QSTARZ
Beyond Navigation

Bluetooth®

BT-Q2000

EXPLORE 2000

GPS-enabled Sports Recorder – Your Private Sports Coach

QSports™ & Travel Recorder™ Dual Software

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1. Overview

Thank you for choosing Qstarz **Explore 2000** – *Bluetooth®* GPS Sports Recorder, provides stand-alone logging up to 260,000 records with 20 hrs recording. It's ideal for your travel logging and sports logging. For traveling, you can display travel path directly on Google Earth and combine geography information with photos by Geotagging. For sports, you can analyze detail track data via graphed statistics, monitor your weight to control how much you exercise, and plan your training schedule in accordance with your sports activities.

2. Product Notice

On Handling

- **If Explore 2000 isn't used in temperature between -10℃ ~ 60℃, its battery charging capability will decrease. Leave the Explore 2000 far from heat or high temperature environment. And also, do not expose your Explore 2000 in temperature higher than 140℉/60℃ to prevent the battery inside Explore 2000 from overheating, exploding or burning itself. The built in battery inside the Explore 2000 should be recycled.**
- **It is recommended to turn Explore 2000 off in the hospital. Wireless GPS receiver may interfere with the medical equipments which use radio frequency.**
- **The manufacturer assumes no responsibility for any damages and loss resulting from the use of this manual, or from deletion of data as a result of malfunction, dead battery, or from misuse of the product in any way.**
- **Please clean the unit with a dry and clean soft close. Do not use harsh cleaning solvents, chemicals, alcohol, or strong detergents.**
- **Do not attempt to open Explore 2000 by yourself. Unauthorized hacking may damage the unit, and void your warranty.**

On Battery & Safety

- **Charging time is about 3 hour typically for this unit. We suggest disconnecting the unit from the cigarette charger or AC charger after the unit has been fully charged.**
- **Be sure to use the supplied cigarette charger including in package; otherwise excessive voltage may be applied to the unit and may cause smoke, fire, or accident.**
- **When the unit is not in use or not charged, we suggest disconnecting the unit from the cigarette charger. Otherwise battery drain may result.**
- **Note that the built in battery cannot be charged outside the temperature range 0℃ ~ 45℃.**
- **The charging time might be extended if you use the product while charging**
- **Do not heat or leave the unit in high temperature or direct sunshine for a long period of time as the built-in battery capacity will deteriorate, or will become unchargeable.**

3. Features

- **Record and manage your various exercise/sports**
- **Smart training plan and track for personal analysis**
- **On-Screen display the latest GPS coordinate info**
- **Share your tracks of sports or travel with friends**
- **Be your Sports Mate for Health control**
- **Excellent performance - Cold/Warm/Hot start time: 42/38/1 sec. (average)**
- **Support 20 hours usage time**
- **Log up to 260,000 waypoints**
- **Large display 41 x 34mm 2.0” for instant GPS information**
- **Multi-function handheld GPS for NAV, LOG, Sports**
- **Download data via mini USB or Bluetooth interface**
- **Compatible with Bluetooth 2.0 Serial Port Profile (SPP) in 10m wirelessly**

4. Product Specification

General	
Frequency	L1, 1575.42MHz
C/A Code	1.023MHz chip rate
Antenna (Internal)	Built-in patch antenna with LNA
Datum	WGS84
Performance Characteristic	
Position	<10 M at 2D RMS
Accuracy	1μs synchronized to GPS time
Velocity	0.1m/sec, without SA
Time	50 ns RMS
Cold/Warm/Hot Start	42/38/1 sec, average
Dynamic Condition	
Altitude	<18,000m
Velocity	<515m/sec
Acceleration	<4g
Protocol	
GPS Output Data	Default: NMEA-0183 GGA, GSA RMC Data bit : 8, stop bit : 1(Default)
Baud Rate	4800~38400 bps
Power	
Built-in rechargeable Li-ion battery, Up to 20 hrs after fully charged	
Bluetooth	
Standard	Fully compliant with *Bluetooth* V2.0
Bluetooth Profile	Serial Port Profiles (SPP), Up to 10 meters

Others	
Size / Weight	71.3(W) x 43(D) x 20(H) (mm)
Operating Temperature	- 10 ℃ to + 60 ℃
Storage Temperature	- 20 ℃ to + 60 ℃

5. Hardware Introduction

5-1. Appearance

1. Power Button (ON/OFF/Enable LOG mode/Disable LOG mode)
2. LCD Backlight Button
3. Tool Button (Distance Unit Switch / Reset Measurement)
4. Power jack (mini USB type)
5. Battery charge LED (Red)
6. Internal antenna
7. LCD Screen

5-2. Hardware Function

Hardware Function	Description
Power Jack	Take the power cable and connect it to the power jack (mini USB type) for charging only
Power Button (On / Off)	Press and hold for **5 sec** to power On/Off Explore 2000.
Power Button (Enable / Disable Log mode)	After power on Explore 2000, press and hold for **1 sec** to enable/disable log mode. Then Explore 2000 would start/stop logging and the log indicator would appear/disappear.
LCD Backlight Button (On / Off)	After power on Explore 2000, press and hold for **1 sec** to enable/disable LCD backlight.
Tool Button -Distance Unit Switch (Metric / Imperial)	After power on Explore 2000, press and hold for **1 sec** to switch between two distance unit
Tool Button - Reset Measurement	After power on Explore 2000, press and hold for **5 sec** to reset measurement value: Odometer, Timer, and Average Speed

Note: The measurement value will be saved even when the device is turned off. Only after you reset it by pressing Reset Measurement button will its value be erased.

- **Change Time Zone:**

When the device is under off status, press and hold both **Power** and **Tool** buttons until it's powered on. Then the "Time" will start to flash. Press **Power** button to select time zone. The number 00-23 is one way circling. Press **LCD Backlight** button to save the time zone setting.

Time Zone (GMT)	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	+11	+12
Device Setting	00	01	02	03	04	05	06	07	08	09	10	11	12

Please refer to the conversion chart below when your time zone is with negative value.

