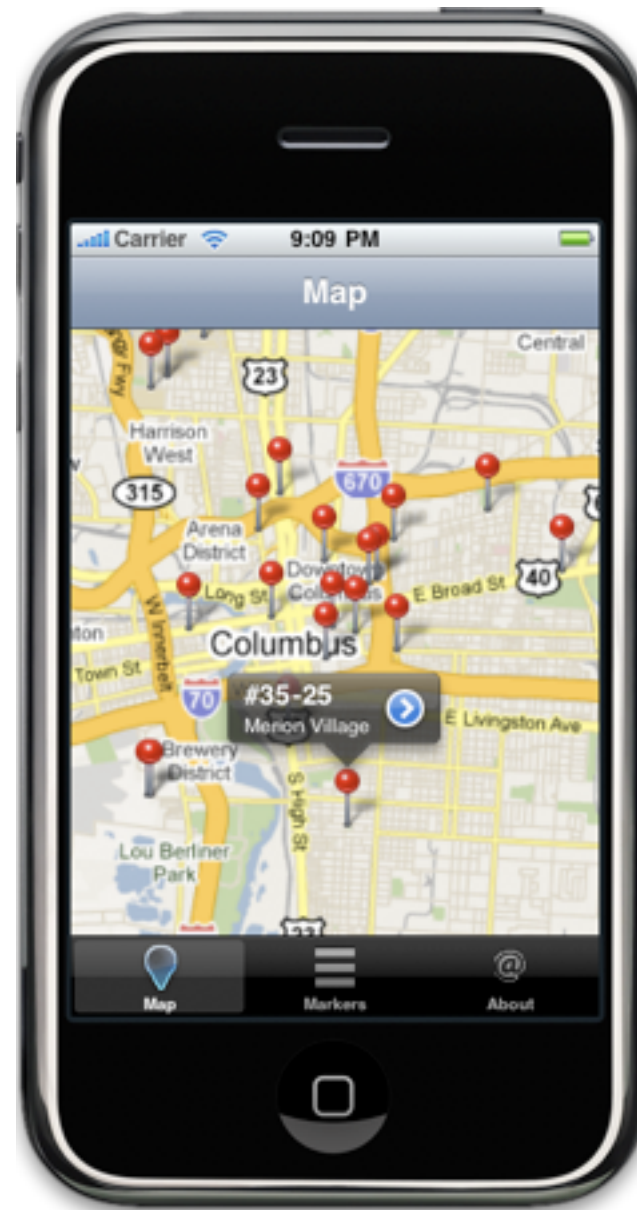


Introduction to MapKit



Christopher M. Judd
Judd Solutions

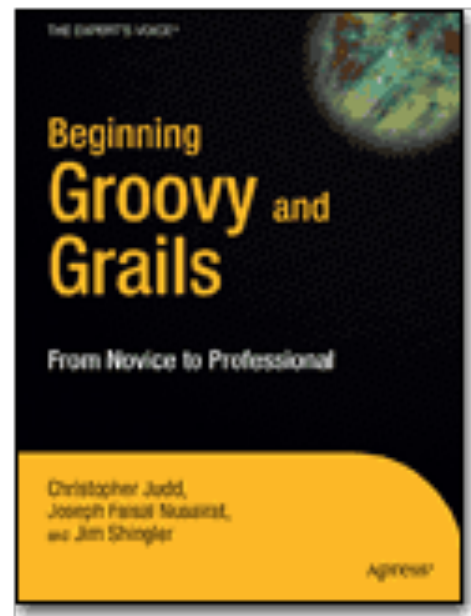
Christopher M. Judd

President/Consultant of **Judd Solutions**



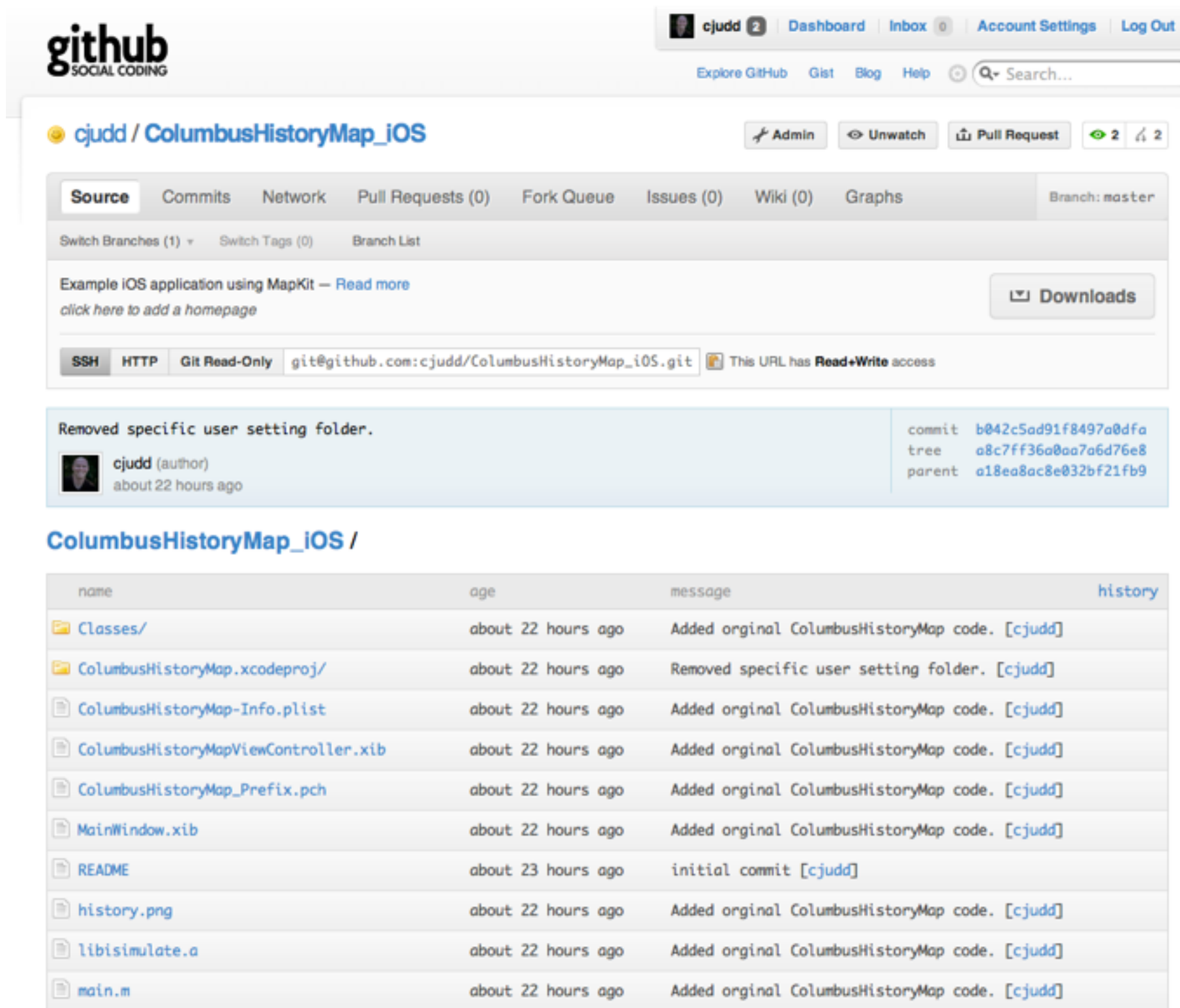
 **Central Ohio Java Users Group** leader

Columbus  Developer User Group (CIDUG)





Columbus History Map Source



The screenshot shows the GitHub repository page for 'ColumbusHistoryMap_iOS' by user 'cjudd'. The page includes the GitHub logo, user navigation links (Dashboard, Inbox, Account Settings, Log Out), and repository navigation tabs (Source, Commits, Network, Pull Requests, Fork Queue, Issues, Wiki, Graphs). The 'Source' tab is active, showing the repository's description, a 'Downloads' button, and a commit history table. The commit history table lists files and their commit messages, all dated 'about 22 hours ago' except for the 'initial commit' which is 'about 23 hours ago'.

name	age	message	history
Classes/	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
ColumbusHistoryMap.xcodeproj/	about 22 hours ago	Removed specific user setting folder. [cjudd]	
ColumbusHistoryMap-Info.plist	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
ColumbusHistoryMapViewController.xib	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
ColumbusHistoryMap_Prefix.pch	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
MainWindow.xib	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
README	about 23 hours ago	initial commit [cjudd]	
history.png	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
libisimulate.a	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
main.m	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	



