

Crux_View Test Program Manual

(version 1.6.3)

EMTAC Technology Corp.

NOTE

- *This Crux_View Test Program is a trial version program and only for testing purpose.*
- *This Crux_View program is only for use with CRUX II / BTGPS and Pocket PC (PPC) with Bluetooth enabled.*
- *Current version of CRUX_View supports ARM (Strong ARM/X Scale) based PPC.*
- *Read and consult CRUX II / BTGPS User Guide before operating the CRUX_View program.*
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Crux_View Test Program

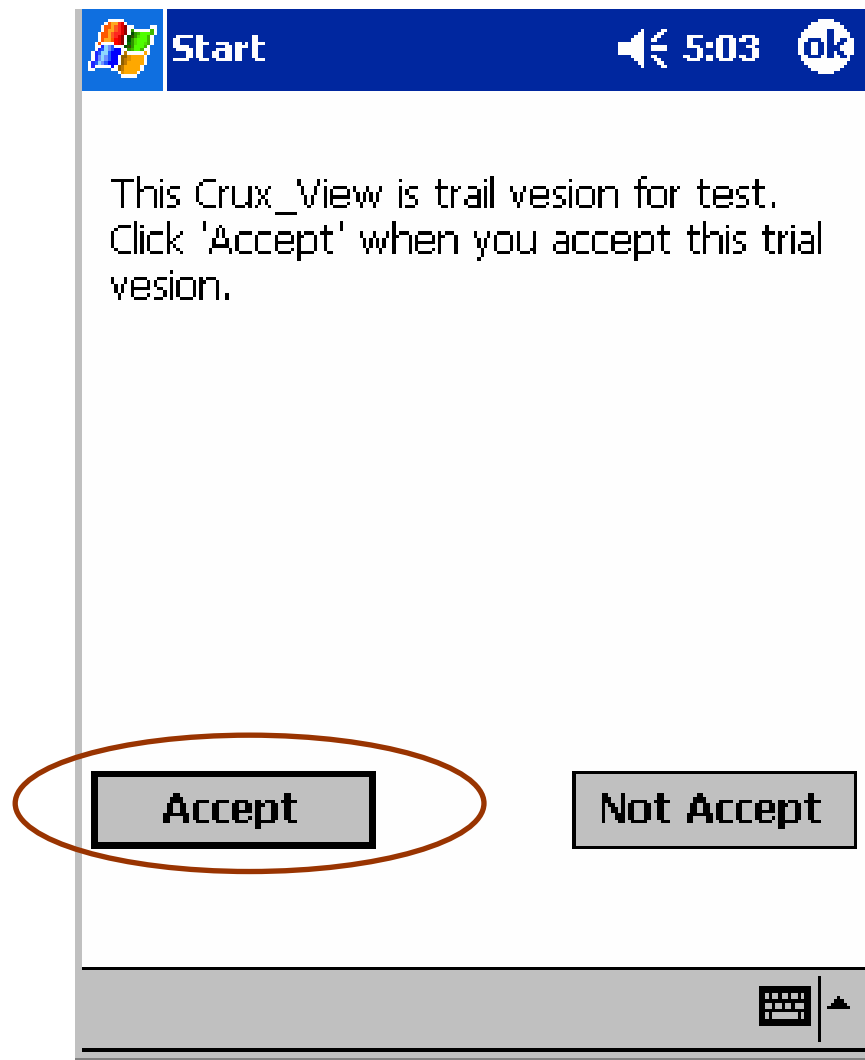
1. Installation

- 1.1 Connect the PPC to the Host PC then 'Active Sync' them.
- 1.2 Open 'My Computer' → 'Mobile Device' → 'My Pocket PC', Copy Crux_View.exe to 'Windows\Start Menu' of the PPC.
- 1.3 Disconnect the PPC to the Host PC.
- 1.4 From PPC 'Start' menu, Click 'Crux_View' to execute it.

