HPT435 Base
TRIUMPH-1 Rover

Configuration Example

Version 1.1
Last Revised March 19, 2009

Base & Rover Configuration Example

HPT435 as a Base Configuration

1. Connect the TRIUMPH-1 receiver to computer. See for details the TRIUMPH-1 Operator's Manual.
2. Connect the external HPT435 UHF radio to receiver's port B with cable Accessory Data-Ser cable, ODU-7/D15 (1.8 m) p/n 14-578108-01.

Figure 4-1. Accessory Data-Ser cable, ODU-7/D15

Note: The port B is optional. Make sure you have such option purchased.

3. Power the HPT435. You can use the rechargeable battery type Power Sonic PS-12400 or similar and Accessory Power Cable, PL-700/Battery Clips (2.5m), p/n14-578111-01.

Figure 4-2. Power cable, PL-700/Battery clips

Warning: *Powering HPT435 please observe polarity!*

For PS-12400 battery charging use the charger "Power-Sonic Chargers" type PSC-124000A.

4. Turn on the TRIUMPH-1 receiver.
5. Start ModemVU.

6. Select *HPT435* and click OK (Figure 4-3).

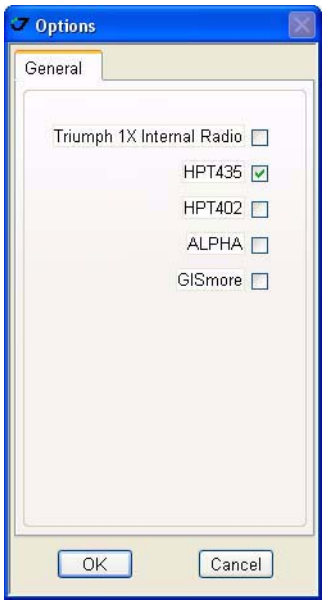

Figure 4-3. ModemVU. Options window

7. Select the port the TRIUMPH-1 receiver is connected to and click *Connect* (Figure 4-4).

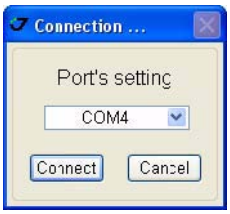

Figure 4-4. ModemVU. Connection

8. In the *Radio Link* tab set the following parameters, and click *Apply* (Figure 4-5):

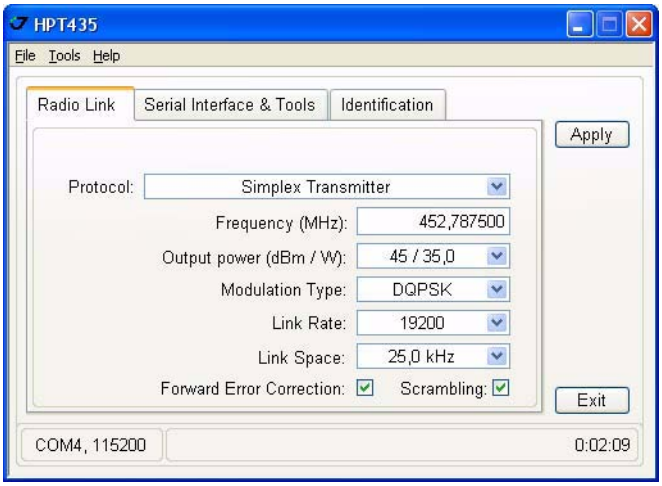

Figure 4-5. Radio Link tab settings

- Protocol: Simplex Transmitter
- Frequency (MHz): 406 to 470
- Output power (dBm/W): 45/35.00
- Modulation Type: DQPSK
- Link Rate: 19200
- Link Space: 25.0 kHz
- Forward Error Corrections: ON
- Scrambling: ON

9. Quit ModemVU by clicking *Exit* button.

10. Start TriVU. Select port the TRIUMPH-1 receiver is connected to and click OK (Figure 4-6).

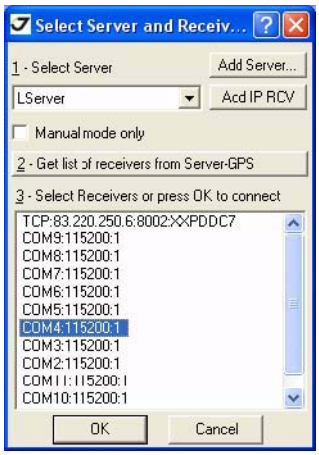

Figure 4-6. TriVU. Selecting port

11. Click *Configuration* ▸ *Receiver.*
12. In the *Base* tab click the *Get from receiver* button. Reference geodetic coordinates appear. Click *Apply* (Figure 4-7).

