Developing Cross Platform Apps with the ArcGIS Runtime SDK for Qt

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Session Agenda

- Runtime SDK for Qt overview
- Common Questions
- Installation & setup
- API overview and demos
- Deployment
- Q&A

ArcGIS Runtime SDK for Qt

Overview

- High performance native location API
- Brings the power of ArcGIS into your projects
- Cross Platform
- 1 code base
- 2 APIs/languages to choose from (either C++ or QML)
- Not *just* an API - A great SDK

Common Questions

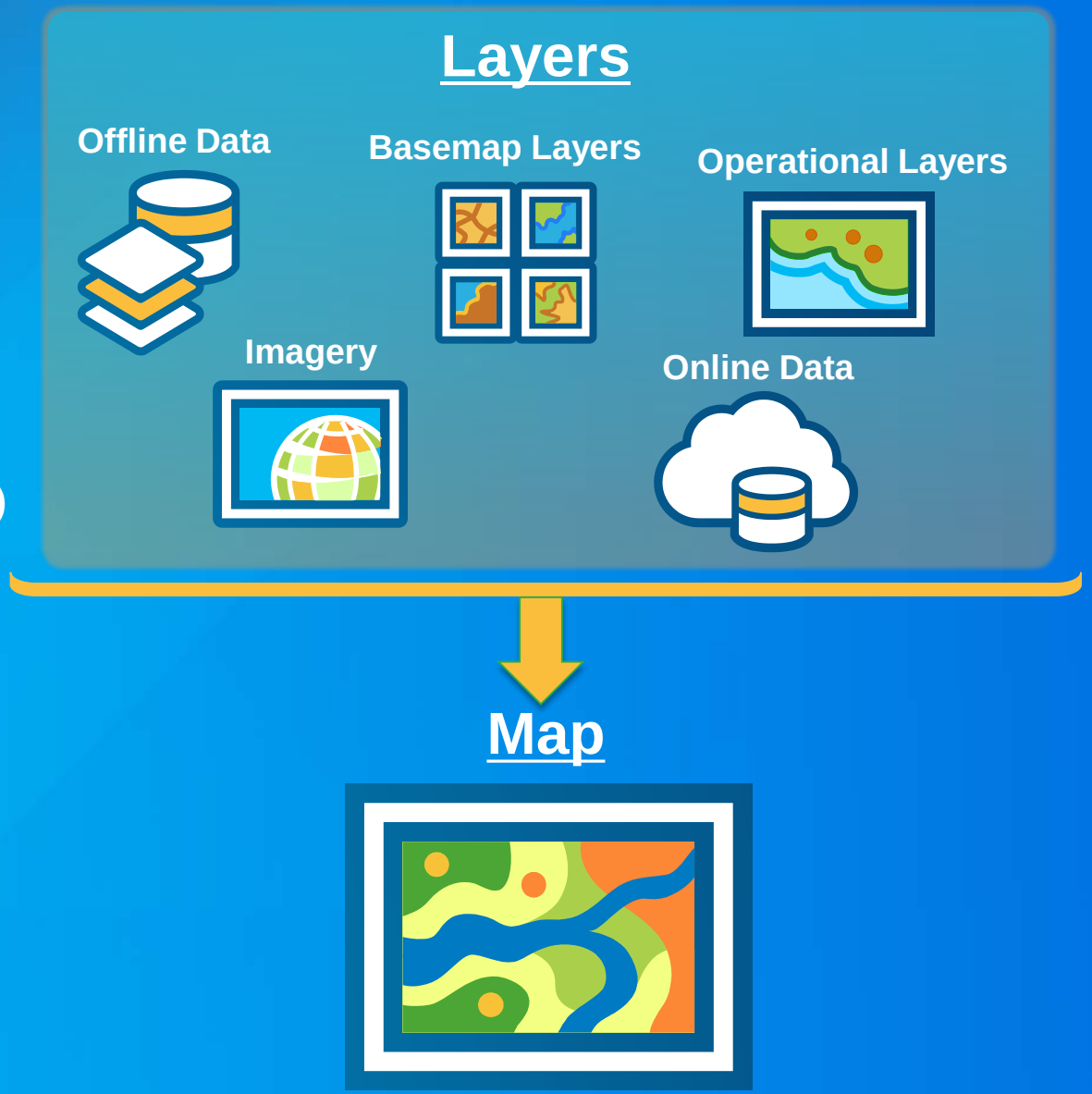
- Do any of the following apply to you…
  - Are you a developer?
    - ArcObjects, Engine, JavaScript, etc.
  - Is ArcGIS a requirement for your workflows and projects?
  - Do you run automated daily builds?
  - Do you need to harness the full capabilities of the Qt framework?
  - Do you have any prior JavaScript experience?

