



Building Apps with the ArcGIS Runtime SDK for OS X (Mac)

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**Esri Developer
Summit Europe**

11-13 November 2013
Park Plaza Riverbank London



Agenda

- **ArcGIS Runtime SDK for OS X**
- **Building apps for the Mac**
- **Let's build something!**
 - **Create a rich user experience**
 - **Share iOS and OS X code**
 - **Go offline**
 - **Integrate with the Apple environment**
 - **Apple's MapKit?**
- **Deployment**
- **What's next?**

ArcGIS Runtime SDK for OS X

Version 10.2 (October 2013)

[DOWNLOAD](#)

[WHAT'S NEW](#)

[SYSTEM REQS.](#)

[INSTALL & SET UP](#)

Build Mac applications that incorporate mapping, geocoding, geoprocessing, and custom capabilities provided by ArcGIS Online or your own on-premises ArcGIS servers. Deploy Cocoa applications to any Mac computer that uses the OS X 10.8 platform (or later).

★ Explore maps



Find, view and interact with maps using our preview application. Download and run it from [ArcGIS Online](#) or go to GitHub and fork its source code at <https://github.com/Esri/preview-app-osx>.

[PREVIEW APPLICATION](#)

📄 Run the samples

See the range of mapping and GIS capabilities you can add to your app. No need to install the SDK! Look at the [Sample Code](#) page or just download this runnable sample catalog and explore the API.



[SAMPLE CATALOG](#)

ArcGIS Runtime SDKs for ...

ArcGIS
Runtime
SDK

Guide

API Ref

Samples

Community

ArcGIS
Runtime
API

Android

Java

iOS

OS X

Qt

WPF

.NET
10.2.1
Beta

ArcGIS
Runtime

x86

x64

ARM

Android

Linux

iOS

OS X

Win

WinRT

C++ 'Runtime Core'

Brand new SDK...

- Fast High-quality cartography and symbology



- Use maps, layers, and data from the ArcGIS cloud



- Edit, geocode, route, and query



- Perform analysis



- Offline



- So much more

How do I get the SDK?

- **Download free SDK!**
 - Login with ArcGIS Developer account
 - Not the ArcGIS Online account



- **Free ArcGIS Developer subscriptions for Dev/Test**
 - Signup at developers.arcgis.com
 - Different plans cater for your deployment needs

Plan	Credits	Users	Support
Free For Development	50	1	

What's in this SDK?

Something for everyone!

- iOS developers
- Runtime SDK developers
- Never developed on Mac
- Application architects

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Building apps for the Mac



OS X 10.8 (Mountain Lion)



OS X 10.9 (Mavericks)



Xcode 5



Mac Developer Program



Mac App Store



Design for ...

- **Style & Simplicity**
 - **Apple's OS X Human Interface Guidelines**
 - **Apple Samples**

- **GIS functionality**
 - **ArcGIS Samples**
 - **ArcGIS Demo code and applications**

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Toolkit

Measure



Find



Popup



TOC



Copyright



Basemap



WebMap Gallery



What is the Toolkit?

- **Application-level building blocks**
- **ViewControllers**
- **MVC Design Patterns**
- **Complete with Source Code**
- **GitHub – you can contribute, raise issues**

- **EAF Kit – Esri Application Framework**

How do the ViewControllers communicate?











Demo

Create a rich user experience

ArcGIS

Runtime Preview

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 <p>Landsat NDVI Change 12/11 ★★★★★ 4 ratings OPEN DETAILS</p>	 <p>MDA NaturalVue Satellite 12/11 ★★★★★ 3 ratings OPEN DETAILS</p>
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iOS and OS X APIs

- AGSMapView
- AGSPoint
- AGSTiledLayer
- AGSLocator
- AGSRouteTask
- AGSCredential
- AGSEnvelope
- AGSLayer
- AGSGeometry
- AGSWebmap
- AGSGDBTask
- AGSGDBGeodatabase
- AGSGDBFeatureTable
- AGSPortal
- 300+



Are you an iOS developer?

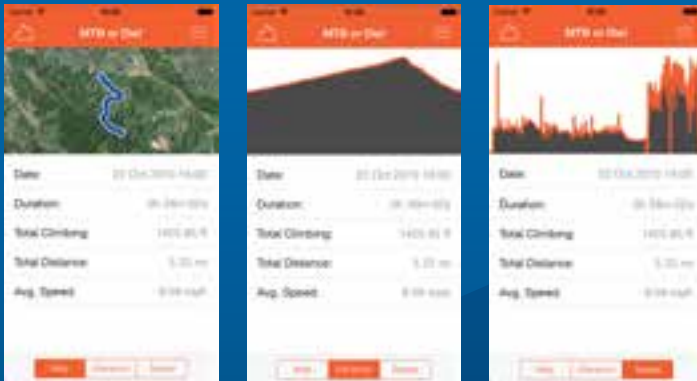
- Design for a new Form factors
- ARM architecture - 64-bit
- Cocoa Touch – Cocoa
- UIKit - AppKit Framework
- UIView - NSView
- UIViewController - NSViewControllers
- UIColor - NSColor (UIImage, UIView)

