

Data Logger and Photo Tagger

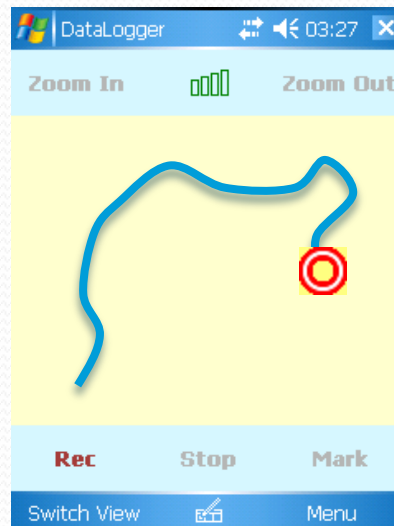
Version 1.1

Sept 10 , 2007

Data Logger for Pocket PC



GPS data

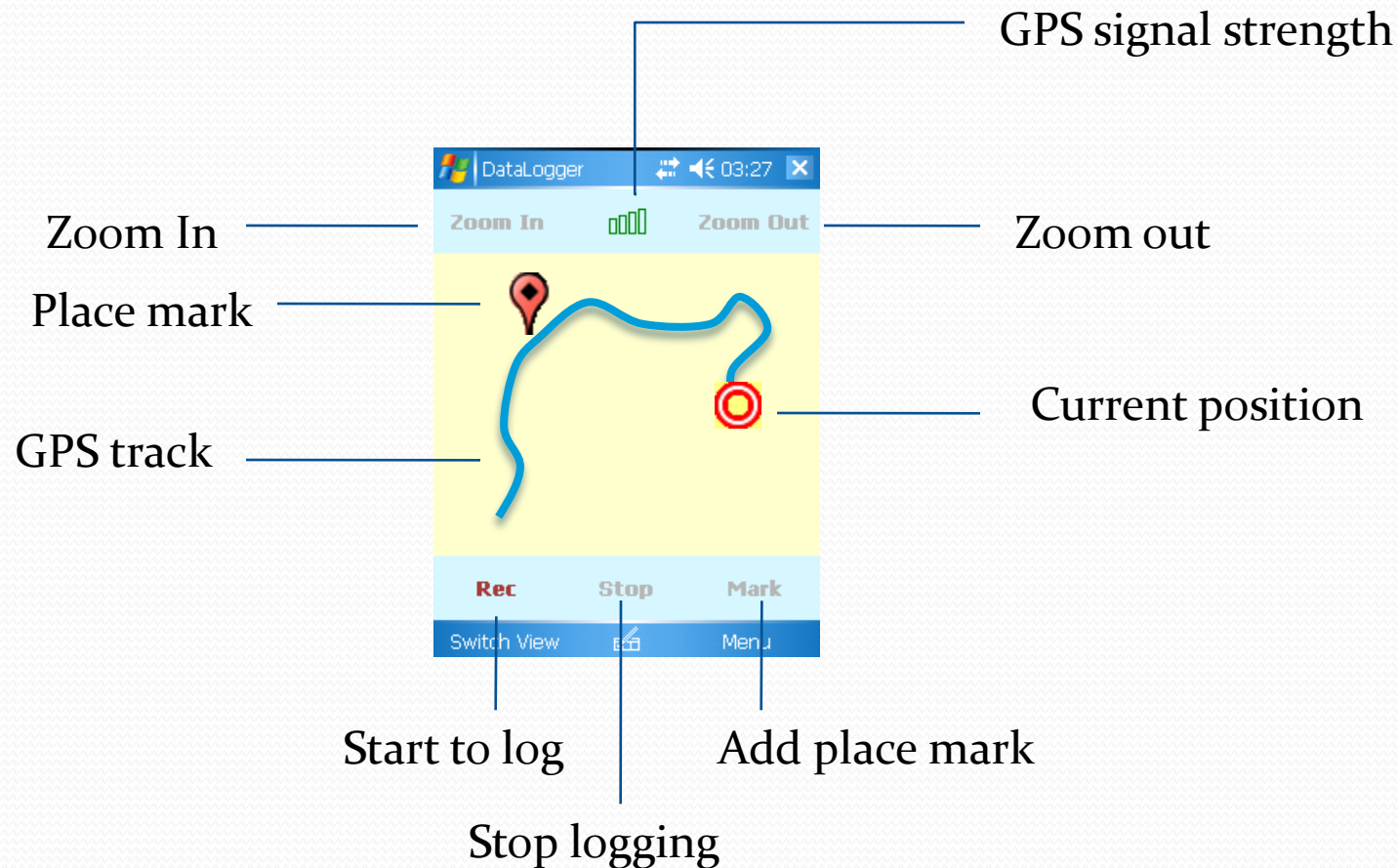


Logged data



Platform: Window Mobile 5.0 and above

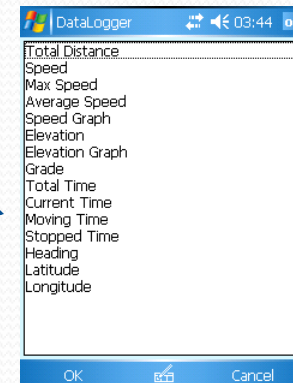
Main window



Dashboard view



Configurable display values



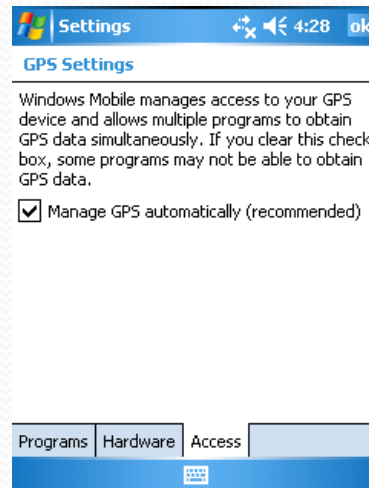
Press "Switch View" to switch to "Dashboard View"

click to change to different value display

GPS Setting

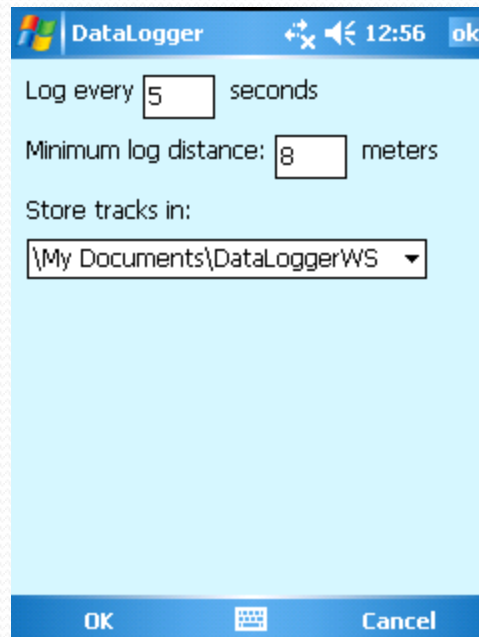
- Pocket PC

Start > Setting > System > Click on “GPS” icon
Select “Access” folder > Check “Manage GPS automatically”



Configurations

