

GPS Data Logger and Photo Tagger

Users Manual

V1.1

Users Manual

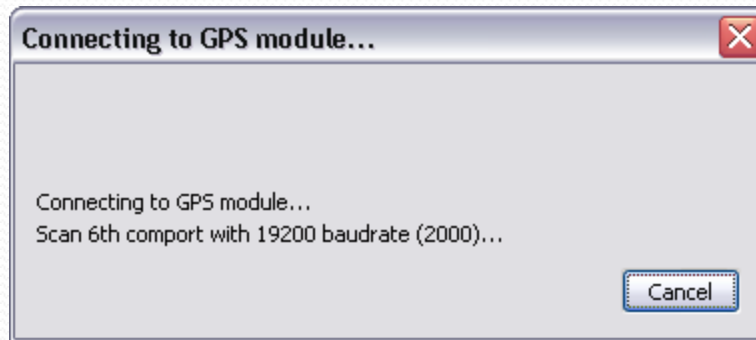
- Major features
- Read GPS log from device
- Add Photo and photo management
- Auto match photo and waypoints in tracks
- Shift photo time
- View in Google earth
- Save as kmz file
- GeoTag – save latitude, longitude to photo
- Upload to Flickr
- Altitude and speed graph
- Edit place marks and tracks
- Project management
- Time zone
- Data Logger Configurations
- Options

Major features

- Support multi-language
- Automatically match photo and GPS tracks by time synchronization.
- Add photo comments.
- Geotag – save GPS information into photos. Used by Flickr and other web site.
- Shift photo time.
- Upload to Flickr
- Generate kml/kmz file and viewing in Google earth.
- Display altitude and speed graph.
- Edit tracks and place marks
- Save tracks and photo as a project.

Read GPS log from device

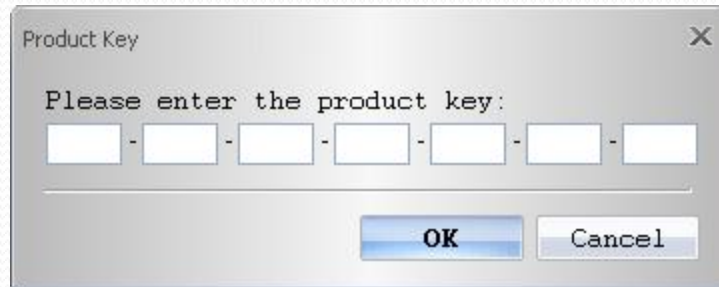
- Step 1 – Connect Data Logger to PC USB port.
(Please turn on Data Logger power)
- Step 2 – Menu command “GPS” -> “Read log...”



GPS Photo Tagger will automatically detect the port and baudrate and read in the GPS tracks.

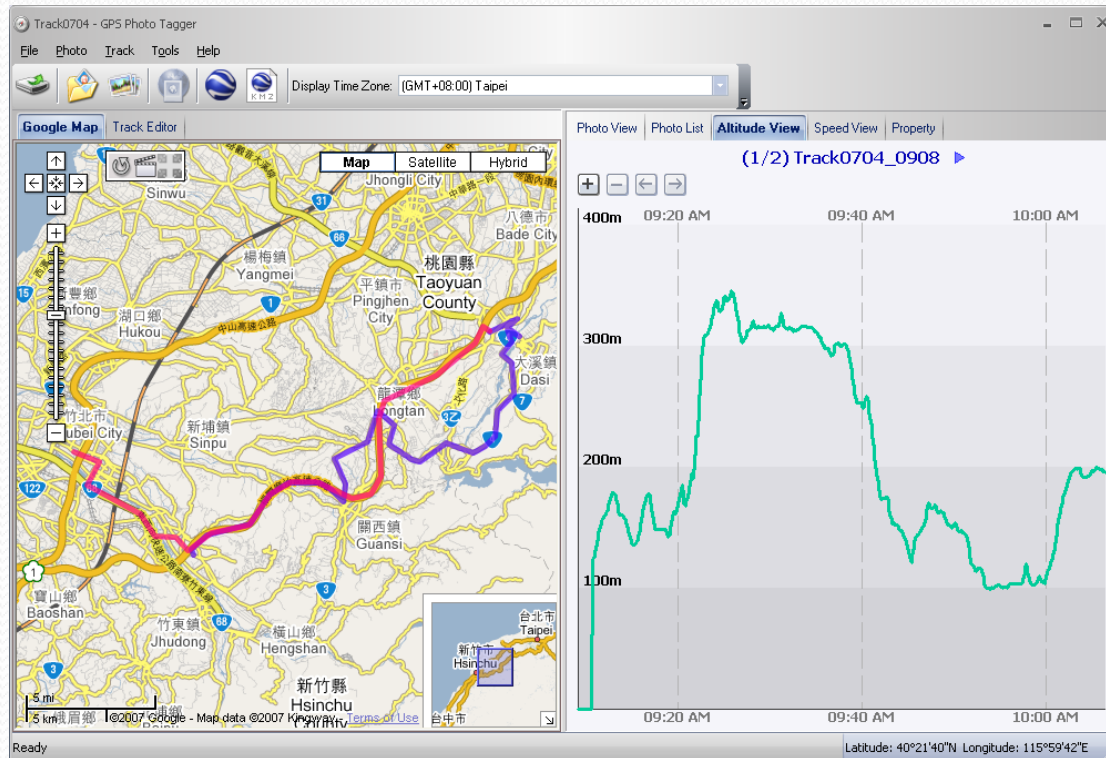
Read GPS log from device

- Users have to input product key at the first time.
- The product key is on the cover of installation CD.



