



Starting the TerraSync software

**Hard Reset** Hold down [On/Off] key for 20 sec.

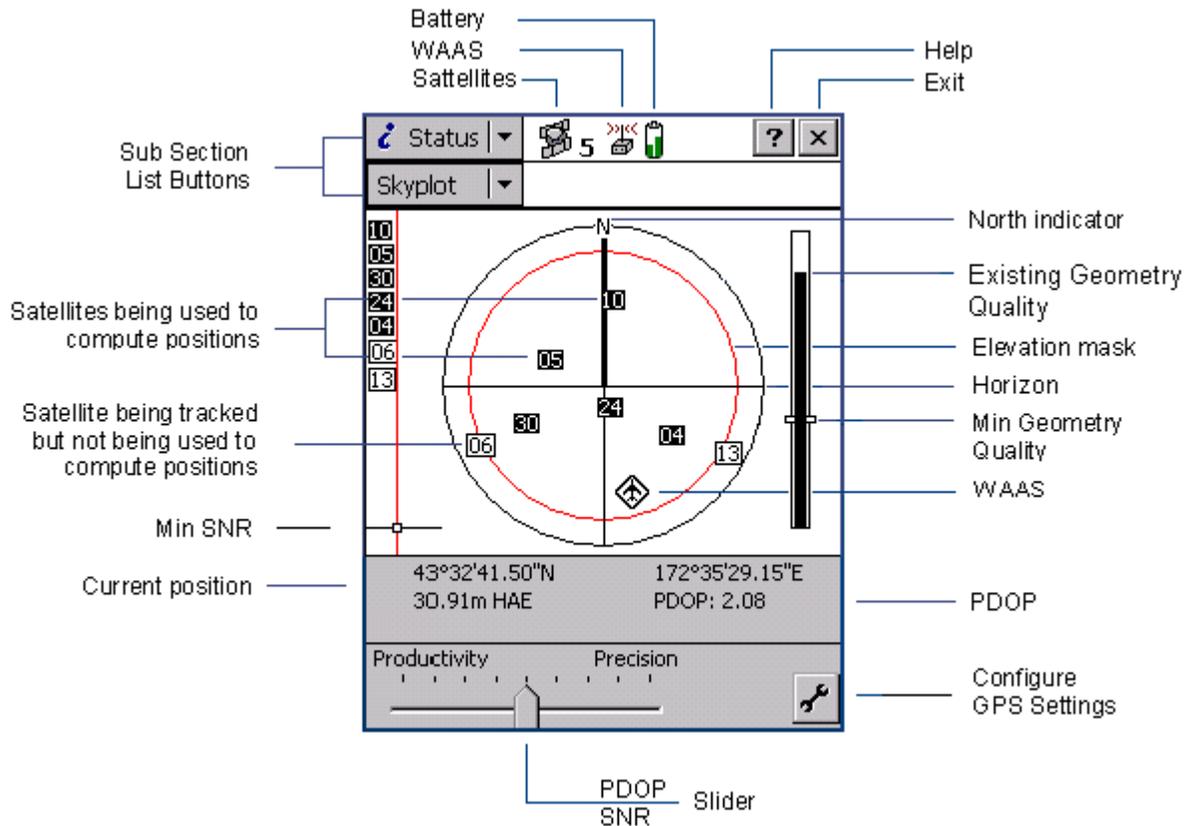
After the software loads, the **Status – Skyplot** Screen Appears

Switch on the field computer  
 Start the software by double clicking the icon  
 Or  
 Tap the Start icon – select programs/TerraSync



While the software is loading, the Trimble identification screen appears.

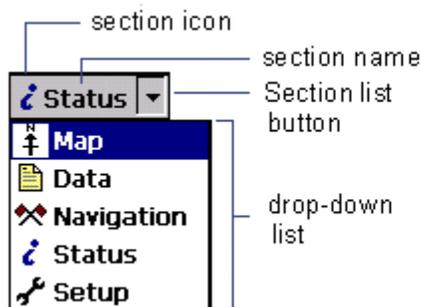
Opening Status Screen – Symbols and Icons



#### Checking Status before GIS data collection session

1. Verify the satellite icon on the top of the screen is in view.  
If not, see the Setup Section to connect the GPS receiver.
2. Insure a minimum of 4 satellites are being tracked to compute position.
3. Check that Existing Geometry Quality (Black Bar) is above Min. Geometry Quality marker.  
If not, and reduction of position quality is acceptable, Move the PDOP/SNR Slider towards Productivity until conditions indicate acceptable quality.  
Note: Best results are obtained when Slider is as far right as possible.
4. Insure the WAAS icon on the top of the screen is Steady (not blinking).  
If blinking prior to actual data collection, real time corrections will not be possible.

