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There are two versions of **OkMap** Mobile. The one for **Android** devices [phones/tablets - the term **phone** is used from now on] can be downloaded and installed from **Google Play Store** and the one for **iOS** devices [i.e. iPhone/iPad] is available from the **Apple App Store**.

A full manual is available at https://www.okmap.org/download/okmapMobileXam_en.pdf. In the manual, as in this guide, the slight differences are noted for each operating system.

The developer can be contacted through the website <https://www.okmap.org>

Disclaimer

Phones running under iOS are all from one manufacturer, Apple. However phones running under Android come from many different manufacturers and can differ in certain ways. Also there are different versions of the Android operating system.

This means that in the following guide some of the information may differ for your particular phone and you may not see exactly the same on your screen as is shown here. In this case you will have to do a bit of your own exploration.

However these differences are mainly likely to be just with the ways to access files stored on a phone.

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1. OkMap initialisation

The first time you open **OkMap** you will be asked to accept certain terms of use and give permissions as follows.

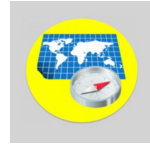
1. **Terms of use**
Check the **I accept the terms of use** box and tap on **Next**
2. **Permissions** [access to your location]
Tap on **Set permissions** and then on **Next**
3. **Permissions** [when location can be accessed]
Tap on **While using the app**
4. **Location permission**
Tap on the **Allow all the time** button and then on **Next**. This ensures that a track continues to be recorded even when the screen is off or OkMap is closed.
5. **Permissions** [use your camera]
Tap on **Set permissions** and then on **Next**. This allows you to take a photo and associate it with a waypoint.
6. **Permissions** [collect location data]
Tap on **Set permissions** and then on **Finish**. This allows your phone to continue to record your location even when the screen is off or OkMap is closed.
7. **Permissions** [battery use]
Tap on **Allow** and then on **Finish**. This prevents your phone from optimising battery usage by turning off the battery supply to OkMap when it is closed or the screen is off.

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2. A first look at OkMap

A first look at **OkMap Mobile Android** [from now on just **OkMap** or **the app**] is best done with wifi or mobile data enabled to give internet access.

While the app is loading you will see a blank screen with the following logo:
Depending on the age of your phone it may take some time to load - patience !




By default shortly after **the app** has loaded the **Map page** will appear with a **base map**, initially of the world, with the **Viewfinder** [i.e. the red cross-hairs] at its centre

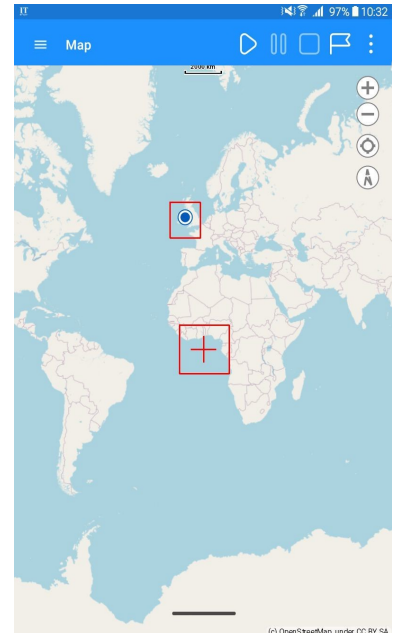
[longitude 0°, latitude 0°]

Once the phone has found your location this will then be shown as a blue dot.

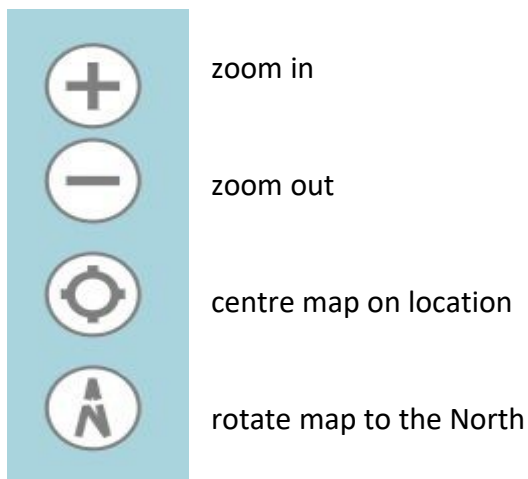
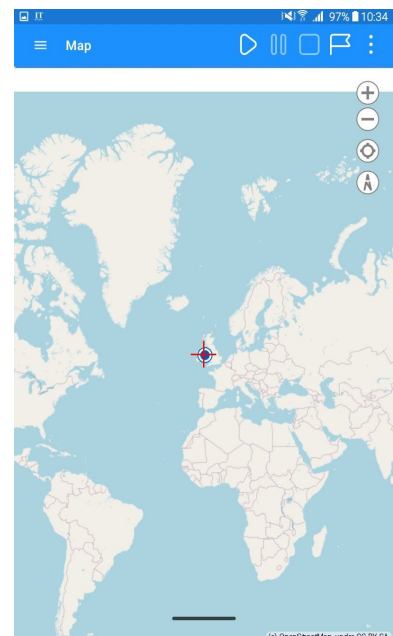
Note:

On this **Map page** at the top left there is the **Main menu** symbol []

Tap on this to see the other page options.



On the map towards the top right there are 4 buttons. Using the third one down [**centre map on location**] will move the **Viewfinder**



You can **zoom in/out** using the first two buttons or you can "pinch" the screen to do the same.

If you "pinch" you may inadvertently, or deliberately, rotate the map. In this case tapping the fourth button [**rotate map to the North**] will rotate the map back to the standard North up position.

What you are looking at is a web map which is being downloaded from the internet. It consists of a number of map tiles at different zoom levels.

Initially it is at zoom level 0, the lowest level which shows the whole world.

As you zoom in to increase the zoom level then tiles with room for more detail continue to be downloaded from the internet.

There are many different such base maps - OkMap uses, as default, one called **OSM Mapnik**. It is possible to change to a different default base map - see P. 23.

For a base map to be displayed internet access is necessary - if at any time coverage is lost then no further tiles can be downloaded so any further zooming in or out will display blank tiles.

The solution is to install a **custom map** which has been created from a paper map which you own and which you have had scanned to produce a high resolution **.jpg** file.

Using **OkMap Desktop** it's possible to create a **.mbtiles** custom map from this **.jpg** file.



You now have the best of both worlds - a large map giving you an good overview which you can comfortably look at with other people and the same map on your phone showing you exactly where you are.

A **.mbtiles** custom map is too large to install on your phone by sending it as an email attachment. Instead it can be sent using a program such as WeTransfer or Dropbox.


For more information on custom maps see P. 24

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3. The Main and Page menus - setting up coordinate preferences

OkMap uses the standard three parallel lines  and three vertical dots  **menu symbols** to access drop down menus.

