

**2013 Esri Europe, Middle East,
and Africa User Conference**

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An introduction to ArcGIS Runtime

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Welcome!

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Agenda


- Overview
- Features
- Road Ahead

Where do apps come from?




Apps on many platforms

Web




Web APIs

Desktop



Engine SDKs

Device



Runtime SDKs

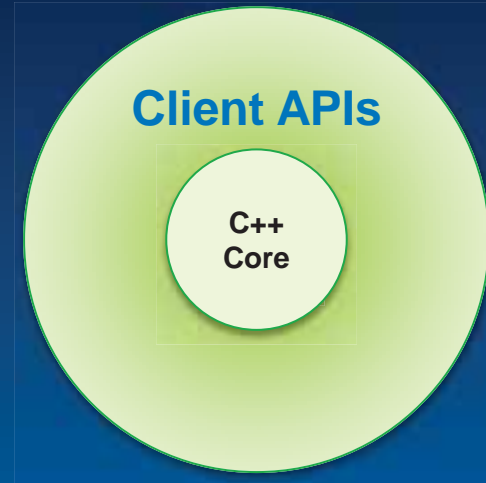
Runtime SDKs

- Native APIs for building focused applications
- Embed ArcGIS into existing functionality
- Common conceptual framework across platforms
- Powered by a Runtime



Runtime SDKs

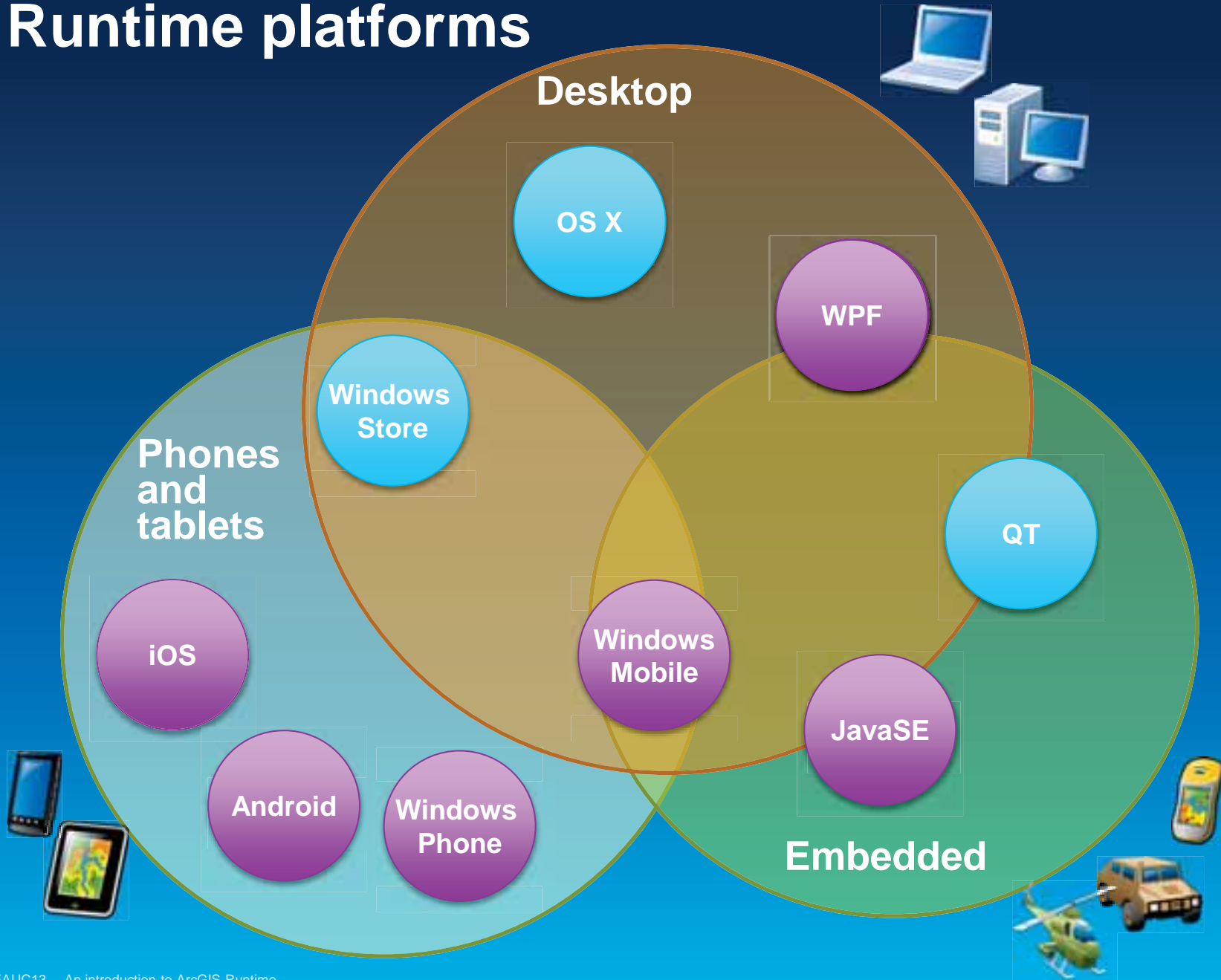
- Runtime Core
 - C++
 - Small
 - High performance
- Client APIs expose functionality to developers, e.g.
 - .NET
 - Java
 - Objective C



