

# Create Google Fusion Tables from Vector, Shape or CAD Objects

## Preliminary Instructions for TNTmips 2013DV

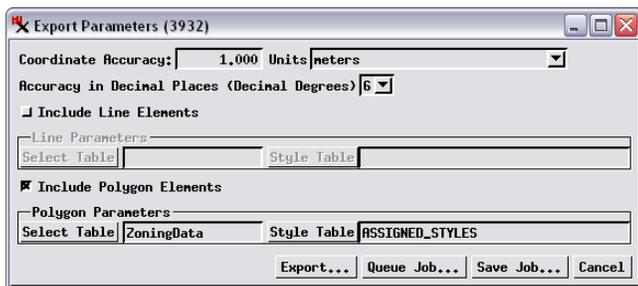
You can export polygons, lines, or points in a TNT vector, shape, or CAD object to a Tab-Separated Values (TSV) text file (\*.tsv) that you can then upload into a Google Fusion Table. You can use the Fusion Table interface to create maps from the table and set element styles to use in the maps. You can also use the Assemble Geomashup process in TNTmips to add a Fusion Table map as an overlay in a geomashup. A sample Fusion Table geomashup can be viewed at: <http://www.microimages.com/geodata/rho/FusionTables/GoogleFusionTablesGeomashup.htm>.

In order to use Google Fusion Tables, you need to have one or more Google Drive accounts. You can sign up for free Google Drive accounts at <https://drive.google.com>.

### Exporting the Geometric Elements

In the Export process (Main / Export) in TNTmips 2013DV:

- Choose Fusion Table in the format list.
- Select the geometric object to export.
- Press [Next...] to open the Export Parameters window.



The Export Parameters window for Fusion Tables includes a section for each type of geometric element (point, line, or polygon) that is present in the object. In most cases only one type of element should be exported to an individual Fusion Table. Use the Include checkbox control to choose the desired element type to export. In the example above, the input vector object has attributed polygons and lines, but only polygons are set to be exported.

In the Parameters controls for the desired element type:

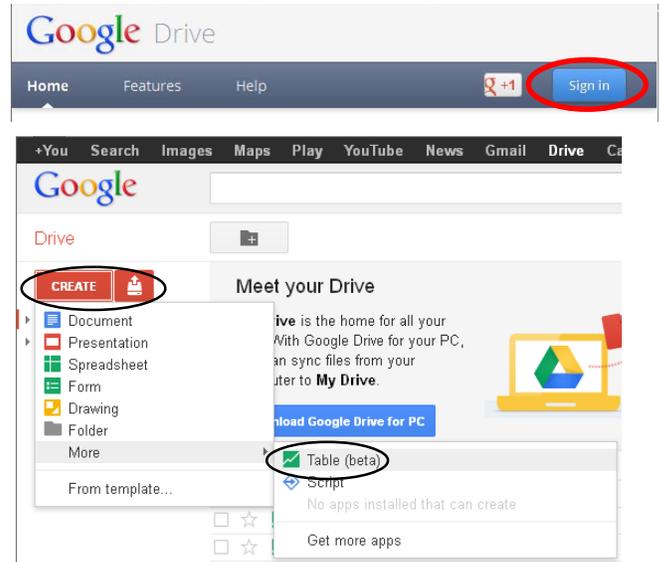
- Use the Select Table button to choose the attribute table to export with the geometric elements.
- Select the Style Table with the style information (if any) for the elements.
- Adjust the Coordinate Accuracy settings if desired.
- Press [Export...] and name the output text file (\*.tsv) to be saved on your local computer drive.

The following style properties are included as fields in the TSV file for your use in Fusion Tables:

	TNT Style Attribute	Fusion Table Field Name
<b>Polygons</b>	border color	bordercolor
	border width	borderwidth
	fill color & transparency	fillcolor
<b>Lines</b>	color	linecolor
	width	linewidth
<b>Points</b>	----	Not yet implemented ----

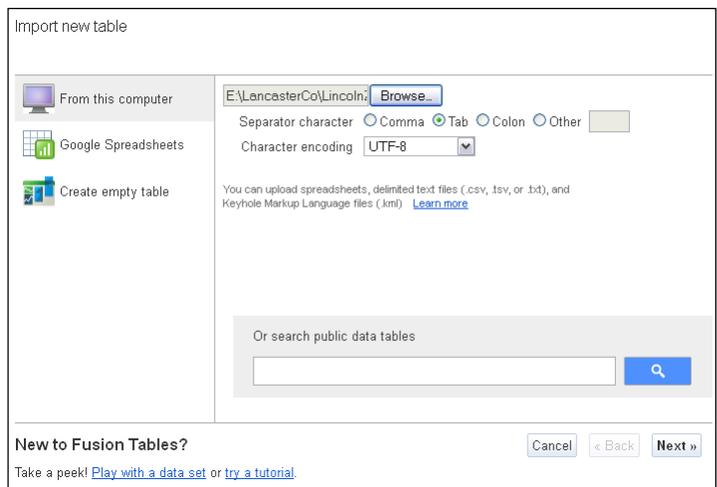
### Uploading the TSV File to Google Fusion Tables

In your web browser, go to the Google Drive home page ([drive.google.com](http://drive.google.com)). Press the blue Sign In button in the upper right corner of the page and log in to your Google Account.



Google Drive provides procedures for uploading the TSV file from your computer and importing it into a Fusion Table. After you have signed in to your Google Drive account:

- Press the red *Create* menu button on the left side of the Google Drive web page (illustration above).
- Select *More* from the *Create* menu and *Table (beta)* from the submenu to open the *Import new table* dialog (illustration below).

