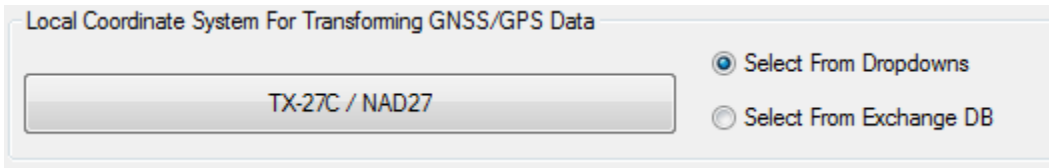# SNS Locator Quick Start Tutorial

After starting the program, follow these five steps in order to quickly get started tracking vehicles:

1) **Select the local coordinate system** - Do this on the Settings dialog which can be displayed by first pressing on the toolbar or from the Preference menu. On the first tab page of the Settings dialog, press the button shown here:


If you choose the first of two options, you will see a Group/System/Datum/Units dialog. Select your desired system for tracking. Note that this is typically the same system you are using on your vehicles. For example if the desired system is US State Plane Texas Central, you would select this:
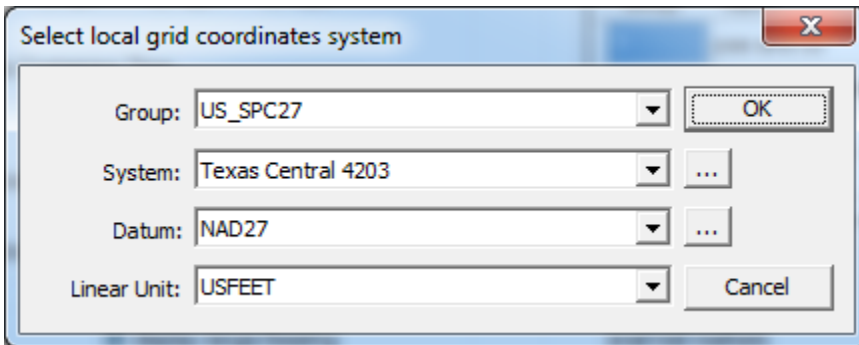
There is a second option if selecting an SNS exchange database. When you select this, you will be prompted for the database and the coordinates system details will be read from it.

Note that once the system is selected, it remains selected until you change it.

2) **Select the communications protocol** - On the second tab page of the Settings dialog, select the protocols for receiving vehicle tracking messages. For example if you are receiving SNS tracking messages only, you only have to check 'Trimble SNS data' as shown below. Note that this is the default:
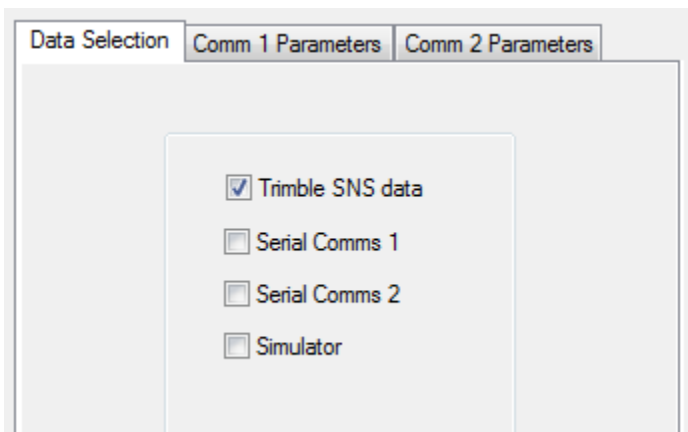
Note that no other communication settings apply for SNS tracking. You're done!

3) **Enter the name of each vehicle you want to track** - SNS Locator will display information for every vehicle you identify. For example, if you enter 'Support_Truck' (without the single quotes) as one of the vehicles you want to track, then as soon as SNS Locator sees a tracking message with this as the vehicle's name, it will display the tracking information for it.

