APPENDIX 13

TERRAIN NAVIGATOR PRO BASICS

Prepared by the
Mapping and Marking Committee

Fifth Edition
(Revised and Expanded)
June 2014

TERRAIN NAVIGATOR PRO BASICS
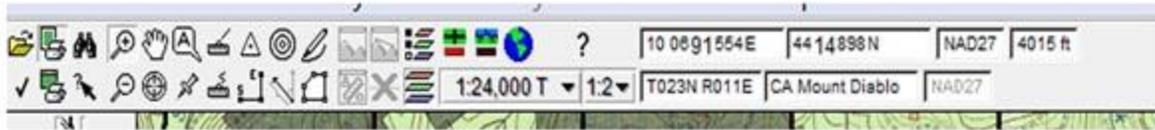
Map Selector	Distance Tools
Preferences	Marker Tool
Print	Route Tool
Quick Print	Range Ring Tool
Find	Range/Bearing Line Tool
Information	Track Tool
Zoom In	Polygon Tool
Zoom Out	Profile
Drag Tool	Layer Information
Center Tool	Line of Sight
Label	Delete
GeoPin	Layer size/visibility
Seamless View	Toggle Layers
Toggle 3-D View	
Sync with aerial imagery	Map Type - Zoom Level
Help	Easting -Northing
Datum	Alternate Township Section Parcel Alternate Meridian
Elevation	

Icons with a dot have further explanations below. Page numbers below refer to the manual available at: http://www.terrainnavigator.com/Product/Desktop. The manual is 369 pages.

Creating a Project

When you first start using Terrain Navigator Pro, all your layers are stored in the same project, with the name "<Default>". If you want to create a new project, click **Layers > Manage/Change Project**. Click the **New** button and assign your new project a name. Any new layers created will be stored under this project name. The project name will be noted in the title bar of the Terrain Navigator Pro window.
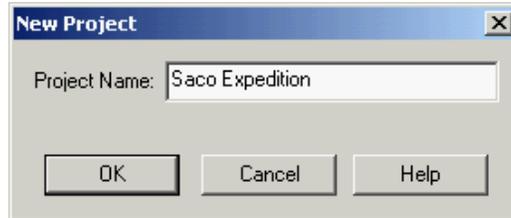
Map Selector – Use this to choose the map to view (not the project). (Page 12)

To choose a different project go to **Layers** in the tool bar, choose **Manage Projects**. Highlight the project you want to view and click **Activate** or **Open**. This will put you in the project you picked but the map will be at the same place you were in the previous project. To find the location of your work in the new project go to **FIND** in the tool bar and pick **Markers**, choose one and click **Replace Active**. You will then be in the area of your new project.

 Preferences -
Configure your coordinate-related preferences by choosing **Preferences, Coordinate**

Primary Coordinate Display – UTM (Universal Transverse Mercator) The UTM system uses an imaginary grid of equidistant perpendicular lines, to divide the globe into 60 zones. Position is indicated in meters within a zone. (Page 41)
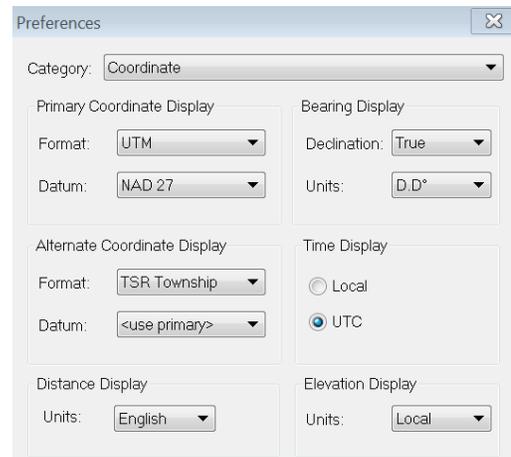
Print – Opens the print page. Legends can be created and page layout revised. When used in Seamless View, the Print command will allow you to include multiple maps in a printout. (Page 29-32; 244 – 271))

Quick Print – Quick Print is a screen print. The Quick Print command prints the exact map area displayed on your computer screen: no more, no less. It is a one-step process. (Page 273)