https://github.com/cjudd/ColumbusHistoryMap_iOS

MapKit Basics

MapKit



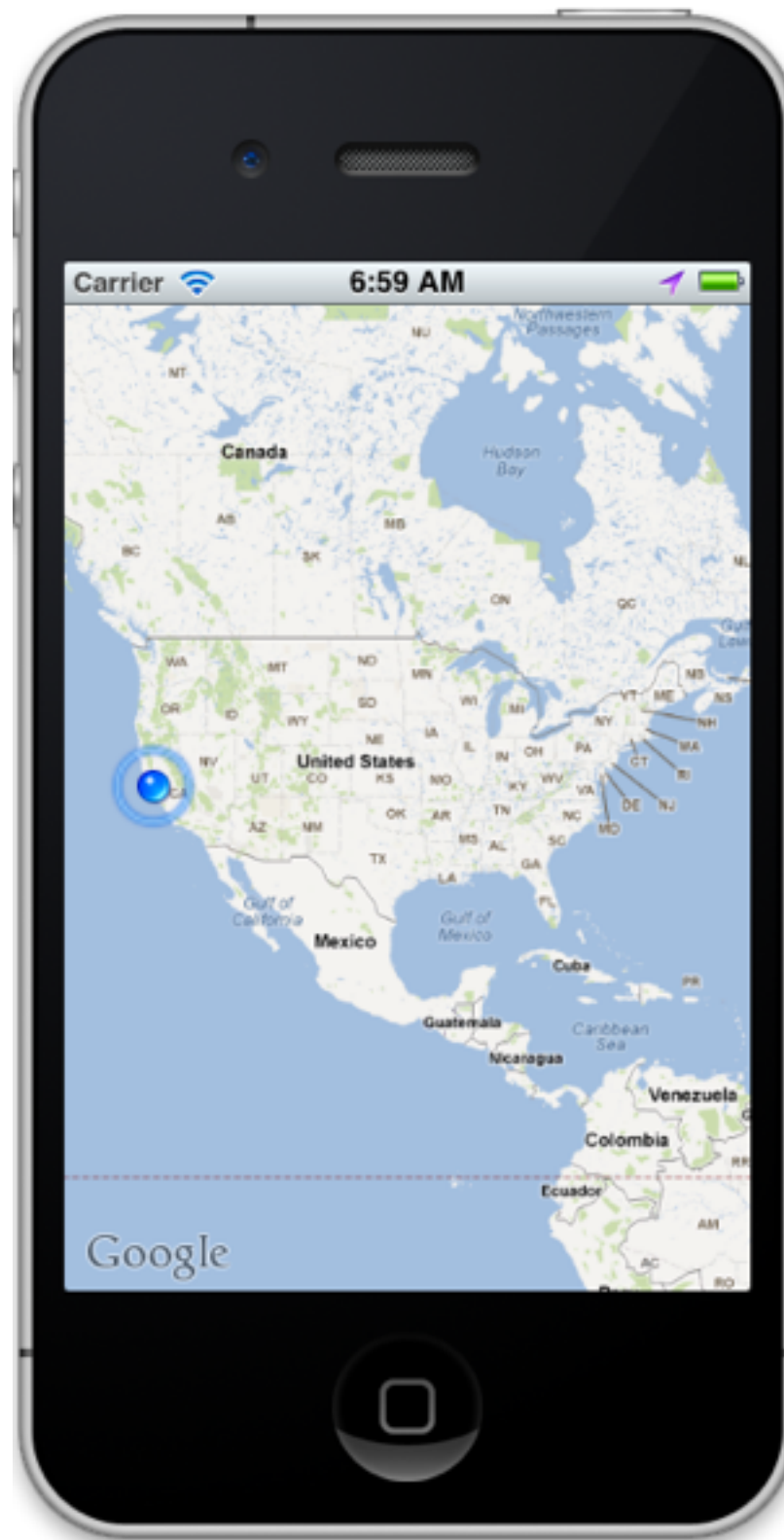
MKMapView



Google maps



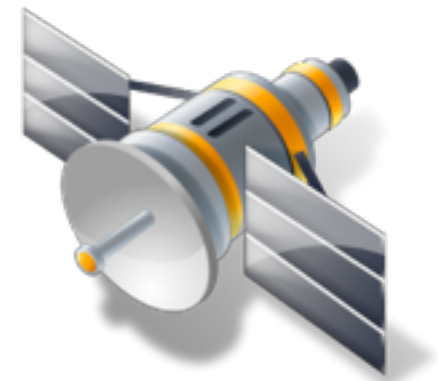
Current Location



1 kilometer



100 meters



10 meters

Core Location Framework

Map Types



Standard

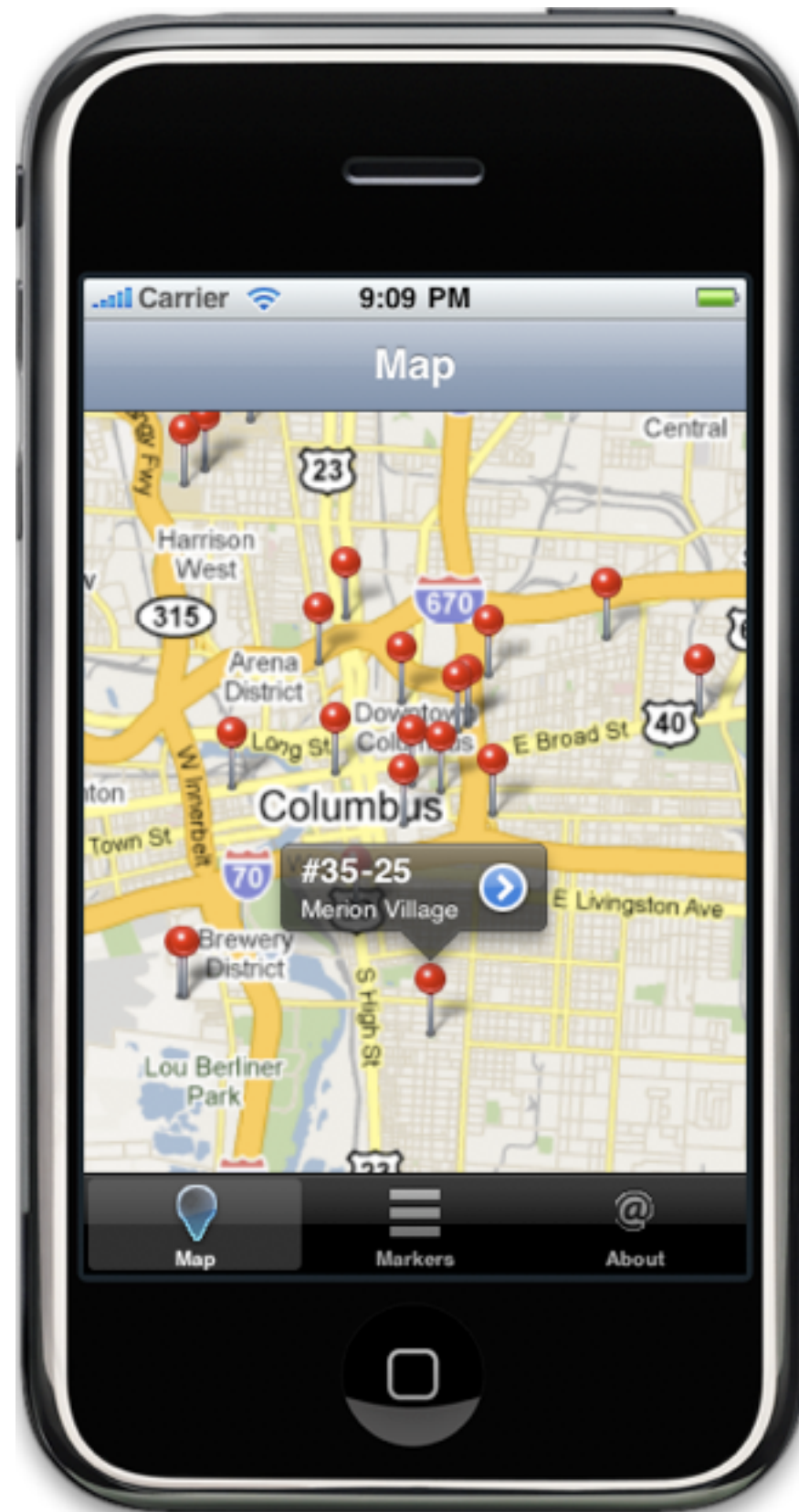


Satellite



Hybrid

Annotations

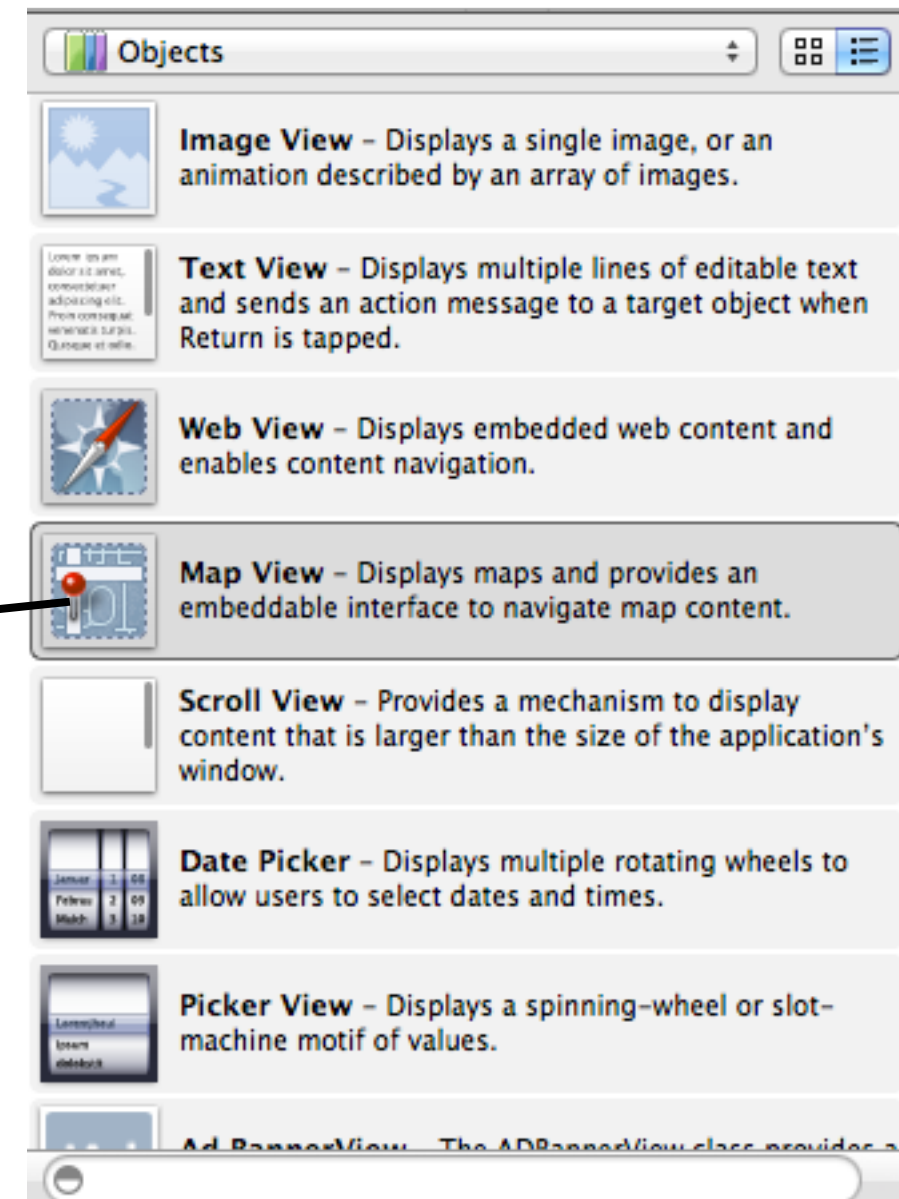
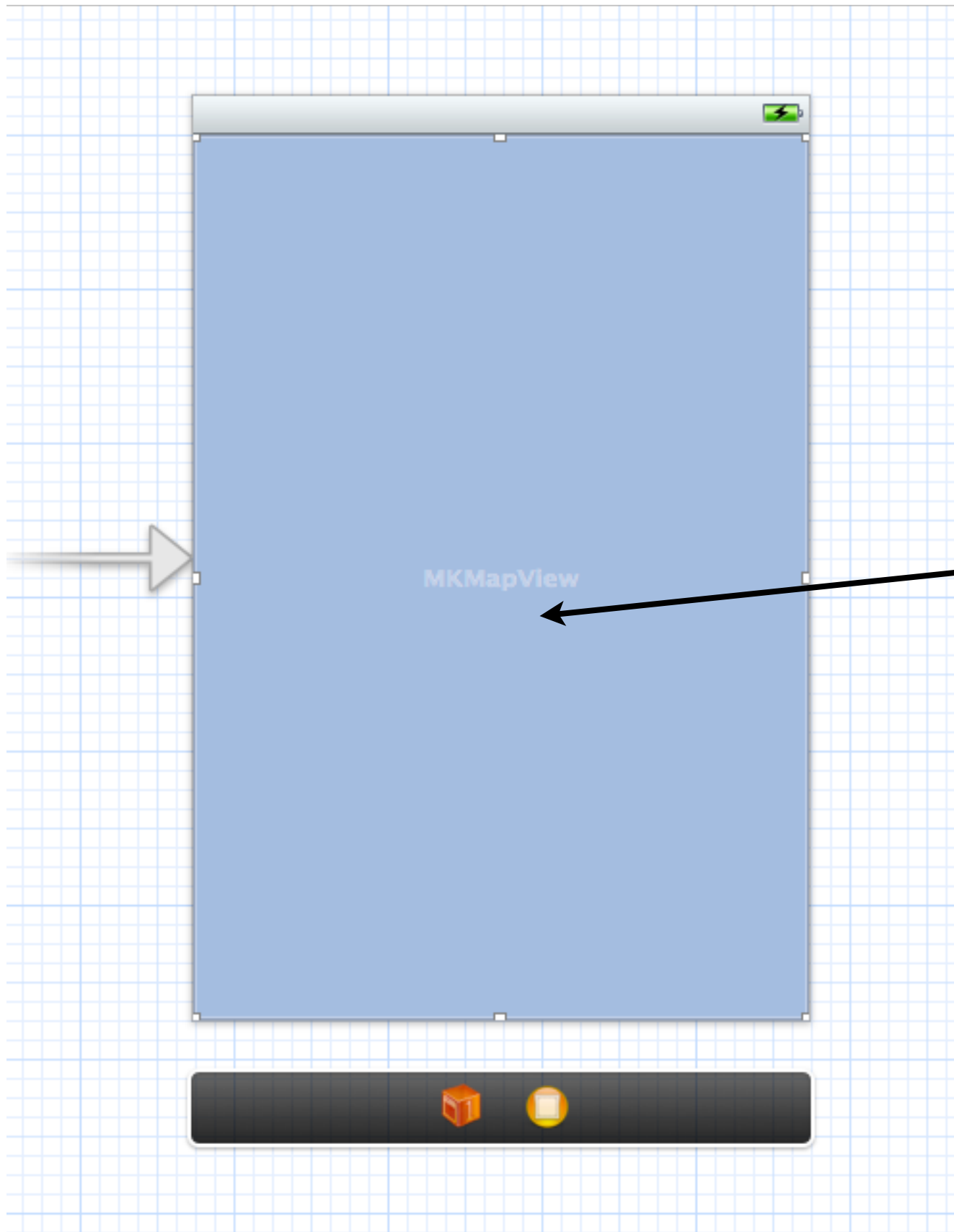


Adding Maps

Adding Maps Steps

1. Add MapView component to view 
2. Add MapKit Framework 
3. Run Application 

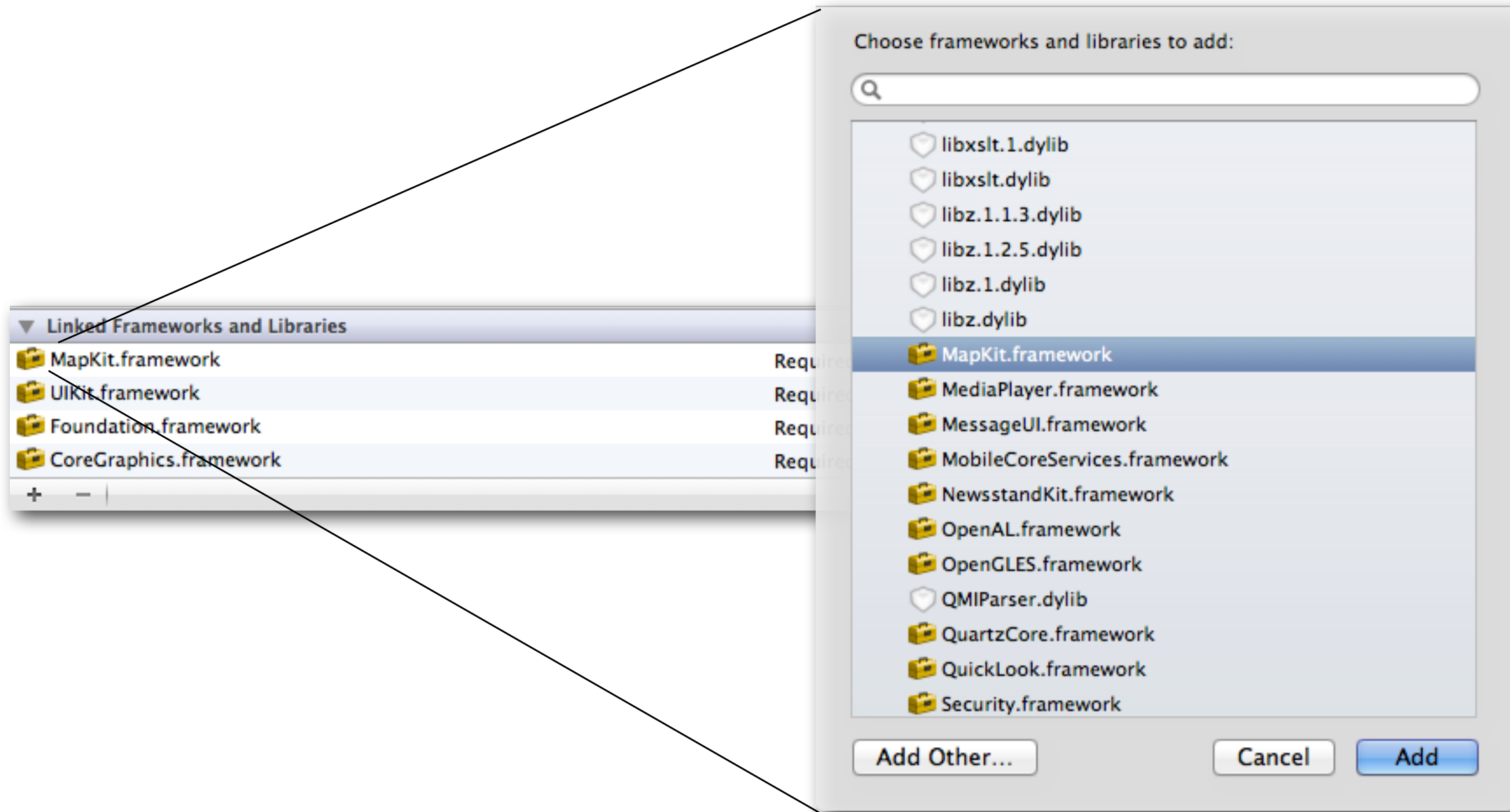
Add Map View Component



2012-06-29 06:10:37.505 ColumbusMapsiOS[11781:f803] * Terminating
app due to uncaught exception 'NSInvalidUnarchiveOperationException',
reason: 'Could not instantiate class named MKMapView'
*** First throw call stack:
(0x13c7022 0x1558cd6 0x136fa48 0x136f9b9 0x3324a3 0x33267b 0x332383
0x43002 0x332c6e 0x332383 0x232cad 0x332c6e 0x33267b 0x332383 0x232105
0xd81fc 0xd8779 0xd899b 0x37401 0x37670 0x37836 0xc881dd8 0x3e72a
0xf596 0x10274 0x1f183 0x1fc38 0x13634 0x12b1ef5 0x139b195 0x12ffff2
0x12fe8da 0x12fdd84 0x12fdc9b 0xfc65 0x11626 0x212d 0x2095 0x1)
terminate called throwing an exception**

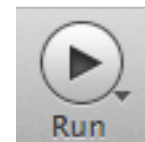


Add MapKit Framework





Run Application



Google Maps API



3.8k

Overview

Location-Based Apps

Mobile Apps

Visualize

Customize

Licensing

Showcase

Documentation

Videos

Google Maps Terms of Service

Last updated: March 17, 2009

Thank you for your interest in using Google Maps as part of the iPhone SDK. These Google Maps Terms of Service govern your use of Google Maps accessed through the Apple iPhone SDK. Google Maps development using the iPhone SDK provides a collection of services that allow you to include maps, geocoding, and other Content from Google in your applications.

1. Your relationship with Google.

1.1 Use of the Service is Subject to these Terms. Your use of the Google Maps API (referred to in this document as the "**Maps API**" or the "**Service**") is subject to the terms of a legal agreement between you and Google Inc., whose principal place of business is at 1600 Amphitheatre Parkway, Mountain View, California 94043, United States ("**Google**"). This legal agreement is referred to as the "**Terms**".

1.2 The Terms include Google's Legal Notices and Privacy Policy.

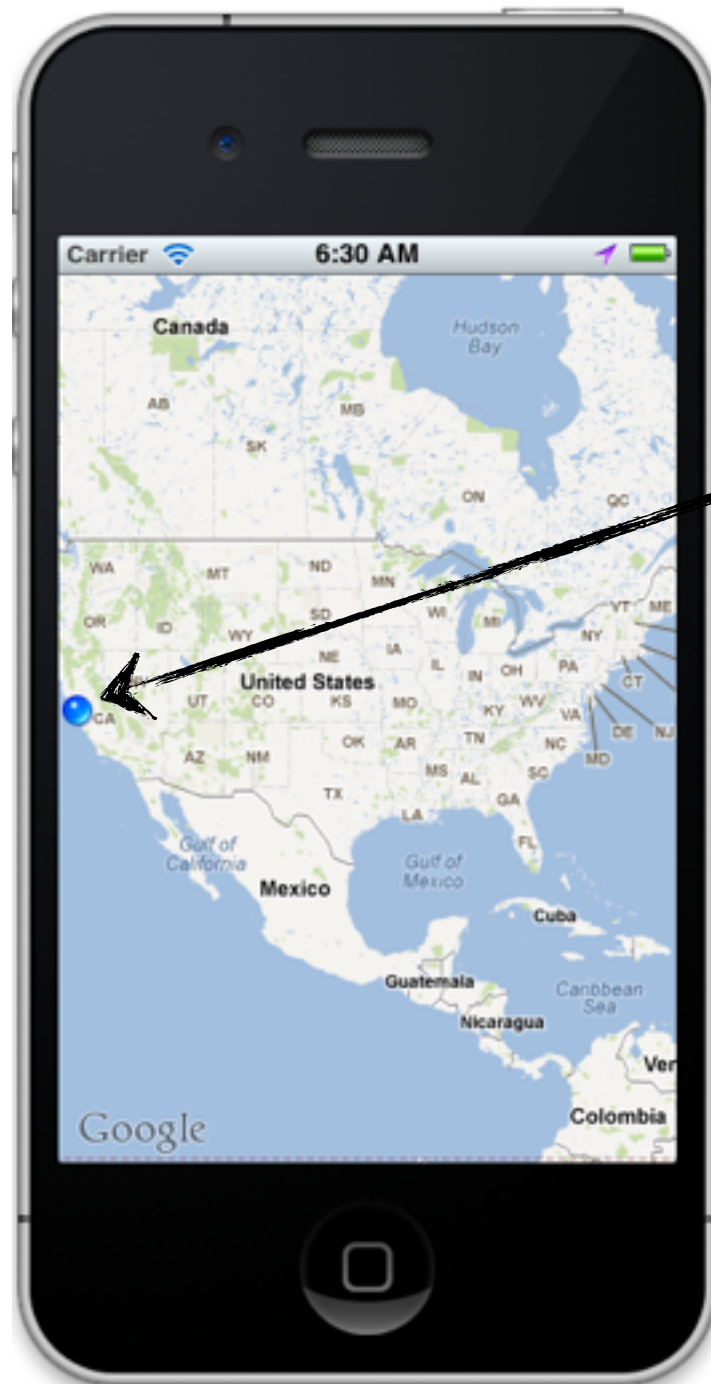
- (a) Unless otherwise agreed in writing with Google, the Terms will include the following:
- (i) the terms and conditions set forth in this document (the "**Maps API Terms**".);
 - (ii) the [Legal Notices](#); and
 - (iii) the [Privacy Policy](#).

(b) Before you use the Maps API, you should read each of the documents comprising the Terms, and print or

Display Current Location



Show User Location



▼ Map View

Type

Behavior ☒ Shows User Location
☒ Allows Zooming
☒ Allows Scrolling

▼ View

Mode

Tag

Interaction ☒ User Interaction Enabled
☒ Multiple Touch

Alpha

Background

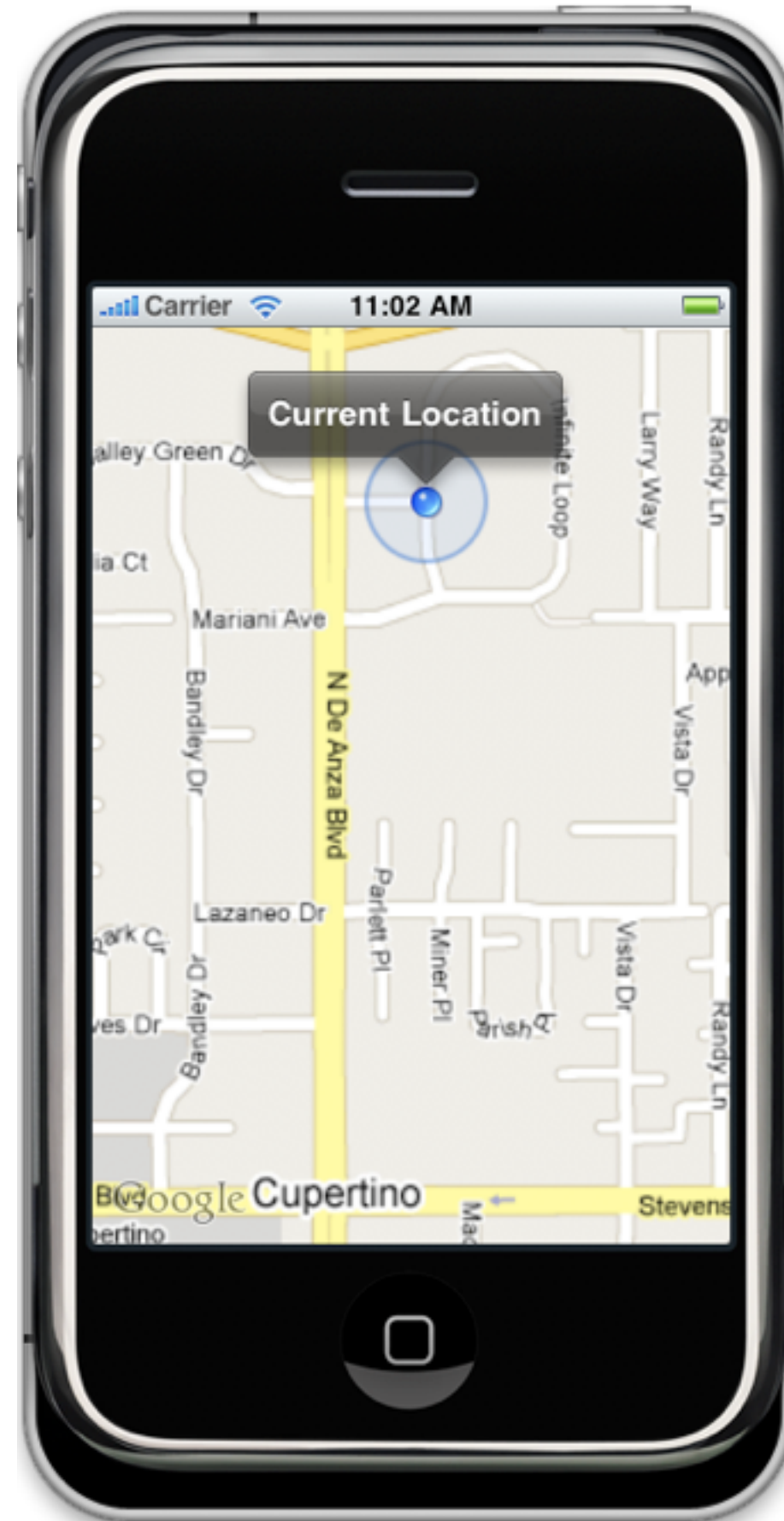
Drawing ☒ Opaque ☐ Hidden
☒ Clears Graphics Context
☒ Clip Subviews
☒ Autoresize Subviews

