGLView content that's rendered behind the controlBox.
            [[self.controlBox animator] setBackgroundFilters:@[_filter]];
        }
        else {
            // Remove the filter and discard our pointer to it.
            [[self.controlBox animator] setBackgroundFilters:nil];
            _filter = nil;
        }
    }
}

#pragma mark - Event Handling

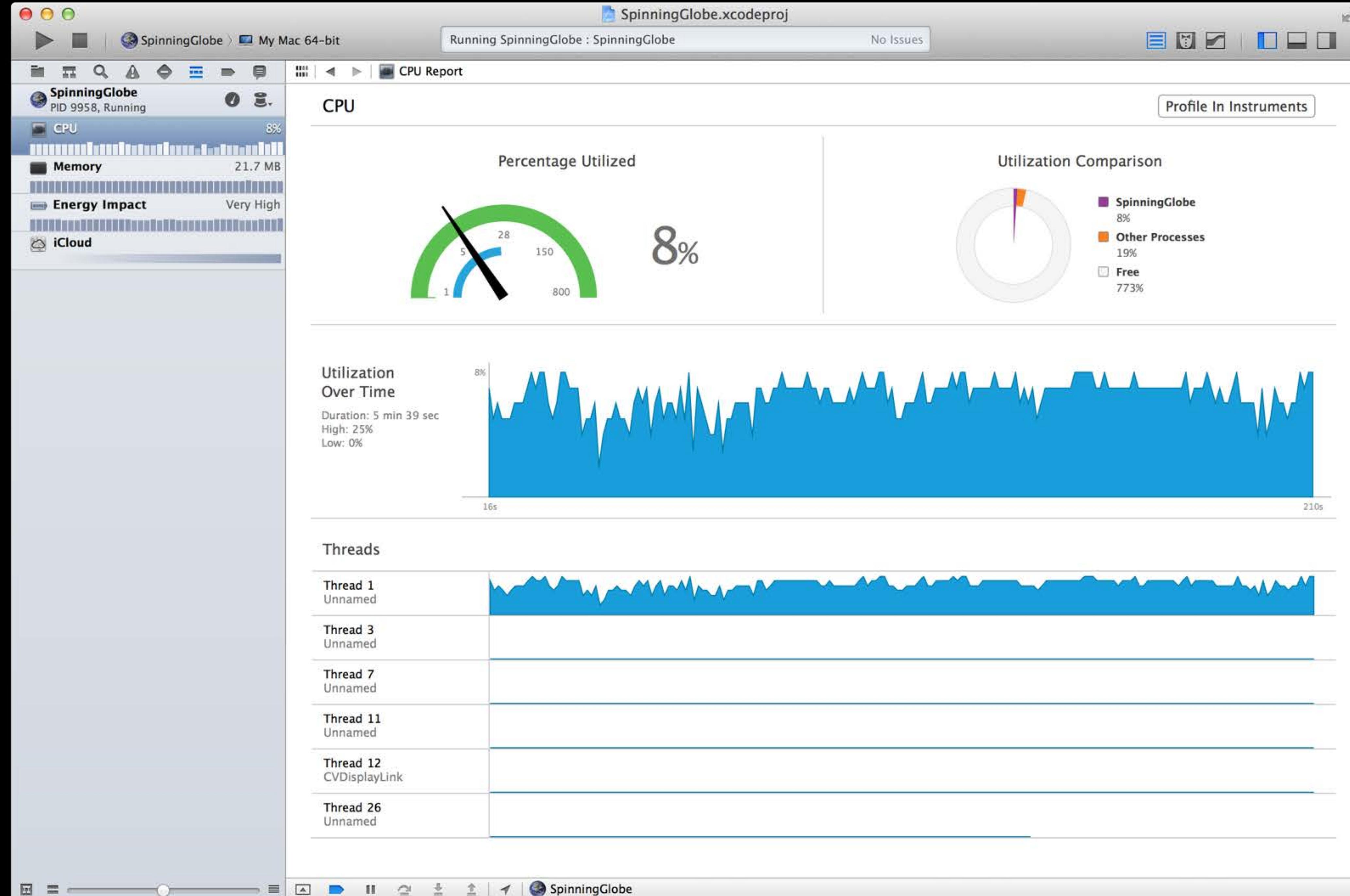
- (void)keyDown:(NSEvent *)event
{
    APLScene *scene = [self.openGLView scene];
    unichar c = [[event charactersIgnoringModifiers] characterAtIndex:0];
    switch (c) {

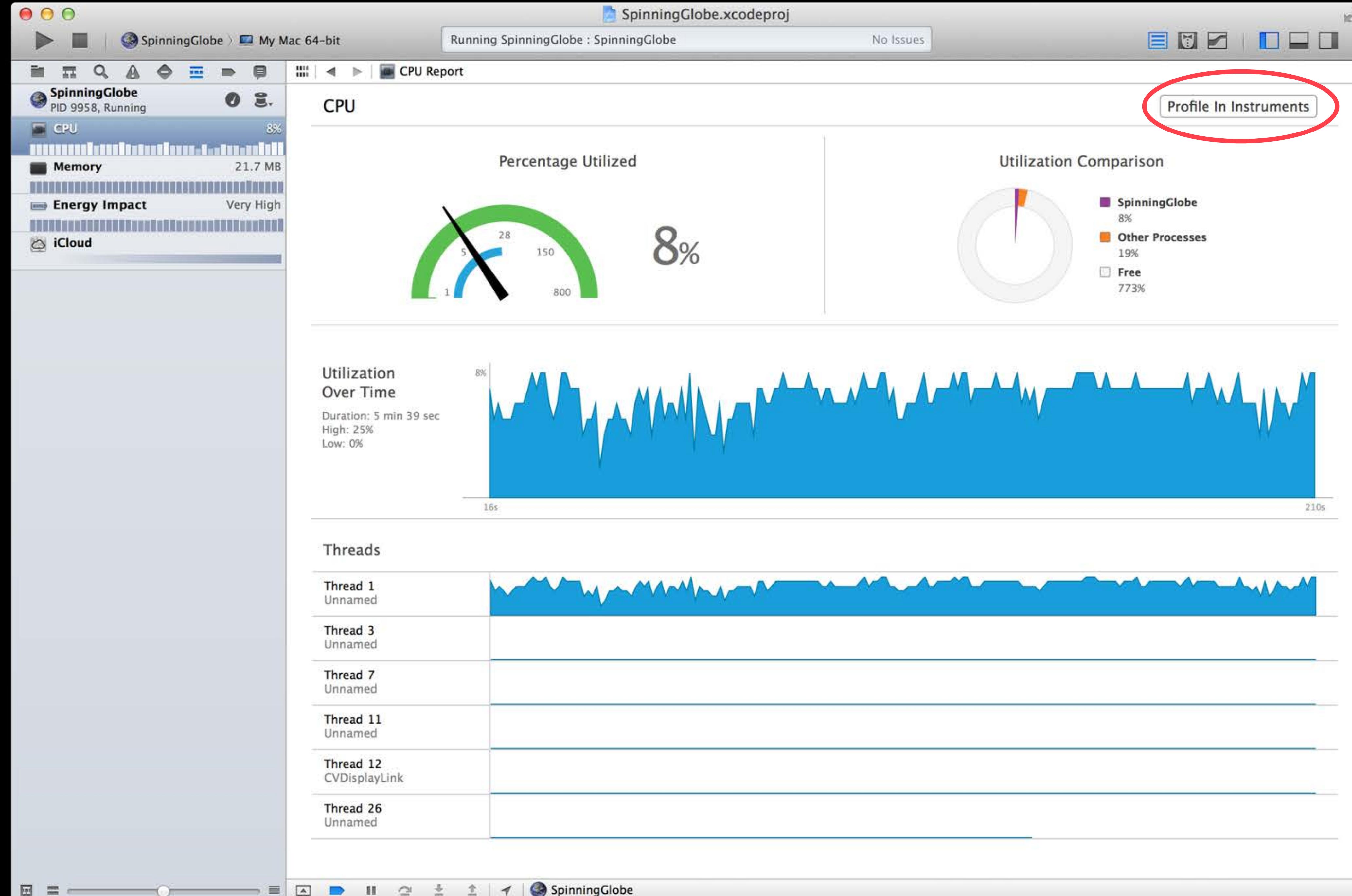
        // [space] toggles rotation of the globe.
        case 32:
            [self toggleRotation];
            break;

