QTravel

QTravel

User's Manual

Contents

Important Notice

Qstarz QTravel™ can't be opened with Qstarz Travel Recorder PC Utility V3 simultaneously. Please execute either one of both or the program may experience unstable status.

If you use V3 software to configure the log contents, please make sure to select the options below: Date/Time, Valid, Latitude, Longitude, RCR. Unselect either one of these will result in fail loading log data in QTravel™ software and fail drawing tracks on Google Map/Earth.

System Requirement

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

Users have to input product key at the first time of use. **The product key is located on the envelope of the driver CD.**
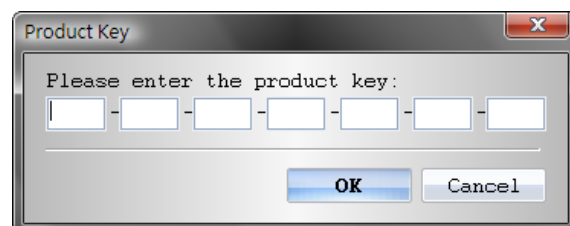
1. <Database>

QTravel™ adopts database structure to manage the trip data. The history trips will be organized under trip trees. Perform the function below trips tree to edit trips in database.

2. <QTray>

After installation successfully, the QTray will appear on task bar and detect any connection of compatible Qstarz products. Once it detects any compatible Qstarz product, it will open the QTravel™ automatically. You can stop the monitor function by right click on QTray icon and select "Stop monitor USB port."
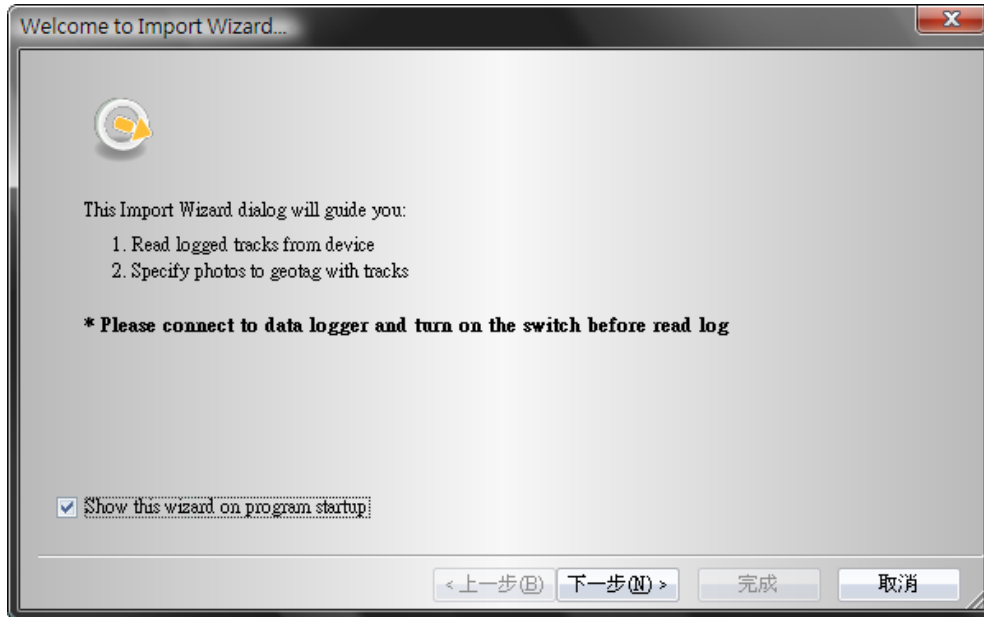

* QTray is only compatible with Qstarz products with MTK based solution.

3. \<File> \ \<Import Wizard>

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

3.1 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.

3.2 Select the way you want to import the tracks to database. You can create a new trip or import into existed trip. Import from project file (*.itm) allows you to import itm file created by Travel Recorder SW.
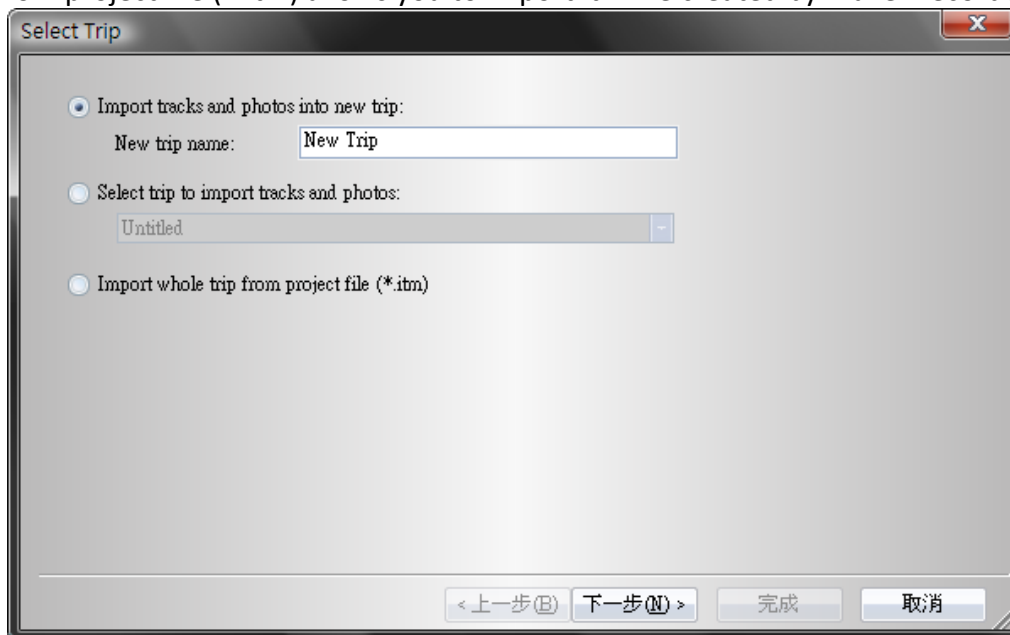
3.3 QTravel™ will automatically detect the com port and baud rate and load in the GPS tracks.
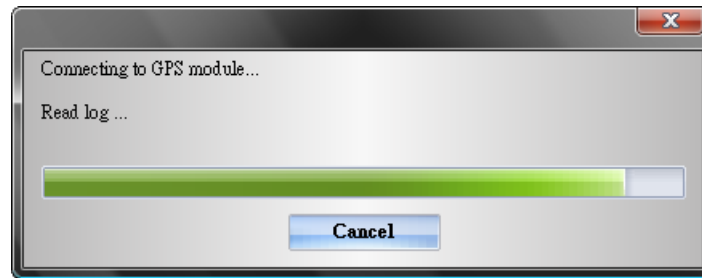

If download proccess doesn't work well, please pull USB port out of Travel Recorder, turn off-on, and plug it in again to make connection.

You may also try to manually select com port to get more stable connection. Please refer to "**3.1 Connection Setting**."

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

<Remove Drift Points> Select this option if you want the program to remove all drift points of all tracks automatically. Or you can manually perform this Drift-Filter function later at Tracck List.
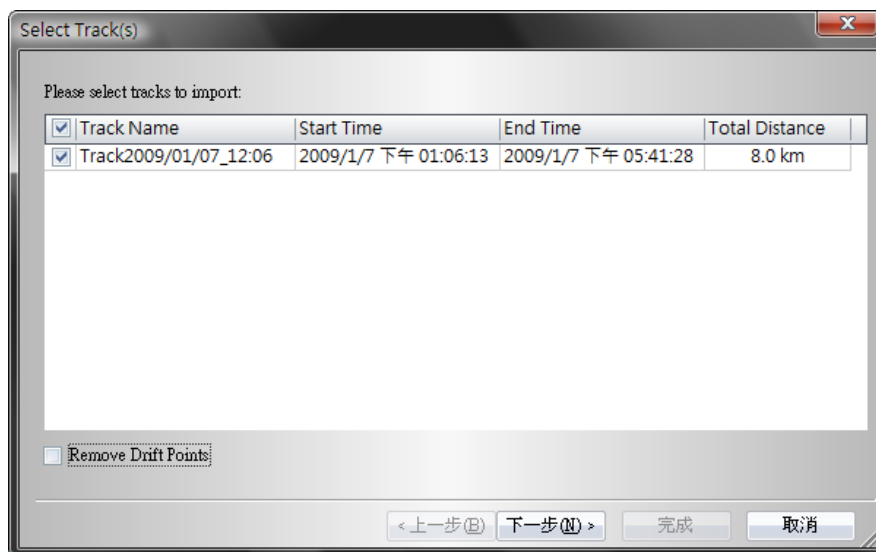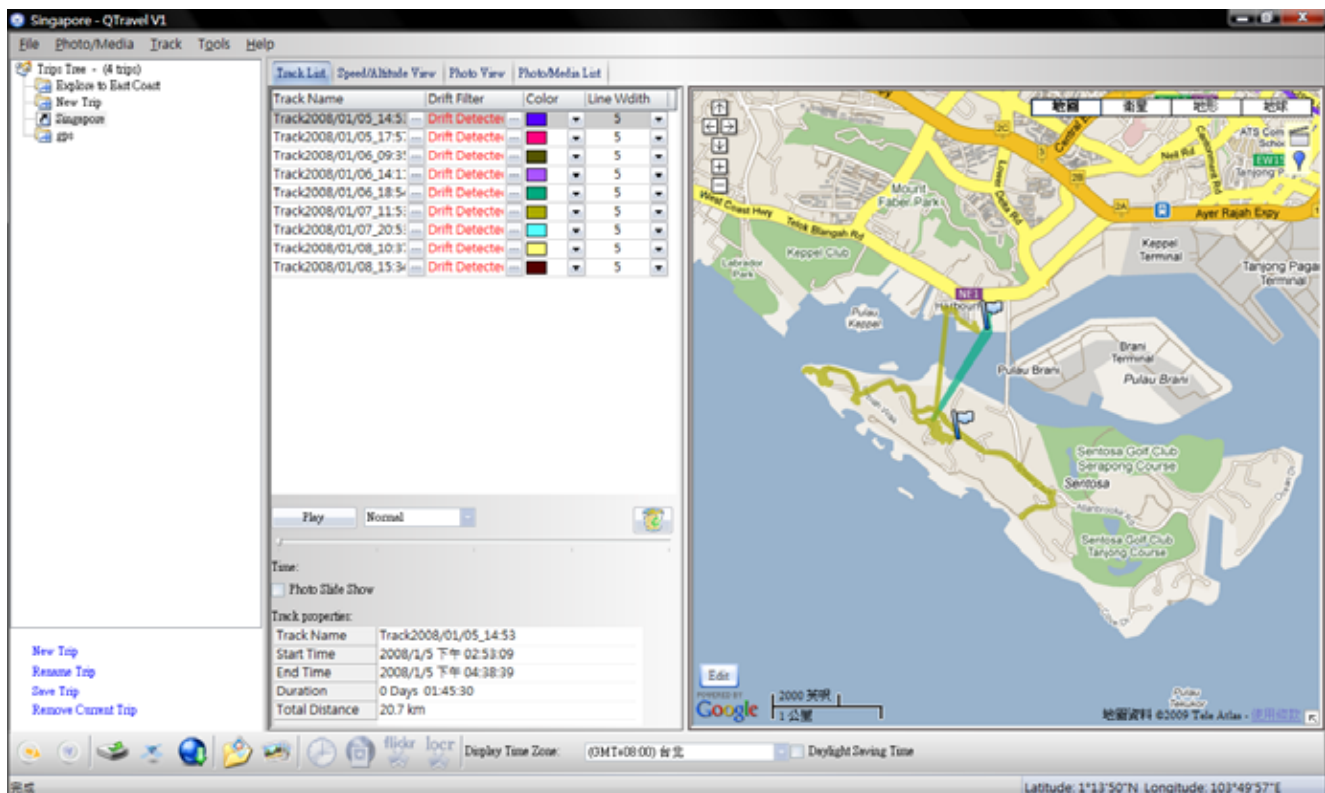

3.5 Please select the photo folder to import photos for geotag. You can also skip this step by clicking <Finish> directly and then there will be only tracks shown on Google Map.

