

This guide will step you through TruBlu receiver tracking via NavCom’s StarUtil GUI program.

Problem - *Link* LED blinks between Green, Amber, Red continuously indicating the receiver is unable to track reference station for TruBlu corrections.

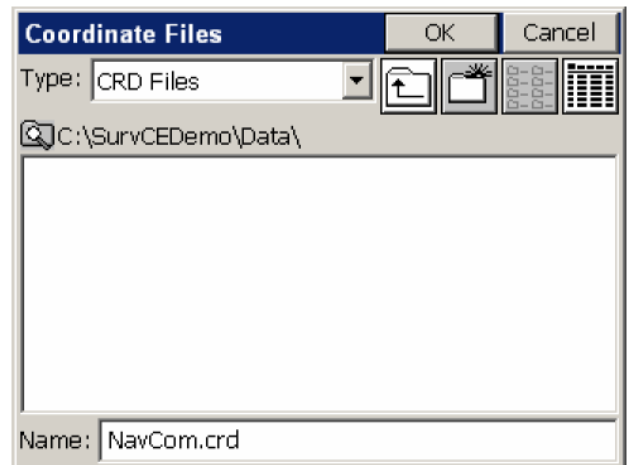
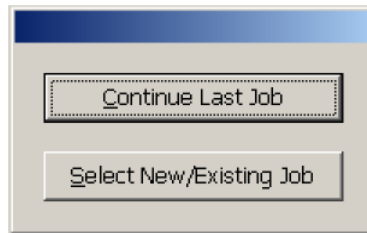
NavCom TruBlu and Carlson Explorer 600+ w/ SurvCE

- ✓ Latest Carlson SurvCE release software is version 1.65. Download latest software, <<http://update.carlsonsw.com/updates.php?product=SurvCE>>, and install in your Explorer 600+.
- ☐ Note that this step is not necessary if the GPS receiver's com port are configured at 19.2K baud rate. Use StarUtil and configure **both** of GPS Receiver's COM Port @ 19.2 Baud Rate and set Port B (COM2) as Control Port. This is very important because TruBlu only works at 19.2K Baud. See attached **TS – Communication.pdf** file if you need to TroubleShoot. Schedule some NCT Binary messages for output to Control Port, see **TS – Scheduling NCT Message List.pdf**.
- ✓ Connect TruBlu module to GPS Receiver's COM2. If there are messages configured for output, TruBlu LED will blink according to the rate.
- ✓ Run SurvCE Software.

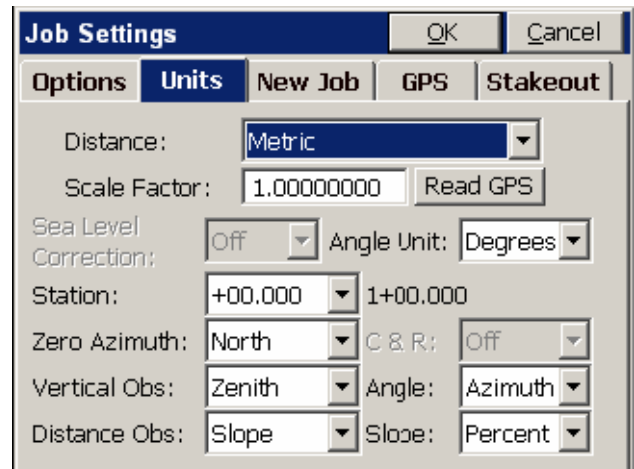
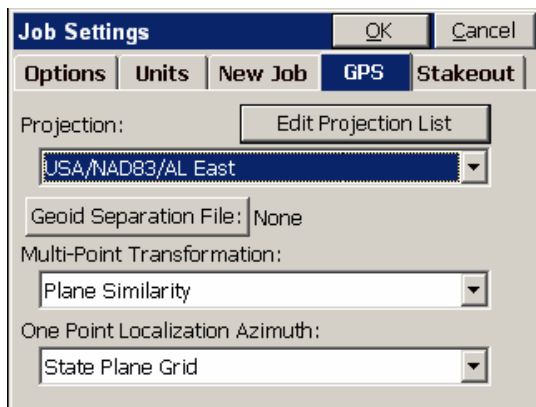
SurvCE Program

Initial Job Setup

- ✓ Select New / Existing Job



- ✓ Create Coordinate Files.
- ✓ Job Settings
  - Options
  - Units
  - New Job
  - GPS
  - Projection: Edit Projection List
    - Add Predefined or Add User Defined
- ✓ Stakeout