A screenshot of a Windows-style dialog box titled "Product Key". The dialog box has a close button (X) in the top right corner. Inside, it says "Please enter the product key:" followed by a row of seven empty text boxes separated by hyphens. Below this row is a horizontal line. At the bottom right, there are two buttons: "OK" and "Cancel".

Read GPS log from device



The GPS tracks will show on the Google map window.

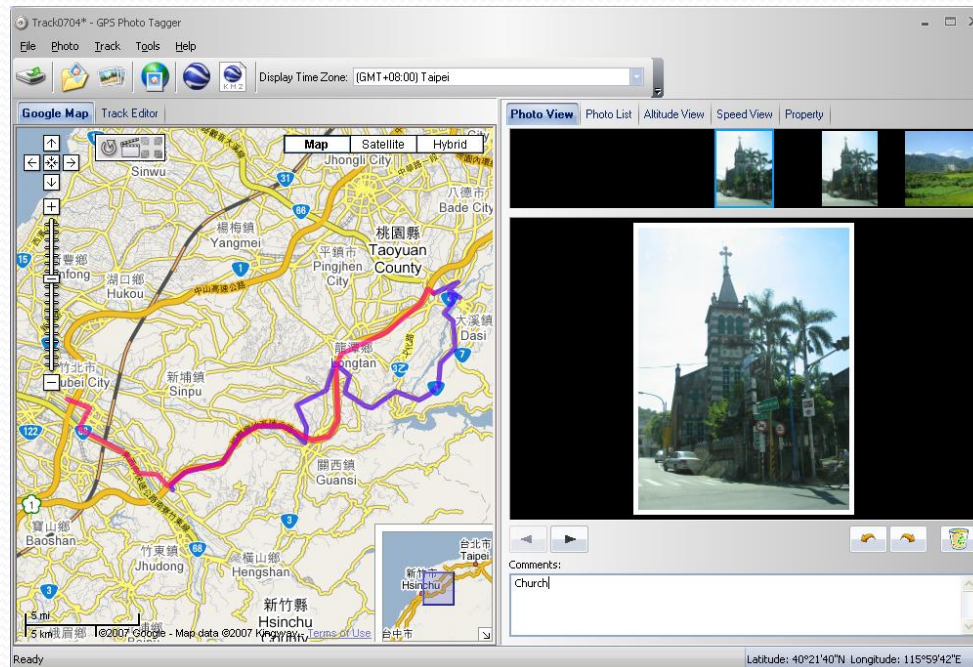
Clear device memory

- Menu command “GPS” -> “Clear log” will clear the data stored in device, so the device memory are enough for next usage.

Add photo

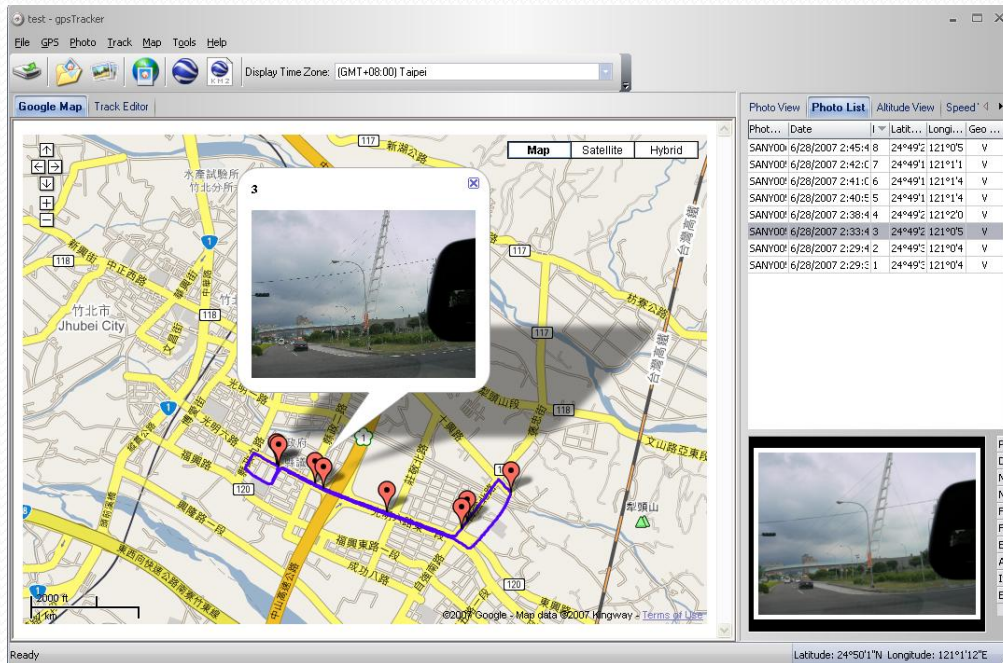
- Users can add photo from a file folder, or selected files.
- Add photo from a folder:
Menu command “Photo” -> “Add Photo...” -> “From Folder”.
Select a folder to add photo.
- Add photo from selected files:
Menu command “Photo” -> “Add Photo...” -> “From Files”.
Use Ctrl-Click, or Shift-Click to select multiple files.