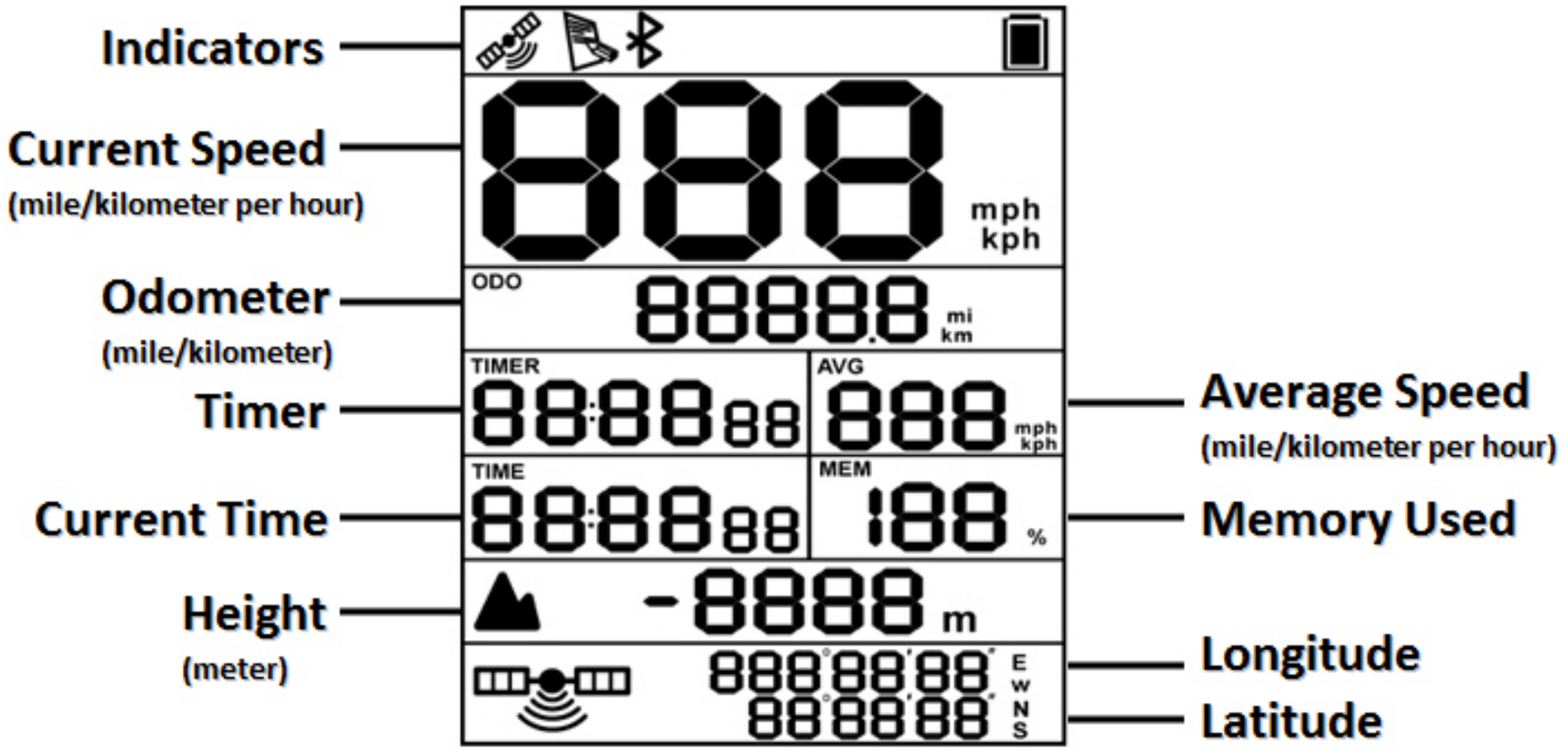
Time Zone (GMT)	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11
Device Setting	23	22	21	20	19	18	17	16	15	14	13

Note: The device time zone setting is for LCD on-screen display only and will not affect log data. Log data are all recorded as standard GMT+0 and can be changed in accordance with your local time after loading to SW.

5-3. LCD Screen

Icon Indicators:

	GPS not Fix		**Bluetooth Connected**
	GPS Fix	**(Flash)**	**Low Battery**
	Log Mode Enabled		**Battery Full**

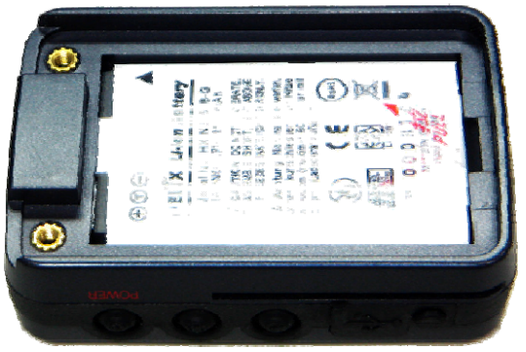


Timer: Timer will only measure the moving time. Your stop time will be eliminated.
Average Speed: Average Speed will show the Moving Average Speed eliminating stop time.
Current Time: It will show the local time depending on hardware time zone setting.

5-4. Battery installation

1. Use a screwdriver to loosen both screws on the battery cover.

2. Pull out the battery cover. Insert battery into the unit



3. Put weatherproof rubber on the cabinet first and then put battery cover on it.

4. Then push down and force it forward to fit firmly

5. Use a screwdriver again to lock both screws.

- Charging your battery

For the first time using the Explore 2000, please charge battery until it is fully charged. Take the power cable and connect it to the power jack (mini USB type) and recharge through USB cable, travel charger, or car cigarette adaptor. This will begin to charge the battery. Charging time is about 3 hours typically.

- When the Battery indicator starts to flash, battery power is in low status. Please recharge.
- When the battery charge LED is on, the battery is under charging mode.
- When the battery charge LED is off, the battery is fully charged.

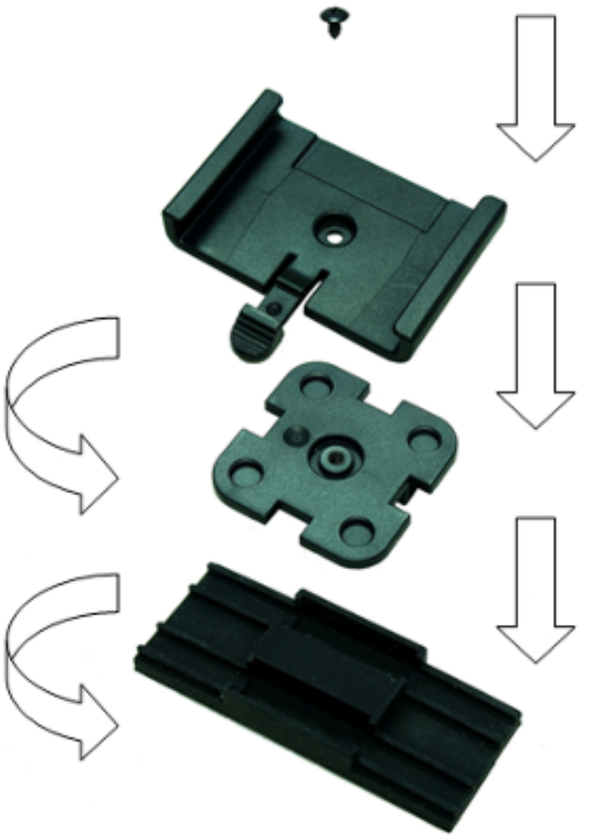
NOTE 1: During charging under off status, the device is unable to be turned on. If you wish to use the device during charging, please turn on the device before plug in the mini USB cable.

NOTE 2: During charging under on status, the Bluetooth function is disabled. If you wish to use Bluetooth connection, please unplug the mini USB cable.

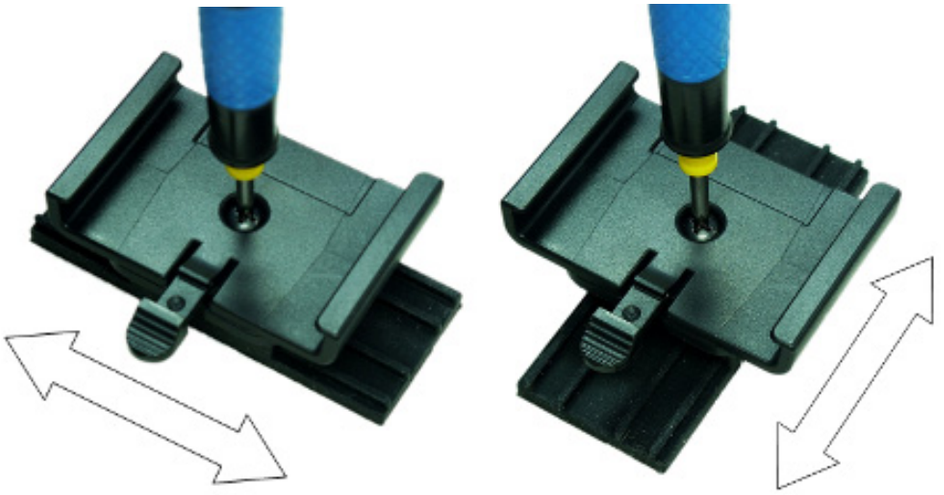
NOTE 3: Please recharge the battery on a regular interval if the unit is not used for a long time.

