

This is in regards to using SurvCE/SurvPC 6.0 and higher to setup a GPS Base over an unknown point and recording static data to submit to OPUS or another post processing service as it relates to shooting RTK Rover points the 1<sup>st</sup> day and needing to adjust the Rover coordinates the 2<sup>nd</sup> day.

1) Go into **Equip / GPS Base** and tap the Receiver tab to enter your GPS base antenna height

2)	Tap the <b>"Advanced" button</b> at the bottom and check the box for <b>"Log Raw data to</b> <b>receiver</b> " then tap the green check	Advanced 🔀 🔀			
		✓ Log Raw Data to Receiver			
		Send file after config		No File Selected!	
		Configure NMEA Output		Configure Constellations	
3)	Tap the Green Check / tap the " <b>From Known</b> <b>Position</b> " tab / and tap " <b>Use Local</b> <b>Coordinate</b> "	Local Point X   Please enter local coordinate values. You may use a point ID from the current or control job.			
4)	Hand enter 5,000 / 5,000 / 100 for assumed	Point From File:			
	base coordinates and check the box for "Scale	Local Northing:	5000	ft	
	to Ground" then tap the Green Check	Local Easting:	5000	ft	
		Local Elevation:	100	ft	
		✓ Scale to ground			

- 5) Tap the Green Check again when prompted to create the localization file (i.e. jobname.loc) then tap the Green Check to confirm the scaling status for "GPS Grid to Ground is enabled"
- 6) Tap Yes to "Continue with Base Setup" then tap Yes to "Save settings to File"
- 7) Tap Green Check to create the base reference file (i.e. jobname.ref)
- In the "Log Raw Data File" dialogue set it to the values below and tap Green Check to begin recording static data:

"Storage Location: Internal Memory" "Log Interval: 30.00 seconds"

\land Log Raw Data File			
Storage Location: Free Memory: 6.7384Gb	ytes	Internal Memory	•
File Name:	Jobname		
Antenna Height:		6.5617	ft
Log Interval:		30.00 seconds	▼
Site Desc: 0			

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- 9) Then go into **Equip / GPS Rover** and tap the Green Check to connect to your Rover and shoot a mag nail or hub 30 to 50 feet from the GPS Base as a check shot.
- 10) Store the points you need for your topo like you normally would in Survey / Store Points.
- 11) After your BRx7 base has recorded the static data for the length of time required (30 minutes or more) walk back over next to your BRx7 base and tap Equip / GPS Raw Only and set it for "Manufacturer: Carlson" and "Model: BRx7" then tap the "Comms" tab and set it for "Type: Bluetooth" and set the "Device:" to the serial number of your BRx7 base and tap the Green Check. You will be prompted "Receiver is currently logging... Do you want to close this file and start a new one?" 17) Tap "Yes" to close the file and stop recording static then tap the red "X" to return to the main menu. Run Equip / GPS Rover / green check to continue the topo
- 12) Post process the static file through OPUS or whichever method you use to obtain "Published Coordinates" for the base point you were setup over while collecting static data
- 13) After you have the post processed Base position run SurvCE and go into Equip / Localization
- 14) Tap the Points tab in the Localization routine
- 15) Tap the "**Edit**" button then type in the new OPUS adjusted coordinates in US Feet with the processed Northing, Easting and Elevation values from the report and tap the Green Check
- 16) Tap the Green Check in the top right then tap **YES** to Overwrite the localization file
- 17) When prompted that Points have been surveyed tap **YES** to reprocess the raw file
- 18) Tap the Green Check then tap the Orange Back arrow in the top right when it shows the results
- 19) If you go into File / Points your points should show the new adjusted Nad83 Grid Coordinates
- 20) If you are going back out to setup your **GPS Base** on the 2<sup>nd</sup> day setup over the same point as Day #1 and enter in your base height in Equip / GPS Base under the Receiver tab.
- 21) Tap the Green Check then tap the "From Known Position" tab and tap "Read from File" to select the \*.REF file you created on Day #1 then tap the Green Check. Tap YES then tap OK.
- 22) Now you can connect to your **GPS Rover** and stakeout the check shot you created on Day1 which was 30 or 50 feet from the base to make sure it matches properly.
- 23) For returning to the project after the 2<sup>nd</sup> day and moving forward you can just measure your GPS Base antenna height to enter it in to the GPS Base / Receiver tab then tap From Known Position / Read From File to select your base \*.REF reference file
- 24) Connect to your rover to **Stakeout** your check shot 30 or 50 feet from the base each time you start the base and in the middle of the day after lunch and at the end of the day before you pack up the base to make sure there is no errors introduced throughout the day.

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