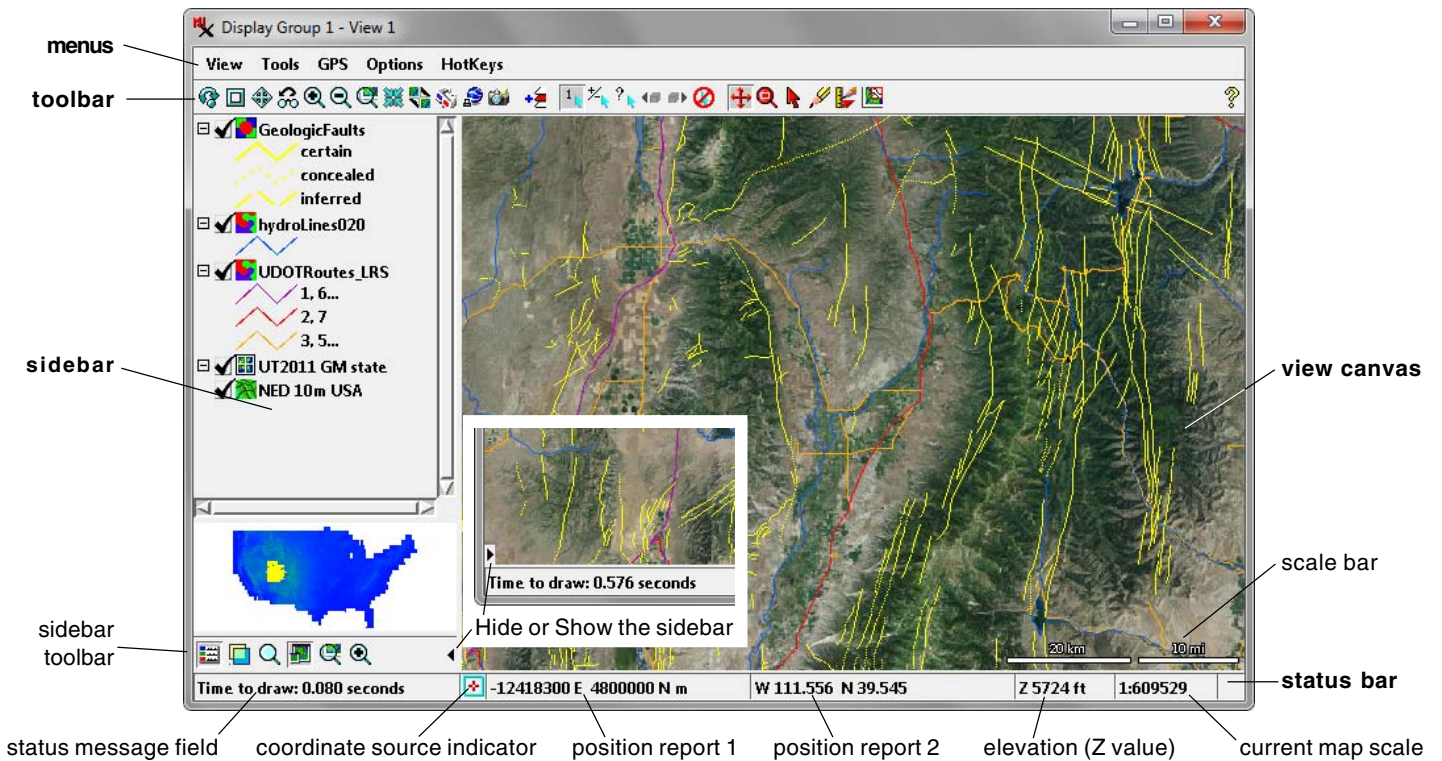


View Window



View windows for the 2D display of geospatial data are an integral part of many processes in the TNTgis software products. This document provides an overview of the main components of the View window, which are illustrated above.

View Canvas

The *view canvas* is the large area of the View window in which the geospatial data layers are drawn. As you move the mouse pointer over these data layers, popup DataTips show selected attribute information about the elements in these layers. You can use a number of graphic tools in the view canvas to change the display and explore the data layers. An optional scale bar can be shown in the view canvas (see the Scale Bar section below).

