Maps for a Garmin   14/11/2021

There are two different sorts of maps that can be loaded onto a Garmin – single tile layer **custom** maps which have a **.kmz** extension or multi tile layer maps which have a **.img** extension

Custom maps

A custom map for a Garmin consists of a number of map **tiles**. It is a raster map -that is it is stored, like a photograph, as pixels. This means that as you zoom in the image begins to break up until, at extreme magnification, the individual pixels can be seen.

The advantage of a raster map is that you can create your own by scanning your favourite paper map, georeferencing it to the Irish Grid and then creating a **.kmz** file.
The steps needed to do this are described in the PDF documents **Georeferencing using OkMap Desktop** and **Creating your own Custom map KMZ tiles** and you can find links to these in the **GPS/GPX notes** section which can be found in the **All things GPS/GPX** page on the website

However many of the your paper maps may have already been scanned by a member and it is worth enquiring whether there is someone who will help you to get the KMZ version of your map installed on your Garmin. These are large files and generally need to be shared using a USB memory stick or an app such as **WeTransfer**.

Installing a custom map

As an example suppose that you have been given a KMZ file called **Wicklow + Dublin South.kmz** which you have saved on your computer.
Attach your Garmin to the computer, wait for it to be recognised and open File Explorer. Go to the folder where you have saved **Wicklow + Dublin South.kmz**, and copy it to the clipboard.
Go to:

> **Garmin** <your Garmin model> **(E:) > Garmin > CustomMaps**

and paste the file into this location.
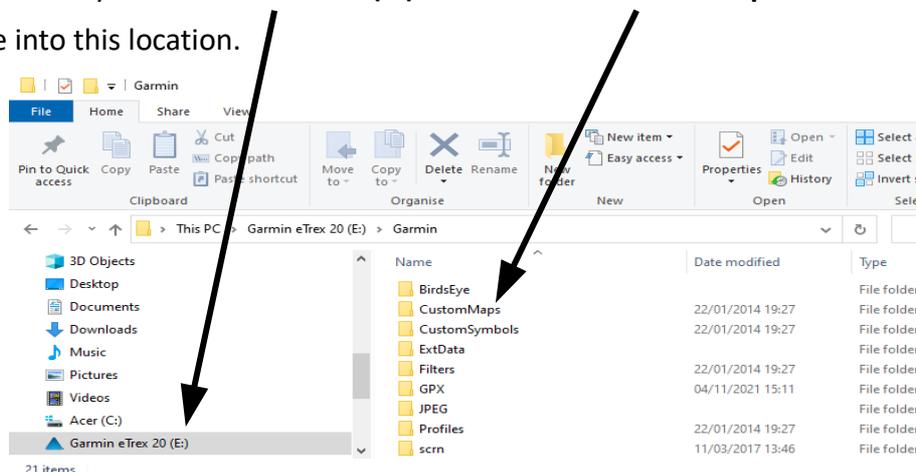
Unplug the Garmin switch it on and go to:

Main Menu > Setup > Map > Select Map

checking to make sure that **Wicklow + Dublin South** is enabled.

You may have installed and enabled the **Emerald Island** map [see section below on **Multi tile layer .img files**]

If so and you are outside the area covered by **Wicklow + Dublin South** then the eTrex will choose to display your position as a blue triangle on the **Emerald Island** map whenever you select

Main Menu > Map

If you want to force the eTrex to display the **Wicklow + Dublin South** map just disable **Emerald Island**.
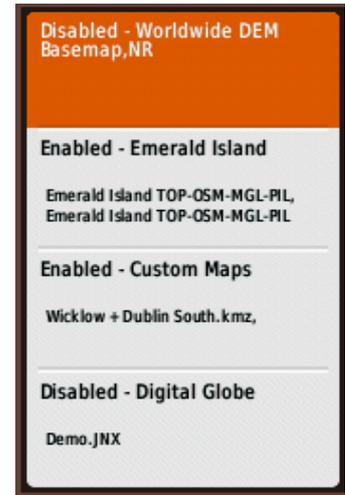
Enabling and disabling custom maps

Each KMZ custom map consisits of a number of **tiles** - a large custom map may have up to 80 or more. It is possible to have a great number of custom maps stored on a Garmin but unfortunately it is a limitation of the eTrex range [and the GPS 62 but not the GPS 64] that no more than 100 tiles can be enabled at one time. If you have more enabled you will get the message:

Too many custom map images. They will not all be displayed.

Even more unfortunately it is not possible to enable/disable KMZ custom maps individually on a Garmin as can be done with other forms of maps [principally **.img** files].

A work around

A Garmin only recognises files with an extension **.kmz** as a being a custom map. So we can store the maps with a different extension [for example **.abc**] and **enable one at a time** by renaming it with the extension changed to **.kmz**

Since this can only be done with the Garmin connected to your computer you will have to decide before you go out for the day which map you want to use.

