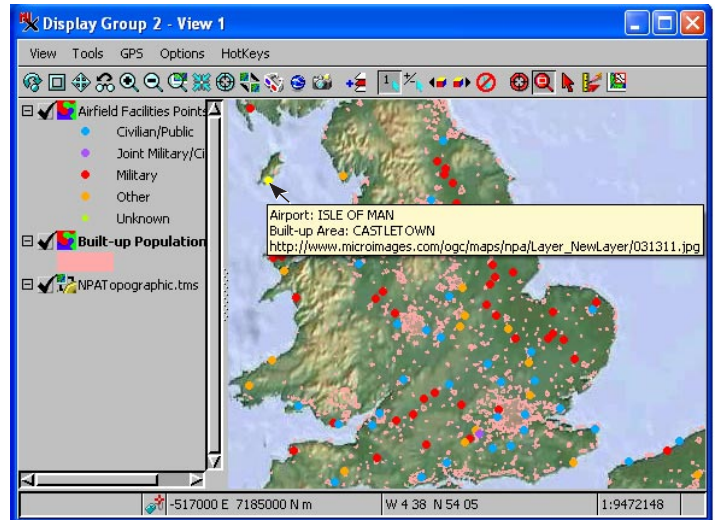# Spatial Display
Adding Tilesets to Your View

A Google, Microsoft, or NASA tileset presents an image or map that has been precomputed into a structure optimized for viewing in a web geoviewer or their free viewer applications. A tileset is a structure made up of many image files in a required small size, format, and coordinate reference system. There can be many millions of these tile files in a single tileset structure if it covers a large geographic area at high resolution. The performance of a web geoviewer or local viewer used to display a tileset is independent of the size of the tileset and the resolution and area it covers. Viewing these precomputed structures over the Internet or network does not require the wait time often encountered in the response time of a Web Map Service (WMS) to prepare the requested view. However, a WMS will have faster response times for images derived from a precomputed tileset structure. Viewing a tileset from a local drive or the Internet is inherently fast since only a few tiles need to be read regardless of the location or scale of the view.

A global topographic map provided as a tileset over the Internet is the backdrop for airfields and populated places vector overlays on a local drive. Note that the DataTip for this tileset layer provides the URL to the specific zoom level tile displayed at the cursor location.

Tilesets in TNTmips. TNTmips can prepare and view tilesets in the native structures defined by Google, Microsoft, or NASA for use in their web geoviewers and local geoviewer applications. Tilesets published on the Internet (or locally) do not require any special web server or service. They are easily accessed by URLs that direct the geoviewer or local application, including TNTmips, to the location of the requested tiles in their structure. A link on a web page can direct these popular geoviewers to display the tiles for any area and zoom level included in a tileset. The TNT products can also link to and add any of these tileset structures from local or Internet sources. This capability is available whether or not the native tileset structure was prepared by TNTmips or is available from some other source.

TNT also has its own tileset structure that is linked to tile files in other formats supported for direct use in the TNT products (GeoJP2, GeoTIFF, and PNG). Other tileset structures support only a single Coordinate Reference System and may allow only one tile size. TNT tilesets offer eight different tile sizes and a wide variety of Coordinate Reference Systems for your tilesets. Native TNT tilesets are selected like any other raster in

A number of sample tilesets in various web geoviewer formats with the required TSD link file are provided on MicroImages' web site for you to select from.
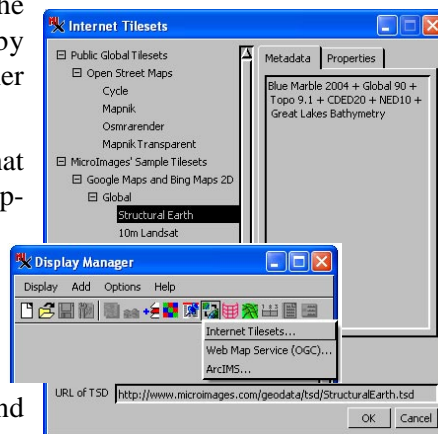
the TNT products. Other tileset structures (Google, Bing...) are selected by choosing an associated TSD (Tileset Definition) file.