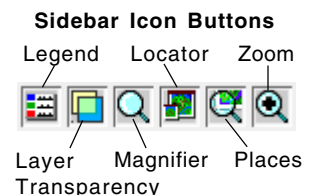
Toolbar

The *toolbar* is the row of icon buttons above the view canvas. These icon buttons are organized by function (see illustration below) and the function of each icon button is indicated by a ToolTip when you place the mouse pointer over it. The buttons in the View toolbar let you zoom the view and perform other content functions. The Add Layer icon button lets you add any type of geospatial data layer directly from the View window. The Mark toolbar provides controls for marking geometric elements in the view canvas. The Tool toolbar lets you

activate various graphic tools that you can use in the view canvas. For a complete description of the View window toolbar see the Technical Guide entitled *View Window Toolbar*.

Sidebar

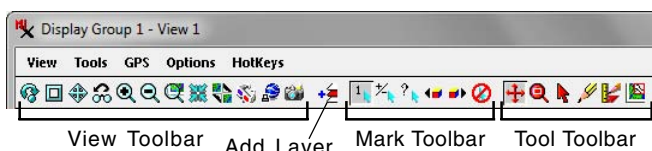
The *sidebar* is an optional area along the left or right side of the View window in which you can show a legend, a Locator panel, and other panels with controls that let you change and explore the contents of the display. The panels in the sidebar can be opened or closed separately using icon buttons in the toolbar at the bottom of the sidebar (see illustration below). The entire sidebar can be closed or opened at any time using the small black arrow icon button (see illustration above). You can set the location of the sidebar on the left or right side of all View windows using the Sidebar Location controls on the View tabbed panel of the Options window opened from the Display Manager (Options / View Options). For more information and references to the individual sidebar panels see the TechGuide entitled *View Window Sidebar*.



Status Bar

The status bar at the bottom of the View window provides a number of fields that report current information about the display. The field on the left side of the bar presents status messages from the Display process. The position report fields show the current point coordinates of a GPS source (if any), the mouse

(continued)



pointer position in the view canvas (if no GPS source), or the center of the view canvas (if the pointer is outside of the view canvas). The Coordinate Source Indicator changes to show the coordinate source, as illustrated below. The precision for the coordinates shown (number of decimal places) varies automatically with the scale of the display (more decimal places as you zoom farther in).

Coordinate Source Indicator

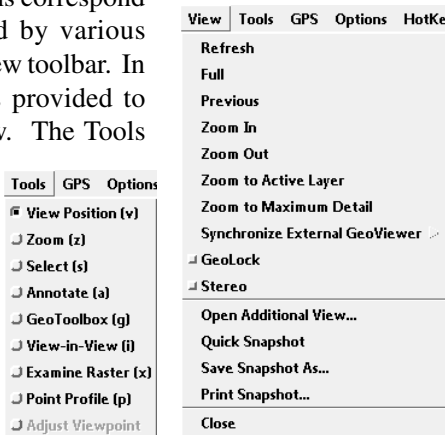


Position report 1 shows coordinates by default in the coordinate reference system in use in the view. Position report 2 by default shows geographic (longitude/latitude) coordinates using the datum currently used by the view. Placing the mouse cursor over either field reveals a ToolTip with the name of the coordinate reference system for that field. Submenus on the View window's Options menu let you choose whether or not to show either position report, to choose an alternate coordinate reference system, and to set the format for geographic coordinates (see below).

The Z value field shows the elevation at the current GPS location or the elevation from the terrain layer (if any) for the current cursor position or the view center (if the cursor is out of the view). The field on the right side of the status bar shows the current map scale ratio in the form 1:628384. The ToolTip for this field shows several alternative forms for the current scale, including 1 cm = X meters, 1 in = X feet, and the number of map units per screen pixel.

