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Creating Geospatial Data with geojson.io

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GIS
Training and Services
Geospatial Technology
Training Program

Creating Geospatial Data with geojson.io

Welcome to the Essential ArcGIS Task Sheet Series. This series supplements the Iowa State University GIS Geospatial Technology Training Program short course series, "Essential ArcGIS Tutorial Series." The task sheets are designed to provide quick, easy instructions for performing specific tasks in GIS.
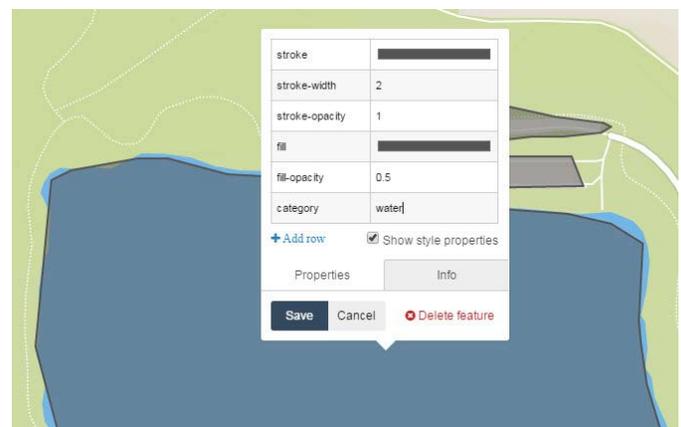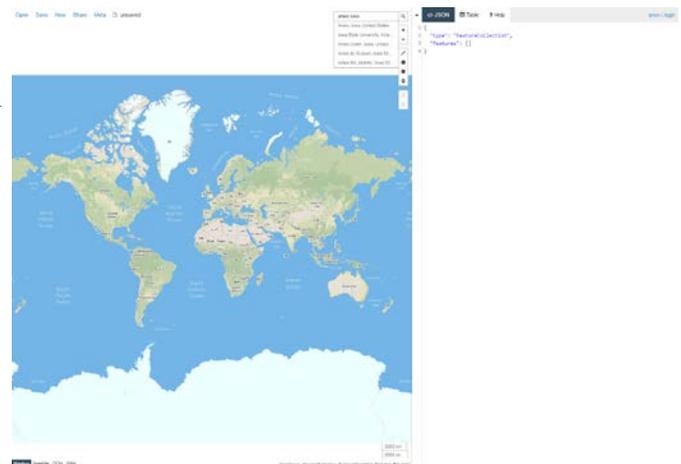
Geojson.io is a quick, simple tool for creating, viewing and sharing maps. This task sheet will demonstrate how to use geojson.io to create a GeoJSON file, add properties to the GeoJSON, and edit styling within the properties of the GeoJSON file. For more information on the GeoJSON file format, please refer back to the publication, *Shapefile to GeoJSON: Conversion and Visualization* **PM2082-15g**.

1. Getting Started

a. Navigate to geojson.io in a web browser. Using the search bar type in **Ames Iowa** and select the first result. The map will zoom in to Ames. Click the **Zoom in** button to zoom to **Ada Hayden Heritage Park** in the north part of Ames.

2. Drawing Polygons

b. Select the **Draw a Polygon** tool on the map and click once to begin tracing the boundary of a body of water. Each click will add a vertex to the polygon and double-click to close and complete the polygon. The polygon will turn from pink to gray to indicate that the feature was created. You should also see the GeoJSON information added to the menu on the right.

c. Follow the previous steps to create polygons for two other categories of features within the park. For this example you could created polygons of water boundaries, parking lots, and wooded areas. *Note: you can easily change the basemap you are using by clicking on the different options in the bottom left corner of the map. For example, it might be easier to tell where there are trees in the park if you use the satellite basemap imagery instead of the default Mapbox basemap.*

d. Once you have created multiple polygons representing different feature categories (water, grass, trees, parking lots, etc), you can add that category information to the GeoJSON file by following the next steps.
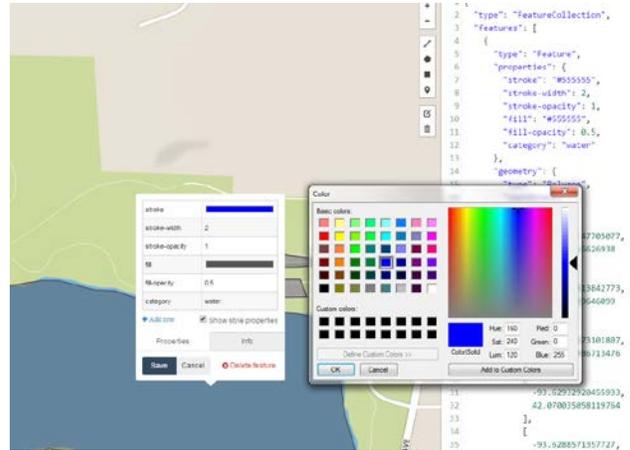
3. Adding Properties

a. On the map, click on the first polygon you created. An information window will appear, and in the empty space at the bottom of the properties table type in **category** in the left box, and type in the feature category it represents (water, trees, etc.) in the box on the right. Click **Save**.

b. When you click save, notice that the properties you added for the feature are added to the GeoJSON information in the menu on the right.

c. Repeat the previous steps for all of the polygons you created. If you created a lot of features is might be easier to add this information from the table view. Select **Table** from the menu on the right to view the feature properties within a table. If you scroll to the far right, you should see a column called categories. You can type in the information for each feature into this table. *Note: when you click on a cell to add information, the map will zoom to the feature you are editing. This makes it really easy to edit/ add information to features.*

d. From this window you also have the option to change the styling properties such as stroke color, width, opacity, as well as fill color and opacity within the GeoJSON file. Change some of these style properties and click **Save**. When saved, the GeoJSON file properties will be updated with the new information.
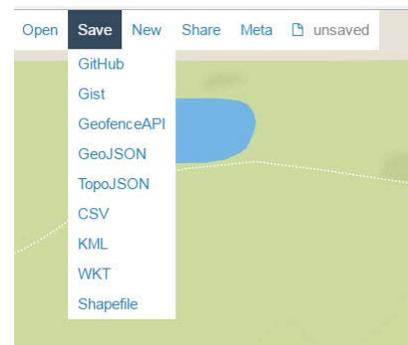
4. Saving GeoJSON File

a. Click the Save button at the top of the page, and select GeoJSON from the drop-down menu to download the GeoJSON files you have created.

5. Other Options

a. Users of geojson.io can also create point and line layers using the draw tools on the map.

a. There are also many other options for saving layers drawn on the map. Users can save their points, lines or polygons as a GeoJSON file to a GitHub repository, or Gist. Files can also be downloaded as TopoJSON, CSV, KML, WKT, or Shapefile.

a. Another nice feature of geojson.io is the share feature. Click on the **Share** button at the top of the page to get a URL to a full-screen map that can be embedded into a website and shared with other people.

Contact:

Bailey Hanson bahanson@iastate.edu, 515-520-1436 or Professor Christopher J. Seeger, ASLA, GISP cjseeger@iastate.edu, 515-509-0651 for more information about the Geospatial Technology Program. This task sheet and more are available at www.extension.iastate.edu/communities/gis