Part of the ArcGIS platform



Runtime platforms



Apps based on ArcGIS Runtime

- ArcGIS App
 - iOS, Android, Windows Phone
- Collector App
 - iOS, Android
- Operations Dashboard for ArcGIS
 - Windows



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- **Features**
- Road Ahead

Features

- Mapping
- Geocoding
- GPS
- Query, Find, Identify
- Analysis
- Editing
- Network Analysis

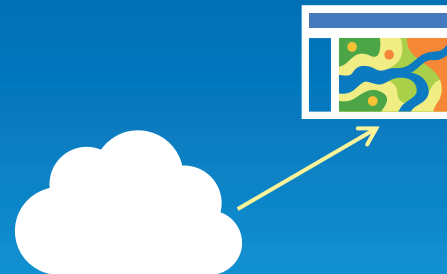
Features

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Map

- Mashup layers
 - Basemap layer
 - Operational layers
 - Graphics layer
- Display WebMaps
 - ArcGIS.com
 - ArcGIS Portal



ArcGIS Data sources

- ArcGIS Online / Portal
 - Maps, services, content and Organization branding



- ArcGIS for Server
 - Services

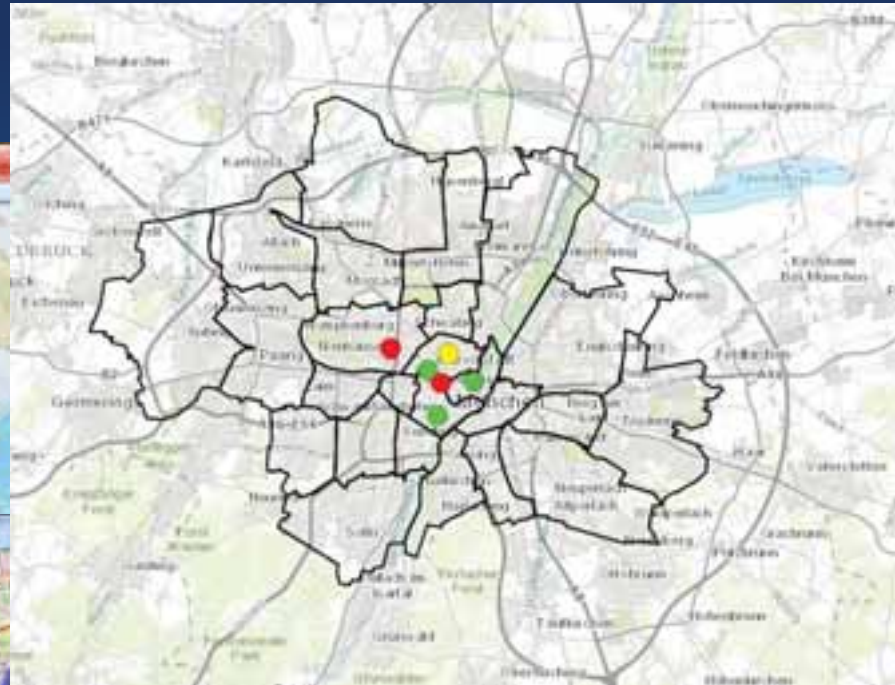
- ArcGIS for Desktop
 - Packages



External data sources

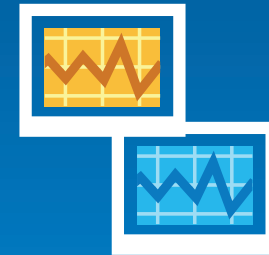
- Bing
- Open Street Map
- KML
- WMS
- GeoRSS
- Shape

