ArcGIS Runtime SDK for Qt: Building Apps

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Agenda for today

- **Overview**
  - **Qt Framework**
  - **ArcGIS Runtime SDK for Qt**
- **Install the SDK**
- **Create a basic app**
- **Use SDK tooling to add functionality**
- **Deploy the app to different platforms**

What is the Qt Framework?

Portable

- Write once, run anywhere
- Builds as native C++

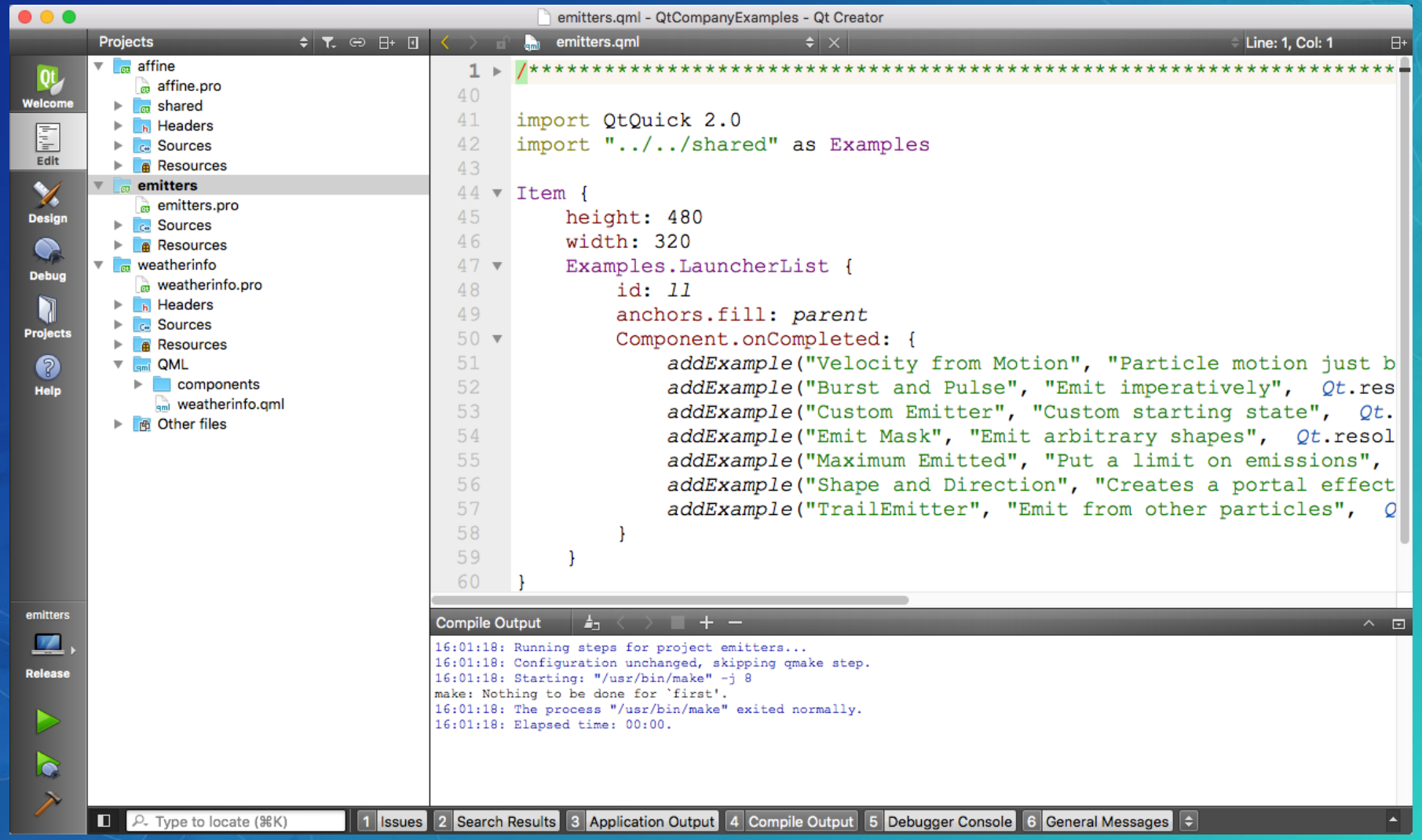
Approach-able

- Cross-platform libraries
- High-level abstractions

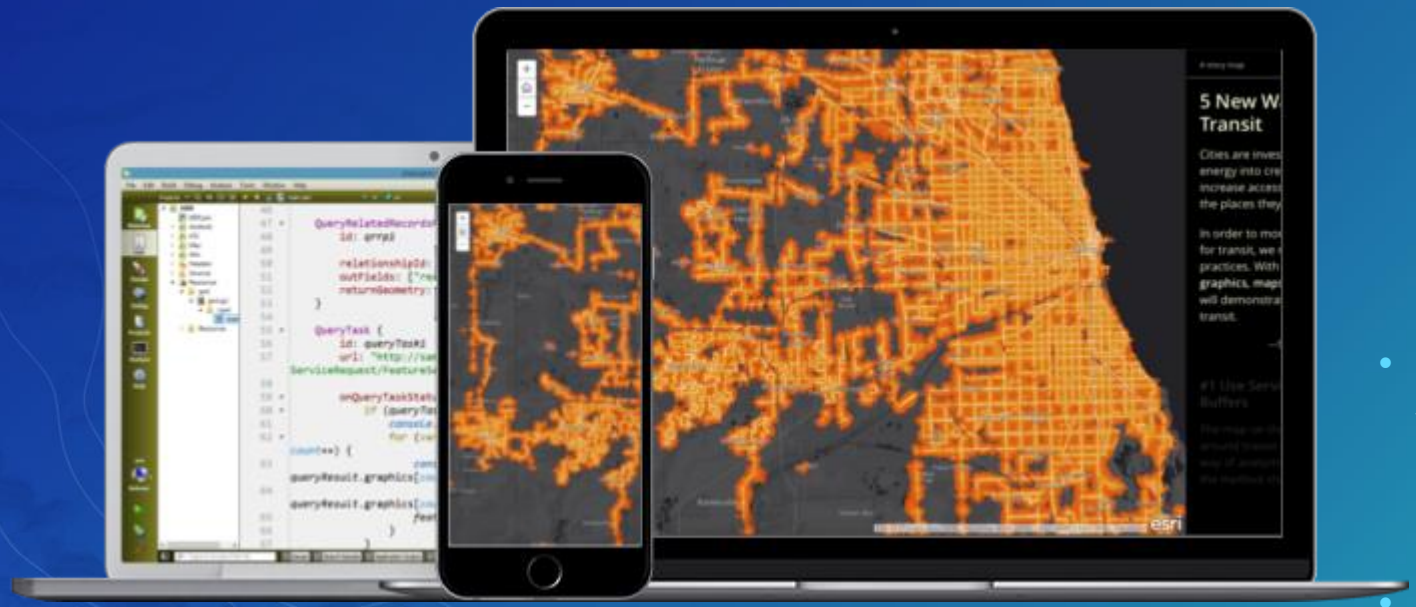
Open

- Pre-built some platforms
- Source code available

Qt Creator IDE



ArcGIS Runtime SDK for Qt



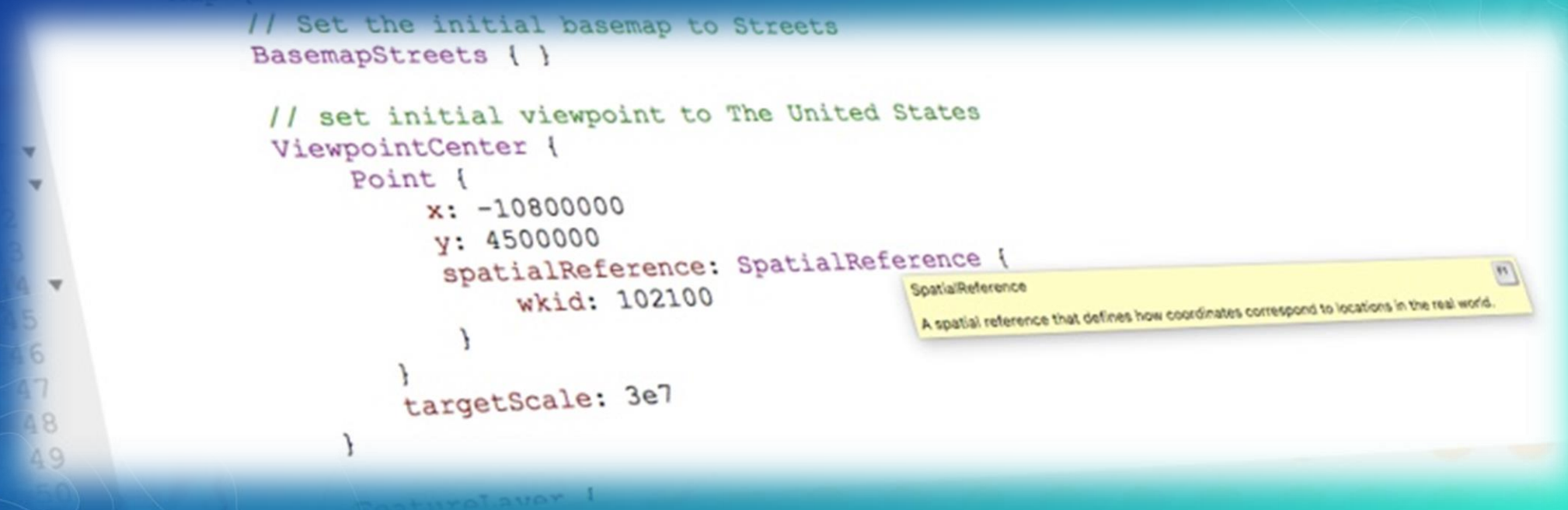