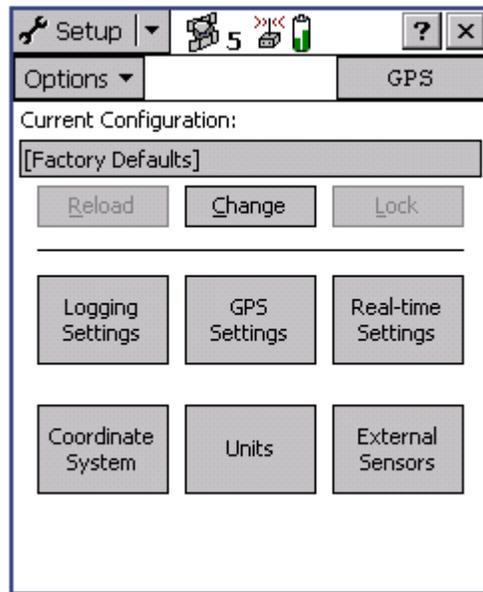
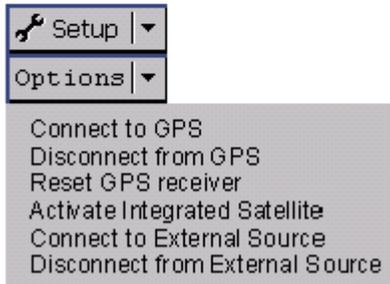
The TerraSync software is arranged in the following five **sections**:



One of these sections is always active and visible. The Section list button shows the section that is currently active. You can move between sections at any time without closing any open forms or screens. To switch to a different section, tap the Section list button and then select the section you want from the drop-down list.

To Check Setup – Change to the Setup Screen  
From The Opening Screen, Tap the **Section list button** and select **Setup**

Confirm or change settings

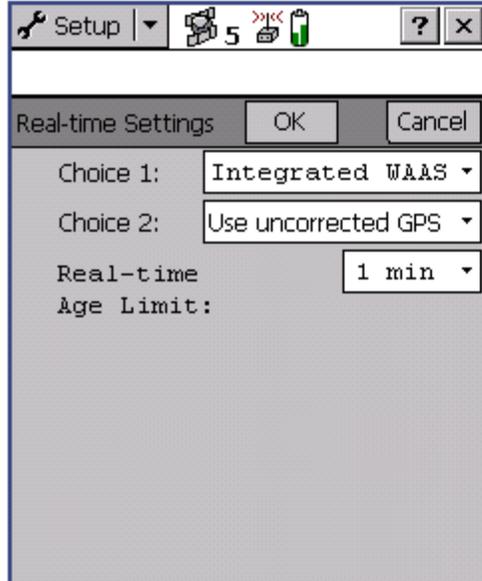


From the previous section - if the satellite icon on the top of the screen is not in view. Tap **GPS** or from the Options submenu, choose **Connect to GPS**

There are only a few settings that one might want to change from the Default.