- Menu command “Menu” > “Options” will invoke the configuration window.



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.
- For example, if users set “Log every 5 seconds” and “Minimum log distance 10 meters”, Data logger will log when the current time is 5 seconds more than last logged time **and** current position is 10 meters far from last logged position.

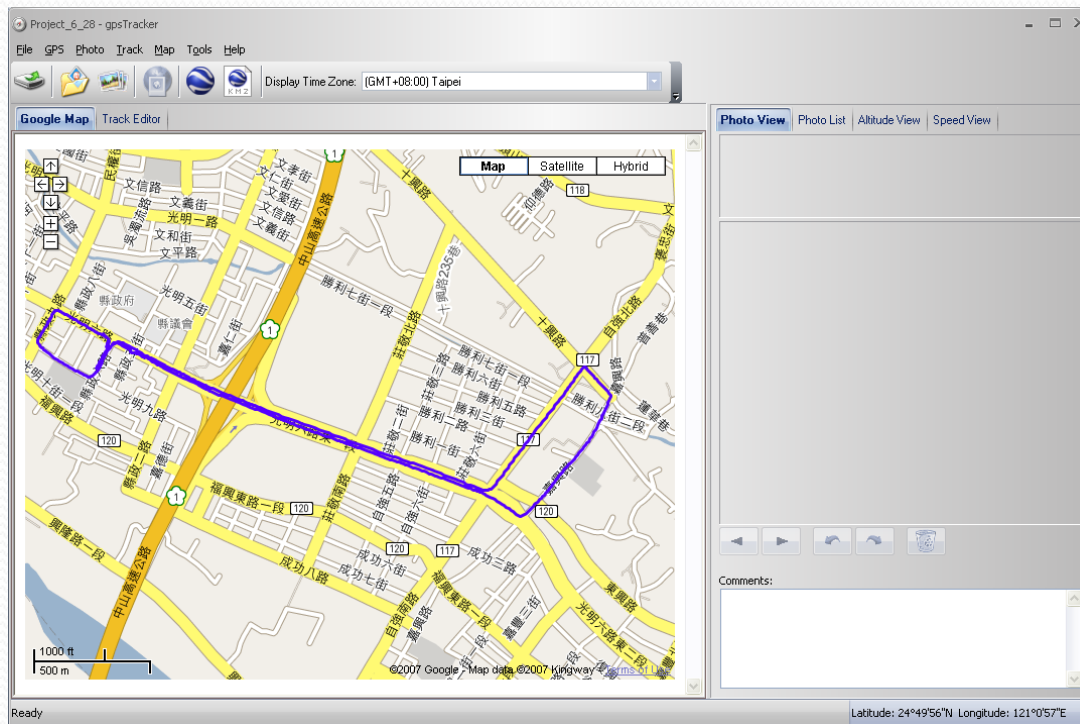
GPS Photo Tagger for PC

- Support Windows XP, Vista
- 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.
- 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 Pocket PC

- Step 1 – Connect Pocket PC and PC
- Step 2 – Menu command “GPS” > “Read log..”

