

GPS software guide

(Includes some tips and operator notes)



Ver 1.96


This software guide is intended to assist you with using the GPS-device Software. Please read through all sections in order.



SPEEDOMETER-MAC

Installation

Once you have inserted the CD in your PC drive, browse to find the map and software exe files.

 setupCDSMDigitMapsDatabaseXX.exe	66,008 KB
 setupDigitX.XXU.exe	4,218 KB

First install the Maps by double clicking on the GPS-deviceMaps icon and follow the steps.

Once completed double click on the setupGPS-device file to install the software. Again follow the steps and we suggest you check the "Add desktop icon" so the application can be easily accessed.



Double click on the icon and the application will open.

This window appears when opening for the first time.

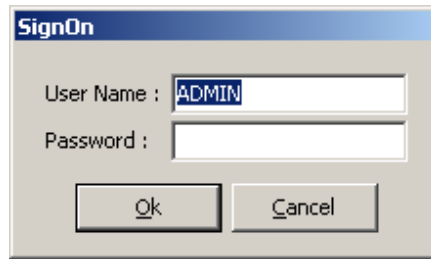


The image shows a dialog box titled "This application has been registered" with a close button (X) in the top right corner. The version is "Version 3.0". The main title is "Registration Details". It contains several input fields: "User / Company Name", "E-Mail", "Country", "Contact Number", and "Un-Lock Code". The "Registration Code" field is pre-filled with the value "FA25-6E63-3A7E-6BD4". There is an "Ok" button at the bottom left.

You will need to contact your supplier in order to obtain a license to register and activate the software. You will have to read the Registration code to the supplier who will be able to give you the Un-Lock Code. (Please note a charge may apply, especially if you are installing this software on a second PC)

First start-up

Once the software opens, the SignOn window will appear. You will be prompted to type in a user name and password. On first start-up the username is ADMIN and no password is needed. (You may setup and change the usernames and passwords later)

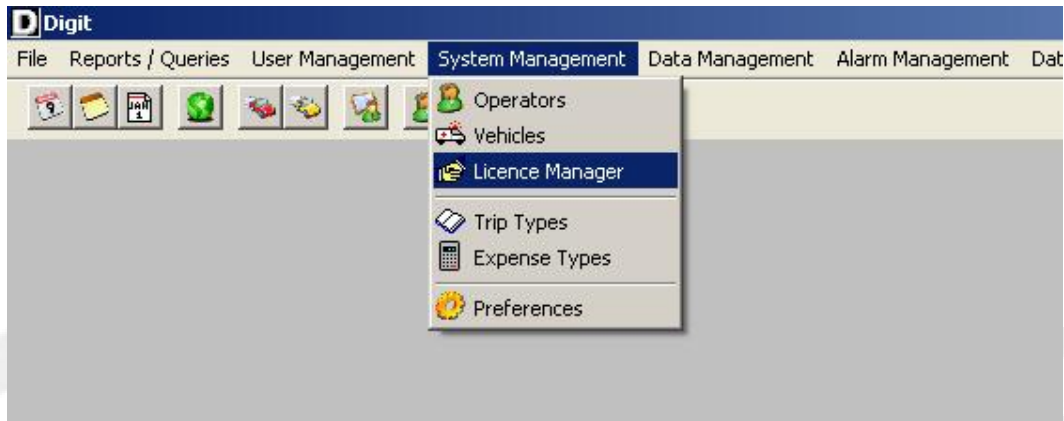


A dialog box titled "SignOn" with a blue header. It contains two input fields: "User Name" with the text "ADMIN" and "Password" which is empty. Below the fields are two buttons: "Ok" and "Cancel".

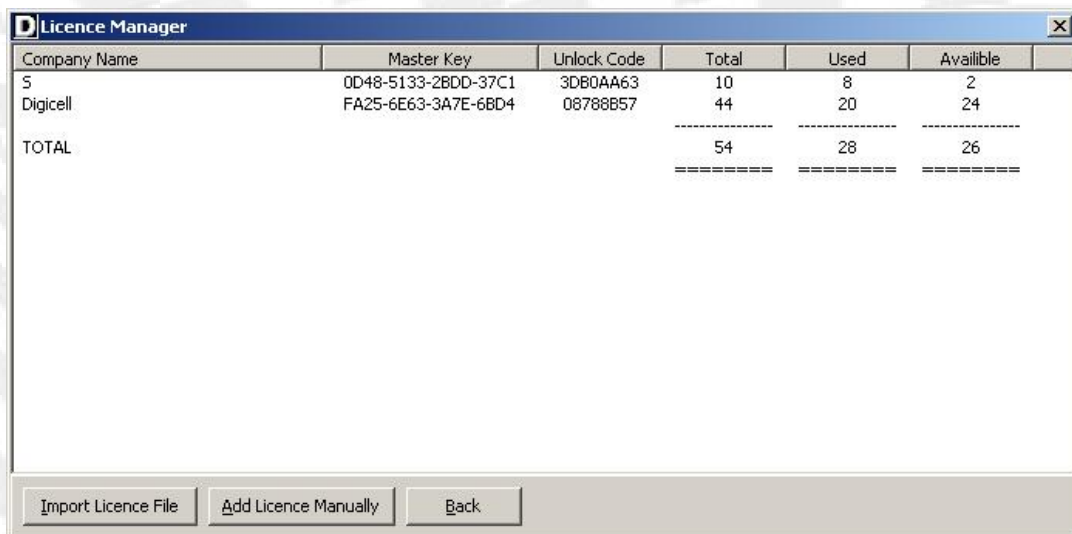
User licenses

You will need to add user licenses for each of the vehicles you wish to track or monitor on the system. If you need to monitor 5 vehicles you will need 5 licenses. The same supplier that gave you the Un-lock code can supply you with these licenses and again a cost may apply.