After any changes are made, Tap OK on each page to store settings

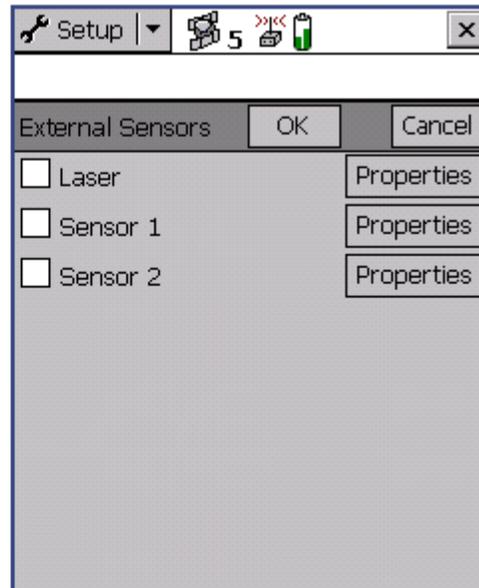
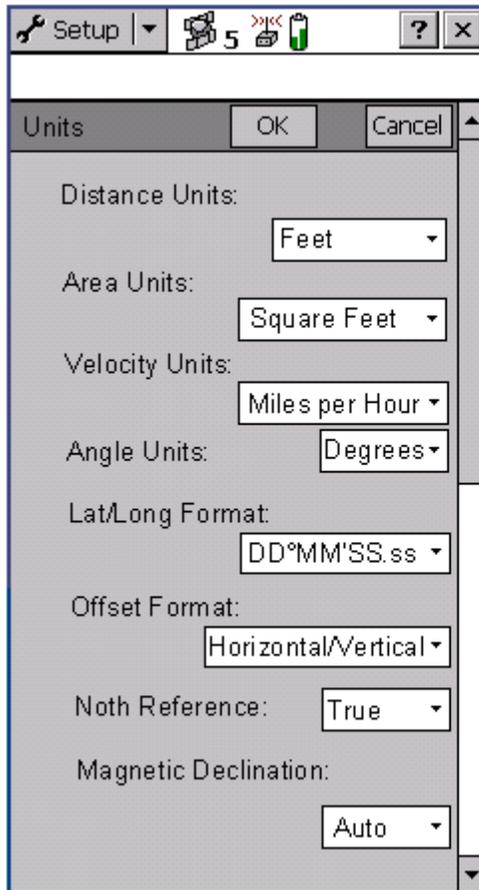
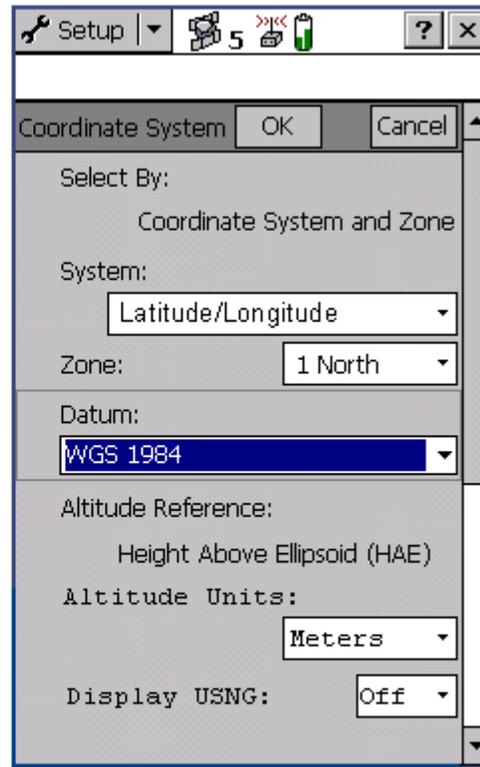
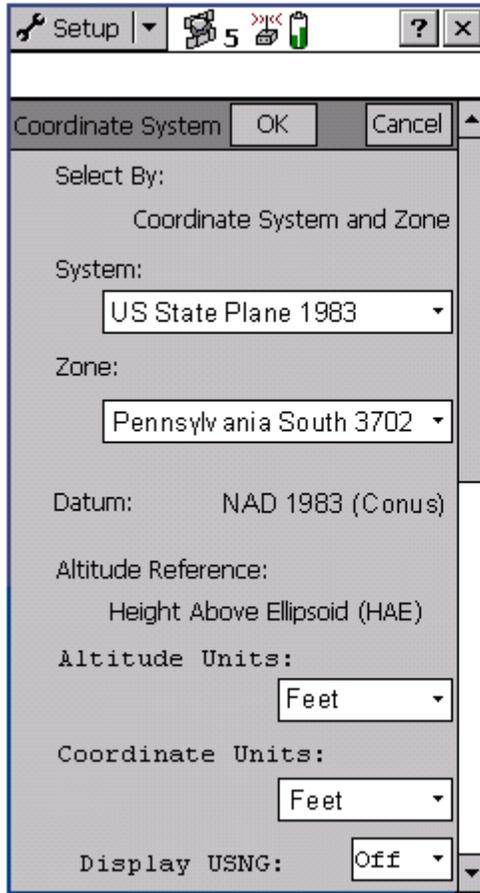
#### Real-time Settings



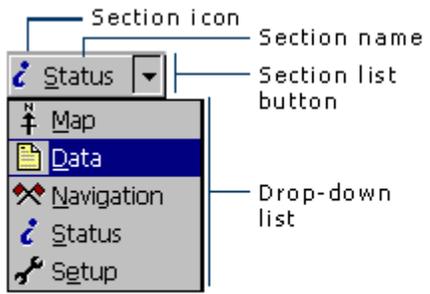
- Choice 1. Should be set to Intergrated WAAS. This provides for WAAS information to be applied for Real-time Corrections.
- Choice 2. Can be set to Use uncorrected GPS. No Real-time correction is being applied

Coordinate System

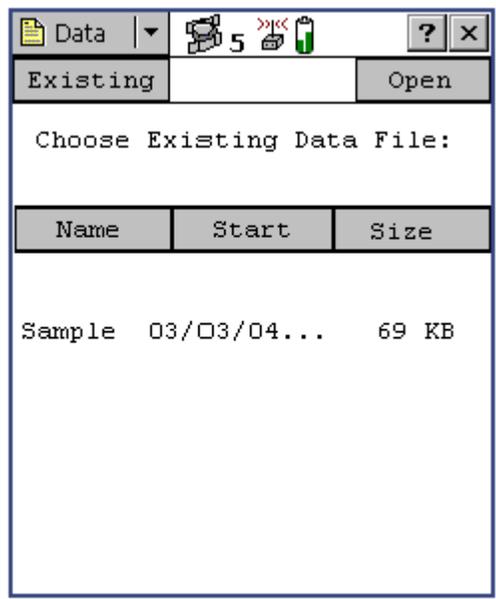
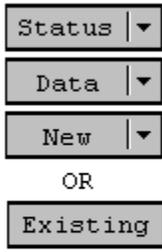
Screen will vary depending on Settings



Open a New or Existing File



- To create a new file:
1. Tap the Section list button, then select **Data**.
  2. Tap the Subsection list button, then select New File or Existing File.  
For a new file, tap **New File**. The example screen on the left appears:
  3. The TerraSync software automatically enters a default name in the File Name field.  
The on screen keyboard may be used to enter a desired File Name.