Add photo



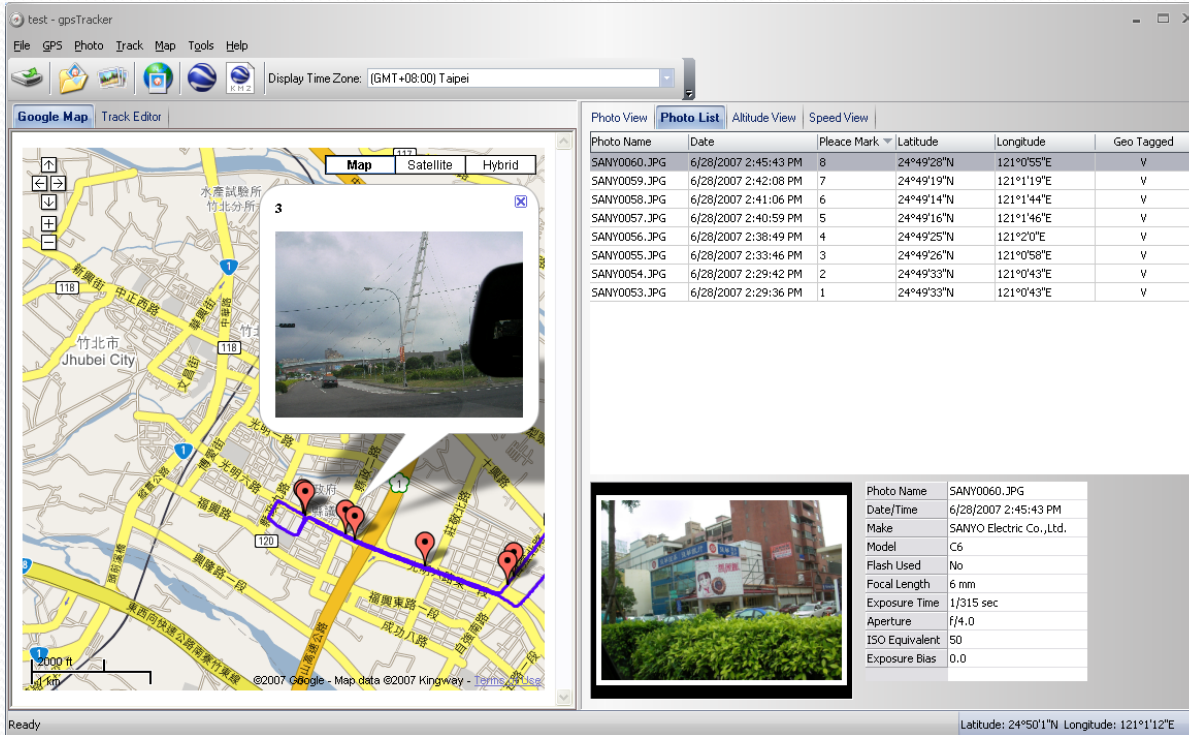
The photo will show on the Photo View window.
Users can add comments to each photo.
Users can also rotate, delete photo.

Automatically match photos and GPS logged way points



When photos are added, GPS Photo Tagger will automatically match photo and GPS logged waypoints by time. Place marks will be created as a placeholder for photos.

Photo List Window



The screenshot shows the gpsTracker application interface. The main window is titled "test - gpsTracker" and has a menu bar with "File", "GPS", "Photo", "Track", "Map", "Tools", and "Help". Below the menu bar is a toolbar with icons for various functions. The "Photo" menu is currently selected, and the "Photo List" sub-menu is active. The "Photo List" window is open, showing a table of photo metadata. The table has columns for "Photo Name", "Date", "Place Mark", "Latitude", "Longitude", and "Geo Tagged". The table lists 8 photos, all taken on 6/28/2007. The "Photo Name" column shows files like SANY0060.JPG, SANY0059.JPG, etc. The "Date" column shows the date and time. The "Place Mark" column shows a number (1-8). The "Latitude" and "Longitude" columns show the coordinates. The "Geo Tagged" column shows a "V" for each photo. Below the table, there is a section for a selected photo, showing a thumbnail image and a detailed view of the photo's metadata. The detailed view includes fields for "Photo Name", "Date/Time", "Make", "Model", "Flash Used", "Focal Length", "Exposure Time", "Aperture", "ISO Equivalent", and "Exposure Bias". The "Photo Name" is SANY0060.JPG, the "Date/Time" is 6/28/2007 2:45:43 PM, the "Make" is SANYO Electric Co., Ltd., the "Model" is C6, "Flash Used" is No, "Focal Length" is 6 mm, "Exposure Time" is 1/315 sec, "Aperture" is f/4.0, "ISO Equivalent" is 50, and "Exposure Bias" is 0.0. The background of the application shows a map of Zhubei City, Taiwan, with a track overlay and several red location pins. A small inset window shows a photo of a street scene with a traffic light and a building.

Photo Name	Date	Place Mark	Latitude	Longitude	Geo Tagged
SANY0060.JPG	6/28/2007 2:45:43 PM	8	24°49'28"N	121°0'55"E	V
SANY0059.JPG	6/28/2007 2:42:08 PM	7	24°49'19"N	121°1'19"E	V
SANY0058.JPG	6/28/2007 2:41:06 PM	6	24°49'14"N	121°1'44"E	V
SANY0057.JPG	6/28/2007 2:40:59 PM	5	24°49'16"N	121°1'46"E	V
SANY0056.JPG	6/28/2007 2:38:49 PM	4	24°49'25"N	121°2'0"E	V
SANY0055.JPG	6/28/2007 2:33:46 PM	3	24°49'26"N	121°0'58"E	V
SANY0054.JPG	6/28/2007 2:29:42 PM	2	24°49'33"N	121°0'43"E	V
SANY0053.JPG	6/28/2007 2:29:36 PM	1	24°49'33"N	121°0'43"E	V

Photo Name	SANY0060.JPG
Date/Time	6/28/2007 2:45:43 PM
Make	SANYO Electric Co., Ltd.
Model	C6
Flash Used	No
Focal Length	6 mm
Exposure Time	1/315 sec
Aperture	f/4.0
ISO Equivalent	50
Exposure Bias	0.0

Photo list window will show the attributes of photos. The information includes “file name”, “date”, “place mark”, “latitude”, “longitude”, and “Geotagged”.

