The operation guide of ML-7

This is a guide to instruct the user to use ML-7 properly. You can find the information to define every parameter of ML-7 at the following chapters. If you still have any questions, please send your valuable comments to sanav@sanav.com. We shall reply you in the soonest time.

1. Appearance

2. Package Contents
- ML-7 device
- AP data cable
- Power Adapter
- A CD disk with user guide and utility

3. Introduction
ML-7 is the smallest GPS data logger in the world! With small in size, light in weigh and mini to hidden, **ML-7** is the most suitable GPS data logger for you to apply the GPS logger to difference applications such as dove tracking, photo management, sport tracking and vehicle tracking. It will definitely be your best helper on your journey.
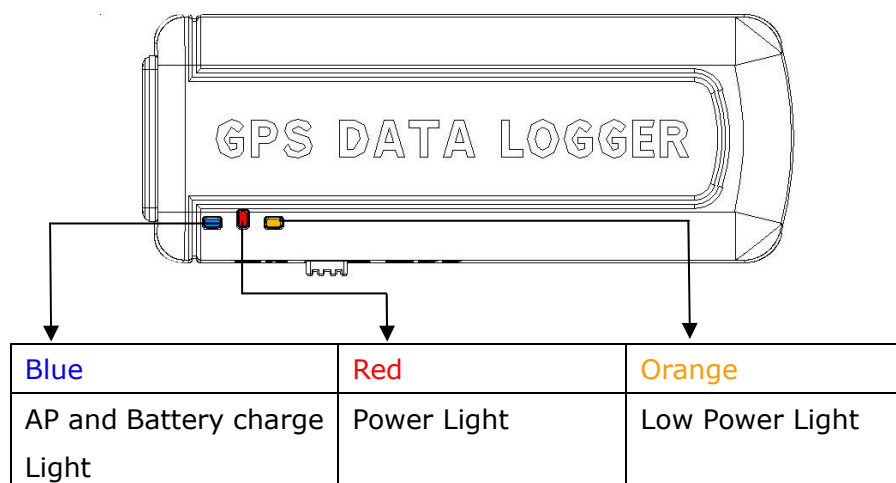
4. Features

- 51 independent tracking channels
- Ultra small size
- 16Mb flash memory
- The data will be just logged only when the GPS is fixed

5. Applications

LED Light Status

Blue	Red	Orange
AP and Battery charge Light	Power Light	Low Power Light

6. Specifications

| General Descriptions	Parameters
Frequency	L1 frequency; 1575.42MHz support 51 independent tracking channels
Sensitivity	-146dBm
Update Rate	1Hz
Acquisition	Cold Start: 36 sec. Warm Start: 33 sec. Hot Start: 1 sec.
Reacquisition	<1 sec.
Dynamics	Altitude: 18000m (max.) Velocity: 515 m/sec. (max.) Vibration: 4G (max.)
Supply Voltage	DC 5V
Power Consumption	Data Record Mode <60mA Power Saving Mode<0.5mA Tracking: 30mA
NMEA Message	NMEA0183, default 115200 Output:GGA,GSA,GSV,RMC Log: RMC
Datum	Default WGS-84
Serial Interface	TTL@2.8V
Weight	12.4g
Dimension	46.9mm(L) x 18.1mm(W) x 14.9mm(H)
Battery	Include 170mA
Battery Life	5-6 Hours
Operating Temperature	0~55^{0}C
Storage Temperature	0~55^{0}C
Operating Humidity	<= 95%, non condensing
Accessories	USB to RS232 cable charger

7. Find out Virtual Com Port for ML-7

Before connecting the ML-7 to computer, you should find out a virtual com for the ML-7.

1. Please find the relevant USB driver for your computer OS.

📁 Linux	📁 Mac OS 8.6-9.X	📁 UB Series
📁 Vista	📁 Win CE	📁 Windows 95-98-2000-XP
📁 Windows Vista	📁 WinXP 64	

2. Install the deriver

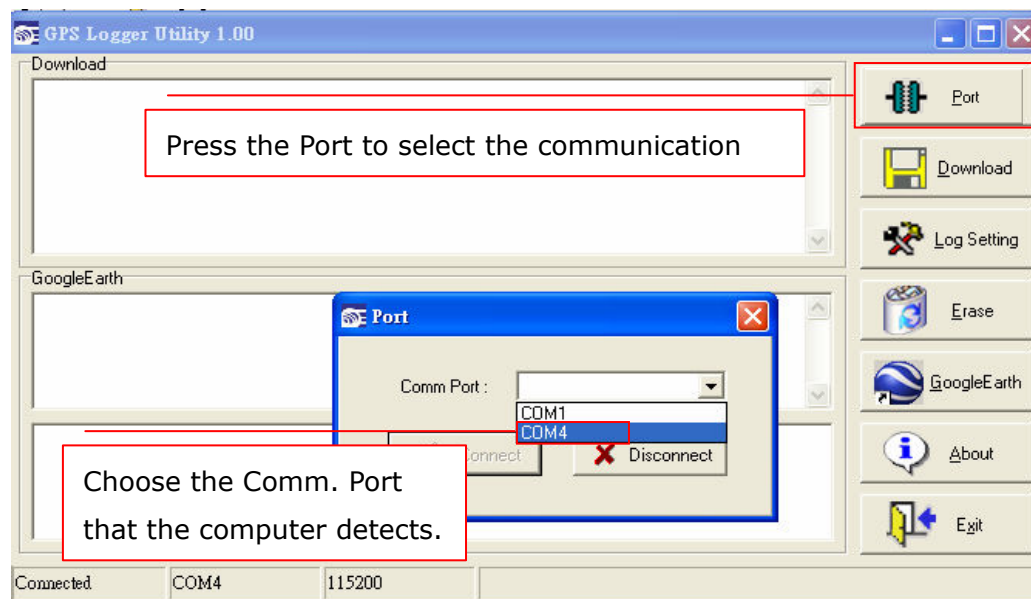3. Please go to the **device manager** to find out virtual com port for connecting ML-7 and computer.
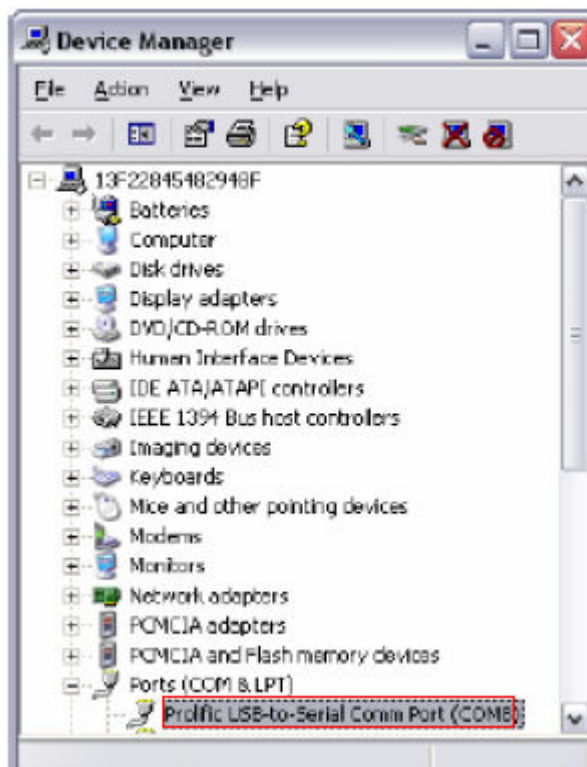
8. The instruction of AP utility