You enter enter vehicle names in the Vehicle Configuration dialog. Display this dialog by pressing on the toolbar or from the Preferences menu. On this dialog, you can choose one of 100 possible vehicles on the left side. At the top of the dialog, note the two text boxes shown here:
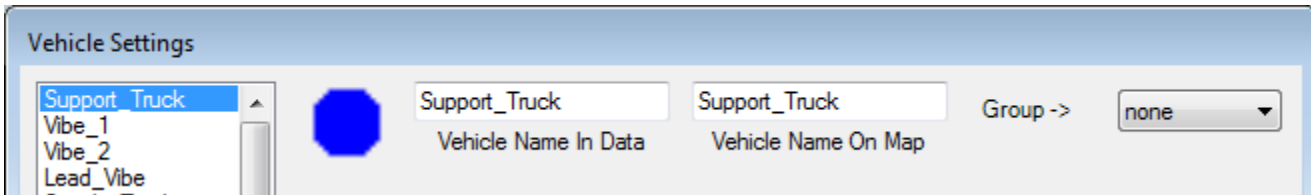
The 'Vehicle Name In Data' entry is what to look for in the tracking message to identify this particular vehicle. The 'Vehicle Name On Map' is what name you want SNS Locator to display in the spreadsheet and on the map. This is often the same as the name in the data but it doesn't have to be. The important item is 'Vehicle Name In Data'. If this isn't set to match a vehicle name in one of the tracking messages, SNS Locator will ignore the tracking message.
IMPORTANT - When you make any change to this dialog including those above, you MUST follow up with a

press on at the bottom of the dialog. Repeat this for each of up to 100 vehicles you intend to track.

If you want to change the order of vehicles in the spreadsheet at a later time, click the vehicle name in the spreadsheet to highlight it and press the up or down arrows in the toolbar. The vehicle (and all associated settings will me changed accordingly:

4) **Start tracking** - Do this by pressing on the tool bar. You should start to see something like this:

		C	T	Z	R	S	ID	Last Fix	Easting	Northing	WGS84 Lat	WGS84
▶	1						Support_Truck	9/7/2017 3:18:49 PM	1574288.059	816775.101	035.5909	-080.261
	2						Vibe_1	9/7/2017 3:18:42 PM	1570254.842	819058.197	035.5931	-080.270

5) **Add Mapping Layers** - The steps above are the bare minimum for successfully tracking SNS vehicles. Everything else is optional, but you probably want to add some map layers so you can see where the vehicles are. You do this by adding vector, raster, and label layers using these buttons:


Once layers are added, they can be customized by clicking the row of a layer and choosing 'Change Selected Properties' from the popup menu:
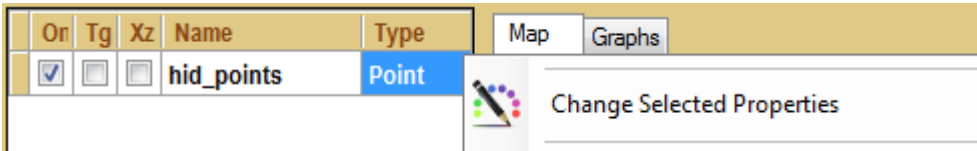
You should experiment with the controls on the Layers Properties dialog to see what looks best.

 Once you have added the desired layers and configured them, choose 'Save Map...' from the File menu to save a '.GSM' map file which contains the paths to all the layers and appearance settings. Us

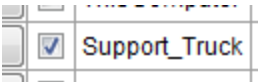 in the File menu to ope a '.GSM' map you have saved.

SNS Vehicle Specific Tools
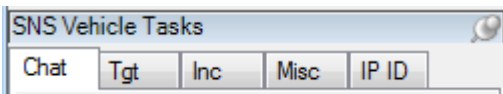
 - There are several SNS specific features that you can take advantage of. Most are located at the bottom left of the main application dialog:

Chat

You can send a chat message to a selected vehicle (or vehicles) when you are actively tracking. You can also receive chat messages from vehicles.

 - To send a message, first select the vehicle(s) to receive the message by checking the box by their name in the vehicle spreadsheet.
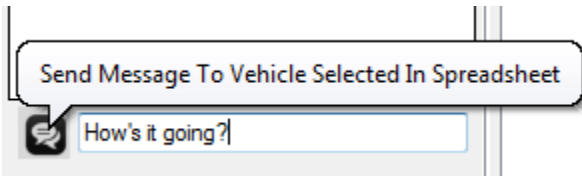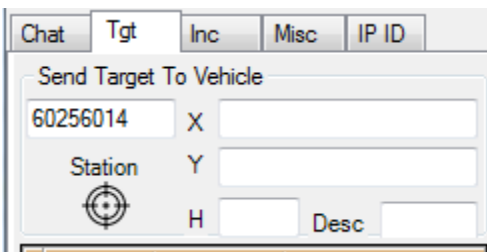
 - Next, enter you message and press the button to the left.