- ✓ Equip
  - Instrument
    - NavCom

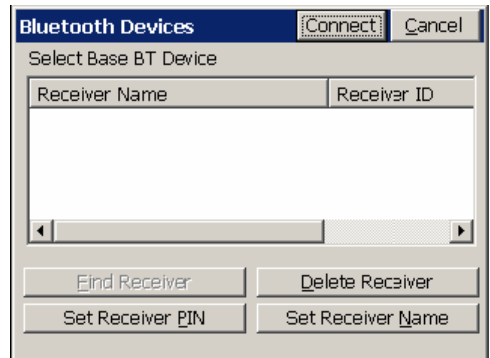
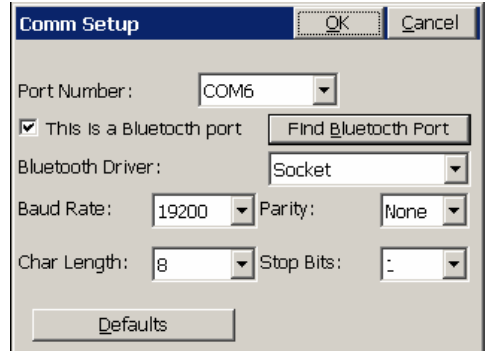
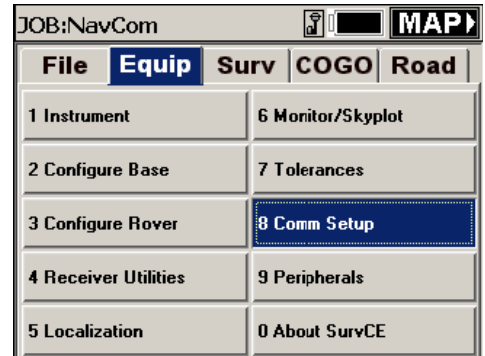
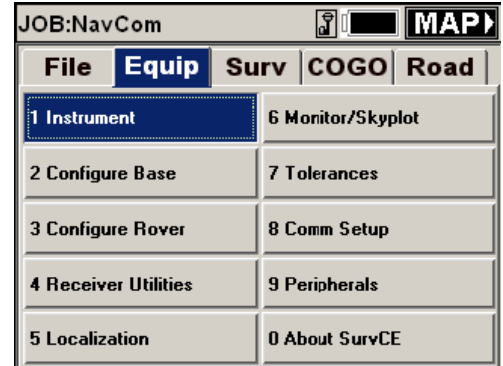


COMM SETUP using Bluetooth

- ✓ Select **COM6**
  - Check *This is a Bluetooth Port*.
  - Select Bluetooth Driver: **AtiNav** for Carlson Explorer 600+ controller.
    - Select Baud Rate: **19200**
    - Parity: **None**
    - Char Length: **8**
    - Stop Bits: **1**
  - Click *Find Bluetooth Port*
  - Click **OK** to close window.
  - Click **OK** button

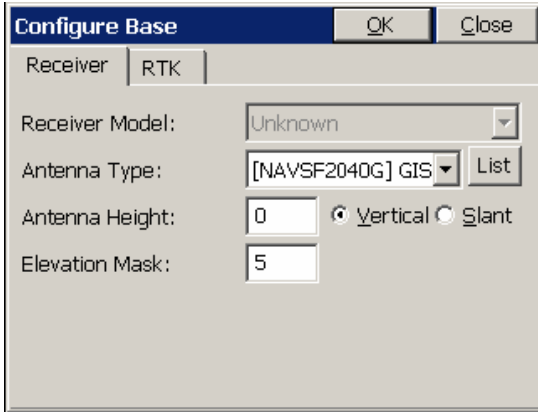
Bluetooth Devices

- ✓ Click *Find Receiver* and the unit will search for Bluetooth device. Select the TruBlu\_#### device, where the #### is the unit's serial #.
- ✓ Click OK.
- ✓ Click Set Receiver PIN and enter *default*.
- ✓ Click OK.
- ✓ Click *Set Receiver Name* and enter *Base* if Bluetooth unit is for Base Station or *Rover* if Bluetooth unit is for Rover.
- ✓ Click OK.
- ✓ Select the *Receiver Name* of the Bluetooth device created. Click *Connect* and the unit will Bond with TruBlu device.



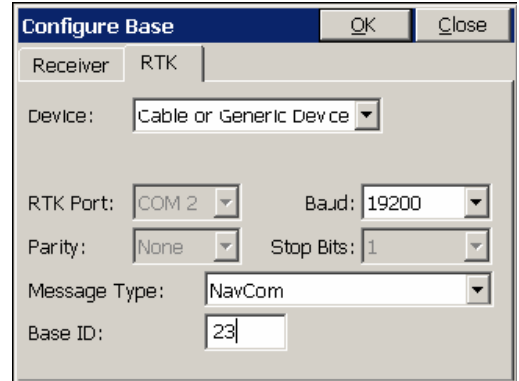
Configure Base

- ✓ Receiver
  - Receiver Model will auto detect if communication is established with GPS receiver.
  - Select Antenna Type.
  - Enter Elevation Mask: 5