Read GPS log from device



The GPS tracks will show on the Google map window.

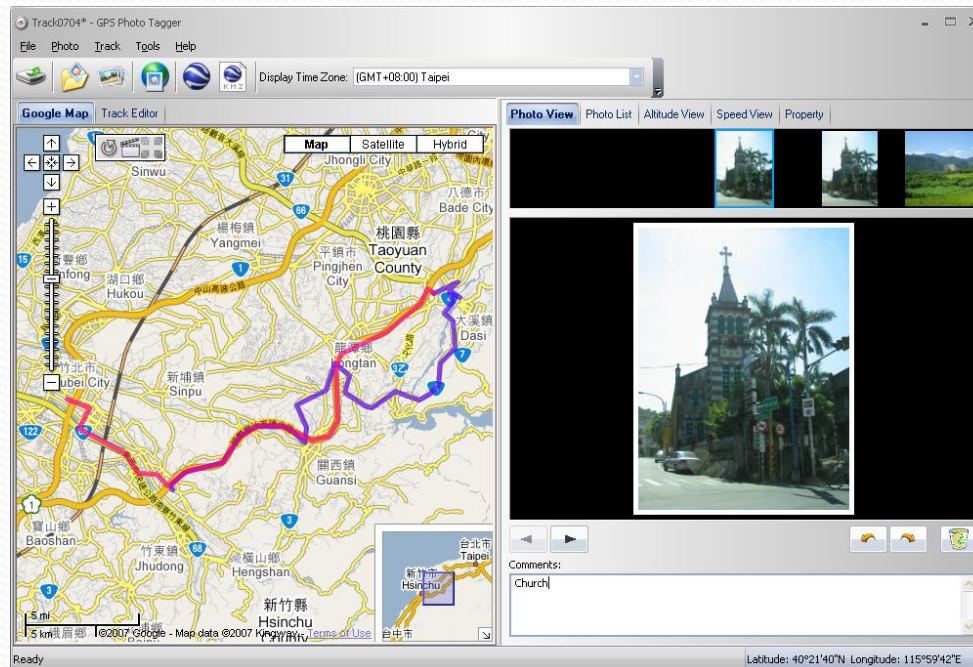
Clear device memory

- Menu command “GPS” > “Clear log” will clear the data stored in Pocket PC

Add photo

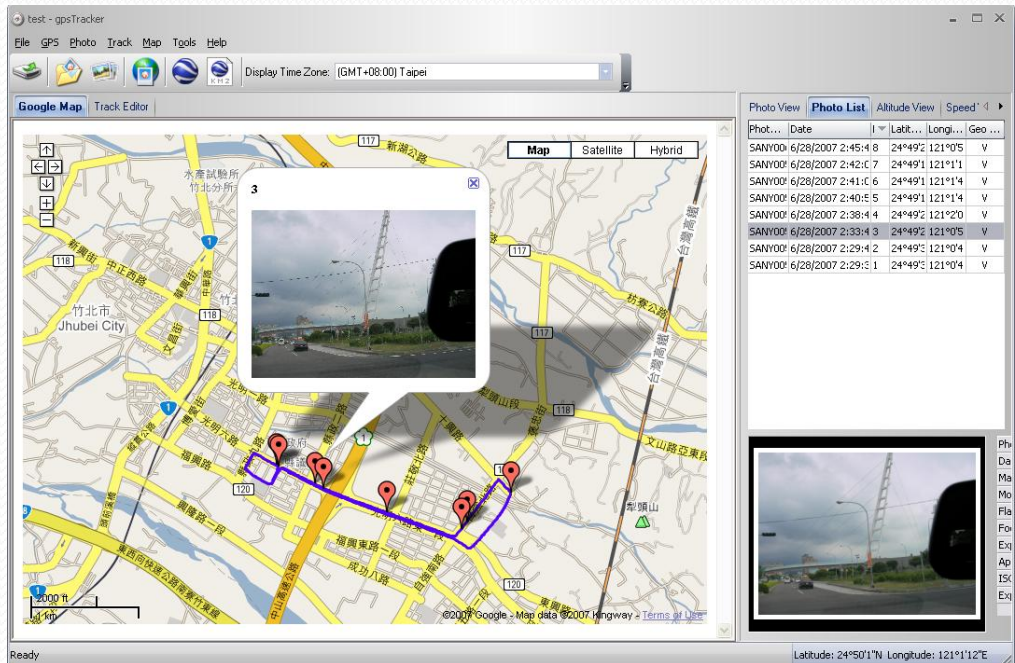
- Users can add photo from a file folder, or selected files.
- Add photo from a folder:
Menu command “Photo” -> “Add Photo...” -> “From Folder”.
Select a folder to add photo.
- Add photo from selected files:
Menu command “Photo” -> “Add Photo...” -> “From Files”.
Use Ctrl-Click, or Shift-Click to select 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 displays the gpsTracker application window. The main area shows a Google Map of Jhubei City with a blue track and several red location pins. A photo preview window is open over the map, showing a street scene. The 'Photo List' window is open on the right, displaying a table of photo metadata. Below the table, a thumbnail of a photo is shown along with its detailed metadata.

