

Geo for Good 2019

Getting Field Data into Earth Engine

Training Materials

THIS DOC: bit.ly/fielddata2EE

[Training Materials for Hands-On Work](#)

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Training Materials for Hands-On Work

[Slides](#)

1. Download [ODK Collect in the Google Play Store](#)
2. Create forms at build.opendatakit.org
3. Send the form to ODK Aggregate (anonymous submission allowed)

If you want more customization than what you see in ODK Build, use XLSforms.

Spicy -- XLS form for Landcover Classification: [landcover_classification](#)

XLSform Converter: <https://opendatakit.org/xlsform/>

Uploading a CSV into Google Earth Engine

Docs: <https://developers.google.com/earth-engine/importing>

Sample CSV: [astraptesfulgerator_landcover.csv](#)

[Butterflies in Costa Rica](#)

Ground Demo

Please fill out this [FORM](#) if you want to provide your support for development of this tool -- we need to hear from users.

Add workshop account if you are using your own phone
username: geoworkshops@gmail.com
pass: il0vemaps (I LOVE MAPS with the O as a zero in lowercase)

Other good forms

- [Question Types form](#) - to demonstrate some frequently-used schema types for XLSforms

MORE EXAMPLES OF MAPS FROM ODK DATA

- DEMO (not hands-on; this is optional): For prior workshops we've used a form called [Trolls Habitat Class](#)
 - If you want to replicate our demo, follow these steps
 - make a copy of [troll-habitat-class](#) to edit in Google Sheets
 - download as .xlsx for MS Excel and to upload to the [ODK Form Converter tool](#)
 - After the field exercise, view the data we collected in the Responses tab of [troll-habitat-class](#) and in the [MAP!](#)

Data: goo.gl/jwYHnY

Map: goo.gl/j3p9wQ

- View the data you collected in ODK at earth-outreach-workshops.appspot.com.
- More Resources
 - Download ODK Collect on the Google Play Store (or at opendatakit.org/downloads)
 - [Android Cheat Sheet](#). Listing of some useful Geo apps and overall Android utilities to make your life easier
 - [ODK Tutorials](#). Four tutorials on setting up your own ODK server, building forms, data collection, and analysis from Google Earth Outreach's tutorial page
 - Estimating Google AppEngine fees for ODK Deployments: [Deployment Planning](#)

More Fun with Data Collection

- More forms and building XLSForms. Open in Google Sheets, File > Make a Copy to edit.
 - [Geo Workshops Question Types form](#) (click left to view in Google Sheets, or [view in Enketo online webform](#))
 - Multiple choice form with optional "Other field": [pizza questionnaire form in Google Sheets](#) or [Enketo webform](#)
 - [Cascading selects example XLSform](#) or [Enketo webform](#)
 - [Widgets in Forms Enketo webform](#)
 - Resources
 - Other XLSforms to explore
 - MIKE Carcass Report ([Doc](#) to use as basis of XLSform)
 - [MIKE XLSform STARTER](#)
 - [MIKE XLSform KEY](#)
 - [MIKE XLSform KEY Skip Logic](#)
 - Repeating question example ([Delivery Outcome form](#))
 - [Cascading selects example XLSform](#)
 - Media in questions ([Birds XLSform](#), [Birds Media.zip](#)) -- plug in your phone via USB and drag media to odk/forms folder
 - Bearing / Orientation widget [XLSform](#)
 - [XLSform Converter tool](#)
- Bringing field data into EE Playground
 - [Sample Fusion Tables dataset](#) for simple landcover classification using field data in Earth Engine (hands-on from Session 1's demo)
- EE Playground: Merging Hand-drawn points with Field Data from Fusion Tables
 - Step 1: Load a Fusion Table

Load a Fusion Table

```
// Create a feature collection from a Fusion Table.  
// Load the Geo Workshops Classification fusion table. Table must be public.  
var fc = ee.FeatureCollection('ft:1qX7hrYM-bcJY7yZ3kqk5M3XDS24IKSUrqswwq04bj')  
// Display the table on the map  
Map.addLayer(fc);
```

```
Map.setCenter(-121, 37, 7);
```

- `var fc = ee.FeatureCollection('ft:1qX7hrYM-bcJY7yZ3kqk5M3XDS24IKSURqswq04bj')`
- Add hand-drawn points for two classes
 - Within the configure setting for the geometry:
 - Import as Feature
 - Property: change to landcover, specify 1 for asphalt, 2 for grass, 3 for exposed soil
- Merge the Fusion Table with the Hand-drawn point dataset ([more on classification in the Playground from Nicholas Clinton's tutorial](#))
- [Run the final script \(KEY\)](#)
 - Resources
 - [XLSForm Conversion Webapp](#) (XLSform [link](#))
 - <http://xlsform.org/>
 - [XLSform Schema Standards](#)
 - [Open Data Kit XLSForm](#)
 - ODK Aggregate
 - [Opendatakit.appspot.com](#)
 - [odkcloud.appspot.com](#)