Geotag – save GPS information into photos

- Menu command “Photo” -> “Write GPS info into photos” will save the latitude, longitude, and altitude into photo.
- Upload geotagged photo to Flickr will be shown on map.

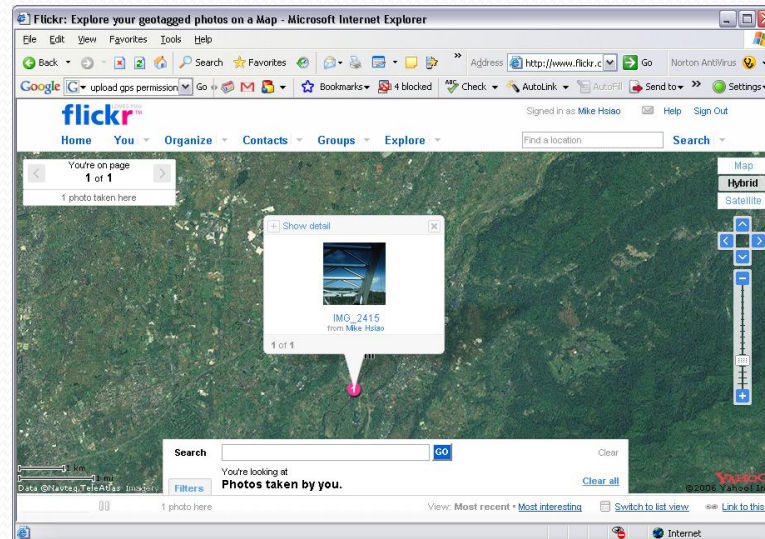
GeoTag – save latitude, longitude to jpeg file

- Menu command “Photo” -> “Write GPS Info into Photos”
- A progress window will show the writing progress.
- If you upload the geotagged photos to Flickr, it will can be browsed on Flickr’s map.



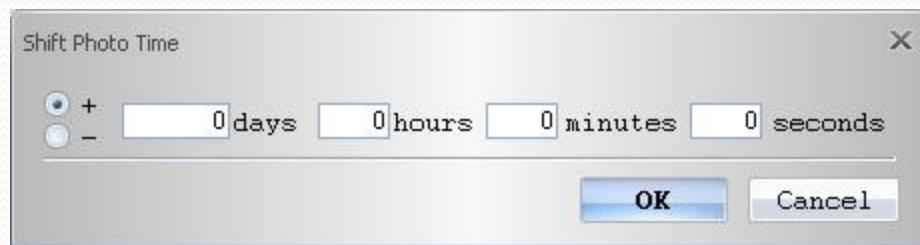
Upload geotagged photos to Flickr

- You have to turn on the following option before uploading geotagged photo.
"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.



Shift photo time

- Menu command “Photo” -> “Shift photo time...” will invoke the shift photo time window.
- All the photo will be added (or subtracted) the specified time. The dates are saved in the Exif parts of Jpeg or Tiff file.
- After the shift, GPS Photo Tagger will automatically match the photo and track waypoints again.
- User can put more than 365 in days.



Comments on photos

- You can put your comments under the photo.
- The comments will be saved in the project file and kml/kmz file.
- You can put any languages in the comments.

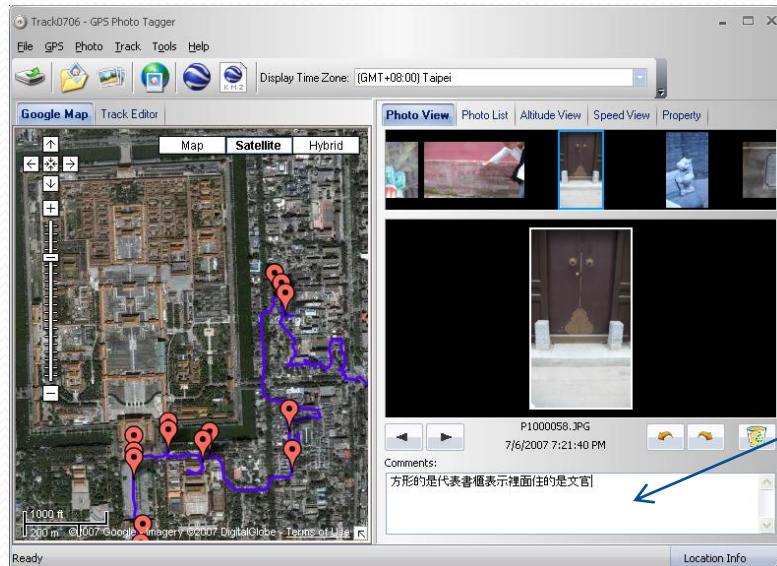
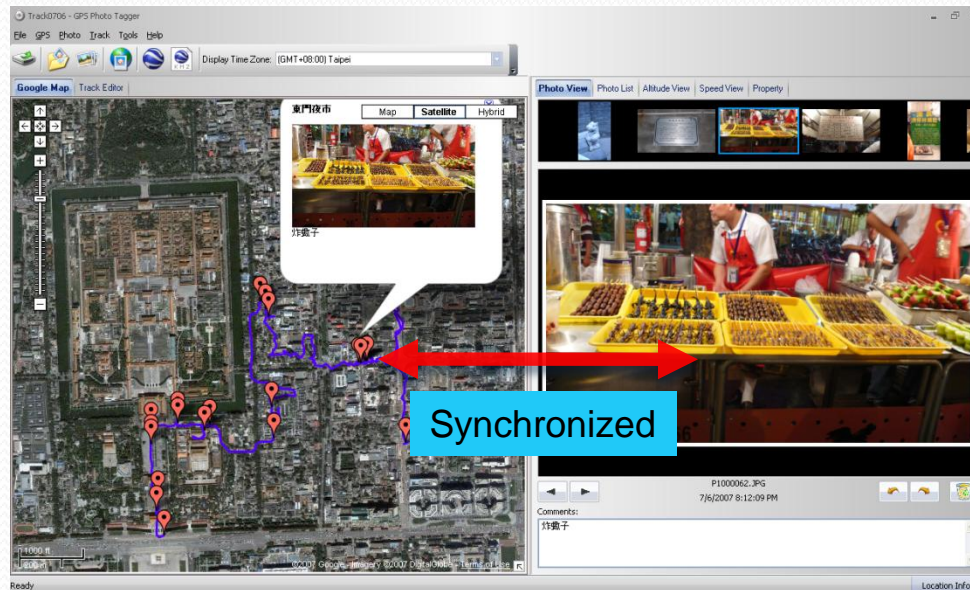