Click on the System Management menu and select License Manager.



The following window will appear.



A screenshot of the "Licence Manager" window. It displays a table with columns: Company Name, Master Key, Unlock Code, Total, Used, and Available. The table contains data for two companies: "S" and "Digicell", and a "TOTAL" row. Below the table are three buttons: "Import Licence File", "Add Licence Manually", and "Back".

Company Name	Master Key	Unlock Code	Total	Used	Available
S	0D48-5133-2BDD-37C1	3DB0AA63	10	8	2
Digicell	FA25-6E63-3A7E-6BD4	08788B57	44	20	24
TOTAL			54	28	26

If the supplier reads the licenses to you, you will have to click on the Add License Manually and then type the license(s)

However if the supplier has sent you a number of licenses via email you will be able to Import a License File which will then simultaneously activate as many licenses as were sent.

Once you have the required licenses added you will be able to add vehicles. Again select System Management and then choose Vehicles



A window will appear to allow you to view, edit and add the vehicles.

Click on "New" and a Vehicle Details window will appear.

A screenshot of the 'Vehicle Details' window. It contains the following fields: 'Registration Number' (text input), 'Group' (dropdown menu, set to 'Default'), 'Make' (dropdown menu), 'Model' (dropdown menu), 'Year' (spin box, set to 2007), 'Start Odo' (text input, set to 0.0), 'Start Date' (calendar icon, set to 27/10/2006), 'Stop time (seconds)' (spin box, set to 300), 'Speed Limit (km/h)' (spin box, set to 130), 'GSM Number' (text input), 'Default Operator' (dropdown menu, set to '(not assigned)'), 'Default Trip Type' (dropdown menu, set to 'Private'), and 'Internet IMEI' (text input). There is a checked checkbox for 'Internet Tracking' at the bottom right. 'Ok' and 'Cancel' buttons are at the bottom left.

These are fields which pertain to the specific vehicle of which most important is the registration number and the IMEI. Fill in the vehicle's registration number and if you require them, all other details.

Then ensure you select Internet Tracking at the bottom of the window. Finally enter the IMEI number of the GPS-device unit you have installed in the vehicle. (The IMEI is printed on the bottom of the Digit unit) Note if you have forgotten the IMEI number of the vehicle but you still have the SIM card phone number simply send the following message to the unit

1234info

After a brief period the Digit will answer with some information including the imei number.

Click Ok to exit this window once the details are complete.

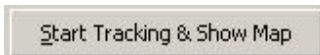
Tracking

Most users are eager to experience the system tracing their vehicles, so we will start with a test to see if the vehicle is visible and working on the system. Before proceeding be sure you are connected to the internet. (A fast connection is not a prerequisite as the data received is relatively small and will not use much bandwidth)

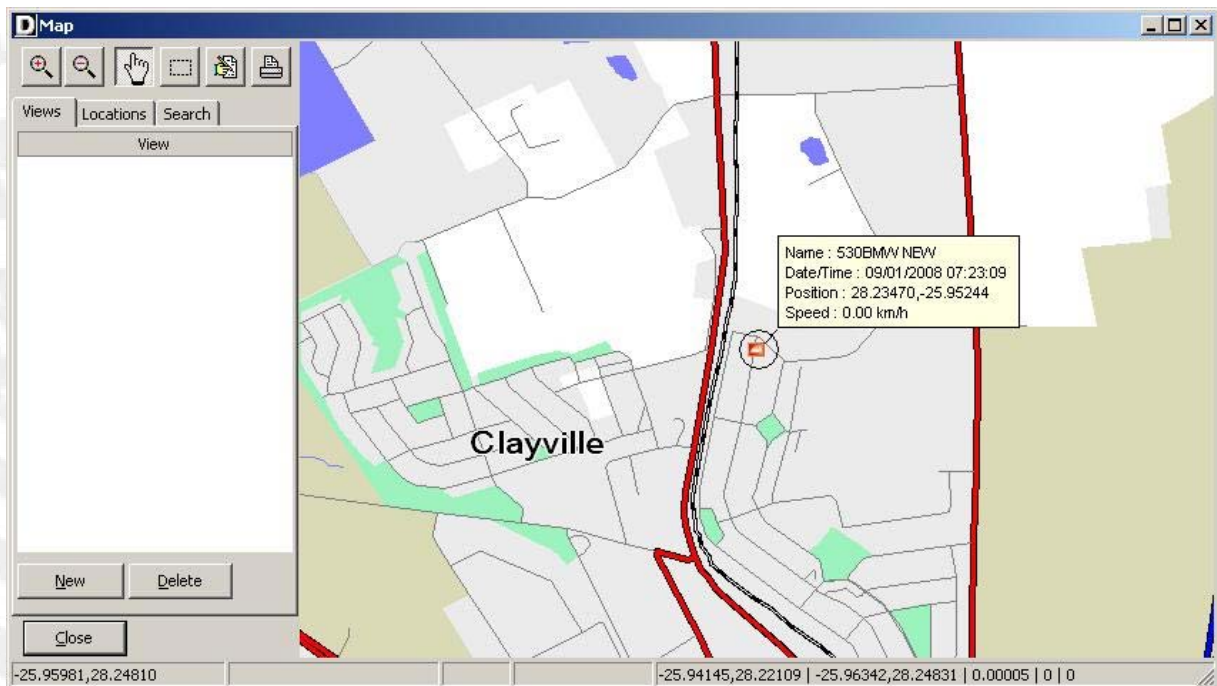
Click on the Single Vehicle Tracking icon



Select the vehicle you want to track and then click on the Start Tracking and Show Map icon.



If you have done everything correctly and your internet connection is working the following screen should appear. The Map View can be Maximised by clicking on the Maximise button at the top right of the screen.