5-5. Bike Mount installation

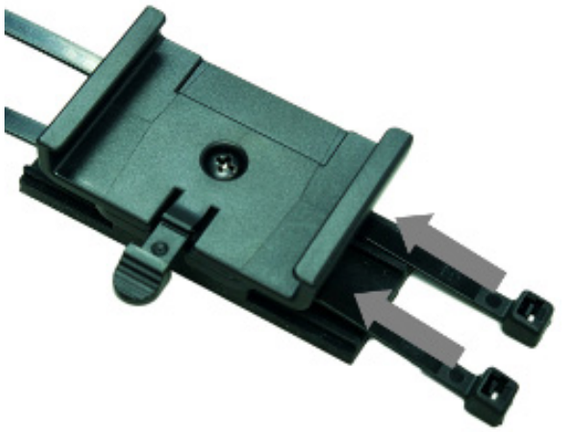
1. Put screw, bracket holder, bracket, and rubber together. Change the direction of bracket and rubber in accordance with the direction of your bike stem which is ready to be mounted.



2. Use a screwdriver to tighten the screw.



3. Thread both cable ties through the slots of bracket.



4. Attach the bike mount to bike stem and tighten the cable ties.

5. Slide in the GPS from the top of bike holder until it snaps.

6. Setup Explore 2000

6-1. Install the driver and software utility for Explore 2000

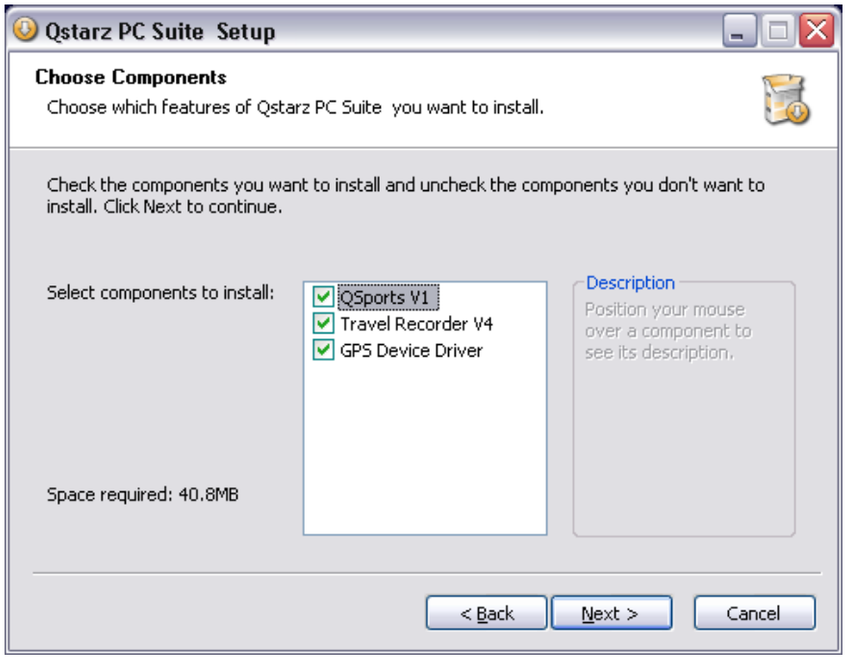
System Requirement (Only compatible with Microsoft Windows XP / Vista)

Minimum System Requirement	Recommended System Requirement
- Windows XP or Vista - Pentium 3, 500Mhz - 128M RAM - 128MB disk space - Network speed: 128Kbits/sec - 3D-capable video card with 16Mbytes of VRAM - 800x600, "16-bit High Color" screen	- Windows XP - Pentium 4 2.4GHz+ or AMD 2400xp+ - 512M RAM - 2 GB of free disk space - Network speed: 768 Kbits/sec or better (DSL/Cable) - 3D-capable video card with 32 MB of VRAM or greater - 1280x1024, "32-bit True Color" screen

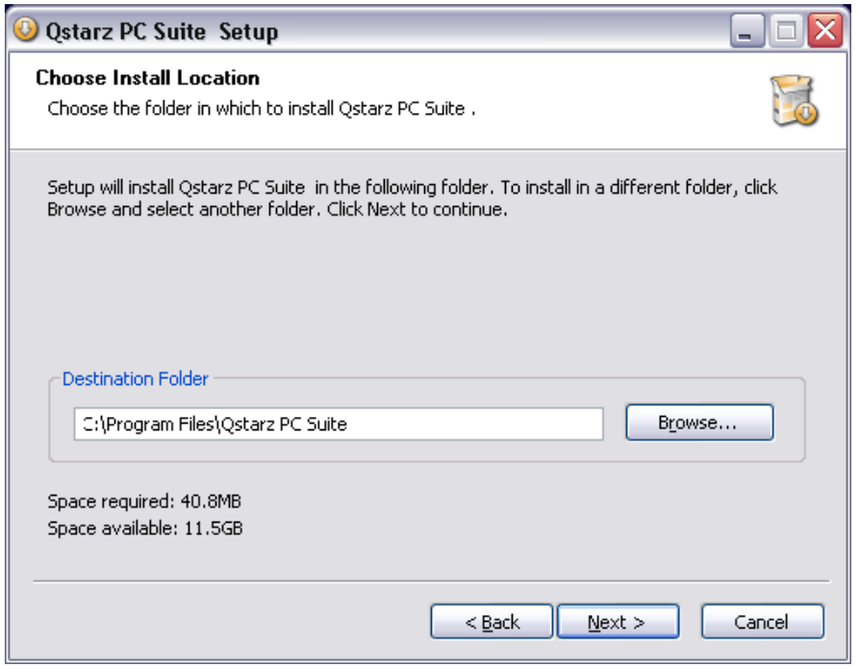
1. Please insert the software CD to your computer, and find the folder “Utility\Qstarz PC Suite\”. Double click “Qstarz_PC_Suite_installer.exe” to install the software utility package. This software package contains USB driver, PC Utility V4, and QSports™ inside.

2. System would pop up the utility installation dialog. Please click <Next> for the next step.

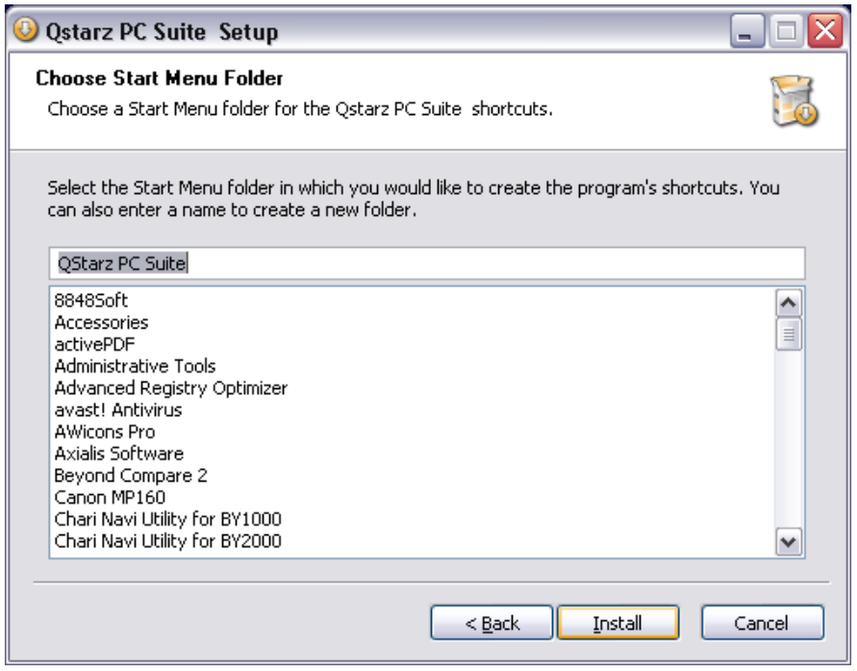
3. Please select “QSports” “Travel Recorder V4” “GPS Device Driver”, and then click <Next> to the next step.



4. Click <Next> if you want to install the program in default target folder or you can click <Browse> to change the install folder.



5. Give a folder's name for quick links in start menu and click <Install> to install the program.



6. When the utility installation is completed, please click <Finish> to reboot. Or you can also reboot later by selecting "No, I want to reboot later by myself."

