## Spatial Display

Render Map Layouts to KML

The Render to KML feature in the Display process creates a KML or KMZ file from the geospatial layers in your groups or map layouts, including geometric, raster, map grid, and/or pinmap layers. You can render the layers in groups/layouts either for the inclusive extent of all layers used in the view or for the extent of any open 2D or 3D view window. The KML or KMZ file stores all groups and the spatial objects in those groups separately retaining the visibility settings in the TNTmips Display process. You can also control the cell size of the rasters and coordinate accuracy of the geometric objects rendered to KML.

The Render to KML window is organized into 3 panels: Options, Raster Controls, and Geometric Controls. The last two panels are visible only if you have a geometric and/or raster layer in any of the groups. You can render your group/layout to KML in the extents of any open view window choosing from the Extents list that automatically includes the name of the view window when opened. The Options panel also allows you to render your layouts in KMZ format (the compressed form of KML) and to launch Google Earth automatically to display the KML file generated. If you keep the default settings in the Raster Controls and Geometric Controls panel, all raster objects in your group or layout are rendered in the highest resolution available and the coordinate accuracy of the geometric objects automatically matches the cell size of the raster objects.

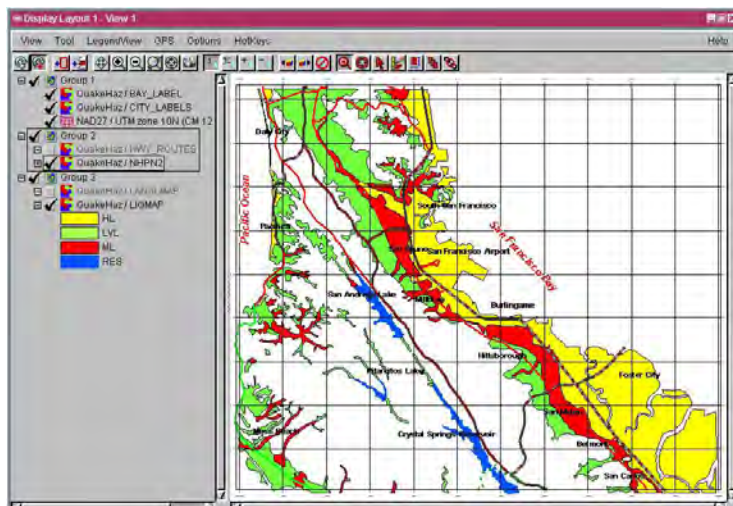Select any open view window or Entire Display to specify the extents of the KML file.
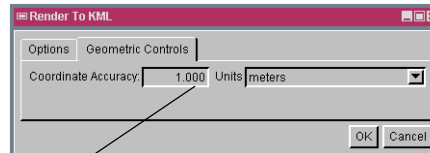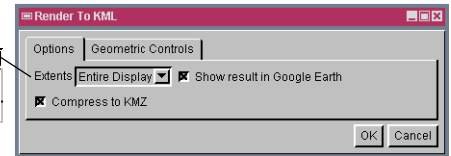
If there are raster objects and geometric objects in the layout, the coordinate accuracy of the geometric objects automatically matches the cell size of the raster objects.

Increasing the coordinate accuracy and/or resolution by entering smaller values than automatically specified value increases the size of the KML file generated.
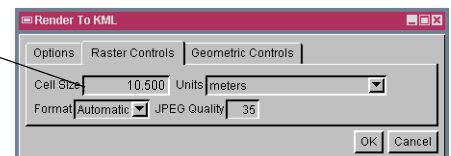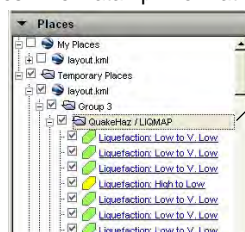
All geospatial objects in a layout are rendered into a single KML file, however, when this KML file is displayed in Google Earth, each group in the layout is listed in the Places panel as an expandable folder, which stores each original TNT object in that group in a separate sub-folder. Each sub-folder keeps the content of the associated object type in the form of polygon, path or placemark elements when applicable. Thus, you can control individual layers in the resulting KML file using Google Earth tools.

The display styles for line and polygon elements defined in TNTmips are also stored in the KML file. However, the KML file can not always be displayed in Google Earth with exactly matching styles if you assigned TNT styles not reproducable in Google Earth. If the elements are not displayed in styles you desire, you need to reassign styles for the spatial elements using Google Earth's style assignment tools.

The illustration above shows a layout which was rendered to KML with the default setting. The resulting KML file displayed in Google Earth is shown in the illustration to the right. The labels in vector objects are displayed as placemarks in the KML file. The styles of the placemarks and the grid lines were changed using Google Earth style assignment tools.

The illustration below shows the content of a vector object in the Places panel of Google Earth when a layout has been rendered to KML. The polygon elements are listed with assigned styles. The DataTip information generated by string and memo fields in TNTmips products shows up as an element name in Google Earth. The elements are listed without any identification in the Places panel if there is no DataTip defined in TNT products or if the DataTips are generated from other types of fields. The name of the elements in the Places panel are limited to 60 characters.