More features of this screen are detailed later in the section covering Multiple Vehicle Tracking. Once you have confirmed that this is working, all other features will work perfectly.

Certain features of this screen will be covered in detail, later in this manual.

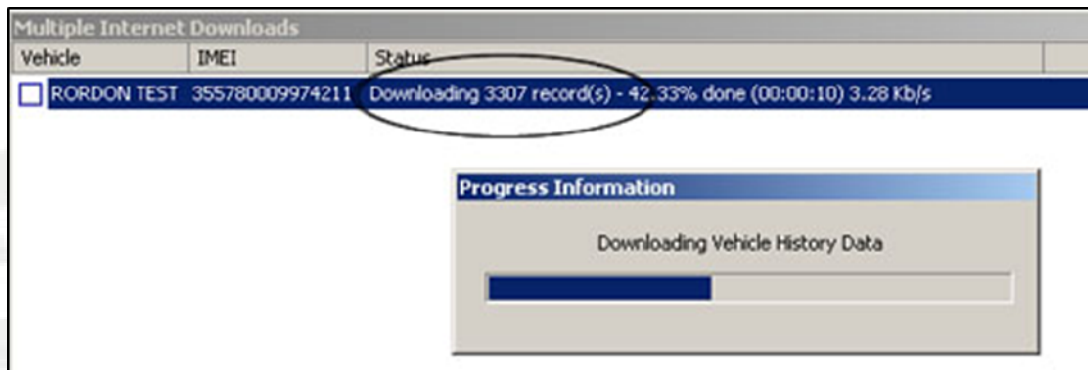
Download

Before compiling reports you will have to download the relevant data from the server. First click the Download From Internet icon.

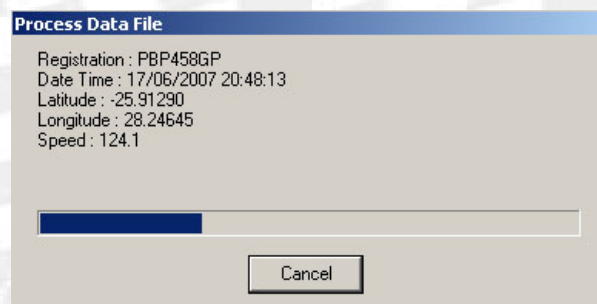


A window will appear allowing you to select the vehicle(s) you wish to download.

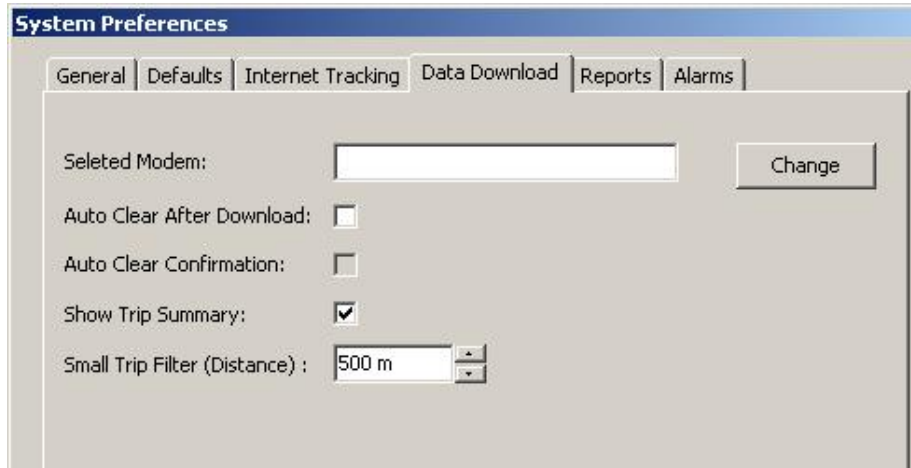
A short while after you click Download and Update Database a progress indication will appear and the total positions being downloaded per vehicle will be seen.



Once complete the system will process the download and build the trips. The time taken will vary depending on how powerful your PC is and how many trips have been downloaded.



Once complete a summary report of all the downloaded trips will be displayed. (TIP* This feature can be switched off in the preferences menu)



Reports

One can now view the various reports available.

Start with the Daily Report by clicking on the furthest left icon.



Then select the vehicle in the dropdown box. A report similar to this will appear.

The screenshot shows the 'Daily Trip Report' window for vehicle 'ZEGO' on November 20, 2007. The report displays the following summary statistics:

- Total Distance For the Day : 299.68 Km
- Tax Km : 123.40 Km
- Total Travel Time : 06:40:06
- Non Tax Km : 176.28 Km
- Number Of Trips : 11 Trip(s)

The report also includes a table of individual trips with the following columns: Start Time, Stop Time, Operator, Start Location, Stop Location, Distance, Max Speed, Drove For, Parked For, and Type.