Information - Click a marker, track, etc. on the map to get information about a specific layer item. (Page 50)

Drag Tool - The drag tool (represented by the hand-shaped cursor symbol) is the default tool for moving around the maps: just click and drag the map image. The exact coordinates and approximate elevation of the cursor position are indicated on the Toolbar, and are updated as you move. Use your keyboard's **Control** key to temporarily switch to the drag/hand tool while you're using a different cursor tool. (Page 14)

Centering Tool **-** Select the Centering Tool from the toolbar, then click on the map. The map image will be centered on the point that you clicked. (Page 14)

Label – Use Labels to add your own notations and comments directly to the map image. Select the Label tool from the toolbar, then click on the map location where you'd like to place your label. Type your text in the space provided. (Page 183)

Toggle back and forth between Single-map View and Seamless View modes.

Seamless View -
In *seamless view*, the white map collars are removed, and adjacent maps are aligned and "stitched" together, forming the equivalent of one large map (made up of all the individual USGS maps on the CD). This means you can scroll smoothly from map to map, without having to open each map individually. Seamless view also lets you join multiple maps together in a single print image.

Single-Map View

 In *single-map view*, the map window contains a single USGS map in its entirety. The white map collar, with its printed data (map title, scale, date, etc.), is included in the image. (Page 22-23)

Toggle 3-D View - Click the 3-D button, and the area you're viewing will be displayed in 3-D. Special controls along the left side of the screen let you view the terrain from any angle, including from above. (Page 105)

Sync with Aerial Imagery – Half the screen will be the topo map and half will be the aerial image of the topo with the layers (markers, tracks, labels) shown.

Datum

> NAD27: North American Datum of 1927 - Paper 7.5 minute topo maps

> NAD83: North American Datum of 1983 - The Forest Service is transitioning to NAD 83

> WGS84: World Geodetic System of 1984 - Google Earth is in WGS 84.
> (Page 42, 241)

Distance Tools

Use the distance tools to quickly measure distance or area. There are two distance tools:

> Use this tool for straight-line measurements, including segment length and   bearing and total length.

> Allows curved line measurements

Right-click the distance line and choose **Convert to Track**. This feature lets you create an entirely **New** track, **Append** to an existing track, or **Overwrite** an old track and replace it with a new track of the same name. (Page 88)

Marker Tool - The Marker tool lets you place labeled symbols, or markers, on the maps to indicate points of interest. (Page 137)

Track Tool - The Track Tool lets you create lines, or tracks, on the map. Tracks are saved for future reference and may be included on printed maps. (Page 169)

Polygon Tool (new to 9.51 version)

Profile

The profile option is for use with the distance tools, tracks or routes. The profile is a graphic representation of the changes in elevation along a defined path. The profile window provides information including total distance, ground distance, and overall elevation change. You can also find approximate grade and elevation measurements for specific locations along the path by holding the cursor over the profile to get readings for that location. (Page 94)
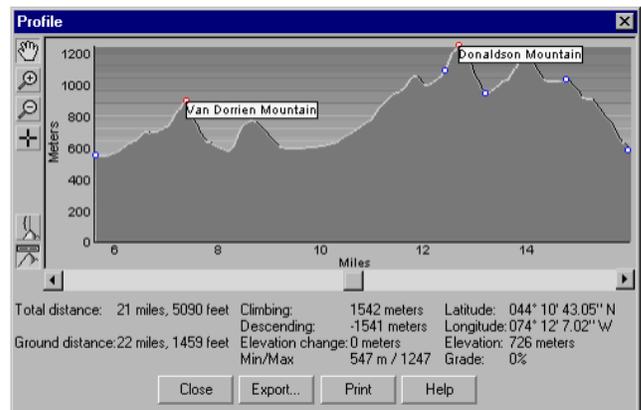
Line of Sight
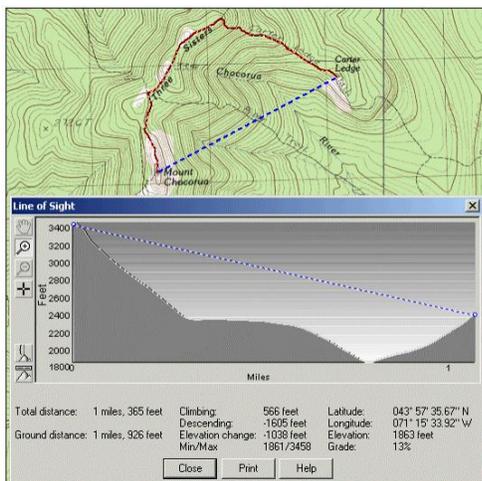
Terrain Navigator Pro can calculate the line of sight between any two points on the map. To make a line-of-sight calculation, first establish the start and end points, using either a distance line, route, or track. When using a distance line, right-click the line and choose Line of Sight. For routes and tracks, click the line-of-sight button on the toolbar to view the line-of-sight (LOS) calculation. (Page 99)

