

Extending Survey123

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Talking points

- **Survey123 & AppStudio**

- Relationship
- How to get started
- AppStudio Desktop
- Standard level Licensing

- **Customization**

- Branding
 - Colors, Icons, Images, Splash screens, app-icon
- Code
 - Authentication
 - New controls
 - Add new components

- **Building**

- AppMake - cloud based infrastructure
- Mobile/Desktop
- Signing Certificates

- **Deployment**

- App Player
- Enterprise
- App Stores

Customization - Scenarios

- Replacing simple mapping with ArcGIS Runtime
 - Webmaps, Feature layers, symbology etc...
- Replacing simple mapping with *online* Webmaps
 - using webviews (custom controls)
- Survey controls add/modifiy
 - Loosely coupled, complex checks or make new requests

Continued

- Authentication workflows
 - OAuth2 (out of the box)
 - Classic (services)
 - Custom
 - Use Webview
 - Use NetworkRequest object to make
 - REST calls
 - HTTP headers
- Data flow and submission
 - Submit data to custom web services or multiple sources
 - Track time and location
 - Make sure app is on location or location is accurate

Continued

- **Editing existing data**
 - Available through the 2.0 beta program
 - Edit features in sent box
 - Download, view, filter and edit previously collected features
 - Amend, inspect and review workflows
 - Roll your own
 - Identity based or role based editing on form fields
 - Pre-populate from other business systems
 - Can't wait. Need it now!

Continued

- I just want to embed XForms in my own App
 - "Own" app has to be an AppStudio App
 - Its do-able but not as simple as copy+paste yet
 - Example: Survey123 Connect App

Is Customizing your best option?

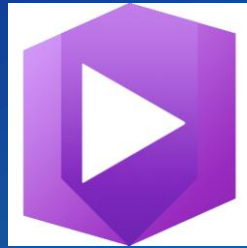
- I want really sophisticated validation
 - Understand XLS forms really well (esp. Expressions)
 - Ask your questions on Geonet
- Similar features/functionality
 - Follow us on twitter, be current on blog posts
 - Ask about your requirements on Geonet
 - Join the Early adopter community
- I want to change the way the app works
 - OK if you want to change UI/UX and basic functionality
 - NO if you want to change how XForms validates and works with data