<Write GPS info into photos> unselect this option if you are not willing to let program geotag automatically after import photos.
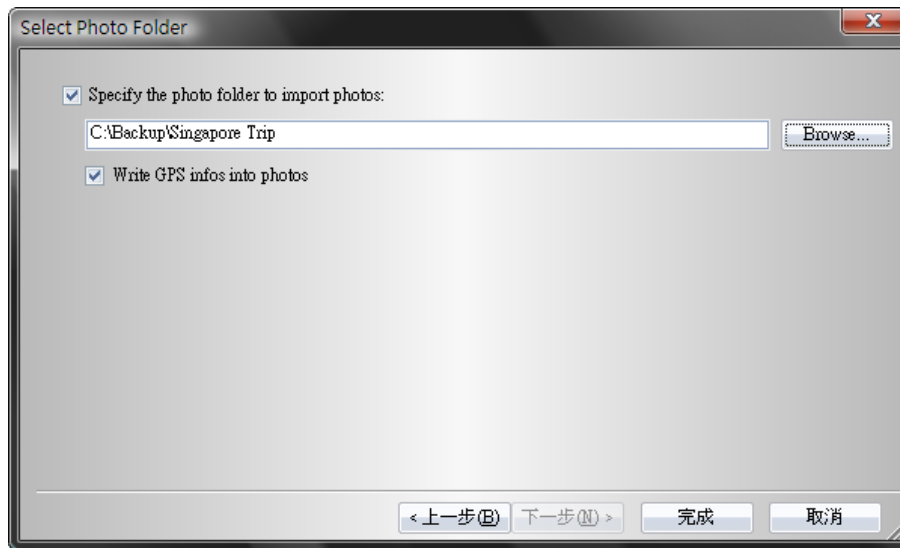
3.6 Tracks and photos will be shown on the Google Map window.
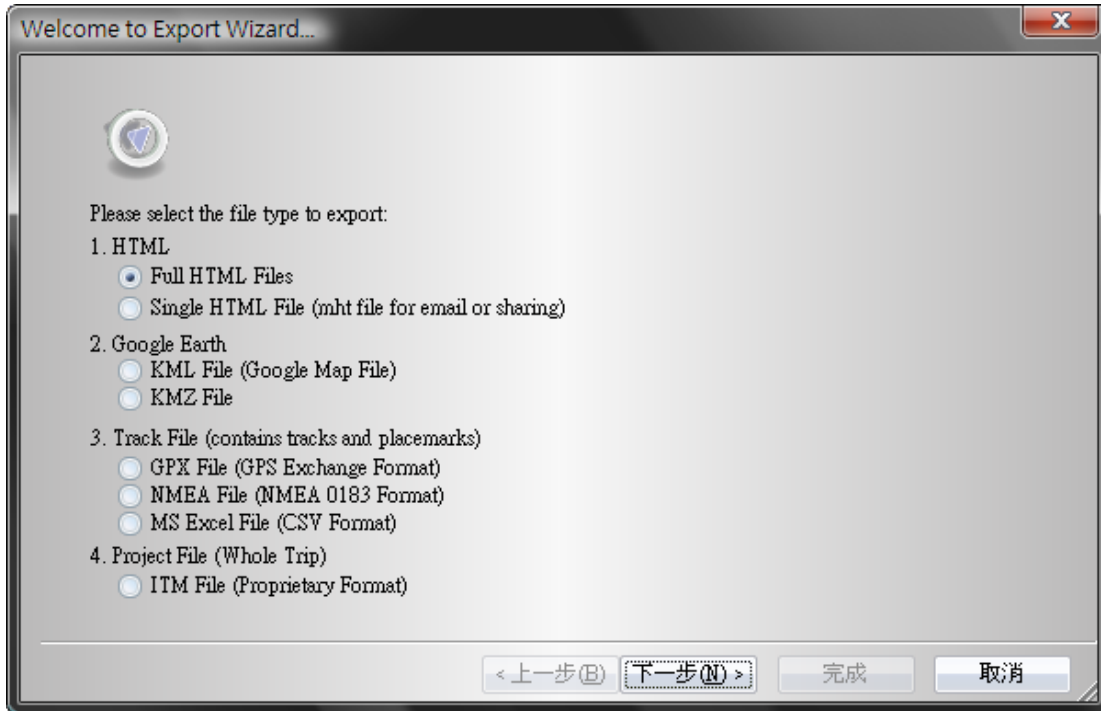
4. <File> \ <Export Wizard>

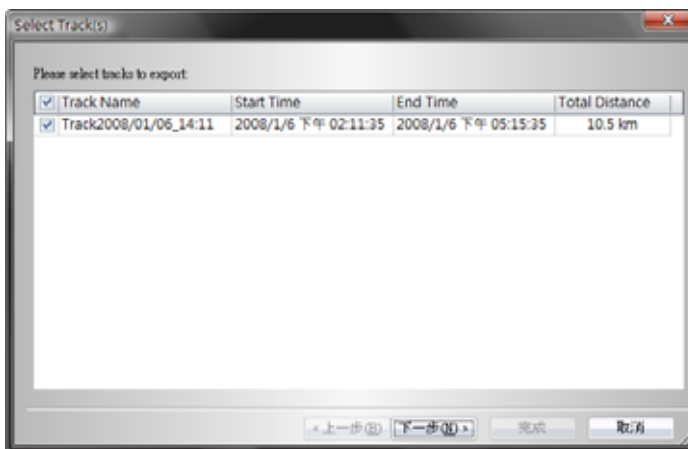Export Wizard can guide you to proceed export process easily.

Select the export file type and then press <Next>

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

Select the tracks and photos you wish to export.

A preview window will appear. After confirm the export result, please <Next> to invoke save dialog to save the file.
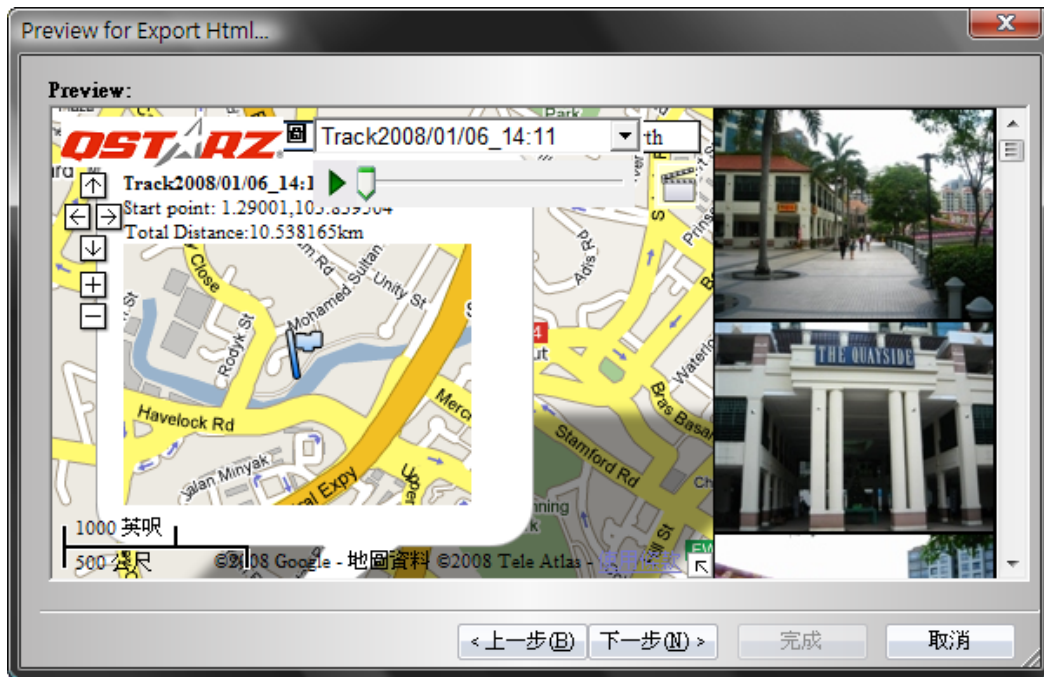
The exported file can be opened easily by Microsoft Internet Explorer or other web browsers.
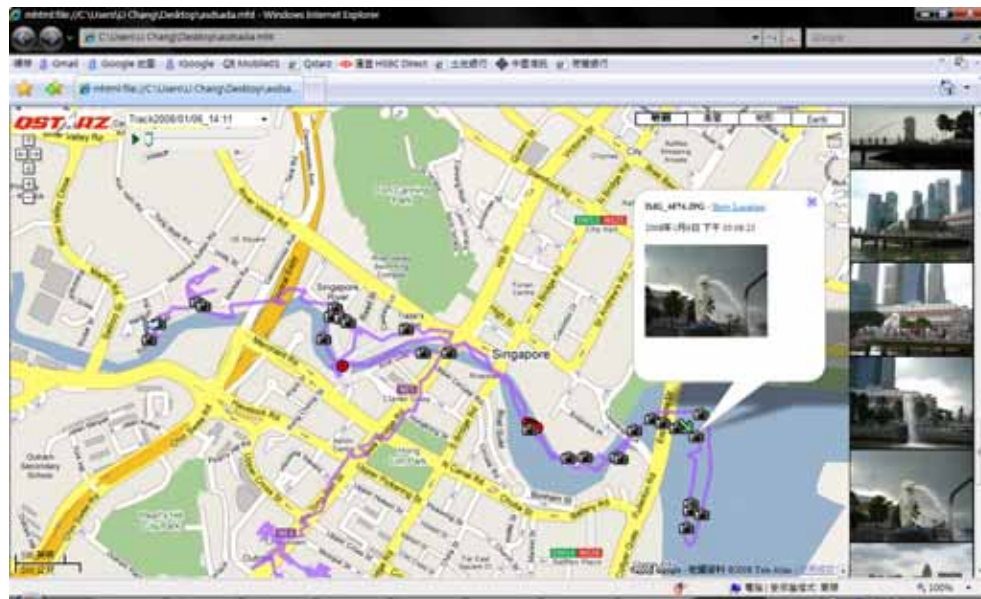
4.2 Google Earth
KML and KMZ are Google Earth files formats.