a. Download the AP utility from CD disk and install the AP to your computer.
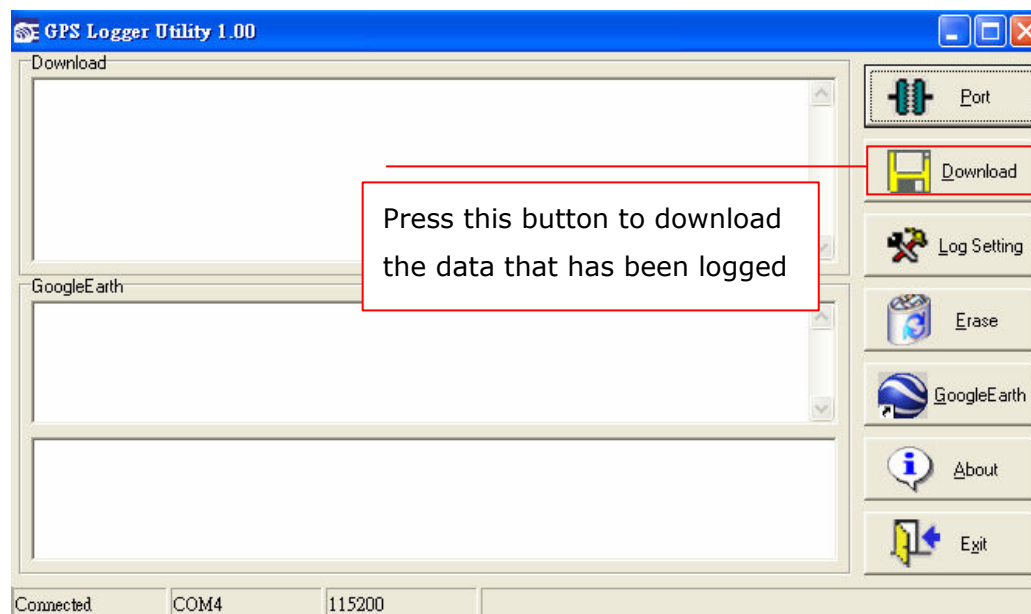