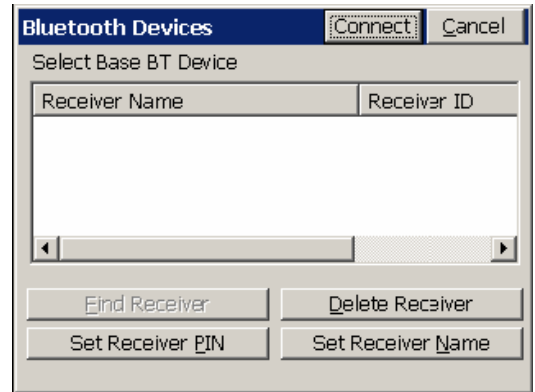
RTK

- ✓ Select Device: Cable or Generic Device.
- ✓ RTK Port, Parity, and Stop Bits will be automatically detected. If not,
  - RTK Port is COM used for the External Radio,
  - Parity: None
  - Stop Bits: 1.
- ✓ Select Baud: 19200.
- ✓ Select Message Type: NavCom
- ✓ Enter Base ID: 23
- ✓ Click OK button.



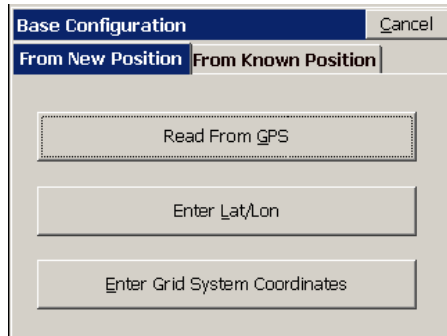
Bluetooth Devices

- ✓ Select Receiver Name *Base*.
- ✓ Click Connect button and unit establishes communication with TruBlu and GPS receiver.



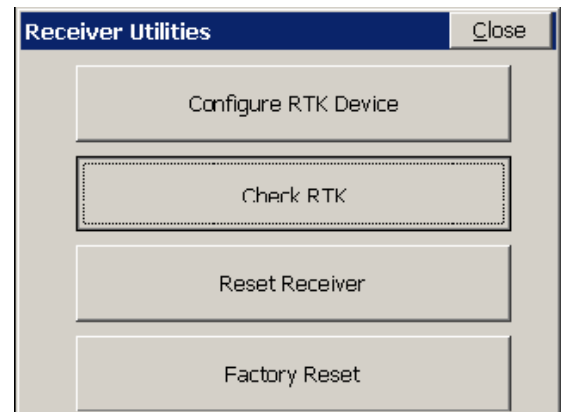
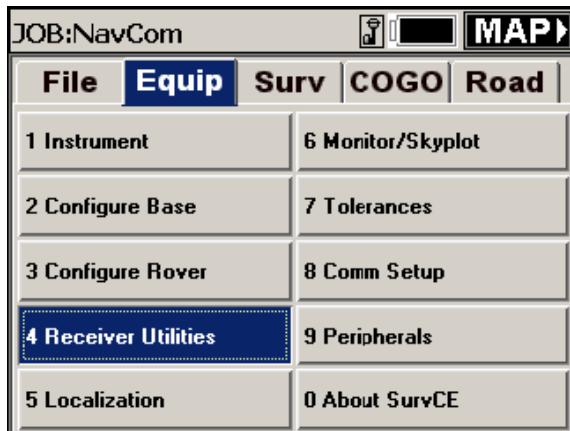
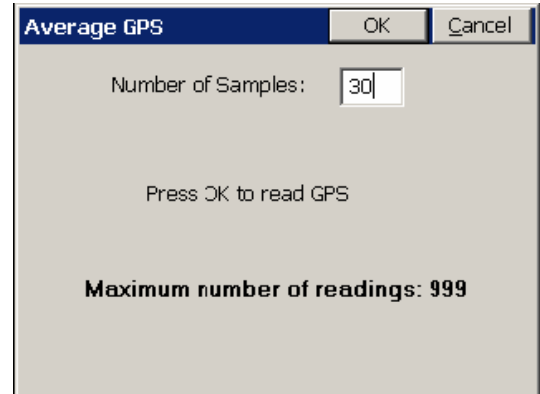
Base Configuration

- ✓ Click Read From GPS.
- ☐ GPS Receiver's BASE Green LED will start to Blink @ 1Hz.



Average GPS

- ✓ Enter Number of Samples to average position used for Base Station Position.
- ✓ Click OK button.
- ✓ Click YES button (Continue w/ Base Setup). Unit is now configured as Base Station.
  
- ✓ Click on Receiver Utilities button.



