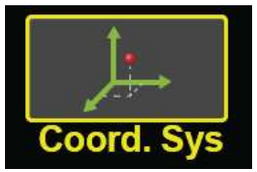
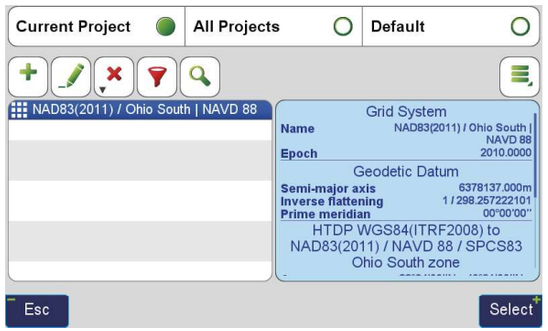


Coordinate Systems

The *Coordinate Systems* screen allows you to quickly access and create new coordinate systems based on the predefined systems with just a tap on this icon.

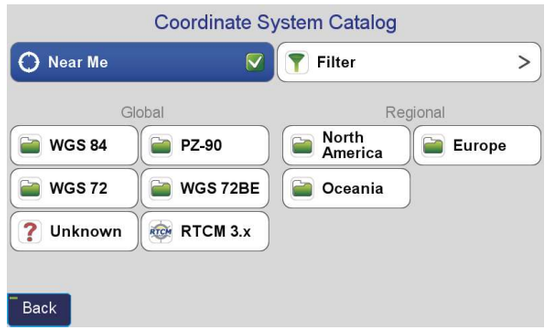
It is important to note that this screen does not set the current coordinate system for the *Project*. To change a *Project's* coordinate system choose *Project>Edit Current Project>Project Coordinate System* in the *Stake* and *Collect Prepare* screens. Each page in the *Project* can then also have separate coordinate systems, set from the *Page* and *Coordinate System* boxes in these screens.



Coordinate System Screen

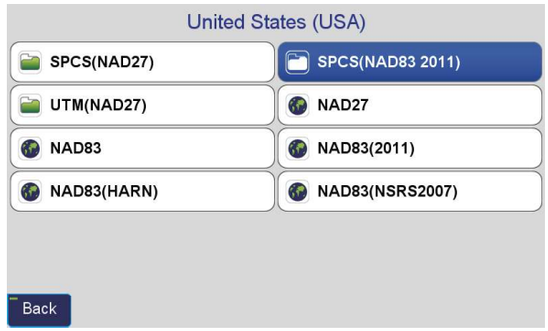
Adding a State Plane Coordinate System

To add a new coordinate system that is currently not listed in the *Coordinate System* screen when the *All Project* button is selected at the top of the screen, tap the (*Add*) button to open the *Coordinate System Catalog*.

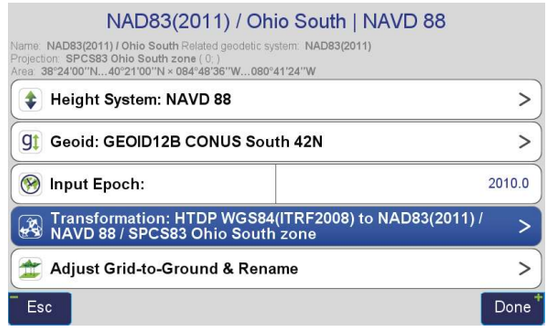


Coordinate System Catalog Screen

When selecting a Regional system for your project from the vast catalog, filter the choices to just those relative to your geographic location by checking the ***Near Me*** box. Select your Region, Country and type of coordinate system:



Select the appropriate *Height System*, *Geoid*, *Input Epoch* and *Transformation*. The typical coordinate system configurations for a US State Place Coordinate System is shown:

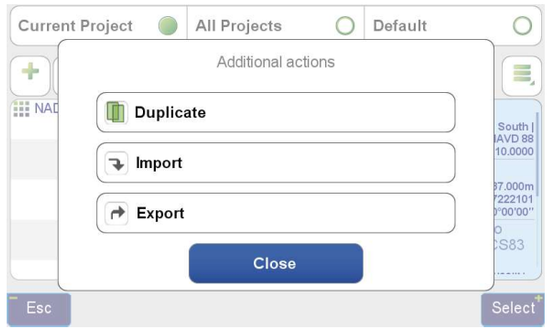


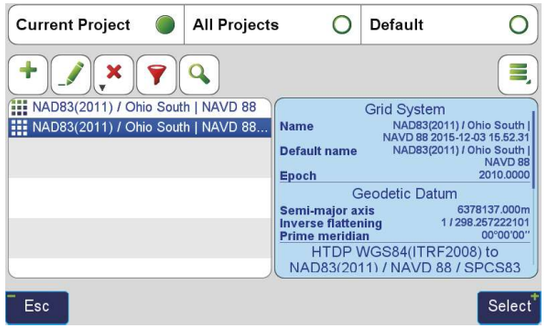
For latitudes south of 42N, "Geoid12B CONUS South 42N" should be chosen and for latitudes north of 40N, "Geoid12B CONUS North 40N" should be chosen.