Tapping on the icon pulls down the menu, tapping again on the icon pulls up the menu.

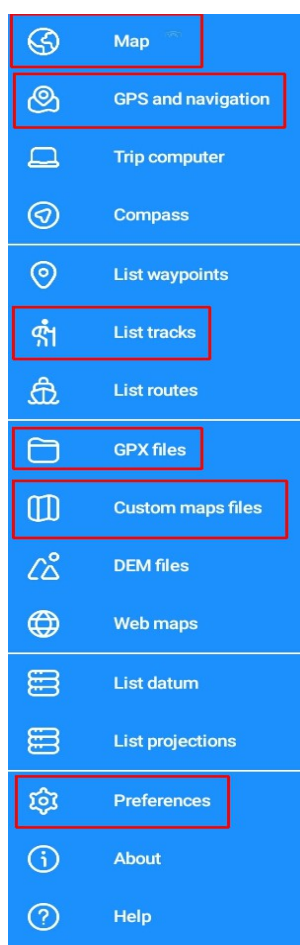
Tapping on the **Main menu** symbol  at the top left of the screen will give a drop down menu listing the page options while tapping at the top right gives the **Page** menu for the page that you are on.



On a small screen the Map page may have a somewhat compressed top but the menus are still to the left and right.



The most commonly used of the page options are:



return to the **Map page** after any changes

switch on/off the GPS in the **GPS and navigation** page

List tracks in **ACTIVELOG.gpx** and other currently loaded GPX files [see P. 17]

Lists all the **GPX files** which are currently loaded into **the app** [see P. 7 (iii)]

Lists the **Custom maps files** [see P. 24] which are currently loaded into **the app**

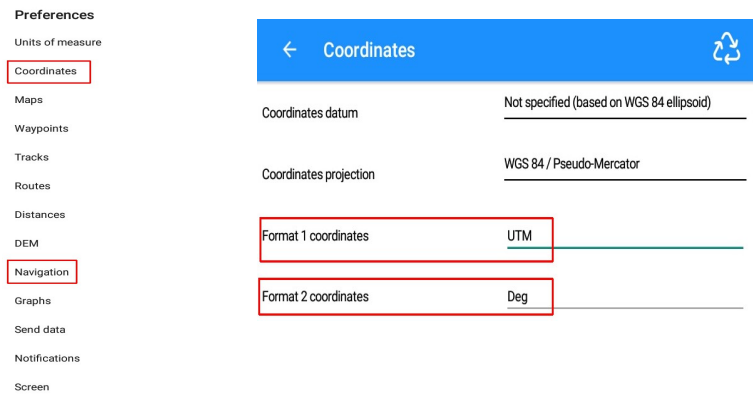
Change default settings

You should tap on **Preferences** to change some default settings as follows:

Preferences

Tap on **Coordinates** and set **Format 1 coordinates** to suit e.g. **UTM**

It's probably most useful to set **Format 2 coordinates** to **Deg** e.g. Lat/Lon in decimals of a degree.



Return to the list of page options by tapping the back arrow at the top left.

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4. File storage

There are two sorts of files used by **the app**. They have extensions of **.mbtiles** and **.gpx**
e.g **MyMap.mbtiles** is a **custom map** file whereas **ThursdayTrack.gpx** is a GPX file containing a **track**.

On a phone you might receive a file either as an attachment to an email or, for large files such as an **.mbtiles** file, as a link to a website such as WeTransfer or Dropbox.

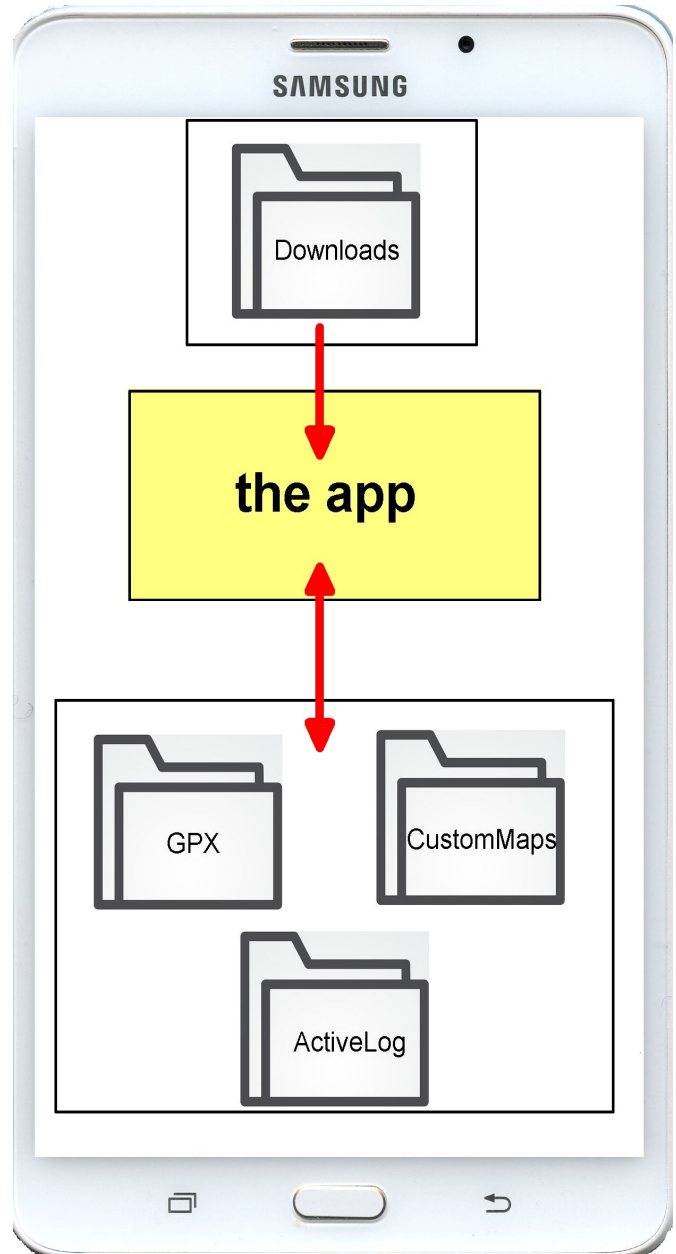
Memory space on a phone

(i) When a file is downloaded it will be stored in a particular folder which holds all **Downloads**. You may have to hunt around to find this folder. You may be able to set up your phone so that it sends all downloaded files to **iCloud** or **Google Drive**

(ii) Space on the phone is needed for code for **the app** itself and for temporary files.

(iii) Space is set aside for **app storage** [known technically as the **sandbox**]
Here there are folders within which permanent* copies of various files are stored.

*permanent meaning the contents are not lost when the phone is turned off.



Not all of these spaces are accessible to both types of phones.

(i) the download space is accessible on both iOS and Android phones.

