WSRN NETWORK CONNECTION

R8-TSCE-CELL (via cable)

Equipment List:

1 – Trimble R8 GPS receiver w/ battery
1 – Trimble TSCe data logger.
1 – Nextel cell phone
1 – Fixed height bipod.
1 – Cell phone bag/clamp.
1 – Cell phone Serial COM port cable.
1 – Trimble TSCe data logger to GPS receiver cable (Cable with LEMO connectors on each end).

Equipment Set up:

1. Set up Fixed Height Bipod.

2. Install battery into R8 Receiver / antenna

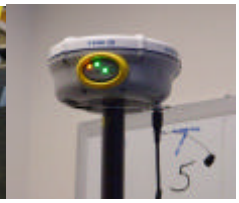
3. Screw R8 receiver /antenna to top of Fixed Height Bipod.

4. Attach cell phone bag with cell phone to the Fixed Height Bipod.

5. Attach Trimble TSCe data collector to the bracket on Fixed Height Bipod.

6. Connect cell phone cable to 9 pin serial port on Trimble TSCe data collector.

7. Connect Trimble TSCe data collector data cable to the center LEMO port on the TSCe data collector. Connect the other end of the TSCe data collector data cable to the Trimble R8 GPS receiver.

8. If you want you can tidy up the cables by strapping the cables to the bipod rod with the Velcro straps.

How to Collect Data:

Connecting to the Internet:

1. After setting up the equipment.
2. Turn on the cell phone, Trimble TSCe data collector and Trimble R8 GPS receiver.
3. Exit any programs you are in to the Windows CE desktop
4. Tap [Ctrl] then [esc] buttons on the keypad to bring up the Windows CE Start Menu
5. Tap on the [Settings] menu on the screen to get the [Settings] pull down menu.
6. Tap the [Networking / Dial-up Connections] listing on the screen.
7. Double tap on the [NEXTEL] icon.
8. Tap on the [Connect] button on the [Dial-up Connection] window to connect the cell phone to the Internet.

NOTE: though the Dial-up Connection Widow asks for a user name and password this is NOT where you input your WSRN network user name and password. Unless your cell phone provider has given you a user name and password for their phone leave it all blank.

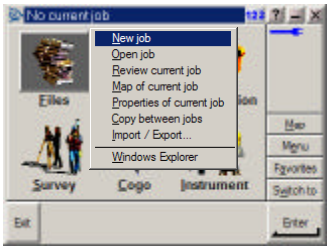
9. Once connected this small window will tell you that you are connected.

***** NOTE: If you do not get connected a different window will pop up stating that "You have been disconnected from the remote computer you dialed. Retry the connection". If this happens tap [OK] on the upper right-hand corner of the small window on the screen and check to see if you have all your cables connected (mainly the cell phone serial cable) securely, that your cell phone is turned on and that you have signal bars on the phone. *****

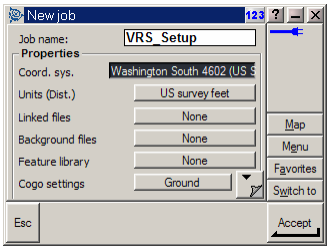
10. Once connected, tap the [Hide] button and close the [Connection] window to get back to the Windows CE desktop. You are now ready to start your survey.

Setting Up A Job File:

1. Double tap the [Survey Controller] icon on the Windows CE desktop which will run the Trimble Survey Controller software.
2. To create a new job tap on the [Files] icon, then tap on the [New Job].



3. Type in the name of your job in the "Job name" window and tap the [Enter] button in the lower right of the screen after each edit.

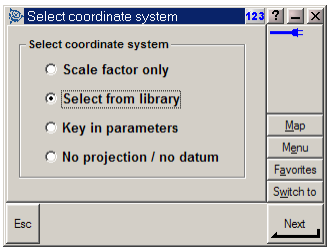


4. Check to see if your “Properties” are correct

*****Note: Make sure your unites are US Survey Feet and are in the Washington North 4601 Coordinate system, since you will be using this coordinates for your control *****.

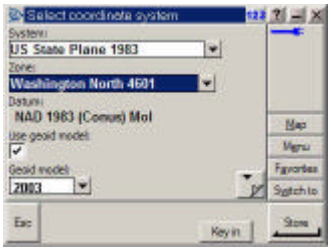
4a. To check to see if your job is using the Geod2003 file you will need to tap on the [Washington North Coord. Sys.]

4b. Tap [Next] after verifying that you have the [Select from library] radio button highlighted.

