

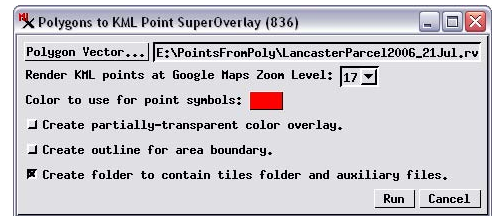
Make KML Point Super-Overlay from Polygons

Complex vector polygon map layers covering large areas can be rendered to standard raster tilesets with a transparent background for efficient display on the web in Google/Bing Maps or Google Earth. However, these tilesets can not preserve accompanying database information for presentation in the geobrowser. MicroImages has created a geospatial script that processes a TNT vector object with polygons to produce KML-formatted point data with a point for each polygon and all polygon attributes transferred to the points. This point data layer can be mashed up with a tileset rendered from the source polygons to display these polygon's attributes as information balloons in Google Maps or Google Earth.

The input for this script (PolysToPtKMLSuperOverlay.sml) is a vector object with polygons. The script output is a KML super-overlay containing a styled point (with attributes) for each input polygon. When the KML layer is displayed in Google Maps or Google Earth, left-clicking on a point pops in an information balloon listing attribute information from the corresponding polygon. The attributes shown in the info balloons are the same as those you have set up to be shown as pop-in DataTips for the parent vector polygons when displayed in TNTmips. The database field you use as the source for the DataTip can be a dynamic string expression field that constructs an HTML-formatted, multiline listing of information drawn from a number of database fields in one table or several related tables. No matter how complex, all of the DataTip information for each polygon is passed along to the KML structure to be shown in the geobrowser.

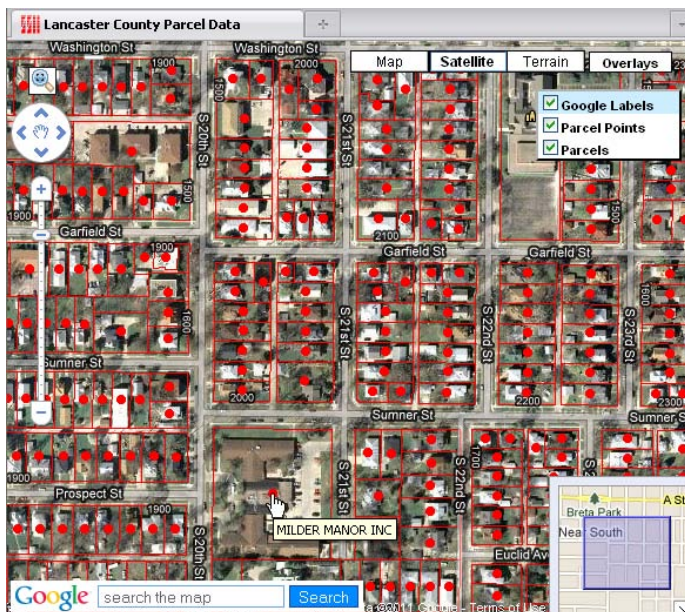
The KML super-overlay of points created by this script is a tiled array of small KML files linked together to form a single tiered structure. This structure allows datasets **consisting of hundreds of thousands to millions of points** to be viewed efficiently in Google Maps or Google Earth. The total number of points in this super-overlay structure has **no impact** on their performance in either of these geoviewers.

The super-overlays produced by the script described here are optimized for use in Google Maps. In the dialog window presented by the script, you choose a Google Maps zoom level at which to render the points. The points created by the script are rendered to KML files covering rectangular areas that match the boundaries of Google Maps tiles at the selected zoom level. You should choose a zoom level at which the points will not appear too crowded and at which each individual KML tile file will contain no



Dialog window presented by the sample script described here. You use this window to select the input vector object, set the Google Maps zoom level at which to create the KML point files, and set other processing parameters as described in the text.

The geospatial script described here is available for download from the Custom Processing Scripts page at [microimages.com](http://www.microimages.com):
<http://www.microimages.com/downloads/smlscripts.htm>



Above, left-clicking on a parcel point pops in an information balloon showing the DataTip information transferred to the KML structure from the source polygons. Simply hovering the mouse over the point shows a simple DataTip with the owner name, as shown in the illustration to the left.

more than about 1000 points. (For comparison, note that a single Google Maps tile at any zoom level occupies a screen area of 256 by 256 pixels.)

This sample script allows you to specify a color to use for the point symbols (filled circles) that it creates. It also provides options to create a partially-transparent color overlay for the data area and/or an outline of the data area. These overlays are visible only when the super-overlay is displayed in the Google Earth desktop application or in a geomashup using the Google Earth browser plugin.

Closeup of a geomashup of property parcel information with a parcel boundary tileset (red polygons) at Google Maps zoom levels 17 through 19 and a KML super-overlay with parcel points produced by the sample script described here. This mashup can be found at <http://www.microimages.com/gallery/local/maps.htm>.