Stretching
X Y

Width Height

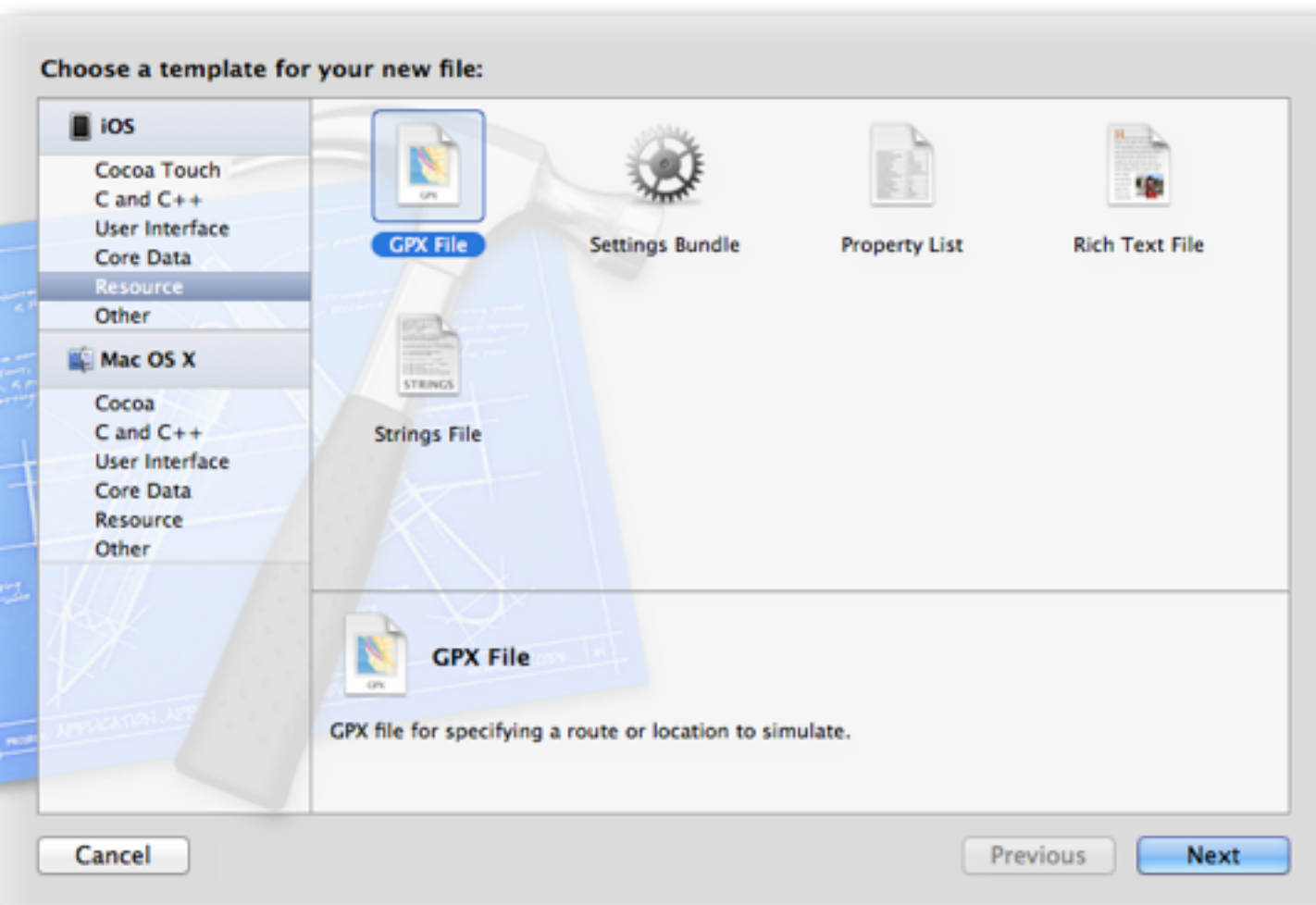


Default Simulator Location



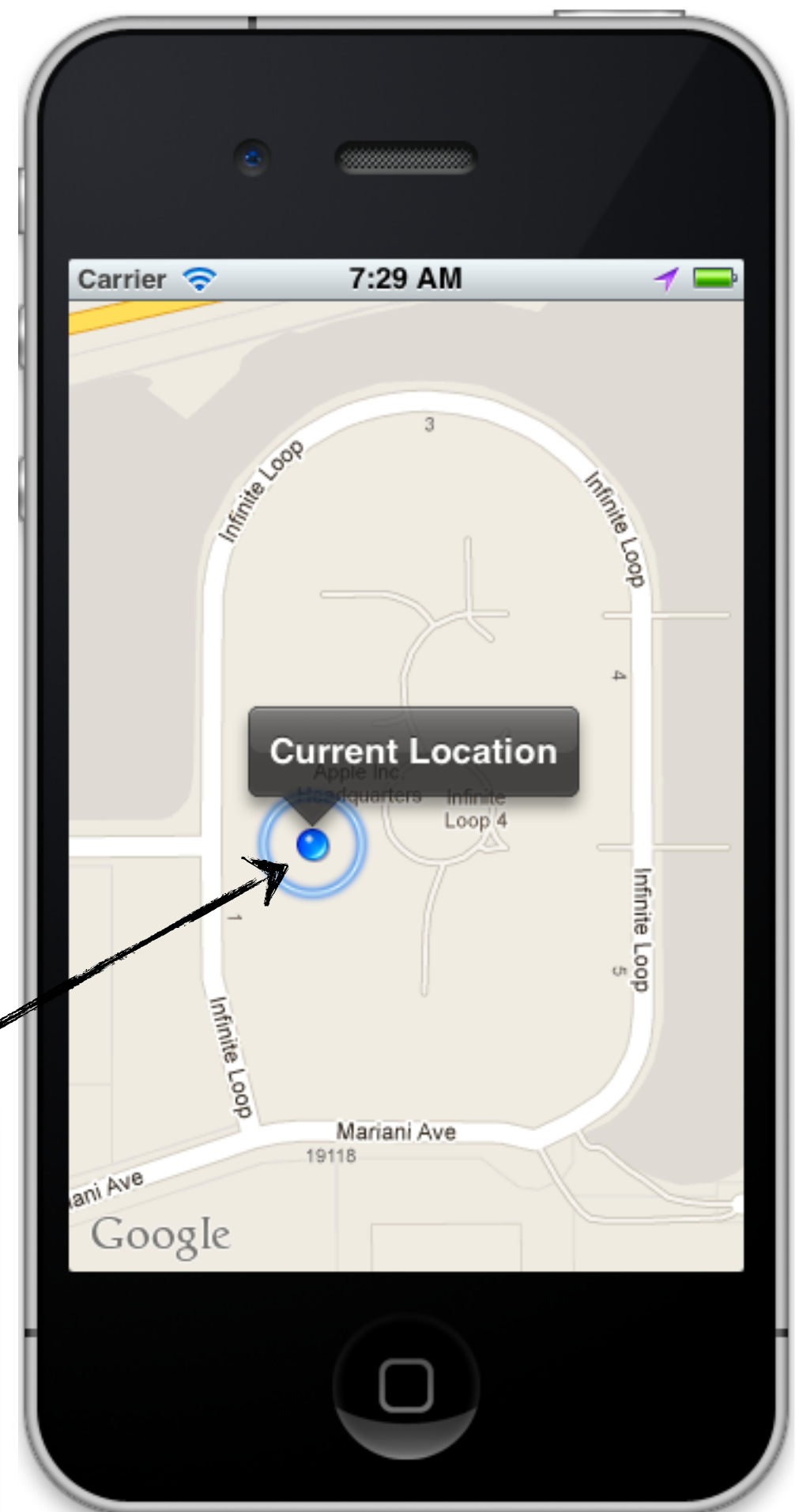
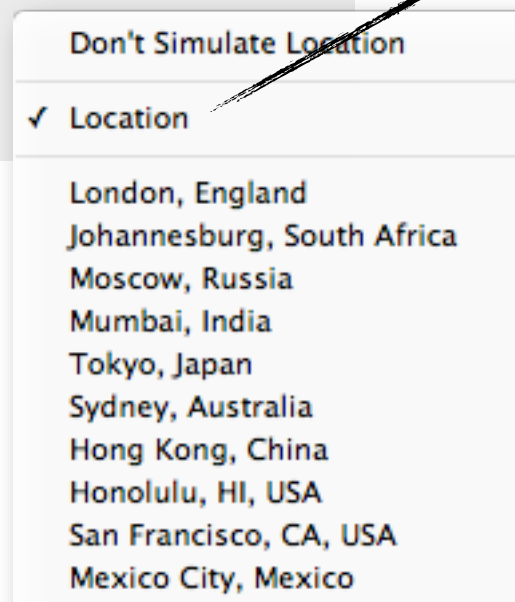
Simulate Location





Location.gpx

```
<?xml version="1.0"?>
<gpx version="1.1" creator="Xcode">
  <wpt lat="37.331705" lon="-122.030237">
    <name>Cupertino</name>
  </wpt>
</gpx>
```





The GPS Exchange Format

[GPX 1.1 Schema](#) [Documentation](#) [Why support GPX?](#) [Who supports GPX?](#) [Developers Forum](#) [Validating GPX](#) [Examples](#)

GPX: the GPS Exchange Format

WHAT IS GPX?

GPX (the GPS Exchange Format) is a light-weight XML data format for the interchange of GPS data (waypoints, routes, and tracks) between applications and Web services on the Internet.

CURRENT STATUS

The GPX 1.1 schema was released on August 9, 2004. GPX has been the de-facto XML standard for lightweight interchange of GPS data since the initial GPX 1.0 release in 2002. GPX is being used by **dozens of software programs and Web services for GPS data exchange, mapping, and geocaching.**

GPX FOR DEVELOPERS

If you're a developer, read how GPX can help your application or web service.

View the official [GPX 1.1 Schema](#).

Read the [GPX 1.1 Documentation](#).

Learn **how to validate** your GPX output.

View the official [GPX 1.1 Schema](#).

GPX is an open development effort. To participate in the future development of GPX, join the **GPX Developers Forum**.

USER BENEFITS OF GPX

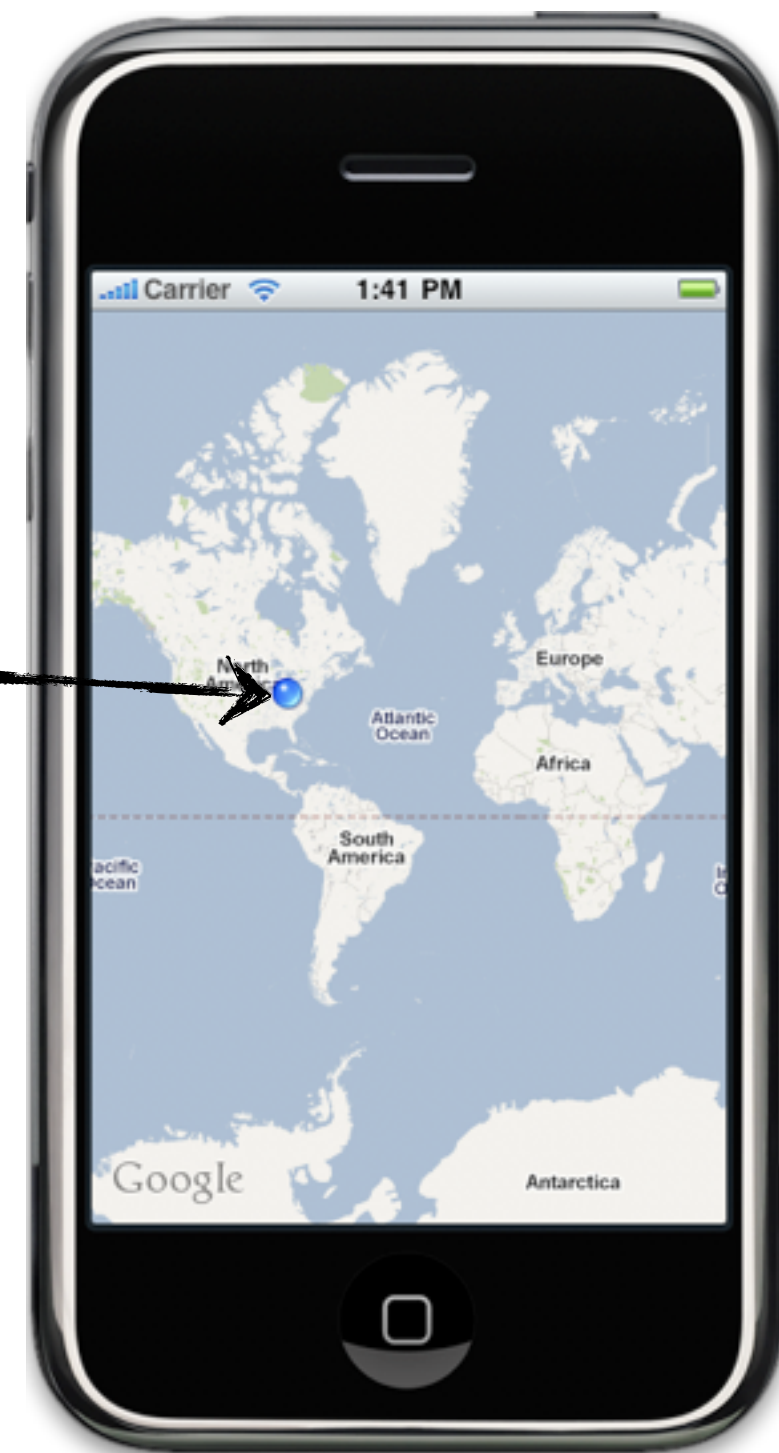
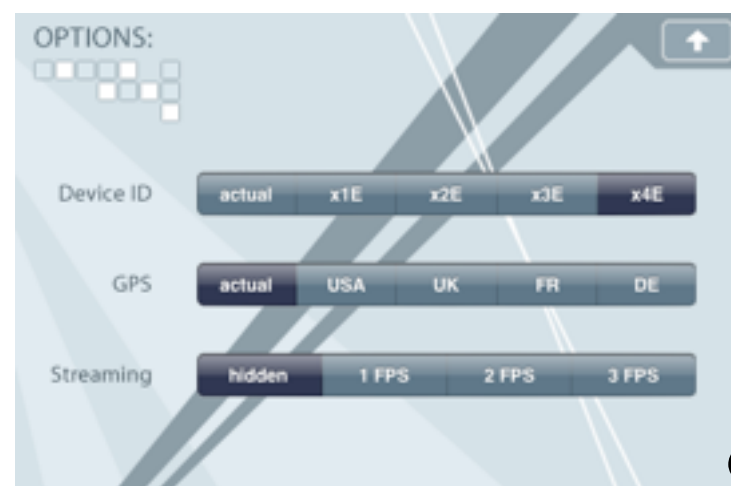
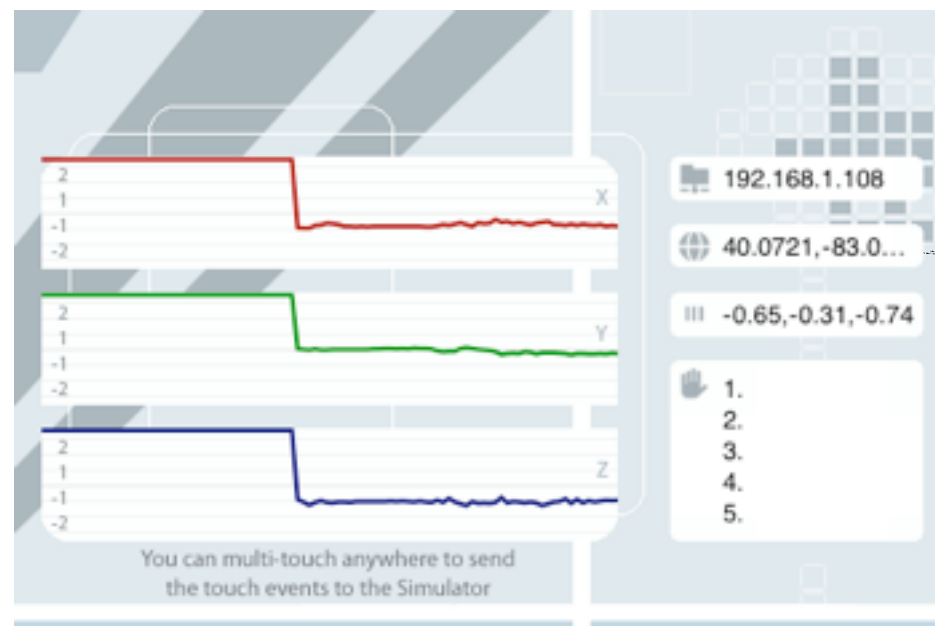
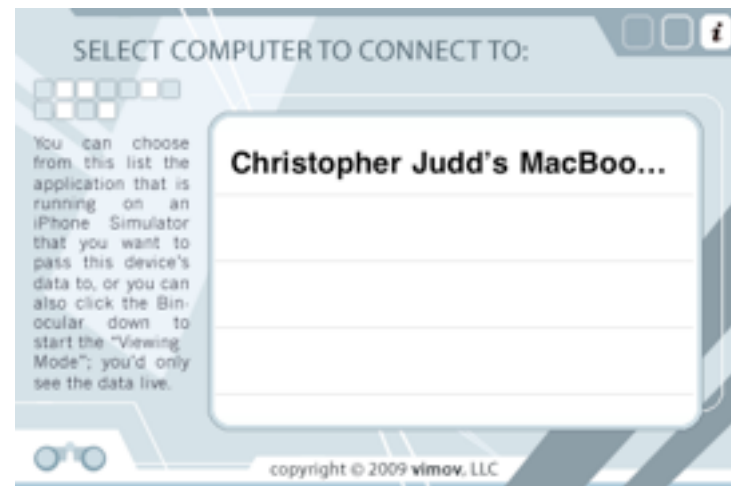
If you own a GPS, find out **how GPX is helping** to make all your **favorite applications** work together.