- **Advanced, native mapping apps for mobile & desktop clients**
  - **Linux, Windows, Android, iOS and OS X**
  - **Take advantage of Runtime's C++ core and GPU acceleration**
- **Leverage the power and versatility of the ArcGIS platform**
- **Build apps that work whether connected or disconnected**

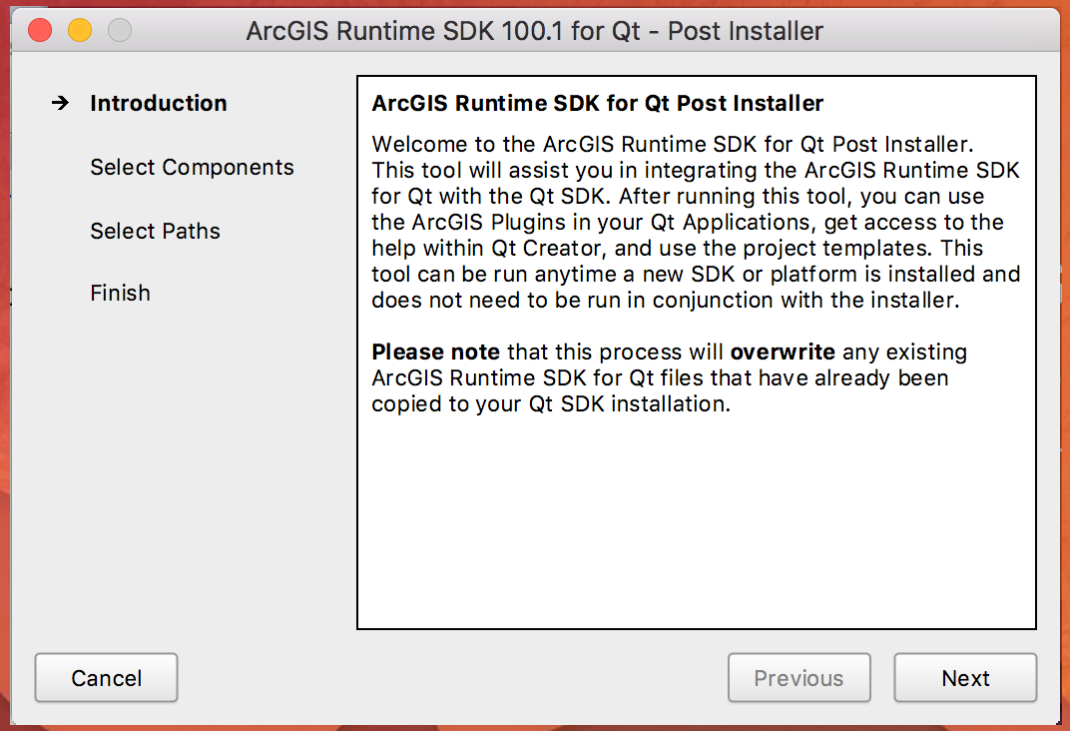
Consider using the ArcGIS Runtime SDK for Qt