Demos Mapping



Features

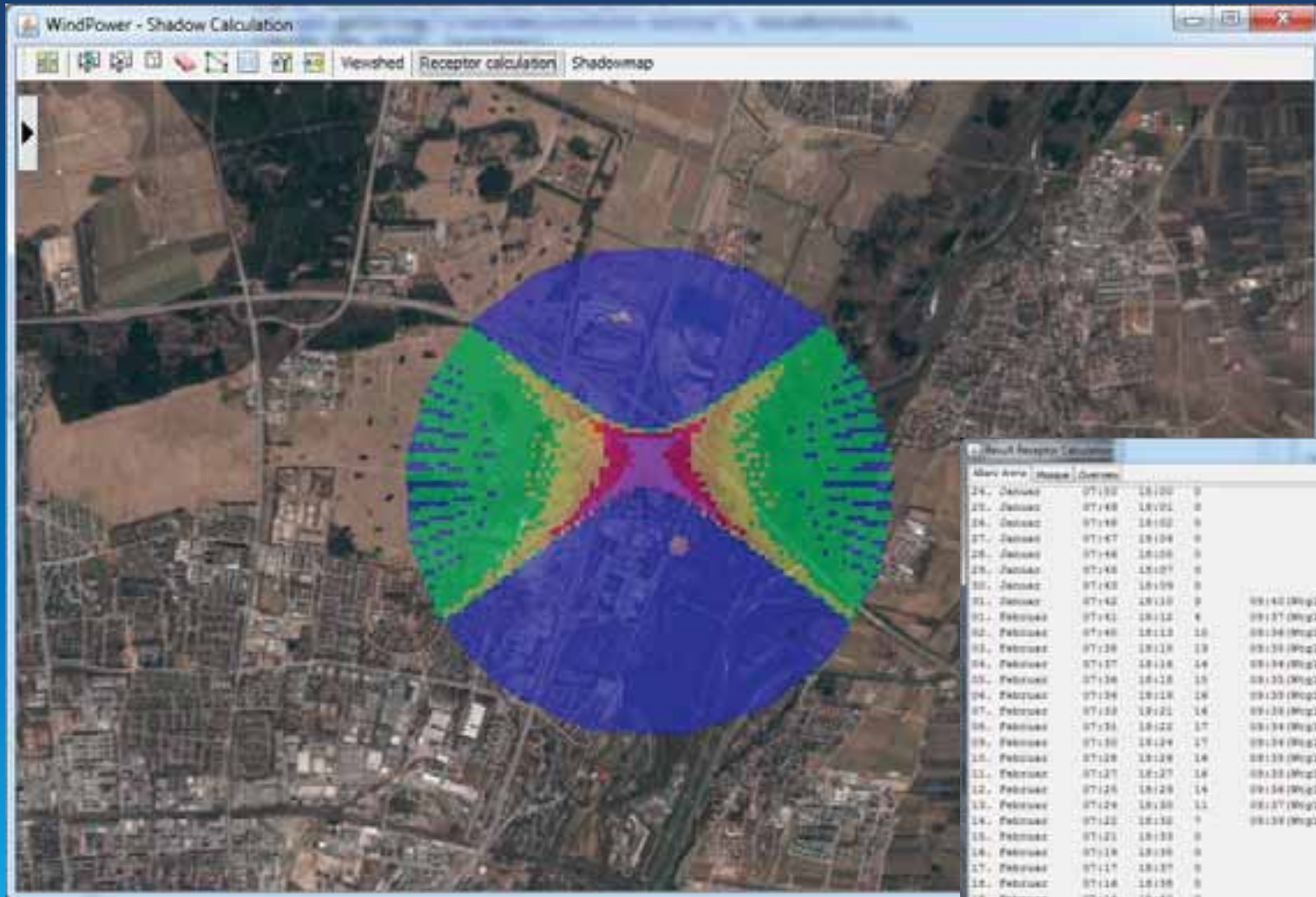
- Mapping
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- **Analysis**
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Analysis

- Simple analysis with local GeometryEngine
- Complex analysis with Tasks
 - Geoprocessing Services
 - Geoprocessing Packages (only desktop Runtimes)
- Synchronous or asynchronous

Demo Analysis



Month	Area	Receptor	Distance	Value	Value
24.	January	07:32	18:00	0	
25.	January	07:48	18:01	0	
26.	January	07:48	18:02	0	
27.	January	07:47	18:04	0	
28.	January	07:48	18:08	0	
29.	January	07:48	18:07	0	
30.	January	07:43	18:09	0	
31.	January	07:42	18:10	0	
01.	February	07:42	18:12	6	08:40 (Wp1)
02.	February	07:40	18:13	10	08:37 (Wp1)
03.	February	07:38	18:13	13	08:34 (Wp1)
04.	February	07:37	18:13	14	08:34 (Wp1)
05.	February	07:36	18:13	15	08:33 (Wp1)
06.	February	07:36	18:13	16	08:33 (Wp1)
07.	February	07:35	18:12	16	08:33 (Wp1)
08.	February	07:35	18:12	17	08:34 (Wp1)
09.	February	07:35	18:12	17	08:34 (Wp1)
10.	February	07:35	18:12	16	08:33 (Wp1)
11.	February	07:37	18:27	18	08:33 (Wp1)
12.	February	07:25	18:28	14	08:34 (Wp1)
13.	February	07:24	18:30	11	08:37 (Wp1)
14.	February	07:22	18:30	7	08:39 (Wp1)
15.	February	07:21	18:30	0	08:40 (Wp1)
16.	February	07:19	18:30	0	08:40 (Wp1)
17.	February	07:17	18:37	0	08:40 (Wp1)
18.	February	07:16	18:38	0	08:40 (Wp1)
19.	February	07:14	18:40	0	08:40 (Wp1)
20.	February	07:12	18:42	0	08:40 (Wp1)
21.	February	07:10	18:43	0	08:40 (Wp1)
22.	February	07:08	18:44	0	08:40 (Wp1)

Features

- Mapping
- Geocoding
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- **Editing**
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Editing – What

- Edit features
 - Add, delete and update
 - Geometry, attributes and attachments
 - Click or GPS