Start Time	Stop Time	Operator	Start Location	Stop Location	Distance	Max Speed	Drove For	Parked For	Type
07:31:19	08:59:14	(not assigned)	CLAYVILLE EAST	OPEN SPACE	71.01 Km	91 Km/h	01:27:55	00:01:26	Private
09:00:40	09:36:22	(not assigned)	OPEN SPACE	ORANGE FARM	18.89 Km	86 Km/h	00:35:42	00:02:57	Private
09:39:19	09:48:47	(not assigned)	ORANGE FARM	LAKESIDE	2.37 Km	30 Km/h	00:09:28	00:29:36	Private
10:18:23	10:29:36	(not assigned)	LAKESIDE	ORANGE FARM	3.80 Km	46 Km/h	00:11:13	00:23:35	Private
10:53:11	12:10:39	(not assigned)	ORANGE FARM	CLAYVILLE EAST	88.89 Km	105 Km/h	01:17:28	00:11:34	Business
12:22:13	12:51:37	(not assigned)	CLAYVILLE EAST	KOSMOSDAL EXT 22	17.27 Km	72 Km/h	00:29:24	00:39:49	Business
13:31:26	13:34:14	(not assigned)	KOSMOSDAL EXT 22	KOSMOSDAL EXT 22	0.29 Km	15 Km/h	00:02:48	00:10:47	Business
13:45:01	14:12:21	(not assigned)	KOSMOSDAL EXT 22	CLAYVILLE EAST	16.95 Km	80 Km/h	00:27:20	00:12:57	Business
14:25:18	15:01:03	(not assigned)	CLAYVILLE EAST	ASIATIC BAZAAR	24.39 Km	91 Km/h	00:35:45	00:06:30	Private
15:07:33	15:30:20	(not assigned)	ASIATIC BAZAAR	THERESAPARK	15.77 Km	86 Km/h	00:22:47	00:31:03	Private
16:01:23	17:01:39	(not assigned)	THERESAPARK	CLAYVILLE EAST	40.07 Km	98 Km/h	01:00:16	-	Private

The information has many obvious fields and by some experimentation you will be able to see features and uses of the presented data. By right clicking on many fields other options will appear. You can click on Type and select business instead of private. This will then influence the Tax Km and Non Tax Km totals.

You will notice that most of the Start Location and Stop Locations are listed as suburbs. However if you have created locations and the vehicle has stopped in those locations, the location name will replace the suburb. If

there is a suburb you do not recognize, simply right click on the suburb to list the closest locations and other suburbs.

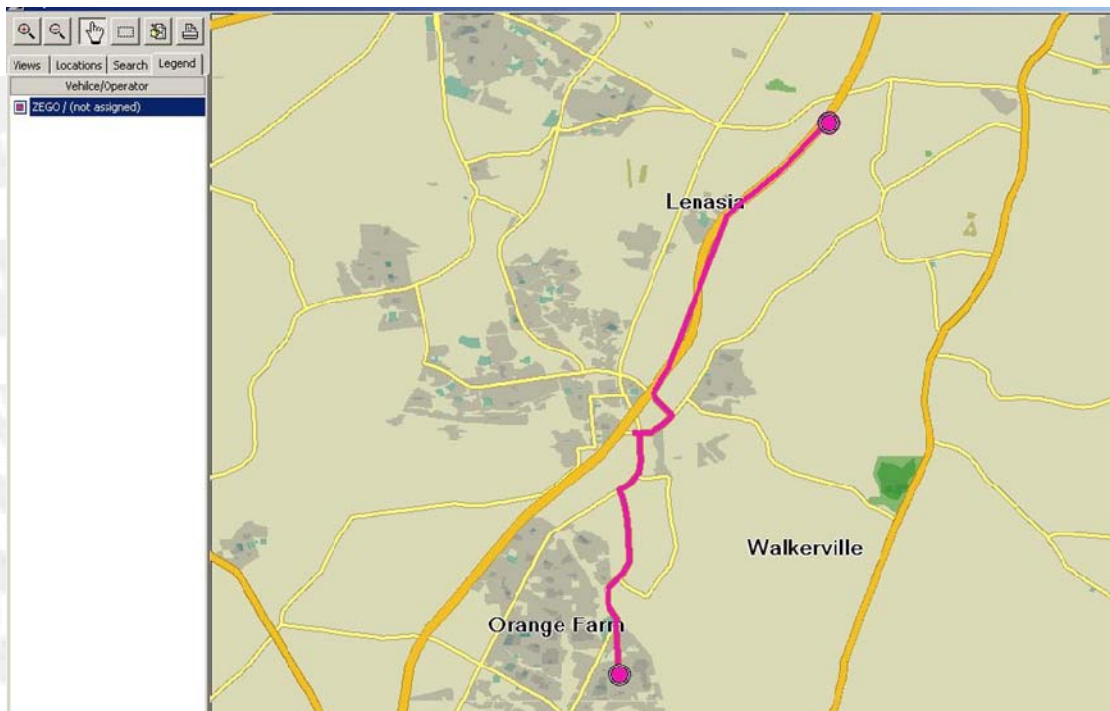
A very useful feature is the time the vehicle was Parked For. If you are involved in the service industry, you can simply set locations around all your customers. Then at the end of the month you can identify the total hours spent at a customer and bill accordingly.

By clicking on the Print Report button the system will generate a report print page which can be filed or used to discuss trips in a meeting.

By clicking on the box on the left of a trip, a specific trip can be selected for specific action like Plotting or Exporting.

Plot Trip

Select the trip by clicking on the box and then click on the Plot Trip box. The map of the route will appear.

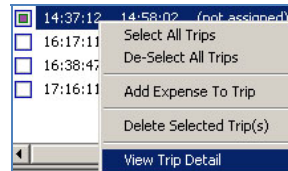


The trip will display at a zoom setting that will indicate the entire route taken. You have the option to zoom in using any of the map tools. You can also see the speed the vehicle was travelling by pointing at the route. The speed will be shown at the bottom of the screen.