COMMENTS

To ask questions about the GPX format or propose changes, please join the **GPX Developers Forum**. If you have a customer support question regarding the GPX brand of CD players, alarm clocks, and other consumer electronics, **visit www.gpx.com**.

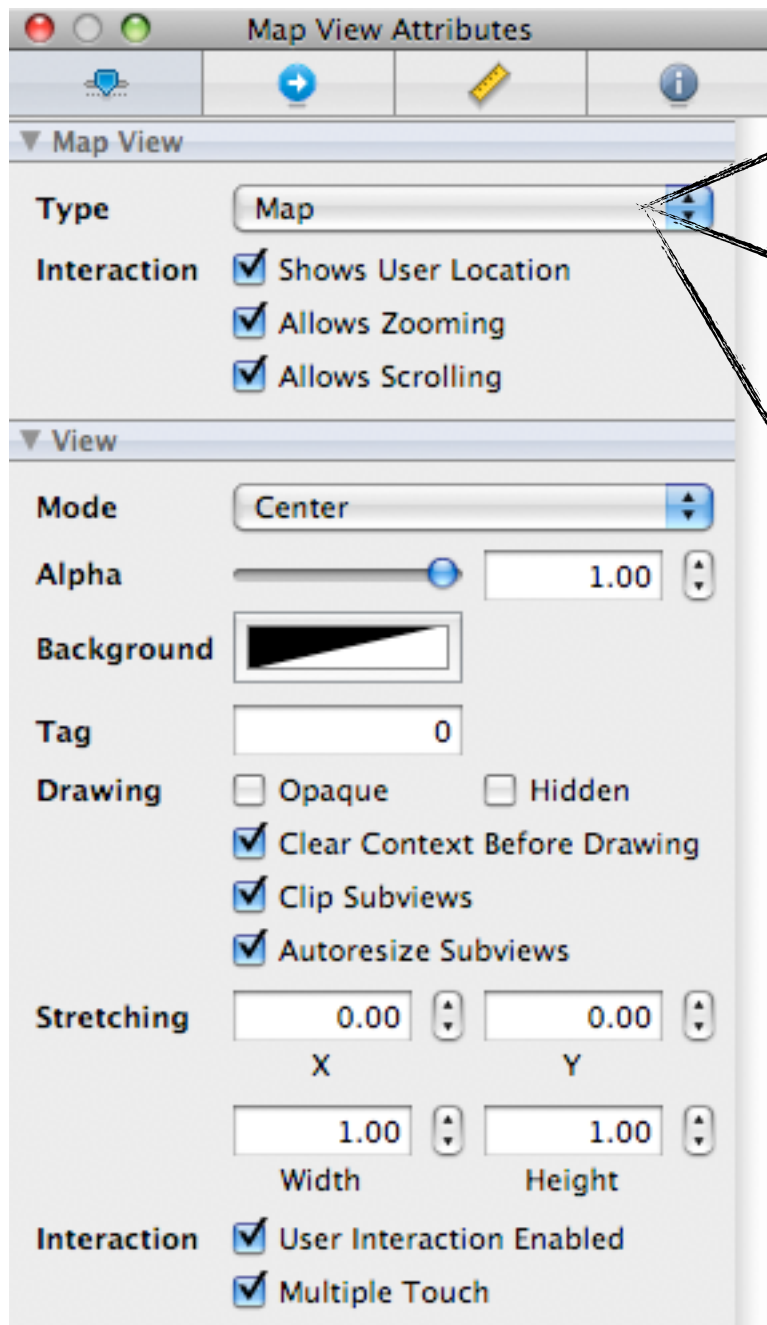


iSimulate



\$15.99 in App Store

Change Map Types



Map



Satellite



Hybrid

```
switch (((UISegmentedControl *)sender).selectedSegmentIndex)
{
    case 0: {
        mapView.mapType = MKMapTypeStandard;
        break;
    }
    case 1: {
        mapView.mapType = MKMapTypeSatellite;
        break;
    }
    default: {
        mapView.mapType = MKMapTypeHybrid;
        break;
    }
}
```



Map



Satellite

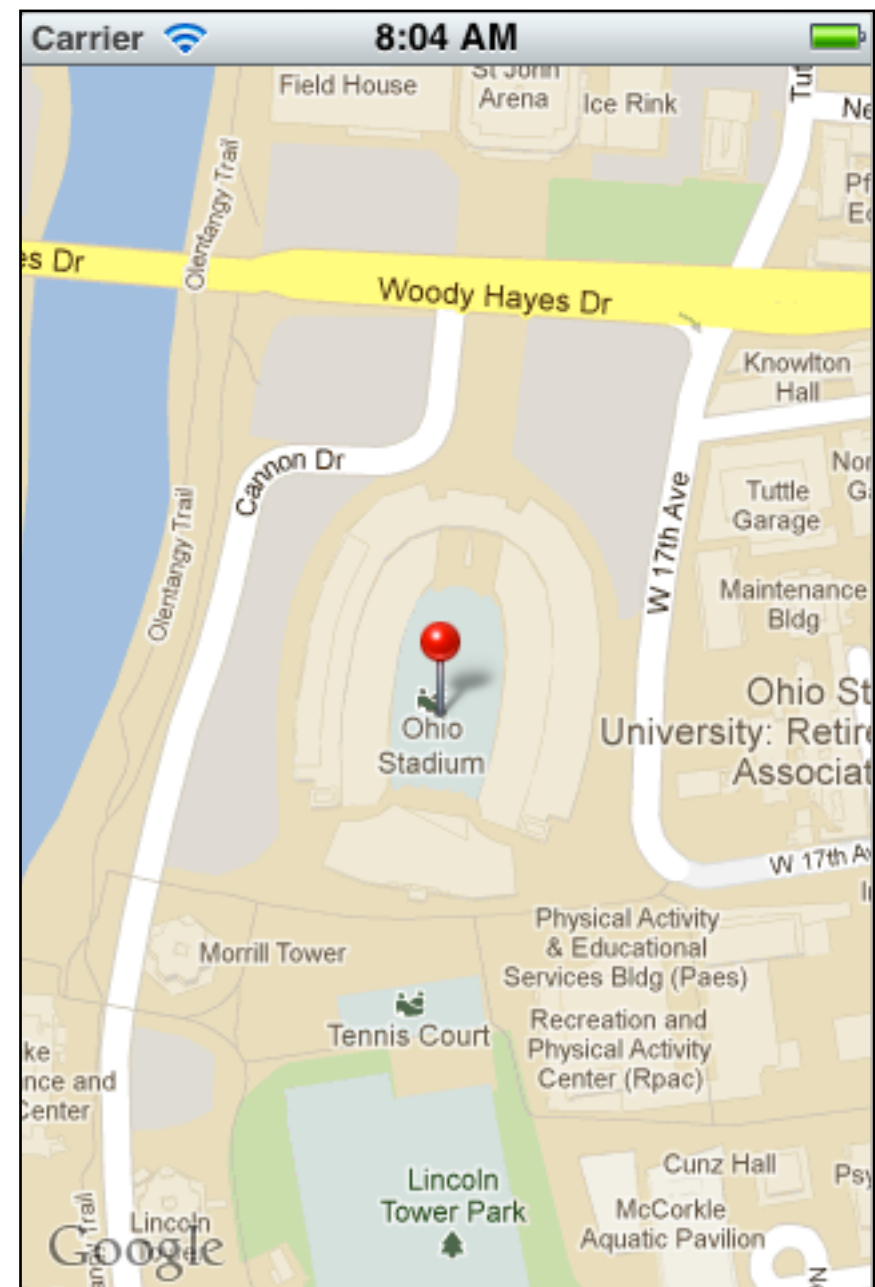


Hybrid

Adding Annotations

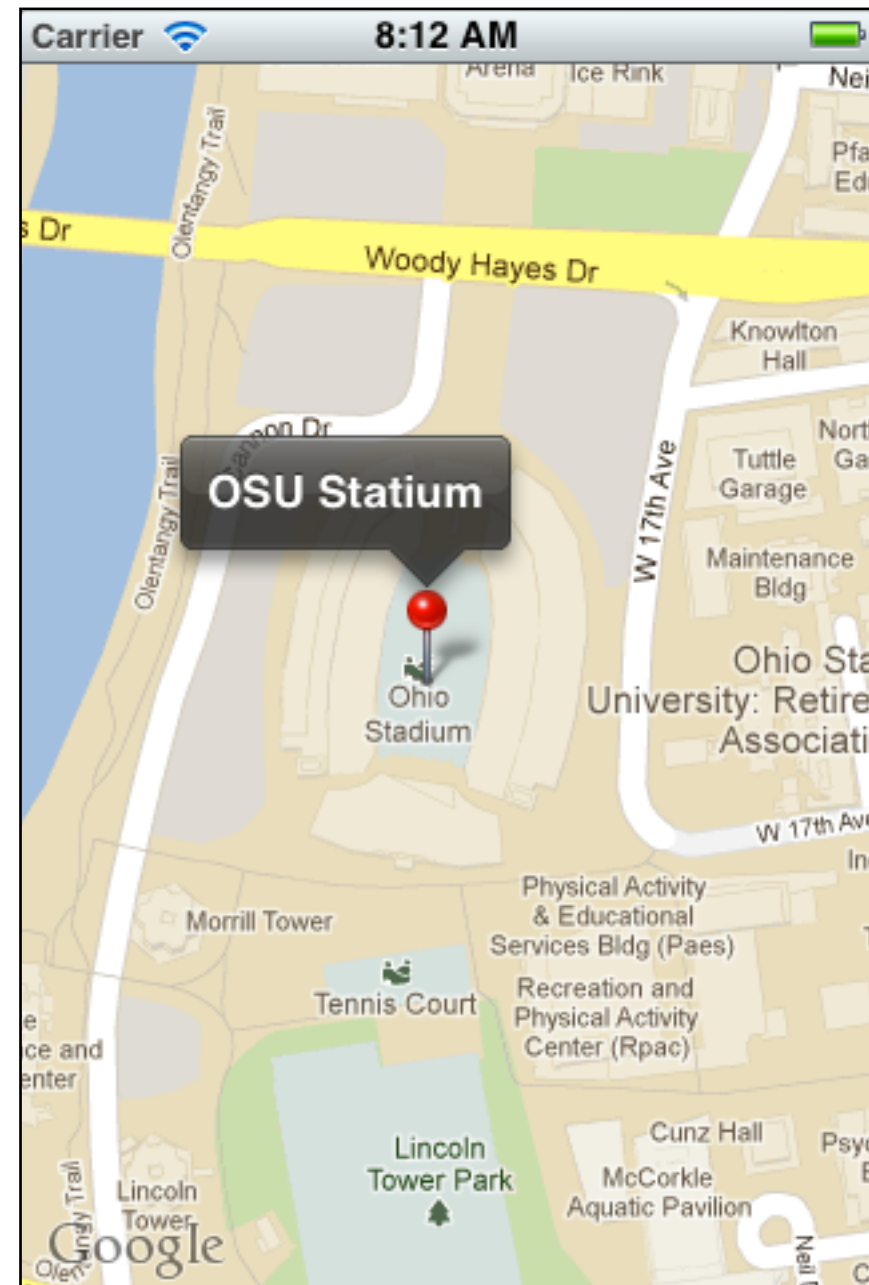
Add Annotation

```
CLLocationCoordinate2D coordinate = {40.001517, -83.019755};  
MKPointAnnotation* point = [MKPointAnnotation alloc];  
point.coordinate = coordinate;  
  
[mapView addAnnotation:point];
```



Add Annotation

```
CLLocationCoordinate2D coordinate = {40.001517, -83.019755};  
MKPointAnnotation* point = [MKPointAnnotation alloc];  
point.coordinate = coordinate;  
point.title = @"OSU Stadium";  
  
[mapView addAnnotation:point];
```



Add Annotation

```
CLLocationCoordinate2D coordinate = {40.001517, -83.019755};  
MKPointAnnotation* point = [MKPointAnnotation alloc];  
point.coordinate = coordinate;  
point.title = @"OSU Stadium";  
point.subtitle = @"Home of the Ohio State Buckeyes";  
[mapView addAnnotation:point];
```



Custom Annotations

```
#import <Foundation/Foundation.h>
#import <MapKit/MapKit.h>

@interface JSCMHistoryMarker : NSObject <MKAnnotation>

@property (nonatomic, assign) CLLocationCoordinate2D coordinate;
@property (nonatomic, copy) NSString *name;
@property (nonatomic, copy) NSString *description;
@property (nonatomic, assign) BOOL church;

+ (JSCMHistoryMarker*)createHistoryMarker:(NSString*) name latitude: (CLLocationDegrees)lat longitude:
(CLLocationDegrees)lng;
+ (JSCMHistoryMarker*)createChurchMarker:(NSString*) name latitude: (CLLocationDegrees)lat longitude:
(CLLocationDegrees)lng;

@end
```

Diagram annotations:

- Arrow from "implement MKAnnotation" points to the `<MKAnnotation>` inheritance in the interface declaration.
- Arrow from "required property" points to the `coordinate` property.

```
#import "JSCMHistoryMarker.h"

@implementation JSCMHistoryMarker

@synthesize coordinate;
@synthesize name;
@synthesize description;
@synthesize church;

- (NSString *)title {
    return name;
}

- (NSString *)subtitle {
    return description;
}

// code removed for brevity
@end
```

Diagram annotations:

- Two arrows from "optional properties" point to the `title` and `subtitle` methods.

```

NSMutableArray* markers = [[NSMutableArray alloc] initWithCapacity:35];

[markers addObject:[JSCMHistoryMarker createHistoryMarker:@"Jesse Owens"
                    latitude: 40.012314 longitude: -83.02796]];
[markers addObject:[JSCMHistoryMarker createHistoryMarker:@"Ohio State School for the Blind"
                    latitude: 40.068763 longitude: -83.019]];
[markers addObject:[JSCMHistoryMarker createChurchMarker:@"St. Paul African Methodist Episcopal Church"
                    latitude: 39.966964 longitude: -82.9834]];
[markers addObject:[JSCMHistoryMarker createHistoryMarker:@"The Ohio State Fair"
                    latitude: 40.000943 longitude: -82.98899]];

[mapView addAnnotations: markers];

```



Positioning Map

Multiple Pins Can be hard to see from far away



Applications with a geographical focus should
frame the region

Zooming



```
- (IBAction)zoomColumbus:(id)sender {
```

```
    CLLocationCoordinate2D columbusCenterCoordinate = {39.971793, -82.983396};
```

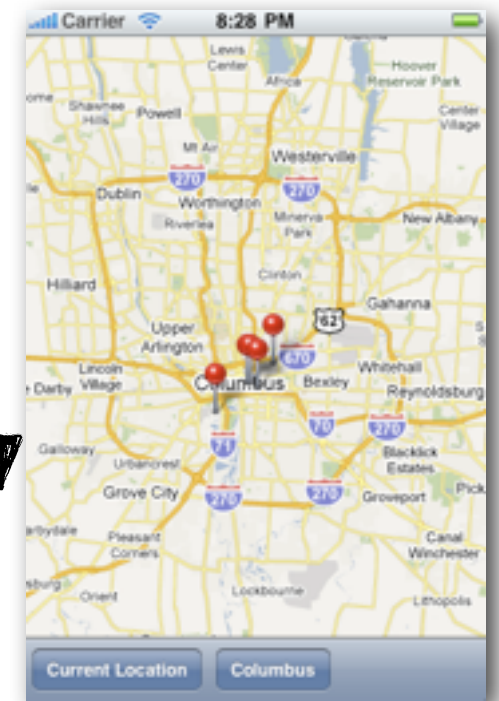
```
    MKCoordinateSpan span = MKCoordinateSpanMake( 0.390456, 0.390456);
```

```
    MKCoordinateRegion region = MKCoordinateRegionMake(columbusCenterCoordinate, span);
```

```
    [mapView setRegion:region animated:TRUE];
```

```
}
```

delta in
degrees



```
- (IBAction)zoomCurrentLocation:(id)sender {
```

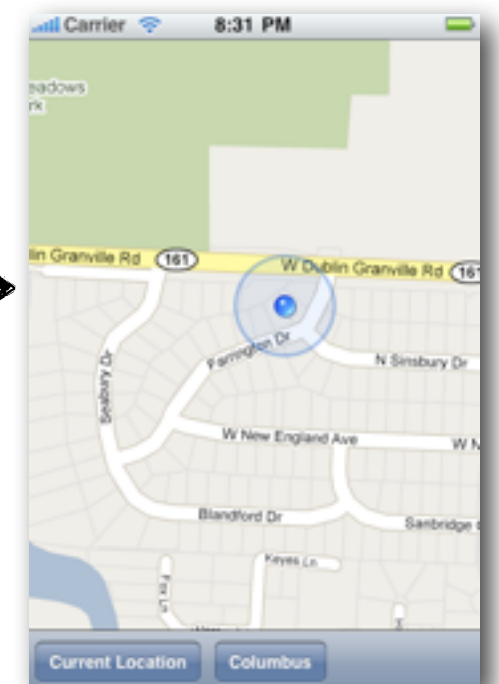
```
    MKCoordinateRegion region = MKCoordinateRegionMakeWithDistance(
```

```
        mapView.userLocation.location.coordinate, 500, 500);
```

```
    [mapView setRegion:region animated:TRUE];
```

```
}
```

meters





Saturday, August 11, 12

Decorating Annotations

Changing Annotation Appearance

*Controller.h

Add MapKit header

Implement MKMapViewDelegate protocol

```
#import <UIKit/UIKit.h>
#import <MapKit/MapKit.h>

@interface JSCMViewController : UIViewController <MKMapViewDelegate>

@end
```

*Controller.m

```
@interface JSCMViewController ()
@property (weak, nonatomic) IBOutlet MKMapView *mapView;
@end

@implementation JSCMViewController
@synthesize mapView;

- (void)viewDidLoad {
    [super viewDidLoad];
    mapView.delegate = self;
}

- (MKAnnotationView *)mapView:(MKMapView *)aMapView viewForAnnotation:(id < MKAnnotation >)annotation {
    return nil;
}

// Details removed for brevity

@end
```