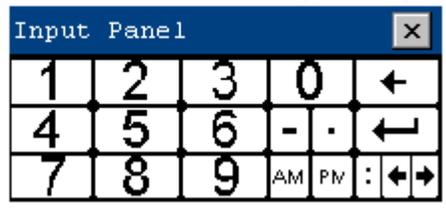
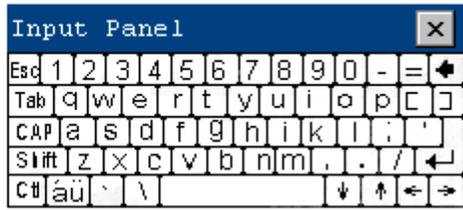
**Entering text**

The GeoXT uses an on-screen keyboard. To activate an on-screen keyboard, tap the Keyboard icon in the taskbar. When in view, if the location is undesirable, drag and drop the keyboard to any location on the screen. To enter text, tap the appropriate keys on the on-screen keyboard. When you have finished entering text in a field, tap Enter to accept. the text you have entered and move to the, next field. To hide the keyboard, tap the keyboard icon in the taskbar again. You can install different On-screen keyboards and switch between them as required. To change the selected keyboard:

1. In the taskbar, double-tap the keyboard icon. A list of installed keyboards pops up. The currently selected keyboard is indicated by a check mark.
2. Tap the name of a keyboard to select it.

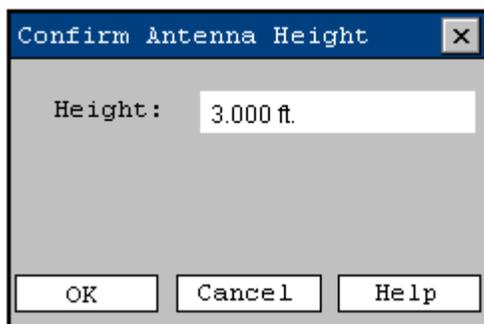
Keyboard

Trimble Numeric Keyboard



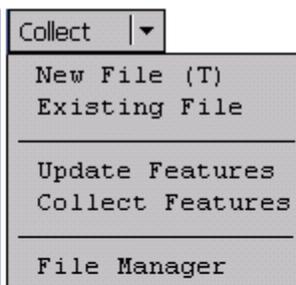
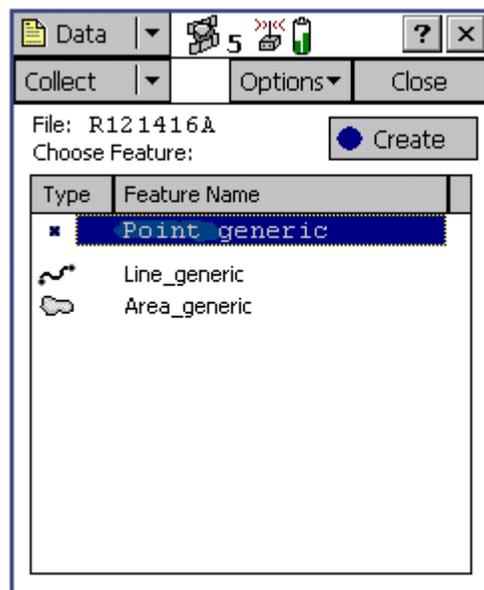
Once a File (New or Existing) has been selected **Tap the Enter Symbol**

TerraSync will advance to the following screen automatically.

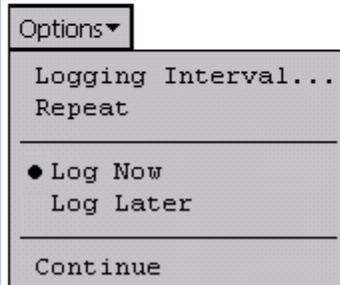


The Confirm antenna height screen is next to appear. Enter Height and tap **OK**

TerraSync will advance to the following screen automatically and you are ready collect data.

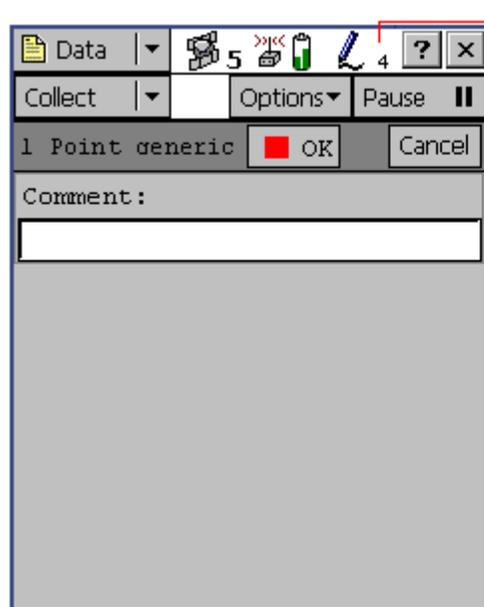


- 1 Under Collect  
Choose **Collect Features**
- 2 From Choose Feature  
Choose type (I.E. **Point generic**)
- 3 Under Options  
Choose Log **Now** or **Log Later**
- 4 Tap **Create**