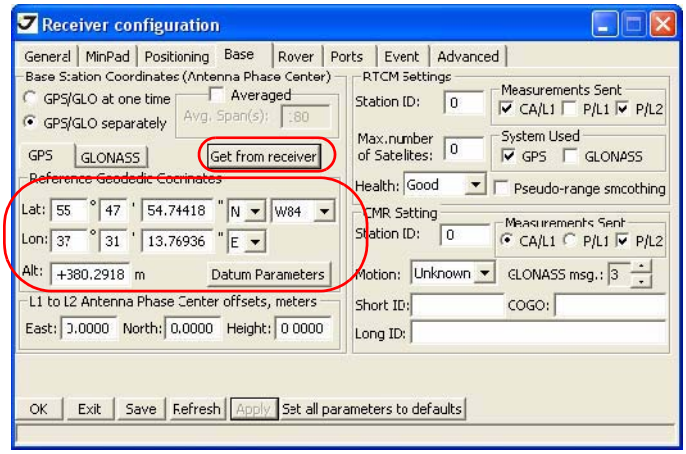

Figure 4-7. Base tab

13. In the *Ports* tab set the Port B *Output mode* to RTK CMR, and click *Apply*, then OK (Figure 4-8).

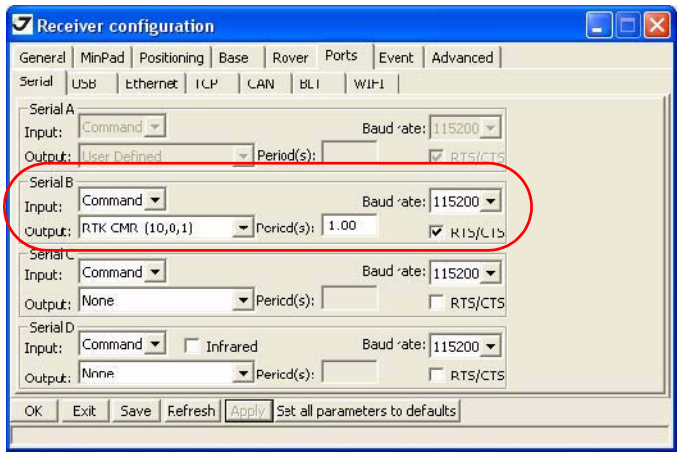

Figure 4-8. Rover tab

TRIUMPH-1 internal UHF radio as a Rover Configuration

1. Connect the receiver and computer as described in TRIUMPH-1 Operator's Manual.
2. Start ModemVU.

3. Select *Triumph 1X Internal Radio* and click OK (Figure 4-9).

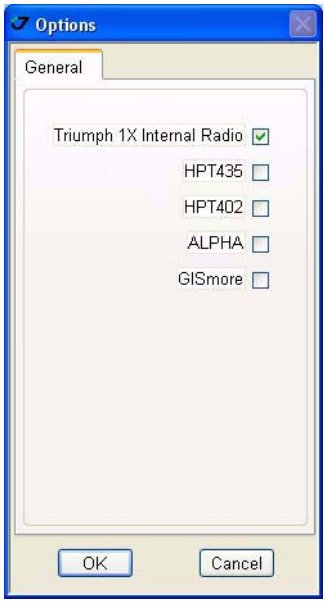

Figure 4-9. ModemVU. Options window

4. Select the port receiver is connected to and click *Connect* (Figure 4-10).

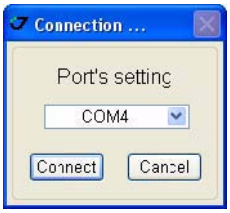

Figure 4-10. ModemVU. Connection

5. Select the *ON* mode for *Radio*, click *Apply* and click *Connect Radio* button (Figure 4-11).

Figure 4-11. ModemVU TRIUMPH Internal Radio selection

6. In the *Radio Link* tab set the following parameters, and click *Apply* (Figure 4-12):

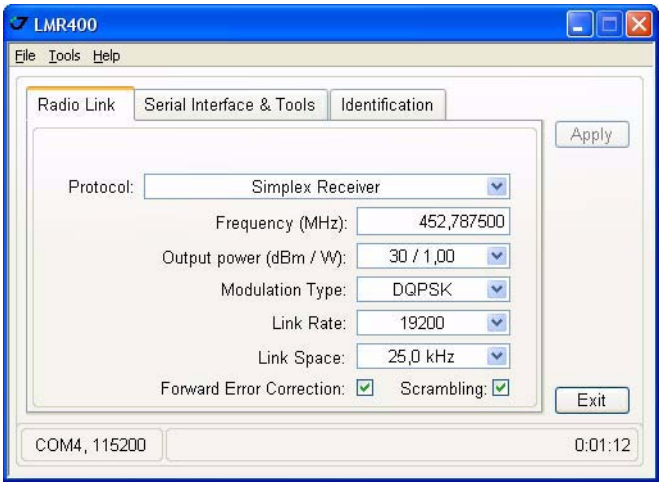

Figure 4-12. Radio Link tab settings

- Protocol: Simplex Receiver
- Frequency (MHz): 406 to 470
- Output power (dBm/W): 30/1.00
- Modulation Type: DQPSK
- Link Rate: 19200
- Link Space: 25.0 kHz
- Forward Error Corrections: ON
- Scrambling: ON

7. Quit ModemVU by clicking *Exit* button.
8. Start TriVU. Select port the receiver is connected to and click OK (Figure 4-6).