Learn or brush up on Cocoa Concepts

- Delegate pattern
- IBAction and IBOutlet
- Xcode 5 autolayout functionality
- View Swapping
- Basic MVC
- NotificationCenter
- NSPopover

Demo

Share iOS and OS X code



Agenda

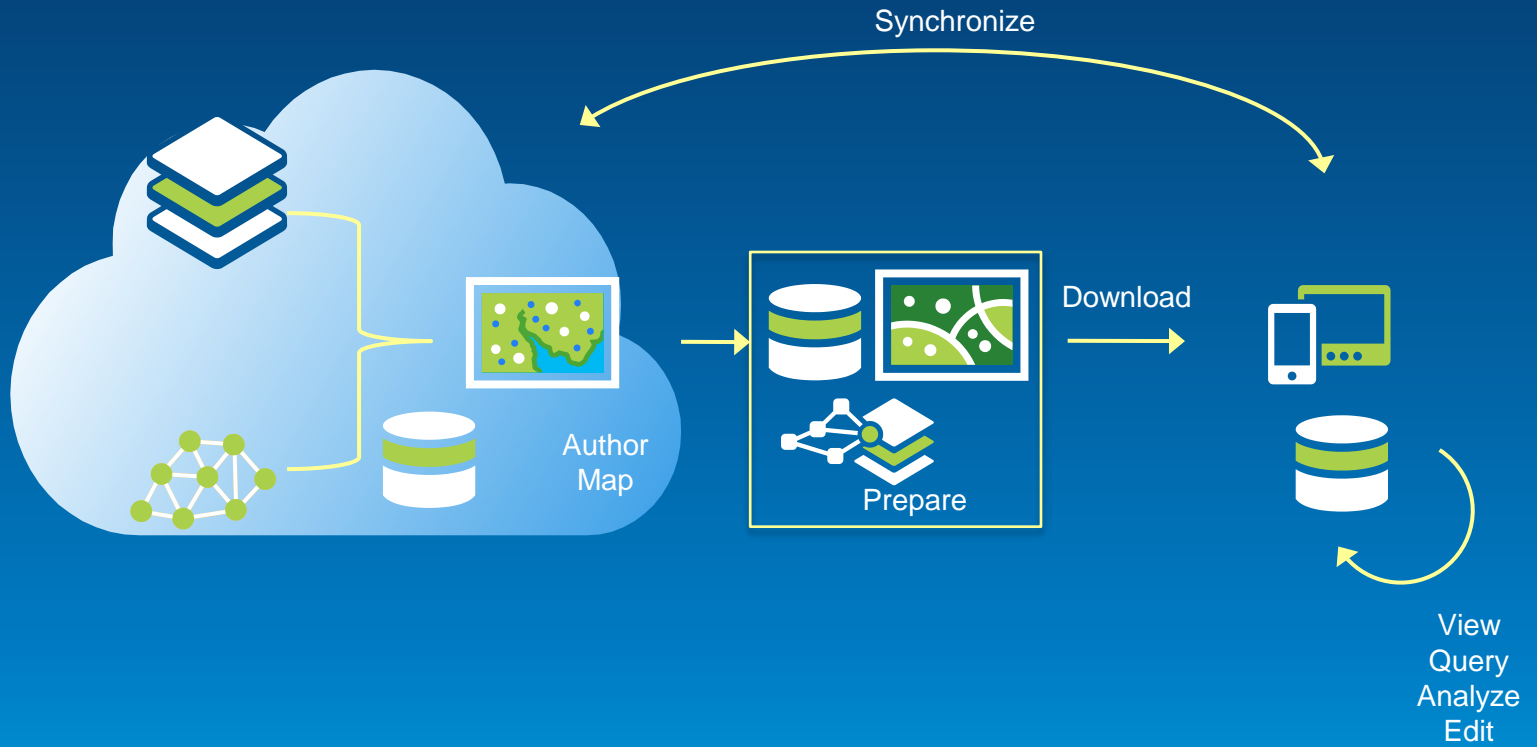
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Go offline

- **Disconnected use of the ArcGIS platform**
 - Viewing/interacting with maps
 - Querying data
 - Editing features
 - Synchronization
 - **Spatial intelligence**
 - Find places and locations
 - Get directions
 - Pre-planned or on demand workflows
 - Occasionally connected scenarios
- **Explore the Sample Application**