KML file contains detail waypoints and tracks info.
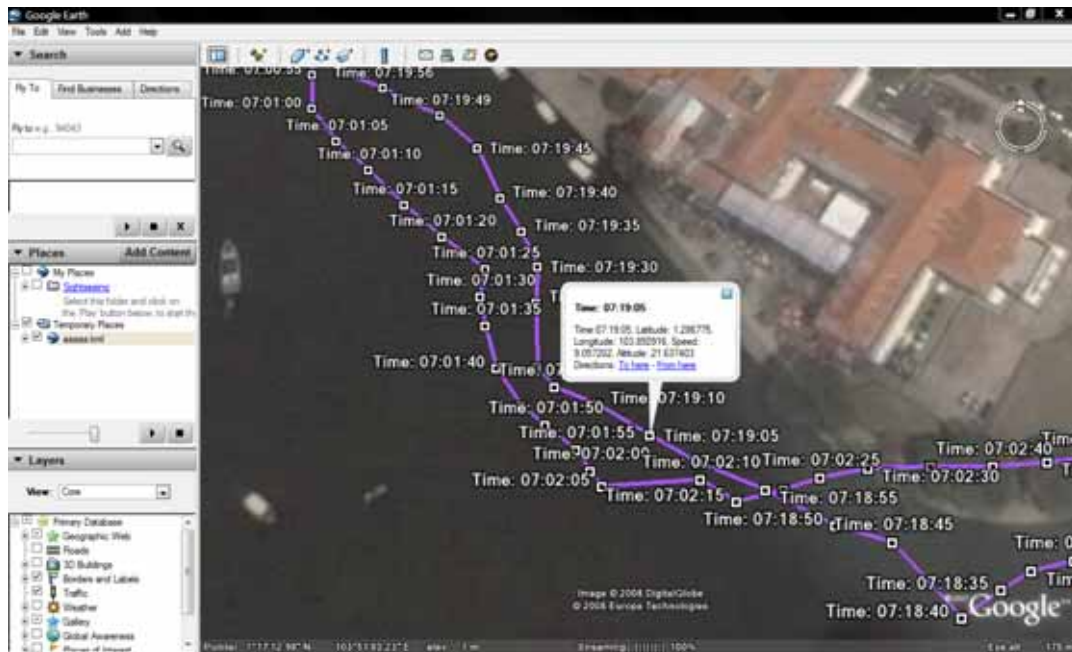
KMZ file contains both simple track and photos info.
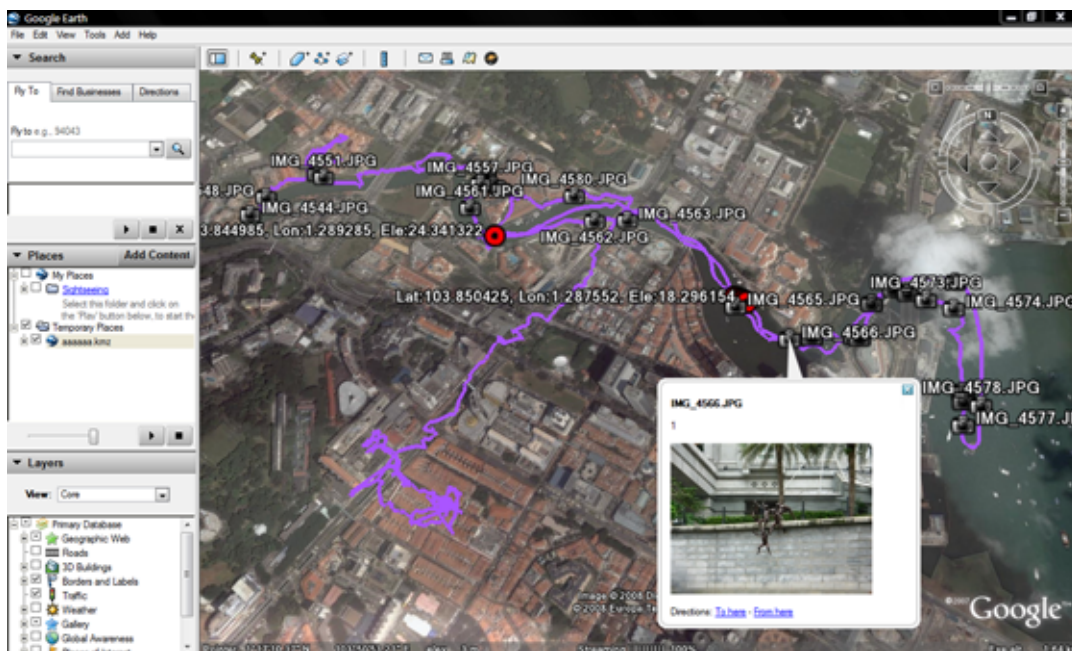
4.3 Track File
Export tracks and placemarks as GPX, NMEA, and CSV file formats.

4.4 Project File
Export tracks and photos as project file for Travel Recorder SW.

5. <File> \ <Read Log>

Download the log data from Travel Recorder.

6. <File> \ <Clear Log>

Clear the data stored in the Travel Recorder.

7. <File> \ <Config GPS>

Configure the recording method of the flash memory of Travel Recorder.

7.1 Connection Setting

I. Auto Scan GPS Module (Recommended)

The program will automatically detect the com port. It is recommended to set to auto scan. However, if you connect the device by Bluetooth interface, please use manually select the connection com port. The program is unable to detect com port made by Bluetooth.
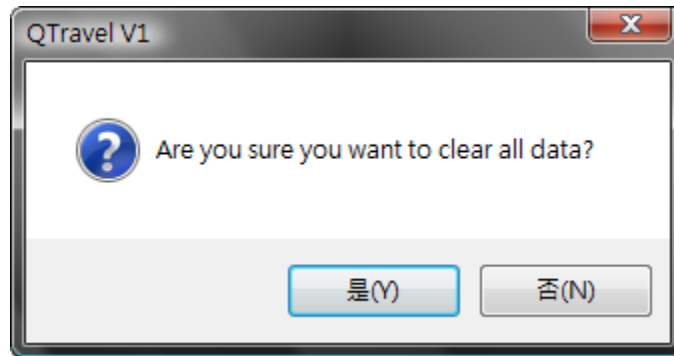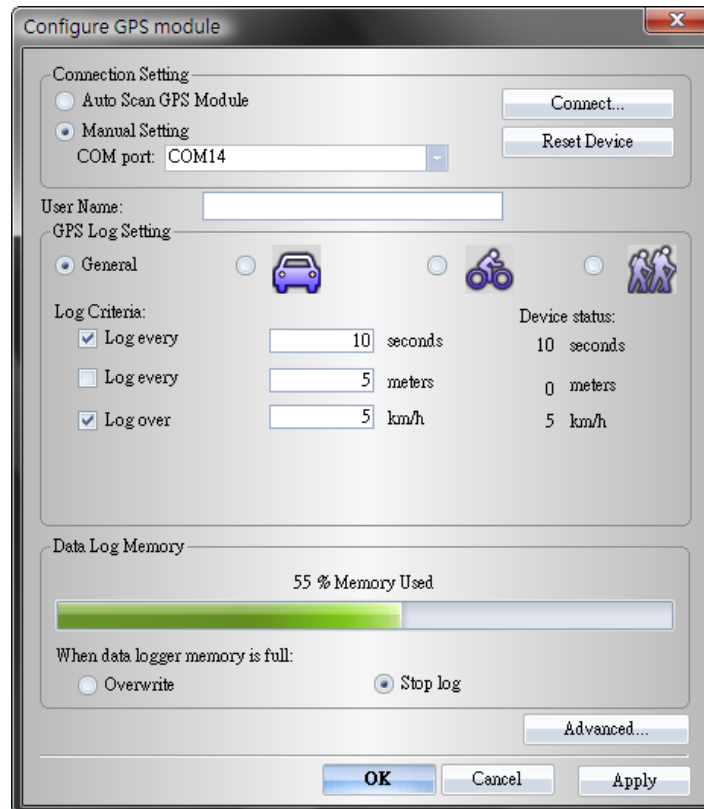
II. Manual Setting

Users can also manually set the port. Although it can speed up the initial connect time, but it is not recommended unless users understand the valid port.

To find the valid com port, please go to <Device Manager> and expand the <Ports (COM & LPT)> and check "CP210x USB to UART Bridge Controller" for 51-CH chipset or "GPS USB Serial Interface Driver" for 66-CH chipset to see which COM port is assigned to Travel Recorder. (Com4 and COM18 are for example)
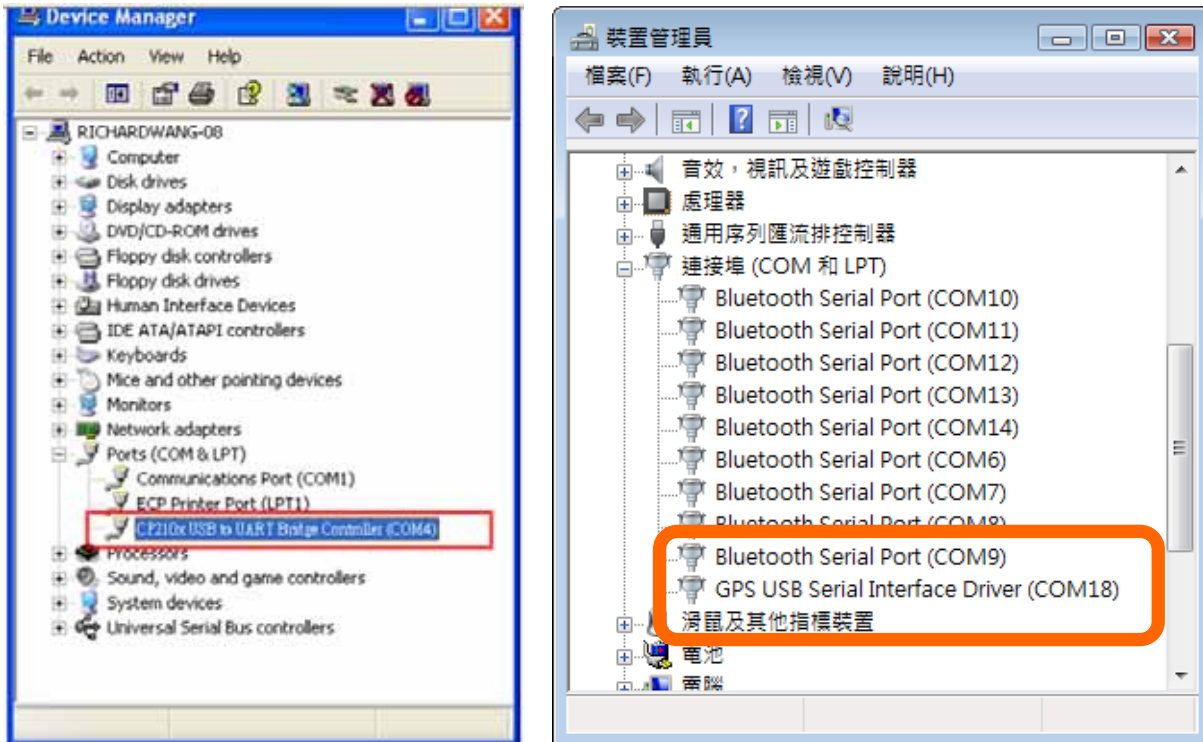
7.2 GPS Device Name (Unique ID) (Only apply for MTK II chipset)

Name your Travel Recorder here and your downloaded log data will come with this unique ID.

7.3 GPS Log Setting (BT-Q2000 doesn't support this feature)

There are 4 log modes: General mode, vehicle mode, cycling mode, and hiking mode. Users can also change the default setting of these 4 modes.

Log every () seconds:

If the criterion is checked, Travel Recorder will not log if difference between current time and last logged time is less than the specified time.

Log every () meters:

If the criterion is checked, Travel Recorder will not log if the distance of current position and last logged position is less than the specified distances.

Log over () km/h:

If the criterion is checked, Travel Recorder will not log if the speed is under the setting.

