

Validate GeoJSON: GeoJSONLint

Welcome to the Essential ArcGIS Task Sheet Series. This series supplements the Iowa State University Geospatial Technology Training Program short course series. The task sheets are designed to provide quick, easy instructions for performing mapping tasks.

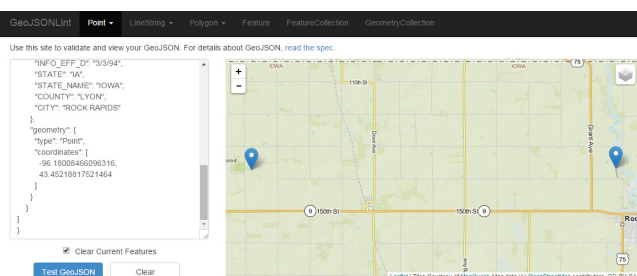
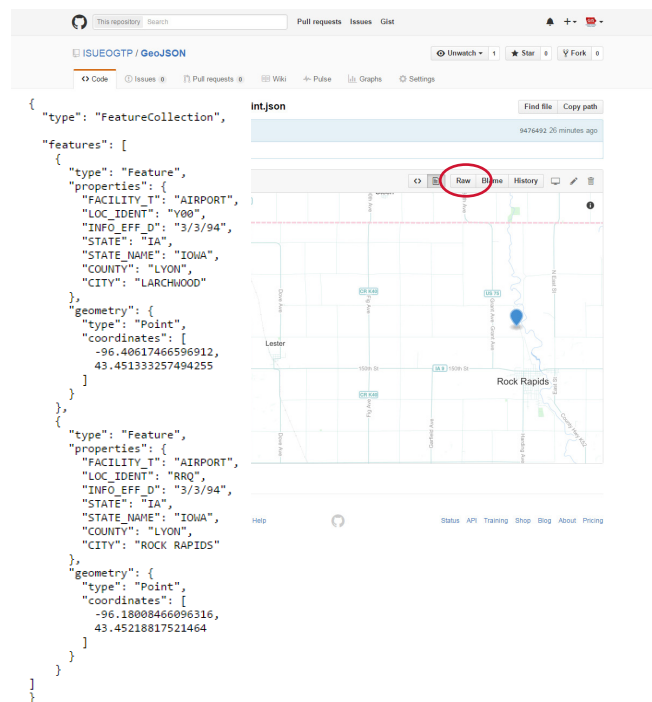
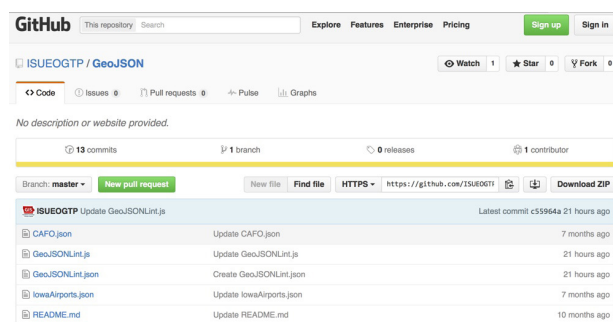
This task sheet will take you through the process of using GeoJSONLint to validate GeoJSON formatted data through a web interface and through programmatic access using JavaScript and jQuery. If you would like to learn more about GeoJSON please refer back to the publication, *Shapefile to GeoJSON: Conversion and Visualization* **PM2082-15g**.

1. View Files on GitHub

- You will find the files you will need for this task sheet on the ISU Extension and Outreach Geospatial Technology Program GitHub page - <https://github.com/ISUEOGTP>.
- The two files for this demonstration are found in the GeoJSON repository and are named **GeoJSONLint.json** and **GeoJSONLint.js**. The first file contains example GeoJSON to be tested in GeoJSONLint through the Web interface and the second file contains the example code for programmatic access to the GeoJSONLint validator.
- Click on the **GeoJSONLint.json** file. You will see a map appear with two points showing airport locations. To see the GeoJSON data behind the points, click on **Raw** in the top right corner of the map. The next screen will show you the GeoJSON data. Copy this text.

