## VTZA GIS Workflow

Before you start check:

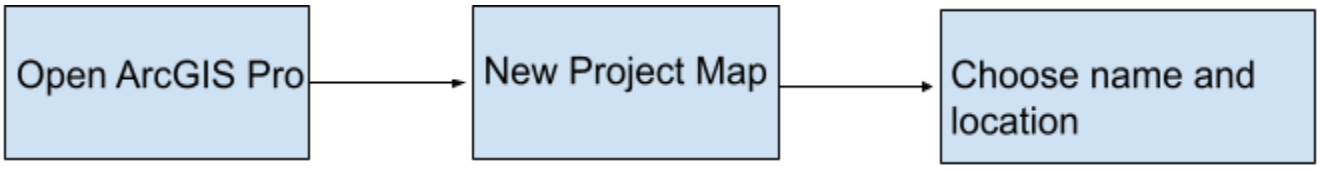
1) You know the abbreviated district names
2) You have access to the Arcpy scripts
3) The .Shp file is accurate

What do the scripts do?

1) The first script projects and repairs geometry on the TIGER boundary and the district .shapefile
2) The second script creates a mobile geodatabase, copies all the projected features into it, and creates the topology you will use to do error checks

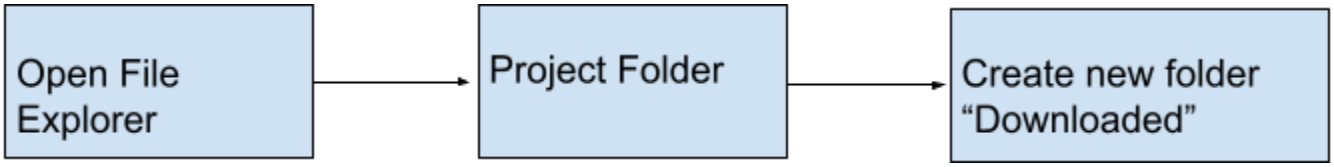
### Step 1

Create the project

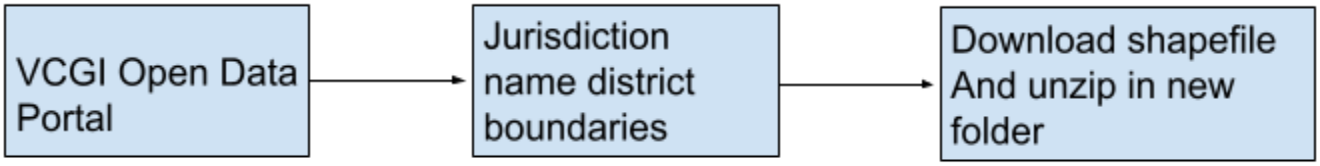



Name it the jurisdiction you are working on (Ex. Stowe)
Make sure “create a folder for this project” is checked