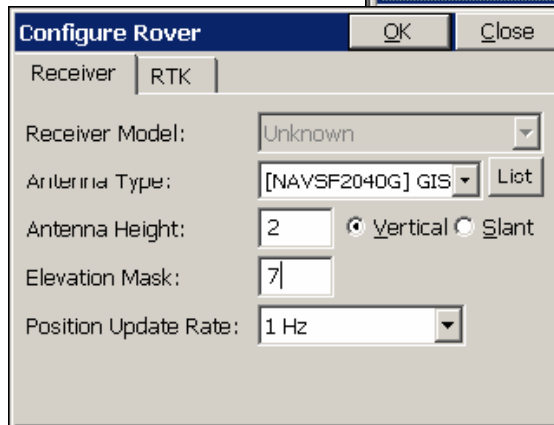
Receiver Utilities

- ✓ Click Check RTK button and software will check if receiver has been configured properly as Base Station. Confirmation message “Base is set correctly & transmitting” comes up.
- ✓ Click Close button.

Configure Rover

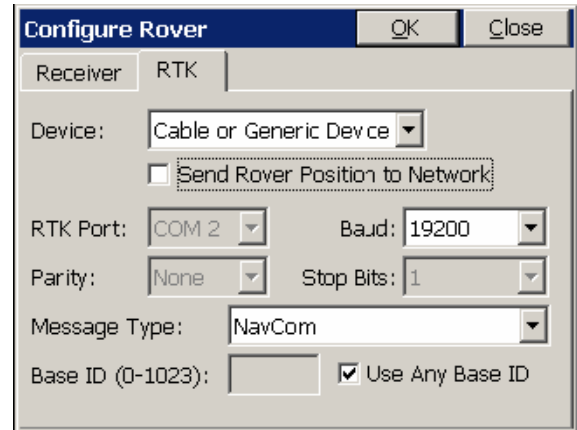
Receiver

- ✓ Receiver Model will auto detect if communication is established with GPS receiver.
- ✓ Select Antenna Type.
- ✓ Enter Antenna Height in meters. 2 when using a 2m pole.
- ✓ Enter Navigation Elevation Mask: 7
- ✓ Select Position Update Rate: 1Hz



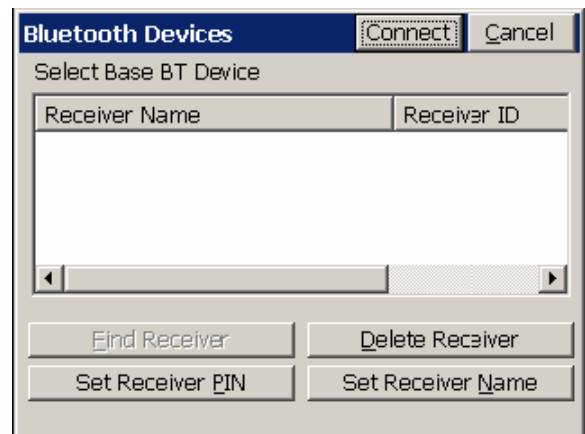
RTK

- ✓ Select Device: Cable or Generic Device.
- ✓ RTK Port, Parity, and Stop Bits will be automatically detected. If not,
  - RTK Port is COM used for the External Radio,
  - Parity: None.
  - Stop Bits: 1.
- ✓ Select Baud: 19200.
- ✓ Select Message Type: NavCom
- ✓ Check Use Any Base ID.
- ✓ Click OK button.



Bluetooth Devices

- ✓ Select Receiver Name *Rover*.
- ✓ Click Connect button and unit establishes communication with TruBlu and GPS receiver.



SATEL 3ASD

Use the front panel interface to configure base station and rover radios. A quick setup follows:

Base Radio

- ✓ Setup >
  - Factory Setup >
    - Yes >
    - Exit >
    - Yes
- ✓ Setup >
  - Radio Settings >
    - Tx Level >
    - 1W >
    - Set >
    - Back
- ✓ Addressing >
  - Tx Address >
    - 0000 0000
    - ON >

- Set
- ✓ Port 1 >
  - ON >
    - @ 19200 bit/s >
    - Set >
    - Back
- ✓ Save Changes >
  - Yes
- ✓ Connect the radio to COM1 of Base GPS receiver.

Rover Radio

- ✓ Setup >
  - Factory Setup >
    - Yes >
    - Exit >
    - Yes
- ✓ Setup >
  - Radio Settings >
    - Tx Level >
    - 1000mW >
    - Set >
    - Back
- ✓ Addressing >
  - Rx Address >
    - 0000 0000
    - ON >
    - Set >
    - Back
- ✓ Port 1 >
  - ON >
  - @ 19200 bit/s >
  - Set >
  - Back
- ✓ Save Changes >
  - Yes
- ✓ Connect the radio to COM1 of Rover GPS receiver.

After each radio unit configuration, check the front panel and make sure that the unit has properly been configured. CD LED will turn ON or blink if wireless communication between the radios has been establish.