2. Operation

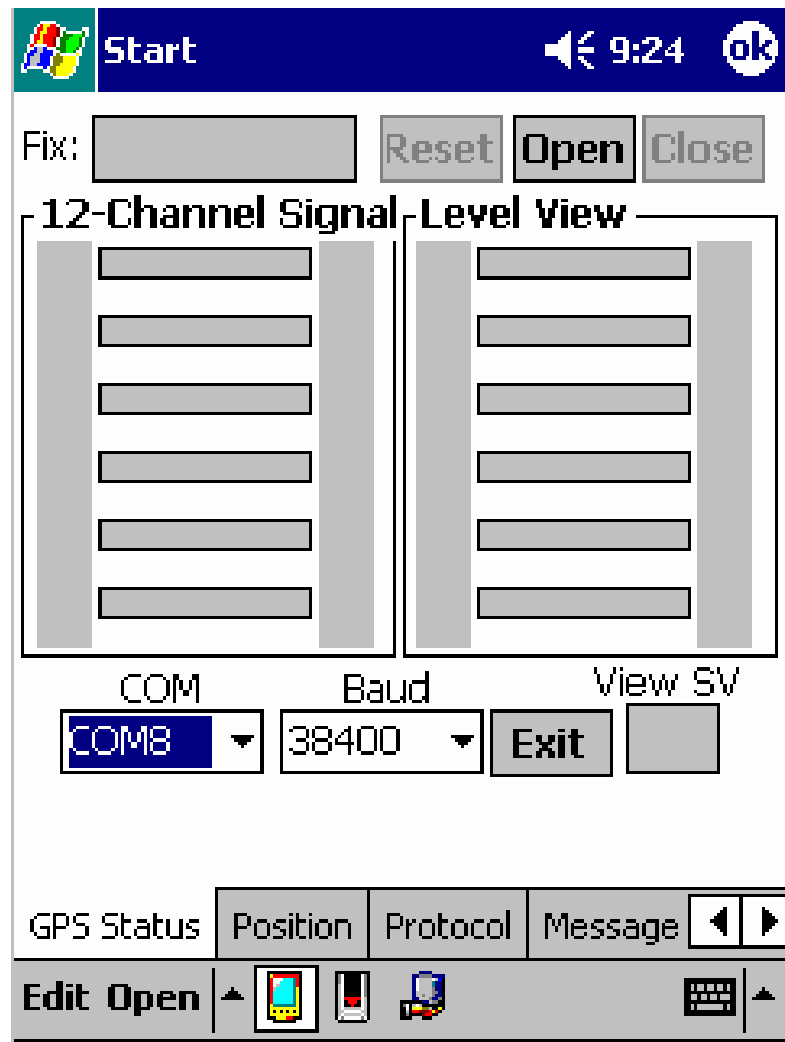
- 2.1 Turn-On the power of BTGPS.
- 2.2 Pair and Connect the BTGPS with the PPC, if you did NOT have done this before. (Please refer to Pairing Manual of the BTGPS).
- 2.3 Execute 'Crux_View' from 'Start' menu on PPC.

2.4 Click 'Accept' to continue, if you accept the claim.



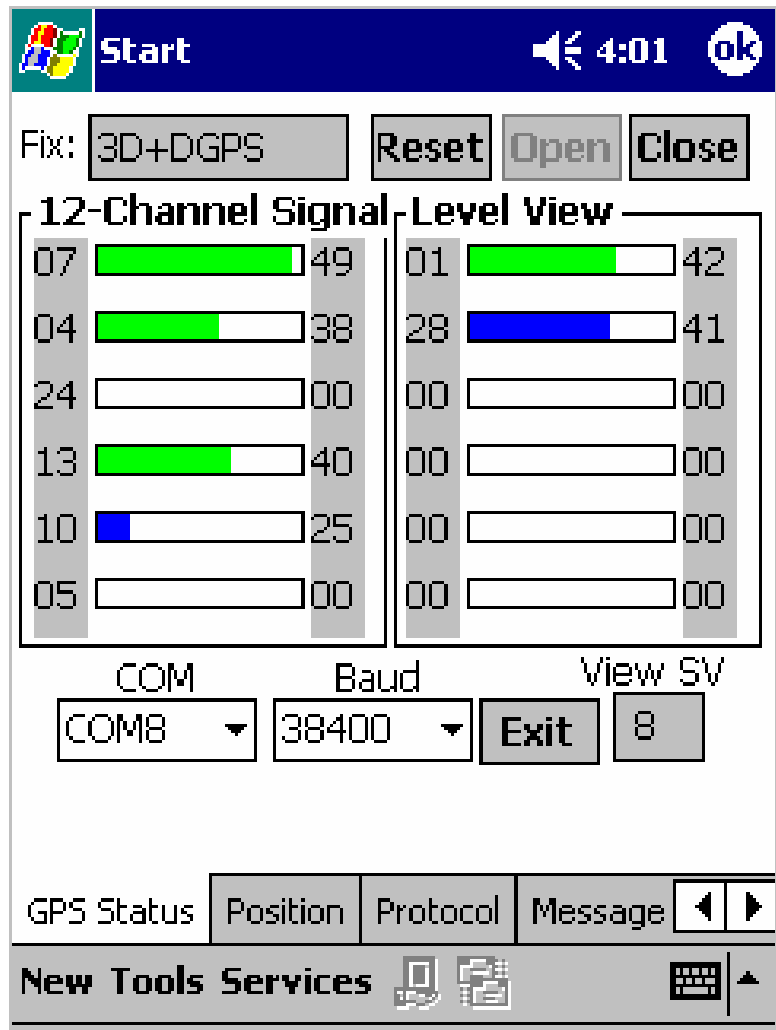
2.5 Set 'COM' to 'COM8' for iPAQ 3870/3975; 'COM4' for the PPC that with Socket's BT card. For other PPC and BT card, please refer to the BT card's manual.