Assign delegate

Implement viewForAnnotation

Returning nil will perform default behavior

MKAnnotation = data

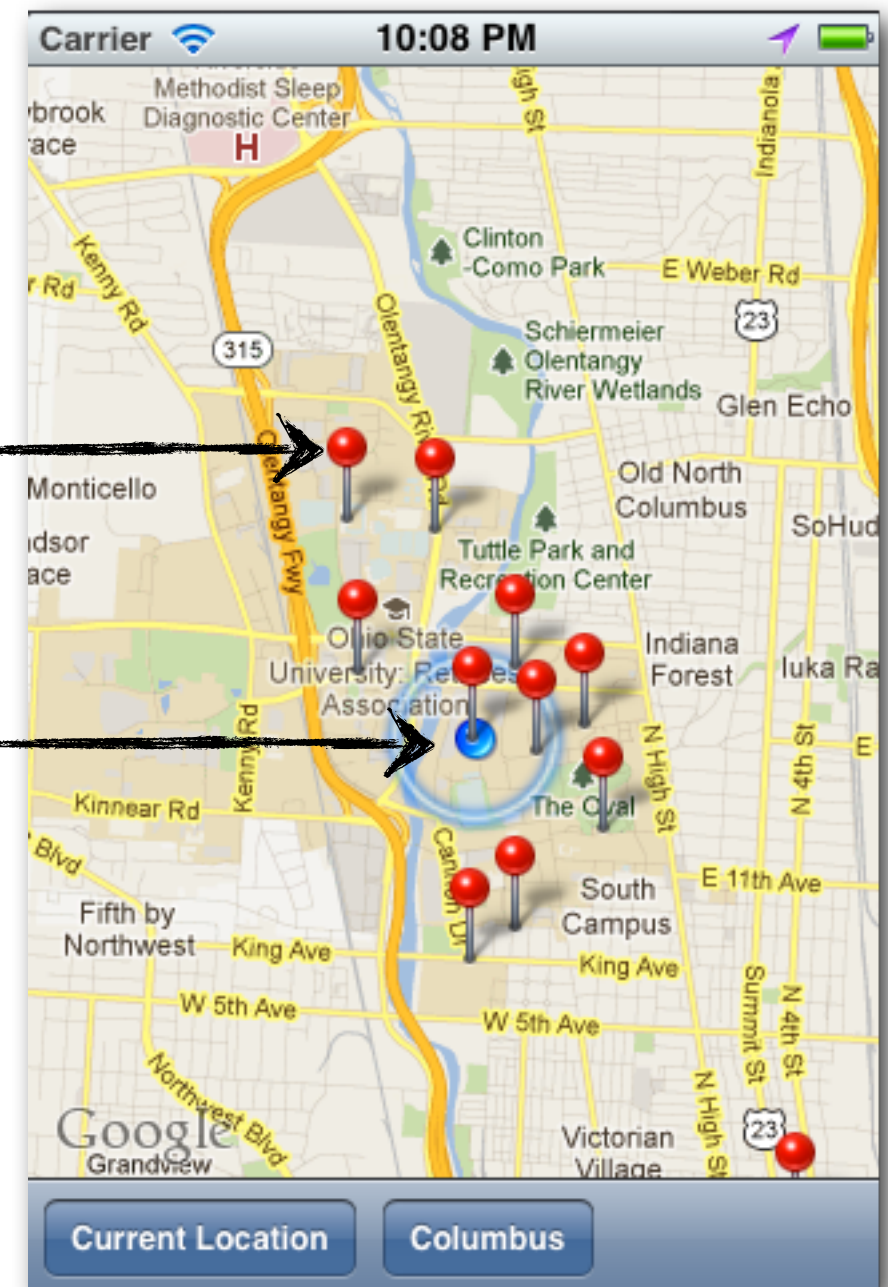
MKAnnotationView = presentation

Default Annotations

```
- (MKAnnotationView *)mapView:(MKMapView *)aMapView viewForAnnotation:(id < MKAnnotation >)annotation {  
    return nil;  
}
```

red pins

current location blue dot



Coloring Pins

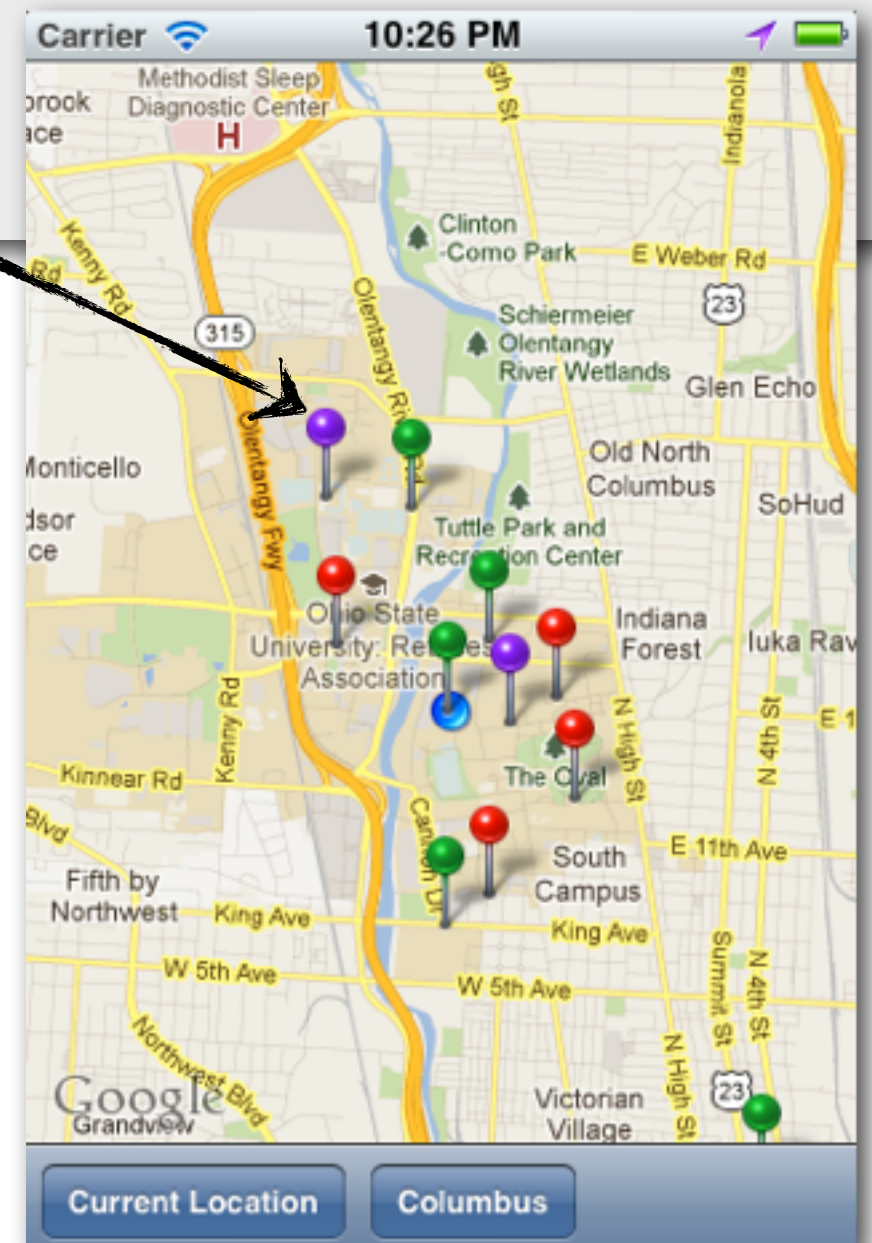
```
- (MKAnnotationView *)mapView:(MKMapView *)aMapView viewForAnnotation:(id < MKAnnotation >)annotation {  
    if(annotation == mapView.userLocation) {return nil;}  
  
    MKPinAnnotationView *annotationView =  
        (MKPinAnnotationView*)[mapView dequeueReusableAnnotationViewWithIdentifier:@"marker"];  
    if(nil == annotationView) {  
        annotationView = [[MKPinAnnotationView alloc] initWithAnnotation:annotation reuseIdentifier:@"marker"];  
        annotationView.pinColor = MKPinAnnotationColorPurple;  
    }  
  
    return annotationView;  
}
```

Limited to 3 colors

MKPinAnnotationColorPurple

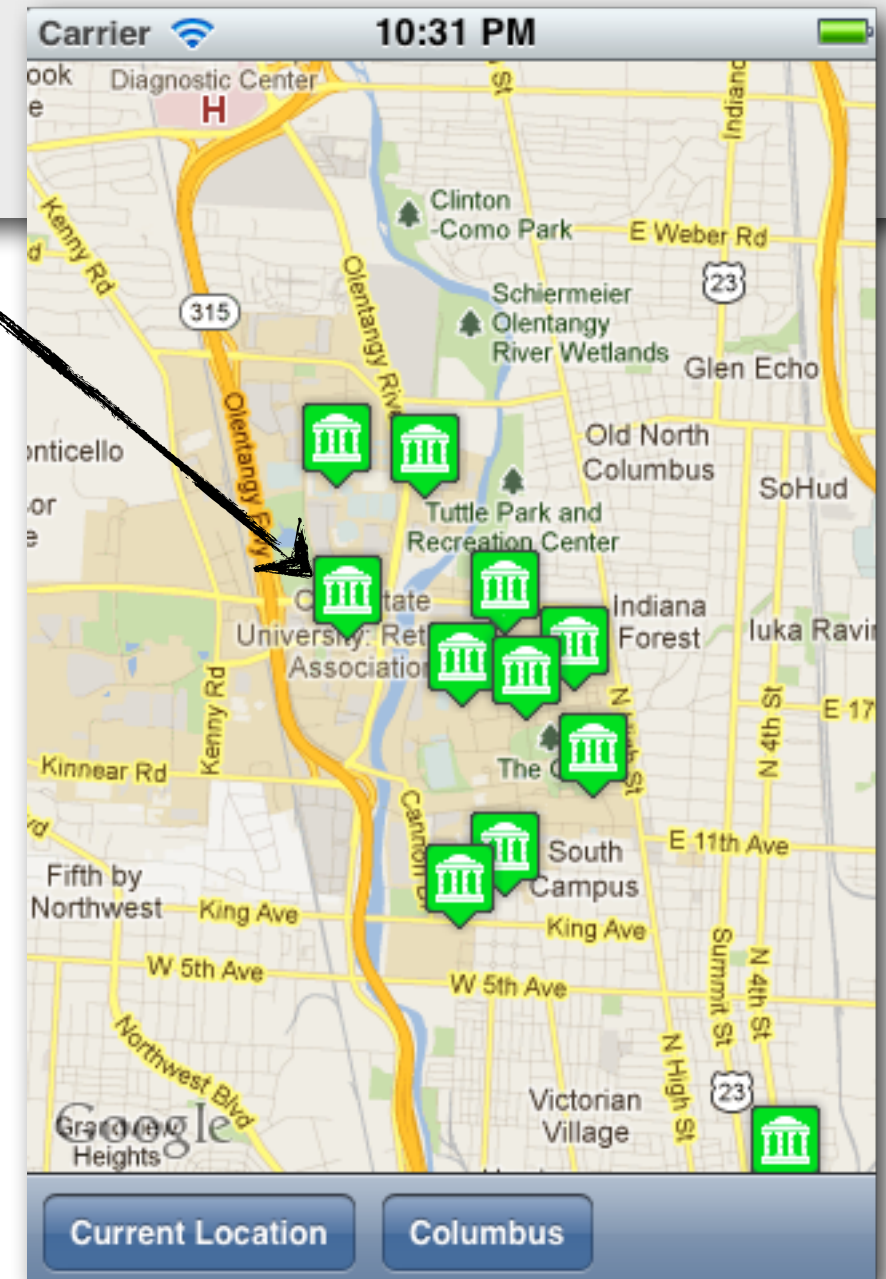
MKPinAnnotationColorRed

MKPinAnnotationColorGreen



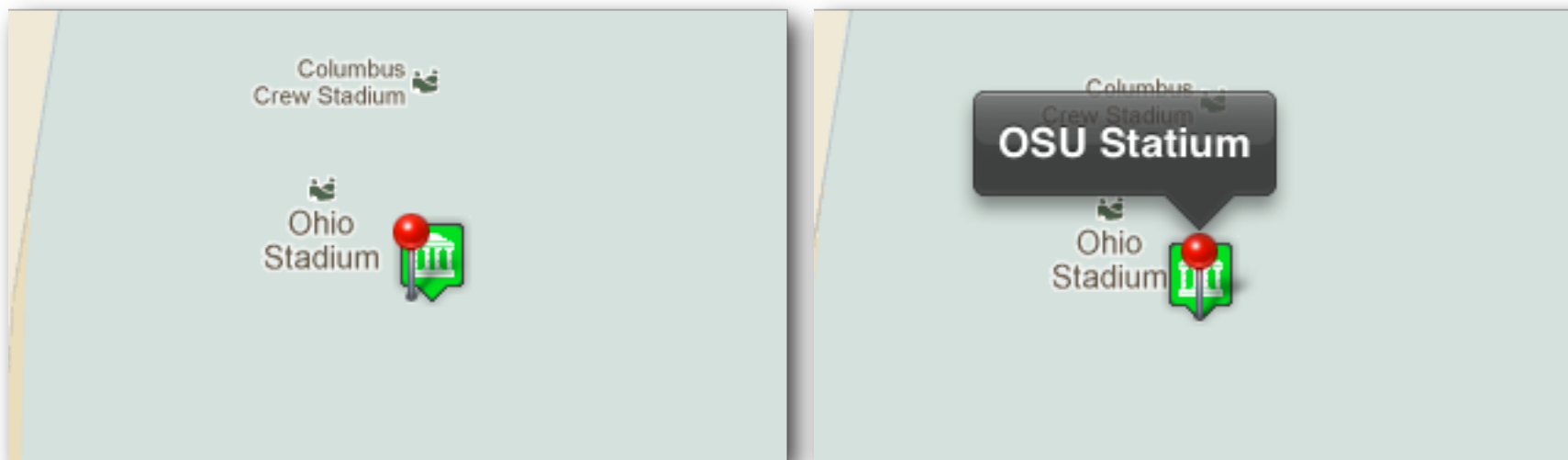
Annotation Images

```
- (MKAnnotationView *)mapView:(MKMapView *)aMapView viewForAnnotation:(id < MKAnnotation >)annotation {  
    if(annotation == mapView.userLocation) {return nil;}  
  
    MKAnnotationView *annotationView =  
        (MKAnnotationView*)[mapView dequeueReusableAnnotationViewWithIdentifier:@"marker"];  
    if(nil == annotationView) {  
        annotationView = [[MKAnnotationView alloc] initWithAnnotation:annotation reuseIdentifier:@"marker"];  
        annotationView.image = [UIImage imageNamed:@"history.png"];  
    }  
  
    return annotationView;  
}
```



Center Offset

```
- (MKAnnotationView *)mapView:(MKMapView *)aMapView viewForAnnotation:(id < MKAnnotation >)annotation {  
    if(annotation == mapView.userLocation) {return nil;}  
  
    MKAnnotationView *annotationView =  
        (MKAnnotationView*)[mapView dequeueReusableAnnotationViewWithIdentifier:@"marker"];  
    if(nil == annotationView) {  
        annotationView = [[MKAnnotationView alloc] initWithAnnotation:annotation reuseIdentifier:@"marker"];  
        annotationView.image = [UIImage imageNamed:@"history.png"];  
  
        CGPoint offsetPoint = CGPointMake(-8, 0);  
        [annotationView setCenterOffset:offsetPoint];  
    }  
  
    return annotationView;  
}
```



pins are placed using the center point

Free Map Icons

<http://code.google.com/p/google-maps-icons/>

Administration, Office & Industry



All the icons in this Icon Category [described and tagged](#).

Culture & Entertainment



All the icons [described and tagged](#).

Education & Kids

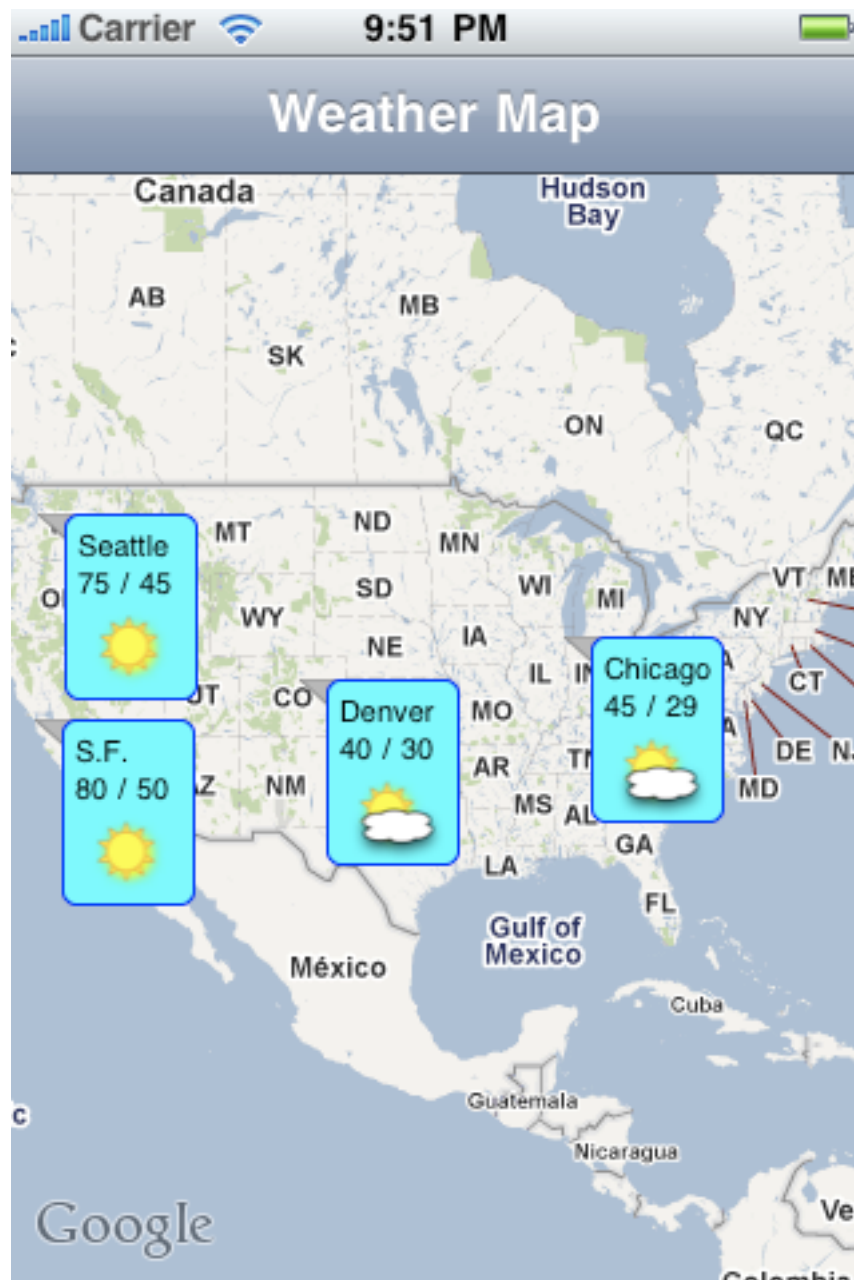


All the icons [described and tagged](#).