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.

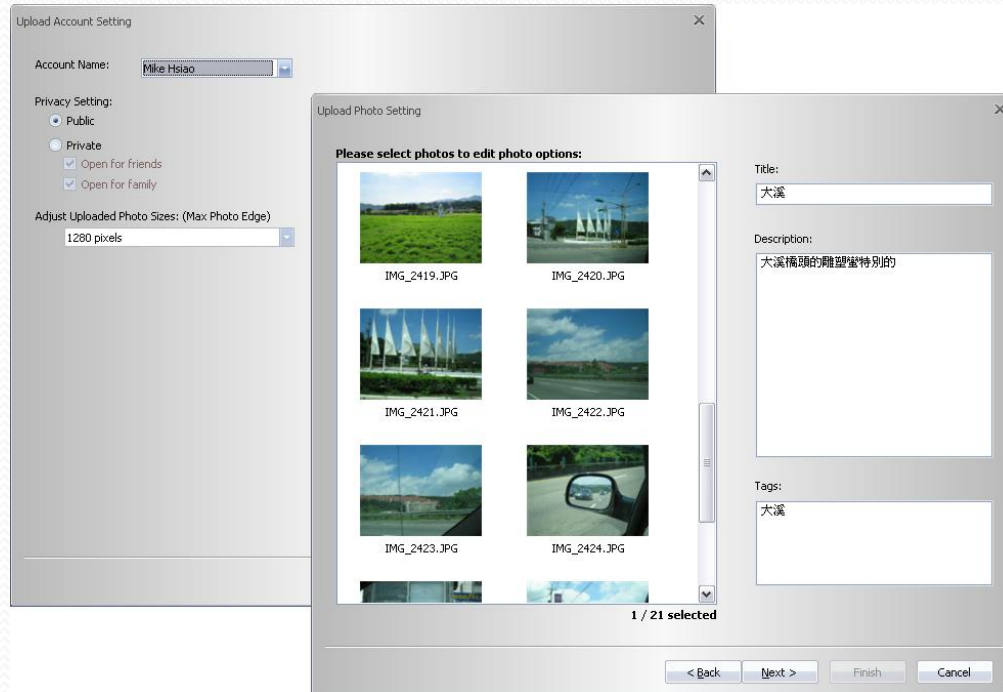
GeoTag – save latitude, longitude to jpeg file

- 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.



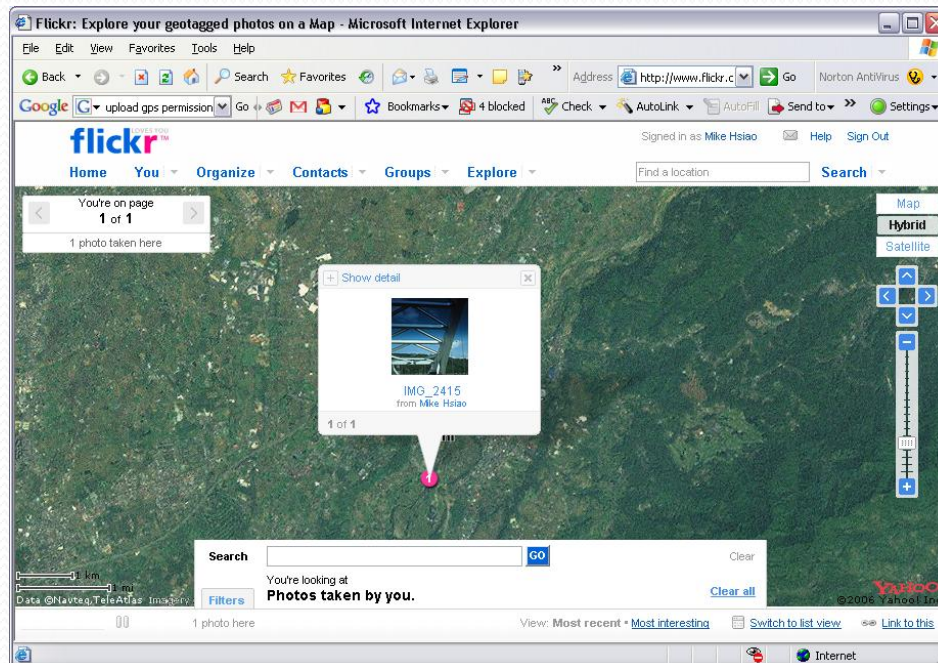
Upload photos to Flickr

- Menu command “Photo” > “Upload Photos to Flickr...” will invoke upload wizard.
- Users can set “Title”, “description”, “Tag”, “Public or Private”, and “Upload photo size”.