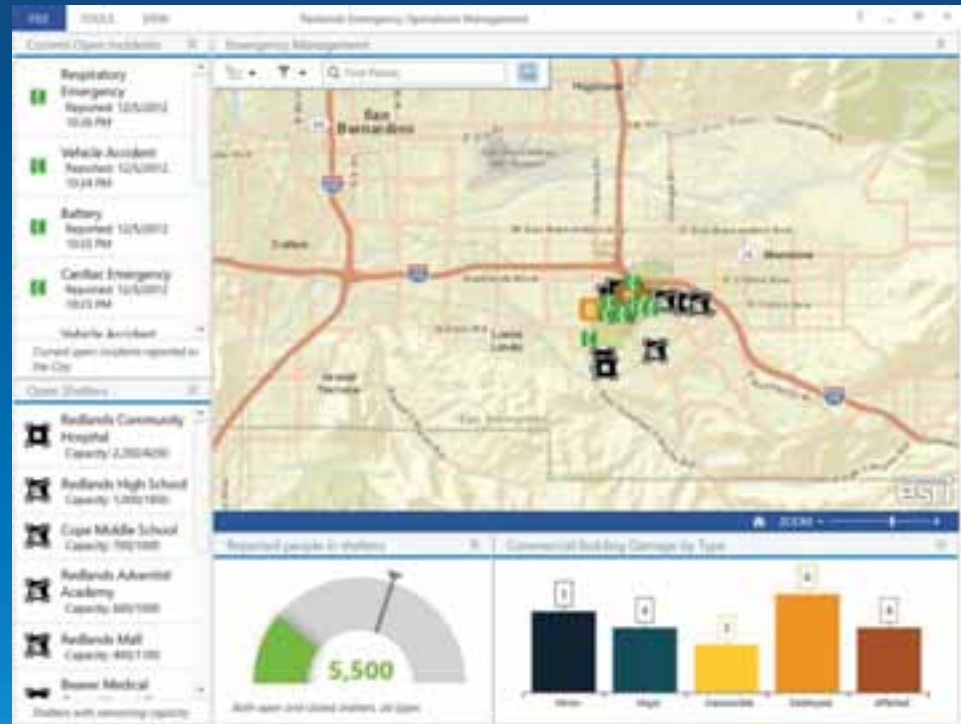
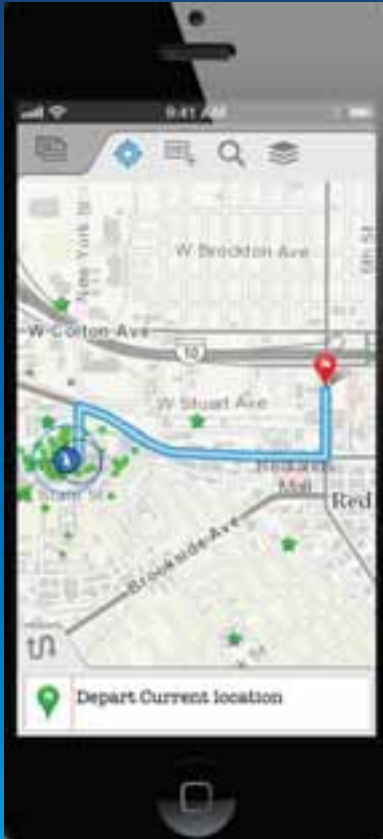
- Also support for more complex geometry types
 - Polygons, polylines, envelopes and multipoints

Editing – How

- Editing is based on Feature Services
 - ArcGIS Online
 - ArcGIS for Server
 - Local MapPackage