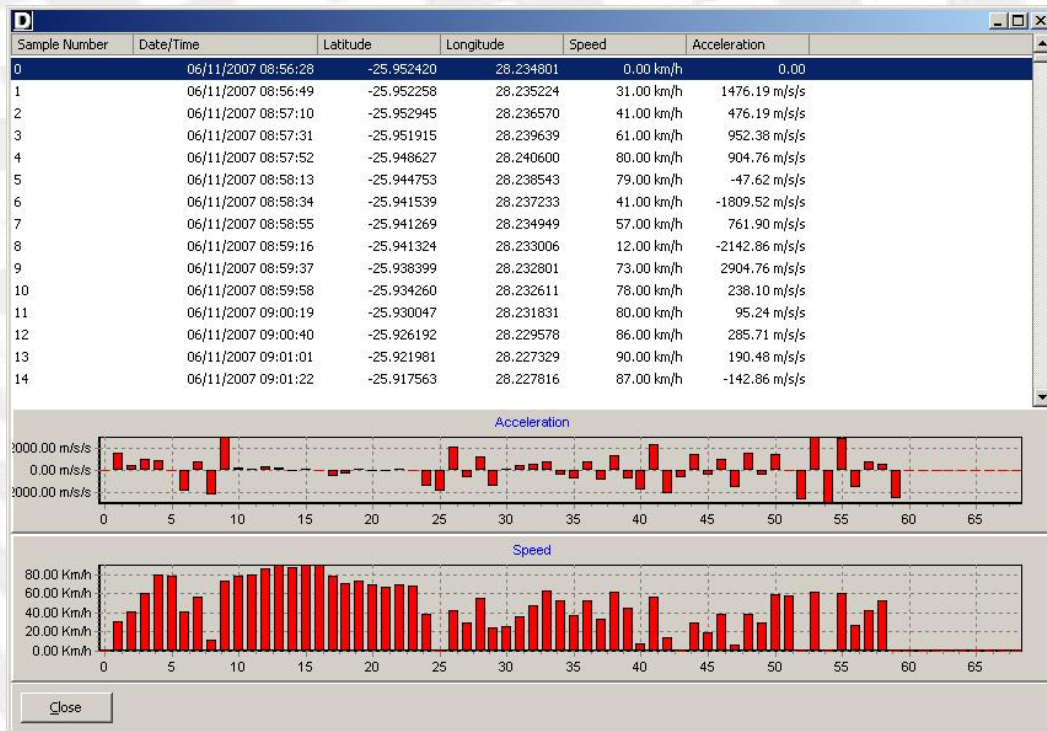
More trip detail can be seen by closing this window and returning to the Daily Trip Report screen.

View trip detail

By right clicking on the trip and choosing View Trip Detail a general graph of speed and acceleration and deceleration can be viewed.



A screen similar to this one below will appear. It is a list of all information sent by the Digit relevant to the particular trip. You can resize the window to a practical size. You are able to scroll up and down to view any particular sample. If you see an exception that you would like to investigate simply refer to the sample number at the bottom of the graph. The scroll down the list to the same sample number, to view the date, time and LAT LONG.



Close this window when done.

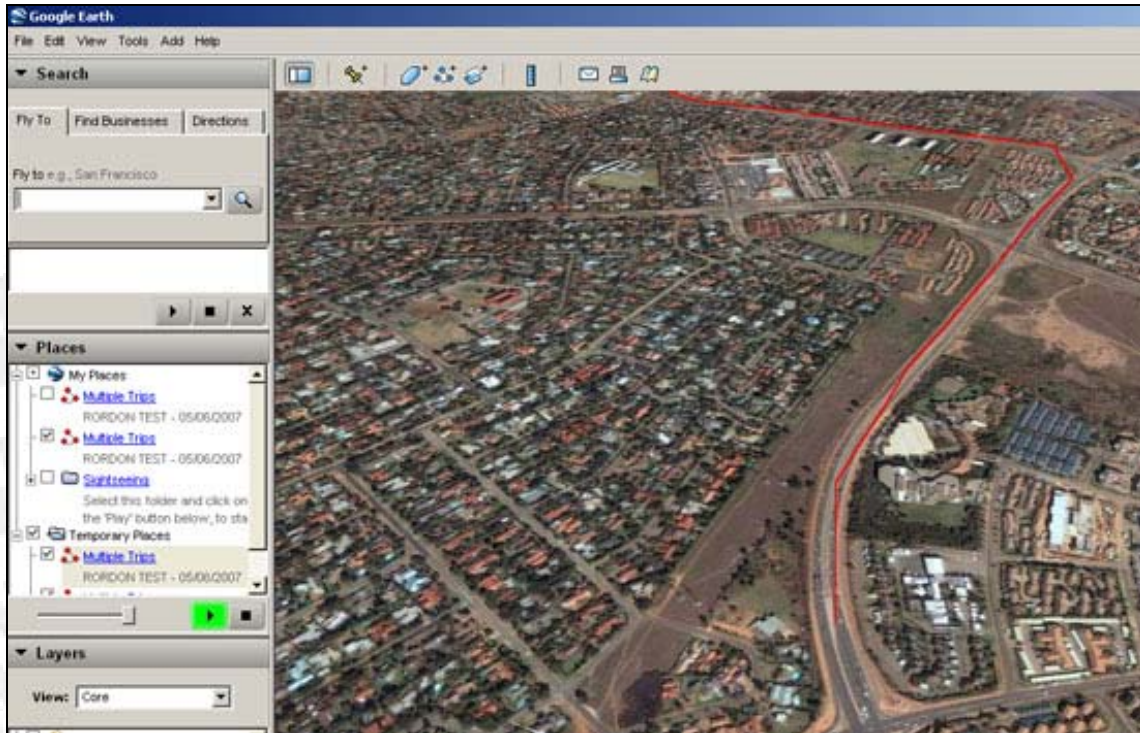
Export to Google

The same trip can be Exported to Google in order to view a graphical display of the exact journey the vehicle travelled. Click the Export to Google button and a Save As window will open. Give the journey a name and remember where you have saved the file. (The file has a .kml extension)

To view the journey you will need an up to date version of Google Earth and a good internet connection. Find the file using Explorer and double click on it to open it. Google Earth will open automatically.

(Download Google Earth free from <http://maps.google.com>)

Google playback



Once the Google application has opened the trip will be displayed by a thin red line. To review the trip, simply click the play button which we have highlighted in green.

There are many more features included with the software so please check all the menus for items you might find useful.