Creating an Adjusted Grid-To-Ground Coordinate System

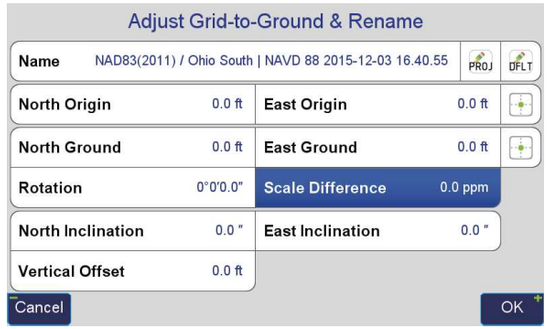
It is important to remember that GNSS distances measured in State Place Coordinate Systems may not match measured ground distances exactly and typically need to be scaled

With your state plane coordinate system selected in the *Coordinate System* screen click the *Additional Actions* button and tap ***Duplicate*** to create a copy of this coordinate system. The duplicated system will be created with the date appended to the end of its name:



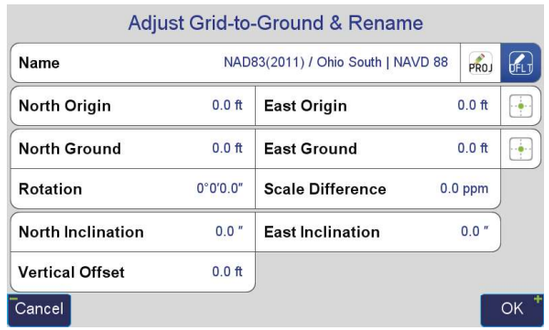


Now highlight the duplicated system and tap the edit icon and choose ***Adjust Grid-to-Ground & Rename***:

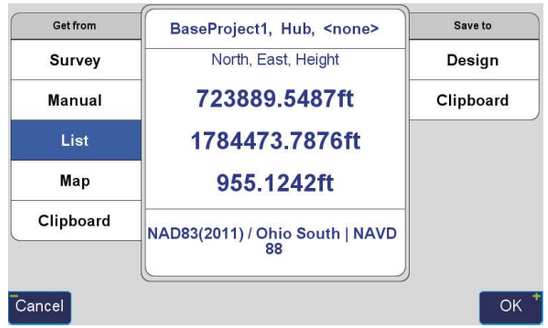


Adjust Grid-to-Ground & Rename Screen

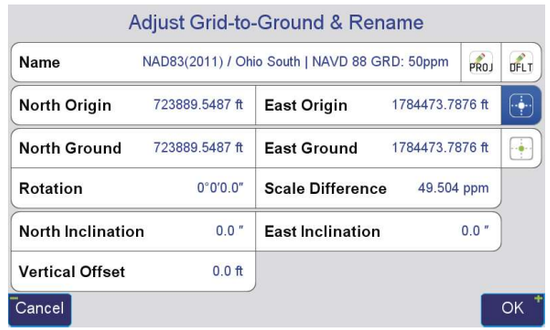
Tap the ***Default*** button DFLT to change the coordinate system name to the default name:



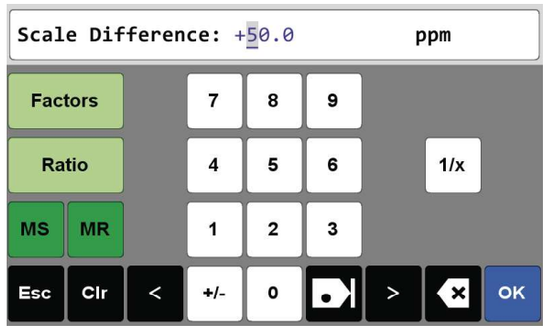
Tap the position icon beside East Origin to set origin point in the grid system for the transformation. Here the base station coordinate is chosen from the points List:



By default the ground origin point will be populated with the same coordinate and the ***Scale Difference*** is populated with the grid-to-ground scale factor calculated from that point. The scale factor rounded to the nearest part-per-million (ppm) is automatically appended to the coordinate system name:



You may also wish to round the scale difference to the nearest ppm by taping its button and entering that value. In this screen options exist to enter a new factor as a Ratio or Ppm:

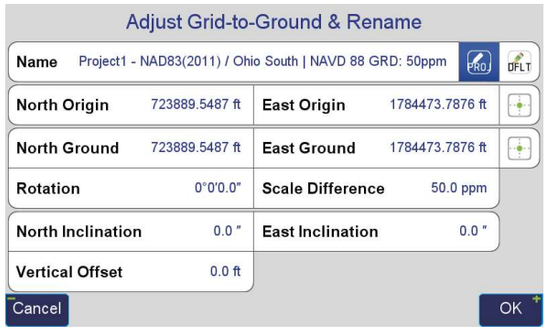


The Factors button will allow you to use the CoGo Scale Factor function to calculate a new scale factor if desired.

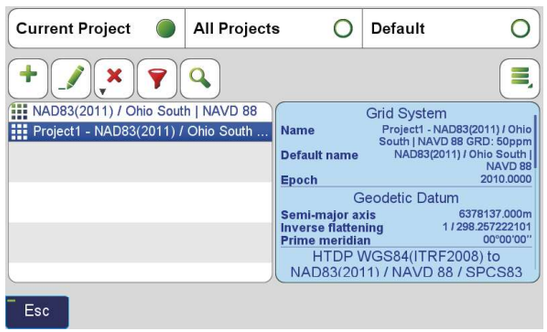
These settings will create an adjusted state plane coordinate system scaled around the base station and the base station coordinate will not change. This is useful for projects that have ground distances as would be measured with a total station and state plane coordinate system bearings since the rotation is set to 0. The coordinates will be very close to the real state plane system so that orthographic imagery and state plane referenced contours or elevation models can be loaded into your CAD drawings. You should be cautious when giving these coordinates to others as they may confuse them for real state plane coordinates. To solve this problem you may wish to subtract 100,000 from the *North* and *East Ground* coordinate values to create a (100,000 100,000) offset from the real state plane system. This can be done by tapping the *North Ground* and *East Ground* boxes.

Tap the PROJ button to add the current project's name to

the beginning of the coordinate system name:



Press *OK* and then *Apply* to create this coordinate system:



You can now use this coordinate system as the Project Coordinate System or just for some *Pages* if you choose.

Files and Data Exchange

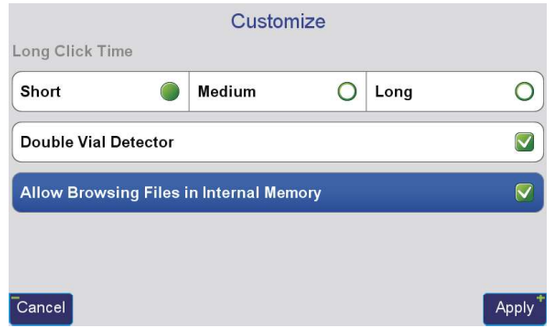
Data transfers between the TRIUMPH-LS and your PC are facilitated through using either a USB cabled connection, a USB flash drive, a cloud drive or a network drive. Using a cloud drive or USB flash drive are the simplest and recommended methods to transfer data between your PC and J-Field.

Data Base Structure and Customize Screen

Each J-Field *Project* has a "data.db" file stored in its project folder found in "Internal Memory\ VS Data\Maps". All the points and lines for a project are stored in this file. By default, the Internal Memory is hidden. To allow it to be visible in J-Field you can enable this option from ***System>Customize***.

The ***Long Click Time*** setting in the *Customize* screen controls how long a button must be held down to register as a *Long Click*. Some button in J-Field preform two actions with the second action being initiated with a *Long Click*. Buttons with have these second actions typically display a small down arrow in their bottom left corner.

Check the ***Double Vial Detector*** option if you are using the Javad rover rod with a double leveling vial. This allows the downward facing camera to detect both vials.



Customize Screen

Working with WMDC

Using the provided micro USB Cable will allow you to browse the contents of the TRIUMPH-LS using Windows Mobile Device Center (WMDC); take care not to delete system files!

The first time that you connect the two devices, Windows will install Windows Mobile Device Center, a pretty straightforward process largely tailored to other types of mobile devices.

Click on 'Connect without setting up your device'