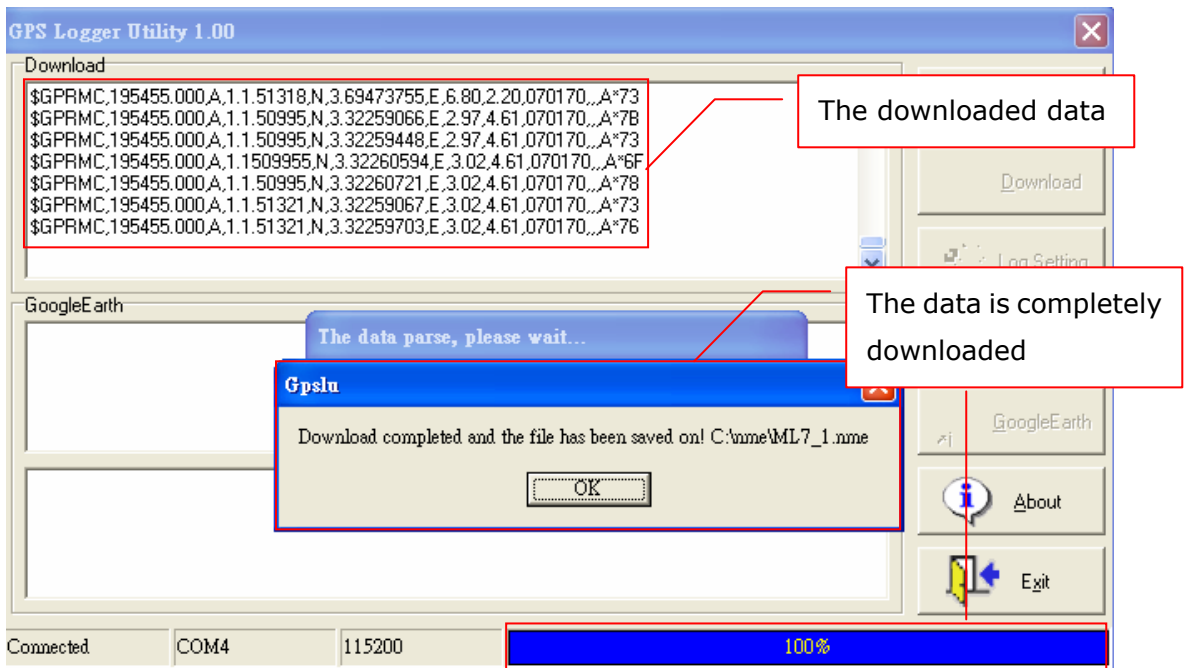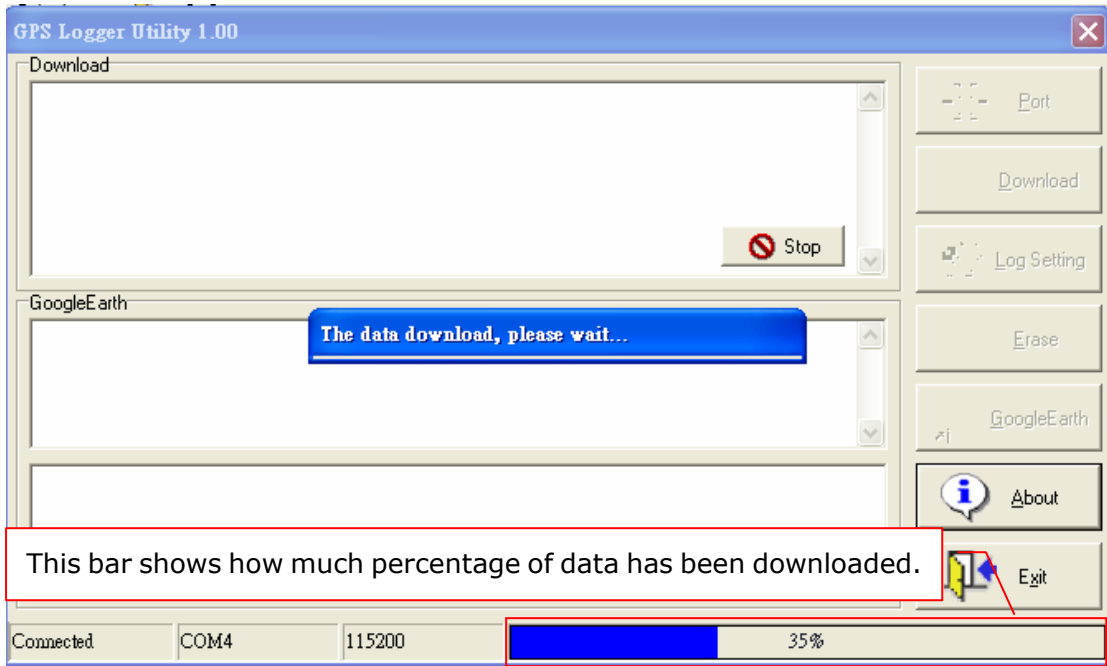
! Please note the install password is "demover".

! Please install the USB driver before operating the AP utility.