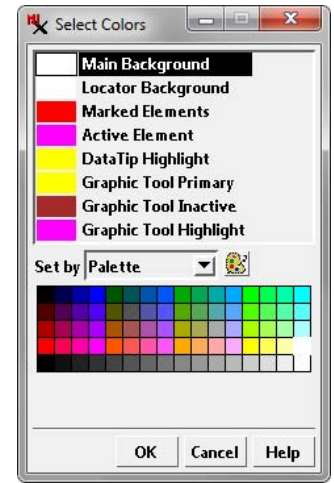
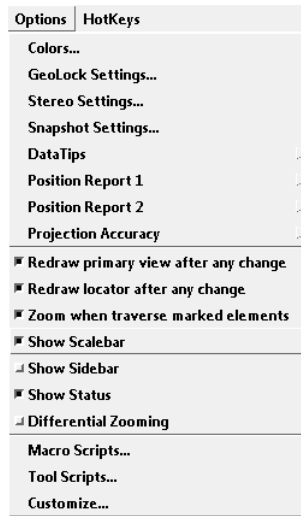
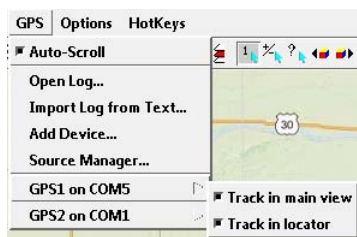
View and Tools Menus

The View menu options correspond to functions provided by various icon buttons on the View toolbar. In addition, an option is provided to Open Additional View. The Tools menu options provide an alternate way to activate specific graphic tools in the view. For more information on these View and Tool options see the TechGuide entitled *View Window Toolbar*.



GPS Menu

The GPS menu on the View window lets you select and manage GPS sources and logs and choose the marker(s) to be used to show GPS positions. Active GPS sources (if any) are shown at the bottom of the GPS menu; a submenu for each source provides the options to track the GPS position in the main view and in the Locator. For more information see the TechGuide entitled *Track GPS Position*.

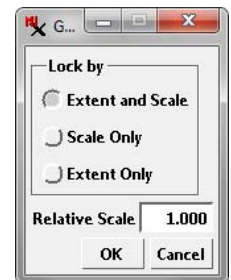


Options Menu

The Options menu provides a number of selections affecting the appearance and operation of the View window and provides access to additional control dialogs.

Colors: opens the Select Colors window (illustrated above) in which you can choose background colors for the view canvas (Main Background) and Locator, colors for marked and active elements and for elements highlighted on mouse-over, as well as graphic tool colors.

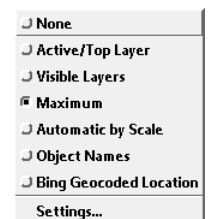
GeoLock Settings: opens the GeoLock Settings window in which you can set the mode for GeoLocking the contents of multiple View windows. You can lock by Extent and Scale, Scale Only, or by Extent Only. For more information see the TechGuide entitled *GeoLock Views*.



Stereo Settings: The geodata in any View window can be rendered in stereo using a terrain layer. This menu option opens the Stereo Settings window, which lets you choose the stereo viewing mode (Device Settings) and adjust the characteristics of the stereo rendering. See the TechGuide entitled *Stereo Display Settings* for more information.

Snapshot Settings: opens the Quick Snapshot settings window allowing you to set the file format, destination folder, and other options for view canvas snapshots captured using the Quick Snapshot function. See the TechGuides entitled *Quick Snapshot of View Contents* and *Quick Snapshot for Google Earth* for more information.

DataTips: opens a submenu for setting general viewing options for DataTips in the View window. The menu provides toggle options allowing you to quickly change the amount and type of information shown in DataTips, and a Settings option that opens the DataTip Settings window providing further controls. For more information see the TechGuide entitled *View Window DataTip Options*.



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Position Report: The Options menu has an entry for each of the two Position Report fields in the status bar. These entries each open a submenu with a Show toggle option that you can turn on or off to show or hide that position report. The Reference System option on the submenu opens the Coordinate Reference System window in which you can choose the reference system to be used for the coordinates shown in the report. The Geographic Format option opens a submenu to select a format option for geographic (longitude/latitude) coordinates. The options are *Deg Min Sec* (Degrees Minutes Seconds), *Deg Min, Deg* (decimal degrees), *Min Sec, Min*, and *Sec*.



Projection Accuracy: opens a submenu from which you can choose the accuracy level for layers that must be reprojected to match the coordinate reference system currently in use for the view canvas. The options are Fast and Exact.