- 2 options for map packages:
 - Referencing data
 - Working with a local copy

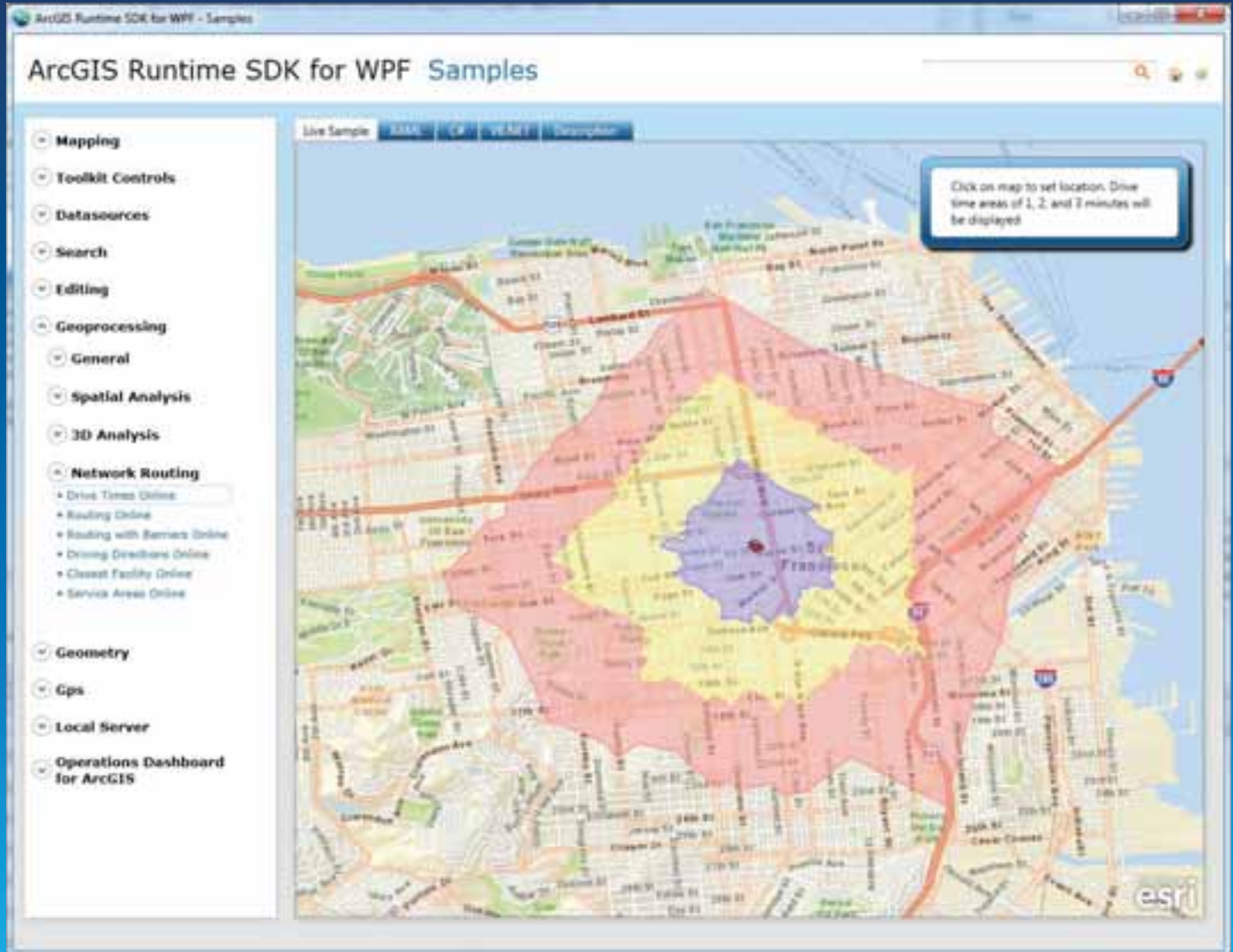
Demo Editing



Features

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- **Network Analysis**

Demo Network Analysis



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Runtime SDK 10.2 Release Themes

- Improved developer productivity
- New platforms and SDKs
- More capabilities
- Better developer accessibility and opportunities

Improved Developer Productivity

- Simplified API usage
 - Fewer lines of code
 - Tighter programming model
 - More intuitive
 - Less param classes, more strings
- More async methods (taking care of threading)
- Application frameworks
 - Helper classes and UI components

New Platforms

- 32-bit Linux



- iOS 7



- OS X Mountain Lion (10.8)