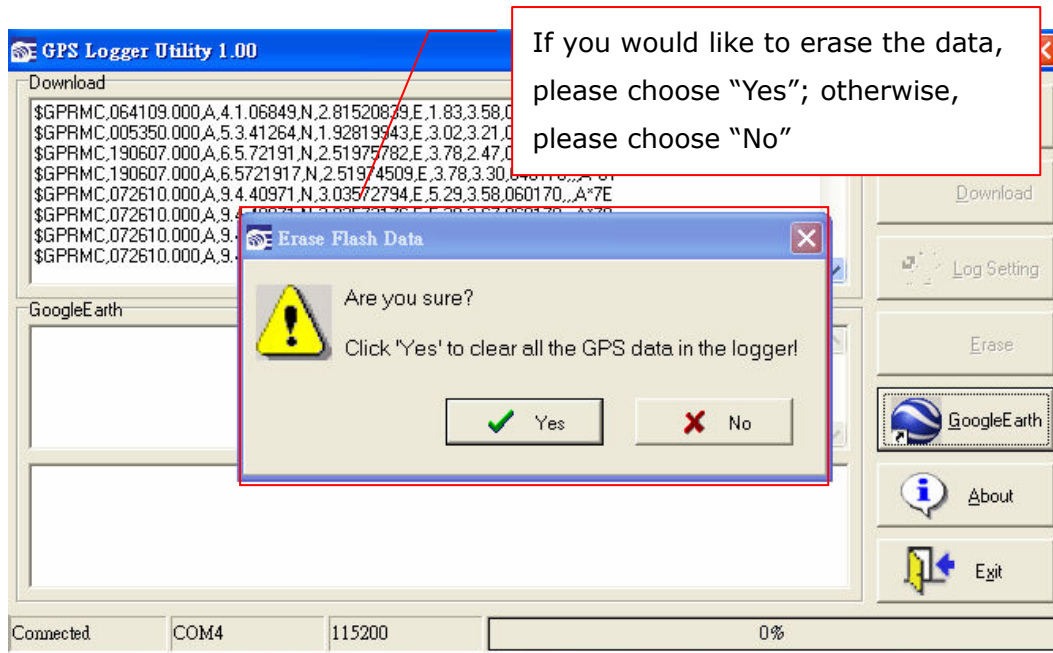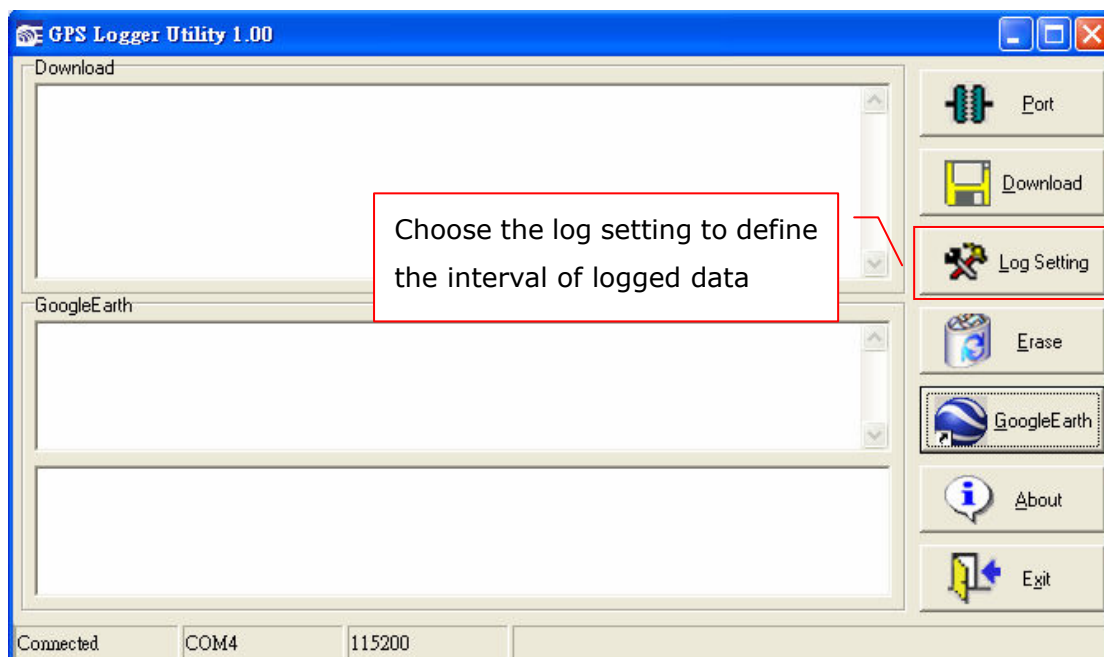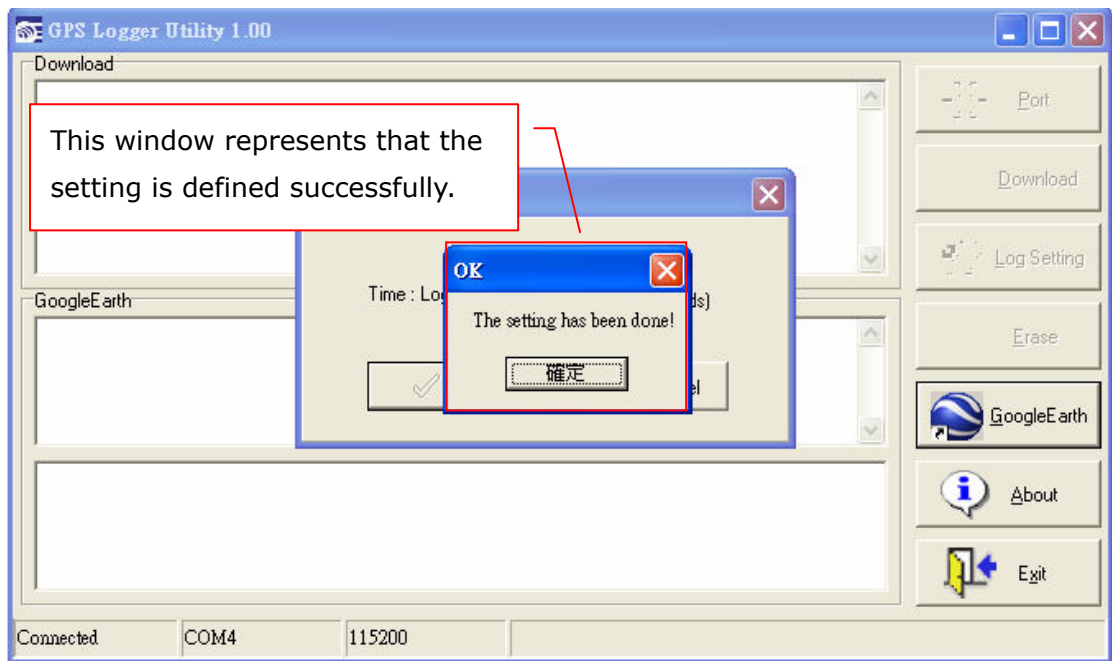**b.** When the AP is installed, make the connector between the ML-7 and computer.

Press the Port to select the communication

Choose the Comm. Port that the computer detects.

c. To download the file

Press this button to download the data that has been logged

GPS Logger Utility 1.00

Download

Stop

GoogleEarth

The data download, please wait...

Port

Download

Log Setting

Erase

GoogleEarth

About

This bar shows how much percentage of data has been downloaded.

Exit

Connected   COM4   115200   35%

GPS Logger Utility 1.00

Download

$GPRMC,195455.000,A,1.1.51318,N,3.69473755,E,6.80,2.20,070170,,,A*73
$GPRMC,195455.000,A,1.1.50995,N,3.32259066,E,2.97,4.61,070170,,,A*7B
$GPRMC,195455.000,A,1.1.50995,N,3.32259448,E,2.97,4.61,070170,,,A*73
$GPRMC,195455.000,A,1.1509955,N,3.32260594,E,3.02,4.61,070170,,,A*6F
$GPRMC,195455.000,A,1.1.50995,N,3.32260721,E,3.02,4.61,070170,,,A*78
$GPRMC,195455.000,A,1.1.51321,N,3.32259067,E,3.02,4.61,070170,,,A*73
$GPRMC,195455.000,A,1.1.51321,N,3.32259703,E,3.02,4.61,070170,,,A*76

The downloaded data

Download

Log Setting

GoogleEarth

The data parse, please wait...