(ii) space for **the app** is not accessible.

(iii) the **app storage** is accessible on an Android phone only..

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5. Importing custom map and GPX files into OkMap

To make best use of OkMap you will need to import a custom map file and in time you may wish to import GPX files.

In each case the process involves two steps

Step (i) - before opening OkMap download the file into a download location on your phone

Step (ii) - open OkMap and load the file from the download location into **the app** and the **app storage**

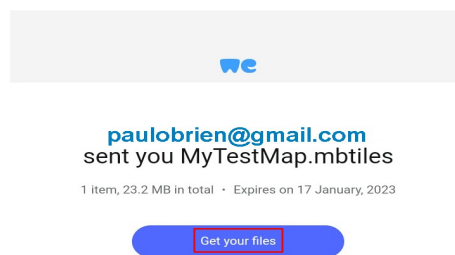
The actual download location will differ depending on whether you are using an iPhone or an Android phone and also on how you have set it up on your phone. During Step (ii) some hunting around will probably be needed.

Importing custom map files

Step (i) - download the file onto your phone

Custom maps, which are too large to email as attachments, will have to be imported from a file sharing app such as **WeTransfer** or **Dropbox**

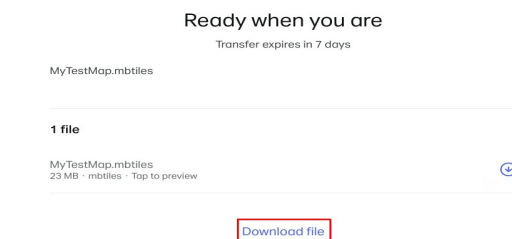
As an example consider an email you receive from **WeTransfer**



Tap on **Get your files**. This will open your browser at the WeTransfer website.
Tap on **I agree** to the terms and conditions.

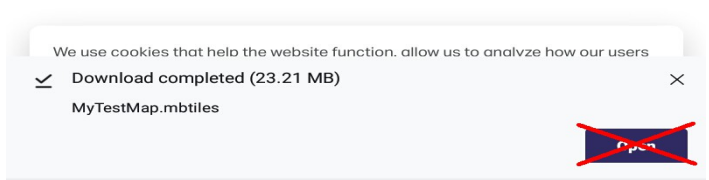
On the next page scroll down and tap on **Download file**

WeTransfer then downloads your file to your **download location**



After the file has been downloaded you may get a message.

You won't want to try to open the file in your browser [it will just tell you that it doesn't know of an application which do this] so **don't** tap on **Open** just go to OkMap for the next step.



Step (ii) - loading a file from the download location into the app and the app storage

In OkMap menus you will come across two icons for loading files:



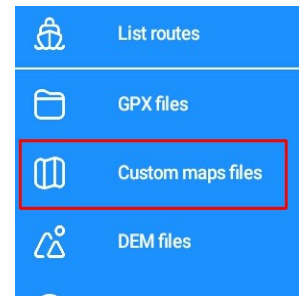
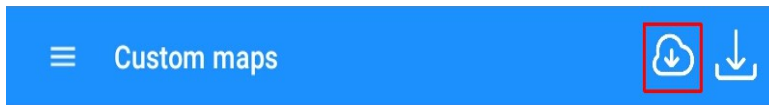
to load a file from the **download location** into **the app** itself and into the **app storage**
It will usually be used only once.



to load a file from the **app storage** into **the app** itself. It will be used quite frequently

Loading custom map files from the download location

Open OkMap and in the **Page** menu tap on **Custom maps files**



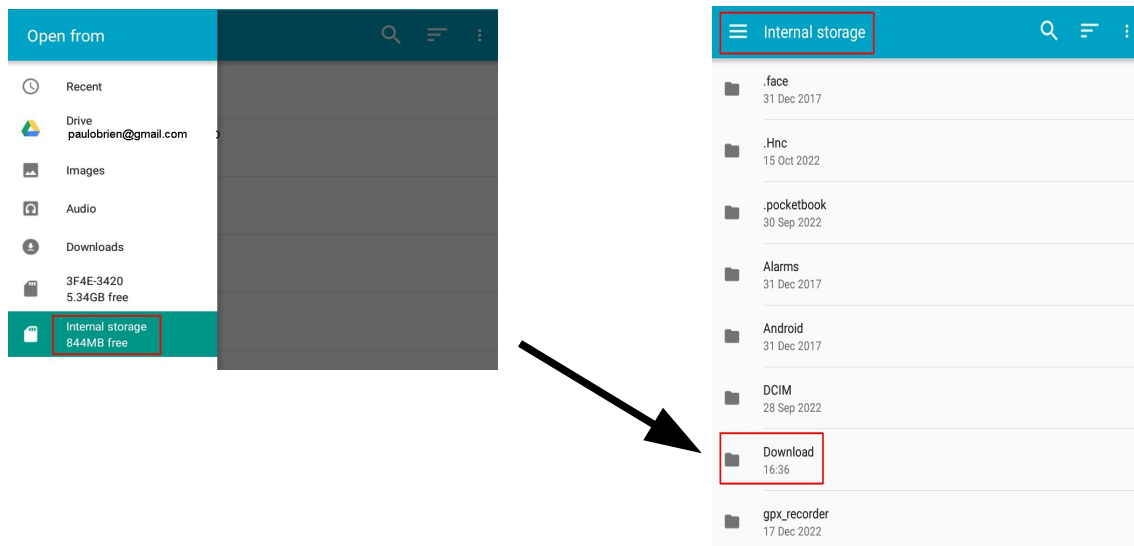
Tap on the "load from download location" icon in the top right corner.

Find your way to the **download location** where the custom map file has been stored

On an Android phone a file explorer will have been opened and you may now have to hunt around before you find the file.

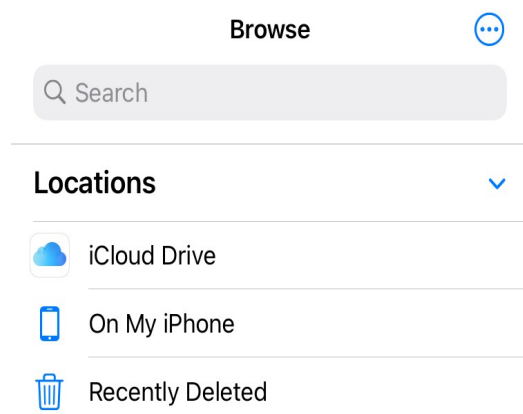
It is probably in: **Device storage > Download**

[or **Internal storage > Download** or **<phone name> > Download** etc.]



On an iPhone you will find that **Files** has been opened.