How Travel Recorder log waypoints with different settings

Log Setting	Description
Log every X seconds	Travel Recorder would log one waypoint per X seconds.
Log every Y meters	Travel Recorder would log one waypoint per Y meters.
Log over Z km/h	When the speed is above Z km/h, it would log one waypoint per second.
1. Log every X seconds 2. Log every Y meters	Travel Recorder would log one waypoint per X seconds or per Y meters, depends on which condition meets the setting (distance / time) first.
1. Log every X seconds 2. Log over Z km/h	When the speed is below Z km/h, Travel Recorder would log one waypoint per X seconds. When the speed is above Z km/h, it would log one waypoint per second.
1. Log every Y meters 2. Log over Z km/h	When the speed is below Z km/h, Travel Recorder would log one waypoint per Y meters. When the speed is above Z km/h, it would log one waypoint per second.
1. Log every X seconds 2. Log every Y meters 3. Log over Z km/h	When the speed is below Z km/h, it would log one waypoint per Y meters or per X seconds, depends on which condition meets the setting (distance / time) first. When the speed is above Z km/h, it would log one point per second.

7.4 Data Log Memory (BT-Q2000 doesn't support this feature)

A bar show how many percentage of memory is used in the Travel Recorder.

Overwrite:

When the memory is full, Travel Recorder will keep logging by overwriting the memory from the earliest point.

Stop Log:

When the memory is full, Travel Recorder will stop logging.

7.5 Advanced (BT-Q2000 doesn't support this feature)

Setup which date you want to record for each logging point.

The default recording fields are DATE TIME, VALID, LATITUDE, LONGITUDE, HEIGHT, SPEED, and RCR.

Note: Enable more data to log will result in the reduction of the total number of recordable waypoints.
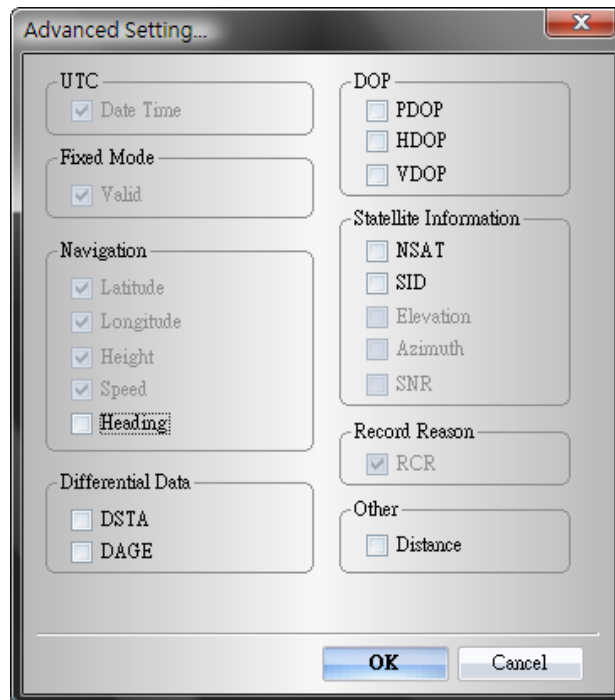
The Table of Format Type

Format Type	Item	Description
UTC	Date/Time	Universal Coordinated Time, formerly GMT or Greenwich Mean Time.
Fix Mode	VALID	Status of GPS (No Fix, SPS, DGPS)
Navigation	Latitude	A north/south measurement of position perpendicular to the earth's polar axis.
	Longitude	An east/west measurement of position in relation to the Prime Meridian, an imaginary circle that passes through the north and south poles.
	Height	The altitude of a place above sea level or ground level.
	Speed	Rate of motion
	Heading	The compass direction in which the longitudinal axis of a ship or aircraft points
Differential Data	DSTA	DGPS station ID number
	DAGE	Time in seconds since last DPGS update
DOP	PDOP	(Positional Dilution Of Precision) ; Position accuracy; 3D-coordinates
	HDOP	(Horizontal Dilution Of Precision); horizontal accuracy; 2D-coordinates
	VDOP	(Vertical Dilution Of Precision); vertical accuracy; height
Method	RCR	Record method: Speed/ Time/ Distance/ POI Button
Satellite Information	NSAT	Number of Satellite (in Used, in View)
	SID	Satellite ID
	Elevation	The elevation of the satellite
	Azimuth	Line-Of-Sight angle of the satellite
	SNR	Signal to Noise Ratio
Other	Distance	The distance between two logging points

# 8. <File> \ <Download AGPS Data> (Only apply for MTK II Chipset)

Update the AGPS data from internet assistance server to boost warm start speed to 15sec.

A-GPS is a system where outside sources, such as an assistance server and reference network, help a GPS receiver boosts performance beyond that of the same receiver in a stand-alone mode by downloading the almanac data from an assistance server.

Note1: A-GPS can boost GPS warm start speed to always lower than 15sec fix after the first fix. The A-GPS efficiency will decrease when time goes by. If it expires, you would have to download almanac data again because the acceleration efficiency of fix will become totally ineffective.

Note2: Please don't update the almanac data via Bluetooth interface.

System will connect the device first to check the effective time range of AGPS data and show on <**APGS Data download confirmation**> windows. Press <OK> to start to update AGPS data. System will download the APGS data from internet and update it automatically.
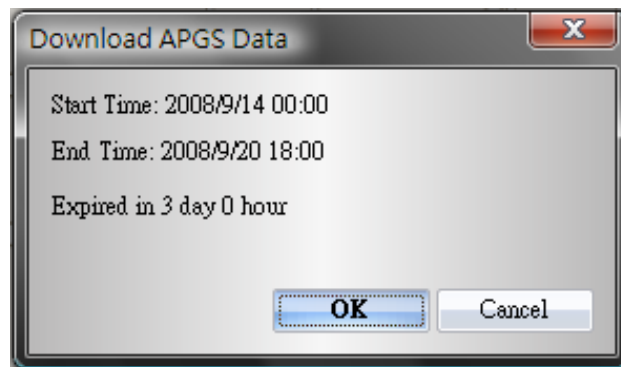
9. <File> \ <Raw Data Manager>

Detailed manage the log contents: decide which data you needed to export as csv file. To enable the additional options for device to log, please go to Config GPS -> Advanced.

10. <Photo/Media> \ <Add Media Files>

Users can add media files from a file folder, or selected files.

10.1 Add media files from a folder: Select a folder to add media files.

Add media files from selected files: Use Ctrl-Click, or Shift-Click to select multiple files.

10.2 After photos are added, all photos will be shown on the **<Photo View>** and **<Photo List>** window. Under **<Photo View>** window, Users can click on the "next photo" and "prev photo" buttons to browse photos, add comment to each photo, and rotate, delete photos. QTravel™ will automatically match photos and GPS logged waypoints by time.