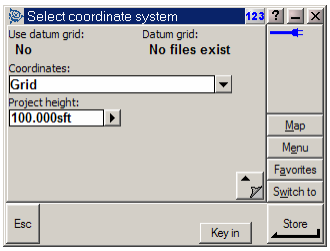


4c. Verify that you have:

US State Plane 83
Washington North 4601
NAD 1983 (Conus) Mol
Use Geoid Model = checked
Geoid Model = G2003
Use datum grid = No
Datum Grid = No files exist
Coordinates = GRID
Project height = 100.00sft.

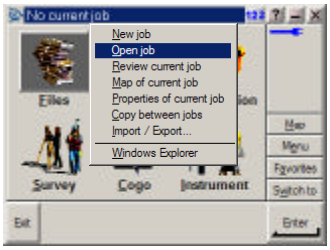


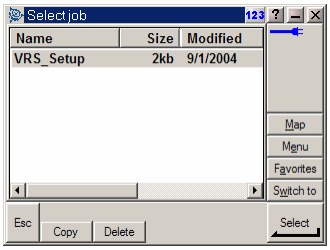
NOTE: Always use the latest GEOID Model



4d. Tap [Store] once all the coordinate system settings are acceptable.
5. Tap on the [Accept] button in the lower right of the screen if all your “Properties” and “Job name” settings are correct. Your job name should be in the upper main window title bar.

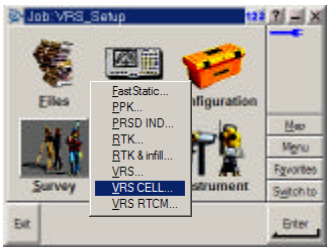
***** NOTE: If you already have created a job and your job is not loaded up (by verifying what job name is in the upper main window title bar) you can go to the same [Files] icon on the main menu and open it by tapping on the [Open job] pull down list and selecting the correct job file. *****



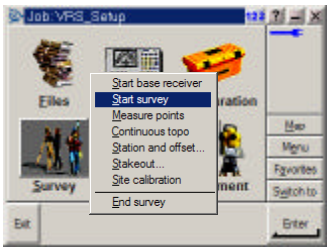


Starting a Survey:

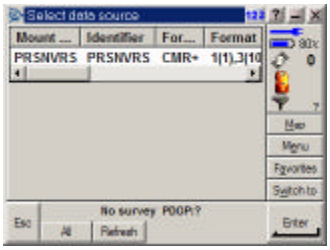
1. In the Trimble Survey Controller software tap on the [Survey] icon in the main menu
2. Select [VRS CELL].



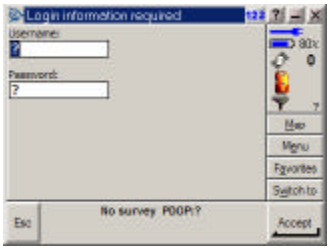
3. Select [Start survey].



4. Tap on the “WSRNVRS” line



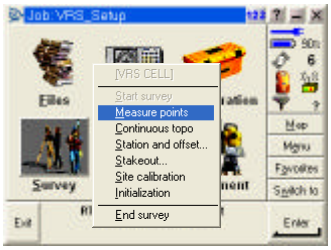
5. Type in your “Username” and ‘Password” in the log in screen.



6. Tap the [Enter] button in the lower right of the screen after each edit.
7. Tap on the [Accept] button in the lower right of the screen.

*****NOTE: Once the log-in progress is finished the screen will switch back to the main menu of the Survey Controller. *****

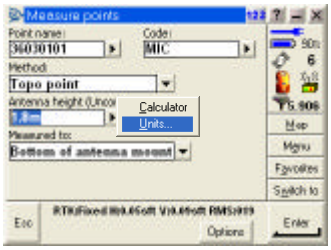
8. Set up and level the bipod over the point.
9. To collect coordinates you need to tap on the [Survey] icon and select [Measure points].

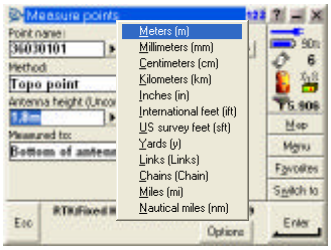


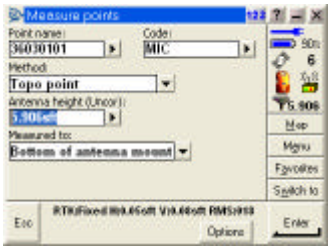
10. Type in the number, descriptor and rod height in the appropriate boxes.