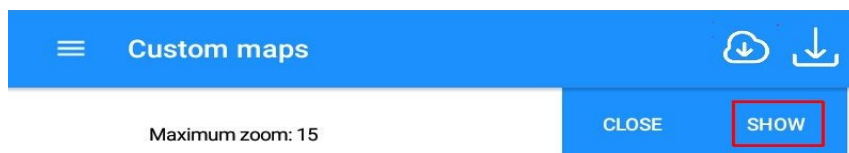
Here too a hunt for the custom map file is to be expected.



Once you have found the custom map file, **Testmap.mbtiles** say, tap on it and after a short while you will be brought back to the **Custom maps** page.




Slide to the left and tap on **Show**

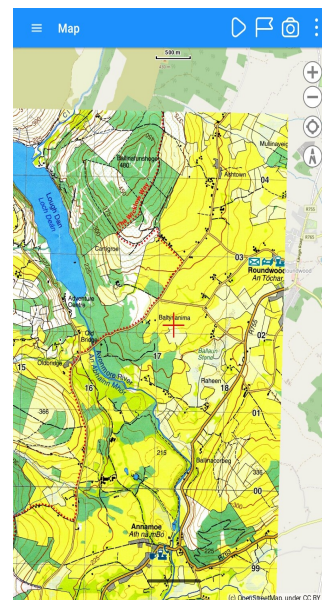


Return to the **Map** page to see the custom map displayed.

Note: As well as being copied into **the app** itself for immediate use the file is also copied into the folder **CustomMaps** in the **app storage** [see P.7 (iii)]

It can be quickly reloaded again from there into **the app** itself at any time for immediate use.

In the **Custom maps** page simply tap on the  icon.



Importing GPX files

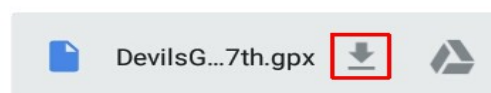
GPX files are small and can be shared as email attachments or downloaded from hiking websites

Step (i) - download the file onto your phone

Down loading from an email

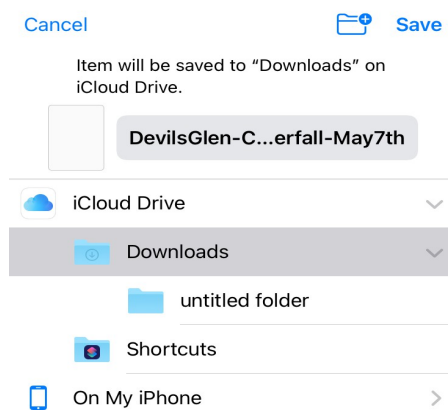
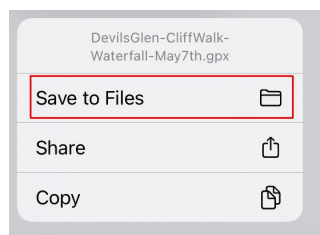
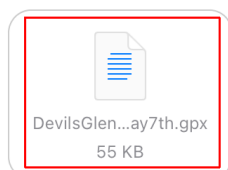
The email may have a download icon to tap

Hi Joe
Here's the track you wanted.
Paul



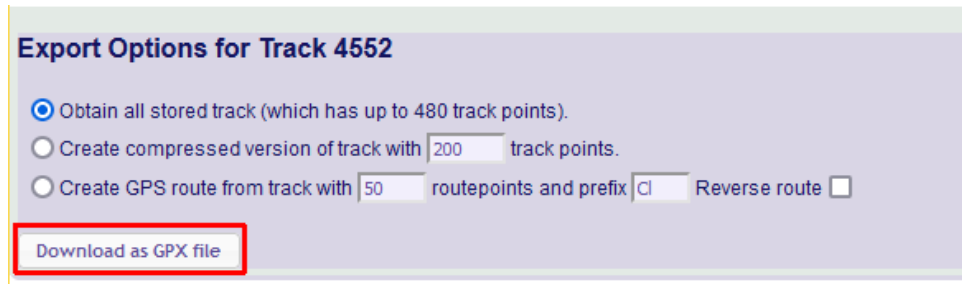
or, on an iPhone, you may need to tap and hold on a box, tap on **Save to Files** and finally choose the **download location**

Hi Joe
Here's the track you wanted
Paul



Downloading from a website

You may come across a GPX file on a website. Look for a download button or icon.



Depending on the browser used you may be asked for confirmation.



When the download is complete do **not** tap on **Open** if that option is given.



Doing so your browser will either tell you that there is no app on your phone which will do this or it will open it as a text file and you will see something like:

```
<?xml version="1.0" encoding="utf-8"?>
<gpx xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" version="1.1" creator="OkMap 13.10.7" xmlns="http://www.topografix.com/GPX/1/1">

  <trk>
    <name>Glen of the Downs Nature Reserve-Kindlestown Area</name>
    <type>Track</type>
    <trkseg>
      <trkpt lat="53.139094" lon="-6.119529">
        <ele>139.95526</ele>
      </trkpt>
      <trkpt lat="53.139037" lon="-6.119611">
        <ele>117.26999</ele>
      </trkpt>
      <trkpt lat="53.139062" lon="-6.119595">
        <ele>109.08933</ele>
      </trkpt>
      <trkpt lat="53.139003" lon="-6.119659">
        <ele>103.48999</ele>
      </trkpt>
      <trkpt lat="53.138942" lon="-6.119689">
        <ele>100.91183</ele>
      </trkpt>
      <trkpt lat="53.138997" lon="-6.119668">
        etc.
```

In fact, as you can see here, a GPX file is just a text file giving the **latitude**, **longitude** and **elevation** of each point on the track.

Note for iPhone users

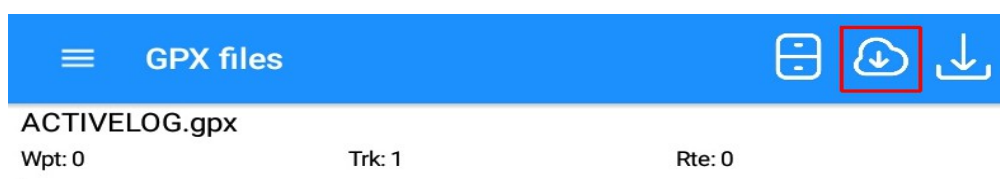
On an iPhone under iOS you will not be given the option to download a GPX file to some location to be used later by an application. Instead it will always open it as a text file.

This issue has been known for years but Apple have not, as yet, sorted it out.