        // [W] toggles wireframe rendering
        case 'w':
        case 'W':
            [scene toggleWireframe];
            [self.openGLView setNeedsDisplay:YES];
            break;

        // [C] toggle displaying the control box
        case 'c':
        case 'C':
            [self toggleControlBox];
            break;

        default:
            break;
    }
}
```





SpinningGlobe.xcodeproj

Running SpinningGlobe : SpinningGlobe

No Issues

SpinningGlobe PID 9958, Running

CPU 5%

Memory 21.7 MB

Energy Impact High

iCloud

Energy Report

Energy

Utilization



High

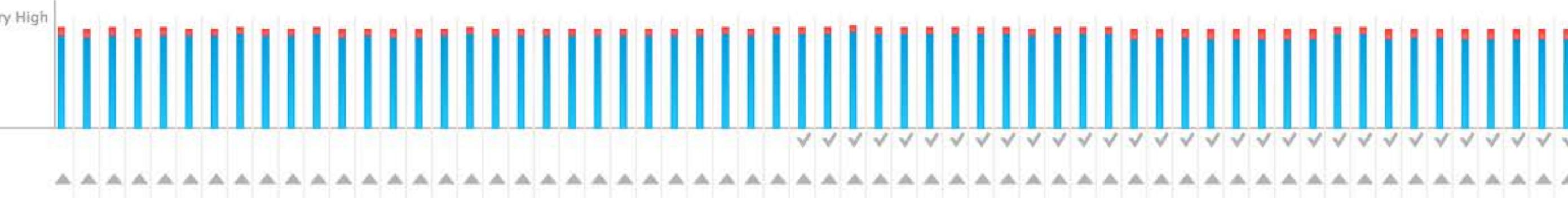
App Nap

60 Wakes Last Second

58 Avg Per Second



Energy Impact



Very High

Utilization CPU Wake Overhead

✓ App Nap

To allow inactive applications to remain running while minimizing their impact on battery life, the system may lower execution priority and rate limit timers.

Track App Nap

✗ Idle Prevention

Maximizing CPU idle time is an important part of energy efficiency. Timers can prevent CPU idle and should be avoided when other alternatives are available.

Find Timers

Find Polling

▲ CPU Wake Overhead

System idle is an important part of using energy. Timers can prevent system idle and should be avoided when possible. Timers can be found using instruments. Detected in 5% of samples.

Micro Time Profile

SpinningGlobe

Demo

Debugging enhancements

Ken Orr





Test Navigator

Jogr.xcworkspace — JoggerTests.m

Build Jogger_iOS: Succeeded | Today at 7:25 PM

Jogger_iOSTests

ChallengeTests

- t testChallengeCreate ✓
- t testChallengeBestTimes ✓
- t testChallengeSend ✓
- t testChallengeAccept ✓
- t testChallengeMet ✓

JoggerTests

- t testJoggerIdentity ✓
- t testJogManagerAddition ✓
- t testJoggerModification ✓
- t testJogManagerRemoval ✓

JogManagerTests

- t testSharedJogManagerInstance ✓

JogTests

- t testJogIdentity ✓
- t testJogModelAddition ✓
- t testJogModification ✓
- t testJogModelRemoval ✓

RouteTests

- t testRouteModification ✘
- t testRouteModelRemoval ✓
- t testRouteIdentity ✘
- t testRouteModelAddition ✘

```
// JoggerTests.m
//
// Created by Johnny Appleseed on 5/29/13.
// Copyright (c) 2013 Apple. All rights reserved.
//

#import <XCTest/XCTest.h>
#import "Jogger.h"
#import "JogManager.h"

@interface JoggerTests : XCTestCase

@end

@implementation JoggerTests

- (void)testJoggerIdentity {
    Jogger *jogger = [[Jogger alloc] initWithName:@"Mike"];

    XCTAssertEqualObjects(jogger.name, @"Mike");
}

- (void)testJogManagerAddition {
    JogManager *model = [JogManager sharedJogManager];
    Jogger *jogger = [[Jogger alloc] initWithName:@"Mike"];

    // Add a jogger to the model.
    [model.mutableJoggers addObject:jogger];
    XCTAssertEqualObjects(jogger, [model joggerWithName:@"Mike"]);
    XCTAssertEqualObjects(model.joggers, ([NSSet setWithObjects:jogger, nil]));

    // Add another
    Jogger *jogger2 = [[Jogger alloc] initWithName:@"Jane"];

    [model.mutableJoggers addObject:jogger2];
    XCTAssertEqualObjects(jogger, [model joggerWithName:@"Mike"]);
    XCTAssertEqualObjects(jogger2, [model joggerWithName:@"Jane"]);
    XCTAssertEqualObjects(model.joggers, ([NSSet setWithObjects:jogger, jogger2, nil]));

    // Add the same jogger again.
    [model.mutableJoggers addObject:jogger2];
    XCTAssertEqualObjects(jogger, [model joggerWithName:@"Mike"]);
    XCTAssertEqualObjects(jogger2, [model joggerWithName:@"Jane"]);
    XCTAssertEqualObjects(model.joggers, ([NSSet setWithObjects:jogger, jogger2, nil]));

    [model.mutableJoggers removeAllObjects];
}

- (void)testJoggerModification {
    Jogger *jogger = [[Jogger alloc] initWithName:@"Mike"];

    jogger.name = @"Speedy";
    XCTAssertEqualObjects(jogger.name, @"Speedy");
}

- (void)testJogManagerRemoval {
}

@end
```

Jogr iOS > iPhone

```
// JoggerTests.m
// Created by John on 12/17/12.
// Copyright (c) 2012 John. All rights reserved.