Synchronized
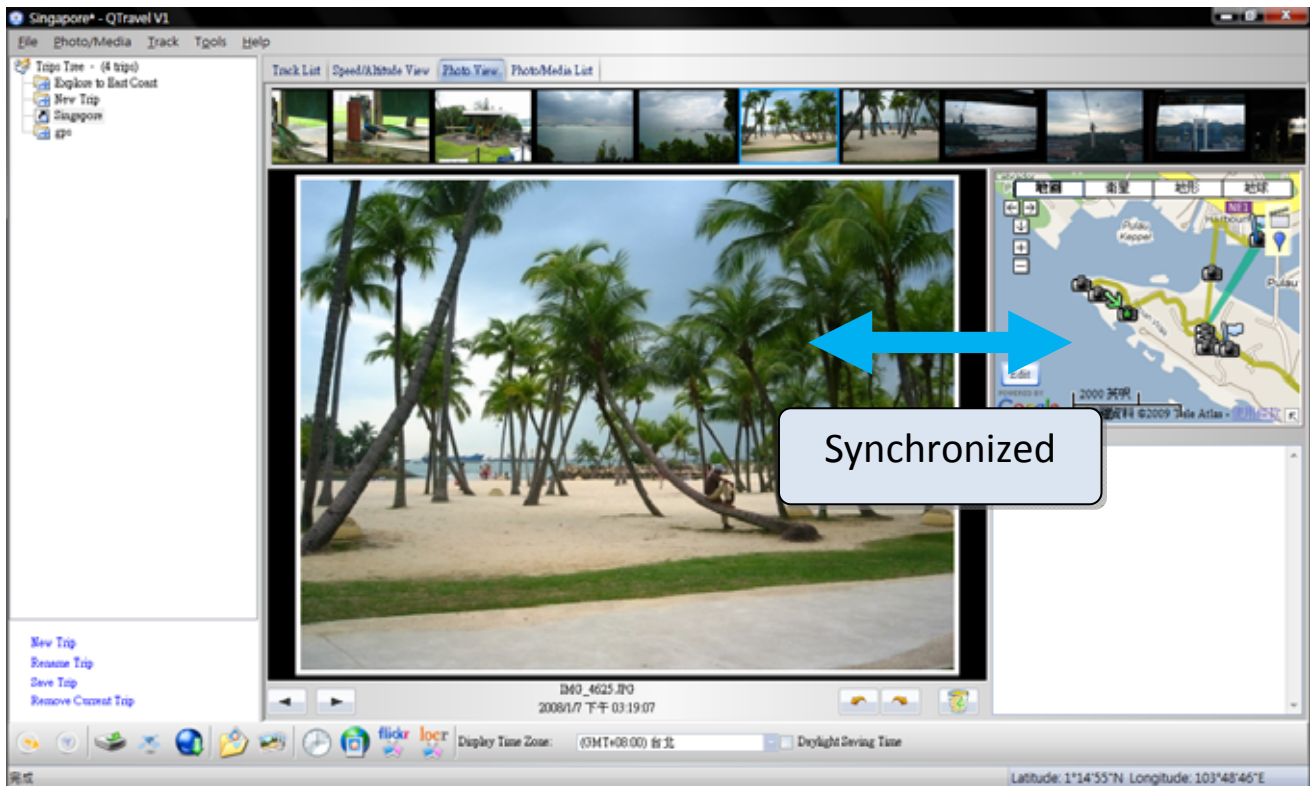
10.3 <Photo List> window will show the properties of photos. The information includes "file name", "date", "place mark", "latitude", "longitude", and "Geotagged flag".
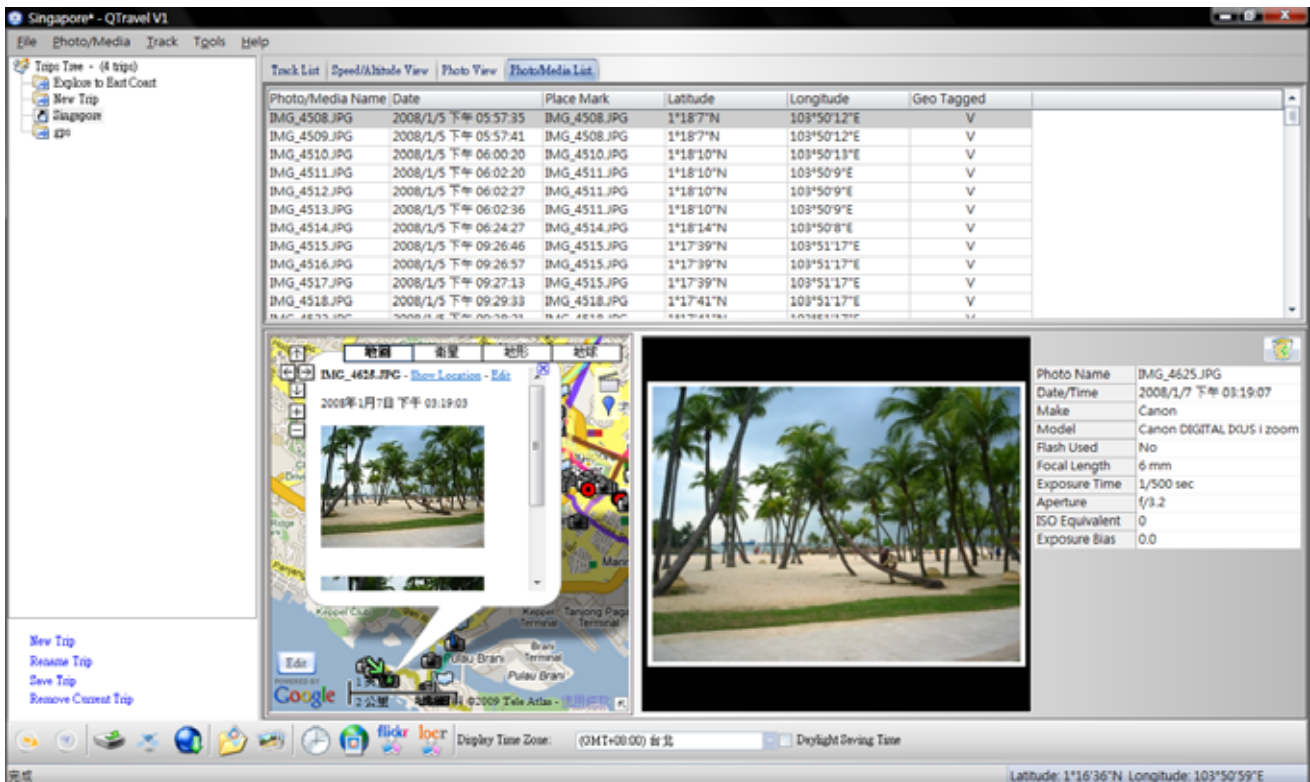
Click right mouse button on a column. You can choose **Column Type**, **Column Size**, **Sort** or **Group** data.
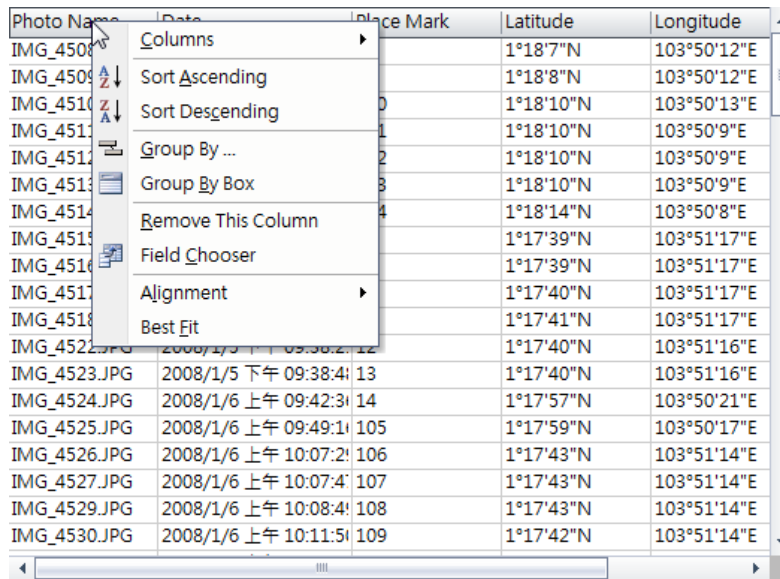
10.4 <Media List> window will show the properties of media files, including sound and video. The program will also find matched locations on map for media files based on time. You can **Preview** and even extend screen to full screen by **Full Screen** button.
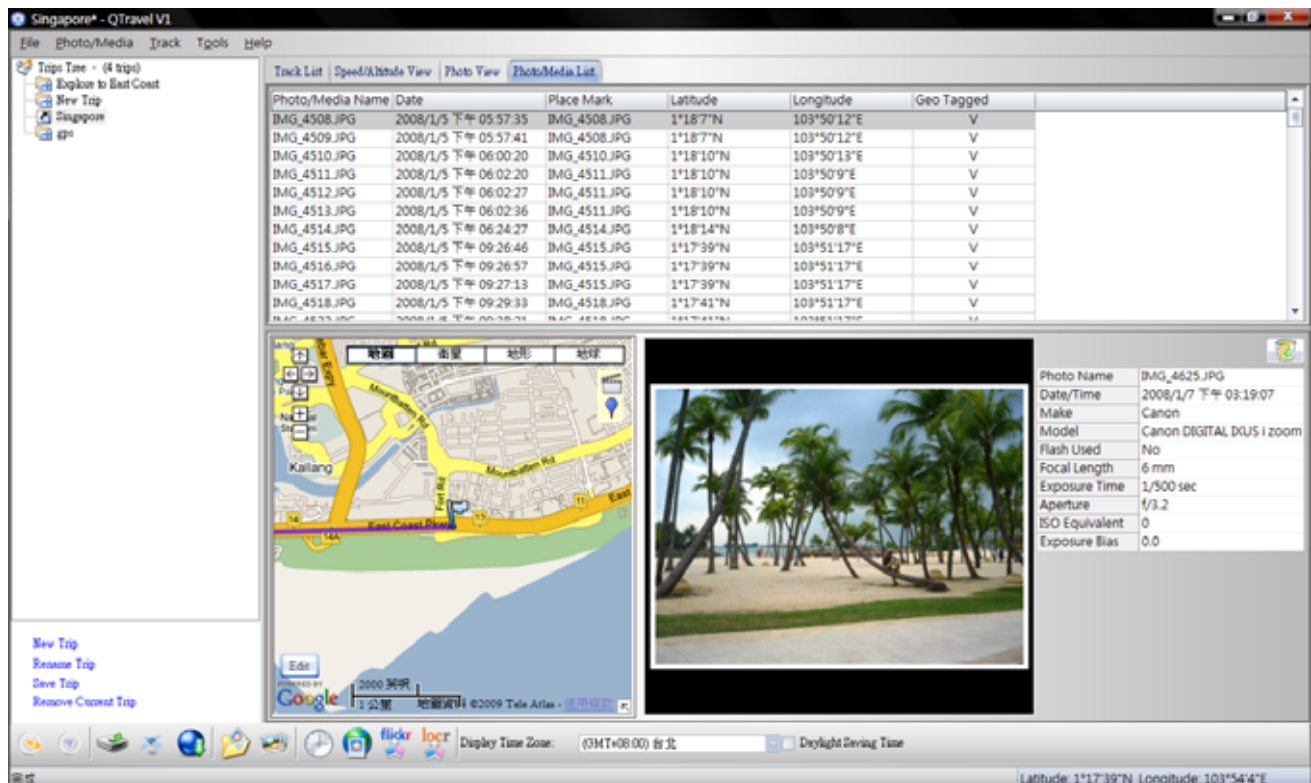
11. <Photo> \ <Shift Photo Time>

will invoke the shift photo time window. All photos will be added (or subtracted) the specified time. The dates are saved in the Exif parts of Jpeg or Tiff file. After the shift, QTravel™ will automatically match the photo and track waypoints again. Users can put more than 365 in days.
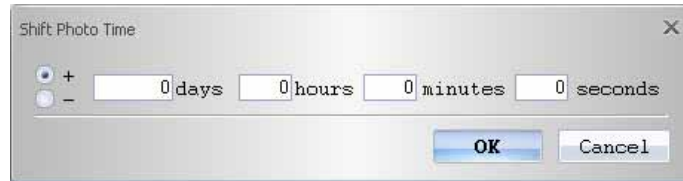
12. <Photo> \ <Write GPS Info into Photos>

will save the latitude, longitude, and altitude information into photo.

A progress window will show the writing progress.
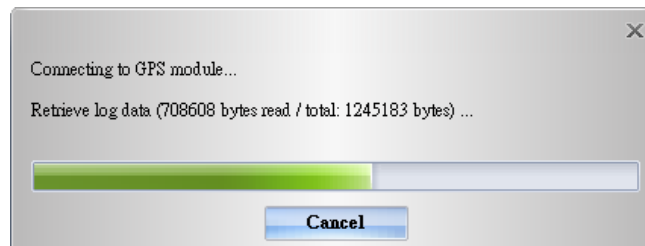
13. <Photo> \ <Upload Photos to Flickr>

will invoke upload wizard. Users can set "Title", "description", "Tag", "Public or Private", and "Upload photo size".

If you want to upload geotagged photos directly on Flickr web site:

You have to turn on the following option. "Your Account">"Privacy & Permissions">"Import EXIF location data: Yes"

After the option is turned on, the uploaded photo will be put on map.

Go to Flickr > "You" > "Your map", you can browse your photos on the map.

14. <Photo> \ <Upload Photos to locr>

Please enter locr account name and password.

Select the photos to upload and fill in the detail description of photos.
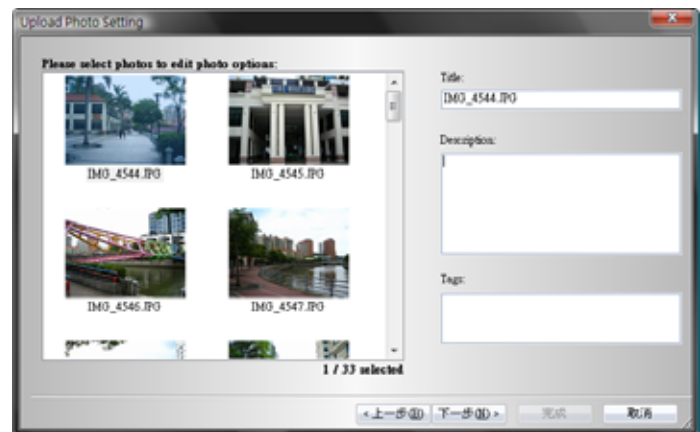
Manage Account, configure privacy setting and upload photo size. And then press <Finish> to start upload process.
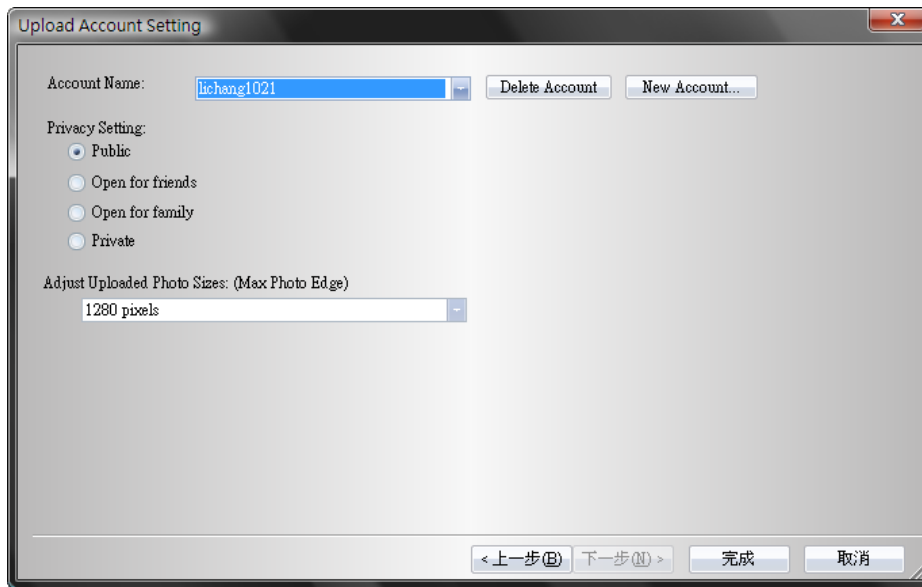
15. <Display Time Zone> <Photo Time Zone> <Daylight Saving Time>

There are two time zone settings in "QTravel™". One is "Photo time zone", the other is "Display time zone". **"Photo time zone" is set to the same time zone of your digital camera.** The "Display time zone" is set for displaying purpose.