Create the Downloaded folder

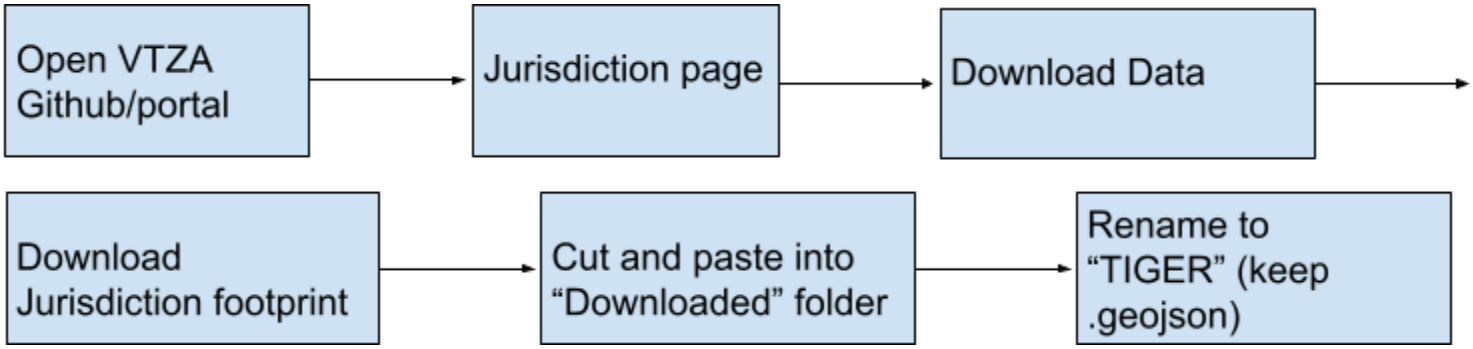



Download the District Shapefile

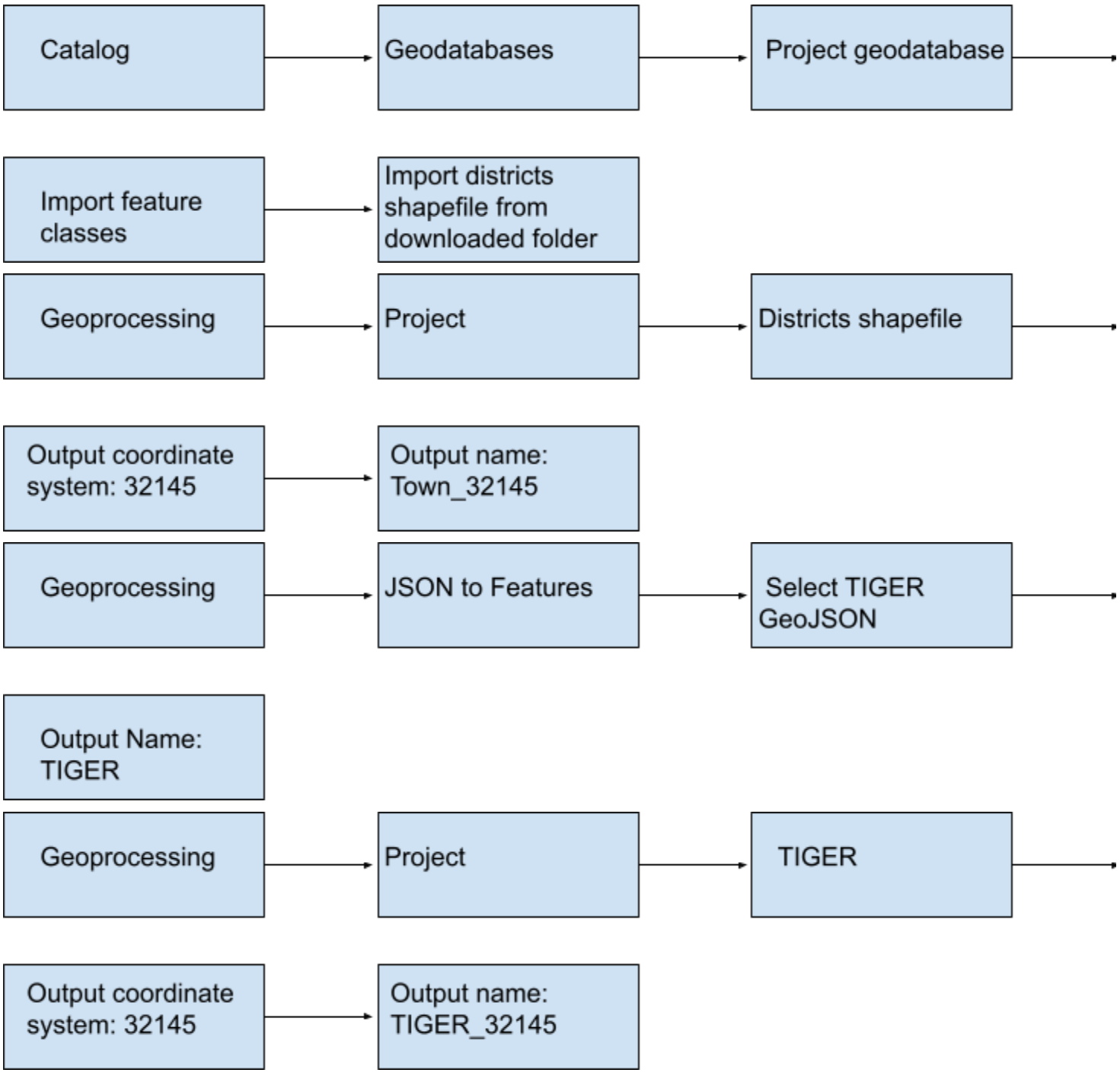



Do not rename the shapefile, and make sure it ends up in the “Downloaded” folder you just made

Download & rename the TIGER geojson

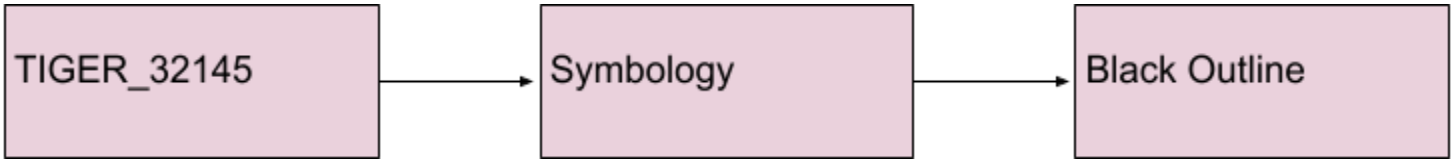



Prepare the districts shapefile and TIGER geojson

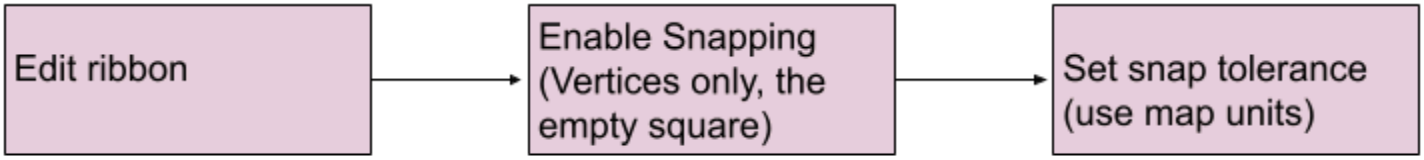


**Step 2**

Change the TIGER_32145 symbology




Enable snapping + set snap tolerance



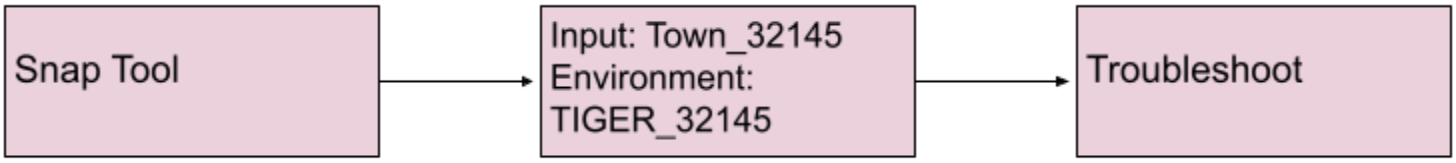

Snap tool:

1) Make sure there are enough vertices on the districts to snap to the TIGER
2) Make sure there are no important district lines (not jurisdiction border) close to the edge, they will snap to the TIGER and change the district shapes
3) Set tolerance to about 100, it is best to use the measure tool to find the furthest vertex that isn't a district line and set the tolerance based off that

Manual:

1) Set tolerance to about 10-20, and zoom in. 10-20 pixels also works if you are zooming in very close

Use the Snap tool **AND/OR** manually edit vertices




Click "enable undo" at the bottom
Type: Either Vertex or Edge

- Snap tool can be unreliable, however, the best combination is usually a Vertex snap, and then an Edge snap