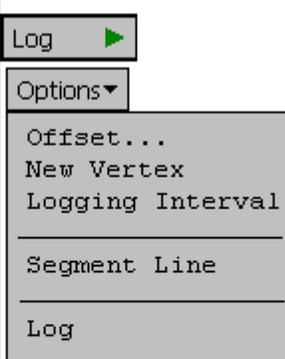


Log Now recommended

**Log Later** (Logging will begin after **Create** is selected and **Log** is selected on the following screen)  
**Log Now** (Logging will begin when **Create** is selected; **Pause** replaces Log on the following screen)



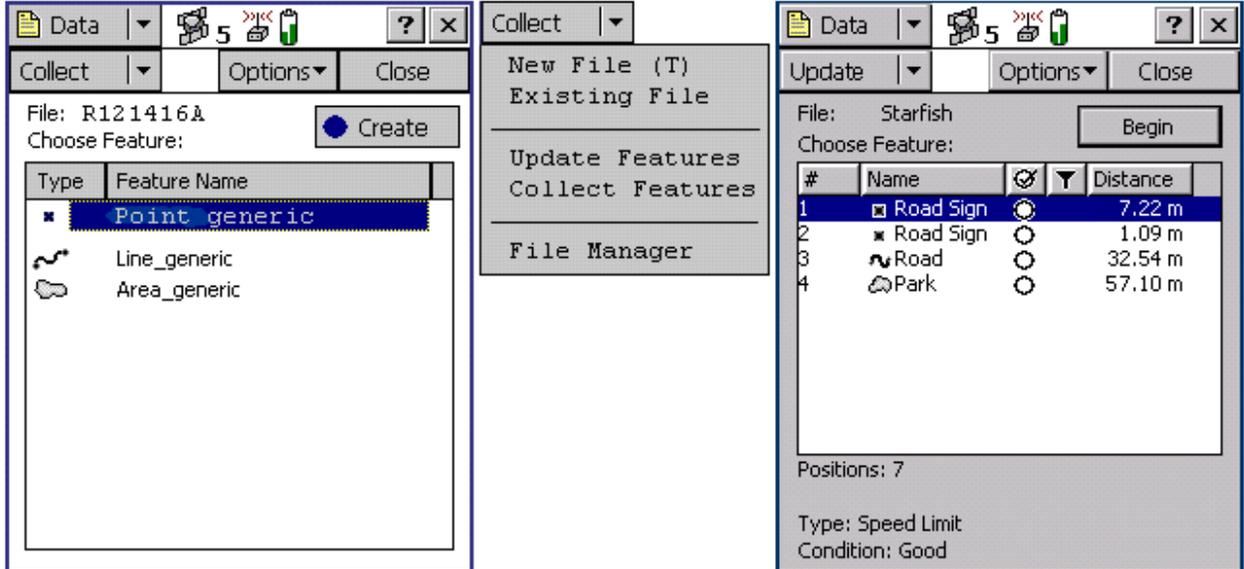
Logging Icon



- 5 Enter comment - feature information
- 6 Tap **Log** if Log Later was previously selected
- 7 Tap **OK** when a position (s) have been received

**Navigate Back** to a previously recorded position and or **Update Features**.

The **Data** screen must be changed from **Collect** to **Update** Features for either of these operations  
Tap Collect then choose Update Features to change screens

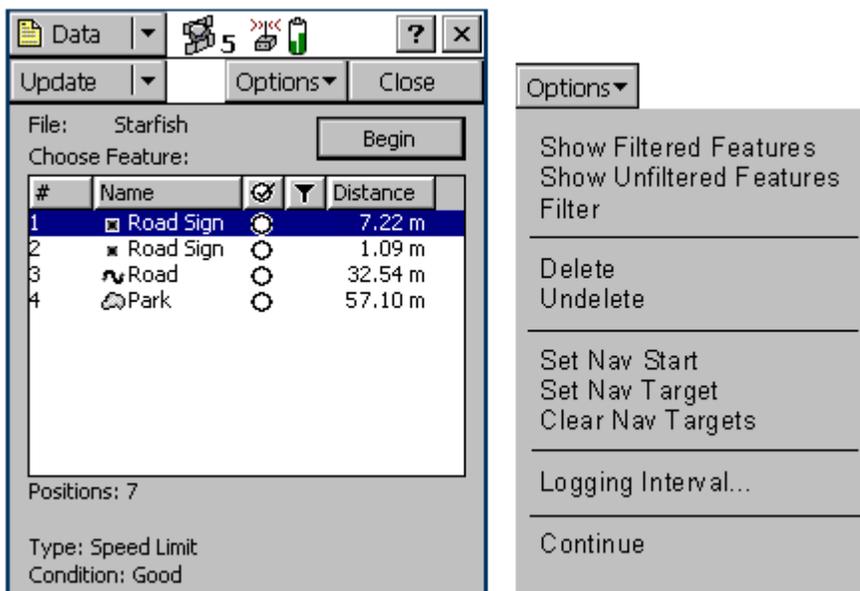


In order to Navigate to a point, It must first be selected. **Set Nav Target** may be selected from the: **Data Update** screen by highlighting the desired point then from the **Options** Tab, select **Set Nav Target**. Or from the;