2.6. Set the 'Baud' to '38400' bps.



2.7 Click 'Open' to connect to the BTGPS.

2.8 The GPS Status Page.



Indicator and Function Buttons:

Fix: The fix status, None, 2D or 3D; plus DGPS.

Reset: Cold Start the BTGPS

Open: Connect BTGPS.

Close: Disconnect BTGPS.

Exit: Exit this program.

View SV: The No. of the Satellite Visible.

12-Channel Signal-Level View:

The Signal Level in dB-Hz of each GPS channel.

2.9 The Position Page.

The screenshot shows a software interface for displaying GPS data. At the top is a status bar with a 'Start' button, a speaker icon, the time '9:18', and an 'ok' button. Below this are three main sections: 'Position', 'GPS Time', and 'DOP & Speed'. The 'Position' section contains fields for Latitude ('24^46'21.71" N') and Longitude ('121^00'21.07" E'). The 'GPS Time' section contains fields for UTC Date ('2002/11/20') and UTC Time ('05:45:33'). The 'DOP & Speed' section contains a table of DOP values, fields for Course and Speed, and a unit selector. At the bottom are tabs for 'GPS Status', 'Position', 'Protocol', and 'Message', and a taskbar with 'Edit' and 'Open' buttons and several icons.

Position	
Latitude	24^46'21.71" N
Longitude	121^00'21.07" E

GPS Time	
UTC Date:	2002/11/20
UTC Time:	05:45:33

DOP & Speed			
Fix	PDOP	HDOP	VDOP
3D+DGPS	9.5	6.7	6.8

Course	205.71	degrees	Unit
Speed	0.16	knots	knots ▼

GPS Status Position Protocol Message ◀ ▶

Edit Open ▲ [Icons] ▼

Indicators:

Position: The Latitude and Longitude.

GPS time: UTC Date and Time.

DOP & Speed:

Fix: The Fix Status, None, 2D or 3D; plus DGPS.

PDOP: Position Dilution of Precision.

HDOP: Horizontal Dilution of Precision.

VDOP: Vertical Dilution of Precision.

The 'Unit' of the 'Speed' can be select either in 'knots' or 'km/hr'.

2.10 The Protocol Page.

Protocol

GGA	1	Set NMEA Update Rate
GLL	0	
GSA	1	
GSV	5	Switch to SiRF Binary Protocol 38400 bps
RMC	1	
VTG	0	