****** NOTE: Make sure your rod height is in the correct units! ******

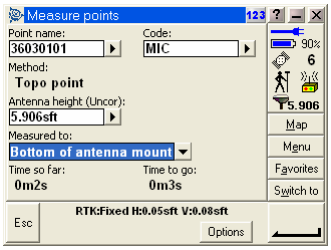
When you type in your rod height, which will almost always be 2.0m (6.562ft) the software will think it is 2.0sft. You can type in 2.0 and then use the pull down menu on the side of that box and pick [Units] and pick [Meters] and the software will convert the rod height to the current job units. One other way to convert from meters to your job units is to type in your 2.0m and the hit the [Tab] key on the key pad or by tapping on the [Enter] button in the lower right hand corner of the screen.





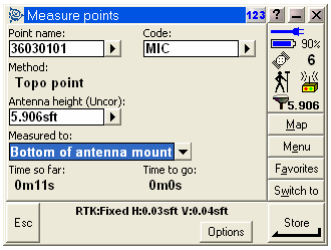


11. After setting over the point, getting initialized, and making sure your point #, descriptor and rod height is correct
12. Tap on the [Measure] button in the lower right hand corner.
13. This will start collecting that data and start the count down.



14. Once the count down (usually 5 sec.) hits 0, tap the [Store] button in the lower right hand corner.

***** NOTE: If the count down takes an overly long amount of time (over 30 secs.) it means the network is having problems solving your solution (RMS is too high is an example.). It would be wise to stop the data collection and abandon that point and start measuring the point over. To stop the data collection you will need to tap on [Esc] and then click on [Yes] when the 'Abandon Point?' comes up. *****



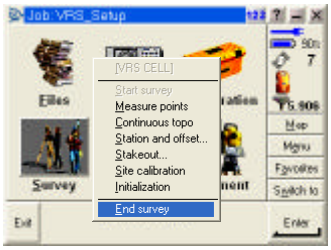
15. Repeat your set up and leveling over each additional point.

*****NOTE: You will need to make sure you have initialization before you will be able to store each point. *****

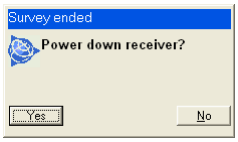
*****NOTE: You might need to stop the survey and restart it if you have difficulty getting initialization (you should be able to initialize in a few minutes). *****

Stopping Your Survey:

1. Exit out of your [Measure] screen by tapping on the [Esc] button in the lower left-hand corner of the screen.
2. This will bring you back to the main menu screen where you tap on the [Survey] icon.
3. Pick [End survey] in the pull down list.



4. You will probably want to say [No] when it asks you if you want to 'Power down receiver'. Unless you will be quitting for a long period of time (such as lunch or quitting for the day) to save battery power.



Transferring coordinates:

Creating a text file:

1. In Trimble Survey Controller with the correct job file opened, tap [Files] icon.
2. Pick [Import / Export…].
3. Pick [Send ASCII data]
4. Pick [Comma Delimited (*.CSV, *.TXT)] in the pull down menu under [File Format] box.
5. Pick [Trimble Data] in the pull down menu under [Send to] box.
6. Type the name of the file you would like to create in the [To name:] box.
7. Check to see if you have the correct format.
   [Point Name] = Field1 [Point Code] = Field5
   [Northing] = Field2 [Easting] = Field3
   [Elevation] = Field4
8. Tap on [Send] in the lower right hand corner.
9. Select the points you would like to send to the text file (i.e. All points, Select for List, etc.)

Transferring files from data collector to data collector:

1. If in Trimble Survey Controller software, exit to Windows CE desktop.
2. If TDS Ranger is in TDS, exit it to Windows CE desktop.
3. In each data collector, tap [Ctrl] then [esc] buttons on the keypad to bring up the Windows CE Start Menu.
4. Select [Program], then [Communication], then [File Transfer].
5. Point the Trimble TSCe data logger towards the TDS Range (Top end, to top end).
   ***** Note: They will need to be within ~1ft – 2ft of each other and on the same plane*****
5. On the TDS Ranger, select [Receive…] button in the "File Transfer" window.
6. Make note of the directory that the TDS Ranger is saving the file to.
7. Tap the [Ok] button in the middle. (it should now be waiting for sender).
8. In the Trimble TSCe data logger, select the [Send….] button in the "File Transfer" window
9. Select the file you would like to send (it should be under "Disk\Trimble Data\".
10. Tap [Ok] in the upper right hand corner of the screen. (this should start the transfer of the file).
11. Once done, both data collector will go back to the "File Transfer" window.
12. You can now exit out of the "File Transfer" windows of each data collector and import the newly transferred text file into you TDS job file.