**Map** screen by highlighting a point or a position on the screen then from the **Options** Tab select **Set Nav Target** select **Map Point** (if a screen position) or **by specific name** (if a point highlighted)

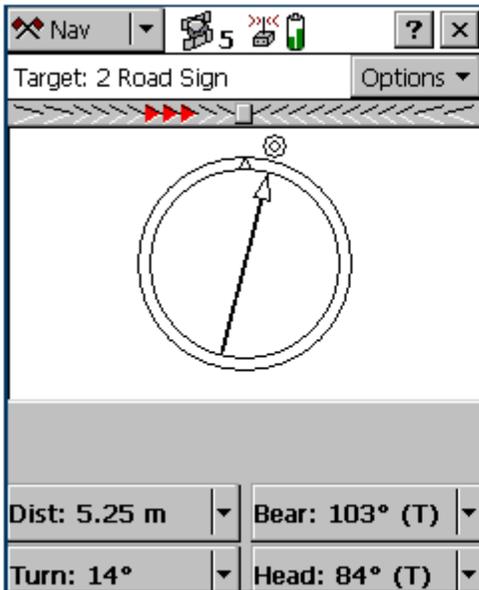
An additional Nav target can be created by Construction of a Target Offset

Begin by selecting a point through **Set Nav Start** using either procedure from above. Next, Select **Set Nav Target** and **Construct**. Complete the Construct Target Offset Screen with Bearing, Horizontal and Vertical Distance. Tap **OK**



Once a Nav Target is selected, switch to the NAV screen by selecting **Navigation** from the **Section** List

## Nav Screens



Use the Navigation section to:

- make sure that you follow a direct course to a target location
- revisit features that you have previously mapped

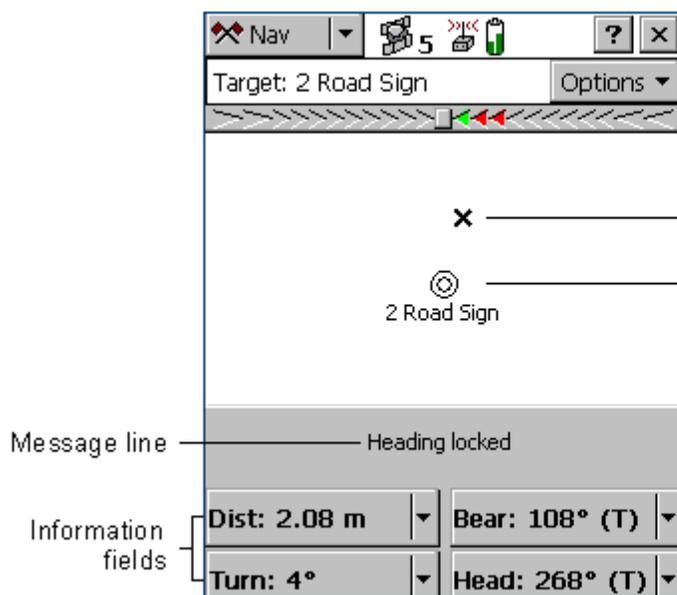
Even if you do not want to navigate to a particular point, you can use the Navigation section to view information such as your current heading or the distance from your current position to the target.

There are two navigation modes, depending on how close you are to the navigation target.

Use the Direction Dial to navigate to the target from a distance. Use the Close-up screen to navigate to the exact location of the target. In either mode, you can use the Lightbar at the top of the screen to guide you to the target.

**NOTE** — With real-time differential GPS, you can navigate to an accuracy of one meter or less, depending on factors such as the GPS receiver and the frequency at which corrections are received. Without any form of real-time differential corrections, you are subject to errors introduced by GPS and atmospheric conditions. These errors degrade the accuracy of navigation.

Autonomous navigation (without real-time corrections) can be useful to get you close to the feature, but it may be less useful for locating a specific feature if similar features are near to each other.



When within the specified Close-up Range of the target, the navigation proximity alarm sounds, and the Close-up graphical screen replaces the Direction Dial screen.

Current GPS position

Target

- If a feature is selected, the feature ID and feature type appear.
- If you have selected a map point, the text Map Point appears.
- If you have constructed a target by specifying an offset from the navigation start, the text Constructed appears.
- If no target is selected, the text No Target appears.