- **If you need a Native App**
  - **Online/Offline, Local Storage, Device Sensors**
- **When you are building apps for more than one O/S and want**
  - **Same code**
  - **Same workflow**
  - **Support of a vibrant open-source community and Qt ecosystem**
- **When you have in-house experience with Qt Framework, QML, JavaScript, or C++**

Installation

- **Install the Qt Framework from the Qt Company**
- **Log onto the Developers site with your developer subscription**
- **Download ArcGIS Runtime SDK for Qt**
- **Run the installer and the post installer**

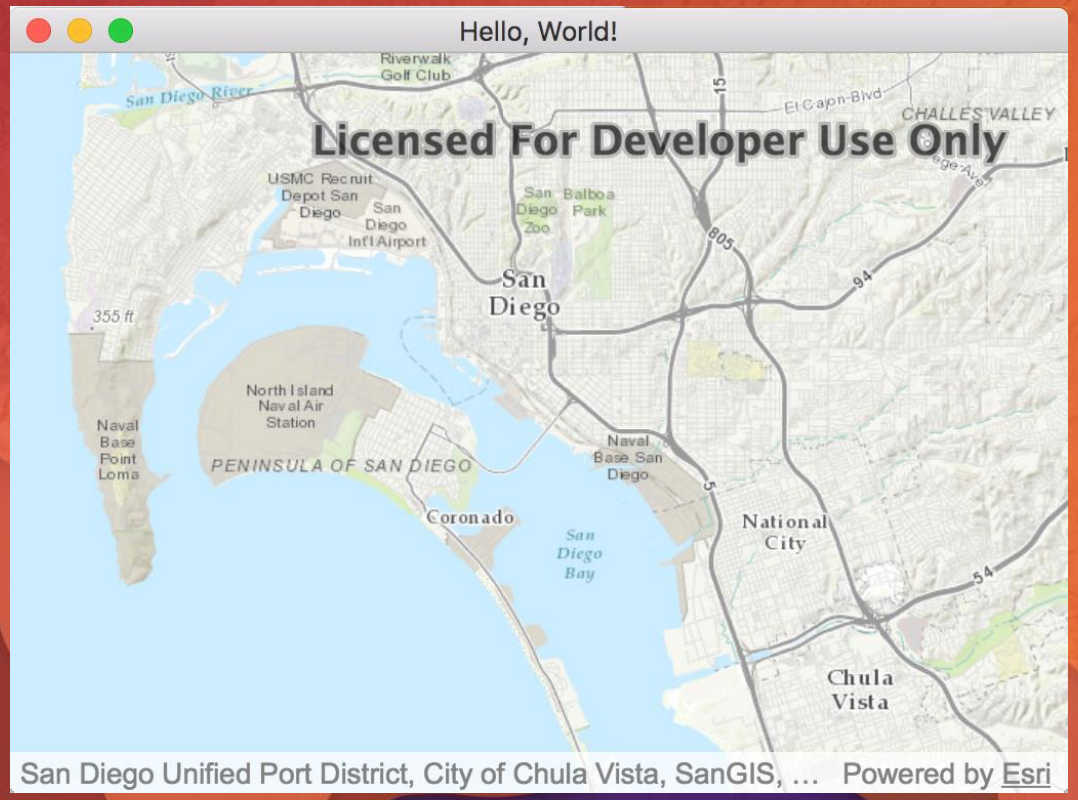




Demo: Setting up your dev environment

Supported Frameworks and APIs

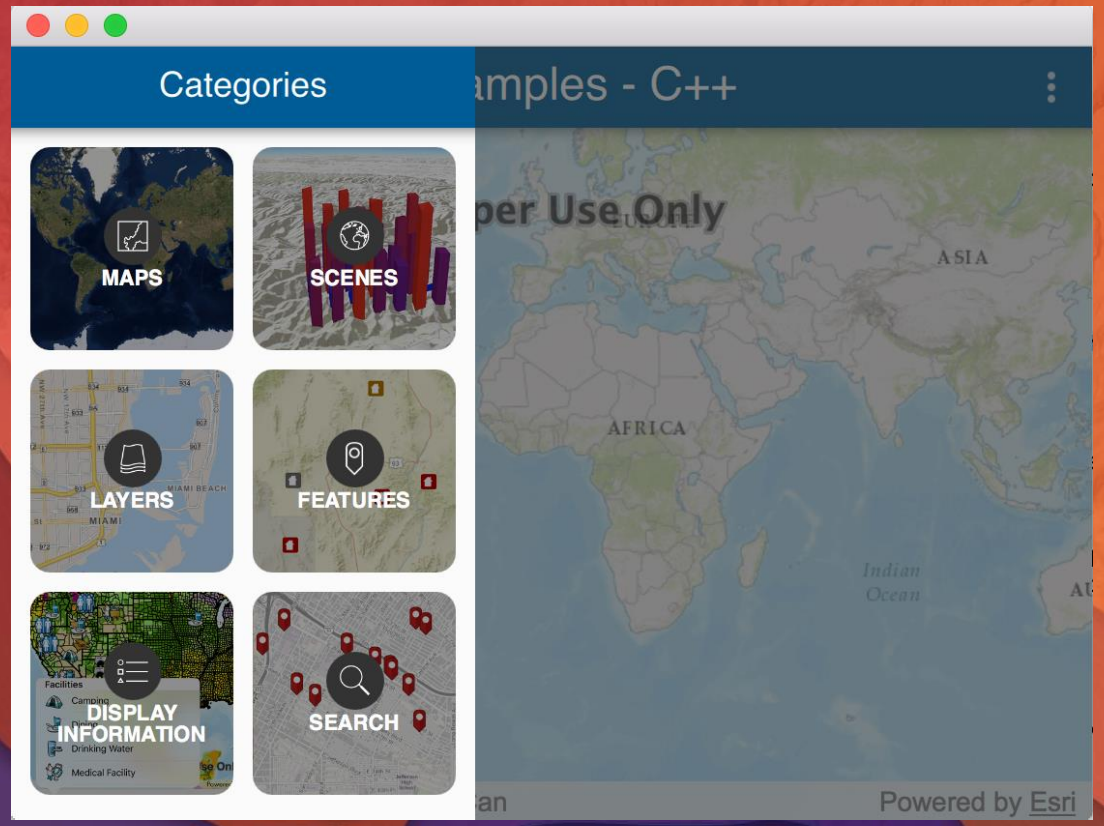
- **QML API**
  - **Great for JavaScript Developers**
  - **This is what AppStudio uses**
  - **Easy, and utilizes Qt Quick Framework**
  - **Fast – C++ under the hood**
- **C++ API**
  - **More extensible and flexible**
  - **Local Server**
  - **Qt Widgets framework – classic desktop framework (no mobile support)**
  - **Qt Quick framework – QML UI and C++ backend**



Demo: Hello, World!