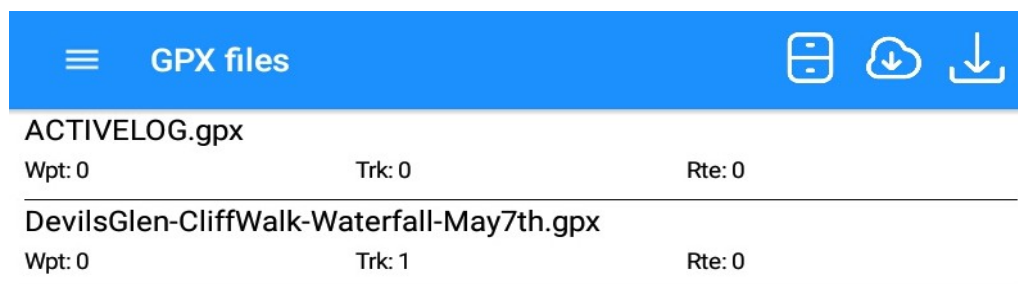
To access such a file you will need to download it onto a laptop or onto someone's Android phone before sending it to yourself as an attachment.

Step (ii) - loading a GPX file from the download location into the app and the app storage

Open the **GPX files** page and tap on the middle "load from download location" icon



Follow the same steps as given above to find a custom map file and locate the GPX file you want. Tap on the GPX file and you will be brought back to the **GPX files** page.



As well as being copied into **the app** itself for immediate use the file is also copied into the folder **GPX** in the **app storage** [see P.7 (iii)]

This means that you can load it into **the app** again at any time for immediate use.

In the **GPX files** page simply tap on the  icon.

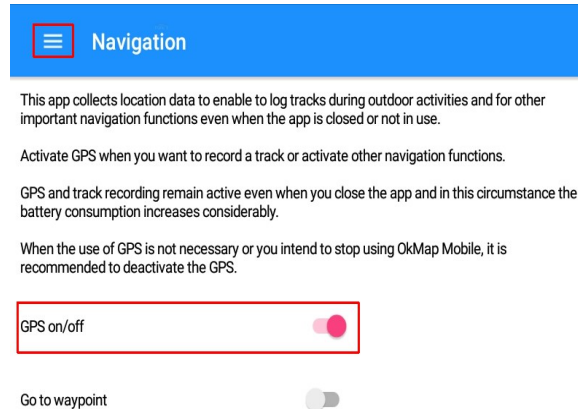
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6. Before starting a hike

Before recording a track you should:

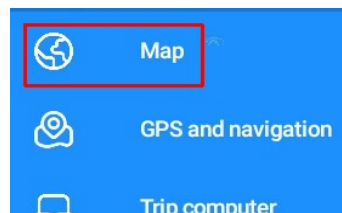
- (a) switch on **the app's** GPS connection
- (b) load an appropriate custom map if you have one
- (c) copy your starting point's coordinates

(a) Switching on the app's GPS connection on the GPS and navigation page




Tap on the **GPS on/off** button and then on the **menu symbol** at the top left of the screen to return to the list of page options.

Tap on **Map** to return to the Map page.



Note: Once you have finished recording your track you should turn off the GPS.

(b) Loading a custom map

In the **Custom maps** page tap on the  icon

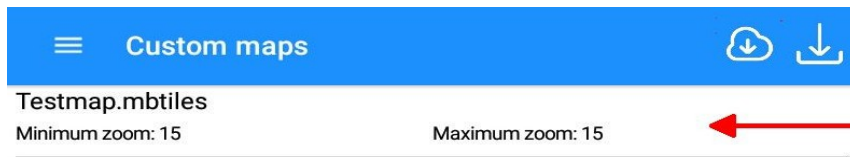


This will bring you directly to the contents of the **CustomMaps** folder [see P. 7 (iii)] and you will see your custom maps listed, provided you have previously loaded at least one [see P. 8, 10-11] .

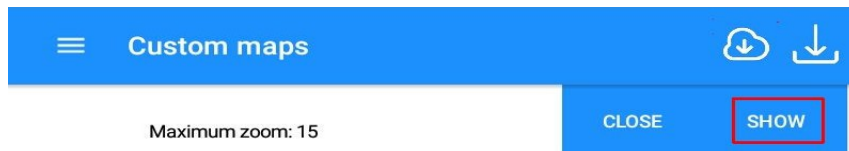
Files			↓ A Z	⋮
Cooleys.mbtiles				
	29/01/2023 12:52		24.3 MB	
MyTestMap.mbtiles				
	29/01/2023 12:53		24.3 MB	
SheepsHead.mbtiles				
	29/01/2023 12:53		24.3 MB	

Tap on the map you want - bars will appear at either side of the filename to show it has been selected.

Tap on **Ok** at the bottom of the screen and then you will see it listed as having been loaded into the app.



Slide to the left and tap on **Show**



This will return you to the **Map** page where the custom map is now displayed.

(c) Copying your starting point's coordinates

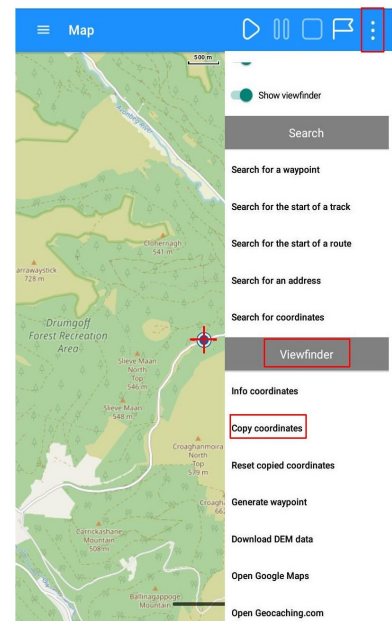
At this stage the GPS should be on and your location should be shown as a blue dot.

Save the coordinates of this location as follows:

Move the red cross-hairs of the viewfinder to overlap the blue dot.

Tap the menu icon at the top right and scroll down to the **Viewfinder** options.

Tap the **Copy coordinates** option.



An icon in the form of a white flag on a green background appears.

Having these coordinates saved ensures that you can quickly centre on the screen the area in which you are walking.

This can be particularly useful when your internet connection is lost or when you "pinch out" too far and your custom map is no longer displayed.

[see P. 24 - 25]



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7. Recording a track

Press the **Start recording** button - the first in the group at the top right of the screen.



The **Start recording** button will be inactivated and the recording will start



The second in the group is the **Pause recording** button.

If you do pause recording the buttons change to allowing you to **Start recording** again - a new track segment will be created each time you do this.

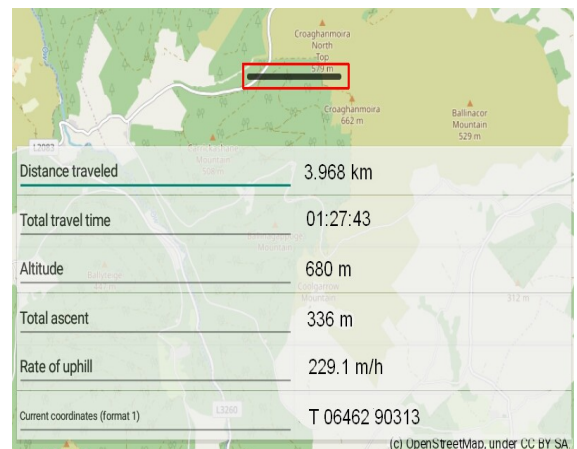


As you record your track appears in red on the map.