#import <XCTest/XCTAssert.h>
#import "Jogger.h"
#import "JogManager.h"

@interface JoggerTests : XCTestCase

@end

@implementation JoggerTests

- (void)testJoggerIdentity
{
    Jogger *jogger = [[Jogger alloc] init];
    XCTAssertEqual(jogger.identity, @"John");
}

- (void)testJogManagerAddition
{
    JogManager *manager = [[JogManager alloc] init];
    manager.joggers = [NSMutableArray array];
    [manager.joggers addObject:jogger];
    XCTAssertEqual(manager.joggers[0].identity, @"John");
}

- (void)testJoggerModification
{
    Jogger *jogger = [[Jogger alloc] init];
    jogger.identity = @"John";
    XCTAssertEqual(jogger.identity, @"John");
}

- (void)testJogManagerRemoval
{
    JogManager *manager = [[JogManager alloc] init];
    manager.joggers = [NSMutableArray array];
    [manager.joggers addObject:jogger];
    manager.joggers = nil;
    XCTAssertNil(manager.joggers);
}

- (void)testSharedJogManagerInstance
{
    JogManager *manager = [[JogManager alloc] init];
    manager.joggers = [NSMutableArray array];
    [manager.joggers addObject:jogger];
    JogManager *sharedManager = [[JogManager alloc] init];
    sharedManager.joggers = [NSMutableArray array];
    [sharedManager.joggers addObject:jogger];
    XCTAssertEqual(manager.joggers[0].identity, @"John");
}

- (void)testJogIdentity
{
    Jogger *jogger = [[Jogger alloc] init];
    XCTAssertEqual(jogger.identity, @"John");
}

- (void)testJogModelAddition
{
    Jogger *jogger = [[Jogger alloc] init];
    JogModel *model = [[JogModel alloc] init];
    model.jogger = jogger;
    XCTAssertEqual(model.jogger.identity, @"John");
}

- (void)testJogModification
{
    Jogger *jogger = [[Jogger alloc] init];
    jogger.identity = @"John";
    JogModel *model = [[JogModel alloc] init];
    model.jogger = jogger;
    XCTAssertEqual(model.jogger.identity, @"John");
}

- (void)testJogModelRemoval
{
    Jogger *jogger = [[Jogger alloc] init];
    JogModel *model = [[JogModel alloc] init];
    model.jogger = jogger;
    model.jogger = nil;
    XCTAssertNil(model.jogger);
}

- (void)testRouteModification
{
    Route *route = [[Route alloc] init];
    route.model = [JogModel model];
    route.model.jogger = [Jogger model];
    route.model.jogger.identity = @"John";
    XCTAssertEqual(route.model.jogger.identity, @"John");
}

- (void)testRouteModelRemoval
{
    Route *route = [[Route alloc] init];
    route.model = [JogModel model];
    route.model.jogger = nil;
    XCTAssertNil(route.model.jogger);
}

- (void)testRouteIdentity
{
    Route *route = [[Route alloc] init];
    route.model = [JogModel model];
    route.model.jogger = [Jogger model];
    route.model.jogger.identity = @"John";
    XCTAssertEqual(route.model.jogger.identity, @"John");
}

- (void)testRouteModelAddition
{
    Route *route = [[Route alloc] init];
    route.model = [JogModel model];
    route.model.jogger = [Jogger model];
    route.model.jogger.identity = @"John";
    XCTAssertEqual(route.model.jogger.identity, @"John");
}
```

Run one
Run some
Run them all

Xcode screenshot showing a test run for 'Jogr iOS' on 'iPhone'. The test tree on the left shows various test cases grouped by category. The 'testJoggerIdentity' method in the 'JoggerTests' class is currently being run, indicated by a play button icon next to it. The status of each test case is shown as a green checkmark (pass) or a red X (fail). The code editor on the right displays the implementation of the 'JoggerTests' class.

```
// JoggerTests.m
// Created by John on 12/10/12.
// Copyright (c) 2012 John. All rights reserved.

#import <XCTest/XCTTest.h>
#import "Jogger.h"
#import "JogManager.h"

@interface JoggerTests : XCTestCase

@end

@implementation JoggerTests

- (void)testJoggerIdentity {
    Jogger *jogger = [[Jogger alloc] init];
    XCTAssertEqual(jogger.identity, @"John");
}

- (void)testJogManagerAddition {
    JogManager *manager = [[JogManager alloc] init];
    [manager addJogger:jogger];
    XCTAssertEqual(manager.joggers.count, 1);
}

- (void)testJoggerModification {
    Jogger *jogger = [[Jogger alloc] init];
    jogger.name = @"John Doe";
    XCTAssertEqual(jogger.name, @"John Doe");
}

- (void)testJogManagerRemoval {
    JogManager *manager = [[JogManager alloc] init];
    [manager addJogger:jogger];
    [manager removeJogger:jogger];
    XCTAssertEqual(manager.joggers.count, 0);
}

- (void)testSharedJogManagerInstance {
    JogManager *manager1 = [[JogManager alloc] init];
    JogManager *manager2 = [[JogManager alloc] init];
    XCTAssertEqual(manager1, manager2);
}

- (void)testJogIdentity {
    Jogger *jogger = [[Jogger alloc] init];
    XCTAssertEqual(jogger.identity, @"John");
}

- (void)testJogModelAddition {
    Jogger *jogger = [[Jogger alloc] init];
    [jogger addJog: @"John"];
    XCTAssertEqual(jogger.jogs.count, 1);
}

- (void)testJogModification {
    Jogger *jogger = [[Jogger alloc] init];
    jogger.jogs[0].distance = 10.0;
    XCTAssertEqual(jogger.jogs[0].distance, 10.0);
}

- (void)testJogModelRemoval {
    Jogger *jogger = [[Jogger alloc] init];
    [jogger addJog: @"John"];
    [jogger removeJog: @"John"];
    XCTAssertEqual(jogger.jogs.count, 0);
}

- (void)testRouteModification {
    Route *route = [[Route alloc] init];
    route.name = @"Route A";
    XCTAssertEqual(route.name, @"Route A");
}

- (void)testRouteModelRemoval {
    Route *route = [[Route alloc] init];
    [route addPoint: @"Point A"];
    [route removePoint: @"Point A"];
    XCTAssertEqual(route.points.count, 0);
}

- (void)testRouteIdentity {
    Route *route = [[Route alloc] init];
    XCTAssertEqual(route.identity, @"Route A");
}

- (void)testRouteModelAddition {
    Route *route = [[Route alloc] init];
    route.name = @"Route A";
    [route addPoint: @"Point A"];
    XCTAssertEqual(route.name, @"Route A");
}
```

Run one
Run some
Run them all

The screenshot shows the Xcode interface with the following details:

- Navigation Bar:** Shows "Jogr iOS" and "iPhone".
- Toolbar:** Includes icons for play, stop, search, and alert.
- Left Sidebar (Test Navigator):** Lists test cases under "Jogger_iOSTests":
 - ChallengeTests:** testChallengeCreate (✓), testChallengeBestTimes (✓), testChallengeSend (✓), testChallengeAccept (✓), testChallengeMet (✓).
 - JoggerTests:** testJoggerIdentity (play icon), testJogManagerAddition (✓), testJoggerModification (✓), testJogManagerRemoval (✓).
 - JogManagerTests:** testSharedJogManagerInstance (✓).
 - JogTests:** testJogIdentity (✓), testJogModelAddition (✓), testJogModification (✓), testJogModelRemoval (✓).
 - RouteTests:** testRouteModification (✗), testRouteModelRemoval (✓), testRouteIdentity (✗), testRouteModelAddition (✗).
- Right Pane (Source Editor):** Displays the code for "JoggerTests.m".