For example, if you live in England and you travel to United State, the "Photo time zone" should be set to "England" because your digital camera time zone is in England, and the display time zone should be set to "United State".

<Tools> \ <Options> will invoke the options dialog. You can set <Photo Time Zone> in the dialog.
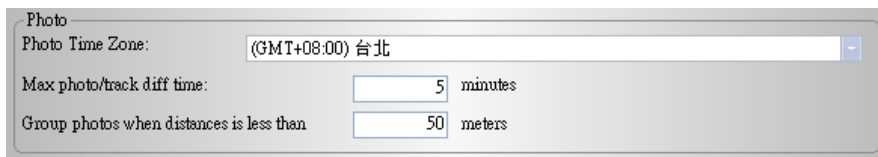
The <display time zone> setting is in the status bar.

<Daylight Saving Time> select this option if the area you live in is using Daylight Saving Time.
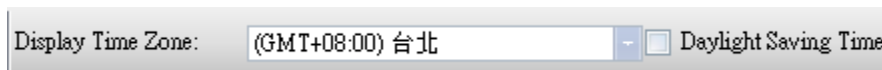
16. <Google Map>

Google Map is a free map service that you view in the QTravel™. Click and drag maps to view adjacent sections immediately. View satellite image with or without map data of your desired location that you can zoom and pan.

16.1 Navigation Control

Arrows:

Click the appropriate arrow buttons to move the

view north, south, east or west.

Zoom:

Click + to zoom in on the center of the map. Click to

zoom out.

Zoom slider:

Drag the zoom slider up or down to zoom in or out incrementally.

16.2 Info Window

Info windows appear when you click a marker and display additional information about the location, such as photo and start point.

Show Location:

will show the zoomed in location of a waypoint.
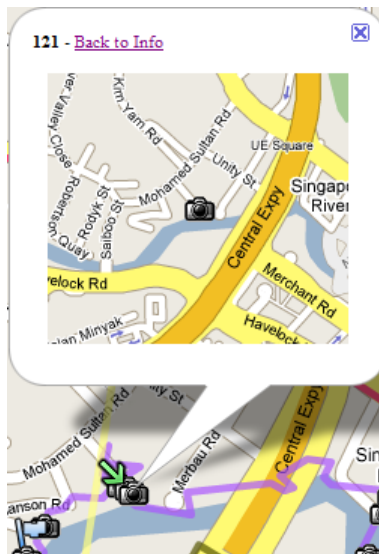
Edit:

Allow you to edit detail information of a waypoint. You can also add photos in or delete photos from single waypoint.

16.3 Track

Display tracks recorded by Travel Recorder. You can move cursor to a track and hold a while to show the info of a waypoint.

16.4 Views

Click these to display different views, including aerial images, street level imagery, and terrain.

<Earth> allows you to view 3D Google Earth in Google Map. For first time use, please download the Google Earth Plugin by pressing the center button "Obtain Google Earth Plugin." Or go to Google Earth Plugin online page directly http://code.google.com/apis/earth/

After installation, please reopen the program to activate Google Earth Plugin.
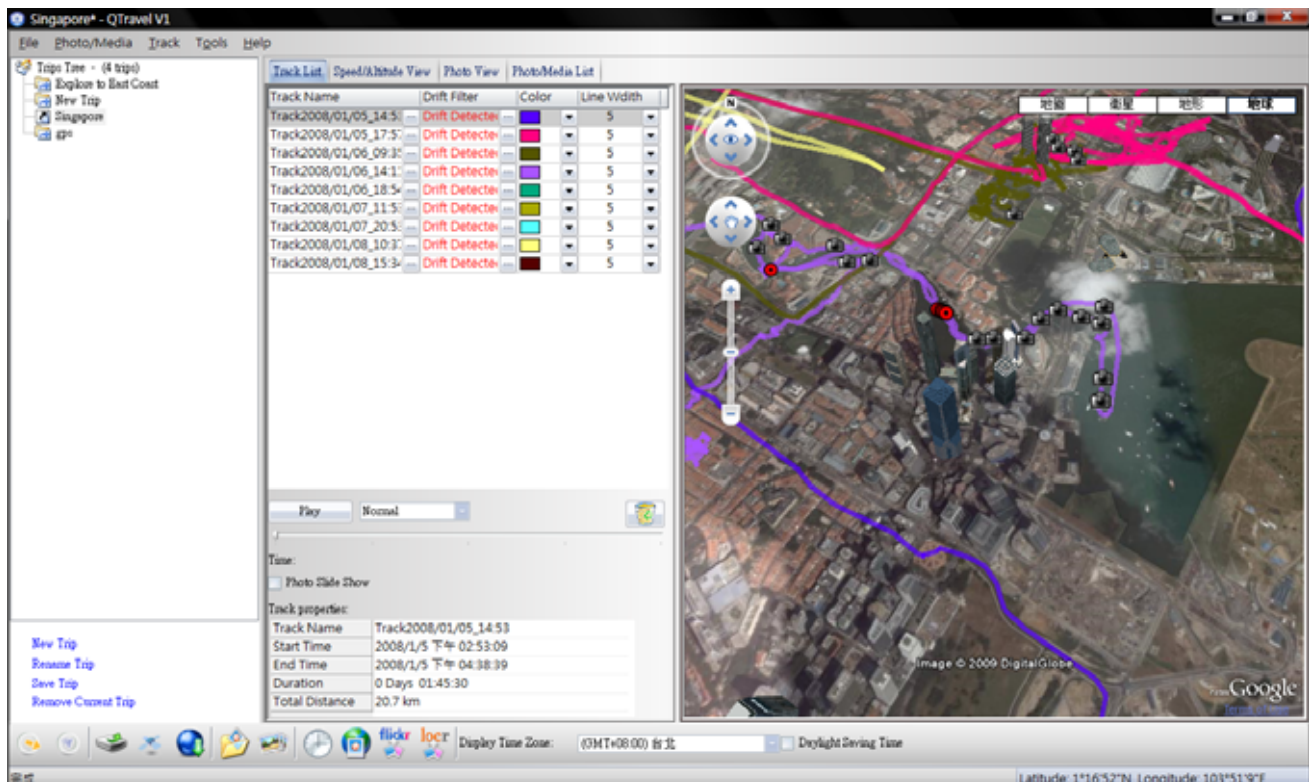
16.5 Special Functions

Slide Show:

Click [icon] to activate photo slide show.
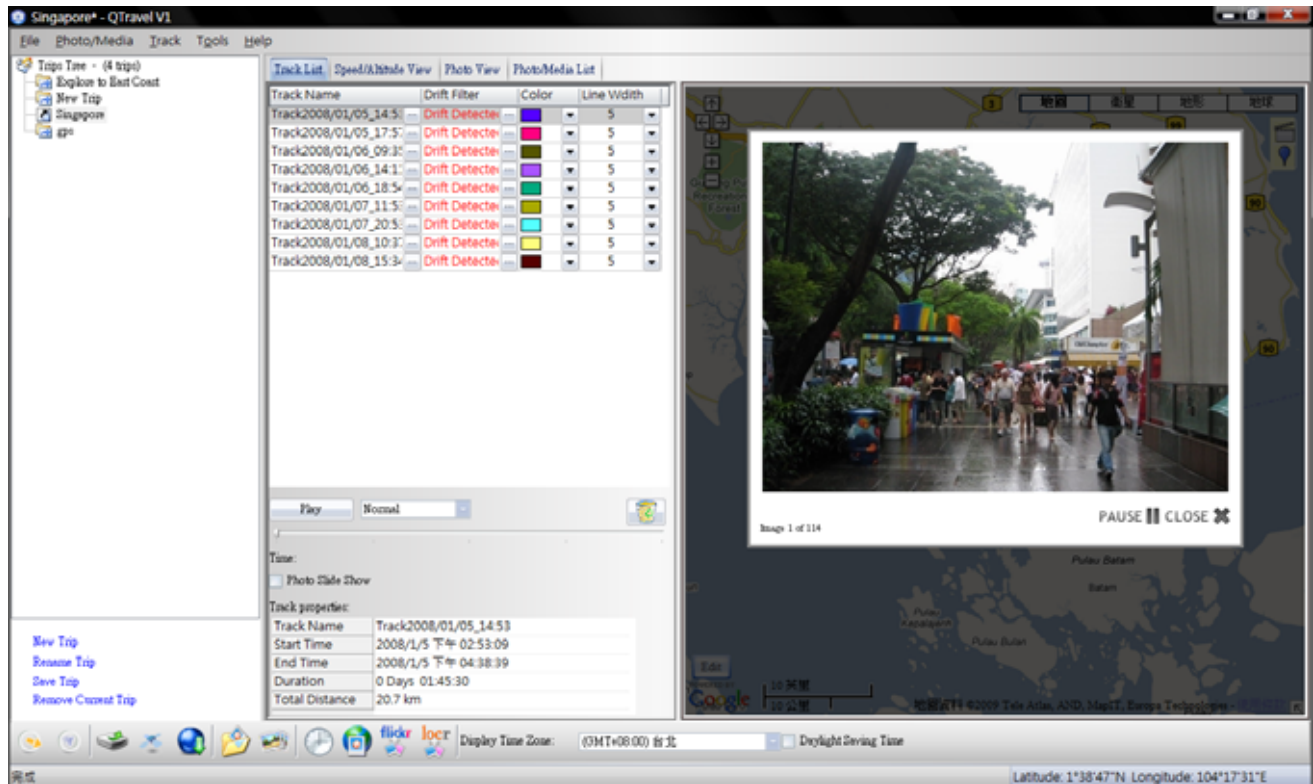
Place Mark:

Click [icon] to add a place mark on map. then the "Place Mark Property"

dialog will pop up for editing.

16.6 Search Bar

Allow you to search any location on map.

16.7 Start Point

The start point of a track with a small flag.

16.8 Camera

To signify the locations of your photos.

16.9 Point of Interest (Push to Log)

To signify the locations when you press POI button.

16.10 Place Mark

To signify the locations when you manually add place marks.

16.11 overview map

This view shows the location of current map view. The overview map

appears in the bottom right corner of the map. It helps orient you by

showing the location of current map view in the context of a larger

geographical area. The area currently displayed in the map is show as a

purple box in the overview map. At any time, click ⬂ to hide the

overview map or click ⬉ to display it again.

As you pan or zoom in the map, the view of overview map changes

accordingly. You can change the existing view in the map by doing one of

the following:

- Drag and drop the purple box in the overview map.
- Drag and drop the area outside the purple box to pan the map.