Tapping on the black bar at the bottom of the screen will bring up a box with six statistics about the hike so far. Tapping on the name of one of these will allow you to replace it with a different one.

e.g you could replace **Rate of uphill** with **Battery level**

Tapping again on the black bar will close the statistics box.



When the hike finishes press the **Finish recording** button



You will then be given the opportunity to change the track name to something more meaningful.

← Object info

NameDrumgoff-Lugnaquilla-Zigzags

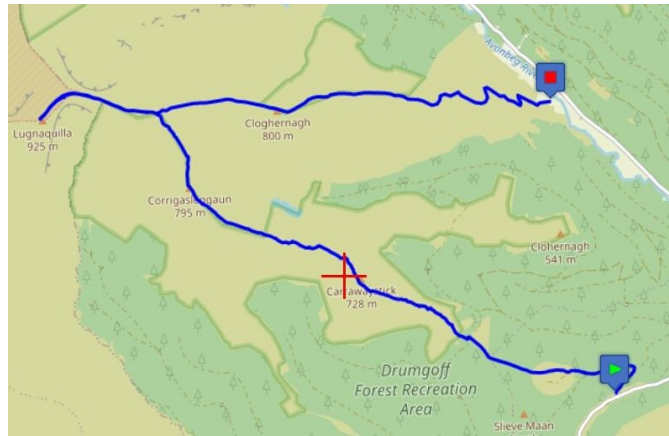
Description

Comment

Make the changes, tap **Done** or whatever is needed to close down the pop-up keyboard and click on **Ok** at the bottom right of the screen. This will add the track into a file called

ACTIVELOG.gpx

and the completed track appears on the **Map page** in blue with a **green triangle** pin at the **start** and a **red square** pin at the **finish**.



OkMap can now be closed but before doing so you should switch off the GPS in the **GPS and navigation** page.

Otherwise it will continue to keep recording your track until you re-open the app. This may not be until you get all the way home and will be a drain on your battery.

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8. ACTIVELOG.gpx and archived files

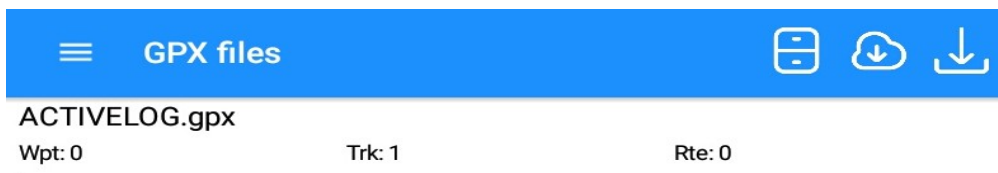
While you are recording a track the app stores all the information about your position, height etc. in a temporary file called **ACTIVELOG.gpx** kept in space reserved for **the app** itself [see P.7 - (ii)]

A copy is also maintained in the **app storage** folder

ActiveLog [see P.7 - (iii)]

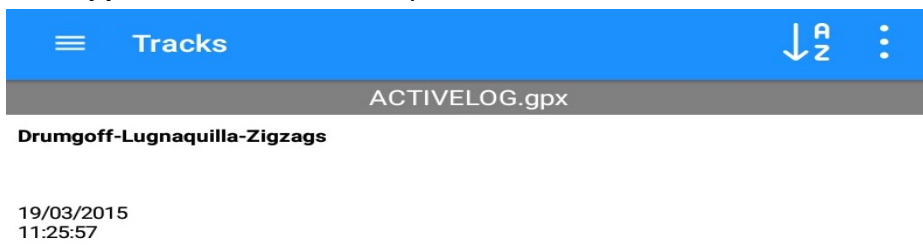
Archiving the contents of ACTIVELOG.gpx

Opening the **GPX files** page will show the file **ACTIVELOG.gpx** and any other GPX files which have been uploaded into **the app** itself .



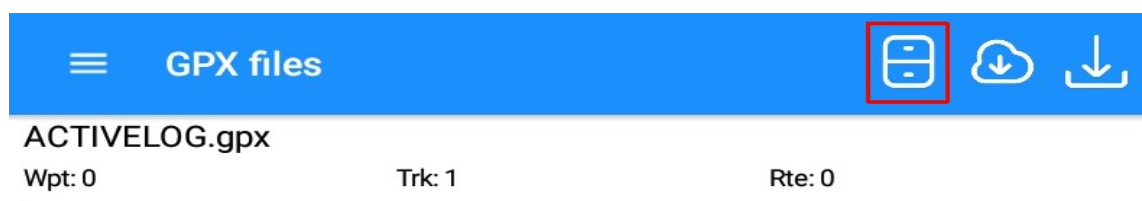
In this case only **ACTIVELOG.gpx** is there. It contains 1 track.

To learn a bit more about the track open the **List tracks** page where you will see a list of the tracks uploaded into **the app** itself that there is only one track



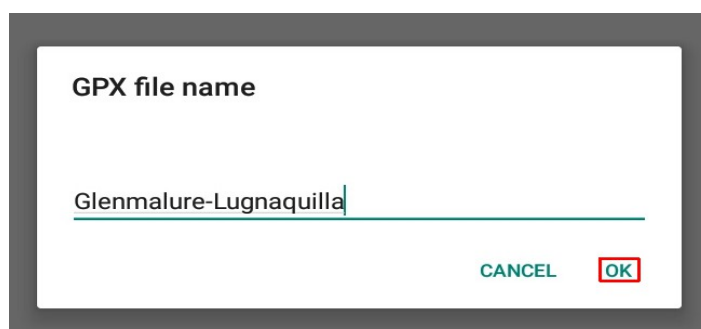
If you were to go out again and record another track as described above then you see two tracks in **ACTIVELOG.gpx** but this is not a good idea, in general.