Command Status

GPS Status Position Protocol Message

Edit Open

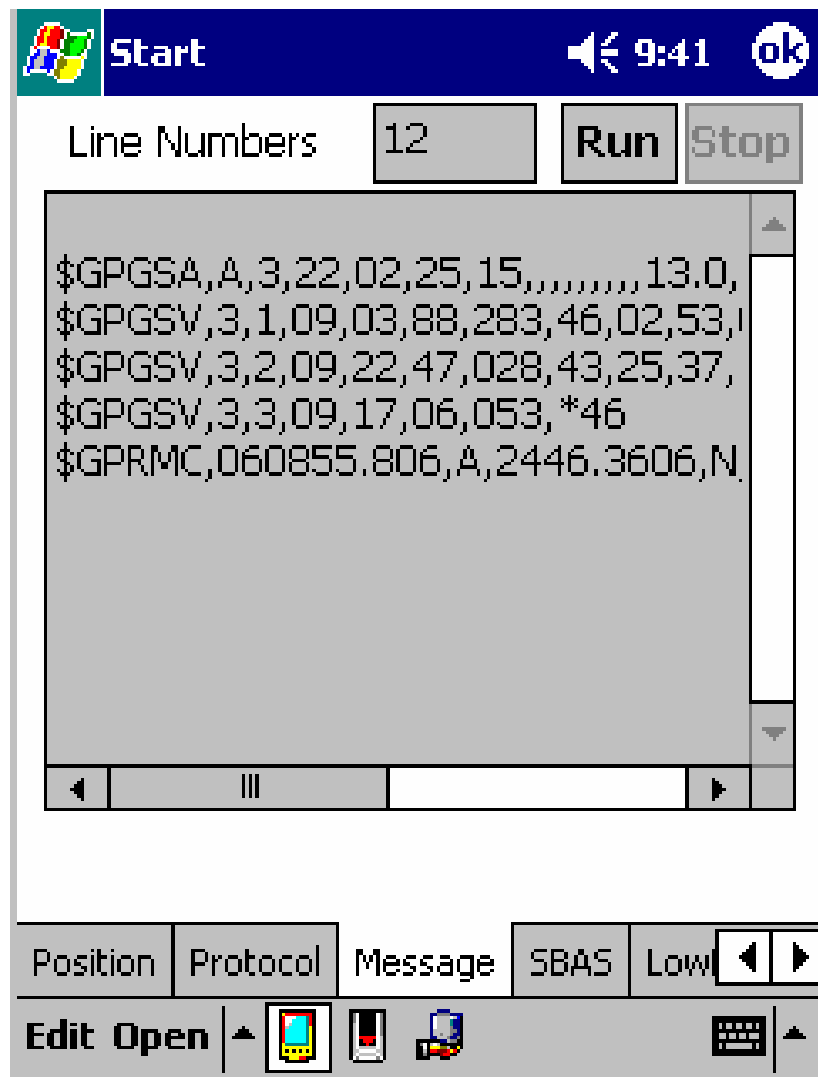
Set NMEA Update Rate: Click this button will send the NMEA update rate setting commands to BTGPS.

The new update rate settings (seconds per message) were selected in left side pull down menus before click the 'Set NMEA Update Rate' button.

Switch to SiRF Binary Protocol 38400 bps: Click this button will switch the BTGPS to SiRF binary protocol in 3800 bps baud rate.

Command Status: Indicate the status of sending commands.

2.11 The Message Page.



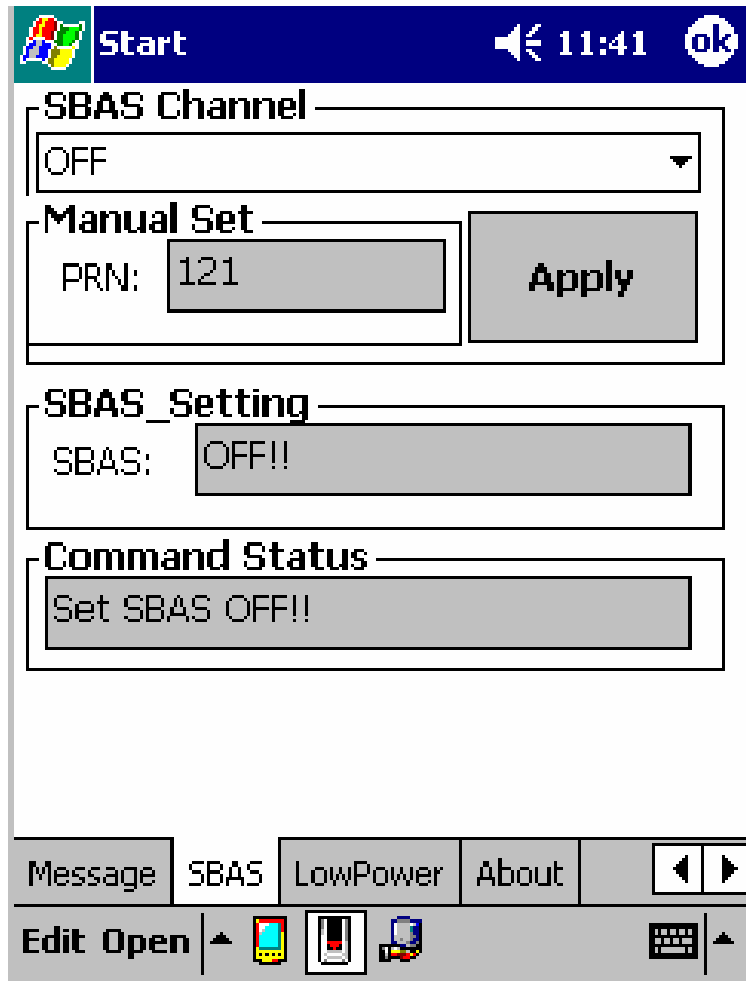
In this page the window display the NMEA messages that coming from BTGPS.

