



Free Training Transcript: Spatial Files

Welcome to this video on spatial files. You can download the exercise workbook and data set to follow along in your own copy of Tableau.

Spatial Files

Spatial files contain geographic information that can be very useful for visual analysis. Tableau supports point geometries, linear geometries, or polygons. It does not support mixed geometries.

Connecting to Spatial Files

To begin, we'll connect to data. In the Connect Pane, click Spatial File, then navigate to the file itself. Tableau can connect to a variety of file types, including ESRI shapefiles, KML, and GeoJSON.

Once we've connected, we can see the data in the preview grid. Tableau interprets the spatial information as a new field, Geometry. When we click to a new sheet, we see that that Geometry field has a globe icon, indicating it can be mapped. If we double click, we get a map. That's how easy it is!

Working with the Geometry field

By default, when we first map the spatial file, it comes out as a single mark, as we can see in the bottom left corner, or by hovering over the map. We can begin disaggregating the data by adding another dimension to the view—let's bring road class to color. Now we have a sense of the types of roads—we can see the freeways clearly, and most of the roads are local access municipal. When we hover in the view, we see all roads of that type. Alternatively, we can disaggregate the view entirely by going to the Analysis menu and unchecking Aggregate Measures. This breaks the data down into its basic units, here road segments, with each getting its own mark.

But I want to see each road as a mark, even if it's made up of multiple segments, so I'll undo that and bring road name to detail.

Working with Additional Data

I'm curious about road types so switch that for color, and sort by the number of road names. Now I can see how common each type is. I'll assign the Summer color palette, but

make the long tail grey. It looks like although Court is more common by number of roads, they're all pretty short neighborhood roads. Whereas Streets look like they cover more ground, and roads tend to be pretty long. Interesting!

We can size by something like Speed Limit—let's make it a number and convert it to a measure—and bring it to size. Uh oh! Our lines turned to points. If we change the mark type back to Map rather than Automatic, we get our lines back. But that's not very interesting, so I'll drag that off.

Joining data

I have another data set I want to bring in here about trees in Brimbank. The trees data set gives the site name for the trees as the name of the road—so we can use that to join these data sets. We'll make a left join on Rd Name Ty and Site Name. Spatial files can be joined just like any other data.

Conclusion

Thank you for watching this mapping training video. We invite you to continue with the Free Training videos to learn more about using Tableau.