Toggle Options: a number of toggle options are provided in the middle portion of the Options menu. Two of the selections set redraw options for the view canvas and the locator. The *Zoom when traverse marked elements* option sets the View window behavior when multiple geometric elements have been marked and the Previous Marked and Next Marked icon buttons are being used to step through the selected set (see the Mark Toolbar section in the *View Window Toolbar TechGuide*). With this option turned on, the View window automatically zooms to the extents of each successive marked element. Turn this option off if you want to maintain the same view scale when traversing marked elements.

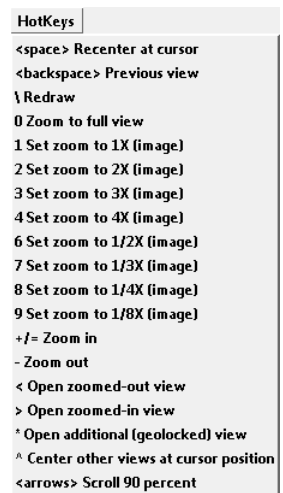
Additional toggle options are provided to allow you to show or hide the scalebar in the view canvas, the sidebar, and the status bar. The Differential Zooming option applies to the Zoom tool. The dimensions of the zoom box drawn with this tool are locked to the proportions of the view canvas unless you turn on the Differential Zooming option (see the section on the Zoom tool in the *View Window Toolbar TechGuide*).

Macro Scripts and Tool Scripts: these options open the Customize Macro Scripts and Customize Tool Scripts windows, respectively, so you can add custom tools and functions to the View window. See the tutorials entitled *Introduction to Geospatial Scripting* and *Writing Scripts with SML* for more information.

Customize: opens the Customize Hidden Features window, which allows you to choose the items to be shown on the View, Tools, and Options menus and to choose which icon buttons to include on the View window toolbar. This feature allows you to simplify the interface if certain options are not needed or to provide additional tools for expert use. See the TechGuide entitled *Customize the View Window* for more information.

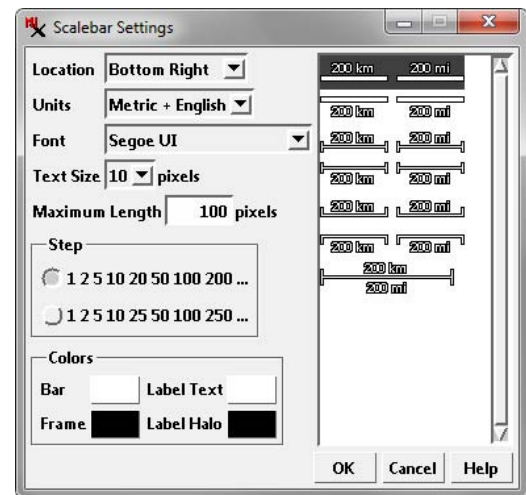
HotKeys Menu

Keyboard shortcuts (HotKeys) can be used to zoom and pan the view canvas. The HotKeys menu provides a quick reference list of the available keyboard shortcuts for the View window.



Scalebar

The optional scalebar in the view canvas changes its length and units (e.g., meters or kilometers) dynamically as the scale of the display is changed. You can set the properties of the Scalebar graphic by right-clicking on the graphic to open the Scalebar Settings window (illustrated below). This window lets you set the scalebar style, location, units, font, maximum bar length in pixels and how its map length changes with zoom level.



The panel on the right side of the Scalebar Settings window provides a graphic selection of different scalebar styles, including separate or combined scalebars for metric and English units. This panel also serves as a preview of your other style choices, including the label font you select from the Font menu and the label size you select from the Text Size menu. The Colors box provides color buttons for choosing the colors for the interior and edge of the scalebar (Bar and Frame, respectively) and the text label (Text and Halo, respectively).

Use the Location menu to choose where the scalebar is placed along the bottom or top edge of the view canvas. The choices are Bottom Left, Bottom Center, Bottom Right (the default), Top Left, Top Center, and Top Right. Using the Units menu you can choose to have a single scalebar in either Metric or English units, or a pair of scalebars using both units. The Metric + English choice places the metric scalebar on the left (for separate scalebars) or on top (for a combined scalebar). The English + Metric choice reverses these relationships.

The Step radiobuttons offer a pair of options for the numerical progression of the scalebar labels as the view scale changes.