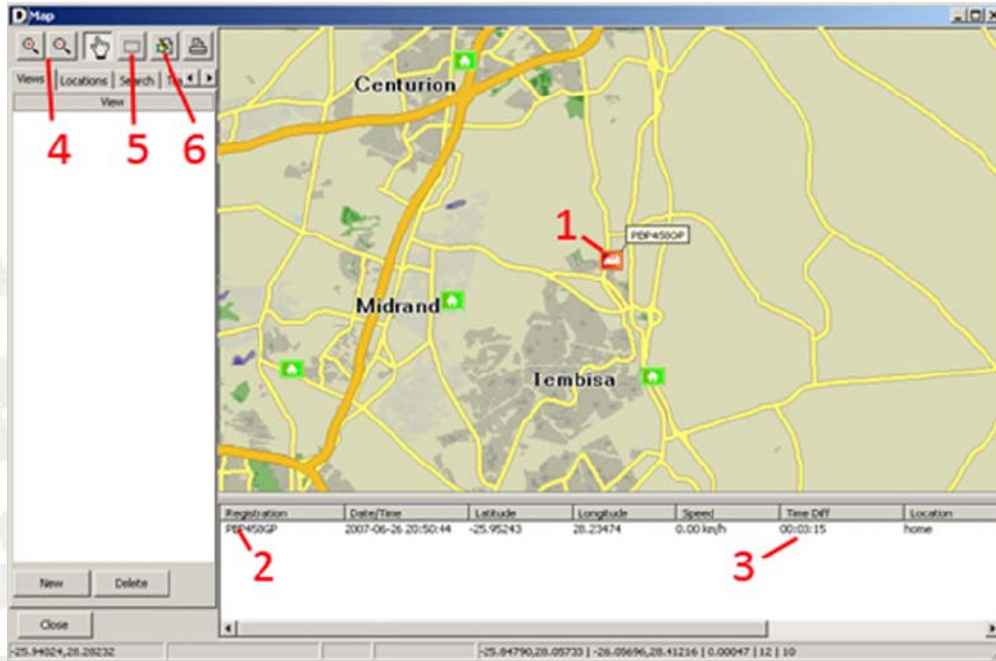
Multiple vehicle tracking

Multiple vehicle tracking is useful to track more than one vehicle at a time or to set notification alarms for when a vehicle enters or leaves a specific location.

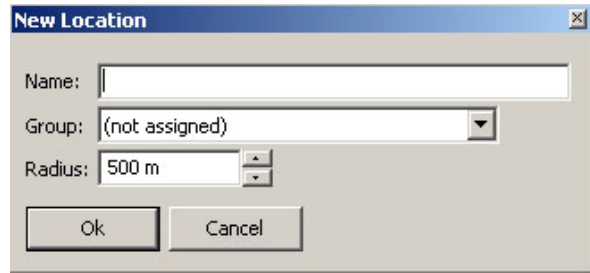
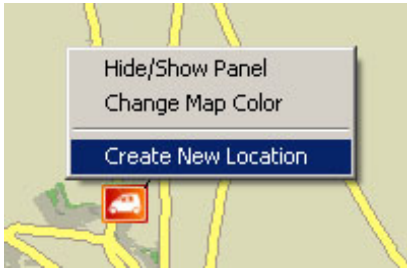
Click on the Multiple Vehicle Tracking icon.



A window will appear allowing you to select the vehicle(s) you wish to track. Select only the nearest vehicle to you for now, while you familiarize yourself with the software. The map will automatically open and you should see an icon displaying the position of the vehicle. (See 1 on the picture)



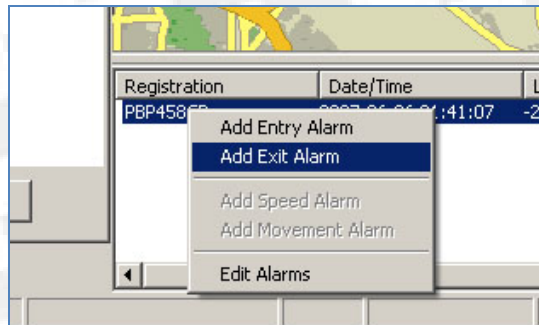
1. The vehicle being tracked is indicated with its registration tag. Pointing at the vehicle will cause a pop up window to appear that will offer more information such as Lat Long and speed.
2. Each vehicle Registration number is shown as well as detail about its position and speed.
3. Time Diff. This is the time difference since the Digit unit in the vehicle last sent information to the server. When the vehicle is moving this count should not exceed around 35s under normal operation, however under certain conditions this can get higher. When stationary the count should climb to around 5:00 minutes before resetting. If the vehicle has not been in contact with the server for an extended period of time the count will be displayed in **red**.
4. Zoom tool. This tool is useful to zoom in so more detail is visible. Zooming out very far can be slow so sometimes it is quicker to close the window and re-open it.
5. Zoom box tool. Select this tool and drag it over the area you wish to zoom. Starting at the top left of the area and dragging to the bottom right is usually easiest.
6. Location tool. Select this tool to Create a new location. Point at the map at the point where you wish to add the new location and right click.



Select "Create New Location"

Enter a name for the custom location and assign it to a group if you wish to group locations together under a custom category. Also it is a good idea to reduce the size of location by reducing the Radius. 75m is usually useful, unless the place you have marked is a large area such as a shopping centre.

Once done you can add entry or exit alarms for the specific vehicle. Right click on the Registration at the bottom of the screen and the option to add an exit alarm will appear.



Select Add Exit Alarm and chose a Location from the list. A window will appear allowing you to adjust settings for the Exit alarm. (Some features may not be available as they are still under development)

Now you will need an assistant to drive the vehicle in order to test the live tracking.

As the vehicle is driven the position updates will appear on the map.

Also if the Exit Alarm was correctly setup the message and tone if applicable will appear.