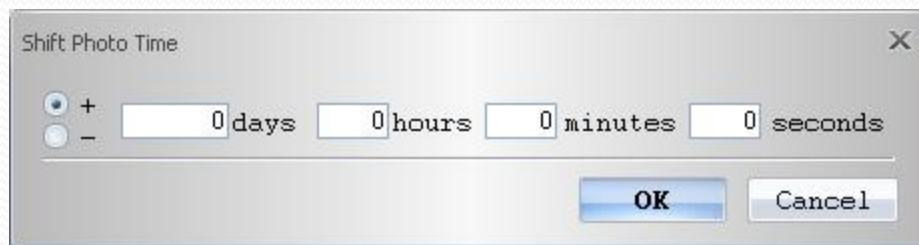
Upload geotagged photos to Flickr

- You can also upload geotagged photos on Flickr web site:
 - 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.

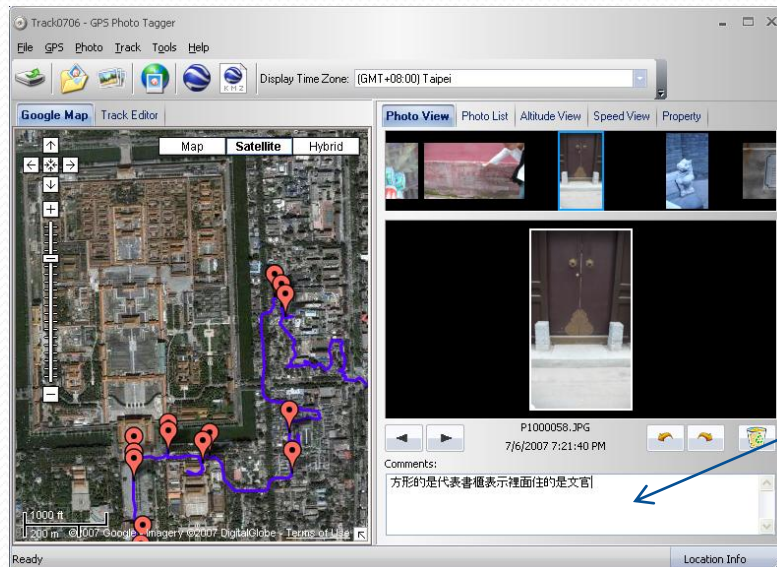
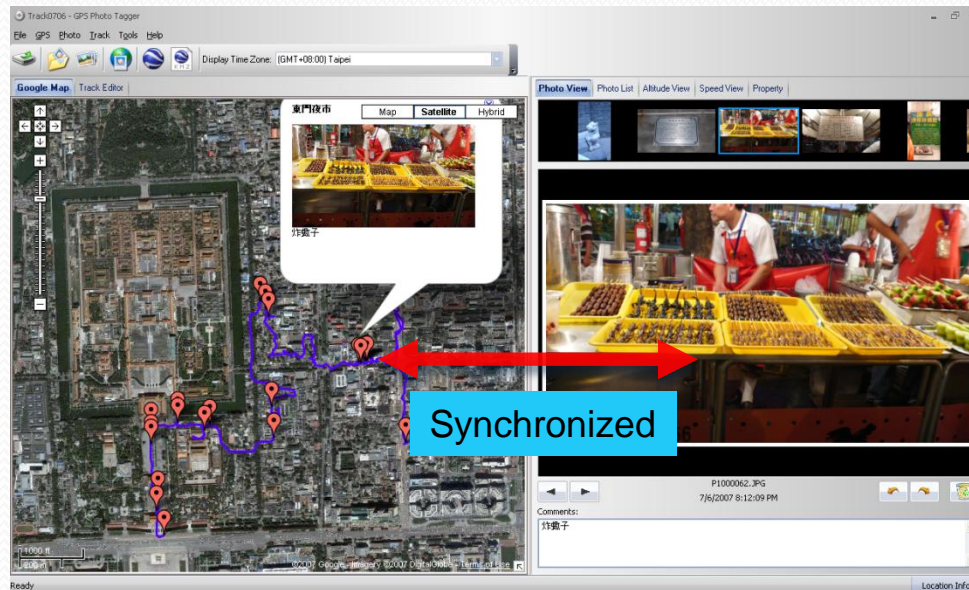