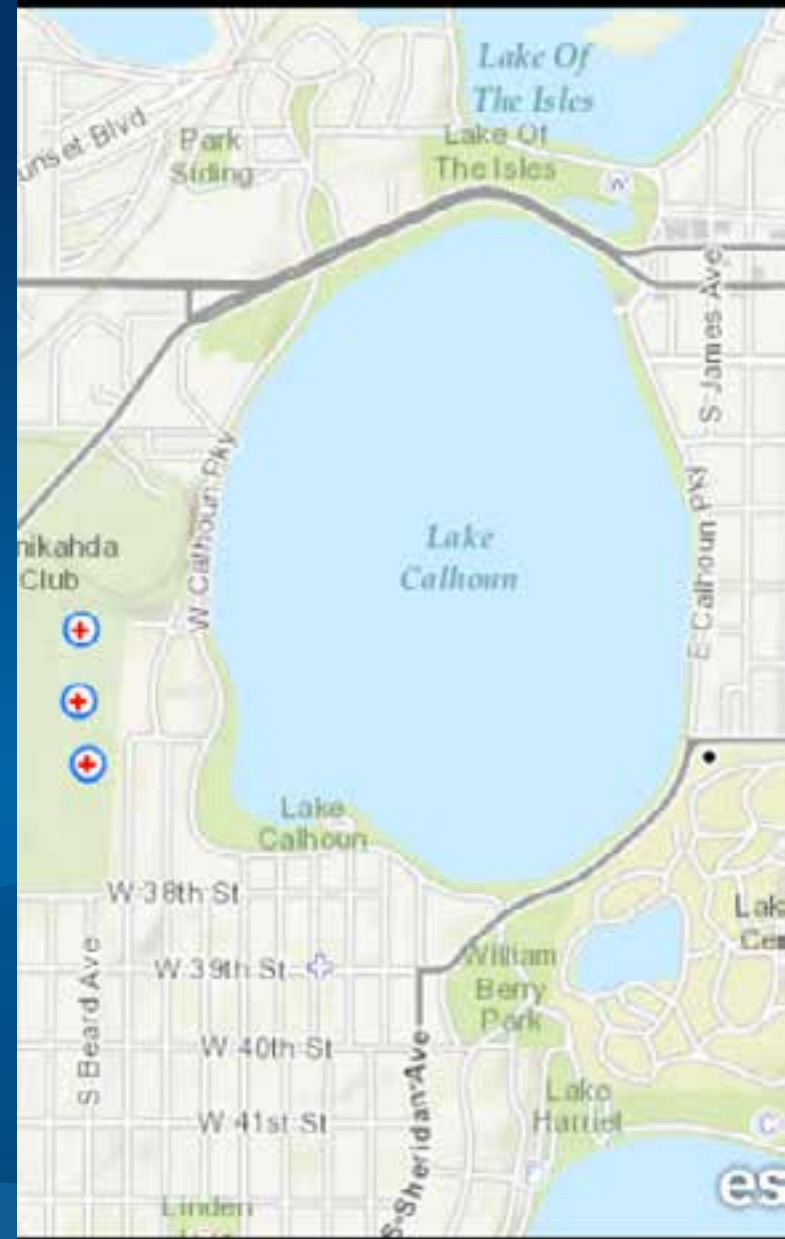
From ArcGIS Online



Demo

Go offline

Editing



Home



Set Home Extent

Go Offline!

Add Feature

Sync

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Integrate with the Apple environment

- Desktop functionality
- Drag and Drop
- Notification Centre
- iBeacons



Demo

Integrate with the apple environment



Apple's Map application (MapKit API)



... but ArcGIS Runtime gives so much more

- **ArcGIS Online/Portal Services**
- **WebMaps**
- **Spatial Analysis**
 - **Geometry Engine**
- **Offline**
 - **Basemaps**
 - **Editing**
 - **Geocoding**
 - **Routing**

Deployment at 10.2

Deployment

- No revenue - it is free
- Revenue - ArcGIS.com paid plan

- Options

- Mac App Store
- ESRI Marketplace
- Enterprise - Third party
- Your own mechanism

The Road Ahead....

- **10.2.1**
 - Offline map use - LIVE
 - Being productive offline
 - Network/geocode/search
 - Performance improvements
- **Beyond**
 - Offline analysis
 - Vector Maps
 - 3D



Understanding our world.

Resources for you....

- **Apple's OS X Human Interface Guidelines**

- <https://developer.apple.com/library/mac/documentation/UserExperience/Conceptual/AppleHIGuidelines/Intro/Intro.html>

- **Apple Samples**

- <https://developer.apple.com/search/index.php?q=samples>

- **ArcGIS Samples**

- <https://developers.arcgis.com/en/os-x/sample-code/>

- **ArcGIS Demo code and applications**

- <https://github.com/Esri/preview-app-osx>
- <http://www.arcgis.com/home/item.html?id=038213d942cc4db49b1c5bc716377721>