

Digital Mapping Software

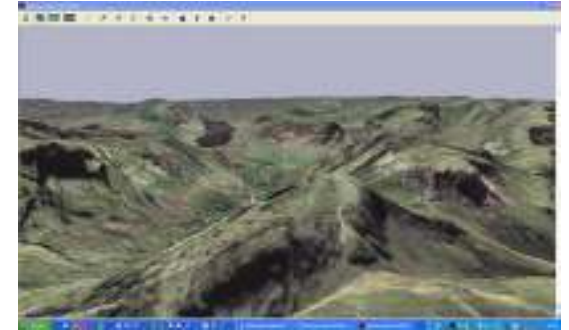
We hope you find this general information about mapping software useful information that you can use to make informed decisions about which software you can use with your GPS. If you have any questions about any of the issues raise in this article then contact us at office@gpstraining.co.uk

The pages you see have been drawn from the new booklet we have written for Garmin which will be included some Garmin GPS being supplied in the New Year.

What can you do with Digital Mapping Software?

These are the main features you would expect to find in most digital mapping software products:

- Waypoint creation and editing
- Route planning and editing
- Distance and time calculations using Naismith's rule.
- Print maps
- Print route cards
- Download waypoint and route data to your GPS from your PC
- Plot your real time position overlaid on PC or Pocket PC with GPS connected
- Review your performance by uploading track data from GPS to PC
- Save your routes and tracks on PC for review and later editing
- 3D view of the map
- Aerial view and 3D fly through (on premium products only)



Memory-Map screen showing route on 3D aerial view

What scales of digital mapping are available?

In the UK Ordnance Survey dominates the market for maps used on land, with the most popular scale for walkers and recreational users being 1:25,000. Most digital maps for use on land in the UK are produced in these three scales:

1: 250,000	UK Road Maps
1: 50,000	Landranger Maps
1: 25,000	Explorer Maps



Which Digital Mapping Software Do You Buy?

When buying digital mapping you need to decide on the features you need and make sure that the operation of the system is as user-friendly as possible. If you are interested in more than a basic system, you will want to assure yourself that the product you are thinking of investing in is a leader in technical development and not a laggard. Memory-Map is the UK's market leader. Its software has a justified reputation for leading the way in bringing new products to the market and its software is particularly user-friendly. Memory-Map's website is www.memory-map.co.uk.

Whatever software you are considering, you also need to ensure that your computer is powerful enough to run it. One way of getting information about this is to ask friends who may have already bought into digital mapping or enquire through the website.

Your retailer should also be able to give you good advice on which software to purchase. These days, many retail stores have demonstration units so you can see what these systems are capable of. They should be able to supply you with a free trial disk. The alternative is, either to go online and visit the web site of the relevant system where you will be able to access sample software, maps, and in some cases download a demo or see a video, or contact them direct for a free trial disk

Narrowing the choice

Do you buy mapping in small or large chunks and which scale do you buy? As the end user this is a very personal decision and will almost certainly be led by your own preferences. It is possible to get much larger chunks of mapping at 1:50,000 scale at a reasonable cost than at 1:25,000 scale, so perhaps one way is to obtain wide cover at 1:50,000 and then focus on areas where you need more detail in 1:25,000.

There is a wide variety of mapping on offer. For example, mapping that covers specific areas such as National Parks and Trails, or options to buy mapping at a scale and area of your choice based on your home or postcode. Our advice is to shop around and, once again, make sure you are quite sure of your requirements before you purchase.

GPS Training Tip

Bikers on the whole prefer 1:50,000 scale, as they move faster across the ground so it gives them a wider perspective.

Working With Digital Mapping Software

Having loaded the software onto your PC, you will have to register and obtain a licence key to enable the product. This procedure is a necessary protection to protect the supplier from fraud. Your individual licence key will unlock and enable certain features like printing and GPS and PDA links. The easiest way to register is on-line. However there will be arrangements to register by phone if you prefer.

At this stage you will probably be asked to sign up for a newsletter. This is usually worth doing on the basis you will be kept informed about any software updates and new product releases.

Mapping software is always in a process of being updated. This is to iron out software glitches, update new GPS models as they come on stream and upgrade and add new features to the software. It is therefore worth making sure that from day one you work with the latest version. You will find details of the version you are using in the Help menu. Armed with this information, go on-line to check if there are any updates available for you to download. The alternative to an update on-line is to use an up-grade disk.