Photo Comments
(multi-language supported)

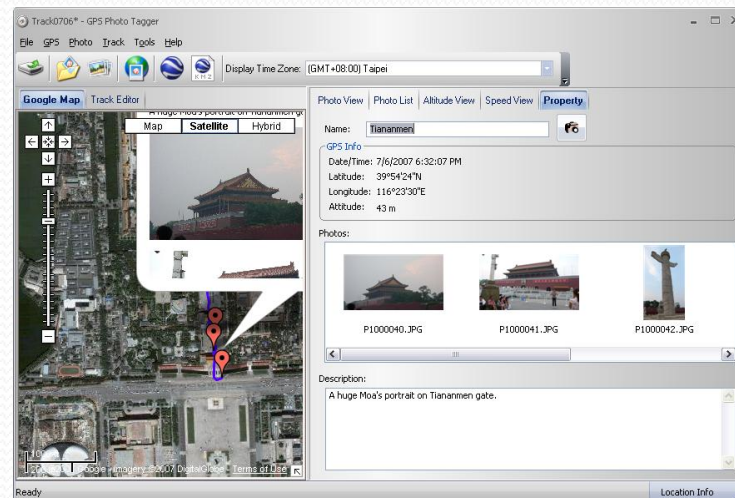
Viewing photos

- You can click on “Next Photo”, “Prev Photo” buttons to browse the photo.
- You can also click on place markers on maps to browse photos.
- The placemaker selection and photo selection will be synchronized.



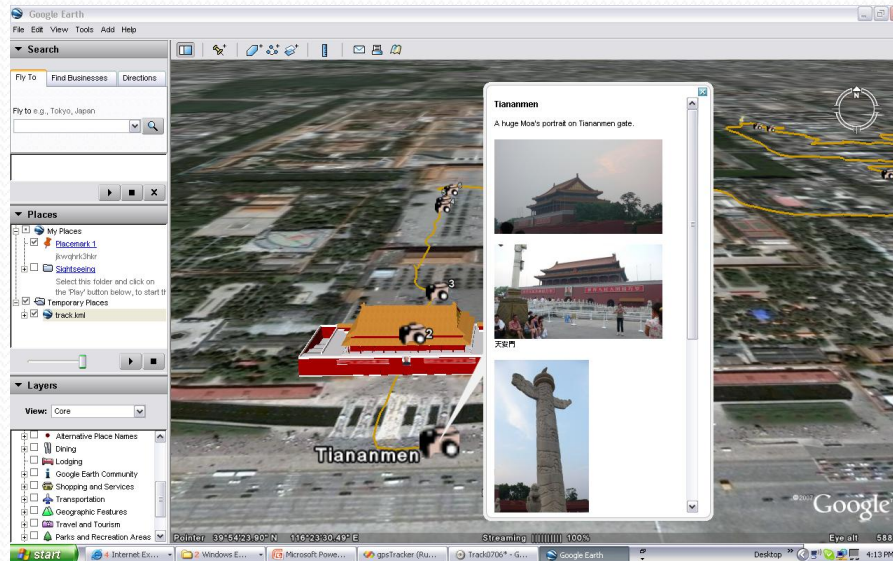
Placemark

- A placemark is not only the place holder of photos, it also has name, icon, and description.
- Click on the “Property” folder to edit the attributes of the selected placemark.



View in the Google earth

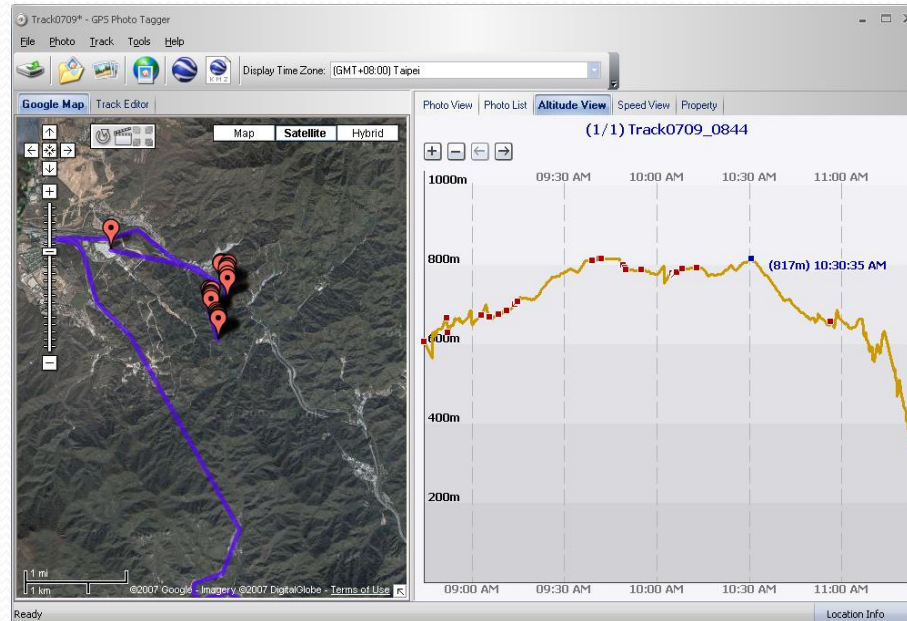
- Menu command “File” -> “View in Google Earth” will invoke Google earth and show the tracks in it.
- Users have to install the Google earth.
<http://earth.google.com/>



