The Display process in TNTmips Pro allows you to render any spatial object (vector, shape, CAD, raster, or database pinmap) or combination of spatial objects to a standard web tileset in Google Maps, Bing Maps, Google Earth, or World Wind tileset format. Any styles, symbols, labels, and other visual enhancements that you have designed for viewing your geospatial layers are also used for rendering these objects to a tileset. For geometric objects (vector, shape, and CAD) you can use the familiar methods for controlling the elements that are drawn: selection by attribute, by query, or by map scale. Your geospatial layers are rendered to a tileset in essentially the same form and appearance as they are rendered to the View window. However, the full extents of the displayed spatial data are rendered to the tileset, not just the portion currently shown in the View. Each zoom level in the output tileset is rendered separately from the source data.

You access the Render to Tileset control window from the Display Manager (Display / Render To / Tileset). Use the Output tabbed panel (illustrated on the reverse) to specify the target geobrowser, image format, maximum zoom level, and number of zoom levels, along with other settings specific to the selected geobrowser. If necessary, the spatial data layers are automatically reprojected to the coordinate reference system required for your selected geobrowser target before the layer is displayed.

The Preview panel allows you to see a preview rendering at any zoom level for any area of the data. The preview shown here is rendered from the four vector layers illustrated far left. The Preview panel includes an optional Magnifier that lets you examine the rendering in the area surrounding the cursor at 2X, 3X, 4X, or higher magnification. Standard zoom and reposition icon buttons are provided to let you quickly change the area or zoom level of the preview. You can also use the box graphic in the Locator pane (which indicates the size and location of the current preview) to pan and zoom the preview.

NOTE: Rendering from web tilesets, including Bing Maps and MapQuest public reference layers, is not permitted in TNTgis software.
Use the controls on the Output tabbed panel to choose the target geobrowser, image format, maximum zoom level, and number of zoom levels. These controls are similar to those found in the Export to Tilesets process and the Mosaic process.

The displayed layers are rendered to tiles in memory in blocks of predefined size. To minimize tile-edge artifacts with styled geometric elements, blocks are rendered with a buffer and then clipped to the designated block size. Use the controls on the Parameters tabbed panel to choose the block size and block buffer size.

Shown above is a geomashup of three tilesets, each produced in TNTmips from vector objects. The three tilesets depict map data for a groundwater aquifer in northern Nebraska. The layers include a map of geologic units below the aquifer, contours (with labels) of the elevation of the base of the aquifer, and surface streams. The geomashup in Bing Maps can be viewed at the web address noted above.