

The EdGIS GeoForms tool for Google Drive Forms

Overview

The EdGIS GeoForms tool (<http://edgis.org>) is designed to convert a Google Drive Form that you create into a “GPS-enabled” form for smartphones. The EdGIS GeoForm tool adds javascript to a Google Drive Form that allows the form to read from the smartphone’s location services. In short, students can add latitude and longitude to a form of data they are submitting from their smartphone - with the click of a single button.

Two workflows describe how teachers and learners can use the EdGIS GeoForms tool: A teacher workflow and a learner workflow.

Learner workflow:



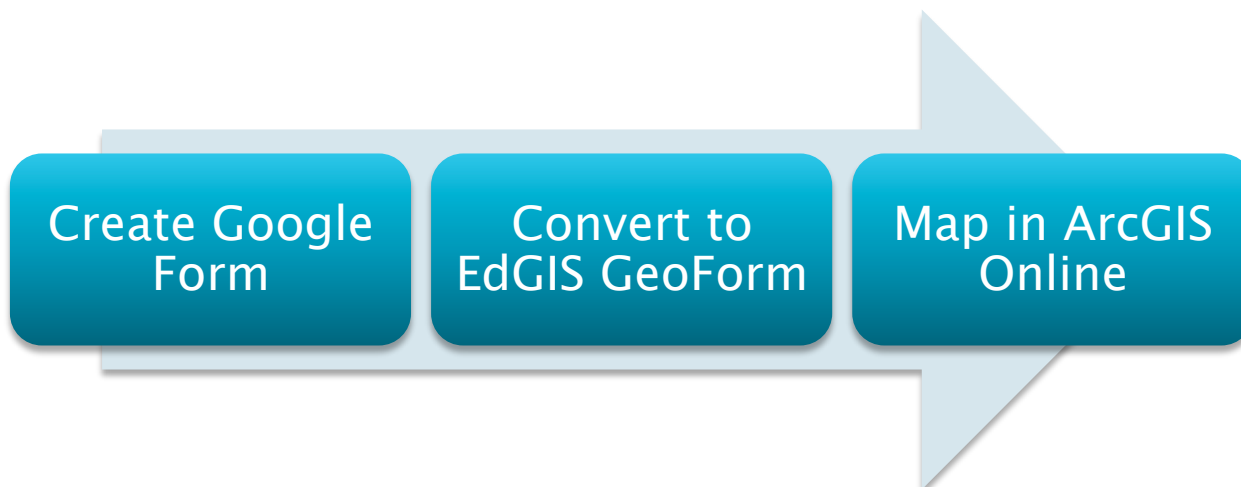
Learners will generally contribute data to field studies using a technical workflow that resembles the following:

1. While still in the classroom, verify smartphone location services.
 - 1.Apple IOS 6: Settings -> Privacy -> Location Services
 - 2.Apple IOS 4.x: Settings -> Location Services
 - 3.Android: Menu -> Settings -> Location & Security
 - 4.Android 4.1.1: Menu -> Settings -> Personal -> Location Services
2. In classroom, learners should enter the webpage URL.
3. In field, learners submit data. Repeat as needed.
4. In lab, learners use ArcGIS Online to analyze the data collected.

Samples (ok to submit data):

Student Tree Inventory: <http://edgis.org/geoforms/200516.html>

Teacher workflow: Setting-up the field study



1. Create a Google Form for centralized collection

1. Go to <http://docs.google.com>
2. Log in, if needed.
3. Press "CREATE" and select "FORM"
4. Select a design theme, if needed.
5. Add a title and description.
6. Add TEXT fields
 1. latitude
 2. longitude
 3. accuracy
7. Add other fields related to your project
8. DE-SELECT all Confirmation Page options
9. The form is auto-saved
10. Press the "VIEW LIVE FORM" button
11. Copy the URL of the live form.

2. "GPS-enable" the form with EdGIS.org

1. Go to <http://edgis.org/>
2. Click link: EdGIS GeoForms for Google Drive Forms
3. Paste the copied URL into the form at the bottom of page. Press "SUBMIT MY FORM"
4. Copy the "GPS-enabled" URL and share it with students.

3. Use ArcGIS Online GIS to map & visualize data

1. **From the Google Drive Form**, click "CHOOSE RESPONSE DESTINATION"
2. Select "NEW SPREADSHEET" and name it.
3. Press "CREATE"
4. Close the Google Drive Form.
5. From the Google Drive documents list, click on the spreadsheet name where form data go in Steps 1 through 4.
6. "FILE" -> "PUBLISH TO WEB"
 1. Press "START PUBLISHING"
 2. Set data to "CSV (Comma Separated Values)"
 3. Copy the URL. Press "CLOSE"
7. Go to <http://arcgis.com/home>
8. Press "MAP" in the top navigation bar.
9. Press "ADD" button
10. Select "ADD LAYER FROM WEB"

1. Select CSV
 2. Paste URL from step 6
 3. Press “ADD LAYER”
11. Hover on the layer name and click arrow to explore. You may wish to:
1. Change symbols
 2. Configure Pop-up
 3. Show Table
12. For best results, create a free ArcGIS.com account and save your map and share.

Sample

Student Tree Inventory: <http://bit.ly/XEvFDy>

More information

For more detailed directions (with screen shots) and pedagogical context, see the book by Roger Palmer, *Going Place with GPS*.