```
// JoggerTests.m
// Created by John on 2/27/13.
//
#import <XCTest/XCT
#import "Jogger.h"
#import "JogManager.h"

@interface JoggerTests : XCTestCase

@end

@implementation JoggerTests

- (void)testJoggerIdentity {
    Jogger *jogger = [[Jogger alloc] init];
    XCTAssertEqual(jogger.identity, @"John");
}

- (void)testJogManagerAddition {
    JogManager *manager = [[JogManager alloc] init];
    manager.joggers = [NSMutableArray array];
    [manager addJogger:jogger];
    XCTAssertEqual(manager.joggers.count, 1);
}

- (void)testJoggerModification {
    Jogger *jogger = [[Jogger alloc] init];
    jogger.name = @"John";
    XCTAssertEqual(jogger.name, @"John");
}

- (void)testJogManagerRemoval {
    JogManager *manager = [[JogManager alloc] init];
    manager.joggers = [NSMutableArray array];
    [manager addJogger:jogger];
    [manager removeJogger:jogger];
    XCTAssertEqual(manager.joggers.count, 0);
}

- (void)testSharedJogManagerInstance {
    JogManager *manager1 = [[JogManager alloc] init];
    JogManager *manager2 = [[JogManager alloc] init];
    XCTAssertEqual(manager1, manager2);
}

- (void)testJogModification {
    Jogger *jogger = [[Jogger alloc] init];
    jogger.name = @"John";
    jogger.age = 30;
    XCTAssertEqual(jogger.name, @"John");
    XCTAssertEqual(jogger.age, 30);
}

- (void)testJogModelAddition {
    Jogger *jogger = [[Jogger alloc] init];
    jogger.name = @"John";
    jogger.age = 30;
    XCTAssertEqual(jogger.name, @"John");
    XCTAssertEqual(jogger.age, 30);
}

- (void)testJogModelRemoval {
    Jogger *jogger = [[Jogger alloc] init];
    jogger.name = @"John";
    jogger.age = 30;
    XCTAssertEqual(jogger.name, @"John");
    XCTAssertEqual(jogger.age, 30);
}

- (void)testRouteModification {
    Route *route = [[Route alloc] init];
    route.name = @"Route A";
    route.distance = 5.0;
    route.duration = 10.0;
    XCTAssertEqual(route.name, @"Route A");
    XCTAssertEqual(route.distance, 5.0);
    XCTAssertEqual(route.duration, 10.0);
}

- (void)testRouteModelRemoval {
    Route *route = [[Route alloc] init];
    route.name = @"Route A";
    route.distance = 5.0;
    route.duration = 10.0;
    XCTAssertEqual(route.name, @"Route A");
    XCTAssertEqual(route.distance, 5.0);
    XCTAssertEqual(route.duration, 10.0);
}

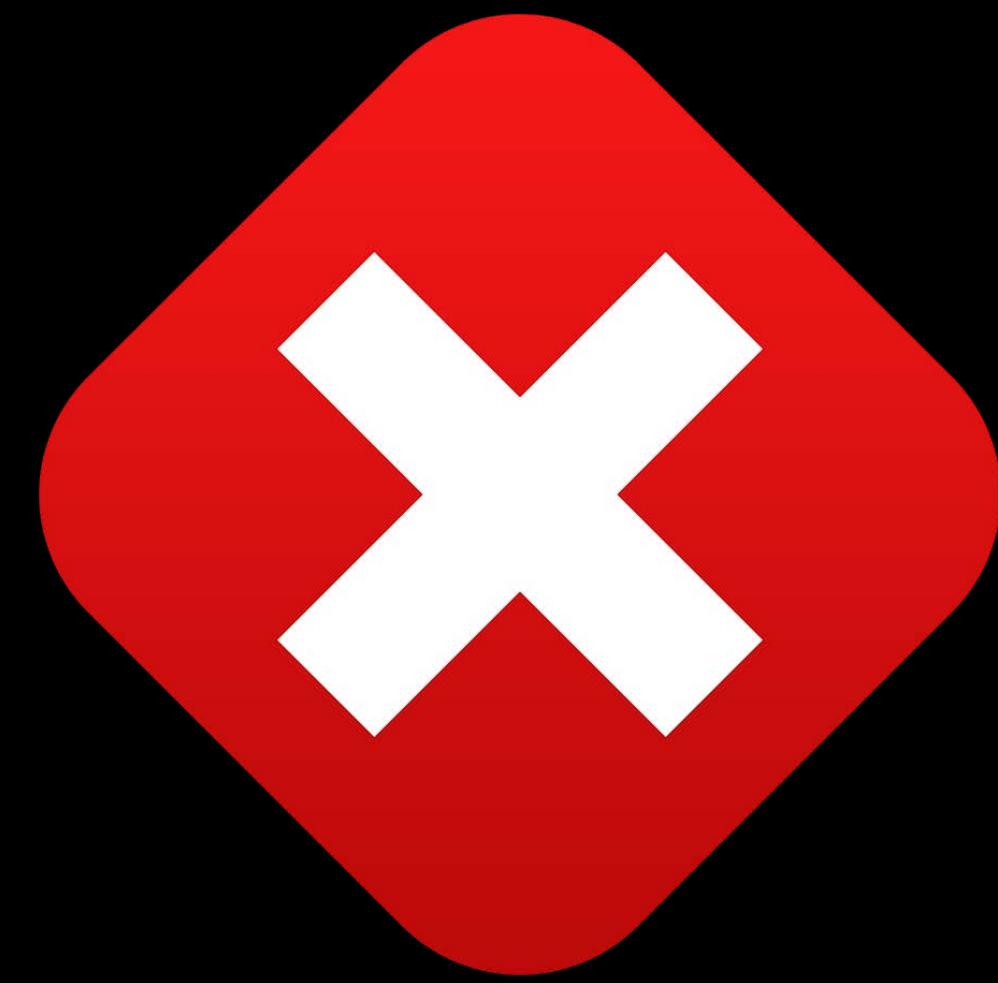
- (void)testRouteIdentity {
    Route *route1 = [[Route alloc] init];
    route1.name = @"Route A";
    Route *route2 = [[Route alloc] init];
    route2.name = @"Route A";
    XCTAssertNotEqual(route1, route2);
}