SDK Resources

- **Developer's site**
  - **Guide**
  - **API Reference**
  - **User Forums (GeoNet)**
- **Samples**
  - **Viewer**
  - **GitHub**
- **Toolkit**

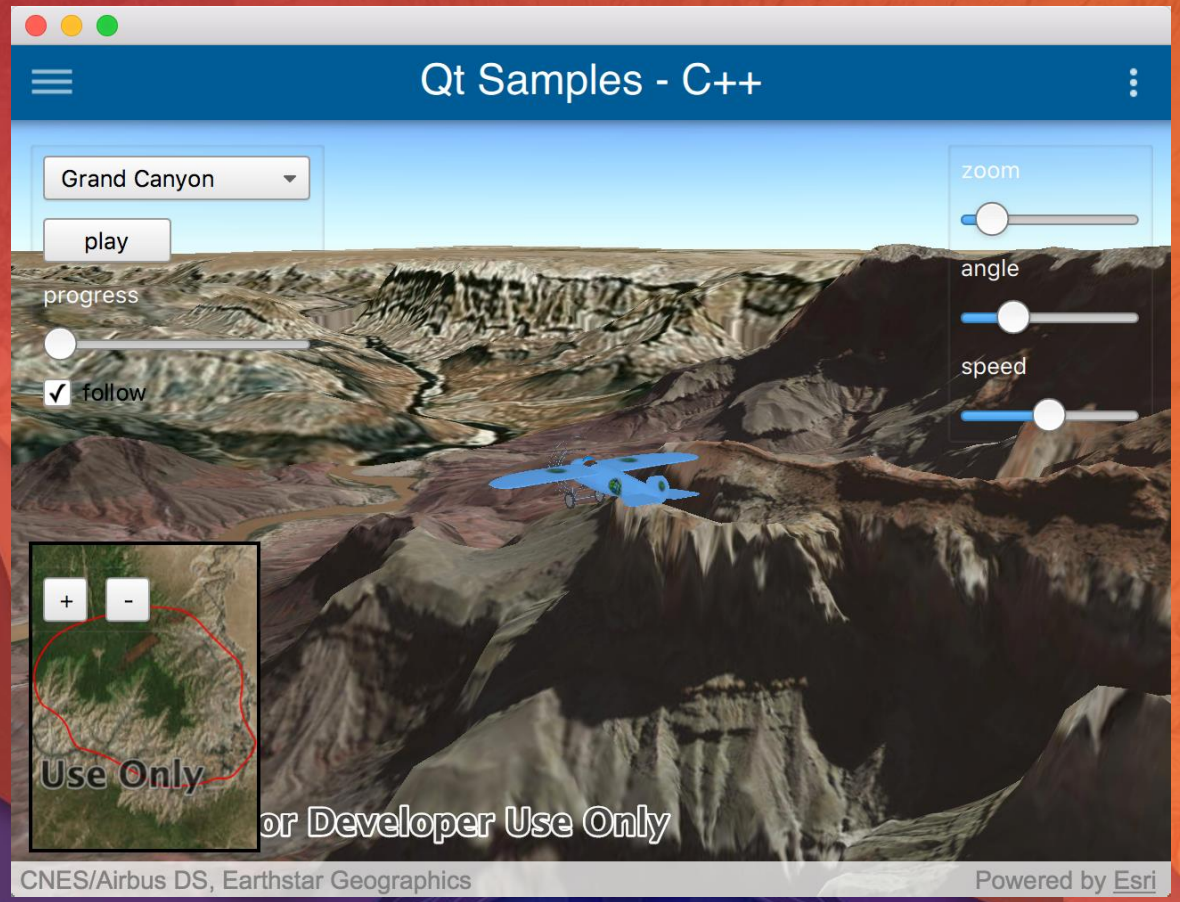


Demo:
Using the SDK

Deployment

- **Compile on each platform**
- **Run from Qt Creator**
- **Create standalone app**
  - **Process varies per platform**
  - **Qt provides deployment scripts**

Demo: Deployment



Demo:
New Features

Where to from here?