Getting Started with the SDK

- Develop on Windows, Linux, or Mac
- Install the Qt SDK
- Install additional dependencies (optional)
  - Depends on target platform
  - e.g. Android SDK, NDK, Xcode, VS2013
- Go to the Developer's Page
- Install ArcGIS Runtime SDK for Qt
- Run the post installer
  - Integrates our SDK with Qt Framework

Maps and Layers

- Map
  - Collection of Layers
- Layers
  - Basemap
    - ArcGIS Tiled Map Service Layer (online)
    - ArcGIS Local Tiled Layer (offline)
  - Operational
    - Feature Layer
      - Persisted Data
      - Feature Table
    - Graphics Layer
      - Temporary Data
- Position Display



Maps and Layers Demo

Michael Tims
Lucas Danzinger

Querying Data

- Query class
  - Where clause, out fields, spatial relationship, etc
- Two ways of executing queries
  - Query Task
    - Query the service directly
    - Doesn’t require a layer
    - Must be connected
  - Query the feature table
    - Queries the local cache
    - No connectivity required
    - Faster

Querying Data Demo

Lucas Danzinger

Editing Data

- Editing performed through the Feature Table
- Connected or Disconnected
  - Connected
    - Feature Service
    - Edit the Feature Table
    - Call Apply Feature Edits on the Feature Table
  - Disconnected
    - Feature Service w/ Add/Update/Delete and Sync capabilities
    - Use the Geodatabase Sync Task to generate a local geodatabase
    - Edit the Feature Table (local replica)
    - Call syncGeodatabase to synchronize the replica geodatabase with the FS
  - Developing Offline Apps with the Runtime SDKs - Tech session
    - Thursday, 23 July 2015, 8:30am – 9:45am – Room 33 A

Editing Demo

Lucas Danzinger

Analysis

- Geoprocessor
  - Geoprocessing Services and GPKs
- Geometry Engine
  - Client Side
  - Fast operations
  - Buffer, Intersect, Union (Join), etc…
- Network Analysis
  - Online and Offline
  - Routing, Closest Facility, Service Area
- Geocoding
  - Online and Offline
  - Geocode and Reverse Geocode

Analysis Demo

Lucas Danzinger

Deploy Everywhere

- Debug your app straight from the IDE
- SDK doc on building deployment packages
  - QML
  - C++
- Qt provides many useful tools
  - ex: androiddeployqt
- Work with local data on any device
  - ArcGIS Extras + Platform Specific Info

- Best Design Practices Using the Qt Runtime SDK (using QML)
  - Tuesday, 21 July 2015, 1:30pm – 2:15pm, Demo Theater 11

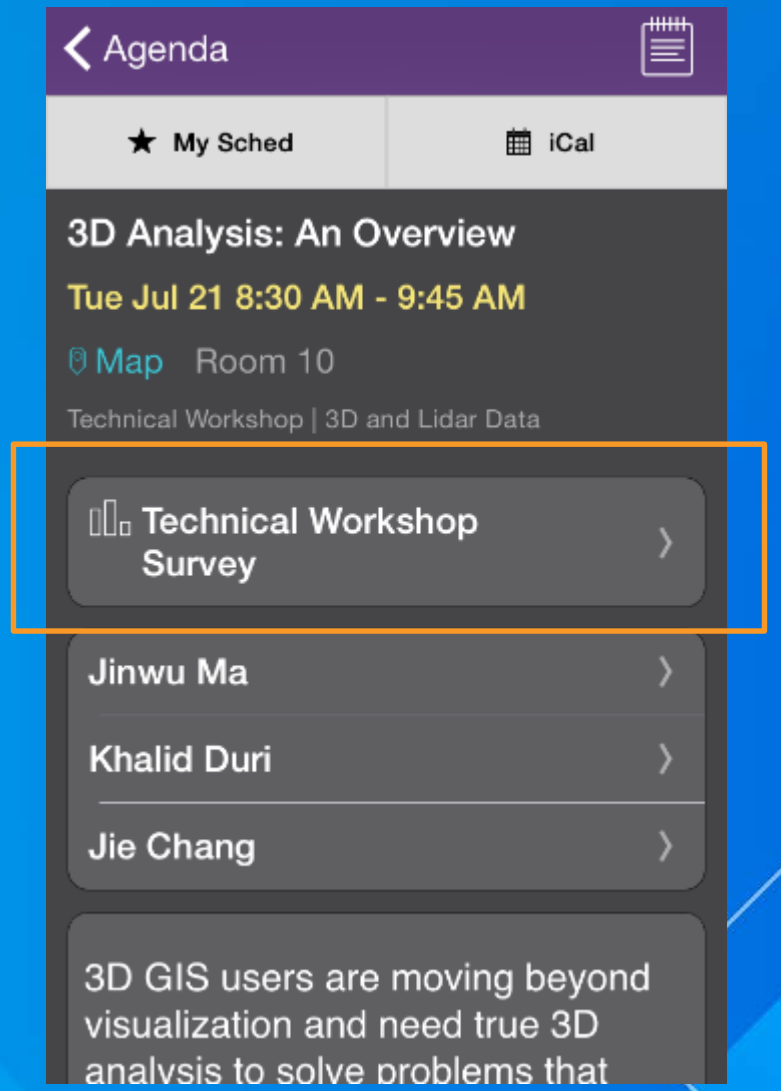
ArcGIS Runtime SDK for Qt

Conclusion

- High performance native location API
- Cross Platform – Write Once, Run Everywhere
- Bring the power of ArcGIS to your projects
- Work connected or disconnected
- C++ devs will love our C++ API
- JS devs will pick up on QML very quickly

Thank you…

- Please fill out the session survey in your mobile app
- Select “Developing Cross Platform Apps with the ArcGIS Runtime SDK for Qt” in the Mobile App
  - Use the Search Feature to quickly find this title
- Click “Technical Workshop Survey”
- Answer a few short questions and enter any comments



Q&A Session

Understanding our world.