Gpslu

Download completed and the file has been saved on! C:\nme\ML7_1.nme

OK

The data is completely downloaded

GoogleEarth

About

Exit

Connected   COM4   115200   100%

If you would like to erase the data, please choose "Yes"; otherwise, please choose "No"
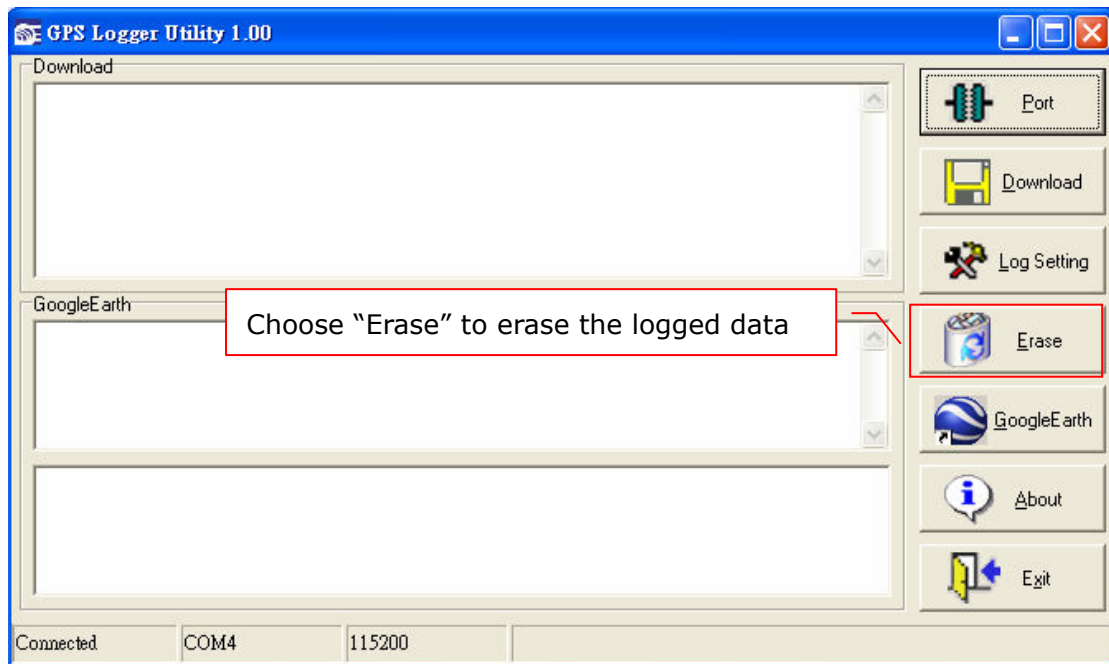
d. Log Setting

Choose the log setting to define the interval of logged data

PS: The data downloaded will be fixed data only

You are able to define the interval of the logged by the number between 1-999 seconds

This window represents that the setting is defined successfully.

e. To erase the data.

Choose "Erase" to erase the logged data

If you would like to erase the data, please choose "Yes"; otherwise, please choose "No"

Erase Flash Data

Are you sure?

Click 'Yes' to clear all the GPS data in the logger!