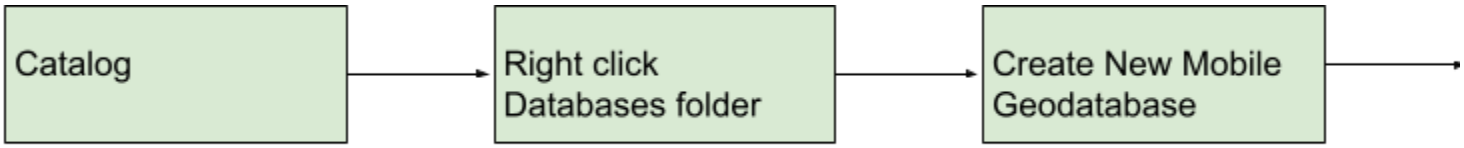
Check for any errors (zoom in on edges) and troubleshoot via manual edits or new snap tool runs


Check for any errors (zoom in on edges) and snap Town_32145 vertices to the TIGER_32145 vertices by dragging them

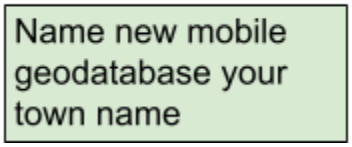
- New vertices can be created by right clicking on the edge of the Town_32145 feature

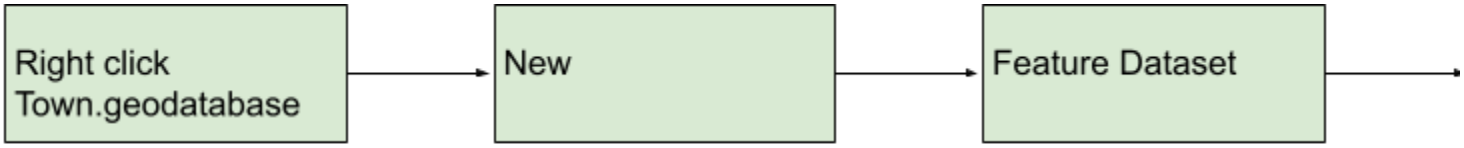
**Step 3**

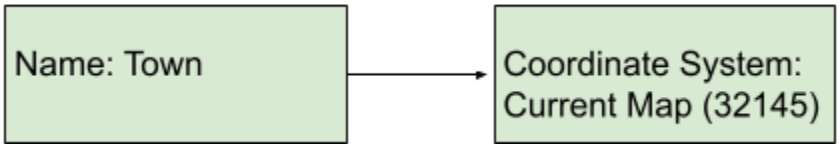
Create Mobile Geodatabase and Topology and fix associated errors