- **Create a developer account**
  - https://developers.arcgis.com/sign-up
- **Download Qt Framework and ArcGIS Runtime SDK for Qt**
  - https://developers.arcgis.com/qt/latest/qml/guide/install-and-set-up-on-windows.htm **et al**
- **Read the guide fundamental topics**
  - https://developers.arcgis.com/qt/latest/qml/guide/arcgis-runtime-sdk-for-qt.htm
- **Study and modify the samples**
  - https://github.com/Esri/arcgis-runtime-samples-qt
- **Use the Forum and join the community discussion**
  - https://geonet.esri.com/community/developers/native-app-developers/arcgis-runtime-sdk-for-qt/

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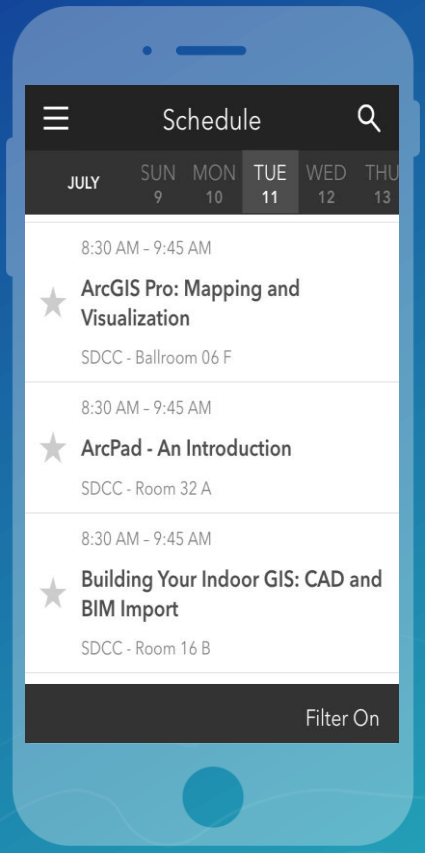

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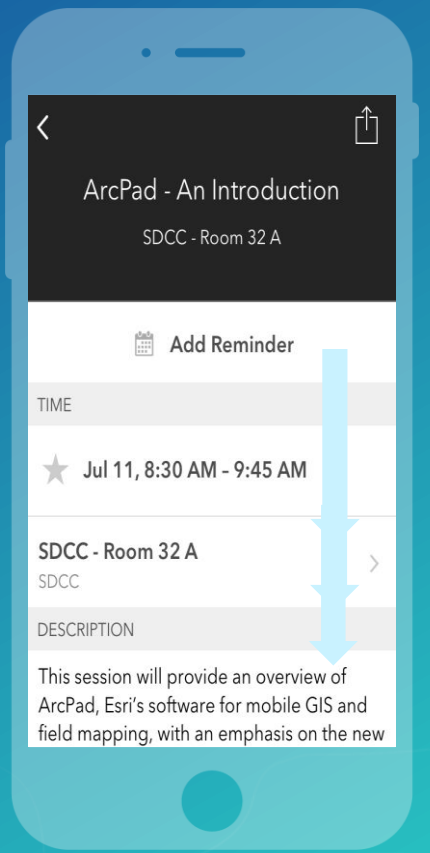
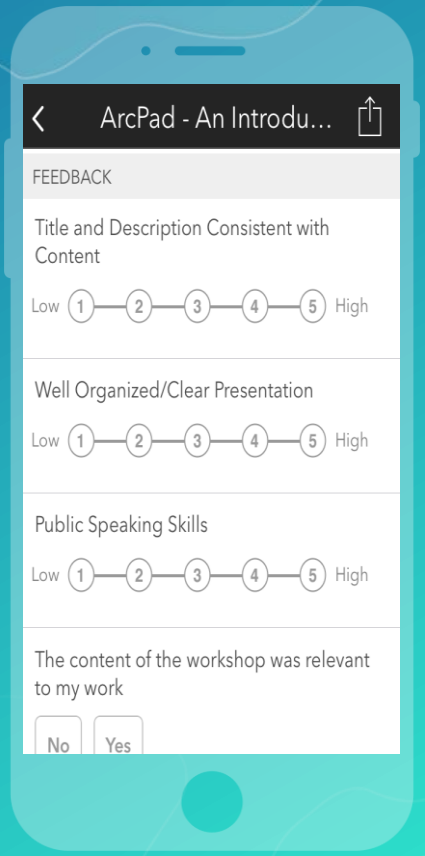


Complete Answers and Select "Submit"

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