Events & Weather

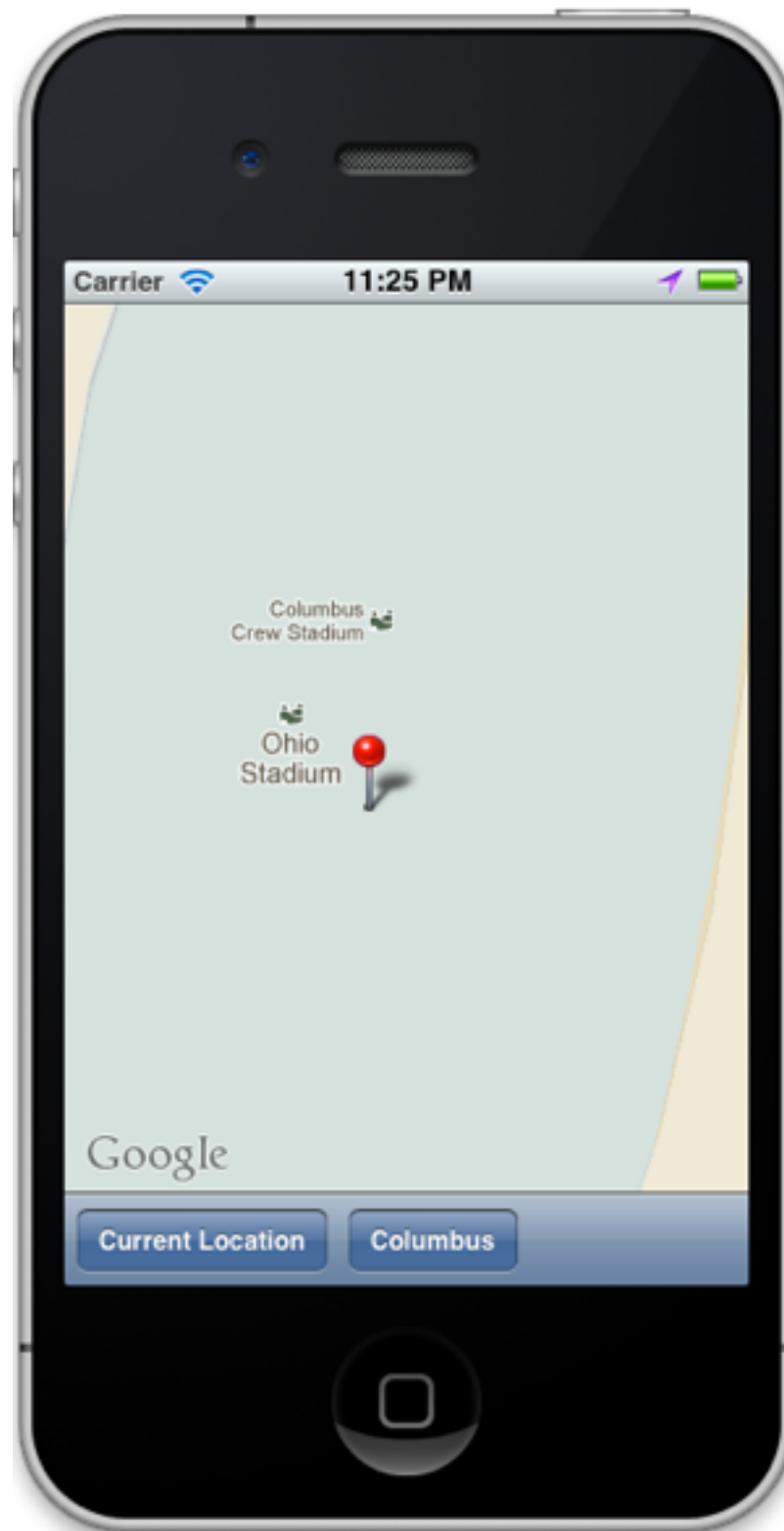


All the icons [described and tagged](#).