For precision navigation right up to the target, move so that the GPS position cross is in the center of the bull's-eye. Depending on the Close-up Style you select, either the bull's-eye or the cross remains fixed in the center of the screen, while the other icon moves around it.

The top of the Close-up screen is relative to the direction that you were traveling in (your heading) when you entered the Close-up screen. The heading is not updated on the Close-up screen, so the screen does not move if you change the direction you are facing while using it.

All Information fields that depend on the heading are automatically locked as well.

**TIP** — Because the Close-up screen does not update your heading, it works best if you maintain your original direction of travel. If necessary, move sideways or backwards rather than turning.

**TIP** — To quickly open the feature that is set as the target for update, double-tap the bull's-eye in the Close-up screen.

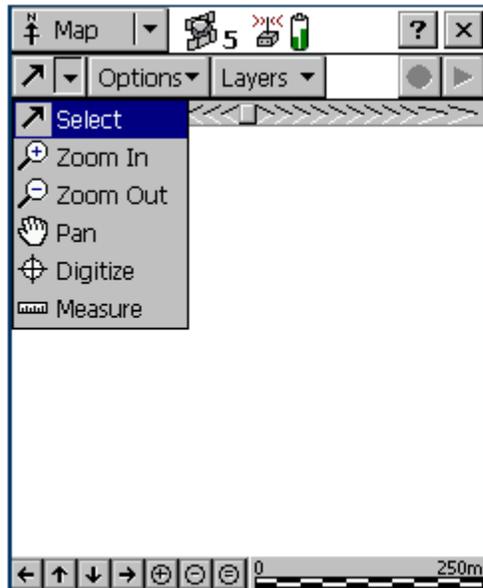
## Map

To open the Map section, tap the Section list button and select Map.

The Map section is a graphical display of the features in the open data file. It can also display a background image, GPS information, and navigation information. The color of an item on the map depends on which of the Map layers it belongs to. Use the Map tools to change the map scale and position, and to perform special functions such as digitizing positions and measuring between points.

You can move around the map, hide or display different parts of the map, and select features or points.

- Selecting features and map points
- Zooming
- Digitizing
- Measuring
- Panning
- Creating and ending features from the Map section
- Creating manual positions
- Setting and clearing the navigation start and target



- Select** When the Select tool is active, tap a point on the map to highlight a position or a feature. Double-tap any feature to open it for update.
- Zoom In** When the Zoom In tool is selected, tap a point on the map or drag a rectangle to reduce the map scale and magnify the map display. The map zooms in on that point
- Zoom Out** When the Zoom Out tool is selected, tap a point on the map to enlarge the map scale and show a greater area on the map. The map zooms out from that point.
- Pan** When the Pan tool is selected, tap a point on the map to pan the display so that the point is in the center of the screen.
- Digitize** When the Digitize tool is selected, tap a point on the map to create a position for a feature.
- Measure** When the Measure tool is selected, tap a series of points on the map to measure the distance between the points and the area that they enclose.

### Bottom Command bar

A toolbar containing zooming and panning controls:

- Pan half the map width to the left
- Pan half the map height upwards
- Pan half the map height downwards
- Pan half the map width to the right
- Zoom in
- Zoom out
- Zoom to extents to show all positions in all visible layers

**Scale** The scale at which the map is drawn. As you zoom in or out, the scale changes accordingly



Creating and ending features from the Map section

Open a new feature, or to close a feature that is already open in the Data section



Log

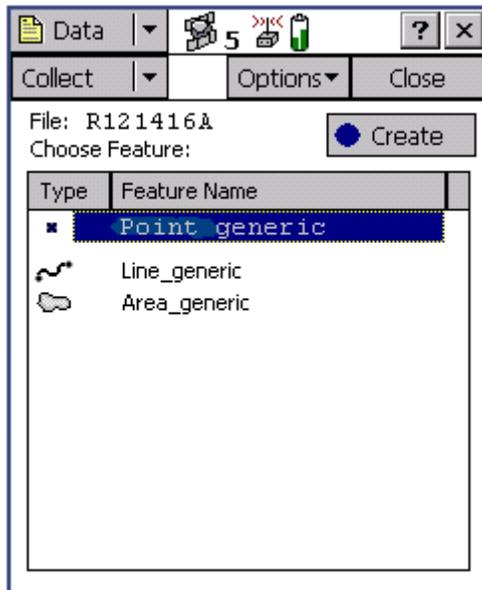
Pause

When you tap the Create Feature button, a drop-down list appears, showing each feature type that is defined in the open file's data dictionary. Select a feature type from this list to open its attribute entry form. Whenever a feature is open, whether it was opened from the Map section or from the Data section, you can close it by tapping the End Feature button. If you have collected insufficient positions, have not entered all the feature's attribute values, or have set the Confirm End Feature field in the Logging Settings form to Yes, you will be asked to confirm that you want to close this feature. When you close a feature using the End Feature button, you are returned to the section that you opened the feature from. If you used the Create Feature button, you are returned to the Map section. Otherwise, you are returned to the Data section.