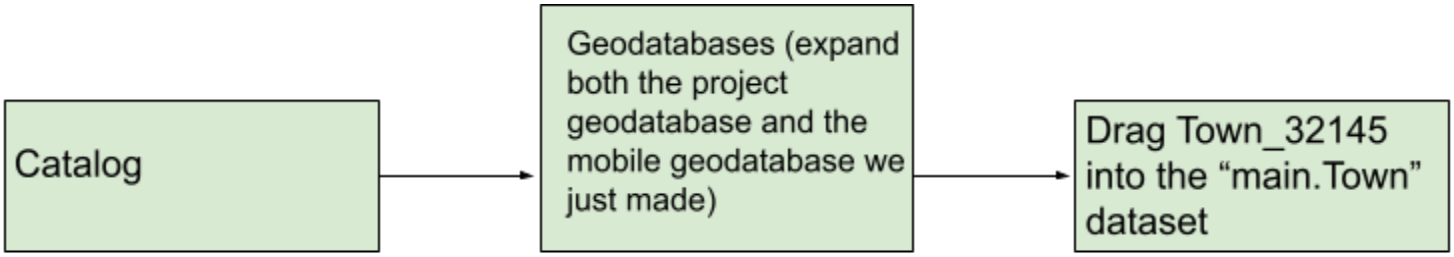


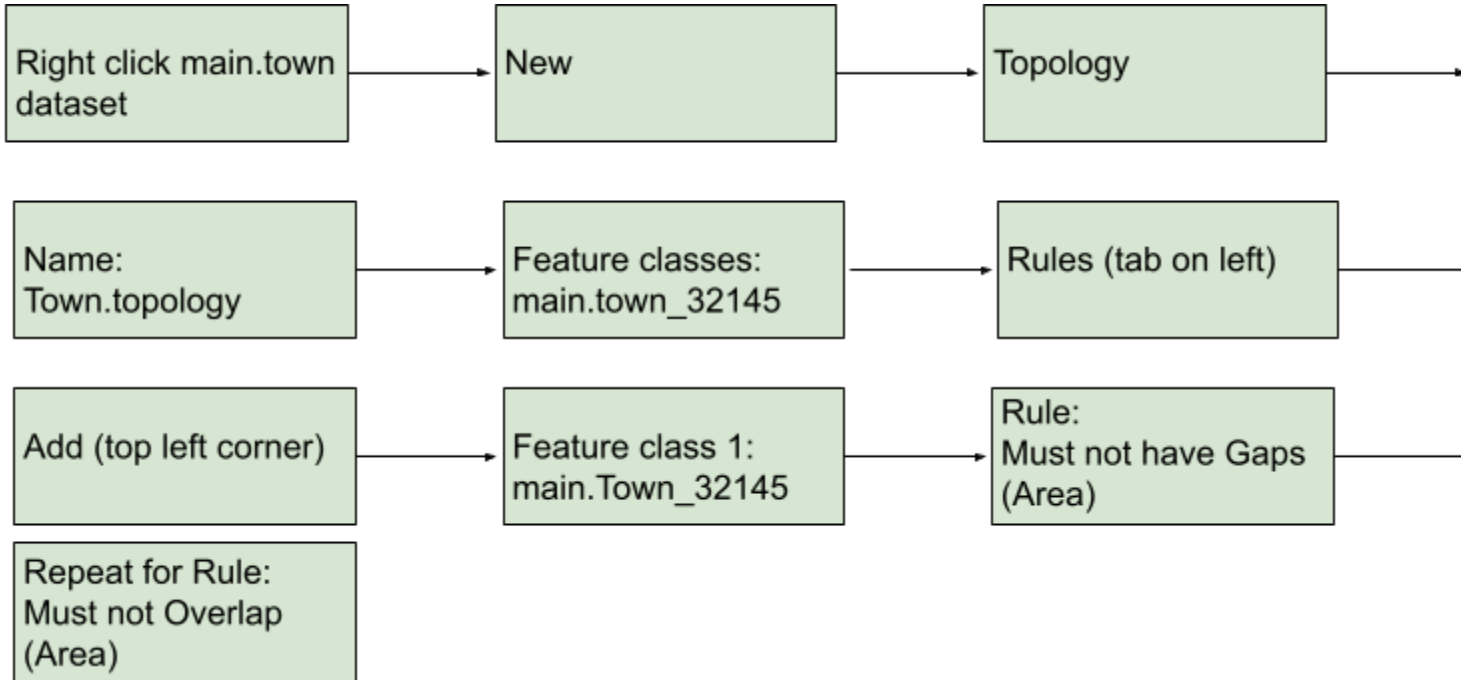

Creating a mobile geodatabase allows anyone who has administration locks (like UVM students) to do the following steps without problems