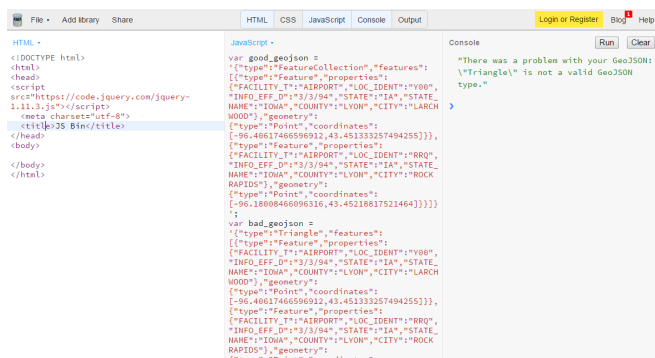
2. GeoJSONLint

- In a web browser open <http://geojsonlint.com>. In the text box to the left of the map, paste the example GeoJSON you copied in **step 1c**.
- We can already expect that this GeoJSON is valid because it appeared correctly in the GitHub map viewer. It will look the same in the GeoJSONLint validator.
- If the GeoJSON was not valid you would get an error message stating that the GeoJSON was invalid, such as "data was not JSON serializable". These messages are designed to help you to identify the error.



3. Validating GeoJSON with JavaScript via jQuery

- If you need programmatic access to validate your GeoJSON you can simply use the same endpoint that the GeoJSONLint site is using. *Note: it is CORS enabled so you can use it from the browser as well as any back end.*
- Click on the **GeoJSONLint.js** file and copy the JavaScript code. This file has two variables at the beginning of the code, **good_geojson** and **bad_geojson**. Like expected, good_geojson is formatted correctly and bad_geojson is formatted incorrectly. The ajax at the bottom of the code is currently validating for the bad_geojson. *Hint: keep that in mind when you paste this code into JS Bin as you will see an error in the Console bin.*
- Open <http://jsbin.com/> in a web browser. We will be using this tool to experiment with the GeoJSONLint validator code shown in **step 3b**. *Note: make sure you do not use https in the URL or the following process will not work since the GeoJSONLint URL is not https.*
- First, we need to add the jQuery library to the new **JS Bin**. Click on **Add Library** in the top left corner and select **jQuery1.11.3**. *Note: older versions of the jQuery library should work also.*
- Now, paste the JavaScript code you copied from **step 3b** in to the **JavaScript bin** within **JS Bin**.