Photo Comments
(multi-language supported)

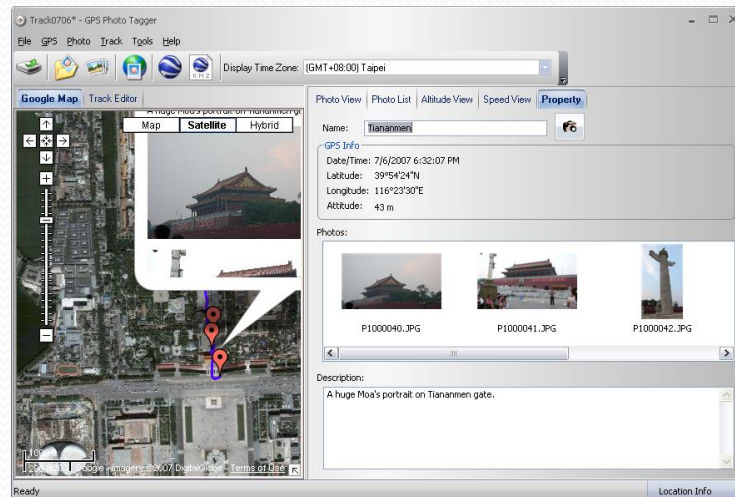
Viewing photos

- 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.



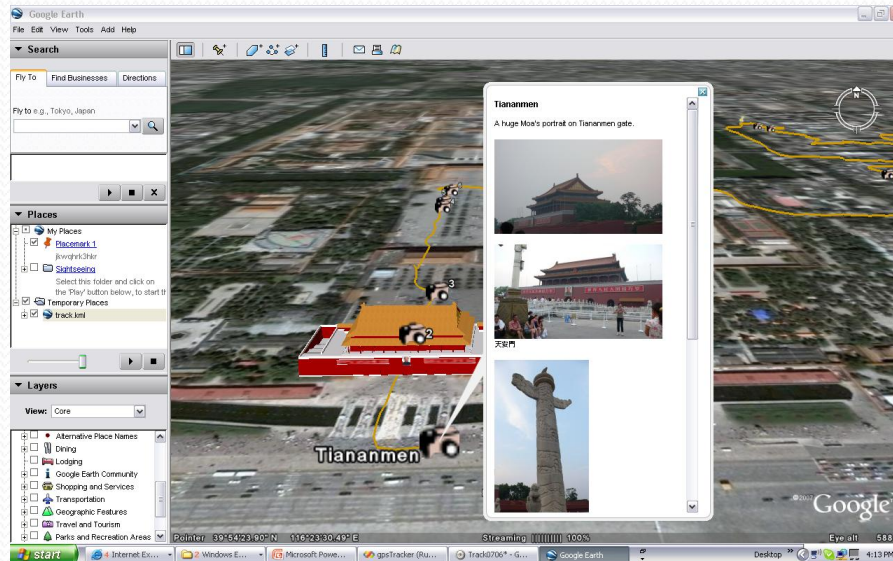
Placemark

- 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

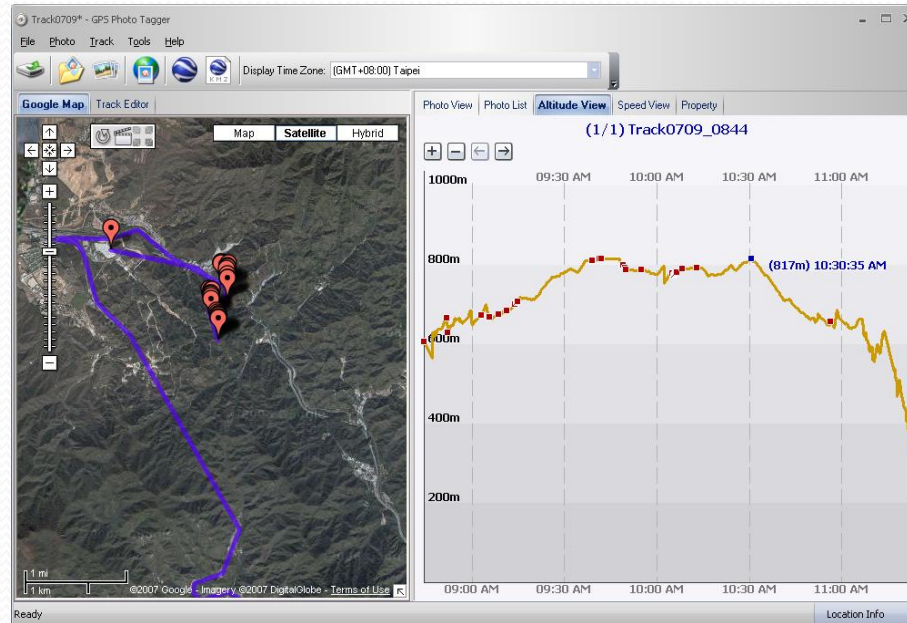
- Menu command “File” -> “View in Google Earth” will invoke Google earth and show the tracks in it.
- Users have to install the Google earth.
<http://earth.google.com/>