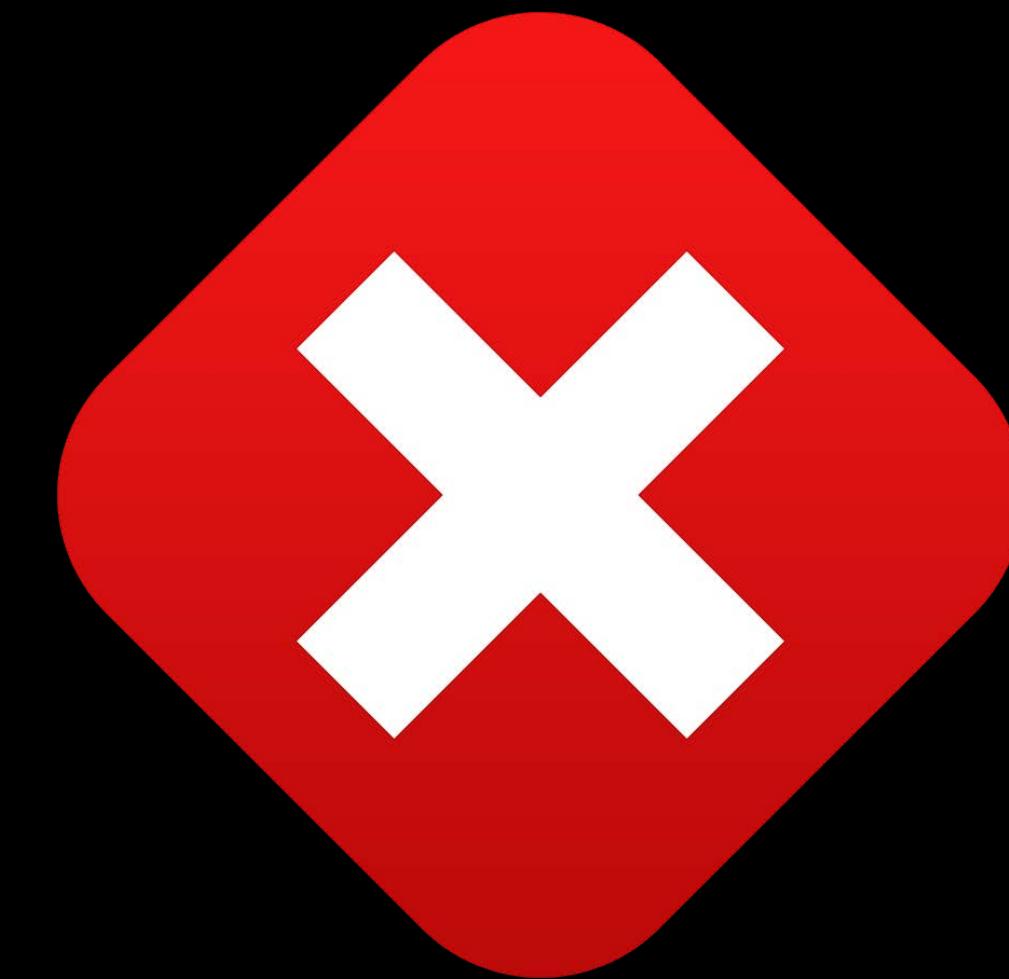
- (void)testRouteModelAddition {
    Route *route = [[Route alloc] init];
    route.name = @"Route A";
    route.distance = 5.0;
    route.duration = 10.0;
    XCTAssertEqual(route.name, @"Route A");
    XCTAssertEqual(route.distance, 5.0);
    XCTAssertEqual(route.duration, 10.0);
}
```

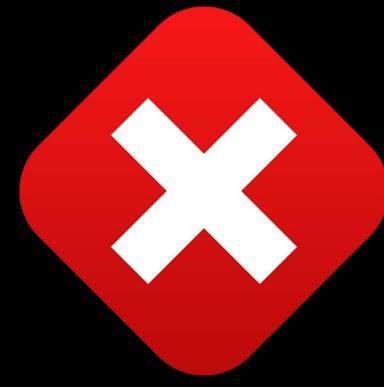


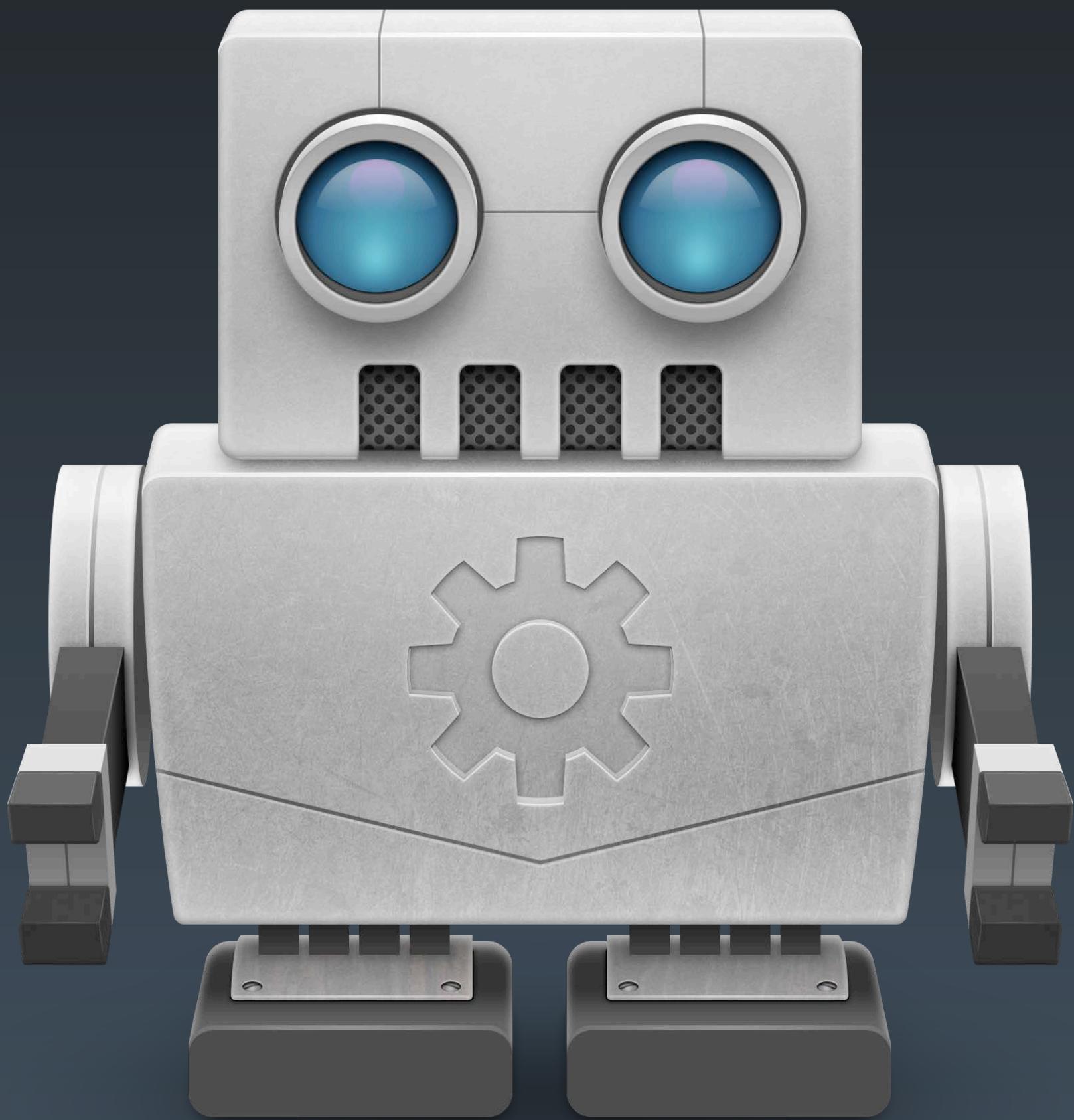
XCTest











Bots

Bubblegum.xcodeproj

Bubblegum: Ready | Today at 1:06 PM

2 1 1

By Group By Time

Project Yesterday, 6:41 PM Push Bubblegum Yesterday, 6:41 PM

Bubblegum Xcode Server Demo

- Integrate (298) Yesterday, 6:41 PM ✘
- Integrate (297) Yesterday, 6:26 PM ✘
- Integrate (296) Yesterday, 6:13 PM
- Integrate (295) Yesterday, 6:12 PM
- Integrate (294) Yesterday, 6:11 PM
- Integrate (293) Yesterday, 6:10 PM
- Integrate (289) Yesterday, 6:06 PM ✘
- Integrate (288) Yesterday, 6:05 PM ✘
- Integrate (287) Yesterday, 6:04 PM ✘
- Integrate (286) Yesterday, 5:54 PM ✘

Load More... 282 more integrations on server

Bubblegum

Integration Results

Finished with test failures

Start: 6/7/13, 6:41 PM Duration: 53 seconds

0 Errors 1 Warning 1 Analysis 4 Tests Failed

Build History

Errors Warnings Analysis Issues

Build history timeline from 267 to 298, showing 'No Issues' periods and issue counts.

Test History

Failure Success