6-2. Install Google Earth

Explore 2000 supports showing your travel path directly on Google Earth. Please go to http://earth.google.com for the free download of Google Earth, and then install it to your computer. For the operation procedure of Google Earth, please refer to http://earth.google.com/support/

7. Start to use

7-1. Fully charge the battery when using at the first time

A fully charged battery can last up to 20 hours continuously operation.

7-2. Connect Explore 2000 with your PC

1. Power on Explore 2000.

2. Connect Explore 2000 with your PC by mini USB cable.

7-3. Start the software utility

NOTE: PC Utility V4 and QSports™ only support Explore 2000. Any intention to use PC Utility V4 and QSports™ connecting GPS units other than Explore 2000 would result in software disconnection automatically.

For more software instructions, please refer to the software user's manual in software CD or at Help -> Users Manual after software installation.

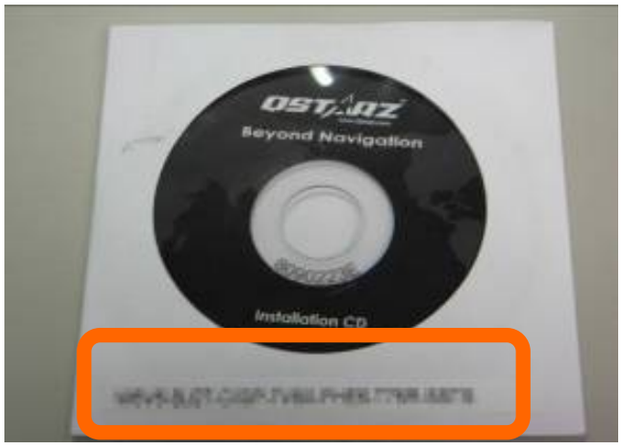
QSports™:

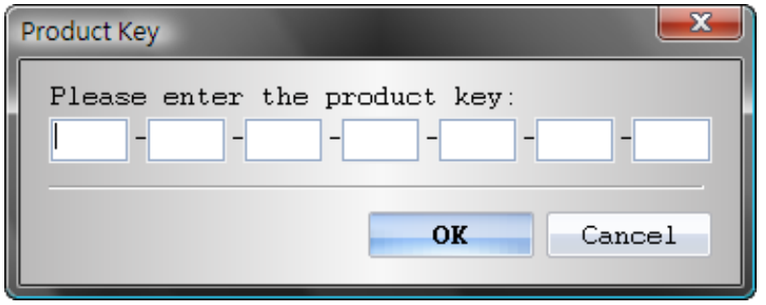
QSports™ is software with database structure

QSports™ can record, manage, and analyze all your daily/weekly/monthly activities with various sports gear such as Cycling, Running, Jogging, Climbing, Skiing, etc. Train yourself by means of QSports™ statistics to have good health control. Different sport gear will generate corresponding category for better management and analysis.

1. Click from <Start> / <All Programs> / <Qstarz PC Suite> / QSports

Users have to input product key at the first time of use. **The product key is located on the cover of the software CD.**





Important Notice: Do not lose your Product Key. Keep the packaging, or write the number down and keep it in a safe place.

2. Add New User

QSports™ supports multiple users. User information includes “User Name”, Gender, Birth Date, and Weight. In order to get correct calories calculation, please fill in the correct personal data.

3. <File> \ < Import Wizard >

Import Wizard can guide you to load the tracks from GPS device easily.

- **3.1** Select default “Sport Type”. QSports will create tracks with the default sport type, and users can change the sport type after import.
- **3.2** PC Utility will automatically detect the COM port and baud rate and load in the GPS tracks.

NOTE: Make sure to Power on GPS unit first before connecting with computer for downloading tracks.

4. <File> \ <Export Wizard>

Export Wizard can guide you to proceed export process easily.

4.1 **HTML:** Pack selected tracks and photos into editable html files or a single easy sharing mht file.

4.2 **Google Earth:** KML and KMZ are Google Earth files formats.
KML file contains detail waypoints and tracks info.
KMZ file contains both simple track and photos info.

4.3 **Track File:** Export tracks and placemarks as GPX, NMEA, and CSV file formats.

Travel Recorder™ PC Utility V4:

PC Utility V4 is the best Geotagging software to integrating your travel track and photo together easily. Support track editing, playback, and import/export Wizard.

1. Click from <Start> / <All Programs> / <Qstarz PC Suite> / Travel Recorder

Users have to input product key at the first time of use. **The product key is located on the cover of the software CD.**

2. <File> \ < Import Wizard >

Import Wizard can guide you to proceed the Geotag process easily.

2.1 The Import Wizard will jump out every time during program startup. You can also launch it by clicking <File> \ <Import Wizard> or the quick link icon.

2.2 PC Utility will automatically detect the com port and baud rate and load in the GPS tracks.

2.3 A track list window will be popped up. Select the tracks to import.

2.4 Please select the photo folder to import photos for geotag. You can also skip this step by clicking <Finish> directly and then there will be only tracks shown on Google Map.

NOTE: Make sure to Power on GPS unit first before connecting with computer for downloading tracks.

3. <File> \ <Export Wizard>

Export Wizard can guide you to proceed export process easily.

3.1 **HTML:** Pack selected tracks and photos into editable html files or a single easy sharing mht file.

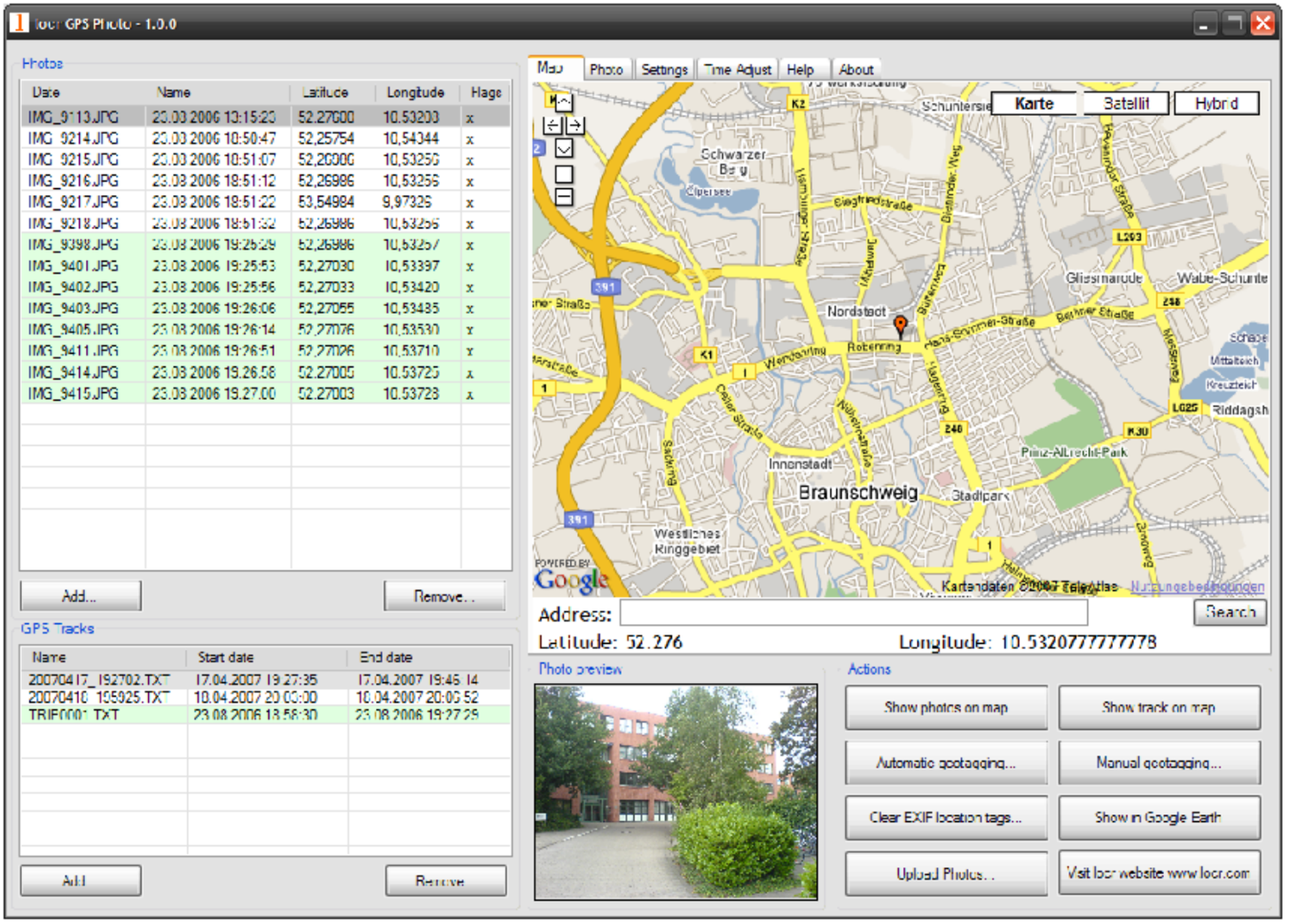
3.2 **Google Earth:** KML and KMZ are Google Earth files formats.
KML file contains detail waypoints and tracks info.
KMZ file contains both simple track and photos info.

