On-Demand Training: Custom Geocoding Transcript

Welcome to this video on Custom Geocoding. This video builds on the concepts in the Expanding Tableau's Mapping Capabilities video. You can download the Exercises workbook and additional files to follow along in your own copy of Tableau.

Creating a Custom Geocoding Import File

There are three main types of custom geocoding

- Extending an existing role
- Adding new roles to an existing hierarchy
- Or adding new hierarchies

Regardless of the type of custom geocoding, the CSV import file must be created very carefully. It must have consistent spelling, capitalization, and column names. For example, Latitude and Longitude must be spelled out fully and be capitalized.

Extending an Existing Role

Extending an existing role would be the option for adding towns that Tableau doesn't automatically recognize.

Here's an Excel file which adds in some small towns from my home state of Florida. I have to indicate every level of the hierarchy above the cities, so country and state, then provide the Latitude and Longitude for these new cities. Because all three levels of the hierarchy are existing roles already in Tableau, I have to name my columns exactly as Tableau knows these roles – the online help has a table with the columns to include.

Adding New Roles

Adding New Roles creates new levels within an existing hierarchy, such as adding Bank of China branch locations under the level of Country.

- If we also had state and city information, we could nest Branch under the city level.
- However, if for example we don't have State information, we can't simply go Country > City because that's not an existing hierarchy.

To add a new role in an existing hierarchy, I have the Country, then the Branch, then the Latitude and Longitude.

Once this is brought into Tableau, "Branch" will show up as a new geographic role

Adding New Hierarchies

Adding new hierarchies would be useful for a situation such as mapping custom sale regions, covering Theater and Region. These are not existing roles so it's a brand new hierarchy.

To create this, we'd need to make a CSV file for each level of the hierarchy.

- Because we can individually map any level, we need Latitude and Longitude coordinates for each level.
- If we look at Region down at the bottom, we see we see that it contains all the levels above it so Tableau knows where precisely each piece goes.

Make sure to save all of the CSV files for the various levels of the hierarchy in a single folder.

Importing the Folder

- To bring in multiple custom geocoding files simultaneously, it's necessary to save all custom geocoding CSVs in the same folder.
- The folder can contain as many CSV files as necessary, but the entire folder will always be imported as a single entity and, if a workbook is packaged, all custom geocoding data will be bundled with the packaged file.

Let's import those two CVSs

- go to the Map menu
- Geocoding
- Import Custom Geocoding
- Browse to our folder and select import. This may take some time, so I'm going to pause the video

When working with custom geocoding, it's worth noting that any subsequent import will replace the custom geocoding already included.

Sharing and Saving Custom Geocoding

If we wanted to share this, packaging the workbook will include the custom geocoding.

Packaged workbooks that contain custom geocoding can have their custom geocoding imported into the local repository, but they will replace any existing custom geocoding on that system

- To import the custom geocoding from a packaged workbook, go to Map > Geocoding > Import Custom Geocoding > and select to Import from the current workbook

Geocoded Data vs Custom Geocoding

Let's do a quick comparison of custom geocoding versus joining or blending on geocoded data.

Joining or blending requires the end user to connect to data containing the coordinates, here our geocoding data includes latitude and longitude

- We'll plot those fields
- and bring branch to Detail

We can now bring in additional information from the other table or data source. Here, this file contains no geographic data, but it's blending on the branch field, so we can bring

- manager to label and number of employees to color and size

Every time we want to map bank branches we have to connect to the geocoded data source and the other data, or have the latitude and longitude in the data we want to analyze.

Conversely, custom geocoding only requires that the dataset contain the field that's been added to custom geocoding,

Here we have Florida Small Towns – and the end user interacts with these fields as if they were any other automatically recognized geographic role. Note the icon indicating custom geocoding.

- We'll double click city, and add description to label.
- These towns are too small for Tableau to have recognized without that custom geocoding information.

In summary,

With geocoded data

- The packaged workbooks are smaller
- Maps can be made with either points or polygons
- Geocoded data can be saved as a data connection, which means a single copy, which simplifies change management versus locally stored files
- The analysis is more complex for end user
- As it requires joins, or more often blending

With custom geocoding

- Every packaged workbook with custom geocoding packages the entire geocoding database
- Maps can be points only – not polygon boundaries
- Custom geocoding is not supported on Tableau Online
- Custom geocoding is stored locally on a machine, and cannot be on a network drive, and is available to any workbook opened on that local machine

However, custom geocoding is very easy for end user.

Conclusion

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