Test history timeline from 267 to 298, showing success and failure counts.

Integration Details

Warnings

Add suggested flavors here some day
Bubblegum — BubblegumFactory.m

Analysis Issues

Value stored to 'flavors' during its initialization is never read
Bubblegum — BubblegumFactory.m

Test Failures

'0' should be equal to '4': Expected 4 flavors after initializing the factory.

Bubblegum.xcodeproj

Bubblegum: Ready | Today at 1:06 PM

2 1 1

By Group By Time

Project Yesterday, 6:41 PM Push Bubblegum Yesterday, 6:41 PM

Bubblegum Xcode Server Demo

Integrate (298) Yesterday, 6:41 PM

Integrate (297) Yesterday, 6:26 PM

Integrate (296) Yesterday, 6:13 PM

Integrate (295) Yesterday, 6:12 PM

Integrate (294) Yesterday, 6:11 PM

Integrate (293) Yesterday, 6:10 PM

Integrate (289) Yesterday, 6:06 PM

Integrate (288) Yesterday, 6:05 PM

Integrate (287) Yesterday, 6:04 PM

Integrate (286) Yesterday, 5:54 PM

Load More... 282 more integrations on server

Test Results

Start: 6/7/13, 6:41 PM Duration: 53 seconds

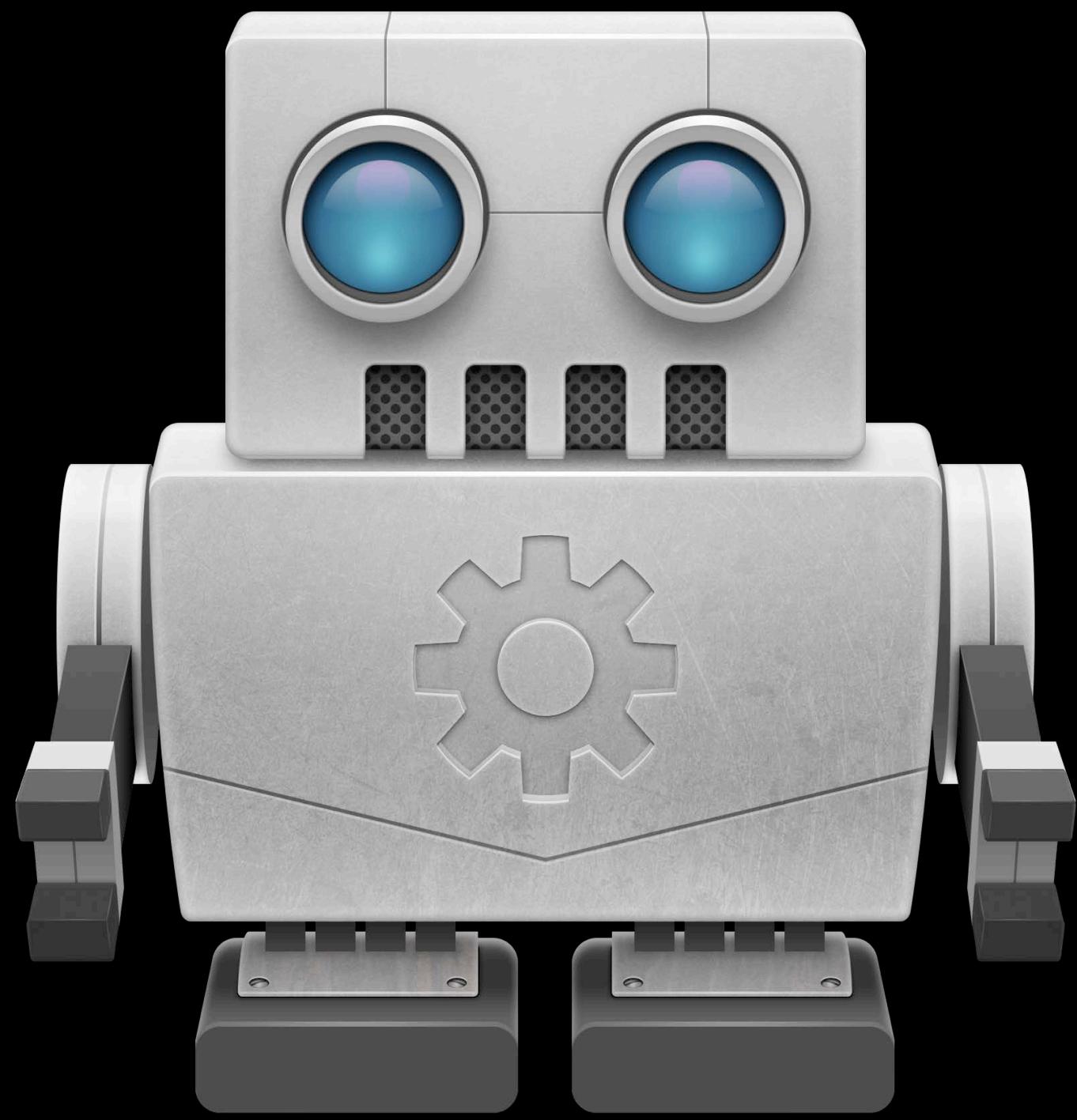
27 Tests Total 23 Tests Passed 4 Tests Failed

Device OS Processor

	Device	iPad mini (Model A1432)	iPod touch (4th generation)	iPod touch (5th generation)
Model	Cheesecake 7.0 / armv7f	Uproar 7.0 / armv7f	Hubhub 6.1.3 / armv7f	Din 6.1.3 / armv7
Tests	27	27	27	27
Failed	4	4	4	4
-[BubblegumTests testSourceDealloc]	✗	✗	✗	✗