Yes   No
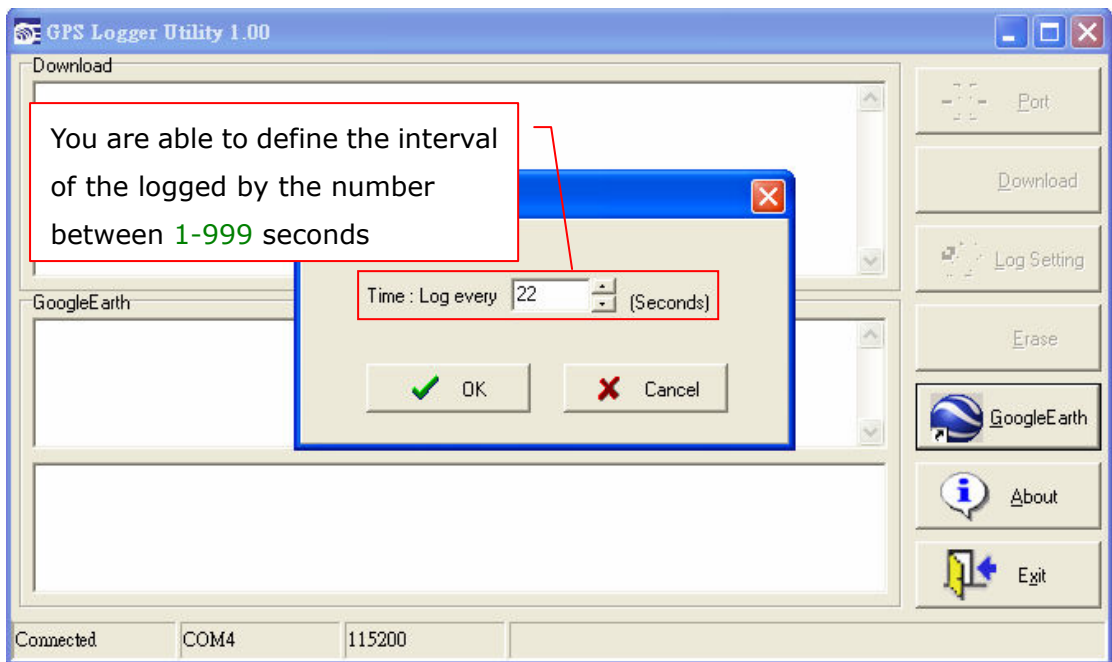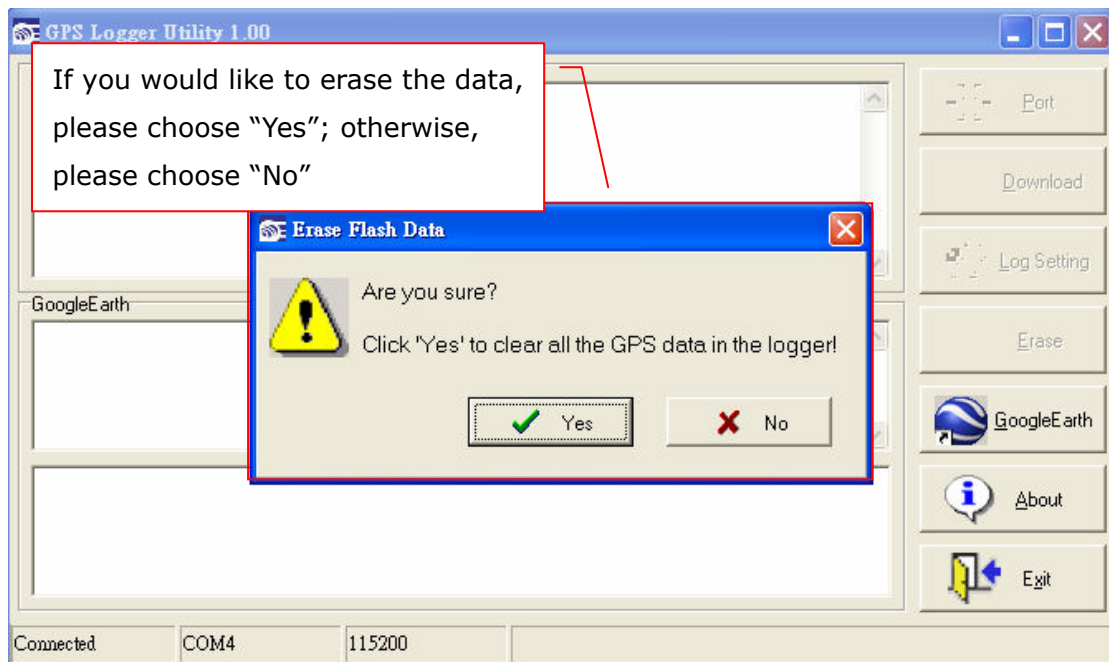
f. Connect to Google Earth Map

Choose "Google Earth" to link to Google Earth Map.