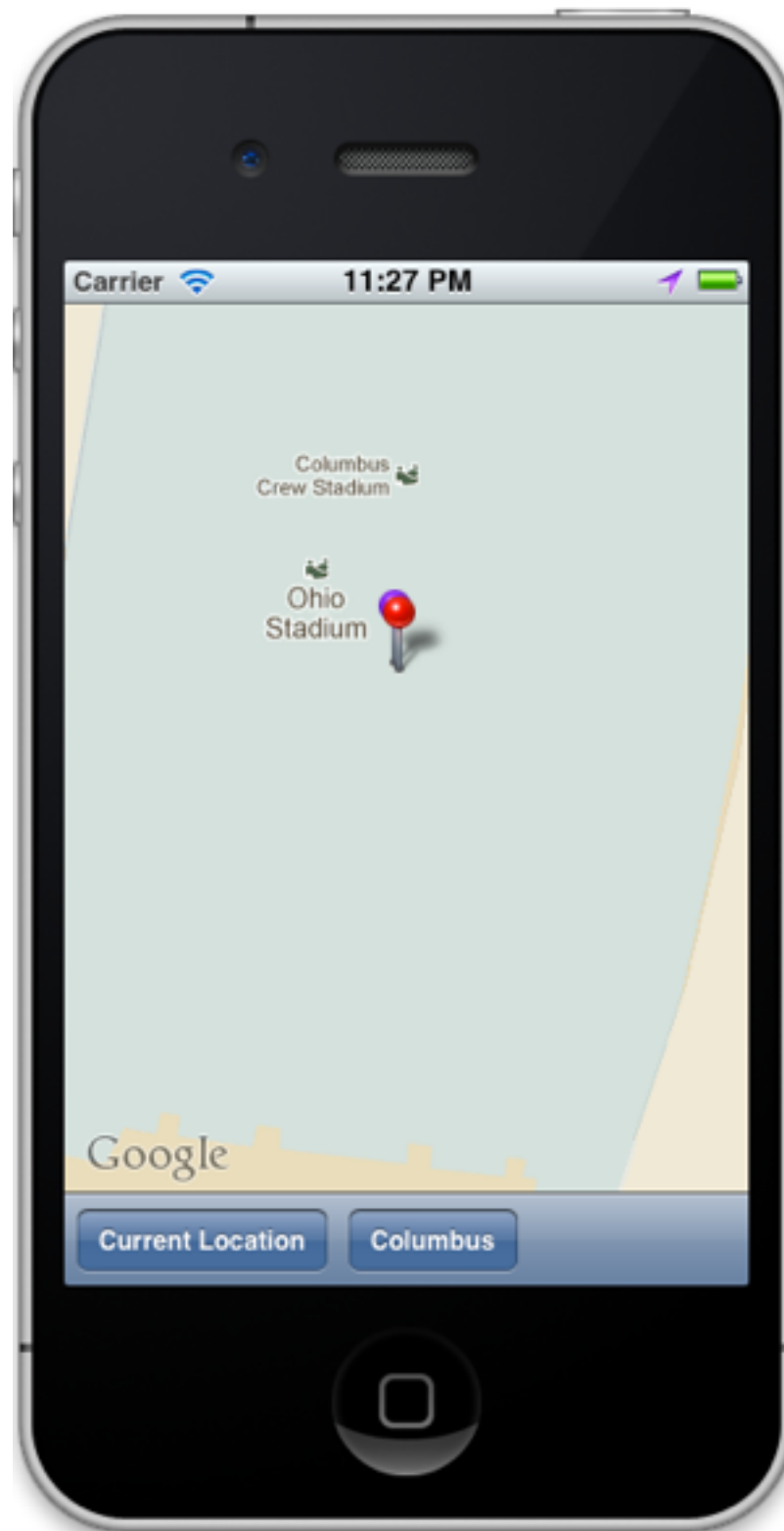
Be Creative

Precision



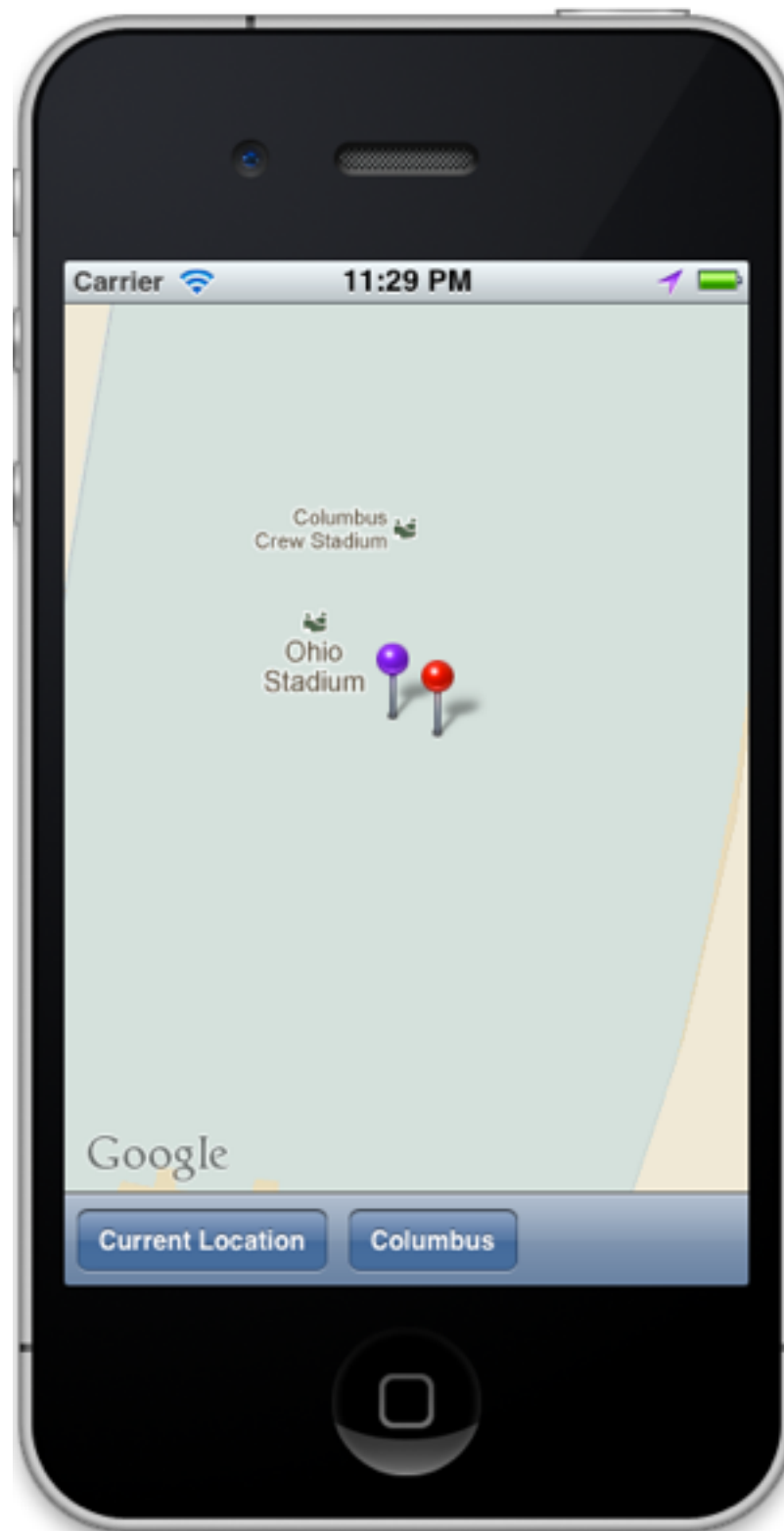
$\{40.001517, -83.019755\}$

Precision



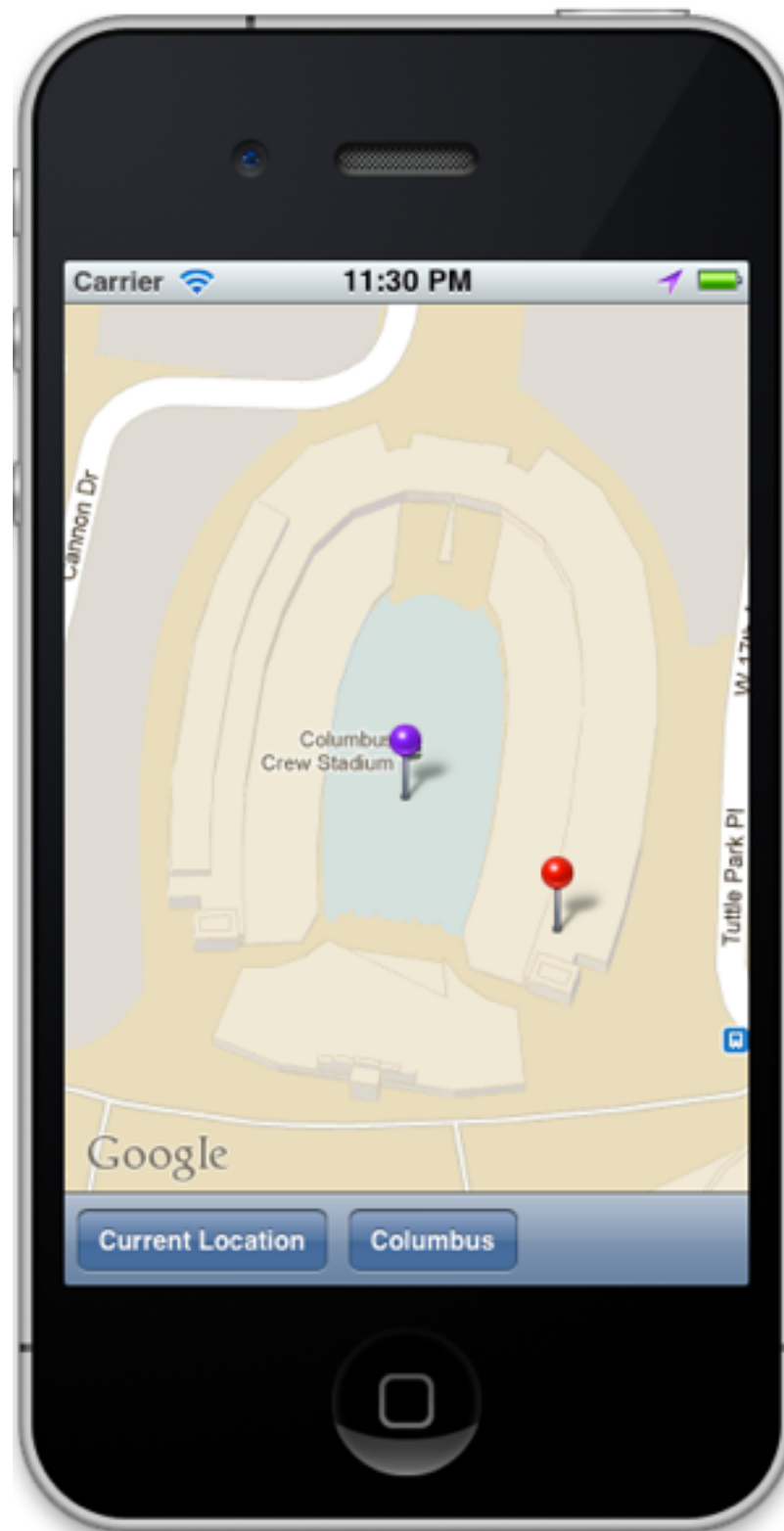
$\{40.00151, -83.01975\}$

Precision



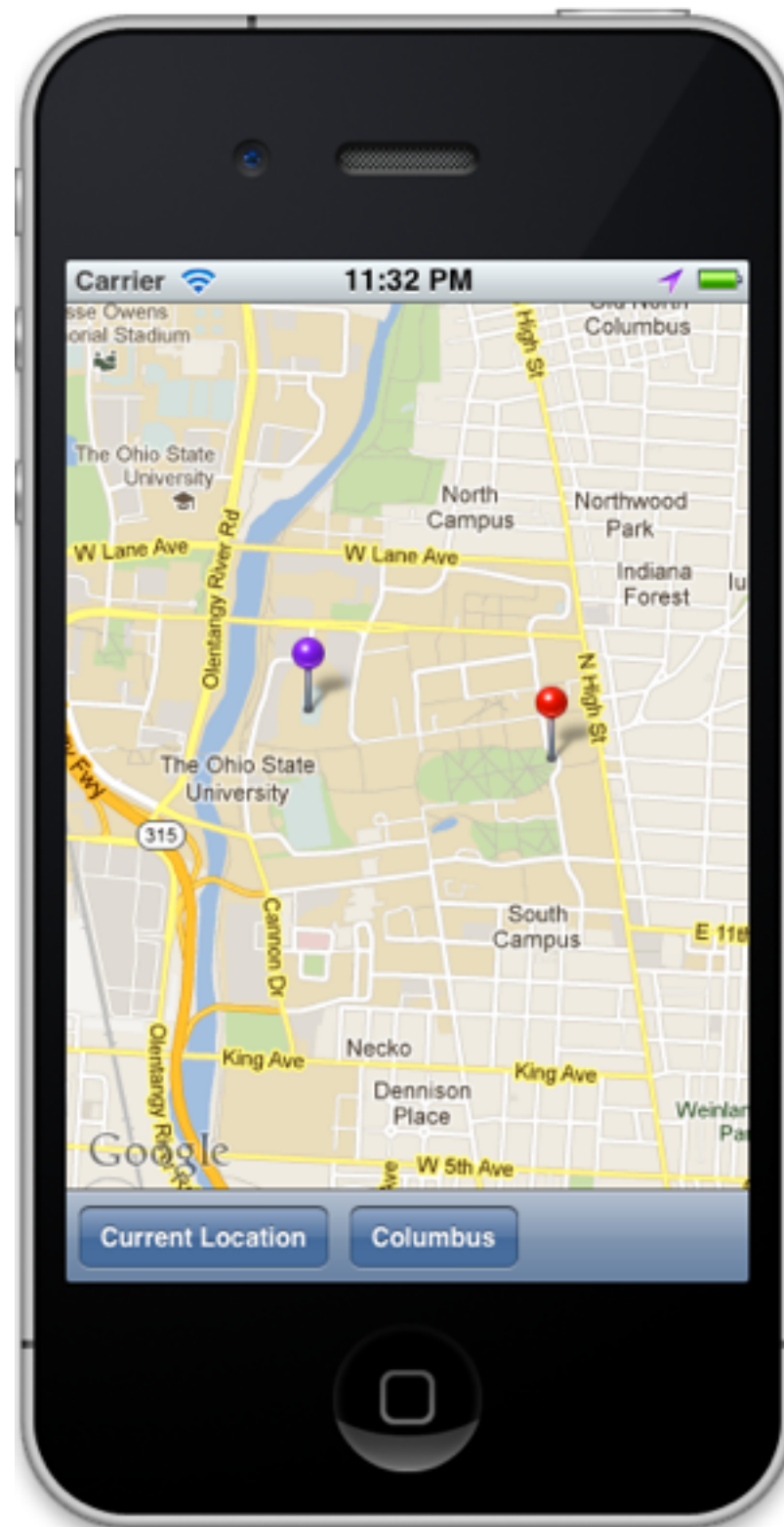
$\{40.0015, -83.0197\}$

Precision



$\{40.001, -83.019\}$

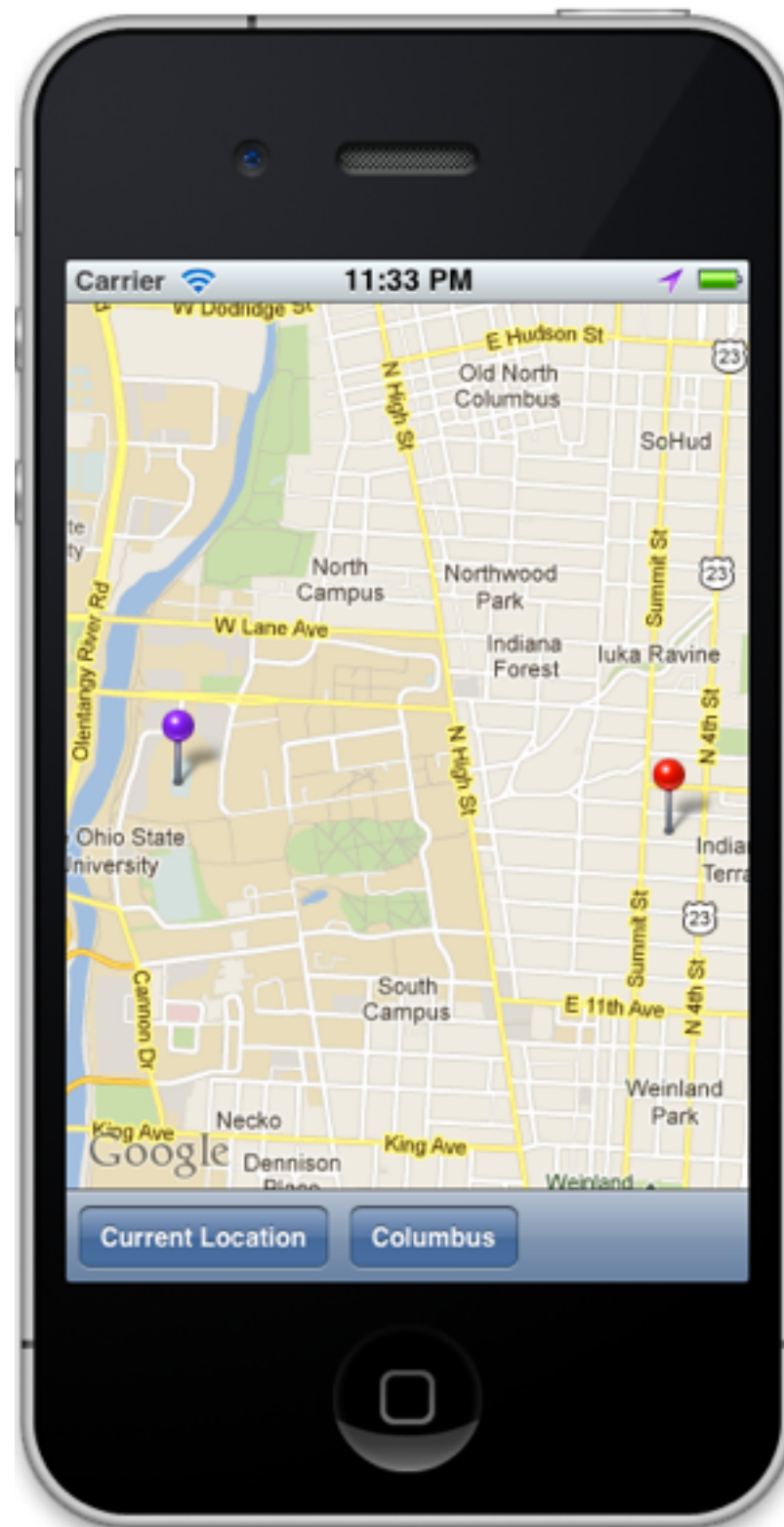
Precision



$\{40.00, -83.01\}$

Precision

make sure the
incoming data
is as qualified
as possible



don't lose
precision

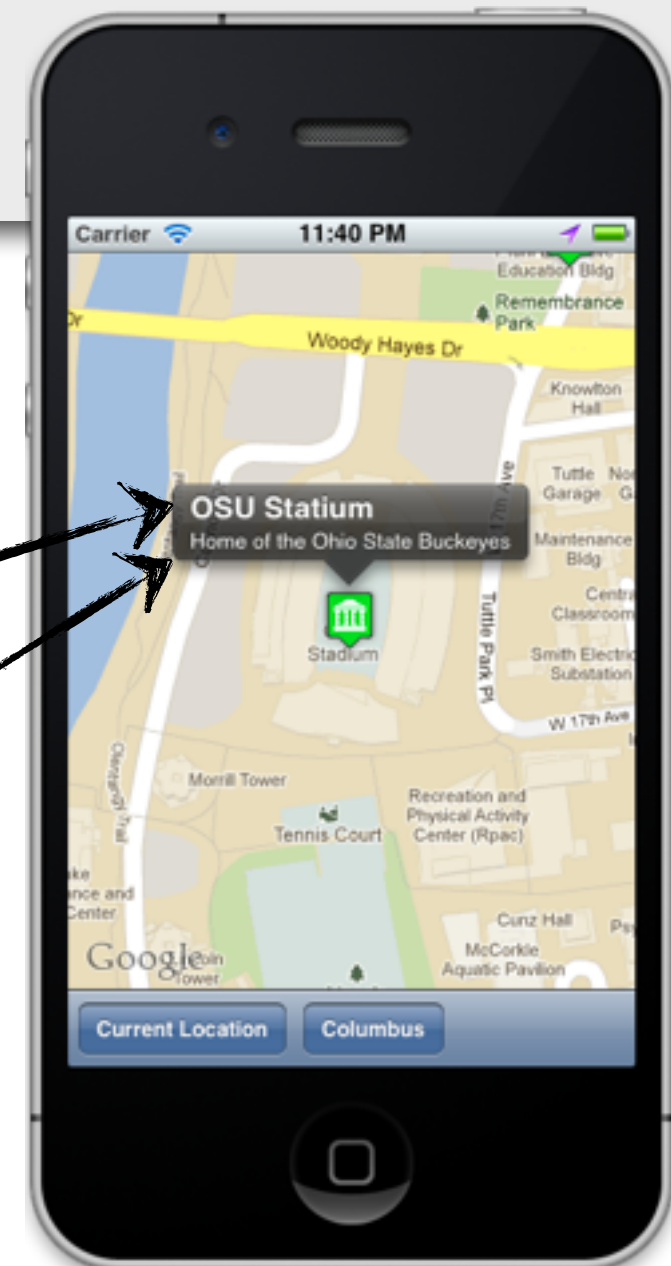
$\{40.0, -83.0\}$

Callouts

Enable Callouts

```
- (MKAnnotationView *)mapView:(MKMapView *)aMapView viewForAnnotation:(id < MKAnnotation >)annotation {  
    if(annotation == mapView.userLocation) {return nil;}  
  
    MKAnnotationView *annotationView =  
        (MKAnnotationView*)[mapView dequeueReusableAnnotationViewWithIdentifier:@"marker"];  
    if(nil == annotationView) {  
        annotationView = [[MKAnnotationView alloc] initWithAnnotation:annotation reuseIdentifier:@"marker"];  
        annotationView.image = [UIImage imageNamed:@"history.png"];  
        annotationView.canShowCallout = YES; ← Set canShowCallout  
    }  
  
    return annotationView;  
}
```

```
CLLocationCoordinate2D coordinate = {40.001517, -83.019755};  
MKPointAnnotation* point = [MKPointAnnotation alloc];  
point.coordinate = coordinate;  
point.title = @"OSU Stadium";  
point.subtitle = @"Home of the Ohio State Buckeyes";
```



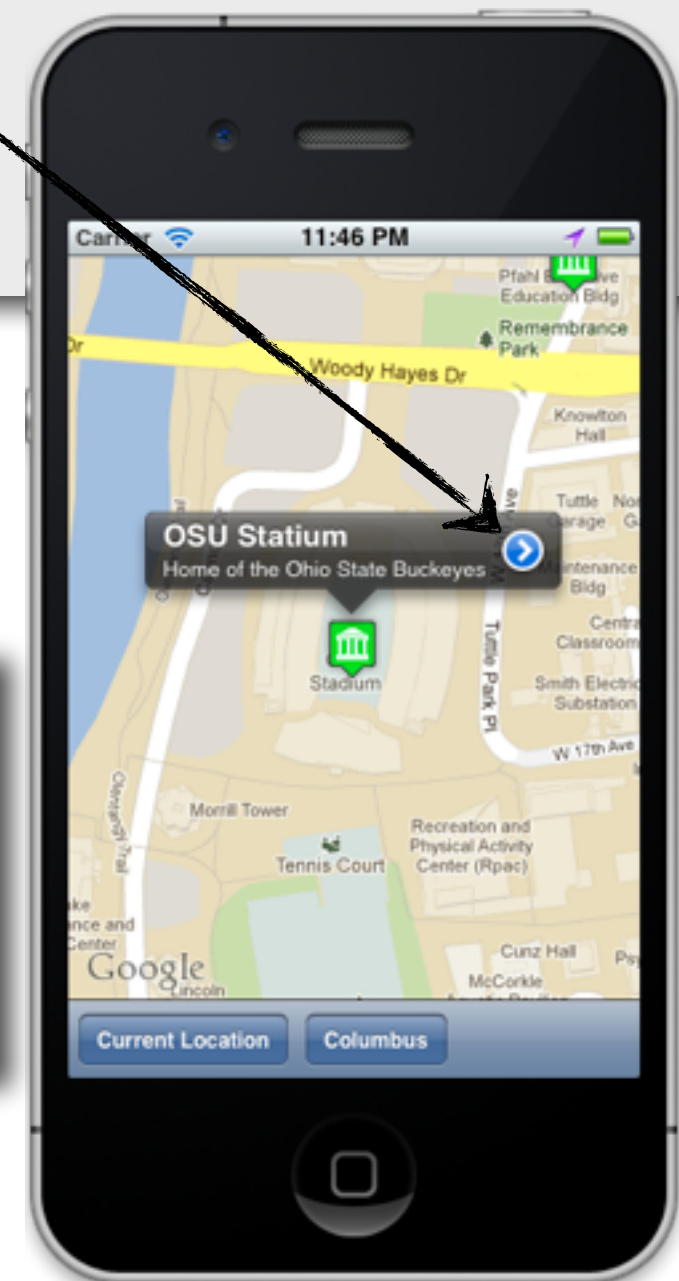
Add Behavior to Callouts

```
(MKAnnotationView *)mapView:(MKMapView *)aMapView viewForAnnotation:(id < MKAnnotation >)annotation {  
    if(annotation == mapView.userLocation) {return nil;}  
  
    MKAnnotationView *annotationView =  
        (MKAnnotationView*)[mapView dequeueReusableAnnotationViewWithIdentifier:@"marker"];  
    if(nil == annotationView) {  
        annotationView = [[MKAnnotationView alloc] initWithAnnotation:annotation reuseIdentifier:@"marker"];  
        annotationView.rightCalloutAccessoryView = [UIButton buttonWithType:UIButtonTypeDetailDisclosure];  
        annotationView.image = [UIImage imageNamed:@"history.png"];  
        annotationView.canShowCallout = YES;  
    }  
  
    return annotationView;  
}
```

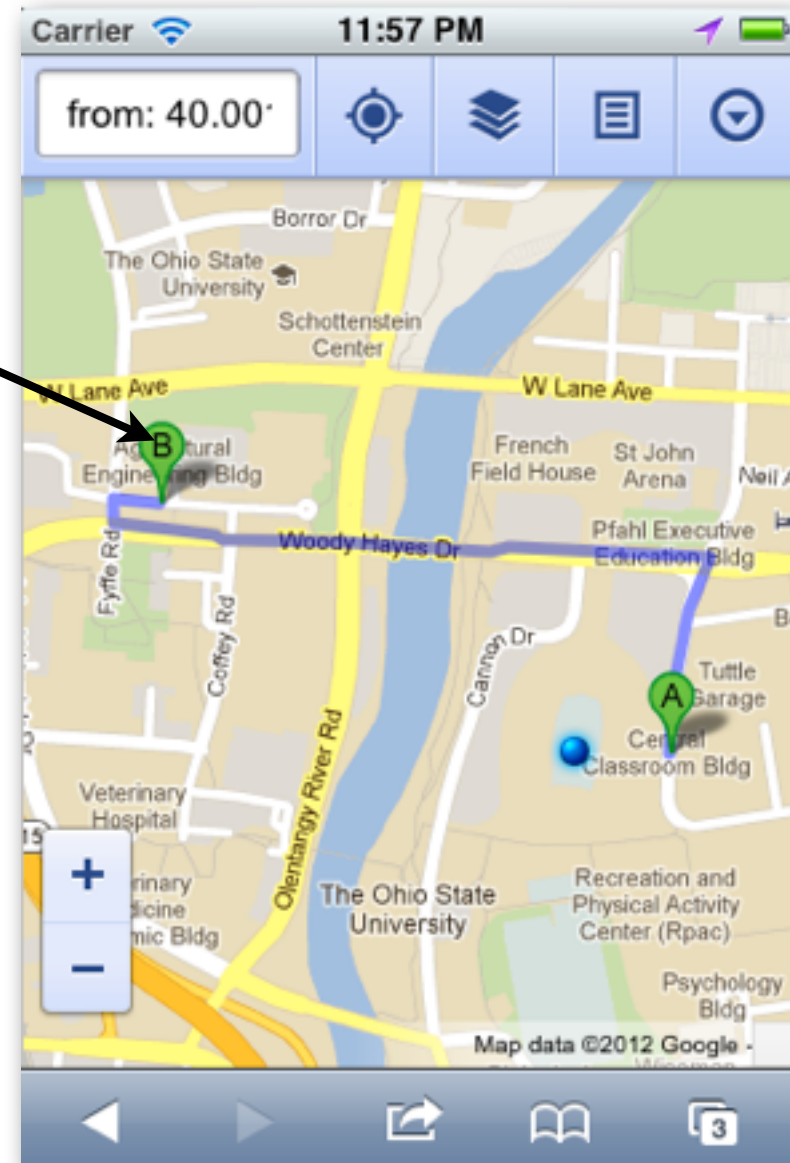
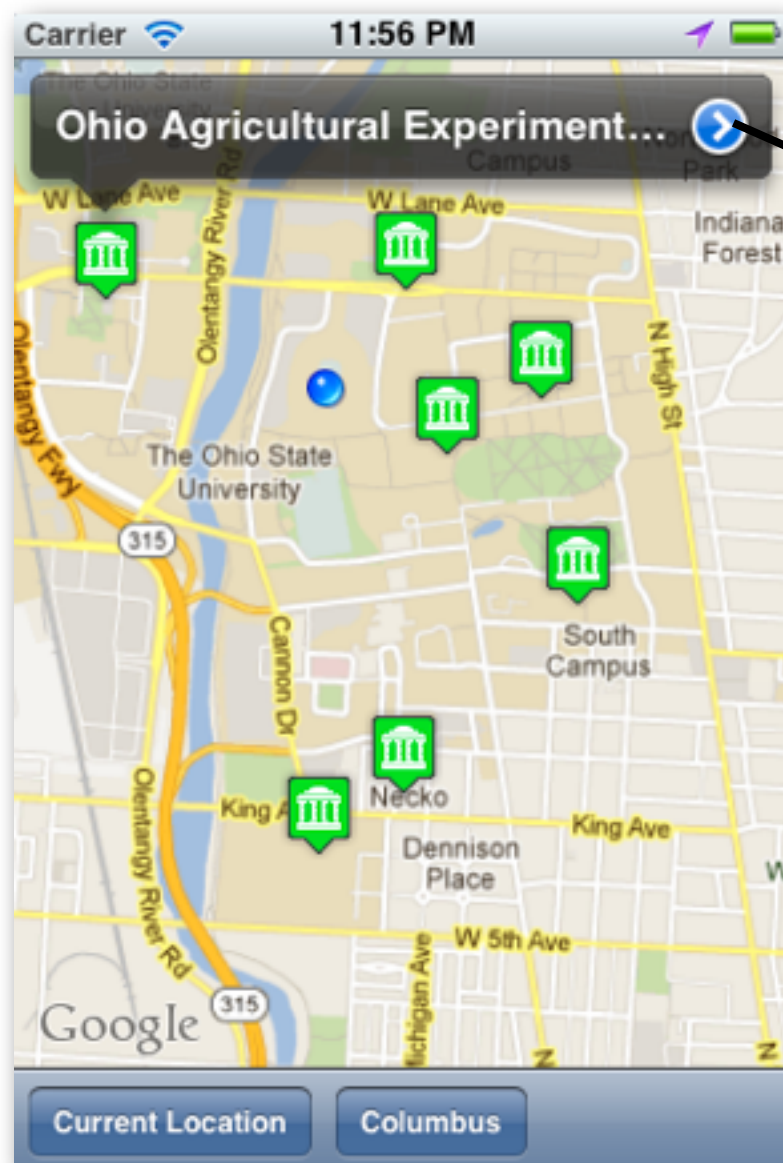
Implement calloutAccessoryControlTapped



```
(void)mapView:(MKMapView *)mapView annotationView:  
    (MKAnnotationView *)view  
    calloutAccessoryControlTapped:(UIControl *)control  
{  
  
    NSLog(@"%@ marker was selected.", view.annotation.title);  
    //Could open a detail view, navigate to a website, call, etc.  
}
```



Directions



```
- (void)mapView:(MKMapView *)mapView annotationView:(MKAnnotationView *)view
    calloutAccessoryControlTapped:(UIControl *)control {

    HistoryMarker* historyMarker = (HistoryMarker*)view.annotation;

    NSString* url = [NSString stringWithFormat:@"http://maps.google.com/maps?daddr=%f,%f&saddr=%f,%f",
        historyMarker.coordinate.latitude, historyMarker.coordinate.longitude,
        mapView.userLocation.location.coordinate.latitude,
        mapView.userLocation.location.coordinate.longitude];

    [[UIApplication sharedApplication] openURL:[NSURL URLWithString:url]];
}
```

<http://mapki.com/index.php?title=Google Map Parameters>

Alternatives

Why MapKit

- easy to implement
- apple support
 - WWDC videos
- well documented
- Demos Actually Compile!