AppStudio for ArcGIS

Build one App, deploy across
multiple platforms and form factors

Typical AppStudio Stack



Your
App

Your
App

Your
App



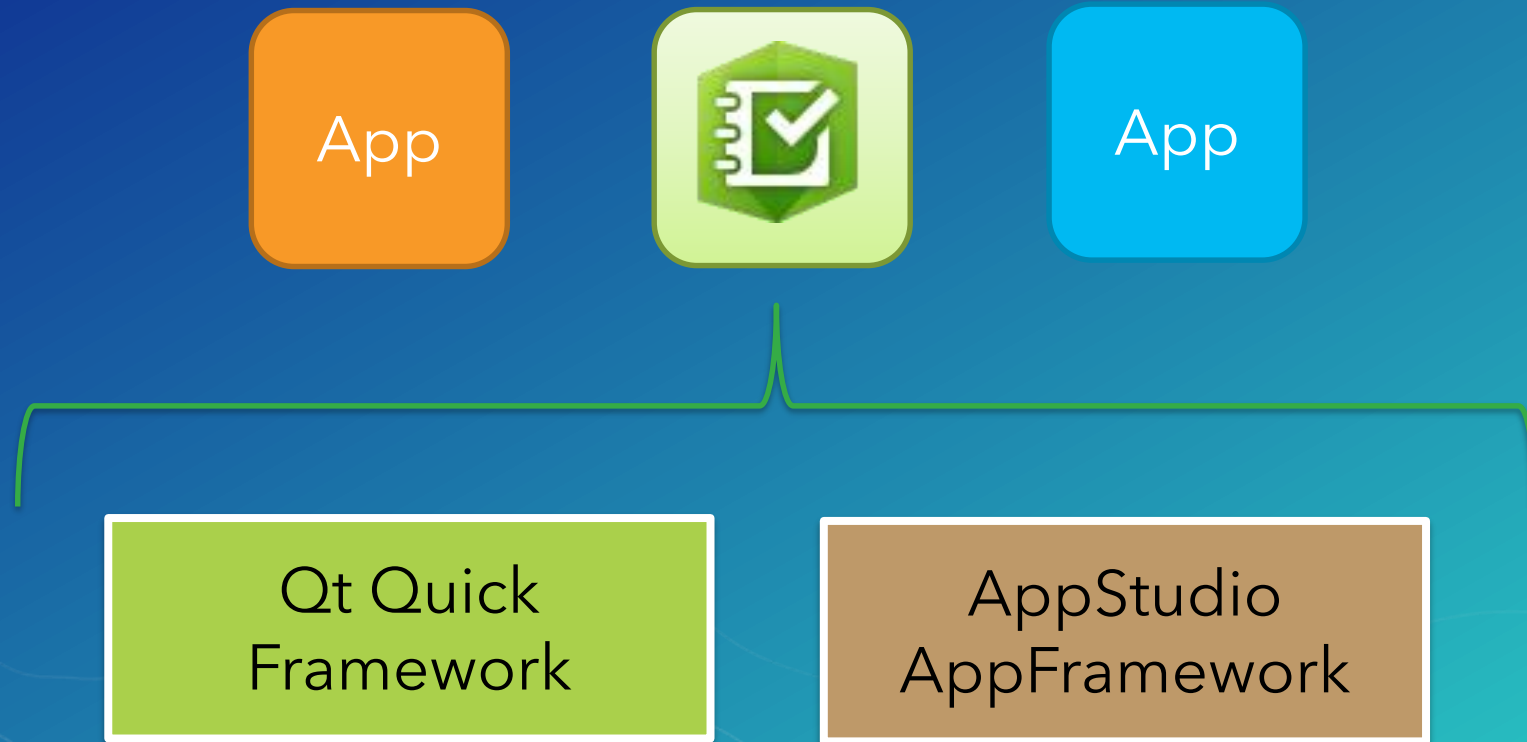
Qt Quick
Framework

ArcGIS Runtime
API

AppStudio
AppFramework

ArcGIS Maps, Feature Services, Packages ...

AppStudio Stack – Survey123 App



Internals

- XForms
 - ArcGIS Portal library
 - GeoServices plugin
 - (Not ArcGIS Runtime)
 - Basic mapping
 - Online Tile URLs
 - Offline ArcGIS TPK
 - AppFramework
 - CloudMake
 - Player
 - Others...
- No ArcGIS Runtime
 - No Runtime licensing
 - App Size considerations
 - Same codebase
 - Survey123 App
 - Survey123 Connect preview

AppFramework – Key cross-platform functionalities

- Network
- File + folder I/O
- ArcGIS TPK Support
- ArcGIS Portal library
- GeoServices Plugin
- Enhanced location services
- Barcode
- Access to camera and albums on devices
- Image resizing
- Audio Recording
- Other plugins**

AppStudio Stack – Your custom Survey123 App



Custom
Branding

Custom Code
QML + JS + Assets

*ArcGIS Runtime
API*

Qt Quick
Framework

AppStudio
AppFramework

How to get started

- Download AppStudio Desktop Edition (Mac, Windows or Linux)
- Login to your ArcGIS online organization and provision AppStudio Standard license to your account
- Login to AppStudio Desktop with the same account
- New App -> Enterprise -> Survey123
- Create a new app out of the Survey123 template
- Register your app (using a client ID)
- From this point onwards its just like any other AppStudio app
 - Player, Cloud Make, Customization, Branding etc....

AppStudio Licensing: Basic and Standard

	basic	standard
Build apps with no coding, using configurable app templates	✓	✓
Build apps that run on Android, iOS, Windows, OS X and Linux	✓	✓
Convert your ArcGIS web maps into mobile apps	✓	✓
Build apps you can publish to the Apple and Google Play app stores	✓	✓
Extend apps built using the configurable app templates		✓
Create custom apps using your developer skills		✓
Distribute apps within your enterprise		✓
Access to Enterprise templates		✓

Codebase - Entry points

- **Template**
 - App UI/UX, Pages (StackView)
 - *SurveyApp.qml*
- **Portal**
 - Authentication, Portal rest calls
 - *Portal.qml*
- **XForms**
 - XForms parsing and handling
 - Data validation and data submission
 - Form controls
 - *XForm.qml*

Release cycles & Maintenance

- Once every 4-6 weeks for App and Connect with appropriate website refreshes
- Survey123 Template available in AppStudio Desktop will be refreshed (but at a lower rate than Survey123).
 - Release notes will be available in the help website (under What's New) to track issues and new features
 - Codebase not available on github and/or as git repo
 - **** Merging changes is your responsibility ****

Resources

- [Samples from AppStudio Desktop](#)
- [Samples from ArcGIS Runtime for QML](#)
- [Samples from Github](#)
- [Wiki on Github](#)
- [Survey123 documentation](#)
- [Early adopters community \(for Survey123 beta\)](#)

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