3.3 **Track File:** Export tracks and placemarks as GPX, NMEA, and CSV file formats.

8. Useful reference Applications on internet

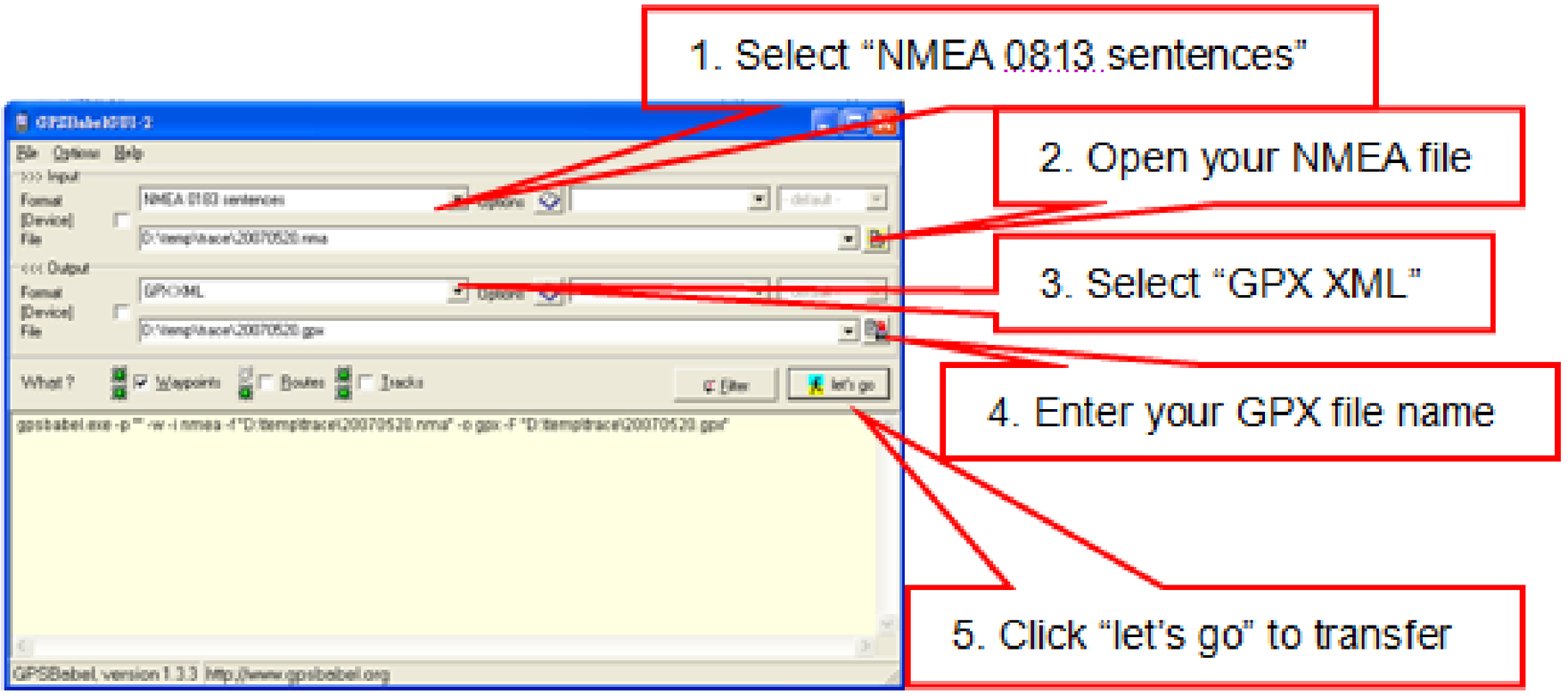
8-1. locr GPS Photo

Explore 2000 is the member of locr GPS Photo certified product. This utility can integrate travel log and digital photos by date/time to show your photos on the map directly. After the integration, the current GPS coordinates also can be imported to your digital photos for the further application. Please find the installation file for Windows XP/Vista or Symbian system in Qstarz software CD. Go to http://www.locr.com for the further information.



