



Free Training Transcript: Polygon Maps

Welcome to the Polygon Maps video. You can download the exercise workbook to follow along in your own copy of Tableau.

Filled Maps

Tableau's filled map feature creates polygon maps quickly and easily. We simply double click on the geographic field of interest, here we'll use Country. This defaults to a symbol map. If we add a measure, like profit, to color, Tableau automatically makes it a filled map. However, if we switch and put a dimension, say Market, on color we have a symbol map again. We can force this to be a filled map by changing the mark type.

Custom Territories

Sometimes our maps need custom territories. For example, perhaps we want to do analysis in Africa based on time zone. Each country (except the Democratic Republic of the Congo) falls into just one time zone, so here we have a map at the level of country. To create our custom, time zone-based territories, simply select the countries that make up a territory and group them. Repeat to identify each territory. (Please forgive any inaccuracies here as I select—and I'm putting all of the DRC into Central, and I'm speeding this up). Notice that the grouped field shows in the data pane. This field functions just like any other group. See the videos on Grouping for more information. Now, because we want to use just the timezones, regardless of specific country, we can remove Country from the view and just use those custom territories. Multiple custom territory groups can be created and even nested. To learn more, refer to the online help.

Custom Polygon Maps

What if the analysis we want to do requires non-standard geographic areas, and custom territories won't work? To map those areas, we need coordinate data and information on how to connect the coordinates.

Required Data for Polygon Maps

Certain fields are required to create a polygon map. I like to think of it like a series of connect-the-dot drawings where each polygon area is a separate drawing. The data set has to contain specific information for Tableau to know what lines to draw and where. Latitude and Longitude are the coordinates of each point in the polygon, or each dot in the connect-the-dot. The point order field tells Tableau which dots to connect and in what order, like the numbers on a connect-the-dot. The polygon ID field will identify individual enclosed areas, letting Tableau know which points make up each drawing. Essentially, when to lift

the pencil. This can be as simple as the name of each area – the key point is that each polygon needs a unique identifier. Depending on the complexity of the polygons, it might be helpful to have sub polygon IDs as well, multiple enclosed areas can roll up to a larger area. For example, Greece has many islands, each of which would be their own polygon, but on a world map we'd want to know all those islands roll up, together with the mainland, into a single country.

<http://tableaumapping.bi/> is a great resource for polygon data, the data set we're about to use is from their UK repository.

Building a Polygon Map

Now that we know what the data needs to look like, we can start building that map. Here we're connected to polygon data for the National Parks of the UK. If the ID fields are showing up as measures, simply drag them into the Dimensions area of the data pane. This is a key point – this forces Tableau to treat each of these numbers as a discrete, instead of values to be aggregated (as a Measure would be). Next, change the mark type to be a polygon. Bring Point ID to the Path shelf, this connects the dots in the dot-to-dot we're drawing. Place the Polygon ID field on the Detail shelf to break up each set of points into individual polygons. If present, we'll do the same thing with Sub Polygon ID. Next, we'll plot the latitude and longitude coordinates by double clicking on them. Finally, drag the unique identifier for each polygon onto the color shelf. In this case, that's the Park Name. And there we see the UK National Parks.

Conclusion

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