Survey123 for ArcGIS: for Developers

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ESRI EUROPEAN DEVELOPER SUMMIT
Summary

• What is Survey123?
• Why and how to extend it
• Introduction to AppStudio
• Re-branding Survey123
• Adding custom functionality
What is Survey123?

Richard Mumford
Survey123

Form-centric data collection
Smart forms with built-in logic
Web and mobile
Works disconnected
Part of the Geospatial Cloud
Surveys define data, logic and experience for a particular use case.

Survey123 app interprets and displays the user’s surveys.
Extending Survey123

James Noble
Ways to extend Survey123

- Themes
- Survey123 Web Designer
- Webhooks
- Survey123 Connect / xlsx
- JavaScript Functions
- Python
- AppStudio
  - Modifying the source code
  - Re-brand the app
  - Add-Ins (coming soon)

Functionality vs. Complexity Graph
Add-Ins

- Created using QML/Qt Creator
- Add-Ins are backwards compatible, and are supported by all platforms of the field app
- Avoid maintenance issues
- Can be pushed to users without re-releasing an app
- Stored as an ArcGIS Online item
- Downloaded via the field app settings
Types of Add-In

Tab/Tile Mode
- User interface
- Launched on start-up, or from another Add-In
  - Open/edit a survey from a map view
  - Adding an assignment to a survey

Service Mode
- No user interface
- Automatically started
- Run in the background
  - Location tracking
  - Data updates
Modifying the source code - Whys and Why Nots

- Why
  - Re-Branding
  - Create a new app
  - Modify existing functionality
  - Add specialized functionality
  - Simplifying UX
  - Focussing workflows
  - Automate processes

- Why Not
  - Maintainability
  - Keeping up with changes to code
AppStudio for ArcGIS

- A tool to create geoenabled cross-platform native apps
- Tools for Building and Testing Apps
- Extending Survey123 requires AppStudio Standard License

AppStudio Player
Console Window
Cloud Make
Qt Creator
One App

iOS
Android
Linux
Windows
Mac
Seal Spotting in Helgoland
Introducing Seal Surveyor!
Introducing Seal Surveyor!
Rebranding Survey123

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Demo: Re-Branding

James Noble
Adding custom functionality

Richard Mumford
Define a new component in the survey
Add code to Survey123 so it can interpret the new component
Demo: custom functionality

Richard Mumford
Summary

- Extending is approachable
- 90% of the work is done for you!

Reminder:
- Use COTS when you can
- Extend when you can’t
- Code when you need
  - Maintenance
  - Check the roadmap!
Resources

- https://community.esri.com/groups/survey123/blog
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”