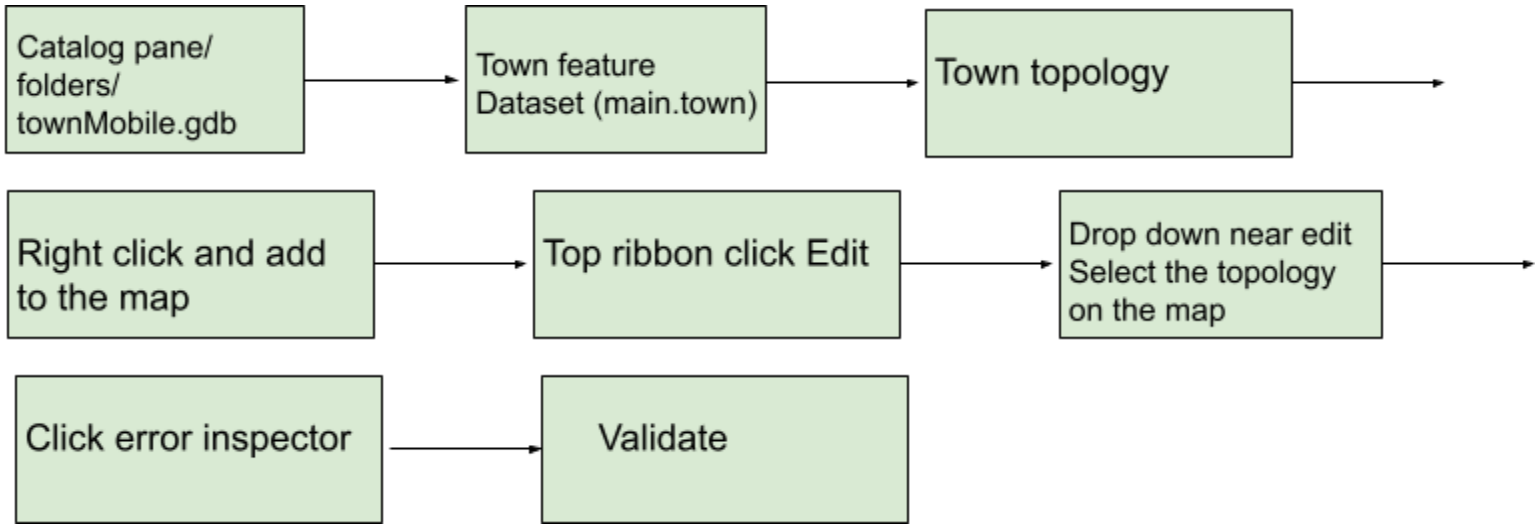



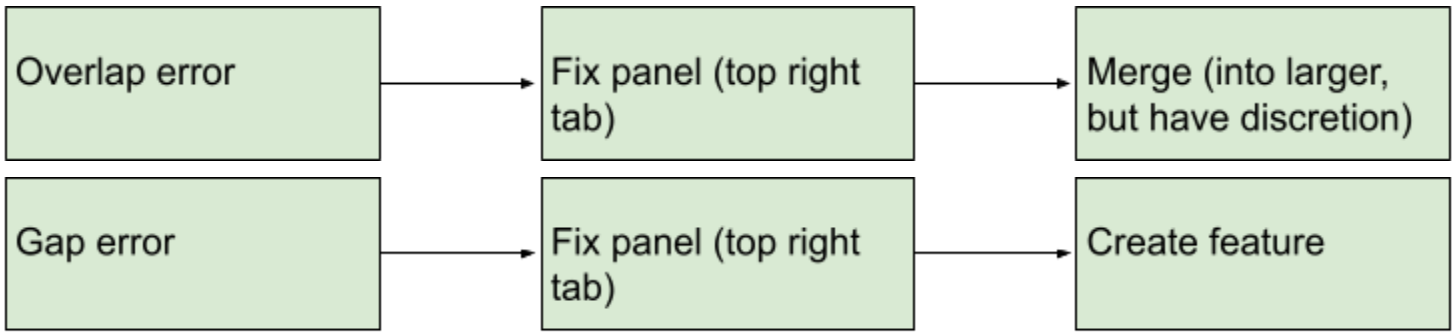






Add the topology to the map, and run it



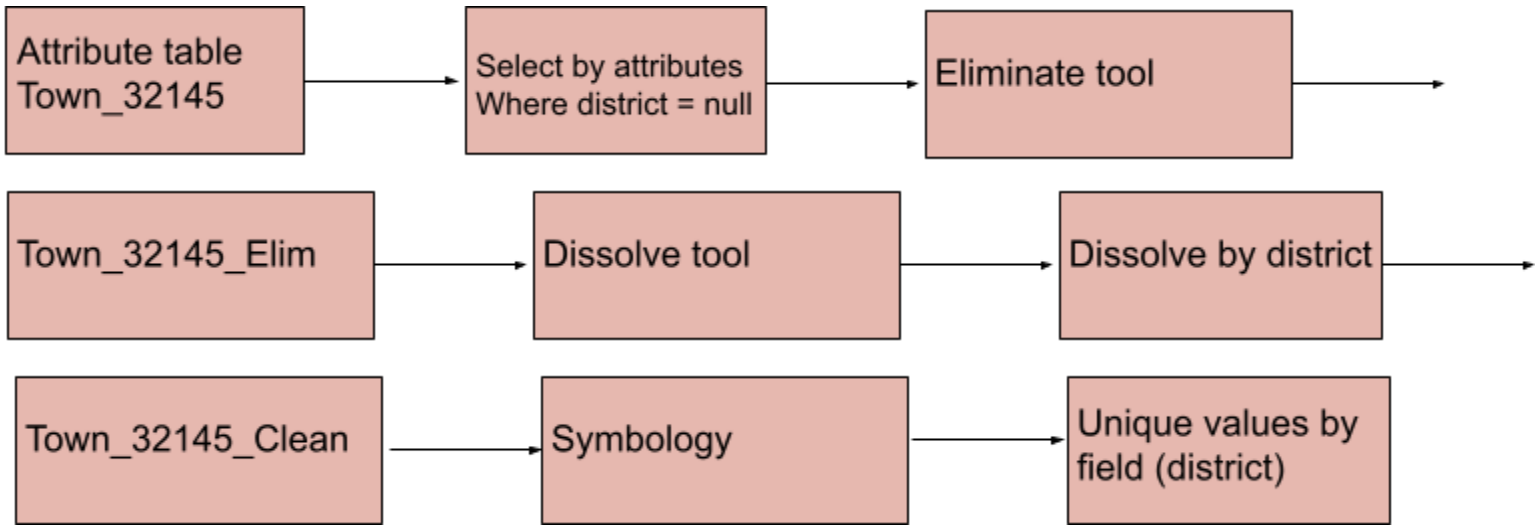

Manually fix overlap and gap errors



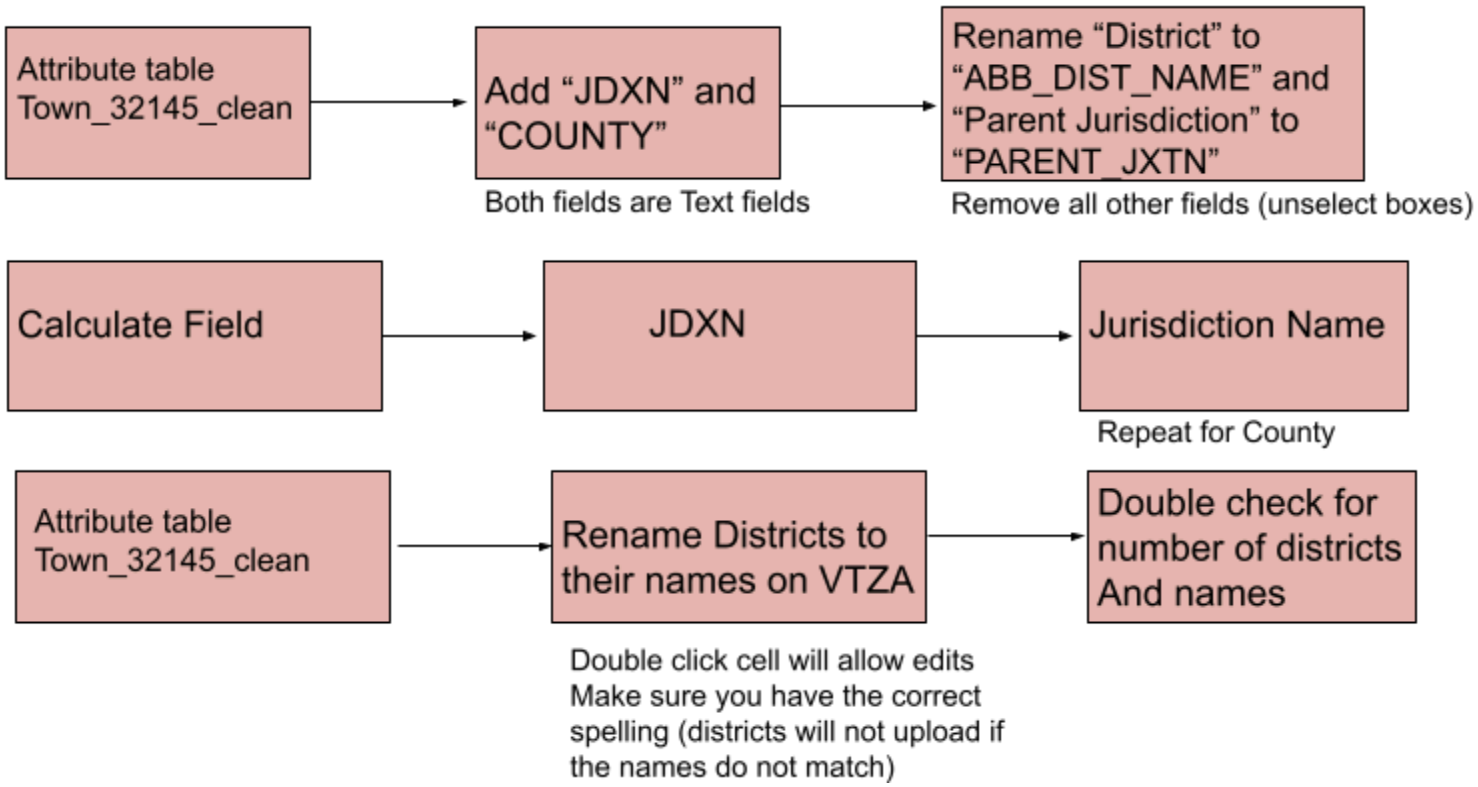