Choose a .nme file and the utility will automatically to link the file to Google Earth. The route should be C:\nme\....
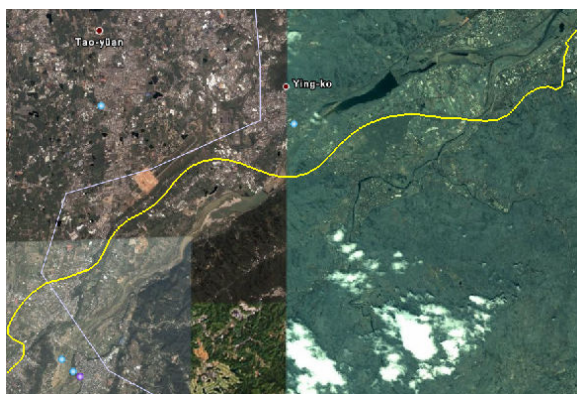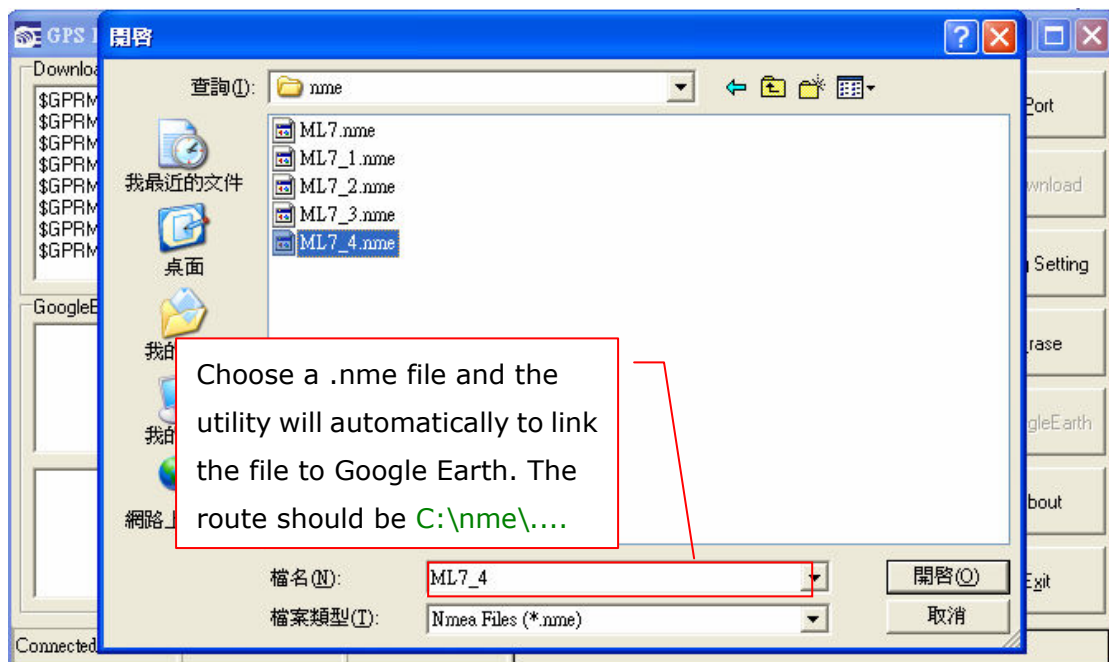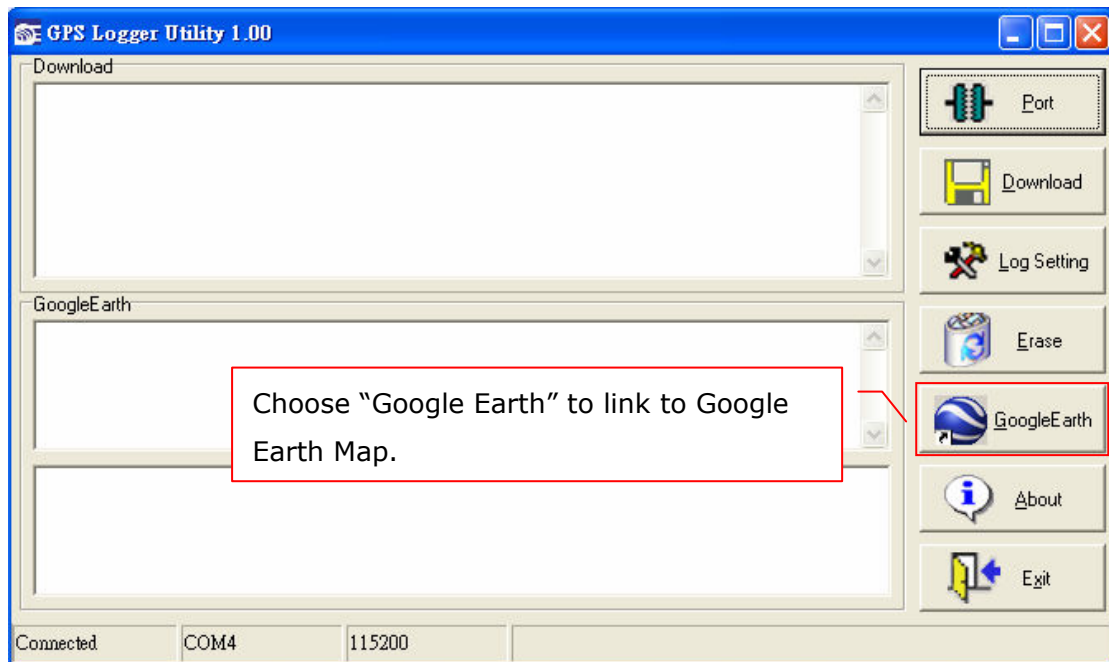
You can also download the free software from Locr. Please refer to the website link as below: http://www.locr.com to locate your digital photos and other applications.
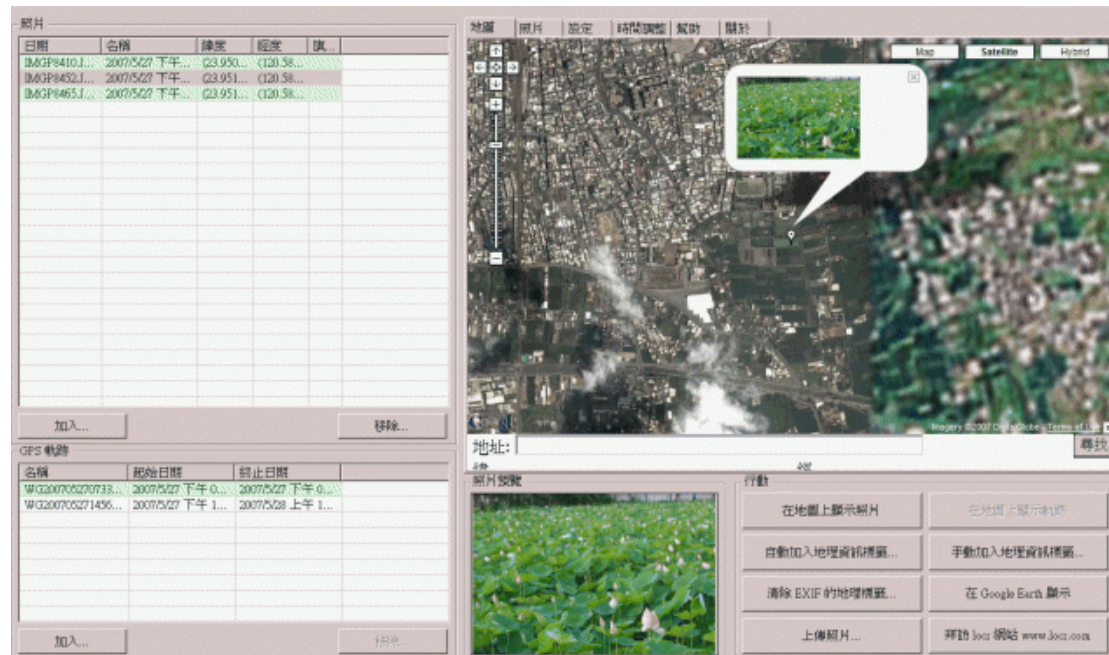
The traces will be shown on Google Map
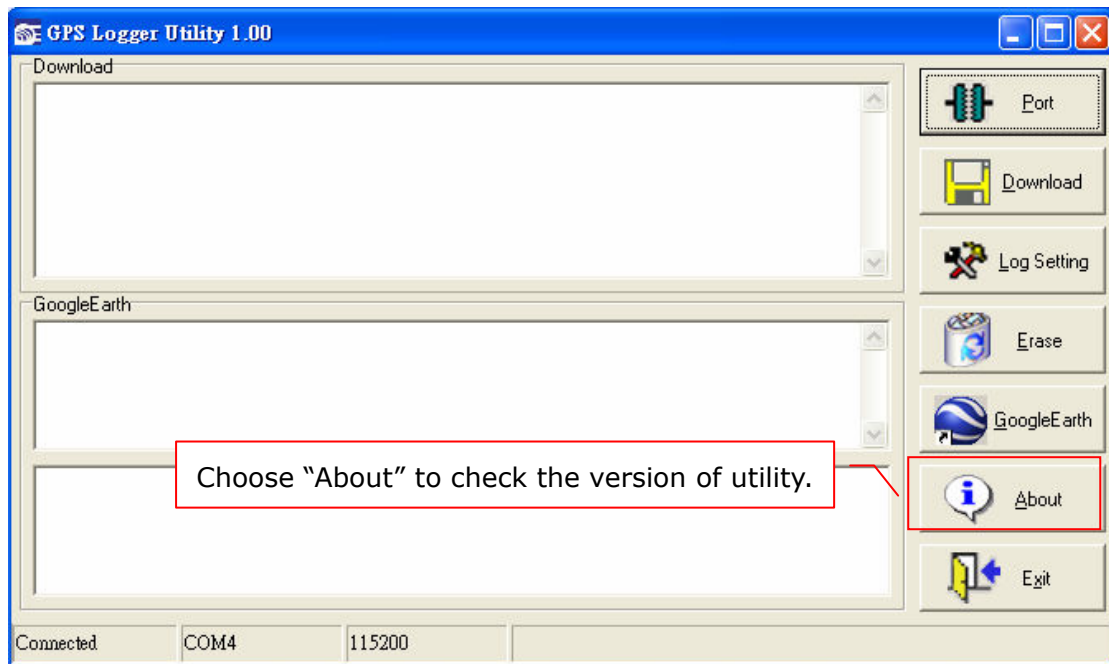
Locr Demo:
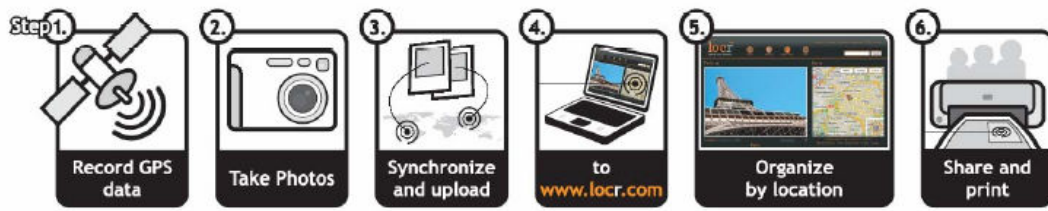
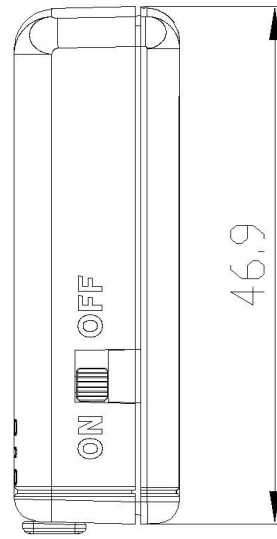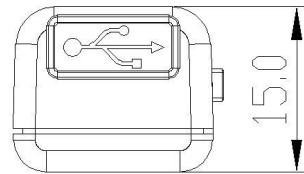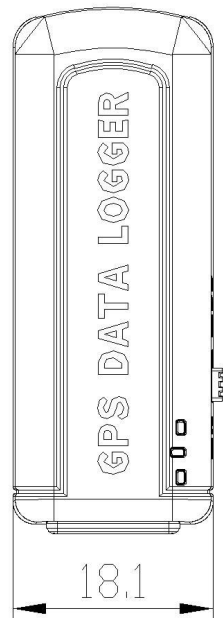The demo window will be like following:

-Locate the point.
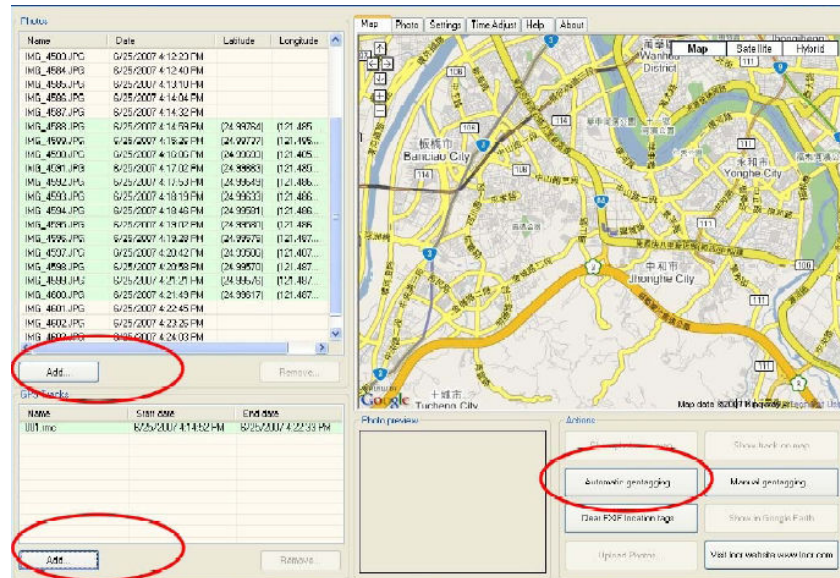
-Locate your digital photos.

g. To check the version of the utility.

Choose "About" to check the version of utility.

Click Google Earth to download the Google Earth map.

GPS Logger Utility for ML-7

Version V1.00 (Build970526)

The version of utility

Press OK to exit this window

8. Mechanical

GPS DATA LOGGER

ON OFF

46.9

18.1

15.0

單位：mm