The vehicle icon will move as the vehicle moves

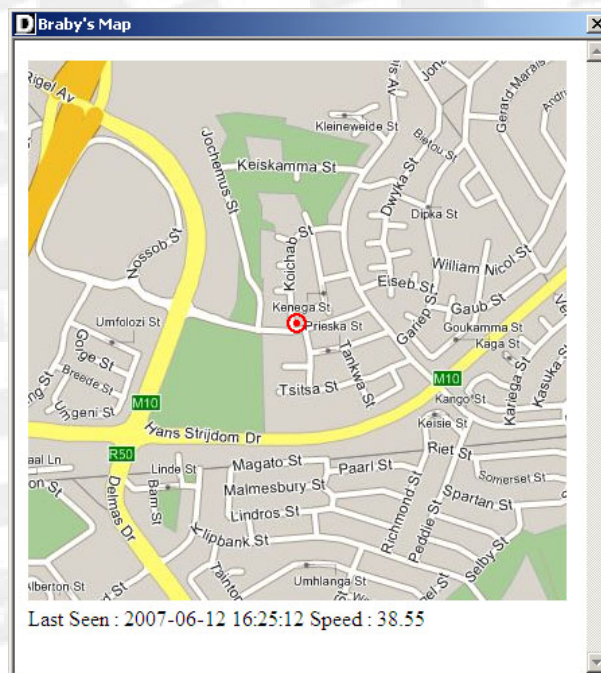
Once a test of the live track has been completed one can start to download past trips and analyze the data to produce reports etc.

Single Vehicle Tracking

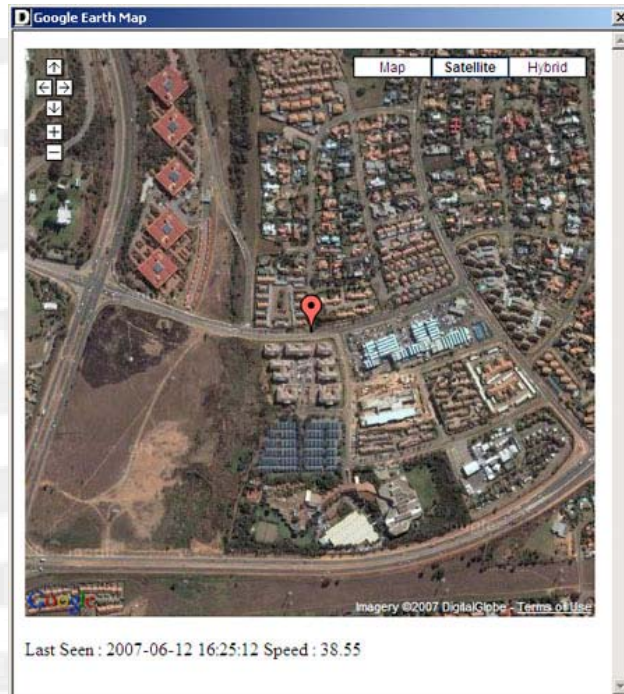
There are some advantages of single vehicle tracking, mostly that the view is zoomed closer so street detail is visible. When one clicks on the icon the option to choose a vehicle to track will appear. Once you have selected the vehicle you can then choose to track the vehicle on the Digit Maps or by using online options. The online options are either Brabys (Street level maps) or Google (Aerial photographs)

The Brabys option is useful if the vehicle is in an area where some map detail is missing on the Digit Maps. The Google option allows one to spot landmarks or details which do not appear on normal maps.

Brabys Sample



Google Earth Sample



Changing Map Sets

Due to the Digit map set not covering all areas in detail, we have now incorporated a feature where users can add their own map sets. For example if you own a Garmin GPS system, the maps supplied with your Garmin can be imported into the Digit software to use as a reference. (If you do not have your Garmin maps loaded on your computer, please contact your Garmin supplier to find out how to load the maps onto your PC or visit www.garmap.co.za)

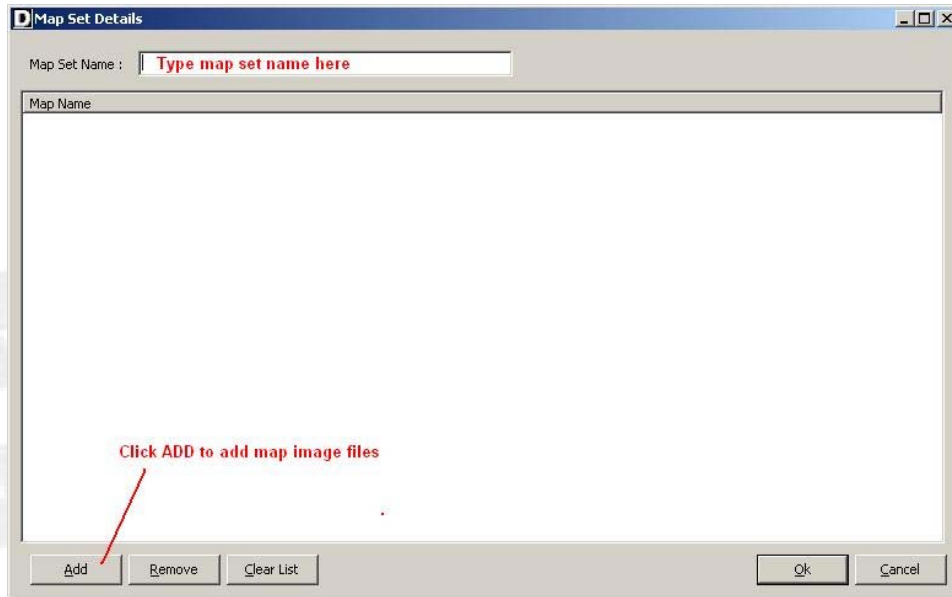
NOTE: It is illegal to copy map sets that do not belong to you, we strongly recommend you purchase a Garmin GPS receiver which will come supplied with the maps. You can then use the maps on your PC and load them to your Digit software to give additional features and detail.