Error inspector will mark the edges of the feature as gaps, they are easy to see as they are the perimeter of the jurisdiction. Mark these as expections

**Step 4 (Clean up)**

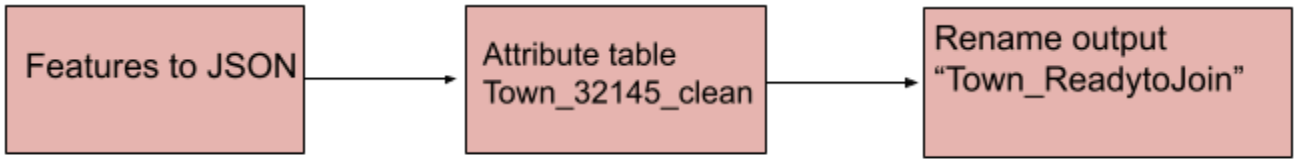
Eliminate null districts (created from gaps)

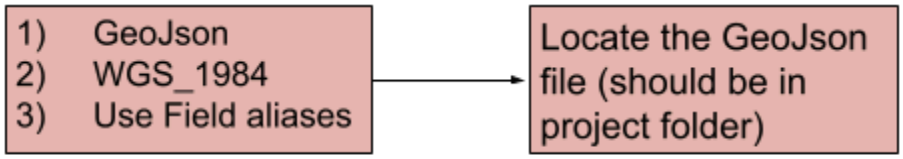



Cleaning the attribute table



Exporting and uploading the GeoJson





Most issues here come from naming

- If you run into an issue with naming, the JSON is editable with notepad++ (command f works great)