- X86 Android



- Windows Store



Additional SDKs

- Windows .NET
 - Desktops
 - Windows Phone
 - Windows Store



- Qt



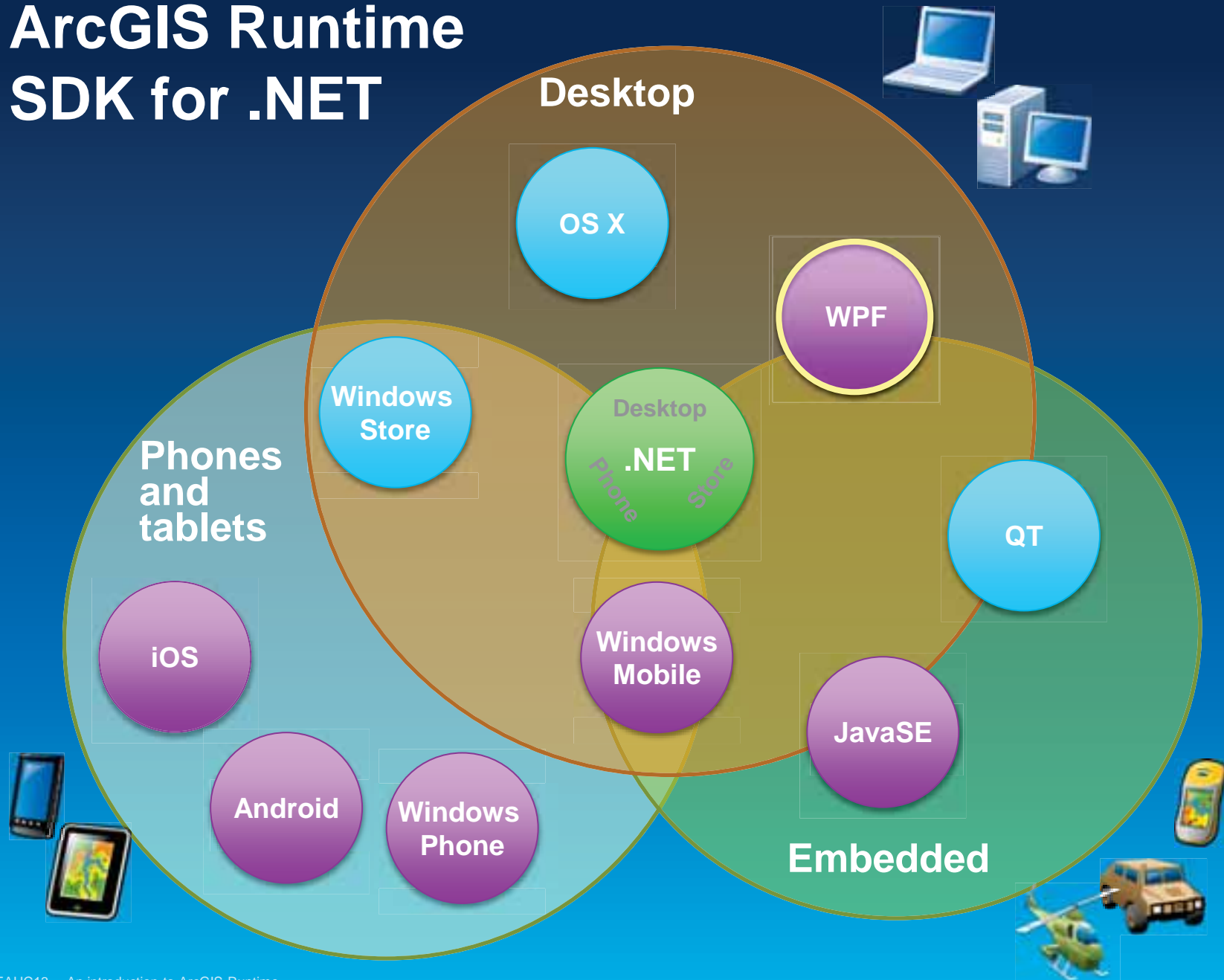
- Mac OS X



ArcGIS Runtime SDK for .NET – **NEW!**

- .NET API shared across Windows Desktop, Windows Store and Windows Phone platforms
- Consistent developer experience
- Uses the ArcGIS Runtime C++ Core
- Supports for ArcGIS Server, ArcGIS Online and Portal for ArcGIS content
- Windows Desktop includes local server
- Will replace the WPF SDK

ArcGIS Runtime SDK for .NET



More capabilities

- Visualization and display performance
 - Symbol enhancements
 - Dynamic labeling on DynamicMapServiceLayer
 - Graphics Layer performance improvements
 - Lat/Lon Map Grid type
- Geometry support
- Security: OAuth