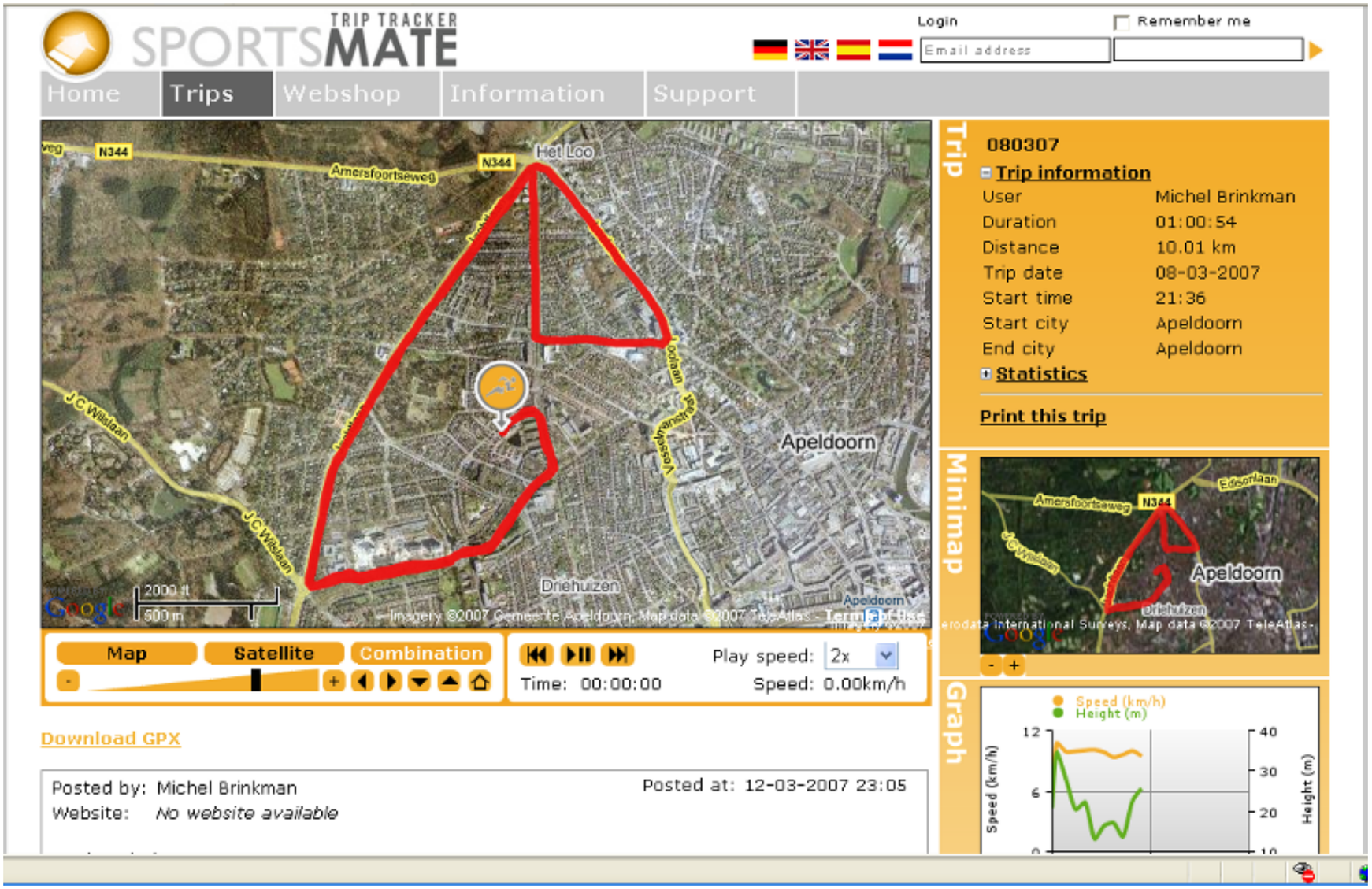
8-2. GPSBabel

This utility can transfer your NMEA file to GPX file or other format. Please go to http://www.gpsbabel.org for free download.



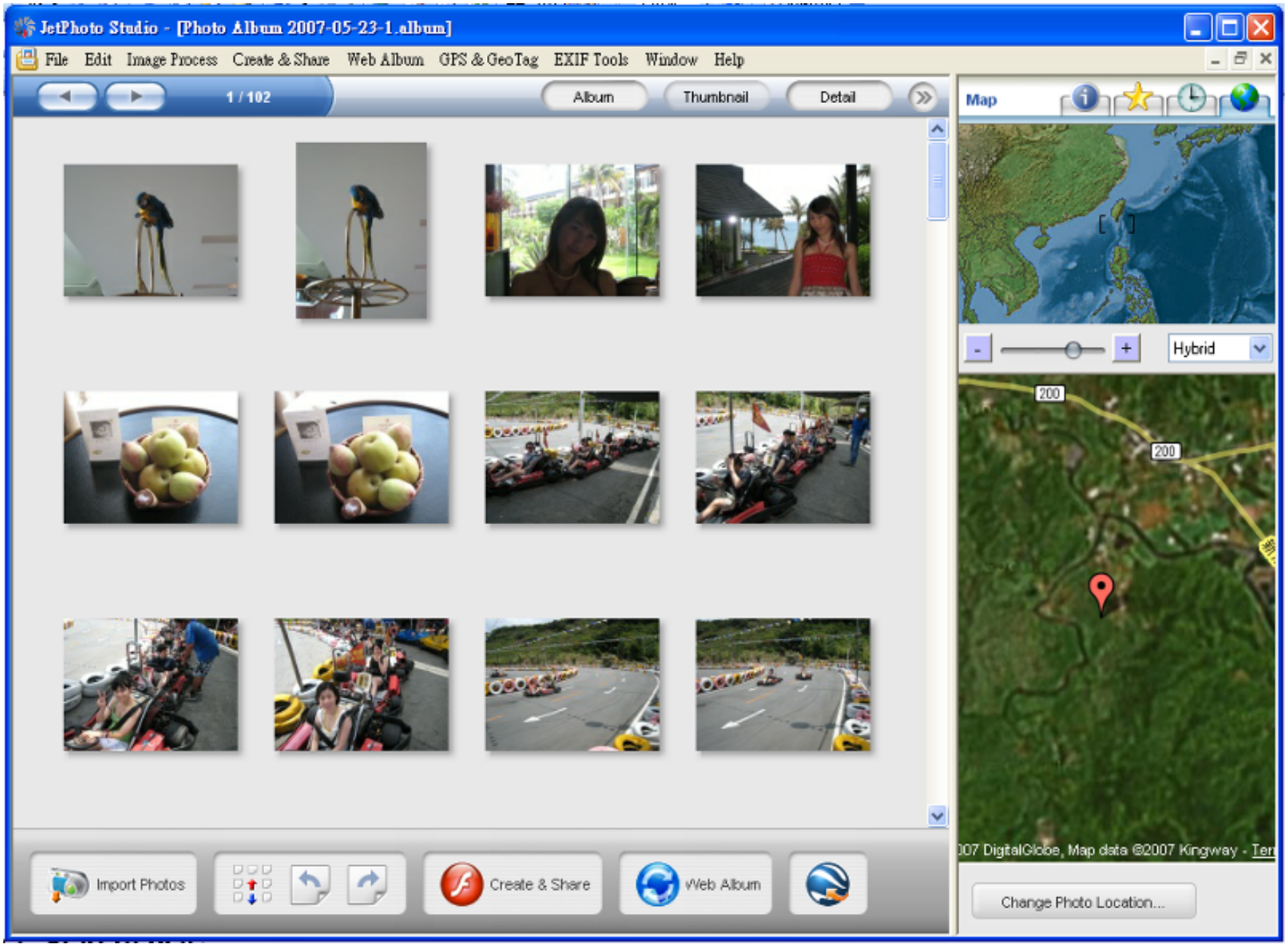
8-3. SPORTSMATE

This web site can share your travel log with your friends. Before sharing your trip, please apply a new account first. Please go to http://www.ttsm.com for the further information.