Save as kmz file

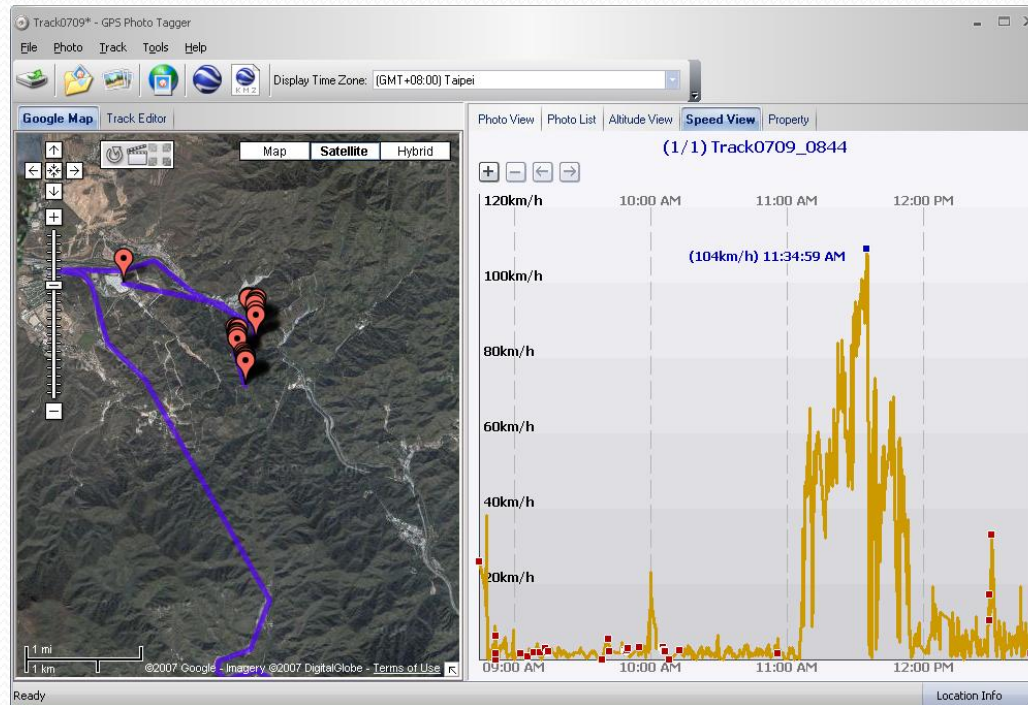
- Menu command “File” -> “Export as Kml...” will save the project as kmz file.
- The kmz file will pack tracks, pictures in it.
- Kml file can be viewed in google earth.
- Users can send kmz file to friends to share their trips with friends.
- The picture size packed in the kmz file can be set in the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

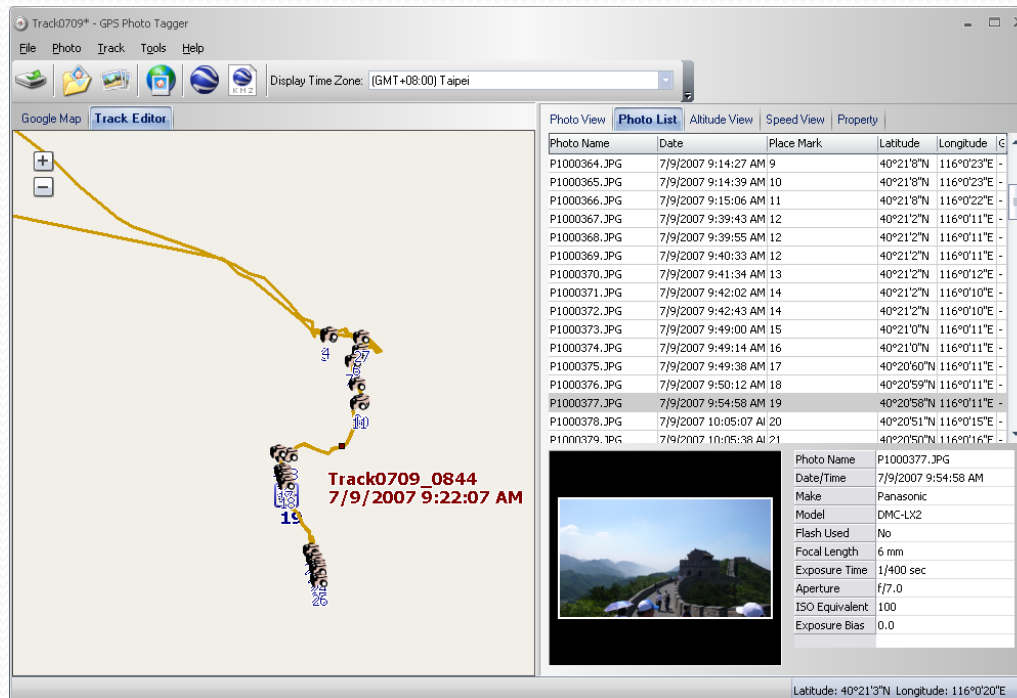
Speed Graph



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.