Function Buttons:

Run: Run displaying.

Stop: Stop displaying.

2.12 The ABAS Page.



SBAS Channel setting.

OFF: Do NOT use SBAS channel.

AUTO: BTGPS auto searching available SBAS satellite and use it for correction.

PRN120(EGNOS): Use PRN120 only.

PRN131(EGNOS): Use PRN131 only.

PRN122(WAAS): Use PRN122 only.

PRN134(WAAS): Use PRN134 only.

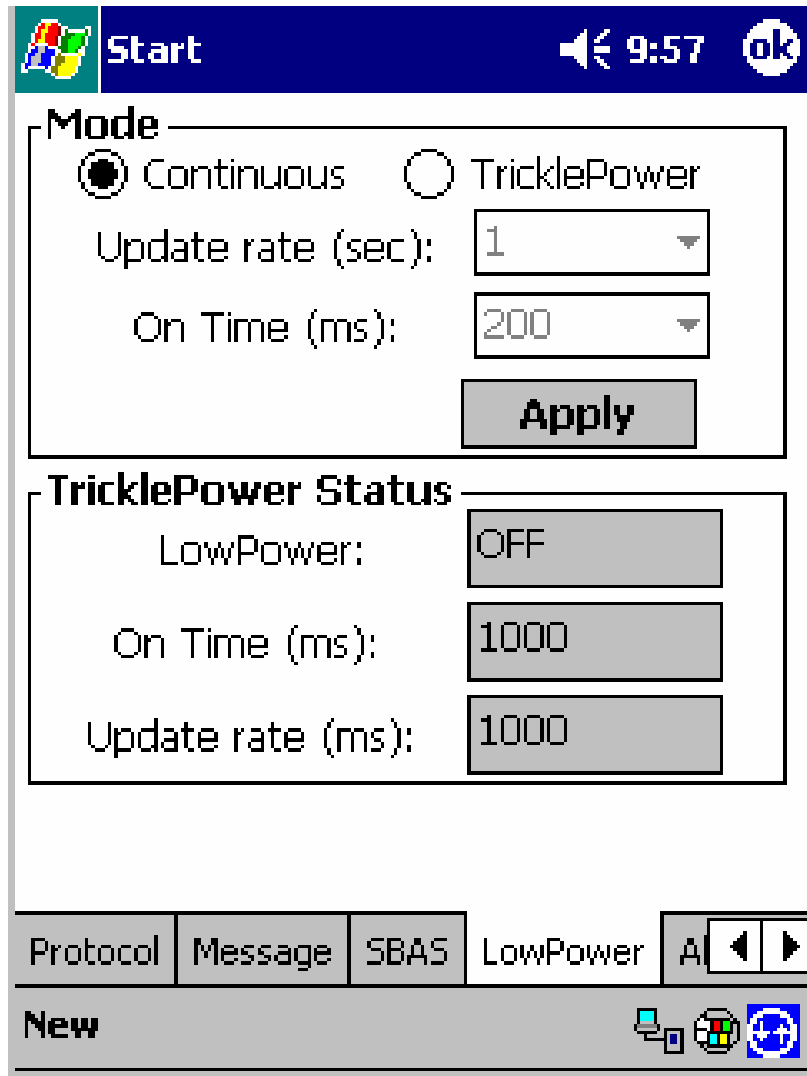
Manual Set: Key in PRN No. that desired to be used only.

After set the **SBAS Channel**, Click the '**Apply**' button to send the command to the BTGPS.

SBAS Setting: Show the current SBAS Channel setting of the BTGPS.

Command Status: Shows the Command Proceed.