Save as kmz file

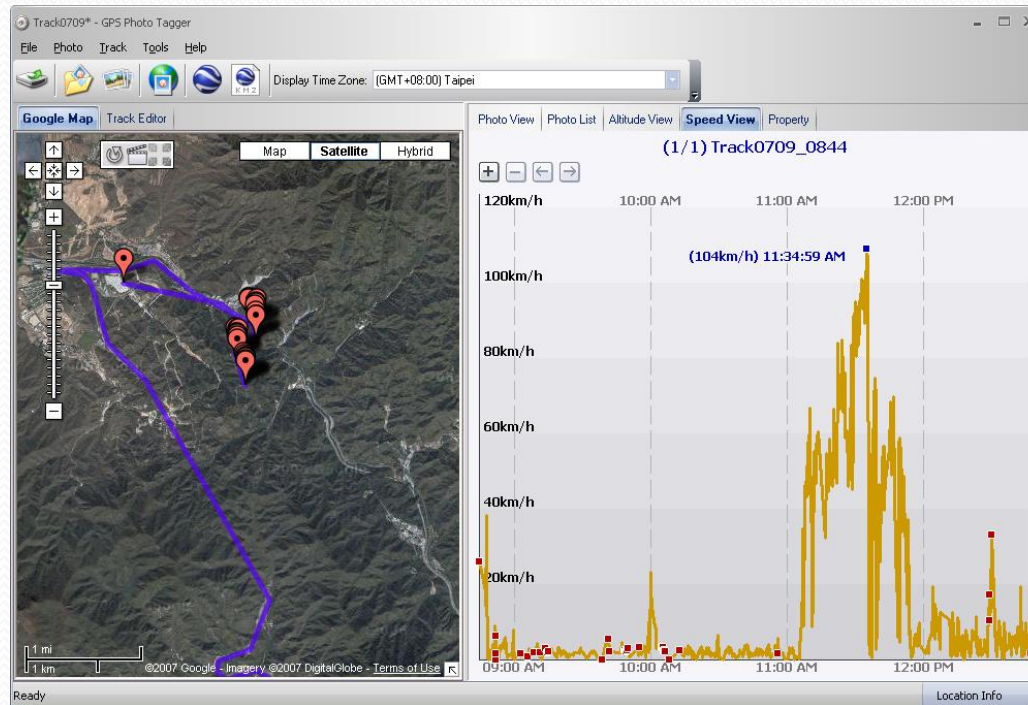
- Menu command “File” -> “Export as Kml...” will save the project as kmz file.
- The kmz file will pack tracks, pictures in it.
- Kml file can be viewed in google earth.
- Users can send kmz file to friends to share their trips with friends.
- The picture size packed in the kmz file can be set in the options dialog. Menu command “Tools” -> “Options” will invoke options dialog.

Altitude graph



Switch to “Altitude View” window will show the altitude graph. The waypoints with photos on it will be marked with red square. Moving cursor on red square will display the photo.

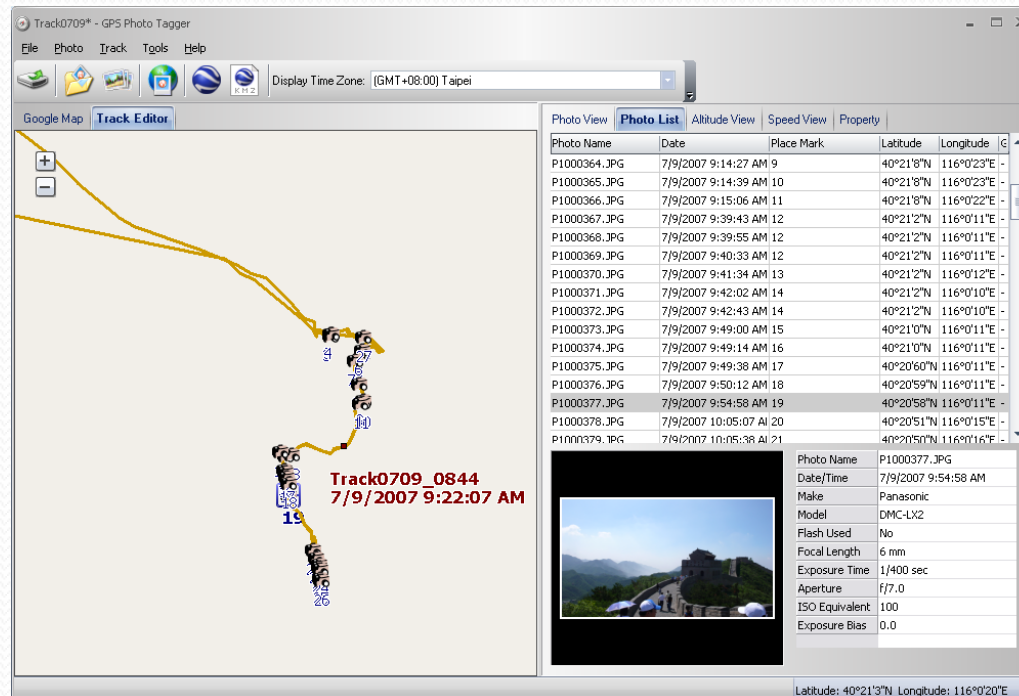
Speed Graph



Switch to “Speed View” window will show the speed graph. The waypoints with photos on it will be marked with red square. Moving cursor on red square will display the photo.

