Agenda

- What is AppStudio?
- Who is using it?
- Customizing app templates
- Developer patterns
- Deployment
What is AppStudio for ArcGIS?

- A suite of productivity tools
- using ArcGIS across native devices
- with a single codebase
- templates to address the most common mapping use cases
- low code customization
- leveraging Qt/QML and ArcGIS Runtime to customize
- easy enterprise deployment
- build for all devices in the cloud (DE)
Why Native App Development?

- performance
- development tooling
- online and offline
- access to the device capabilities (camera, GPS, low-level native APIs)
- deploy to app store
... but native is **hard**

- lower level means higher knowledge
- bigger foot guns
- much more code
- cross platform options
  - separate codebase (and dev team) per target platform: Swift, Java, Kotlin, C#
  - flutter, ionic, react: JavaScript, but still have to code separately for device control
  - Xamarin: C#/.NET
Who is the target user?
Who is the target user?

**Configurator**

- GIS user
- Have technical skills
- Builds web maps
- Creates web apps
  - Web AppBuilder
  - Templates
Who is the target user?

**Configurator**
- GIS user
- Have technical skills
- Builds web maps
- Creates web apps
  - Web AppBuilder
  - Templates

**Geo Hacker**
- GIS professional
- Python, HTML, JavaScript
- Copy/paste code
- Figure out how to get the job done
Who is the target user?

**Configurator**
- GIS user
- Have technical skills
- Builds web maps
- Creates web apps
  - Web AppBuilder
  - Templates

**Geo Hacker**
- GIS professional
- Python, HTML, JavaScript
- Copy/paste code
- Figure out how to get the job done

**Developer**
- Fluent in at least one programming language
- You would rather start from scratch
- Love reading API documentation
What has been built with AppStudio?

- Esri apps: Survey123, QuickCapture, Companion
- Esri Professional Services
- Enterprises
- Commercial apps

https://esri.github.io/arcgis-appstudio-samples/
How do I get it?

- download for free: mac, windows, linux
- Or https://www.google.com/search?q=download+appstudio
What do I get?

AppStudio Desktop

Qt Creator IDE

Cloud Make

AppStudio Player

App Templates

Enterprise Templates
Caveats

1. Qt Creator duplicated if you install Qt separately
2. Runtime SDK for Qt installed
3. QML only, no C++
4. No Qt kits - use Cloud Make
Cost and license

free to download and start developing

App Studio
• All the tools
• Deploy apps at Runtime Lite
• Deploy apps with ArcGIS Online/Enterprise
• Player only

App Studio Developer Edition**
+ Enterprise templates
+ Cloud make
+ Deploy to app stores
+ Commercial app deployment

** requires a Developer Builder plan (or higher) & follows ArcGIS Runtime licensing

https://developers.arcgis.com/pricing/compare-plans/
Let’s talk QML

• what is Qt?
• what is QML?  https://doc.qt.io/qt-5/qmlapplications.html
• how does JavaScript fit in all this?
• Qt/QML doc pages  https://doc.qt.io/qt-5/qmlreference.html
ArcGIS Runtime SDK for Qt

- Guide
- API Reference
- Sample code
- Resources

https://developers.arcgis.com/qt/
AppStudio Extending Apps

AppStudio Project Structure
Demo #2
Mary
Resources

• Websites
  • https://www.esri.com/en-us/arcgis/products/appstudio-for-arcgis/resources
• Geonet
  • https://community.esri.com/groups/appstudio
• Twitter
  • https://twitter.com/AppStudioArcGIS
• Github
  • https://github.com/Esri/arcgis-appstudio-samples
Please Take Our Survey on the App

Download the Esri Events app and find your event

Select the session you attended

Scroll down to find the feedback section

Complete answers and select “Submit”
Questions?