Loading other map sets

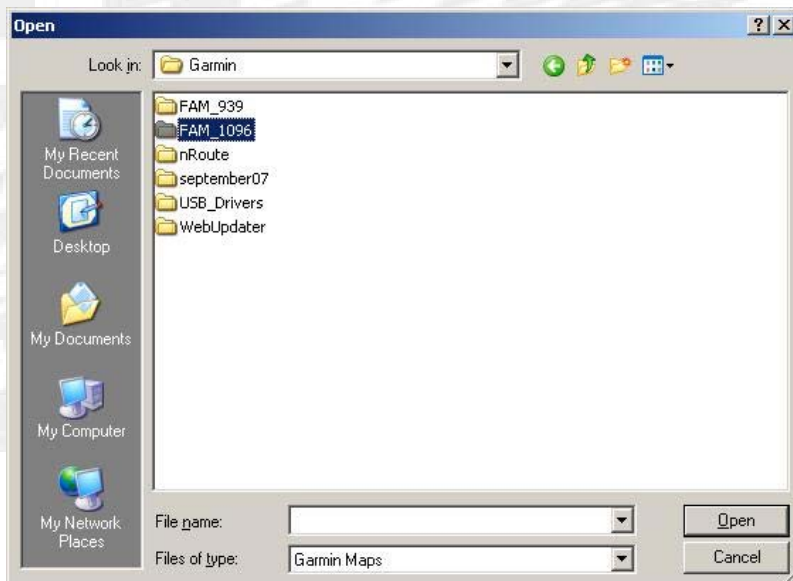


Click on the map management icon.

A window will appear, Click on Add Map Set, then a Details window will open. You need to type in a name for your new Map Set. Eg. Garmin. Once you have given it a name click on the Add button at the bottom of the screen.

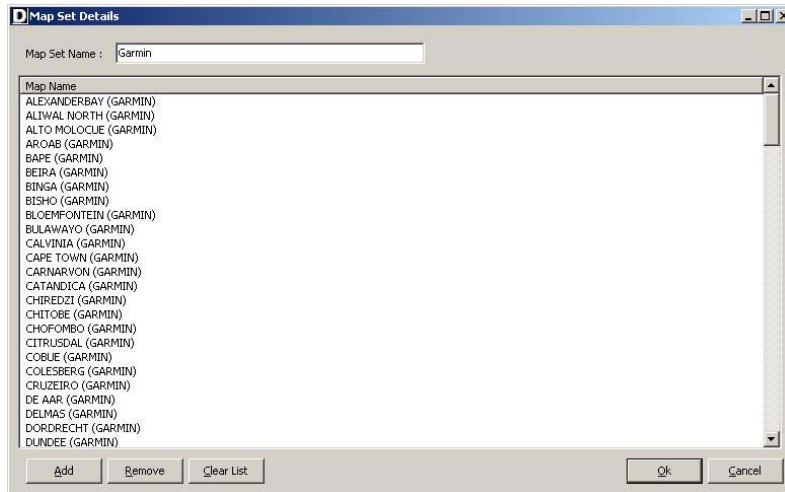


You must then browse your PC hard drive for the maps. If you have installed the Garmin maps on your PC they are in a directory similar to C:/garmin/FAM_1096.



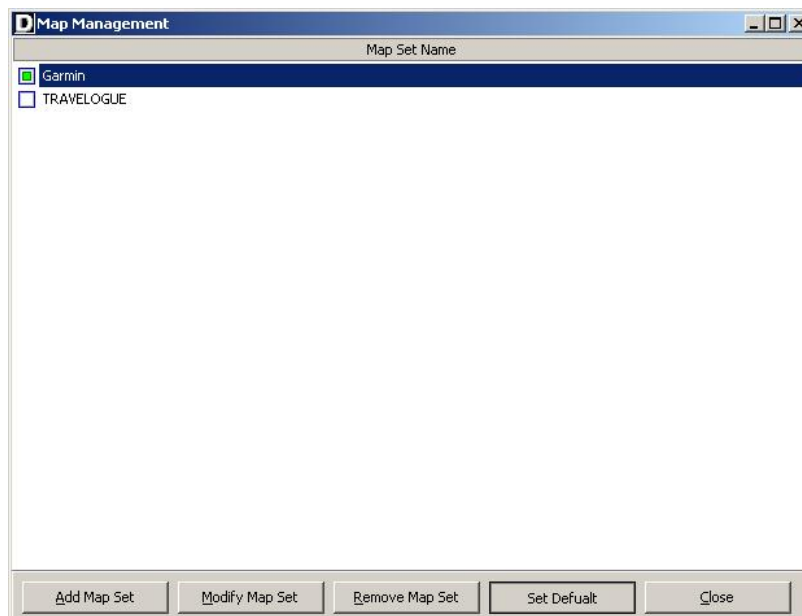
Once you have opened the directory where the map files are kept you need to highlight all the .img files. We suggest you only add the .img files and leave out the BASEMAP file. To select all click on the first file once. Then scroll to the end of the list. Hold the SHIFT key on your keyboard and click on the last file you want to add. All files selected will turn blue and you can then release the SHIFT key and click on OPEN.

Once all the maps are added the screen should look similar to this.



Finally click on OK.

You will notice that the old map set is still set as the default as indicated by the green dot. Click on the new Garmin map set and then select "Set Default" at the bottom of the screen.



Once completed you may close the Map Management window. Further tracking will then use the Garmin maps. The Garmin maps have more detail in some areas and if Zoomed in enough, they reveal the names of shops, banks, petrol stations etc.