17. <Map Editor>

Press the "Edit" button on the map to invoke Map Editor window. Move the cursor on the track will show the preselected waypoint time. Click on track to select the whole track.
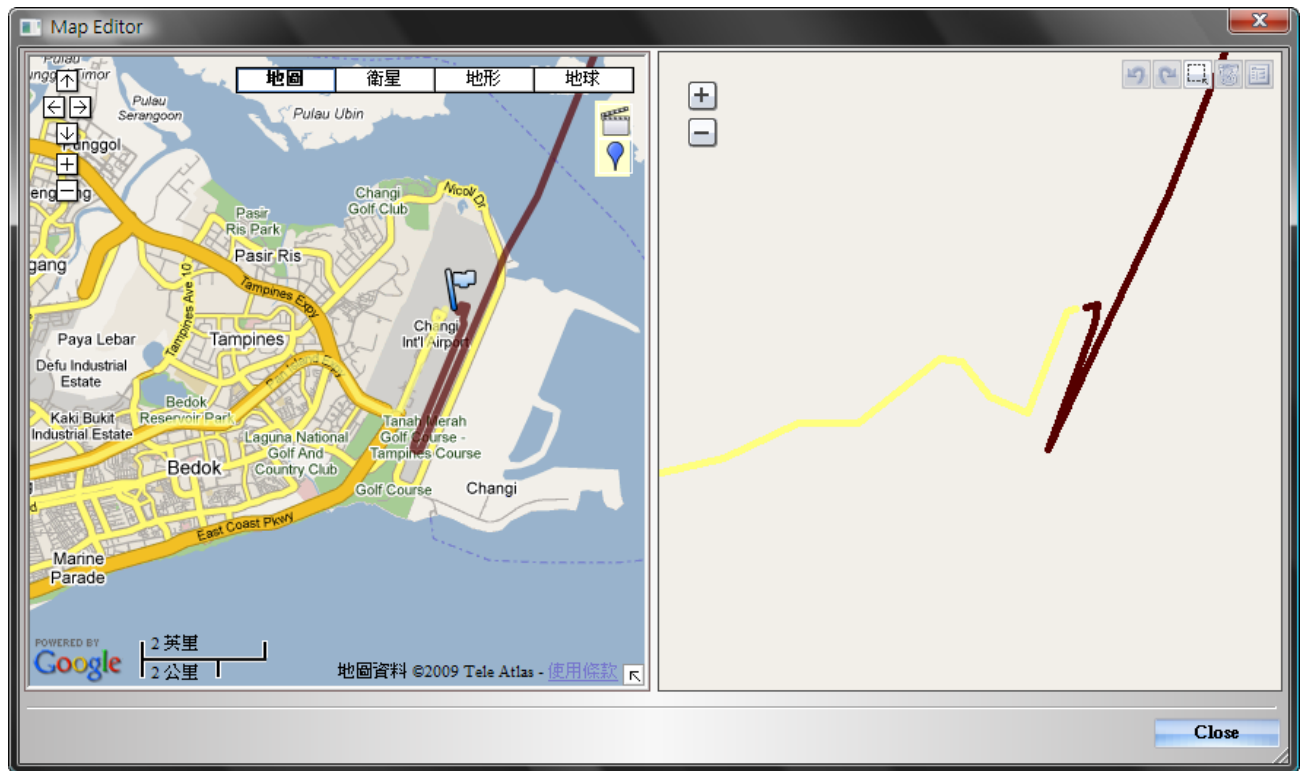
Undo erases the last change done and reverts it to an older state.

Redo reverses the undo or advances the buffer to a more current state.

Area Selection allows you to select multi-waypoint by clicking and holding mouse left button until an area being selected.
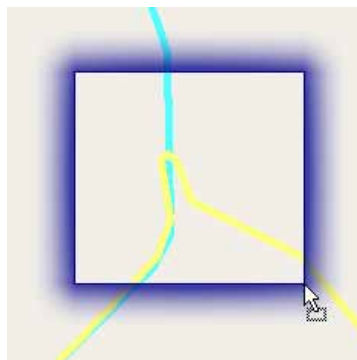
Delete a waypoint or a whole track.

Property shows the "Place Mark Property" dialog for editing.

Drag a waypoint when it drifts to a improper location.

Right click mouse button:

Split Track will split the track into two tracks.

Delete this point will delete the selected waypoint.

Delete Selected Object will delete the selected track.
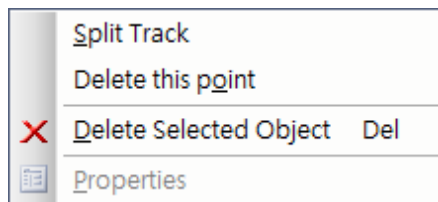
You can also select multi-waypoint by the windows common selecting function: **Shift Select, and Ctrl Select.**

18. <Track> \ <Merge Tracks>
Allow you to merge two or more than two tracks into one track.
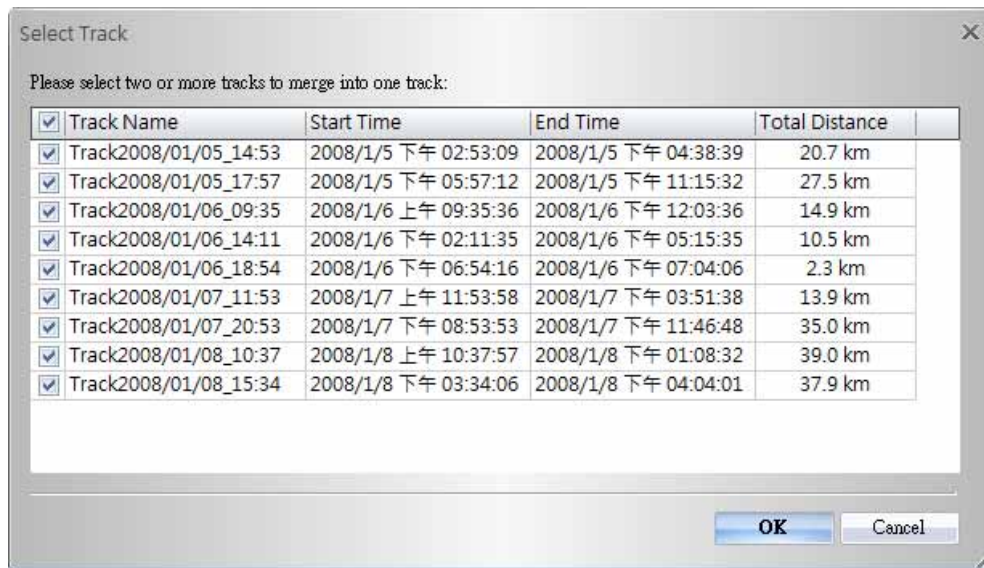
19. <Track List>

Switch to <Track List> window will show all the tracks and its properties loaded from Travel Recorder. Select any one of tracks and the center of map will move to the location of start point of that track. You can **Rename**, **Delete**, change **Color** and **Line Width** of tracks. Changes will be synchronized immediately on map.
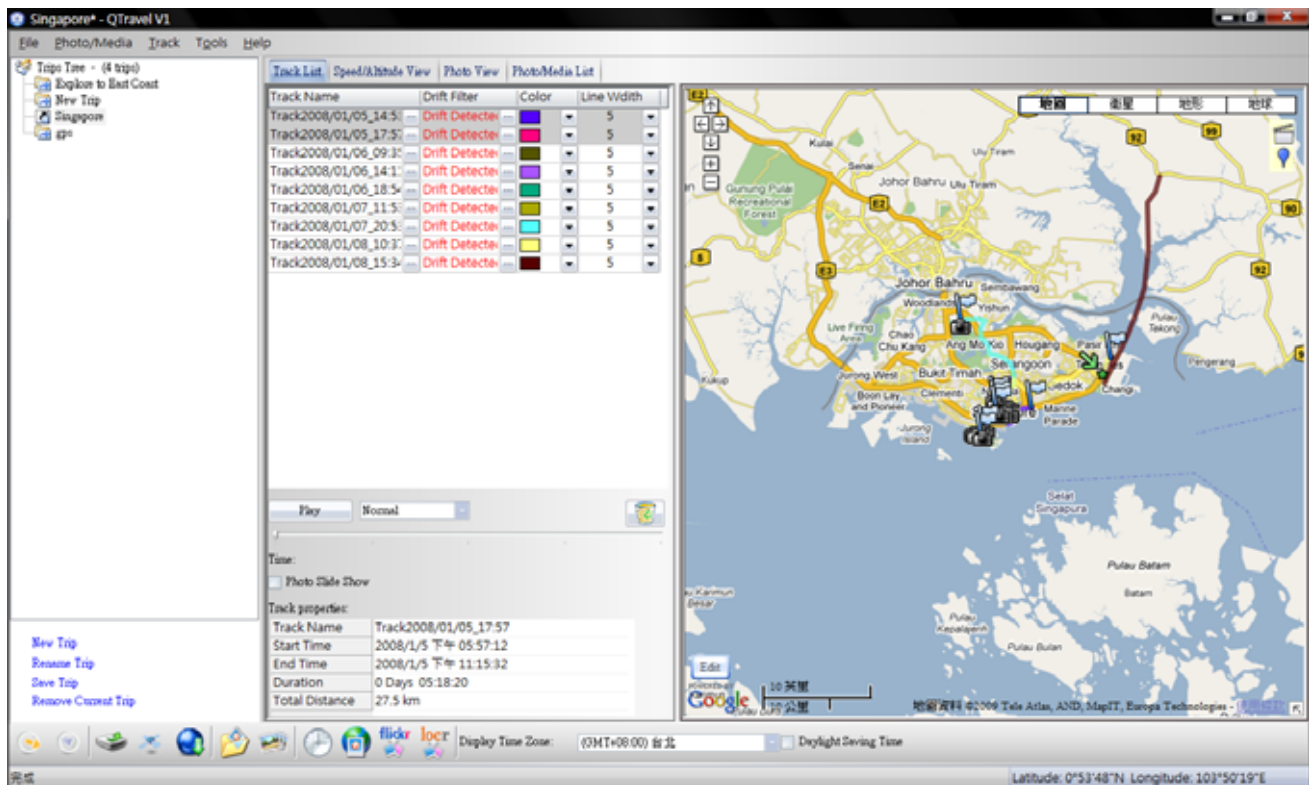
Drift Filter can correct the GPS deviation especially when the GPS is situated in low speed status.

Before

After

Play shows your travel log by means of animation. You can adjust the **flow speed** and use **scroll bar** to forward or backward.

Photo Slide Show allows the program activate slide show when playing process encounters any matched photos on tracks.