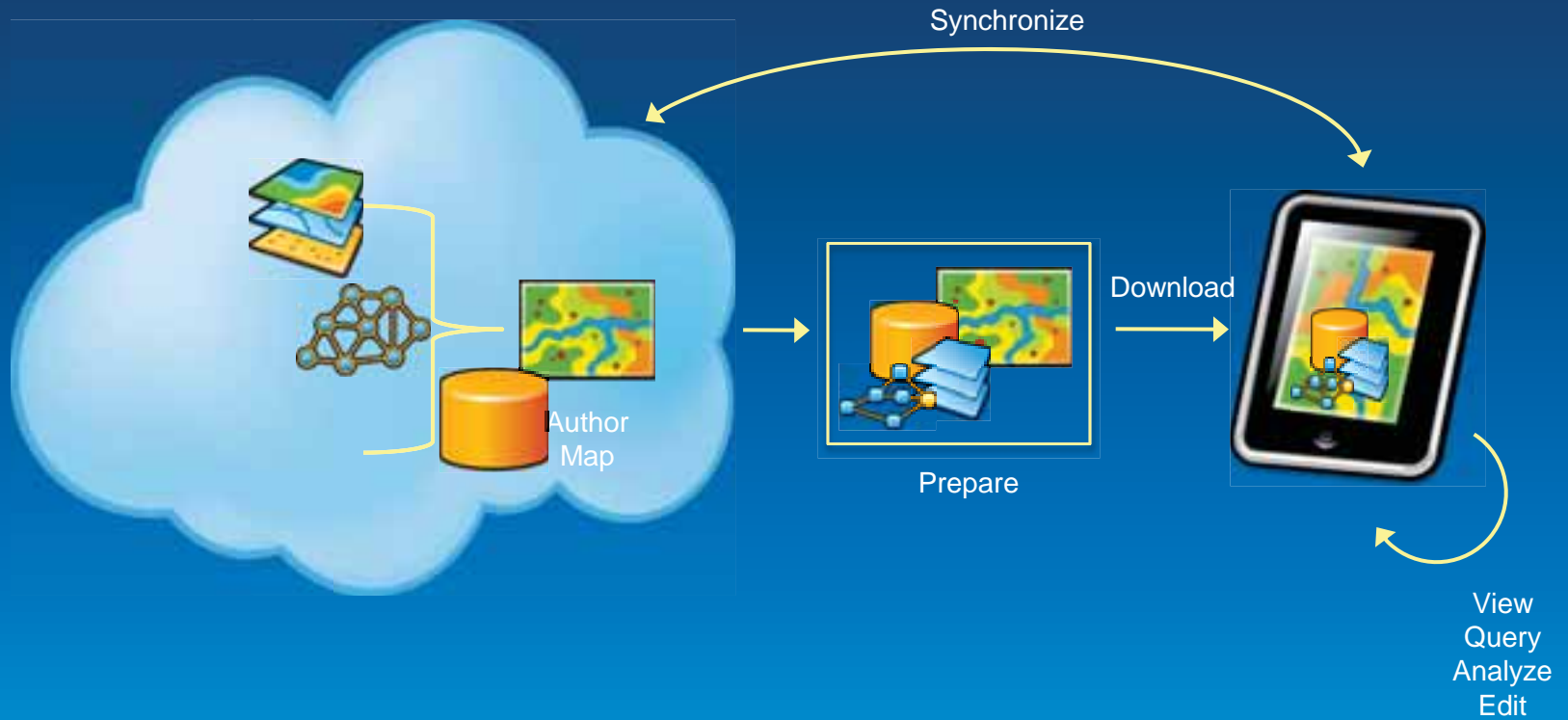
Offline Map Capabilities - Beta

Disconnected use of the ArcGIS platform

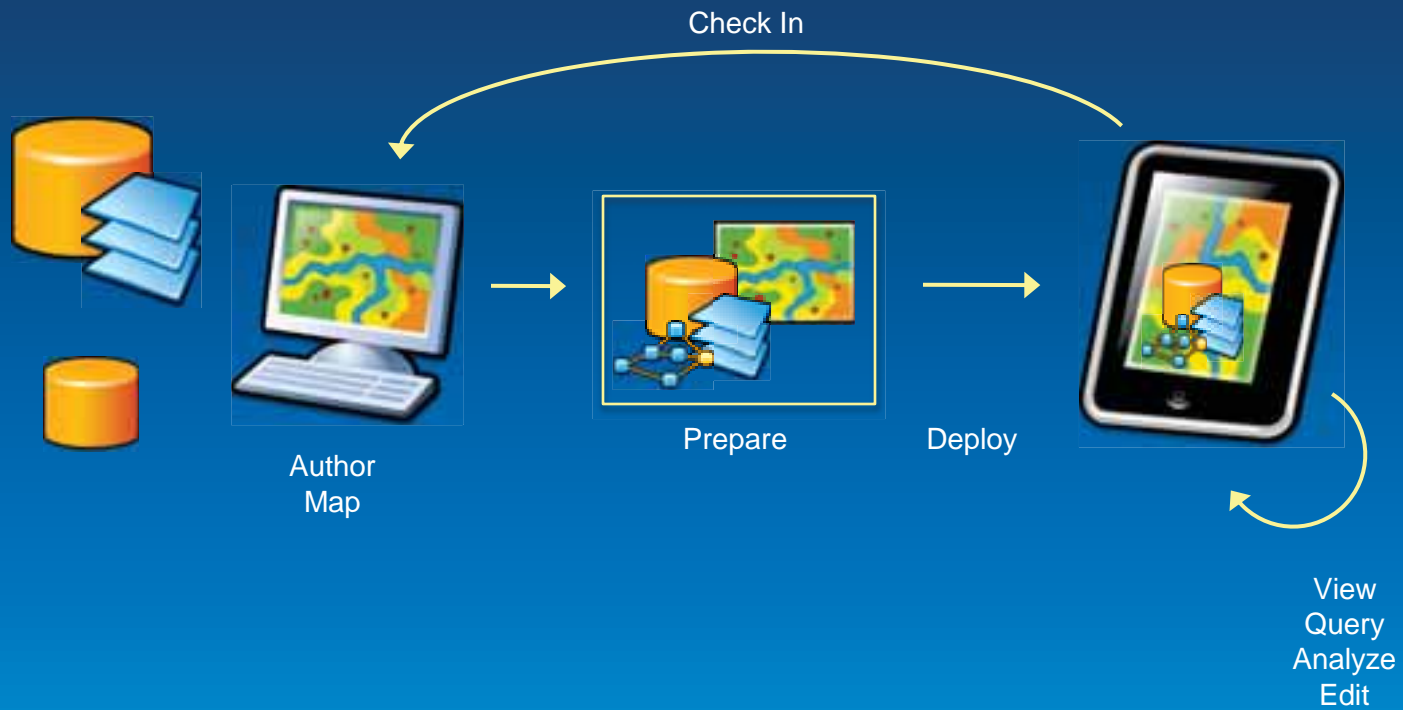
- Viewing/interacting with maps
- Querying data
- Editing features
 - Synchronization
- Spatial intelligence
 - Find places and locations
 - Get directions
- Pre-planned or on demand workflows
- **All** Runtime SDKs



