

# The Automotive GPS

There are quite a number of GPS on the market, all manufacturer's having models with much the same function.

Major brands in North America are:

- GARMIN (Garmin seems to be the leading manufacturer)
- TOMTOM (Strong in Europe)
- MAGELLAN

Each GPS manufacturer uses proprietary file formats for trip routing and waypoint data storage with some commonly used file formats.

There are converters that will convert the proprietary files to commonly used formats.

I have an old Magellan handheld that was my first GPS and of course most smart phones also have the capability to act as a GPS and I have two of those, one Nokia N98 and a Windows Phone Lumia 830. Before you go out and buy a GPS talk to me about your mobile phone as there is free software that will work on pretty much any platform, Windows Phone, Android and iOS. The free mapping software is from HERE Maps of which I talk about later in this article.

I have purchased both of my Garmin GPS's from:

GPS Central™

#8, 711 48th Ave SE Calgary AB Canada T2G 4X2

Web Site: <http://www.gpscentral.ca/>

To my knowledge there are no vendors, in Vancouver or BC for that matter, that are strictly focused on GPS's and accessories. The staff at GPS Central are very knowledgeable, they sell different brands, you can buy over the Internet and there is no sales tax. Even with shipping charges you still save on taxes (There is no Provincial sales tax in Alberta). There is at least one other strictly GPS vendor in Alberta. Most retail outlets that sell GPS's in BC have them as a sideline and sales staff do not know much about their products.

I will focus on Garmin because that is what I know the most about but I'm sure other makers have similar websites, help lines that you can phone, etc.

Most GPS's sold in the last couple of years have lifetime map and sometimes traffic updates.

Traffic congestion is relayed over FM radio waves. Traffic congestion is displayed on your GPS if there are traffic incidents on your route of travel.

If you have a GPS or are looking at buying, you want to keep your GPS mapping up to date. The roads and streets are always changing and if you rely totally on the system you can get into trouble with out-dated mapping. (Turning the wrong way onto a one way street for example).

There are GPS's that have mapping for North America and Europe (the only combo available) loaded into them and they have lifetime mapping updates. My Nuvi 2559LMT has that combo mapping. If you are only going to travel in North America then only buy a unit with North America on it.

## Now That You Have A GPS What Do You Need To Do.

I will address these issues as though you have bought a Garmin GPS because again that is what I have and am familiar with. Other manufacturers have similar processes and requirements.

### 1. Registration

When you buy a GPS one of the first things that you should do is register your GPS with Garmin. This has to be done over the internet. Updating firmware (the Operating System of the GPS) and mapping has to be done over the internet as described below. Each GPS has a distinctive serial number which is used in all processes on the internet.

The GPS companies are very protective of their mapping and you will find that once you have set up your account and view your account you will see all of the transactions that you have made relating to your GPS.

You are also somewhat protected if you register your GPS in that if your GPS is lost or stolen the person that has your GPS cannot update the OS and mapping because the unit is registered. The person would have to prove that it is theirs.

To register an account you will need to do the following:

- a. Go into the Garmin website, open "My Garmin" and look for "Register Your Garmin Product" and follow the directions.
- b. Give your account a name, I use my real name it's easier to remember but I use a variant as to how it shows up. As an example - (BillSmith), this gives a little bit of security. I'm all for added security on the net.
- c. You will need a secure password, a combination of letters and numbers. As an example, where you were born and the year (Spuzzum1940). Again security.
- d. You will need the serial number of the GPS and the model name and number. (If you got the GPS from someone else you may have a problem because all updating is related to an account name. If you got the GPS from someone else and it was registered under their name it may be impossible to transfer the unit into another account. You will have to talk to Garmin's tech group in that case to see what can be done if anything.)
- e. At some point you will need to connect your GPS to the computer so that information on the GPS can be transferred to your account.

If you have any trouble setting up an account Garmin have a 1 800 phone number that you can contact technical service to walk you through the issues. Garmin's tech service is located in the USA staffed with North American staff and I've found that they are very knowledgeable and if they don't know the answer they will talk to whomever it takes within the Garmin to find the answer.

## 2. Other Software You Will Need On Your Computer For Your GPS.

There is a software that you will need to get the full use out of your GPS. If you have a new GPS it should come on an installation disc that will have all of the software that you need. If you don't have that disc you can go to Garmin's website and download the appropriate software that you will need.

There are two programs can be used to preplan a trip on the computer and that info is then loaded into your GPS. They both do similar things, it's a matter of preference.

### a. MapSource

This is the original trip planning software, though no longer supported by Garmin (they no longer update it to my knowledge) but they do make it available for download. It is my preference only because that is what I'm used to and it is more intuitive than the newer program BaseCamp.

### b. BaseCamp

BaseCamp was originally designed for use with handheld GPS's used for backpacking, etc as the name implies. It has evolved in the last 5 years to be used in conjunction with Automotive GPS's.

I find that it takes much more effort to produce a trip on BaseCamp than it does on MapSource but it can be done. There are some advantages to either program so it boils down to personal preferences.

Both programs can be installed on the same computer and they can be set up to use the same data. Maps will be shared automatically but any trips or waypoints may have to be located in a folder that both programs are targeted to search.