In File explorer under the **View** tab make sure that the **File name extensions** option is checked
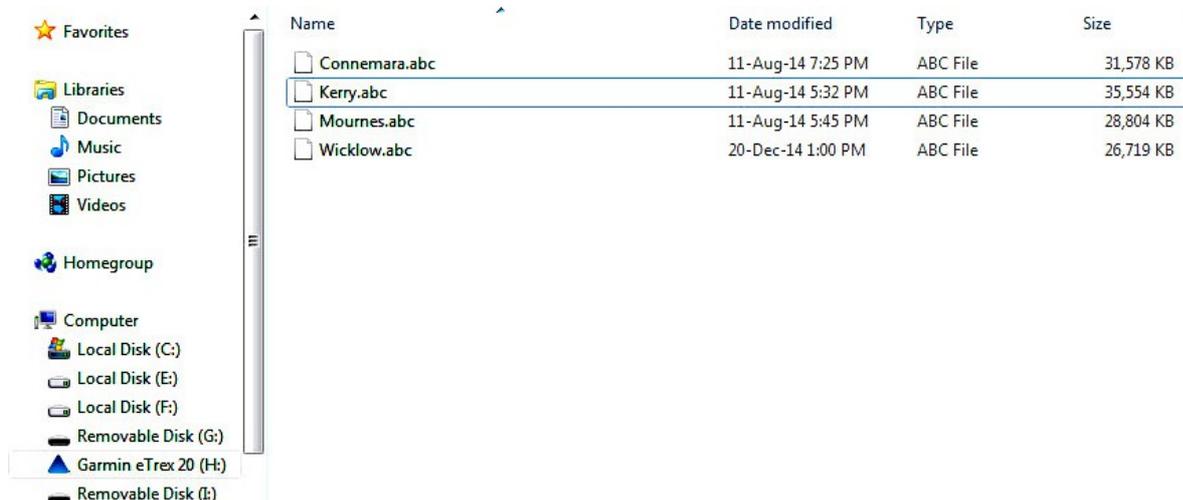
In the example shown an eTrex 20 has been attached to a computer.
The folder **Garmin eTrex 20 (F:) > Garmin > CustomMaps** contains four KMZ files whose **.kmz** extensions have been renamed to **.abc**

Connemara**.abc**

Kerry**.abc**

Mournes**.abc**

Wicklow**.abc**

You can now rename **one of them** with the correct extension **.kmz** as follows

Assuming, for example, you want to have Connemara**.abc** enabled click to highlight it and then **right click** on it and, from the drop-down menu, select **Rename**.

Move the cursor to the right of the file extension **.abc** and click. This will remove the highlight from the file name.

Warning: do not press any key before doing this – the filename will be deleted and you will have to retype it in full [if you can remember it !]

Backspace to remove the **abc**, type in **kmz** and click the cursor anywhere outside the filename box.

You will get the message

If you change a file name extension, the file might become unusable.
Are you sure you want to change it ?

Click on Yes.   Connemara**.abc** will now be renamed as just Connemara**.kmz**

If the next time you go out you need the Wicklow**.kmz** map, say, then you only need to **Rename** :

Wicklow**.abc**   to   Wicklow**.kmz**

and   Connemara**.kmz**   back to   Connemara**.abc**

Multi tile layer .img files

Google maps and other maps such as **OpenStreetMap** have layers of tiles where each tile in a particular layer has 'beneath it' in the layer below a number of tiles containing more detail than the single tile above.

As you zoom in new information, such as street names, are added to the image.
This can be seen, for example, in Google Maps where you can start from an image of Europe and then zoom in successively to Ireland then Dublin then Rathmines and then to an individual street.

Supplementing the maps supplied with a Garmin

Your Garmin is likely to come with only a very basic map setup. Typically you will get multi tile layer maps such as

Worldwide DEM Basemap, NR and **Digital Globe**

which together give you only main roads and some shading for higher ground.

It is a good idea to install some more detailed maps before setting out to use your Garmin.

OpenStreetMap [OSM] and added information

OSM is a project to create a free editable multi tile layer map of the world. The project is modeled on Wikipedia with new data about streets, buildings, businesses, house names and numbers etc. continually being added by users.

This data is available under a free licence for enthusiasts to add information particular to their interests and then distribute the result free.

Various individuals and groups have taken the basic OSM maps for countries or regions and embellished them.

For cyclists and hillwalkers the most important is probably the addition of contour lines. **OpenTopoMap** provides these as do **OpenCycleMap** and **Emerald Island**

Emerald Island

Emerald Island is a map of the whole of Ireland with added contour lines. It contains information from various contributors including Simon Stewart's **Mountain Views**.

You can download it as a zip file from **https://lemiage.net/2019/en/emeraldisland_gps_map/**
Unzip it and copy the three files **IRL210-BGD.img**, **IRL210-DEM.img** and **IRL210-LIGHT.img** to :

Garmin eTrex 20 (E:) > Garmin

Freizeitkarte

Freizeitkarte is a German website which has a collection of maps of most countries in Europe.
There are versions which can be used on Garmin GPS devices - it is recommended that they are installed onto a microSD card which you need to buy [they are quite cheap] and put into your Garmin [instructions in the Garmin manual]
The maps can be downloaded from **http://freizeitkarte-osm.de/garmin/en/index.html** which is in English.
Once downloaded they need to be copied into a folder which you have created and called **Garmin** on the microSD card