2.13 The LowPower Page



The screenshot shows a software window titled "Start" with a blue header bar. The window is divided into two main sections. The top section, labeled "Mode", contains two radio buttons: "Continuous" (selected) and "TricklePower". Below these are two dropdown menus: "Update rate (sec):" set to "1" and "On Time (ms):" set to "200". An "Apply" button is located at the bottom right of this section. The bottom section, labeled "TricklePower Status", contains three text boxes: "LowPower:" set to "OFF", "On Time (ms):" set to "1000", and "Update rate (ms):" set to "1000". At the bottom of the window is a navigation bar with tabs labeled "Protocol", "Message", "SBAS", "LowPower", and "A". The "LowPower" tab is currently selected. Below the navigation bar is a status bar with the word "New" and three icons: a small window icon, a printer icon, and a refresh/circular arrow icon.

Mode

☒ Continuous ☐ TricklePower

Update rate (sec): 1

On Time (ms): 200

Apply

TricklePower Status

LowPower: OFF

On Time (ms): 1000

Update rate (ms): 1000

Protocol Message SBAS LowPower A

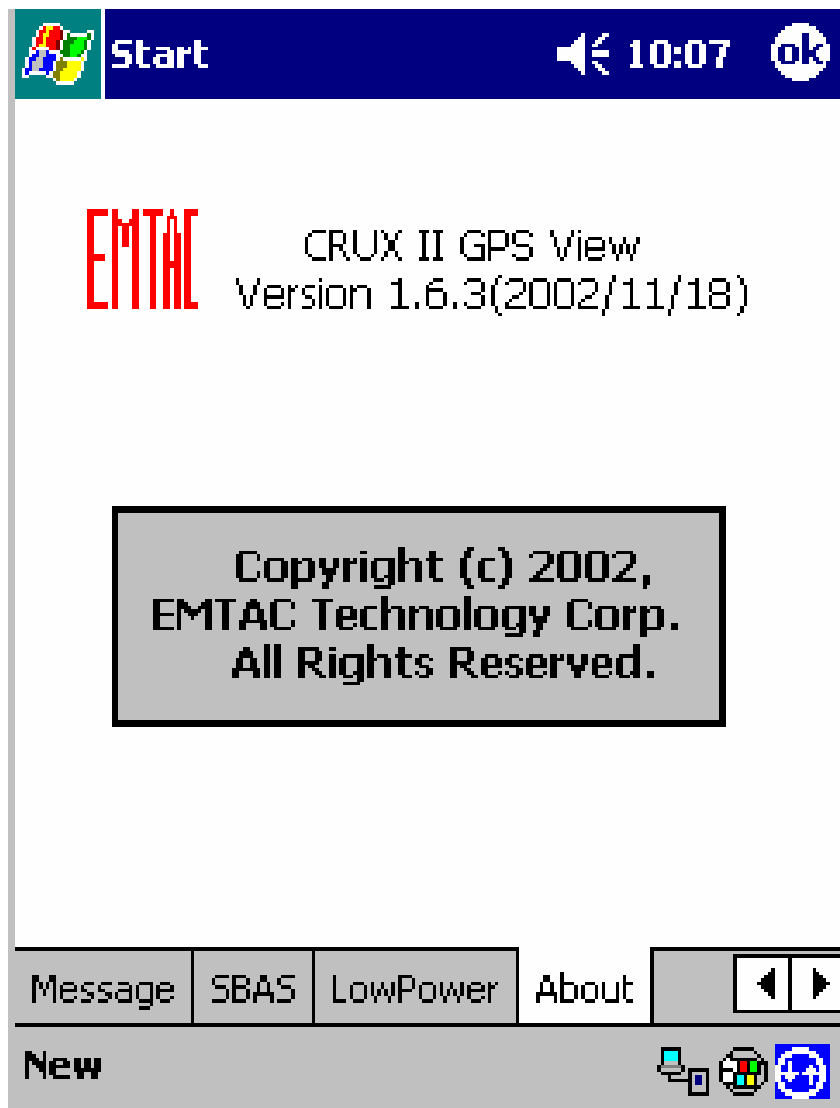
New

Mode: You may set the Low power mode by select the Continuous/TricklePower Mode and setting the desired Update rate/On Time.

After changed the Power Mode, Click the '**Apply**' button to send the command to the BTGPS.

Trickle Power Status: Display current power mode setting.

2.14 The About Page.



This page shows the software version and copyright claim.