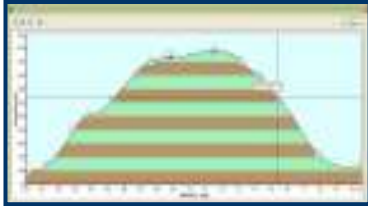
GPS Training Tip

Finding your way around digital mapping software

One good way to find out what everything does is to work your way along the tool bar, opening each menu and submenu and just experiment by seeing what options are available to you. Use the help system to get extra information when you need it. If you get really stuck then there will be technical support available either online or on a dedicated support line.

Garmin Topo Mapping

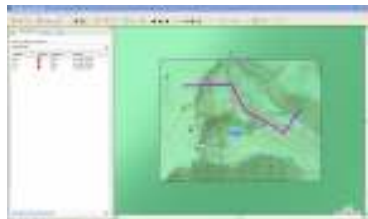
What can you do with Garmin Topo Mapping?



Route profile in Topo



Large scale Topo view of the North Lakes



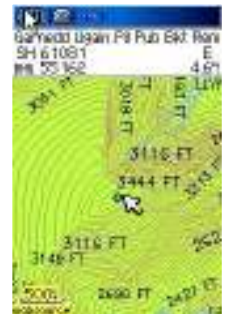
Planning an off road route in Topo

These are the main features of Garmin Topo GB:

- Mapping covers the whole of the UK apart from Northern Ireland, The Isle of Man and the Channel Islands. This can be purchased as one product or for areas of the UK including National Parks already loaded onto a micro SD card ready to insert into a compatible GPS
- The mapping provides more and more detail as you zoom in from viewing the whole country down to a single 10m contour line. Most paths and tracks are shown as well as 10 and 50m contour lines with spot heights, streams and rivers, roads and streets. Rights of way are not shown. The maps include points of interest such as food & drink, lodging, garages, hospitals, trig. points
- Mapping can be loaded onto compatible GPS in tiles up to the memory capacity. Compatible GPS include all current colour GPS
- Waypoint creation and editing
- Route planning and editing
- Distance and time calculations
- Turn by turn routing for on road journeys with automatic route recalculation with one way systems taken into account
- Real time tracking and routing on PC or Pocket PC with GPS connected with voice turn by turn directions using free extra software - Garmin nRoute – downloadable from Garmin's website
- Download waypoint and route data to your GPS from your PC
- Review your performance by uploading track data from GPS to PC
- Save your routes and tracks on PC for review and later editing.



GPS screen showing a street level view



GPS screen showing Topo mapping in a wilderness area

What map scales are available?

As Topo is not just one map the scale varies as you zoom in. Think of the view as though you were in a helicopter – high up you can just see the main roads and main land features but when you move closer to the ground much more detail appears down to residential streets, streams and footpaths. Topo is really a number of maps from large to small scale – which one you view depends on how far you zoom in. It is possible to zoom in right down to see just one 10 metre contour line.

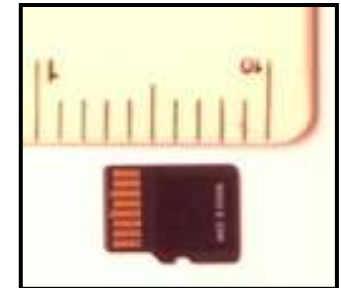
Garmin Topo and Memory

You can upload as many Topo map tiles as your GPS memory will hold. Unticking the route calculation data box at the bottom left hand side of the screen will save some memory but you will not be able to undertake turn by turn navigation on your GPS. Most modern colour GPS use micro SD cards (also called transflash cards). These are currently available up to 2 gigabyte (GB) but it is likely that the maximum capacity of a card will increase still further shortly. The whole of the UK would need a 2GB card.

You may just upload the area as and when you wish to use them, for example – going to the Lakes for a week's walking would need mapping taking about 35 megabytes. Garmin Topo always reformats the memory card in your GPS before uploading maps so you will always need to select all the mapping you need to use as it is not possible to add maps to those already on the card.



Coverage of Garmin Topo pre-programmed microSD data cards



Showing the size of a 1 GB microSD card against a 1 inch rule

Working with Garmin Topo Data Cards

These products come ready installed on an appropriate micro SD card. They merely need inserting into your compatible GPS. Although all GPS based Topo features are available, the product does not come with a DVD for computer use. It does though provide a very simple and effective way of using Topo for a specific area of the country on your GPS.