Tileset TSD Files. To use a remote tileset as a layer in a TNT view, it must be defined by a TSD (*.tsd) link file with a name that matches the top, or master, directory in the tileset structure. A *.tsd file is created by any of TNTmips' Tileset processes or the Publish Geomashup process. The *.tsd link file for a specific tileset can be stored
  • locally with the tileset's master directory
  • locally but linked to a tileset somewhere on the local network or any Internet site
  • with the tileset anywhere on the Internet and accessed from TNT by URL.

A TSD file is an XML-formatted text file that contains the URLs or relative paths for the tileset components and provides information about its structure, tile formats, extents, coordinate reference system, and zoom levels.
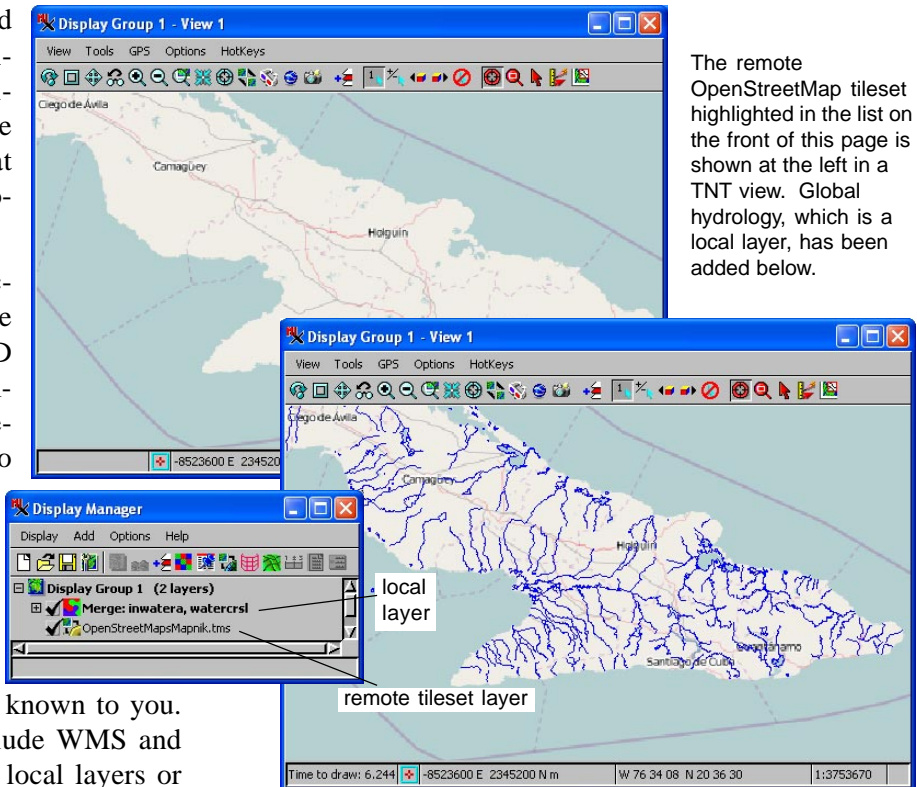
Selecting Tilesets for Display. Tilesets can be on the Internet or local. The first step in adding a tileset to a view is to choose between Internet and local tilesets, which determines the subsequent

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selection interface. Local tilesets with linked *.tsd files can be selected using the standard TNT navigation and selection techniques. These TSD files contain relative paths to the location of the TSD file that specify the location of the tiles on your local drives or network.

Internet Tilesets. Internet tilesets are accessed by URL and their individual tiles are located using the URLs in the selected TSD file that specify the tile locations. A number of tilesets in various structures are selectable from MicroImages' web site to provide examples of the benefits of using tilesets for display over the Internet. These tilesets are listed for your selection when you choose to add an Internet tileset layer. You can choose among the listed tilesets or type in or paste the URL for another tileset with an associated *.tsd file known to you. Like any other web layer type, which include WMS and ArcIMS layers, tilesets can be mixed with local layers or other web layers in your TNT view.

The remote OpenStreetMap tileset highlighted in the list on the front of this page is shown at the left in a TNT view. Global hydrology, which is a local layer, has been added below.

local layer

remote tileset layer