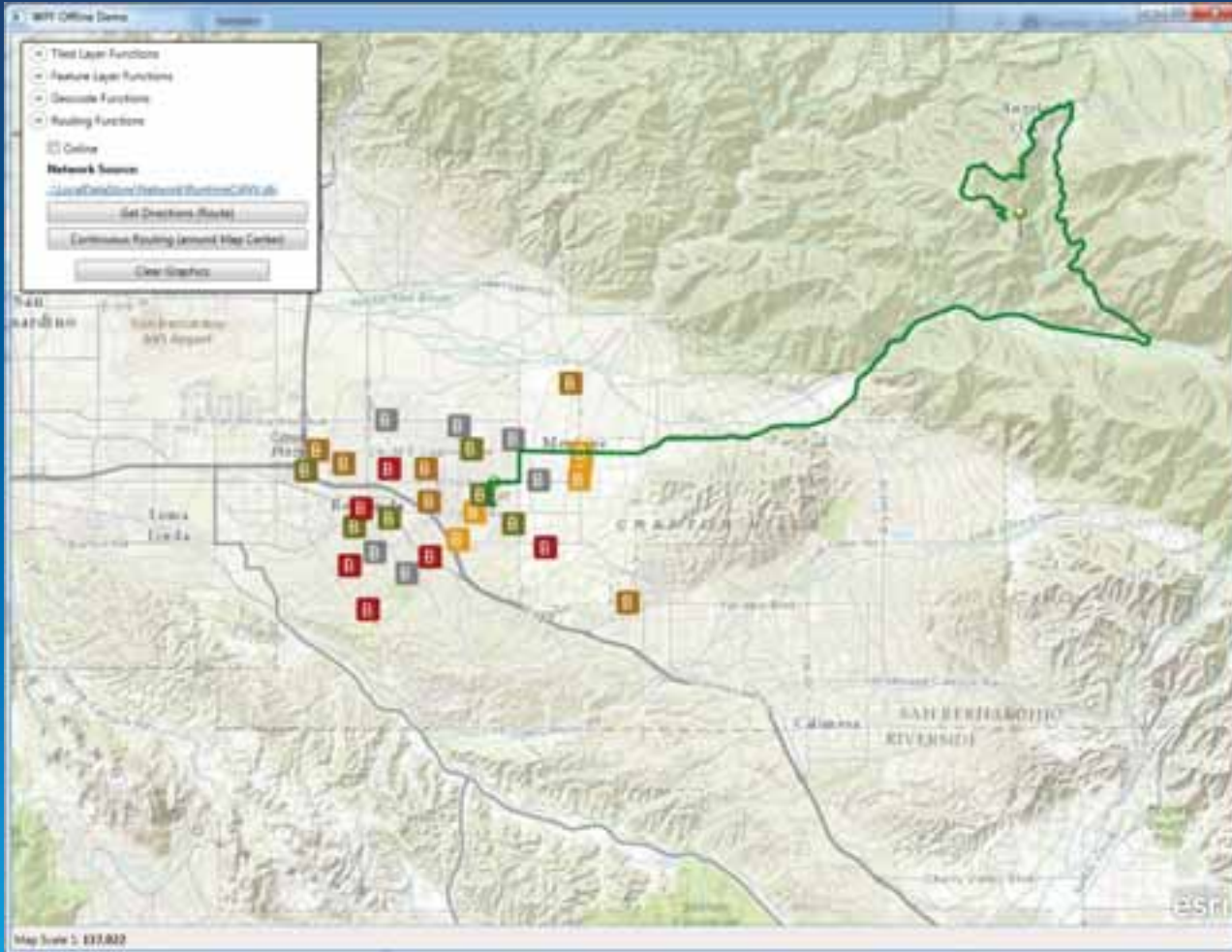
From ArcGIS Online and Portal



From Desktop



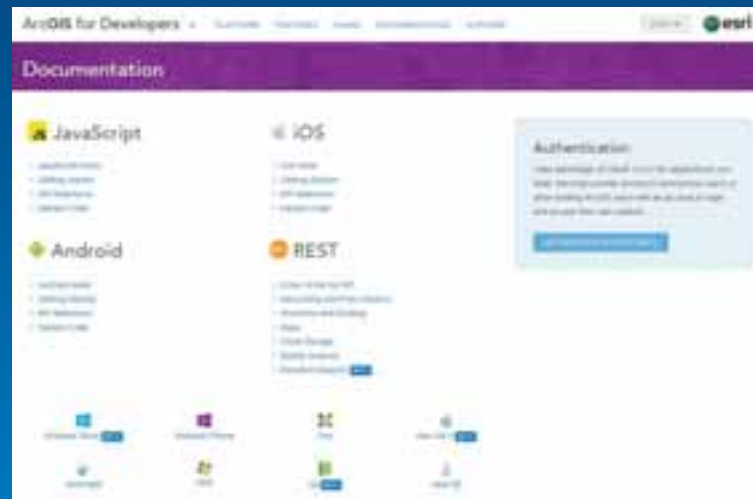
Demo Offline



Accessibility

- All Runtime SDKs available via the Developers site

- Developer account
- EDN not required

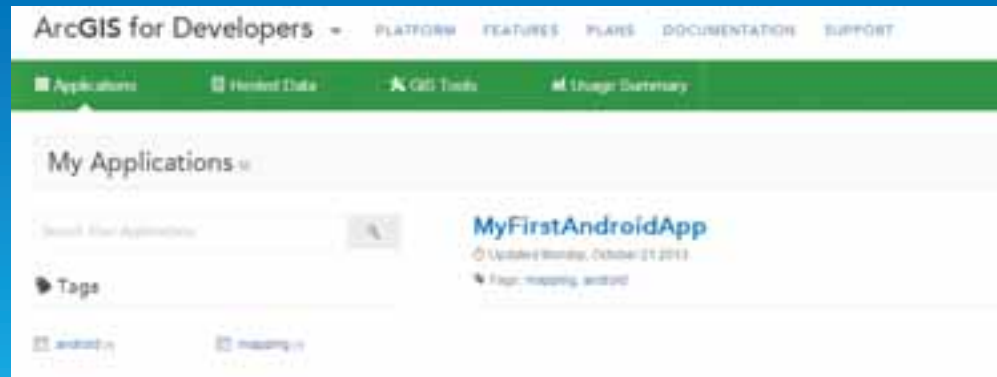


- Other places to get the Runtime SDKs
 - Eclip.se Marketplace, NuGet, CocoaPods

Licensing at 10.2

Development and deployment licensing remains the same

- WPF, Java and Qt
 - Require development and deployment licenses
 - Basic and standard deployment model
- Development and basic deployment licenses available from developers.arcgis.com



Deployment

Mobile Runtimes

- Review the Esri License Agreement
- Attribute your application
- Complete a deployment questionnaire
- Distribute your application

Deployment

Desktop Runtimes

- Request License
- Add license string to your project
- Prepare your application
- Create a runtime deployment

developers.arcgis.com

ArcGIS for Developers

PLATFORM

FEATURES

PLANS

DOCUMENTATION

SUPPORT

SIGN IN



The Location Platform for Apps

Quickly add geo to your apps using Esri's cloud services. Develop in the API of your choice and deploy on any device.

TAKE A TOUR

SIGN UP FOR FREE



Power your applications with ArcGIS technology



Mapping and analysis for organizations



Get started with ready-to-use open source apps

Thank you!

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