You also can load these programs to multiple computers BUT the mapping that is installed for use with the GPS has to be loaded with the GPS plugged in to the computer and the mapping is downloaded while the GPS is connected to the computer. Garmin is very protective of their mapping and software and there are many hacks available on the net that will allow you to bypass what safeguards they have put in place. You could render your GPS unusable and the only way it can be fixed is to send it in for service to a Garmin approved service facility and you would have to explain why it happened. GPS Central™ is a Garmin Certified Service Centre.

Both programs give you the following information if you are planning routes:

- a. Routing information (roads travelled etc)
- b. Number of miles or kilometers to be travelled between designated waypoints.
- c. Time duration of a route based on driving at the posted speed limit with no stops.  
Any stops would have to be taken into account.

### 3. Mapping Updates

The maps on Garmin's are originally based on Navteq which was bought and amalgamated with HERE Maps by Nokia and the mapping company was sold when Microsoft took over the mobile phone hardware piece of Nokia and the mapping is now owned by Audi, BMW and Daimler. This mapping company has been in business for a much longer time than Google maps and is considered much more stable and reliable. Depending on the GPS unit you may have to select software for downloading and installation of mapping updates. This has been evolving based on model series over the last couple of years.

#### PLEASE NOTE!

You cannot update your GPS mapping on a friend's computer and account. Account numbers are tied to unit serial numbers.

Both of my Garmin's, a Zumo 550 and a Nuvi 2559LMT, use "GARMIN EXPRESS" for updating mapping and OS software, you will need to determine what your unit requires. LMT stands for Lifetime Mapping and Traffic updates.

After you have installed the map updating software, you can go onto the downloading process.

Once you have started the map downloading program the first thing that you have to do tell the program what exactly you want to do:

- a. Only load the mapping onto the GPS. This does not make it available to MapSource or BaseCamp. You can download mapping off of the GPS to MapSource and BaseCamp using those programs.
- b. Only load it into the computer. This does not make it available to the GPS. You can copy the mapping from the computer to the GPS using MapSource and BaseCamp.
- c. Load the mapping into both the computer and GPS at the same time. This is the method that I use.

It seems that you have to make that decision every time you update the mapping. The default seems to be (a) Only load the mapping onto the GPS.

Garmin updates their mapping at least 4 times a year. Every time I take a major trip I update the maps on my GPS.

Earlier models of GPS, when you bought them, had mapping installed on the unit but it was probably out of date by the time you bought it. You were allowed one free map update to the then current mapping and after that you would have to buy updates either on a one time basis or you could buy lifetime updates so it would depend on the vintage of your GPS.

My Zumo 550 for instance didn't come with mapping updates so Garmin was selling a combo North American/Europe package for life. We travel to Europe on a regular basis so that was of interest to me.

Mapping is available for most places in the world and can be purchased either on a disc or by purchasing and downloading from Garmin's website or preloaded on an SD card. If you buy the SD version make sure you check to see if you need the Mini or the Micro SD card. You can use the Micro card in a Mini slot using an adaptor but a Mini SD card will not fit in a Micro slot.

#### 4. What Can You Do With The GPS Other Than Just Plugging It In And Navigating?

- a. Most relatively new GPS's can be paired via Bluetooth technology to your mobile phone. This allows you to use your phone hands free. The only thing you have to do is touch the screen to answer. Some mobile phones when paired with newer Garmin GPS's have voice recognition so that you can not only answer your phone you can tell the GPS what you want to do and it will follow your instructions. The newer Android and iPhone's should work this way. Windows based phone will not work in all functions. Unfortunately that is what I have.
- b. If you search for instance for a hotel, the hotel will come up on your search and there will be a phone number listed in the GPS search info, all you have to do is touch the phone number and it will dial the number of the hotel and if you have speech recognition, you just tell it to dial.
- c. If you have data on your mobile phone it will add other features where you can search other data bases and features from Garmin via your GPS. I do not have a data plan on my mobile and I have enough info for my needs.
- d. Traffic alerts are another feature that some models of GPS have. What this does is tell you if there are any traffic delays on your route of travel. You can set up the GPS to either automatically detour or only advise you and you can decide if you want to detour around the obstruction.

## 5. Other Programs

There are other Garmin and third party programs available such as Point of Interest (POI) editors and Map Editors etc. They are programs that, if you really get into GPS's you might find interesting.

## 6. Sharing Planned Trips

When you plan a trip (this could include Club trips) that includes routes and waypoints, all of which is saved as a single file, can be exchanged between different travelers. That file can be sent via Email and then loaded into another GPS using MapSource or BaseCamp. One of the advantages of sharing is that one person can set up the trip and then Email that trip file to everyone else. You can set it up to meet at specific points along the way for lunch for instance or the final destination at a hotel.

## 7. Gifted or used GPS units:

- a. The GPS unit is tied to a your Garmin account. (It is tied to the persons account that gave/sold you the GPS.)
- b. The mapping is tied to the GPS unit.
- c. You can transfer the used GPS into another account but first the original owner would have to delete the given/sold GPS from their account.
- d. The person receiving the used GPS could then register the GPS into their new account.