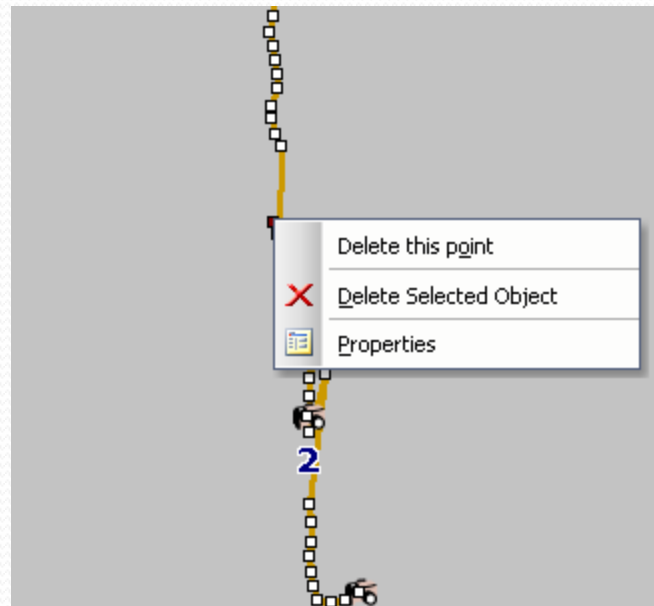
Track editing

- Switch to folder “Track Editor” on the left window.
- Move the cursor on the track will show the preselected waypoint time.
- Click on track to select the whole track.



Track editing

- Mouse right button menu command “Delete this point” will delete the selected waypoint.
- Mouse right button menu command “Delete Selected Object” will delete the selected track.



Save and open project

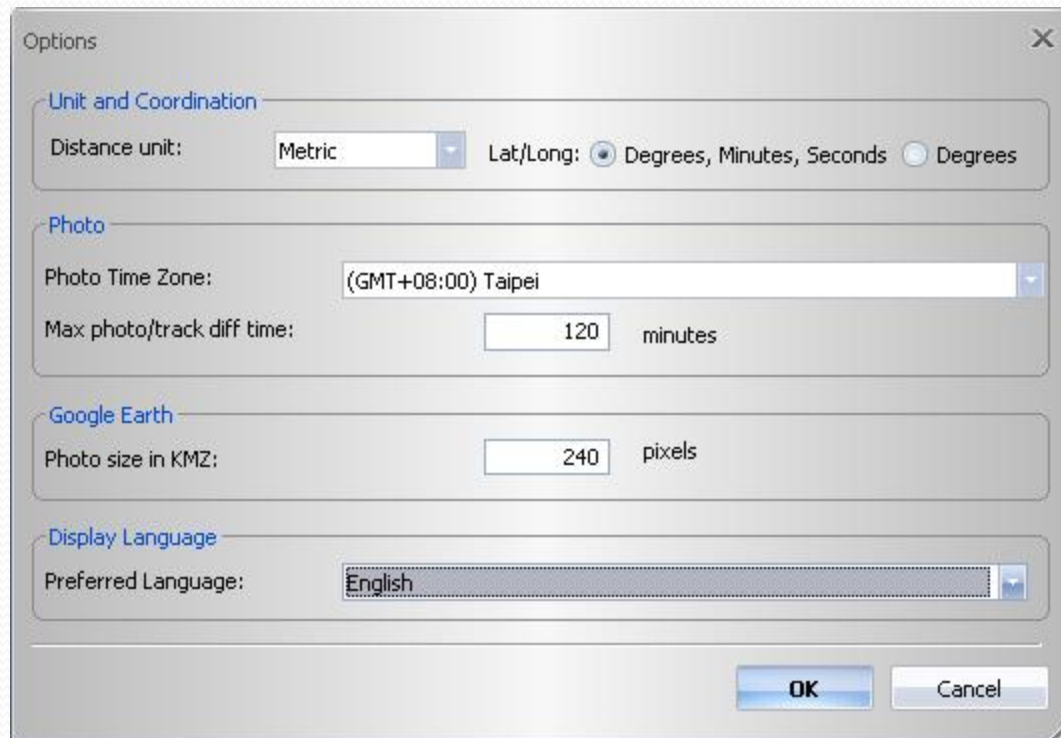
- Menu command “File” -> “Save project” will save the tracks and photo as a project file.
- Menu command “File” -> “Open project...” will open the saved project. The project, photos, and photo comments will be restored after the project opened.

Time zone setting

- There are two time zone settings in “GPS Photo Tagger”. 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 are an Englishman, and you travel to United State. The “Photo time zone” should be set to “England” because your digital camera time zone is England, and the display time zone should be set to “United State”.
- The “Photo time zone” by default is set to the PC default value. In most of the case the default value is correct.

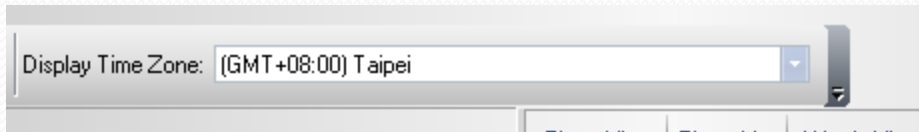
Time zone setting

- Menu command “Tools” -> “Options” will invoke the options dialog. You can set “Photo Time Zone” in the dialog.