-[BubblegumTests testDereference]	✓	✓	✓	✓
-[BubblegumTests testSourceInit]	✗	✗	✗	✗
-[BubblegumTests testInitWithData]	✗	✗	✗	✗
-[BubblegumTests testNil]	✗	✗	✗	✗
-[BubblegumTests testDealloc]	✓	✓	✓	✓
-[BubblegumTests testDeref]	✓	✓	✓	✓
-[BubblegumTests testLocatorDealloc]	✓	✓	✓	✓
-[BubblegumTests testDeref]	✓	✓	✓	✓
-[BubblegumTests PSLocatorInit]	✓	✓	✓	✓
-[BubblegumTests rInitWithData]	✓	✓	✓	✓
-[BubblegumTests rNil]	✓	✓	✓	✓
-[BubblegumTests testInit]	✓	✓	✓	✓

Device Summary

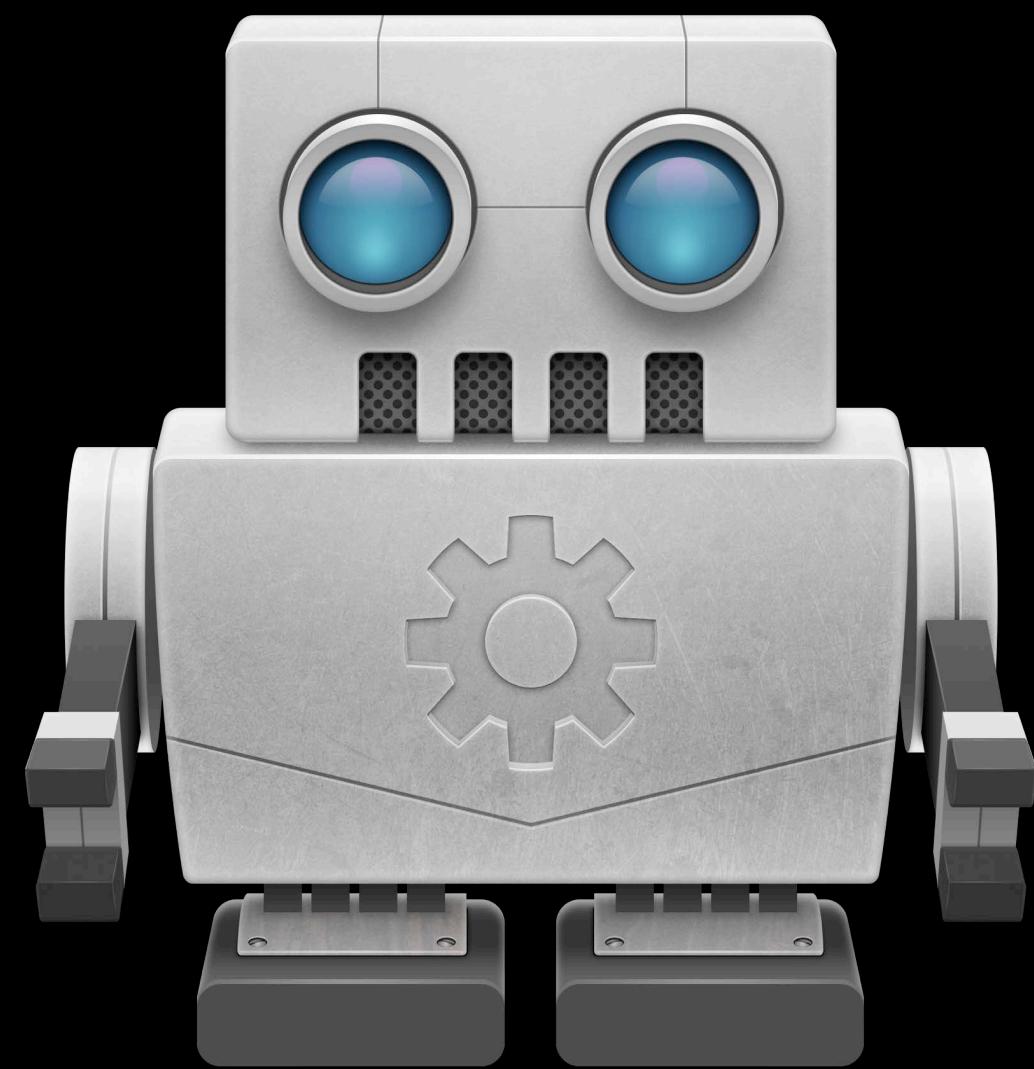
- 4 Devices Tested
- 1/1 iPads Failed
- 3/3 iPhones Failed



Fast incremental builds

Find regressions fast

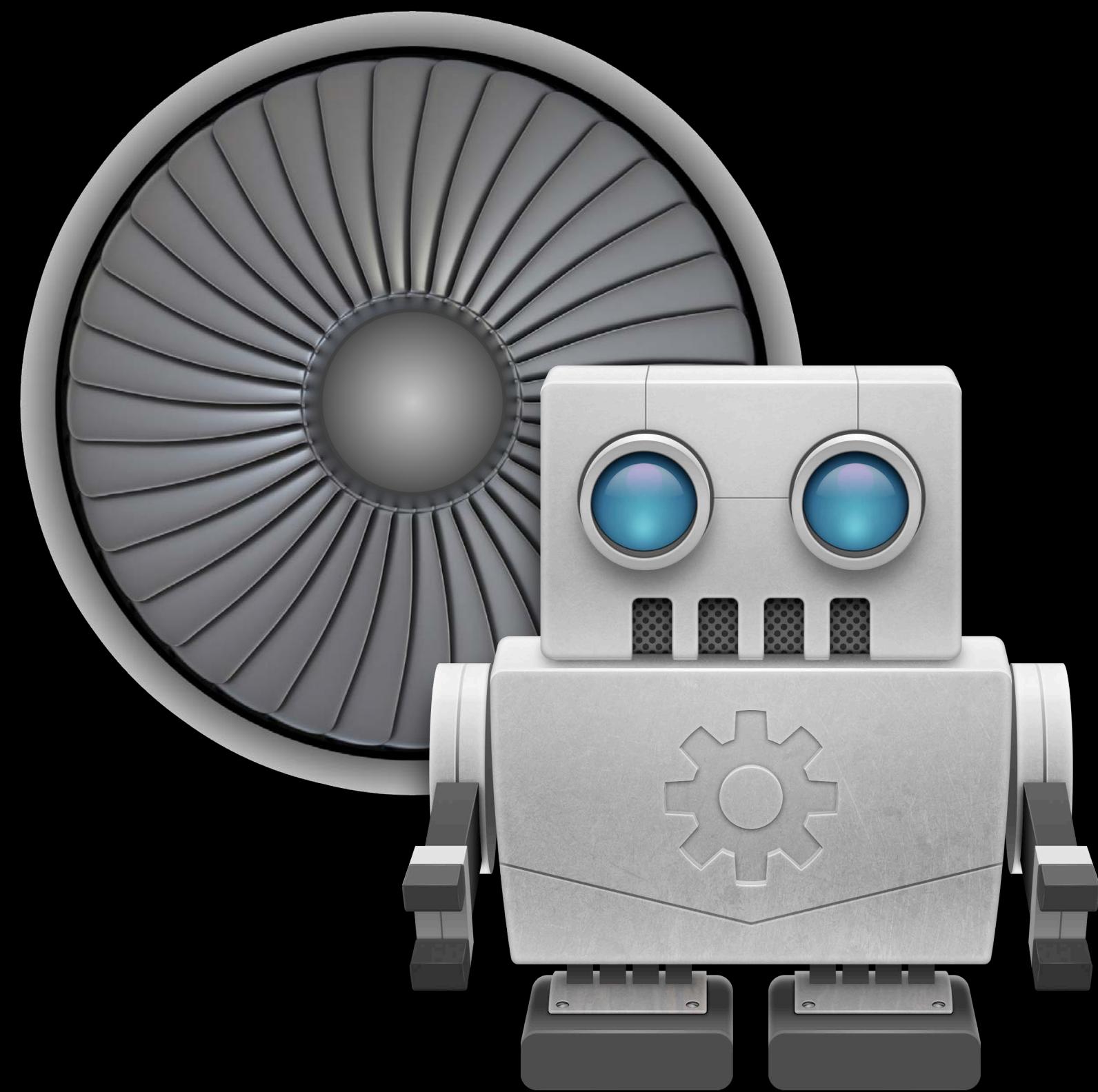
Analyze entire codebase



Repeatable

Signed archive

Great for QA teams



Repeatable
Signed archive
Great for QA teams



Logs saved over time

Archived builds

Devices for testing

Demo

Testing and continuous integration

Mike Ferris

The image displays a mobile application interface for managing game play tests and integration results, presented across three devices: a laptop, a desktop monitor, and a Mac Mini.

Laptop Screen (Left): Game Play Tests

- Game Play Tests** (Yellow exclamation mark icon)
- Nightly QA Bot** (Blue arrow icon), 25 min ago
- Quick Tests** (Red exclamation mark icon), 33 min ago
- Release Bot** (Green checkmark icon), 2 hrs ago