 As you send and receive messages, they are displayed in the spreadsheet along with time sent (or received) and vehicle name.

Target

 You can send a target to one or more vehicles. If you send an target that exists in the vehicle's currently select point target list, the vehicle will automatically go into navigation mode with this point targeted. You can also send a point that does not exist in the list along with coordinates and this new point will be added to the list and immediately targeted.
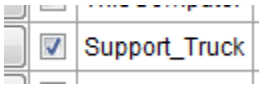
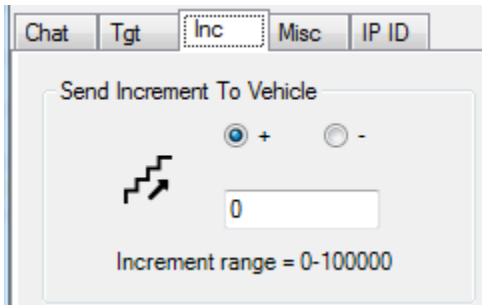As with Chat, you select one or more vehicles to send the target to. Also, when a vehicle receives the target, it will issue a confirmation to SNS Locator which will be displayed in the target spreadsheet.

Increment

- The auto-sequence increment for navigating to points can be sent to one or more vehicles. A value of '1' would mean that after shooting point 500100, the next selected point for navigation would be 500101 (assuming it existed). A value of '-1' would result in 500099 as the next selected point. A value of '0' will result in SNS selecting the next point in the list regardless of what it might be. A '-0' would result in the previous point in the list being selected regardless what it might be.

Miscellaneous
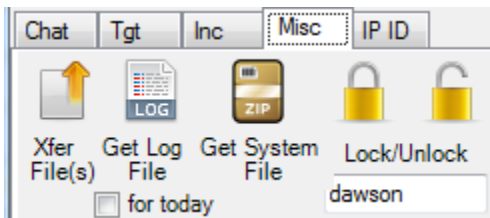
There are four additional SNS tools to consider. All tools require you specify the selected vehicle(s) as you do for the tools above.:

Transfer Files - Selected vehicles can be sent files. You will be prompted for the files to be sent. Once received by the vehicle, it will respond with a confirmation that appears at the bottom of the tab page.

Retrieve Log File - If retrieving log files, you will be prompted for the folder to store the files. When the log is finally retrieved, an item is added to the spreadsheet at the bottom of the tab page. There is an option for daily log only. Note that there is a Preference menu item to also display a message box when the log file is received.

Retrieve System File - If retrieving system files (also known as crash logs), you will be prompted for the folder to store the files. When the log is finally retrieved, an item is added to the spreadsheet at the bottom of the tab page. The system file is a zip file that is normally sent to tech support for analysis. Note that there is a Preference menu item to also display a message box when the crash log file is received.

Lock/Unlock UI - The UI lock/unlock controls allows the user to send the SNS unit a UI password which will either lock or unlock the user interface (assuming one was specified in the exchange database). When done, the SNS unit returns with a confirmation that is shown at the bottom of the tab page. .

Logging

SNS point records can be logged by SNS Locator to an SQLite database.

 - You can create a new Log database by selecting this item in the File menu.

 - You can select an existing Log database by selecting this item from the File menu.

Note that when you begin tracking, if there is no current log database, you will be prompted to create one and select it. The selected database appears in the status bar of the application.

Note that if you have a populated log database, pressing the blue flag tool button will examine the database for each discernable vehicle and find its last type 9 log record. It will create a shape point layer (and label layer) for these last recorded positions and add them to the map. These layers have the name 'last_positions' and will be placed in the same folder as the log database. The label for each is the vehicle name followed by the date and time of the record. If these two layers exists in the map and you press the blue button again, the existing layers will be removed and new layers are created and added. If you press the red button, any 'last_position' layers are removed from the map and the last_position.shp file is deleted.