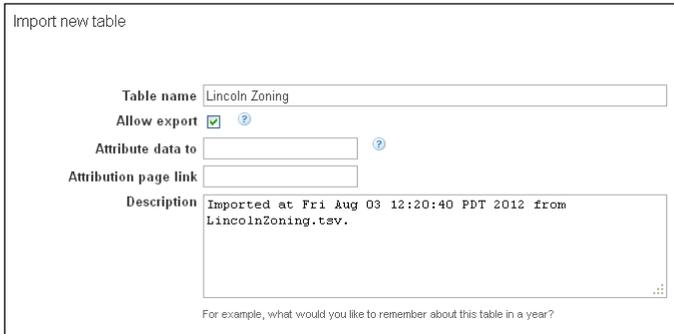


- Press the Browse button on the *Import new table* dialog to navigate to and select the TSV file you exported using TNTmips.
- The .tsv extension on the selected file is detected and the *Separator character* radio control is automatically set to Tab.
- Press the *Next* button.

(over)

The Fusion Tables *Import new table* dialog changes to show a preview of the table to be imported.

- Press the *Next* button on the *Import new table* dialog.

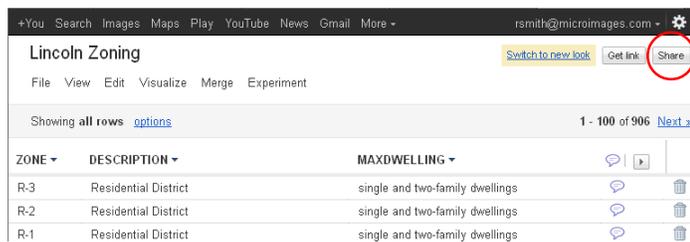


A final *Import new table* dialog appears (above) with the name of your TSV file shown as the default name for the Fusion Table. You can edit the table name, indicate whether or not to allow others to export your Fusion Table, and provide a description of the table and information about its source.

- Press the *Finish* button on the *Import new table* dialog to upload your data into your new Fusion Table.

### Sharing Your Fusion Table

When your table data has finished loading, the browser will show your imported Fusion Table in a table view that shows the first 100 records (rows) of data and the first of your columns. The page includes a text link labeled “Next” to see the next page of table rows, and an arrow icon button to scroll to the right through the columns. (The Fusion Tables interface has two modes, a “classic look” and a “new look”. These instructions and illustrations refer to the default “classic look”.)



In order for you to use maps made from your Fusion Table as overlays in a geomashup, the table must be shared for public use.

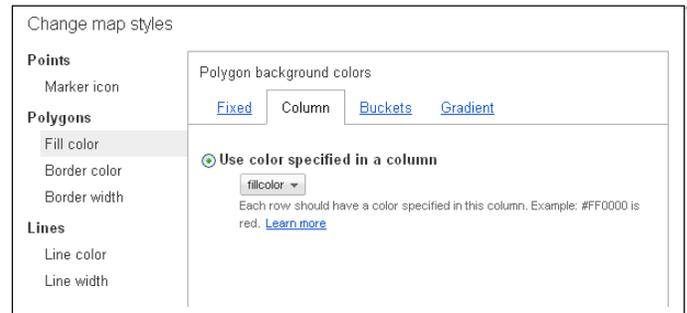
- Press the *Share* button in the top right corner of the table view (circled in red in illustration above) to open the *Sharing settings* dialog (illustrated below).
- Change the first entry under *Who has access* from “Private” to “Public on the Web”.
- Press the *Done* button on the *Sharing settings* dialog.



### Previewing a Map of Your Fusion Table

You can create a map of your Fusion Table data by choosing *Map* from the *Visualize* menu under the name of your table in the Fusion Table table view. The row of text links above the map include options to set up map styles and to choose columns to show in the info window that pops up when you or any other viewer clicks on a map element.

To set up map styles, click on the “Configure styles” link to open a *Change map styles* dialog, which is illustrated below.



By default a Fusion Tables map uses the same style for all of the map elements. You can set the color and other parameters for this “all same” style on the *Fixed* tabbed panel of the *Change map styles* dialog.

If the geometric elements you exported were styled “By Attribute” in TNTmips and you selected the appropriate style table during the export, then these style attributes are stored as columns in the Fusion Table and available for you to use to style your Fusion Tables map. In the *Change map styles* dialog:

- In the element list on the left side of the dialog, choose the element attribute such as *Fill color* for polygons.
- Click on the *Column* tab.
- Turn on the toggle button to use the color (or width) specified in a column.
- Press the menu button underneath the toggle to choose the column in the table that contains the style attribute values (see the table on the reverse for the names of the style attribute fields created by the TNT export).
- When you have made all style choices, press the *Save* button on the *Change map styles* dialog.

A full discussion of the other style options in Google Fusion tables is beyond the scope of these instructions. Please see the Google Fusion Tables tutorials that are available at <http://www.google.com/fusiontables/Home/>.

To design the layout of the map element info window, click on the *Configure info window* link above the map. The *Change info window layout* dialog has an *Automatic* tabbed panel that lets you choose which columns should be included in the info window text. The *Custom* tabbed panel allows you to directly edit the HTML template for the info window text to change the order of entries, modify the attribute labels, and add other text.

Google describes the current Fusion Tables application as a beta version. Google maintains a list of requested new features at <http://code.google.com/p/fusion-tables/issues/list>, and a user forum at <http://productforums.google.com/forum/#!/categories/google-fusion-tables>.