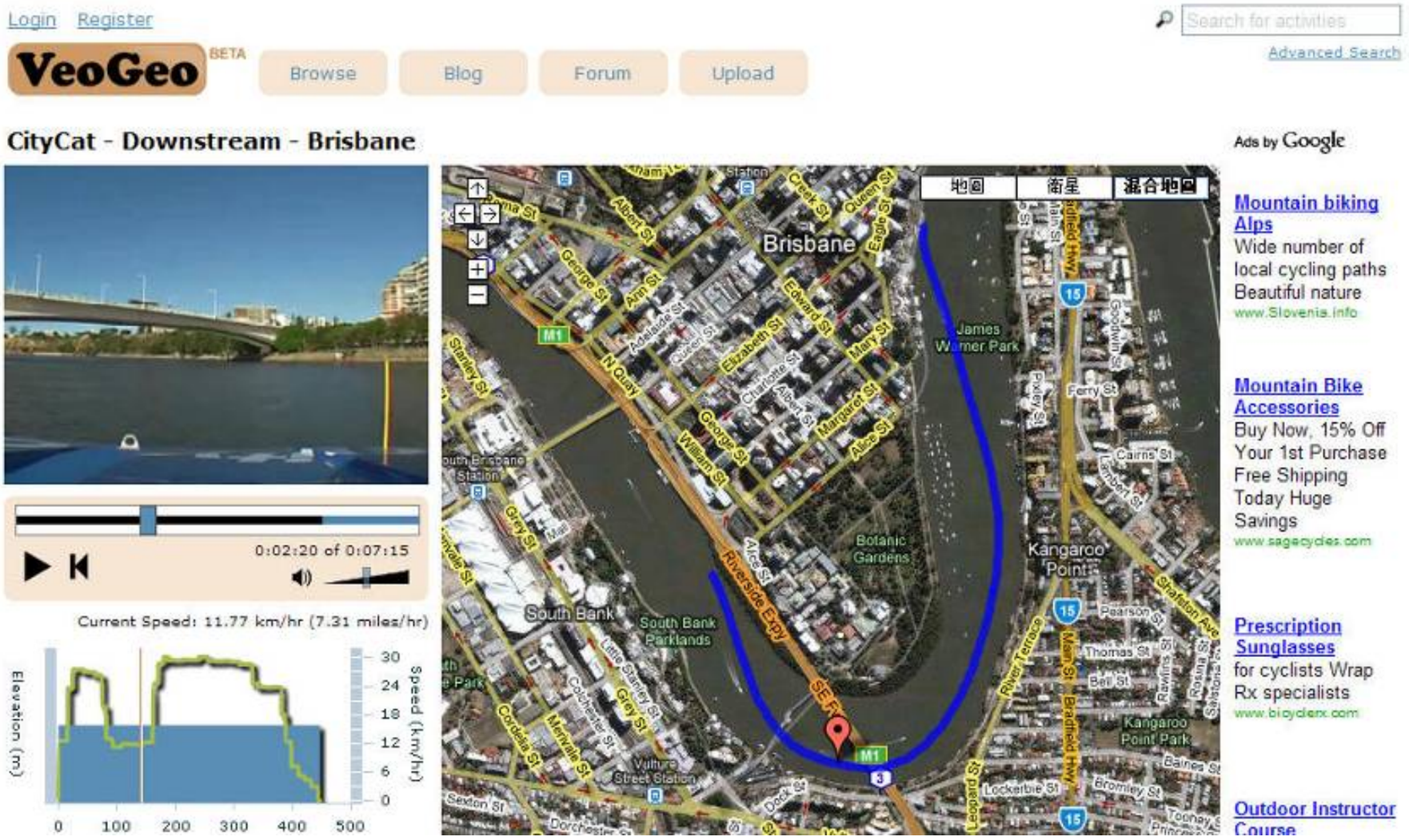
8-4. JetPhoto Studio

This utility can integrate travel log and digital photos by date/time to show your photos on the map directly. After the integration, the current GPS coordinates also can be imported to your digital photos for the further application. Please go to http://www.jetphotosoft.com for free download.



8-5. VeoGeo

This website allows you to combine travel log and video by date/time to show your video on the map directly. Please go to www.veogeo.com for further information and register for a free new account.



9. Trouble Shooting

Question	Answer
Can Explore 2000 be used to navigate when travel log is on?	Yes, you can use Explore 2000 to navigate when travel log is on simultaneously.
Does Explore 2000 have G-mouse function?	Explore 2000 doesn’t have G-mouse function. The only way to use it for navigation is though Bluetooth interface.
My device acts abnormally. Is there any way to reset it?	Please take out the battery over 5 mins to reset the device.

10. Appendix

Navigate as a *Bluetooth* GPS Receiver with Handheld devices

10-1. Activate the *Bluetooth* function in your PDA/Smart phone or PC

Before activating the *Bluetooth* function in your PDA/PC, please switch Explore 2000 on for paring and check if your device is equipped with *Bluetooth* function. If not, you may need to acquire an optional CF/SD *Bluetooth* card or *Bluetooth* dongle.

NOTE 1: Explore 2000 would be identified as "Qstarz GPS" under Bluetooth Manager. In further use, you just need to click it to connect.

NOTE 2: The pairing procedure is required to execute in the first time only. And the pass code is "0000" if required.

NOTE 3: Select correct com port and baud rate: 4,800~38,400 under your navigation software (Most of navigation software can auto-detect Bluetooth Com port, so you do not need to setup manually).

10-2. Create *Bluetooth* Setting (Windows Mobile 5/6 for Pocket PC)

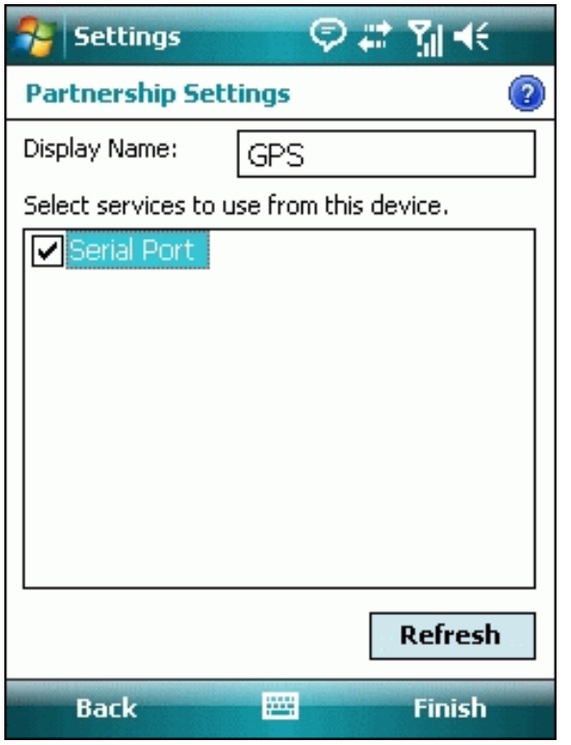
1. Switch on **Explore 2000**.

2. From the **Start** menu, click **Settings**. On the **Connections** tab, click the *Bluetooth* icon

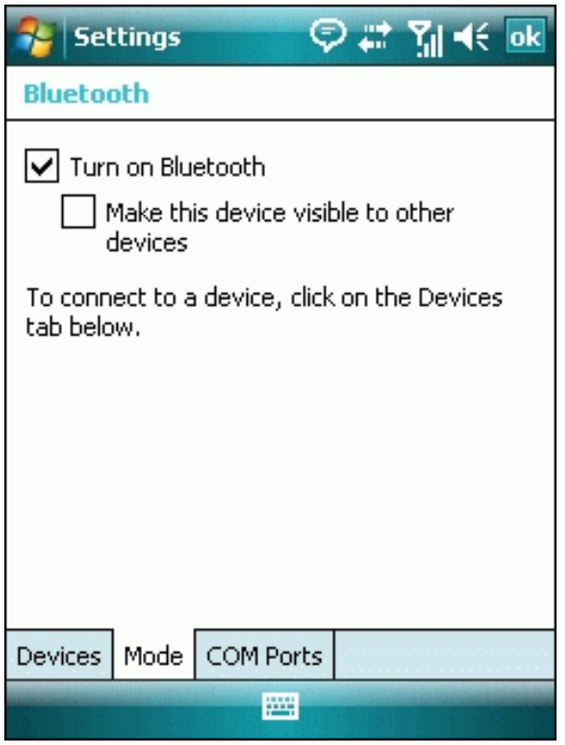
3. On the **Devices** tab, click **Add New Device…** The settings application will search for your device. When it is found, click **Next.**

4. Enter the passcode “0000” and click **Next.**

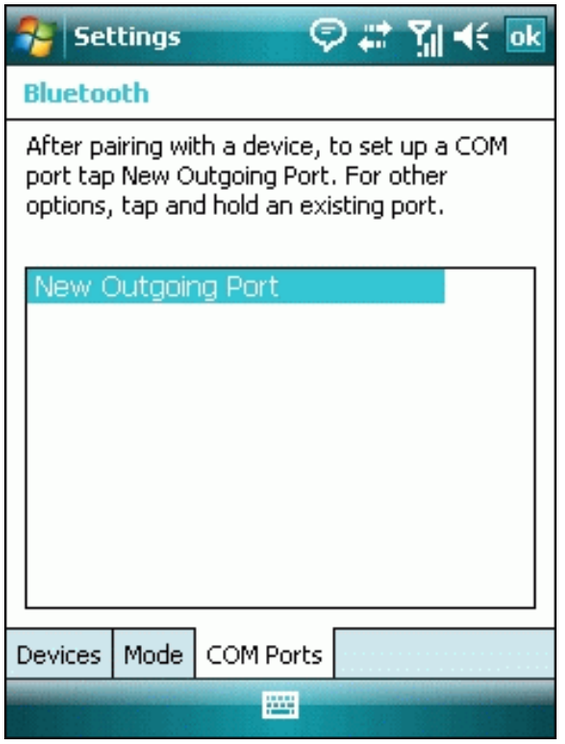
5. On the **Partnership Settings** screen, select **Serial Port** and click **Next**