- Daily Build** (Yellow exclamation mark icon), 3 hrs ago
- Test Bot** (Blue arrow icon), 1 day ago
- Jogr Bot** (Red exclamation mark icon), 2 days ago
- Full Integration** (Blue arrow icon), 3 days ago
- Long Running Tests** (Red exclamation mark icon), 4 days ago
- Testing Tests** (Blue arrow icon), 6 day ago
- Integration Tests** (Red exclamation mark icon), 1 week ago

Desktop Monitor Screen (Top Right): Integration 62

Integration 62 (Up arrow icon)

Summary Metrics:

- 0 Errors
- 2 Warnings
- 3 Analysis
- 5/40 Tests Failed

Commit History: 5 Committers

Added tests for newly-added iOS 7 background fetch, and dynamic text sizing functionality. These new iOS 7 APIs are great!

Author: John Appleseed (Profile Picture), Yesterday 10:15 AM

Modified Files: 27 Files Modified

Device Status: 5 Devices

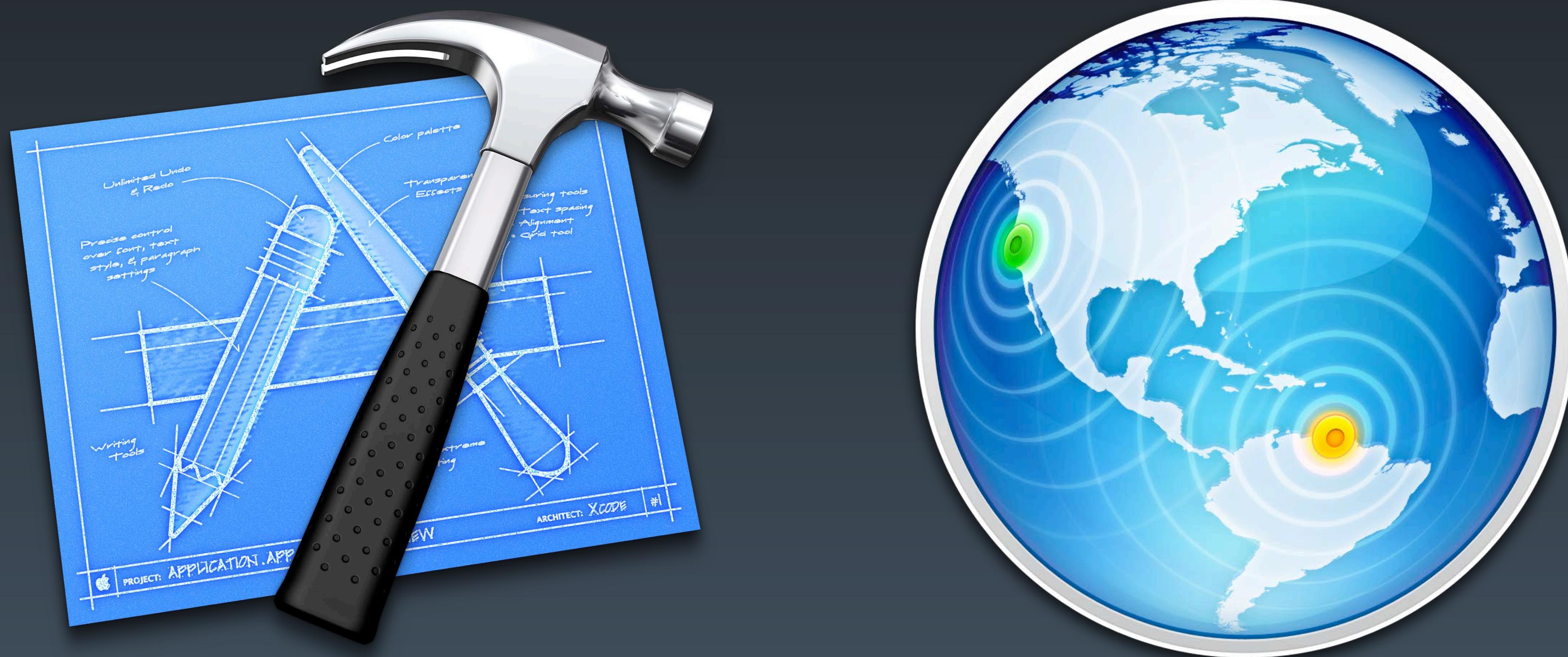
- iPhone 4:** Failed (Red X)
- iPhone 4S:** Passed (Green Checkmark)
- iPhone 5:** Failed (Red X)
- iPod:** Passed (Green Checkmark)

Mac Mini (Bottom Center): A small white Mac Mini computer is positioned centrally below the monitor.

MacBook Air (Right): A silver MacBook Air laptop is shown on the right side, displaying a detailed test results dashboard with various charts, graphs, and data tables.



Xcode 5 Developer Preview



Xcode 5 and OS X Server



Xcode 5 and OS X Server



Xcode 5 and OS X Server