**TIP** — To create digitized positions from the map, you need an open feature. Use the Create Feature button to open a new feature without switching to the Data section.

Close a File and Exit out of TerraSync

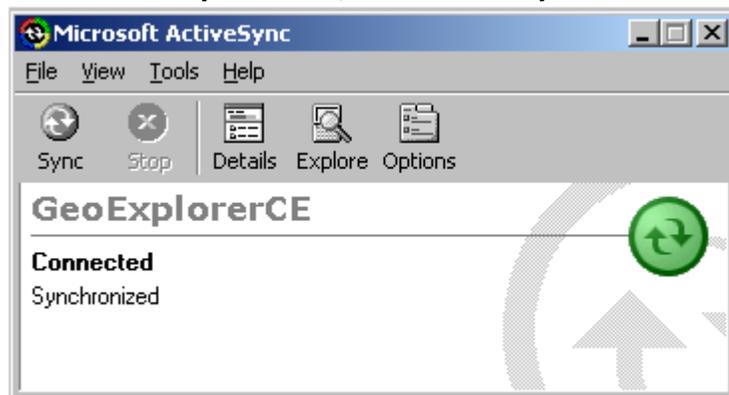
Tap the X in the upper right corner to close and exit  
All data will be saved automatically



Transferring data to the office computer

You need to transfer the data you collected in the field from the field computer to the office computer.  
To transfer a file from the field computer to the office computer:

1. Switch on the field computer and the office computer and connect the two computers.
  - If the field computer is a CE device, the ActiveSync software should automatically establish a connection with the CE device. When ActiveSync is connected to a CE device, the message **Connected** appears in the main ActiveSync window, and the ActiveSync icon in the taskbar is green.



2. In the GPS Pathfinder Office software, select Utilities / Data Transfer. The Data Transfer dialog appears.
3. From the Device list, select the appropriate device (GIS Datalogger on Windows CE or GIS Datalogger on

Windows PC). Alternatively, if you have set up a device definition for the field computer, select that device name from the list.

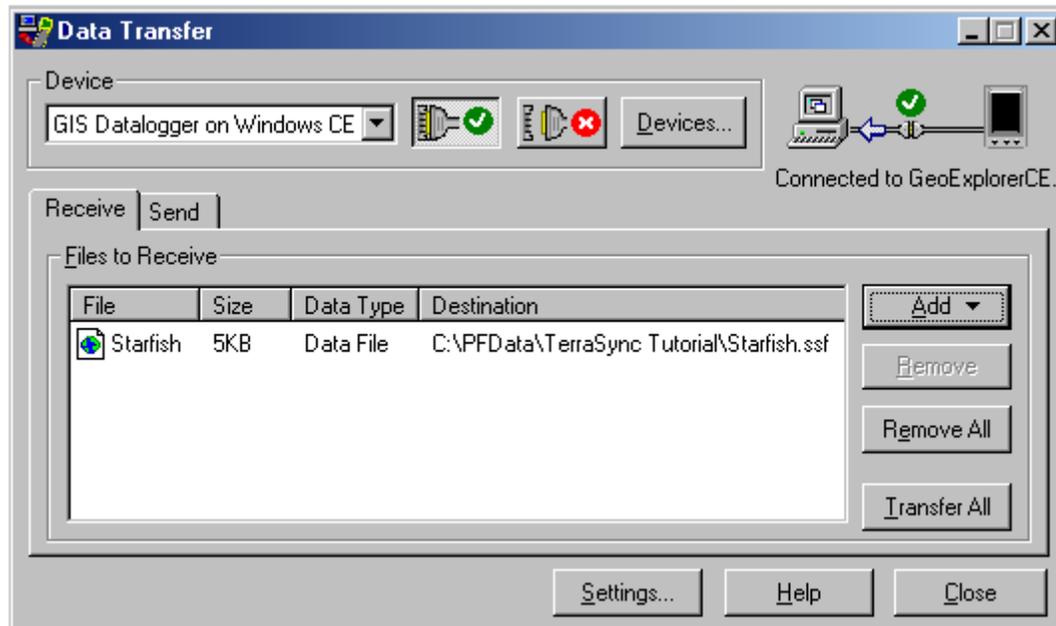
The Trimble Data Transfer utility automatically connects to the field computer.

4. Select the Receive tab.

5. Click Add and select Data File from the drop-down list. The Open dialog appears.

6. The Starfish file appears in the list of files. Highlight this file.

NOTE — The files that appear are the files in the TerraSync data folder on the field computer.



7. Check that the Destination field shows C:\PFdata\TerraSync Tutorial, then click Open. The Open dialog disappears and the Starfish file appears in the Files to Receive list.
8. Click Transfer All. The data file is transferred to the desktop computer.
9. A message box showing summary information about the transfer appears. Click Close to close it.
10. Click Close to close the Data Transfer utility.