Why Not MapKit

- area required is not well covered
- routing and turn-by-turn needed
- alternative tiles desired
- advertising or other data sets
- offline use



route-me

Open source iPhone-native sloppy map.



New Free BSD

OpenStreetMap



The Free Wiki World Map

bing[™]



<http://code.google.com/p/route-me/>



Bring your own maps? Bring **CloudMade** Maps.

The iPhone Maps Library lets you build interactive mapping applications for the iPhone. With this API you can:

- Build applications that give users a rich mapping experience on the iPhone
- Benefit from our tile servers which deliver mobile optimized maps to your users
- Easily integrate with the iPhone's location API to show your user's position in real time
- Get more with CloudMade maps than with Google

[See some examples](#)

New Release Coming Soon...

Includes:

- Native support
- Sponsored Points of Interest and more...



Feature	Google	CloudMade
Multiple map styles	✗	✓
Customizable map styles	✗	✓
Vehicle, Pedestrian, Cycle Routing	✗	✓
Forward Geocoding	✗	✓
Reverse Geocoding	✓	✓
Open source, user extendable library	✗	✓

<http://developers.cloudmade.com/projects/show/iphone-api>



No Preset Limit on Free Maps

New Free Map API Transaction Limits

With all the recent discussion regarding transactional limits among map APIs, we have [announced a few changes to our licensing terms](#). For starters, there will be **NO PRESET LIMIT** on maps using our Community Edition license!

Unlike our competitors, we're happy to let you pull up a chair to the buffet and gorge away!

How about web service calls (like geocodes)? 5,000 per day, double that of Google. Just to top it off, we've loosened the restrictions on the number of apps you can build. A paid mobile app? Sure. SSL? Go for it!

Be sure to check out the [Map API Licensing and Terms Overview](#) for details.

[Read more »](#)

1 2



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MapQuest has been providing business solutions for nearly 15 years, combining top-notch service and support with easy-to-use technology. As we continue to invest in our services, we consider our clients' needs first. If you're looking for a reliable platform backed by a trusted organization, partner with MapQuest.

- [Why MapQuest?](#)



DEVELOPERS **Resources & Documentation**

Our APIs and Web Services enable powerful mapping applications on the desktop, web or mobile. You can choose between commercial data providers or crowdsourced OpenStreetMap data. Take advantage of easy mobile mapping tools to enable rich mobile web or native applications.

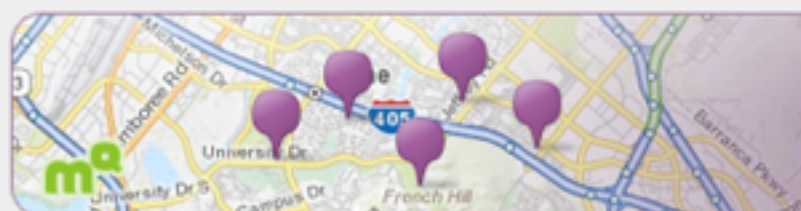
- [Quick Start for Developers](#)



BLOGGERS & WEB DESIGNERS **Easy Mapping Tools**

Adding a map to your website or blog is easy as copy and paste. Grab a custom map, driving directions or even a whole day's errands and link or embed it in your own website - for FREE.

- [Quick Start for Easy Mapping Tools](#)



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Bing Maps Control for iOS



Quick links

[↓ Overview](#)

[↓ System requirements](#)

[↓ Instructions](#)

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Add Bing maps to your native iOS apps

Quick details

Version:	1.1	Date published:	5/3/2011
Language:	English		

File name	Size	
BingMapsIOS-1.1.dmg	6.5 MB	DOWNLOAD

Overview

The Bing Maps iOS Control is an Objective-C control for embedding maps directly into native iOS apps. With a rich, gesture-based UI provided by Seadragon, the Bing Maps iOS Control provides support for adding pushpins and other overlays to the map, allows your device location to be displayed, and provides the ability to retrieve contextual information for a given map location.

↑ Top of page

System requirements

Supported operating systems: Mac OS X

Mac OS X Snow Leopard, version 10.6.4 or later on a Macintosh computer with an Intel x86 processor.

- Xcode version 4.0 or later
- The latest version of the iOS SDK. (This SDK is available from <http://developer.apple.com>. An Apple Developer account is required.)

↑ Top of page

<http://www.microsoft.com/en-us/download/details.aspx?id=1112>



iOS SDK

If you've found yourself on this page, we're assuming you've

- ➔ Signed up for a MapBox account and **logged in**.
- ➔ Created or **uploaded** a map to MapBox.
- ➔ Customized your map style to your liking (optional).
- ➔ Familiarized yourself with basic iOS development in Xcode 4.
- ➔ Ensured that your project supports iOS 5.0 or greater.

The [MapBox iOS SDK](#) is based on the [Route-Me](#) open source project ([Alpstein fork](#)) and is quite similar in behavior to Apple's [MapKit](#) framework, but with much greater flexibility for visual styling, offline use, and general customizability – plus it's open source!

SDK Installation (Binary)

Follow these steps in order to use the MapBox iOS SDK within your own Xcode 4 project in the fastest way possible.

1. Obtain the TileJSON URL for your map by going to the **Info** tab, clicking **Embed**, and copying the **TileJSON URL**. This URL contains all the metadata needed by the SDK in order to serve your map.
2. Download the latest SDK binary release from the [downloads](#) and drag `MapBox.framework` into your project's `Frameworks` section, adding it to your target.

Mobile

➔ Developers

iOS SDK

[Offline use](#)

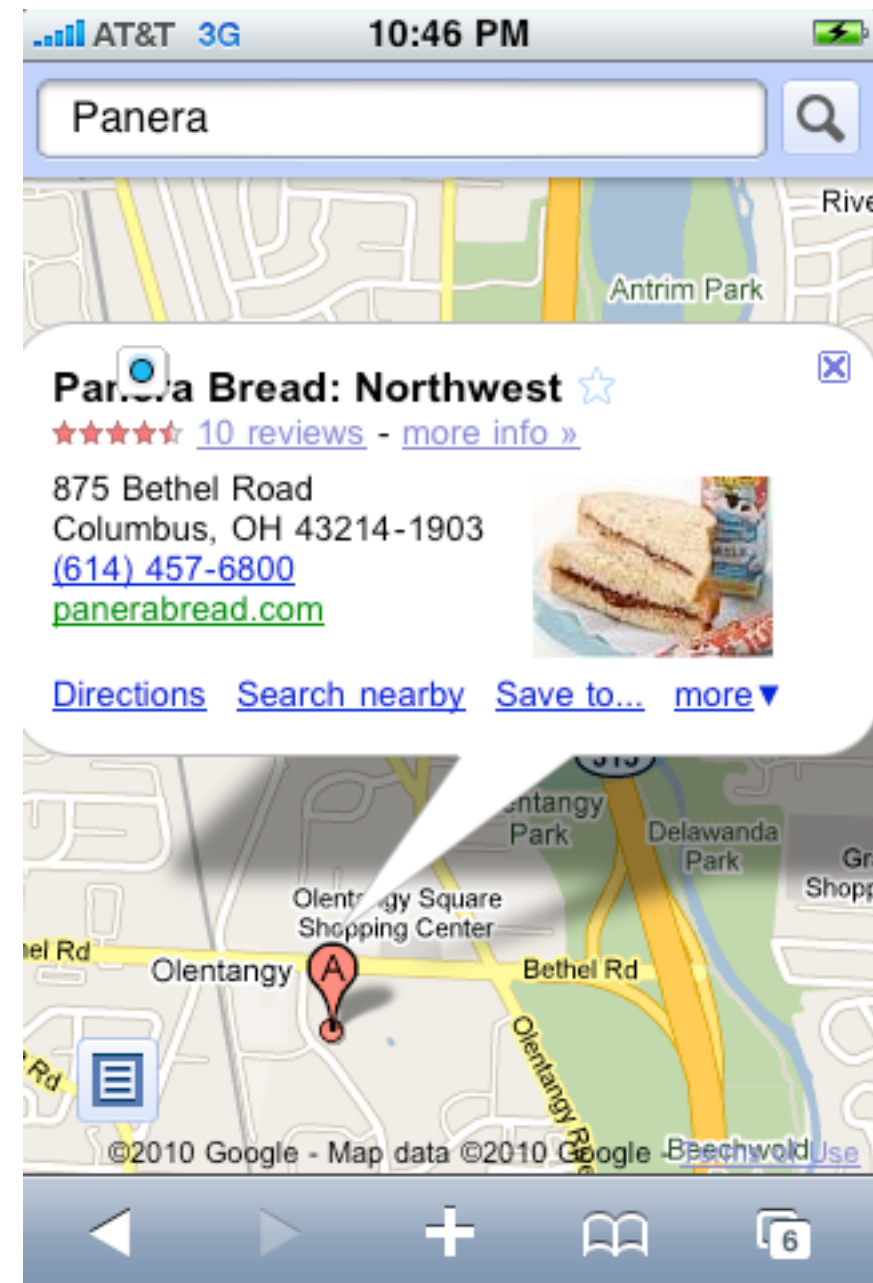
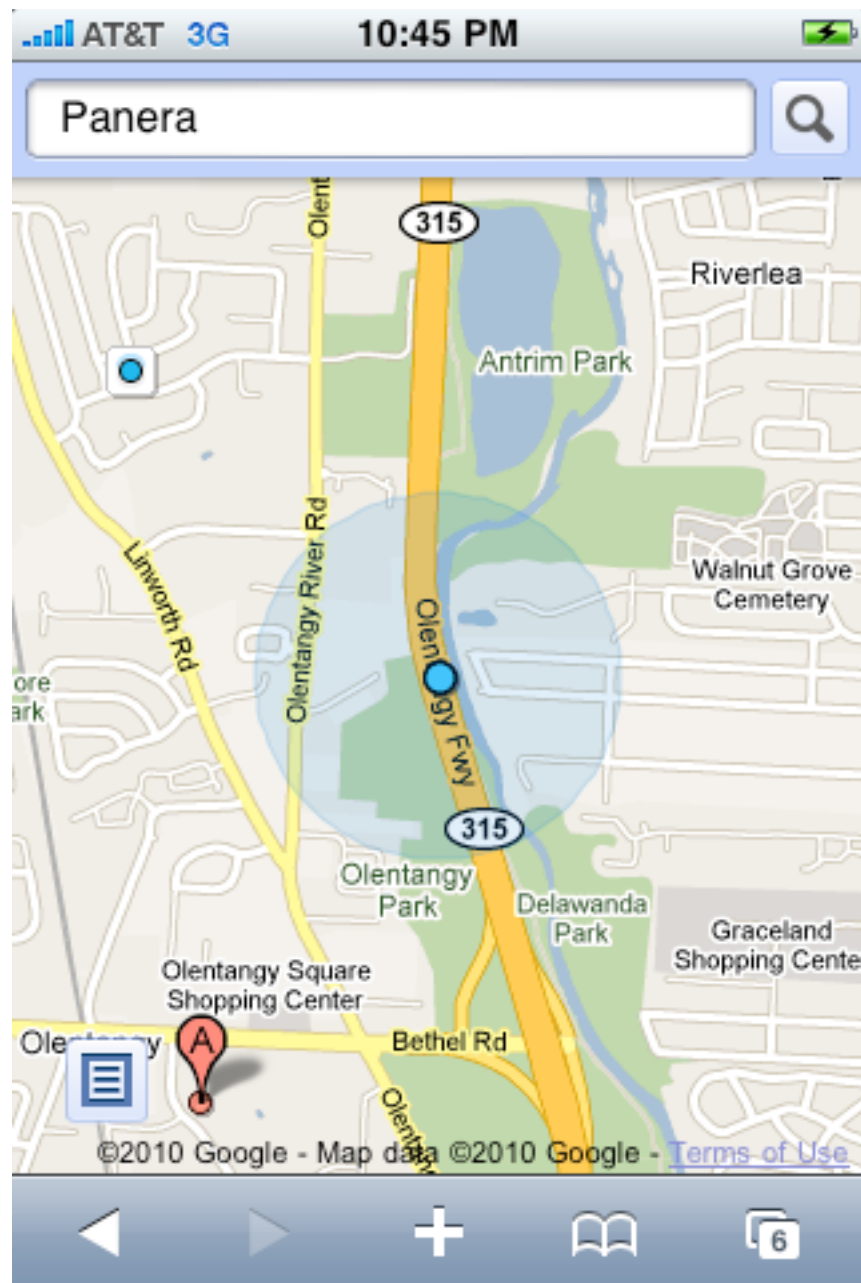
[Retina](#)

➔ Guide

➔ Apps

<http://mapbox.com/mobile/docs/sdk/>

Google maps





ArcGIS Runtime SDK for iOS

Resource Center

Home

Concepts

Samples

API Reference

What is ArcGIS Runtime SDK for iOS?

The Runtime SDK for iOS allows you to add maps and spatial functionality to your custom iOS applications.

[Learn More... ▶](#)

Quick Links

Download & Install

- [Requirements & Installation](#)
- [Get the latest SDK \(v2.3\)](#)

Resources

- [Concepts](#)
- [Samples](#)
- [API Reference](#)
- [Esri Training Courses](#)

Support

- [Forums](#)
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Other links

- [ArcGIS for iOS Application](#)
- [ArcGIS Ideas](#)

Gallery

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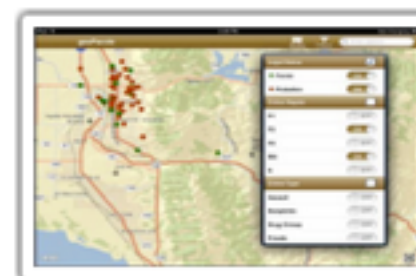
Macau GeoGuide



Health Indicators



FindAControl for iOS



geoParole



경기도교통정보

<http://resources.arcgis.com/en/communities/runtime-ios-sdk/>

Columbus History Map Source

The screenshot shows the GitHub interface for the repository 'ColumbusHistoryMap_iOS' by user 'cjudd'. The page includes the GitHub logo, user navigation links (Dashboard, Inbox, Account Settings, Log Out), and a search bar. The repository page features tabs for Source, Commits, Network, Pull Requests, Fork Queue, Issues, Wiki, and Graphs. A description of the repository is provided, along with a 'Downloads' button. The commit history is displayed, showing a recent commit by 'cjudd' with the message 'Removed specific user setting folder.' and a list of files changed.

github SOCIAL CODING

cjudd 2 Dashboard Inbox 0 Account Settings Log Out

Explore GitHub Gist Blog Help Search...

cjudd / ColumbusHistoryMap_iOS Admin Unwatch Pull Request 2 2

Source Commits Network Pull Requests (0) Fork Queue Issues (0) Wiki (0) Graphs Branch: master

Switch Branches (1) Switch Tags (0) Branch List

Example iOS application using MapKit — [Read more](#)
click here to add a homepage

SSH HTTP Git Read-Only git@github.com:cjudd/ColumbusHistoryMap_iOS.git This URL has Read+Write access

Removed specific user setting folder.

cjudd (author)
about 22 hours ago

commit b042c5ad91f8497a0dfa
tree a8c7ff36a0aa7a6d76e8
parent a18ea8ac8e032bf21fb9

ColumbusHistoryMap_iOS /

name	age	message	history
Classes/	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
ColumbusHistoryMap.xcodeproj/	about 22 hours ago	Removed specific user setting folder. [cjudd]	
ColumbusHistoryMap-Info.plist	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
ColumbusHistoryMapViewController.xib	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
ColumbusHistoryMap_Prefix.pch	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
MainWindow.xib	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
README	about 23 hours ago	initial commit [cjudd]	
history.png	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
libisimulate.a	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	
main.m	about 22 hours ago	Added original ColumbusHistoryMap code. [cjudd]	

https://github.com/cjudd/ColumbusHistoryMap_iOS



Christopher M. Judd

Judd Solutions

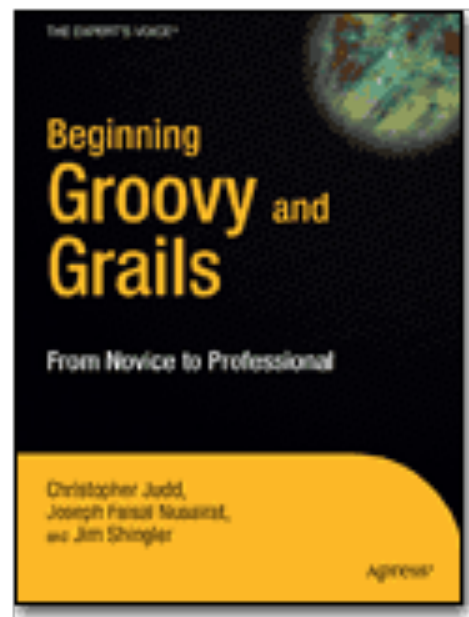
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