6. Select the **Mode** tab and check the **Turn on *Bluetooth*** checkbox if it is not already checked.



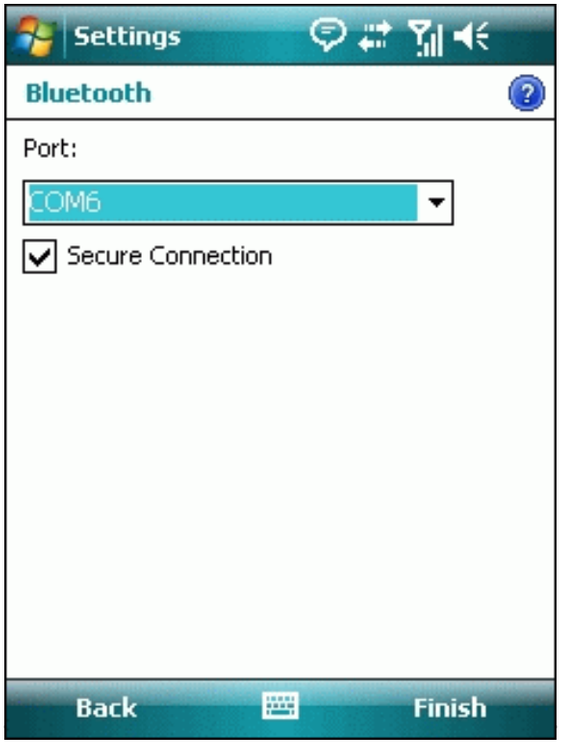
7. Select the **COM Ports** tab and click **New Outgoing Port**



8. Select “Qstarz GPS” from the **Add a Device** list and click **Next**

9. Uncheck **Secure Connection**. From the **Port** drop-down list, select a port number. Remember the port you choose. You will need it when you configure the GPS Intermediate Driver.

10. Click **Finish** and exit the *Bluetooth* Control Panel item.

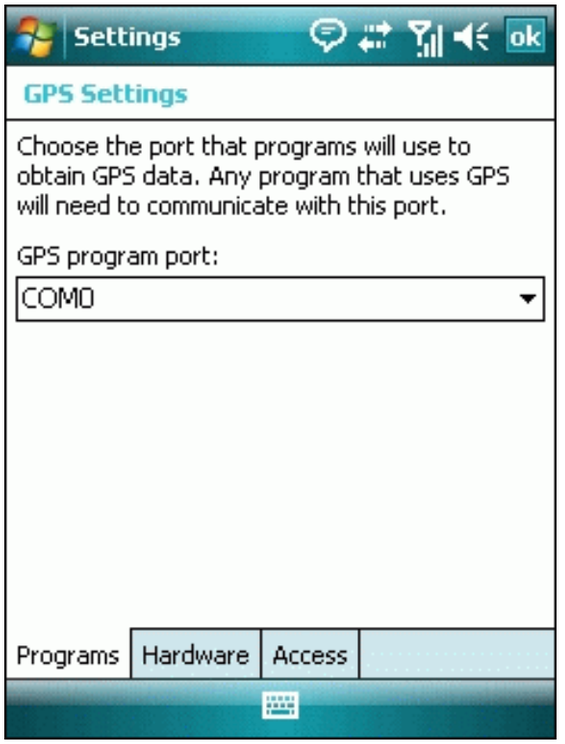


10-3. Configure the GPS Intermediate Driver

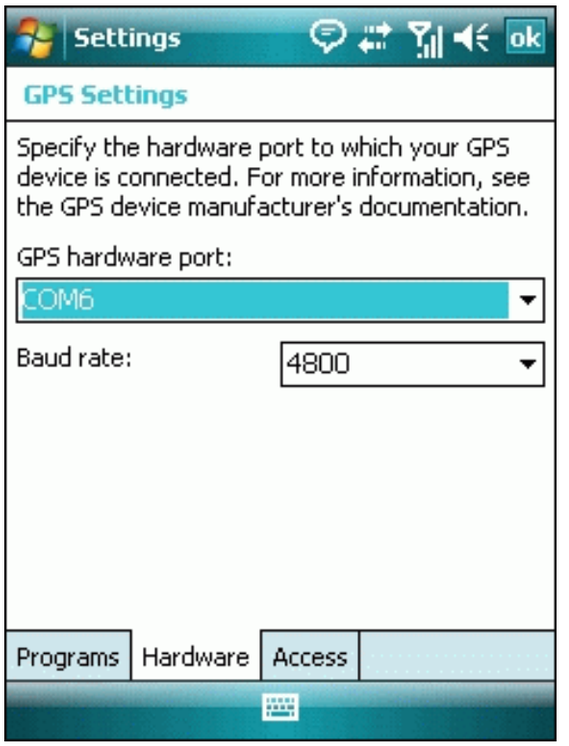
The GPS Intermediate Driver is a software layer between a Windows Mobile application and the GPS hardware drivers. This allows applications to work with a variety of GPS hardware. The GPS Intermediate Driver uses the registry to determine what COM port should be used to communicate with the GPS hardware. The recommended way to configure the registry to work with your GPS device is the GPS Settings icon

1. From the **Start** menu, click **Settings**. On the **System** tab, click the **External GPS** icon. On some devices, this item has a different name.

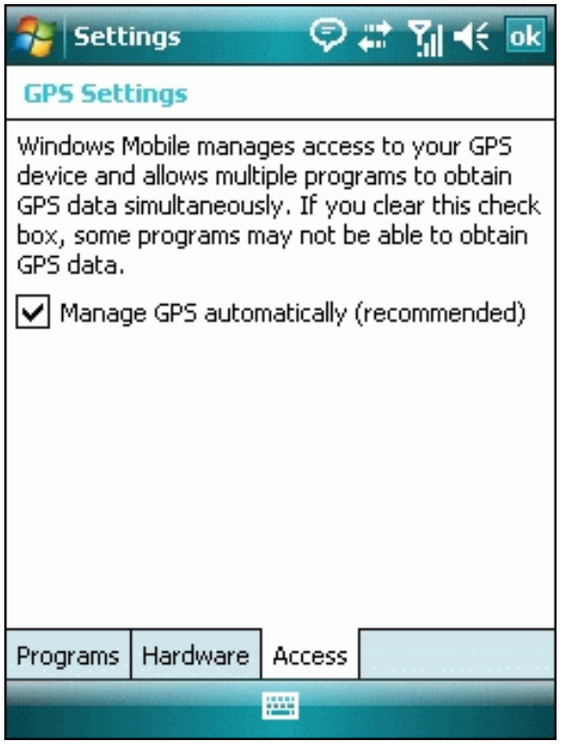
2. On the **Programs** tab, select any available COM port from the **GPS Program Port** drop-down list. The GPS data sent through the GPS Intermediate Driver is streamed to applications through this port. This should not be the same port that your GPS receiver is configured to use. If your application can't receive GPS data stream, leave **GPS Program Port** for empty. Applications will use **GPS Hardware Port** as communication port.



3. On the **Hardware** tab, select the COM port Explore 2000 is configured to use from the **GPS Hardware Port** drop-down list



4. On the **Access** tab, make sure that the **Manage GPS Automatically** checkbox is checked



10-4. Start your navigation software

Activate your navigation software and make sure to select the correct “COM Port”.

NOTE 1: In the map software such as TomTom, you might need to change preference and set “Other Bluetooth GPS Device” according to PDA/phone model. In some case please consult map software company to vary the setting if you have issue on positioning.

NOTE 2: There might be specific setting requirement per navigation software. Such as Tomtom, please delete other GPS settings under Tomtom software, and keep one only.

10-5. Safety Notices

R&TTE / CE Notice

This device is confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (89/336/EEC), Low-voltage Directive (73/23/EEC) and the Amendment Directive(93/68/EEC), the procedures given in European Council Directive 99/5/EC and 89/336/EEC.

The equipment was passed. The test was performed according to the following European standards:
EN 300 328-2 V.1.2.1 (2001-08)
EN 301 489-1 V.1.4.1 (2002-04) / EN 301 489-17 V.1.2.1 (2002-04)
EN 50371: 2002
EN 60950: 2000

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Spec. is subject to change without prior notice.
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