Instead you can archive the **ACTIVELOG.gpx** file and give it a more descriptive name. Go back to the **GPX files** page



Tap the "filing cabinet" icon

Type in a descriptive name for the GPX file and tap on **OK**

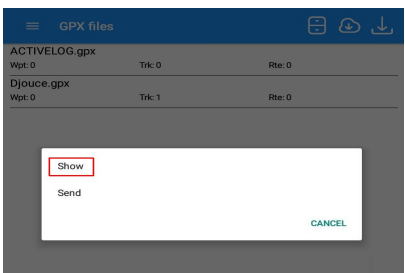


The **GPX files** page will now show two files in **the app** itself

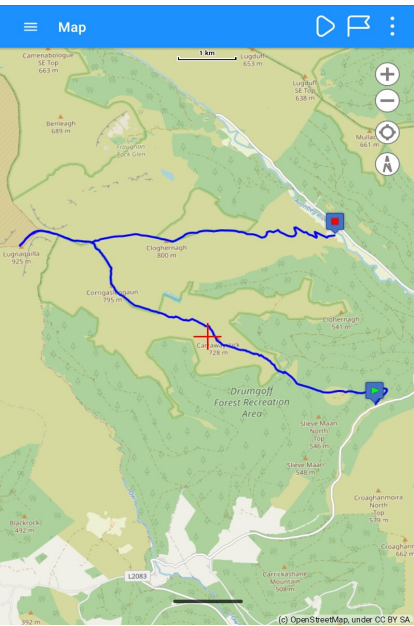
GPX files		
ACTIVELOG.gpx		
Wpt: 0	Trk: 0	Rte: 0
Glenmalure-Lugnaquilla.gpx		
Wpt: 0	Trk: 1	Rte: 0

Note 1: If the track lies outside the **Map** page and is not appearing slide to the left and tap on **Other** and then **Show**

GPX files		
ACTIVELOG.gpx		
Wpt: 0	Trk: 0	Rte: 0
Trk: 1	Rte: 0	CLOSE OTHER



You should then see the track



Note 2: In the process **ACTIVELOG.gpx** has been emptied of all data and now contains no track.

Tracks	
Glenmalure-Lugnaquilla.gpx	
Drumgoff-Lugnaquilla-Zigzags	
19/03/2015 11:25:57	ACTIVELOG.gpx

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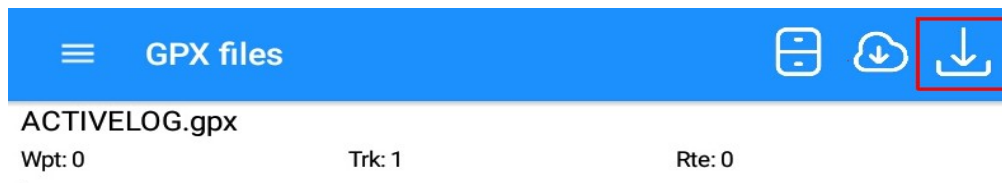
9. Uploading a GPX file to the app itself

Each time OkMap is opened a copy of **ACTIVELOG.gpx** is automatically loaded from the folder **ActiveLog** [see P.7 - (iii)] into **the app** itself.

However no other files are automatically loaded in this way and each must be individually copied to **the app** itself

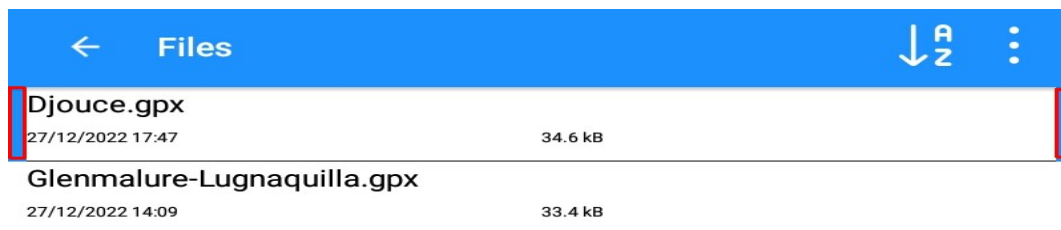
Each of your GPX files will be either a file which you have created and **archived** into the **GPX** folder in the **app storage** [see P.7 - (iii)] or a file which you have **imported** into the same folder.

Both **archived** and **imported** files can be copied to **the app** itself by going to the **GPX files** page

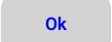


and tapping on the rightmost icon  at the top of the page.

You will see your archived and imported files listed

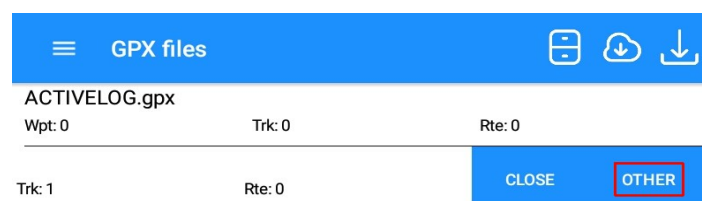


Tap on the required file - bars will appear at either side of the filename to show it has been selected.

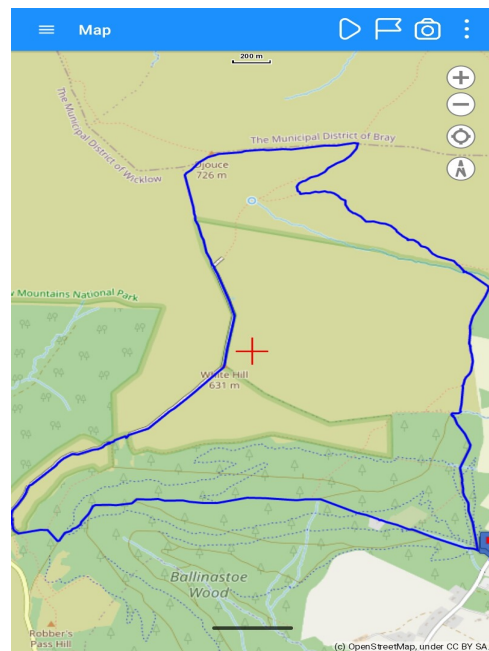
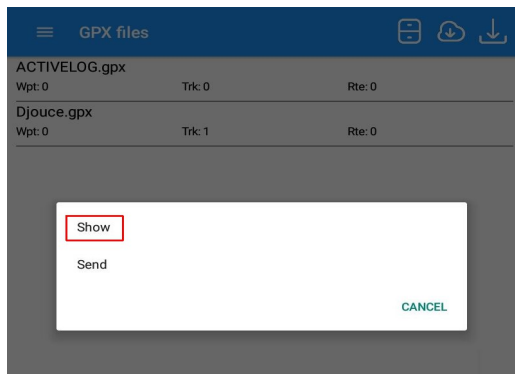
Tap on  at the bottom of the screen and then you will see it listed in the **app storage**



Slide the file to the left and tap on **Other**



and then tap on **Show**. This will display the track(s) in this file.



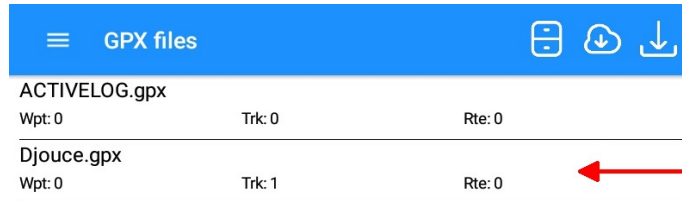
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10. Sending an archived or imported track as an email attachment

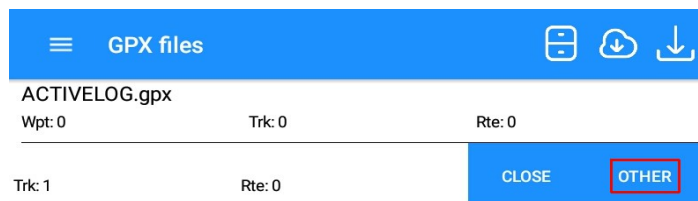
Any GPX file which has been uploaded to **the app** itself and is therefore to be found on the **GPX files** page can be sent as an email attachment.