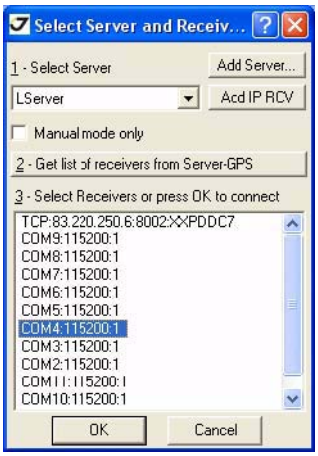

Figure 4-13. TriVU. Selecting port

9. Click *Configuration* ▸ *Receiver.*
10. In the *Positioning* tab set RTK fixed Positioning Mode, then click *Apply* (Figure 4-14).

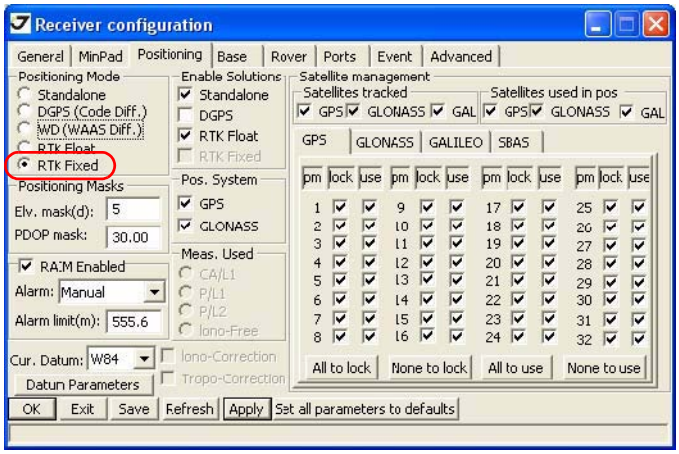

Figure 4-14. Positioning tab

11. In the *Rover* tab set Positioning Mode to RTK fixed mode (Figure 4-15), then click *Apply*:

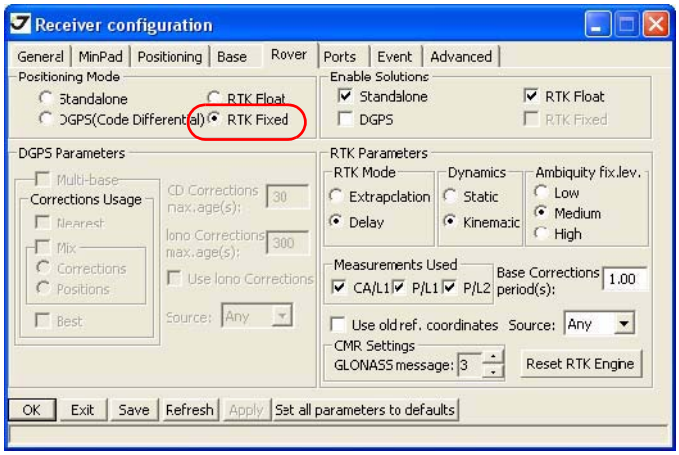

Figure 4-15. Rover tab

12. In the *Ports* tab set the *Input* mode for port D to CMR, then click *Apply* and OK (Figure 4-16).

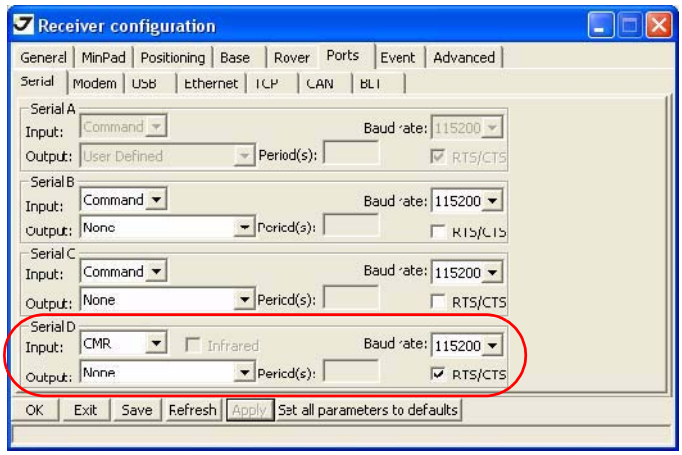

Figure 4-16. Ports tab

13. The receiver will obtain the RTK Fixed solution (Figure 4-17).

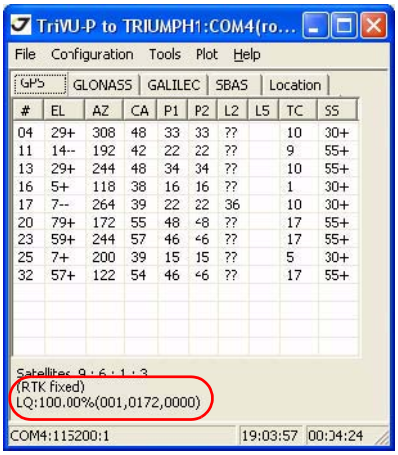

Figure 4-17. TriVU. RTK fixed

Base & Rover Configuration Example

TRIUMPH-1 internal UHF radio as a Rover Configuration