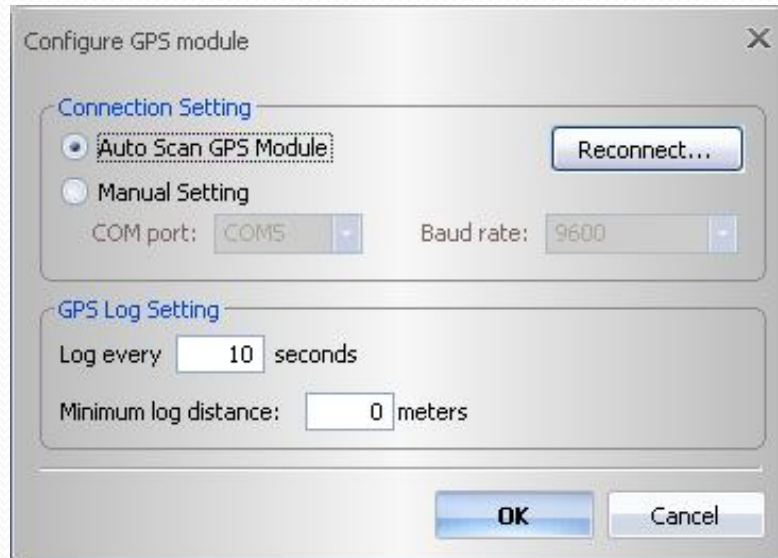
Time zone setting

- The “display time zone” setting is in the status bar.



Data Logger Configurations

- Connect Data Logger to PC and **turn on Data Logger**
- Menu command “GPS” -> “Config GPS...”
- If Data Logger is not connected, the GPS Log Setting area will be disabled.



Data Logger Configurations

- Connection Setting

- Auto Scan GPS Module (Recommended)

The program will automatically detect the com port and the baud rate. It is recommended to set to auto scan.

- Manual Setting

Users can also manually set the port and baud rate.

Although it can speed up the initial connect time, but it is not recommended unless users understand the valid port and baud rate.

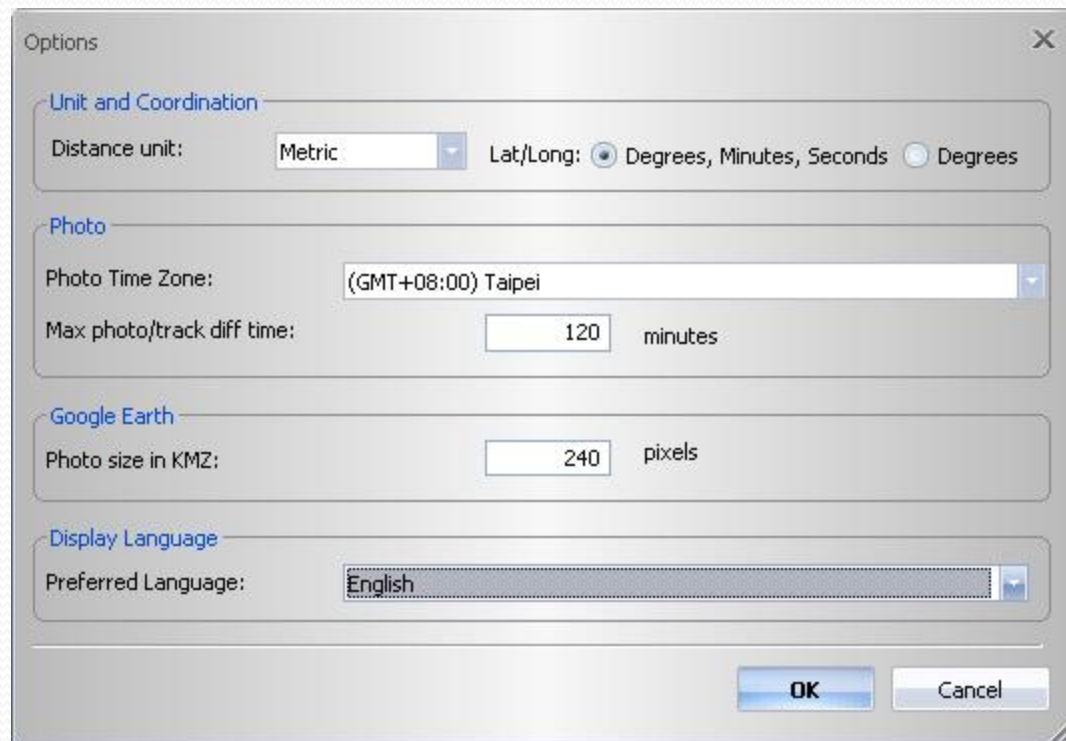
- Please make sure the Data Logger power switch is turn on when connect.

Data Logger Configurations

- Log every () seconds
Data Logger will not log if difference between current time and last logged time is less than the specified time.
- Minimum log distance ()
Data Logger will not log if the distance of current position and last logged position is less than the specified distances.

Options

- Menu command “Tools” > “Options...”



Options

- 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 $23^{\circ}12'20''$
 - Degrees: Latitude and longitude will be display like 23.22152°

Options

- Photo Time Zone: The digital camera's time zone.
- Max photo/track diff time: Used to match photo and track waypoints. Photo Tagger 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.
- Photo size in KMZ: The size of the photos packed in the KMZ file. It is related to the command "File" > "Export As KMZ...".
- Preferred Language: Set the languages for menu, buttons and messages.