 Delete - To delete a marker, track, or label, select it with the appropriate tool and click the delete button in the tool bar.

 Layer Size Visibility Layers (including Markers, Routes, Tracks, and Labels) are separate from the base map image and separate from each other. This allows you to show or hide these items as you wish - as opposed to features that are printed on the physical base map. Also, because of their scalable nature, layers can be sized to meet your viewing preferences - or that of the project. (Page 45)

 Toggle Layers – To temporarily hide all layers from view (revealing only the base map) (Page 49)

 Map Type – Zoom Level
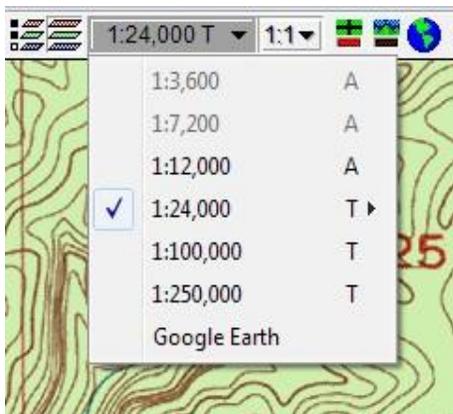
Terrain Navigator Pro includes different types of maps at different scales. For most regions, topographic maps are provided at 1:24,000/25:000, 1:100,000 and 1:250,000 scale. You also have access to 1:12,000, 1:7,200/1:8,000 and 1:3,600-scale aerial photos (where available), and Google Earth imagery.

An 'A' in the list of available Map Types indicates that it is an Aerial Photo. A 'T' indicates Topographic Map.

If an option on the map type control is grayed out, that scale is not available in the area you are viewing

Zoom Levels

Terrain Navigator Pro provides four zoom levels for viewing maps (Page 16)

1:4 zooms the map out to 25% of actual scale.

1:2 zooms the map out to 50% of actual scale.

1:1 Original scale.

2:1 magnifies the map by 200%.
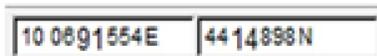
 Easting-Northing - Displays the coordinates for the point your cursor is on the map

 Alternate Coordinate Display - Township Range Section

Township/Range System (TRS): Uses a rectangular grid system based on a principal meridian and a base line and divided into townships, sections and parcels. (Page 42)

Helpful Tips

Converting the Distance Line into a Track - Right-click the distance line and choose Convert to Track. This feature lets you create an entirely new track, Append to an existing track, or Overwrite an old track and replace it with a new track of the same name. (Page 92)

Deleting a Portion of a Track

To remove a portion of an existing track, **right click** on the spot along the track line where you wish the track line to end and select **Split**. Then, **right click** anywhere along the portion you wish to discard and select **Delete**. This will delete the track from the point where it was split to its end. Or, use the **Split** option on two points along the track, then **Delete** the middle portion. This is particularly handy when a track was recorded in multiple, disjointed segments but are connected together in Terrain Navigator Pro. (To avoid this issue on future track transfers, disable the *Combine segments into single track upon receipt/import* option in Track Preferences). (Page 178)