- You should see an error message **"There was a problem with your GeoJSON: '\Triangle' is not a valid GeoJSON type"** in the **Console bin**. Now change the GeoJSON file being posted to the validator from bad_geojson to **good_geojson**. You should now see the message **"You just posted some valid GeoJSON!"**.



```
<!DOCTYPE html>
<html>
<head>
<script
src="https://code.jquery.com/jquery-1.11.3.js"/>
</script>
<meta charset="utf-8">
</head>
<body>
</body>
</html>

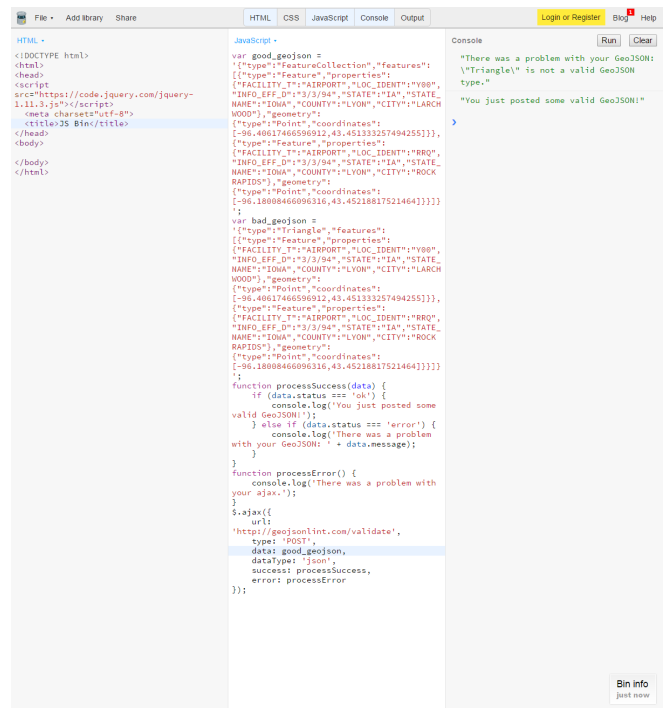
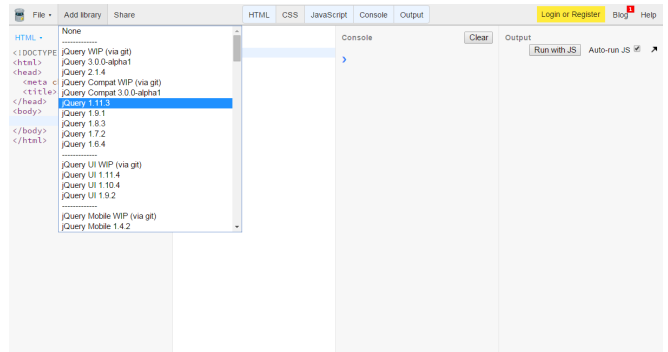
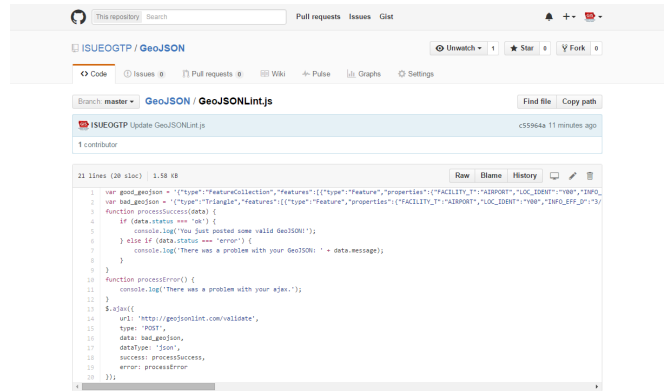
var good_geojson =
{
  "type": "FeatureCollection",
  "features": [
    {
      "type": "Feature",
      "properties": {
        "FACILITY": "AIRPORT",
        "LOC_IDENTITY": "Y800",
        "INFO_EFF_DT": "3/3/94",
        "STATE": "IA",
        "STATE_NAME": "IOWA",
        "COUNTY": "LYON",
        "CITY": "LARCH WOOD",
        "geometry": {
          "type": "Point",
          "coordinates": [
            -96.4061746059912,
            43.451333257494255
          ]
        }
      }
    }
  ]
};

var bad_geojson =
{
  "type": "Triangle",
  "features": [
    {
      "type": "Feature",
      "properties": {
        "FACILITY": "AIRPORT",
        "LOC_IDENTITY": "Y800",
        "INFO_EFF_DT": "3/3/94",
        "STATE": "IA",
        "STATE_NAME": "IOWA",
        "COUNTY": "LYON",
        "CITY": "LARCH WOOD",
        "geometry": {
          "type": "Point",
          "coordinates": [
            -96.4061746059912,
            43.451333257494255
          ]
        }
      }
    }
  ]
};

function processSuccess(data) {
  if (data.status === 'ok') {
    console.log('You just posted some valid GeoJSON!');
  } else if (data.status === 'error') {
    console.log('There was a problem with your GeoJSON: ' + data.message);
  }
}

function processError() {
  console.log('There was a problem with your ajax.');
}

$.ajax({
  url: 'http://geojsonlint.com/validate',
  type: 'POST',
  data: good_geojson,
  dataType: 'json',
  success: processSuccess,
  error: processError
});
```



Contact:

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