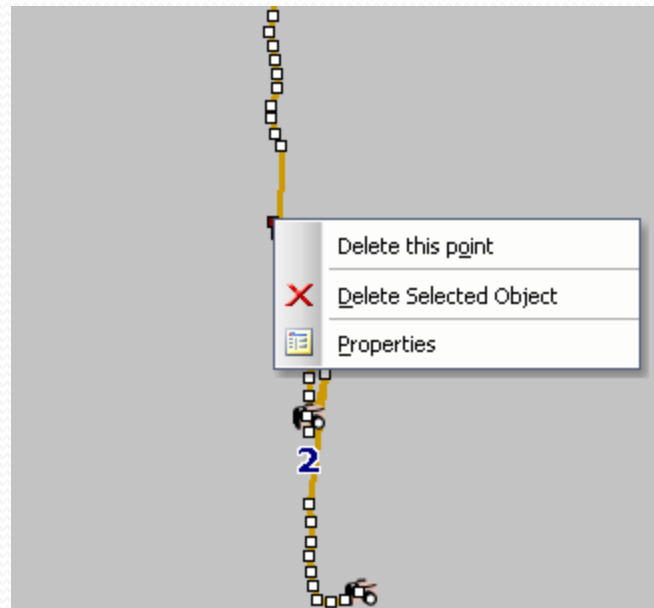
Track editing

- 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

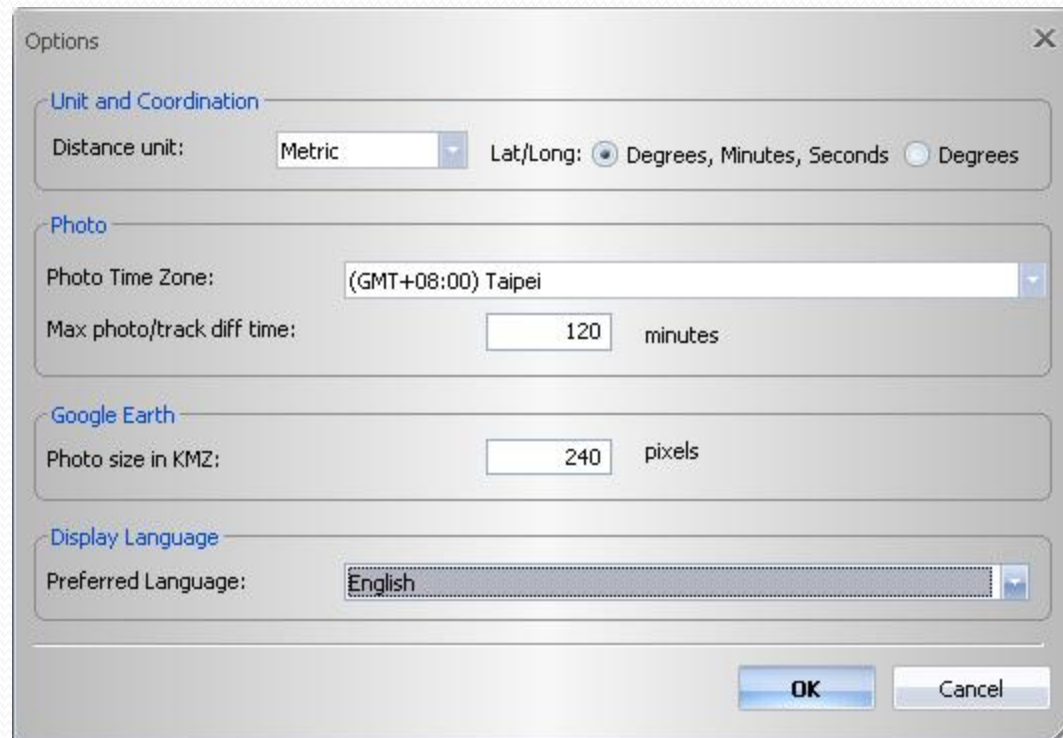
- Menu command “File” -> “Save project” will save the tracks and photo as a project file.
- Menu command “File” -> “Open project...” will open the saved project. The project, photos, and photo comments will be restored after the project opened.

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.