Click right mouse button on a column. You can choose **Column Type**, **Column Size**, **Sort** or **Group** data.
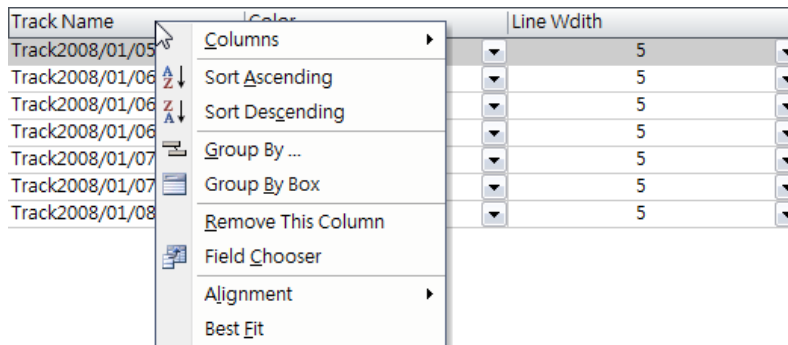
20. <Altitude Graph> / <Speed graph>

Switch to <Speed/Altitude View> window will show the speed and altitude graph. The waypoints with photos on it will be marked with squares. Moving cursor on a square will display the photo. You can pan left, pan right, zoom in, zoom out in the speed or altitude graph.
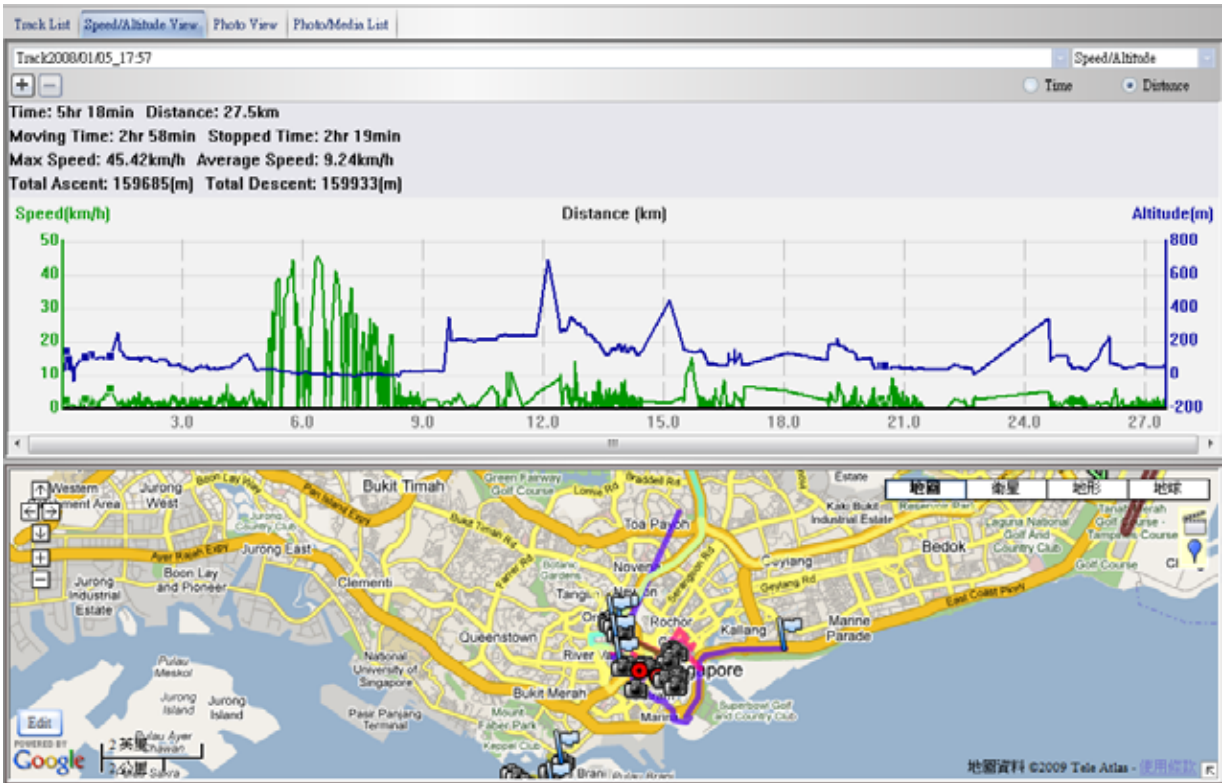
21. <File> \ <Open Project>

Open project can import the saved project by Travel Recorder SW into QTravel™ database. The project, photos, and photo comments will be restored after the project opened.

22. <Tools> \ <Options>

<Unit and Coordination>
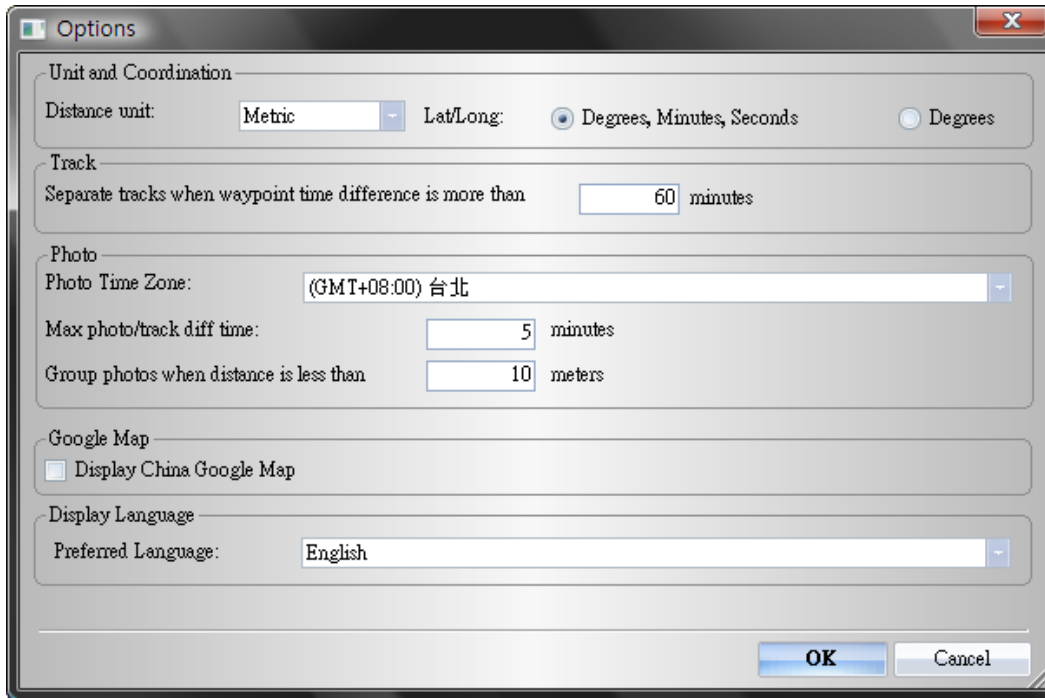
Distance unit:

    Metric: Kilometer / meters will be used for displaying.

    Imperial: Miles / feet will be used for displaying.

Lat/Long:

    Degrees, minutes, seconds: Latitude and longitude will be display like 23°12'20"

    Degrees: Latitude and longitude will be display like 23.22152°

<Photo>

Photo Time Zone:

    Please refer to Title 11.

Max photo/track diff time:

The setting is used to match photo and track waypoints. QTravel™ will match photos and waypoints by time. It will find the nearest waypoint time to locate the photo. Yet, if the closest waypoint time is more than the "Max photo/track diff time", it will not match the photo.

Group photos when distance is less than:

This setting can organize specific range of photos into just one waypoint which allows you to avoid massive place marks sticking together when you take too many photos in one location.

<Display Language>

Preferred Language:

Set the languages for menu, buttons and messages.

Appendix

Trouble Shooting

Question	Answer
Can the software write GPS info to RAW file format?	So far our software does not support RAW writing yet, but the following software can support RAW writing which accepts track files exported by our software for your reference. http://code.google.com/p/gpicsync/
I typed in the key but the software reported as wrong key?	Please double check the combination of the key or execute windows program "Regedit.exe" and find "HKEY_CURRENT_USER\Software\Qstarz Applications\TravelRecorder\OptionsSetting\ RegProdKey_QStarz" and directly paste your product key.
I lost my software license key. How can I apply for a new one?	The software key application is easy. Just email your product serial number (below the barcode on the back of the device beneath the battery or on the color box) to us to get a new license. But please notice that this key application is just allowed once. So it's important to keep the key in safe.
My tracks seem to be on wrong position where I have never been. And there are straight lines across the map. Why?	Some of the deviation is acceptable for GPS because when the satellite signal reaches ground, it is very weak. So during the beginning of GPS fix process, GPS may not get enough satellite signal to achieve a very accurate position. Thus the deviation will occur. Also there is another condition which will result in deviation. When GPS is situated in low speed or not moving at all, the GPS position will drift including speed and altitude. This is because the born limitation of GPS design. Every GPS chipset in the market all have this phenomenon. This is why the "Auto Filter" feature be designed to lower down this phenomenon.

My data logger seems to not log at all even I do switch it to log mode and have it under open sky. After read log from the device, only the POIs were logged and the program connects these POIs as some tracks. There are no other tracks.	You may not set the log criteria properly. Under "Config Log" in QTravel™ software, if you did not select any one of log criteria and click "Apply," the log criteria will become N/A which means data logger will not log unless press POI button because there is no crireria for data logger to abide by. Please config GPS again and select either one of time, distance, or speed. Or simply perform "Reset" at Config GPS to reset the device.

Trouble Shooting of error message of QTravel™ software:

Error Message	Possible Reason	Solution
No Data in Device.	Log memory error	Perform a reset in QTravel™ SW -> Config GPS.
	Not log valid GPS fix data	QTravel™ software will rule out the GPS not fix data, so make sure to log valid GPS data under open sky environment.
Failed to read data from GPS module!	Invalid operation	1. Unplug and plug in the USB cable. 2. Switch off and on the device
	Com port detection error	1. Manually select connection com port at Config GPS and check connection com port at Windows Device Manager -> Com&LPT -> GPS USB…..or CP210X…… 2. Change another USB port for connection
	Driver not installed properly	Reinstall the driver. For Q1000P, Q1200, Q1200Ultra, Q2000: Please remove the USB driver from Control Panel -> Remove Program -> Silicon Laboratories CP210x USB to UART Bridge……. And reinstall the driver. For Q1000X, Q1300, Q1300S: Please remove the USB driver when the device is connected to PC and find "GPS USB Serial Interface Driver" at Device Manager and right click on it and press Uninstall. Then the confirmation dialog will appear and please select "Also delete device driver

		software." And reinstall the driver.
Switch is not turned on or incompatible GPS device!	not turn on the device	1. Turn on the device. 2. Unplug and plug in the USB cable.
	Incompatible GPS device	Check the compatibility of your Qstarz GPS module QTravel™ is compatible with following Qstarz GPS: Q1000P, Q1000X, Q1200, Q1200Ultra, Q1300, Q1300S, Q2000
Failed to connect GPS Module!	GPS not correctly connected	Follow the standard operation procedure in user's manual for making the connection
	Com port detection error	1. Manually select connection com port at Config GPS and check connection com port at Windows Device Manager -> Com&LPT -> GPS USB…..or CP210X…… 2. Change another USB port for connection
	Driver not installed properly	Reinstall the driver. For Q1000P, Q1200, Q1200Ultra, Q2000: Please remove the USB driver from Control Panel -> Remove Program -> Silicon Laboratories CP210x USB to UART Bridge……. And reinstall the driver. For Q1000X, Q1300, Q1300S: Please remove the USB driver when the device is connected to PC and find "GPS USB Serial Interface Driver" at Device Manager and right click on it and press Uninstall. Then the confirmation dialog will

		appear and please select "Also delete device driver software." And reinstall the driver.
	GPS USB connection chip is faulty	1. "CP210x…" or "GPS USB…" does not appear at Windows Device Manager -> Com&LPT when the device connected with PC. 2. Request a RMA to the store you bought from.
Failed to write data into GPS Module!	Invalid operation	1. Unplug and plug in the USB cable. 2. Switch off and on the device 3. Try to read log again and don't unplug during read log process

*Every time when you feel the device works abnormally, please perform both hard and soft reset to let device back to normal status.

**If above method can not solve your problem, the device may be defective. Please request a RMA to the store you bought from.