Go to the **GPX files** page and if it is not already in **the app** itself then load it as described on P.19

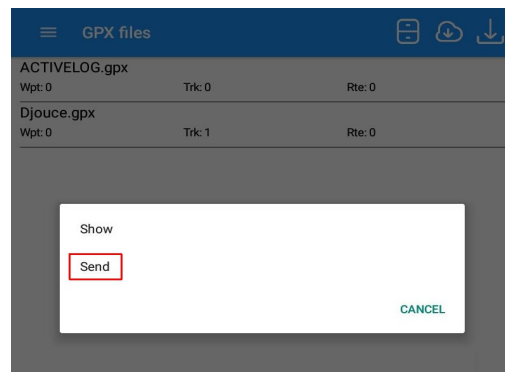
With the file now listed swipe left on it



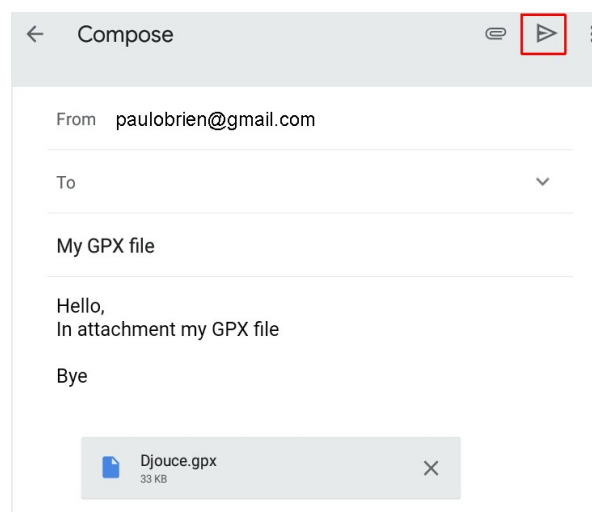
and tap on **Other**



Tap on **Send**



Complete the email form, editing the message as you wish, and tap on the send icon

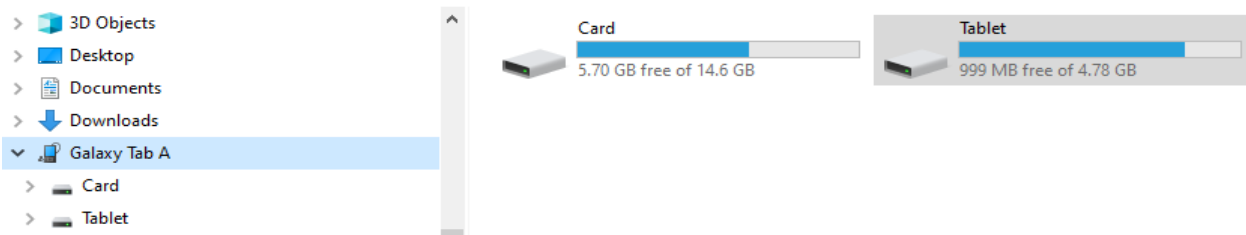


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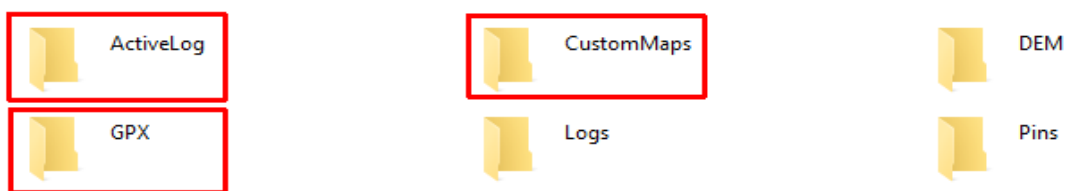
11. Using a computer to access files for OkMap

Android phone

When an Android phone is attached to a computer the accessible storage will be shown in File Explorer - in this case the "phone" is a Samsung Galaxy tablet with an external SD card



Going to **Tablet > Android > data > com.OkMap.Mobile > files** will show the contents of the **app storage**. This includes folders for **ActiveLog**, **GPX** and **CustomMaps**, amongst others.



You can upload/download any sort of file into all of these folders but it's best to only do this to the folders **GPX**, which contains all the archived files, and **CustomMaps**, which contains custom maps.

It's possible that in time that these two folders take up too much of your phone's memory space.

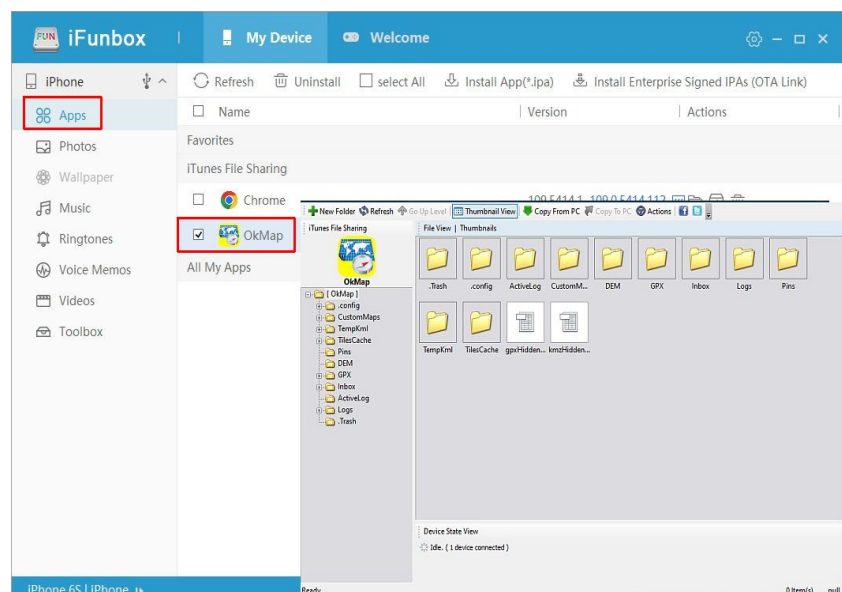
The solution, if you have an Android phone, is to install an **external SD card** and create on it **GPX** and **Custom maps** folders. Files can then be moved to these folders as described.

iPhone

On an iPhone to work on the **app storage** folders you will need to download and install an app called **iFunbox**.

To work **iFunbox** depends on **iTunes** being open at the same time.

Attach your iPhone and click on **Apps > OkMap**



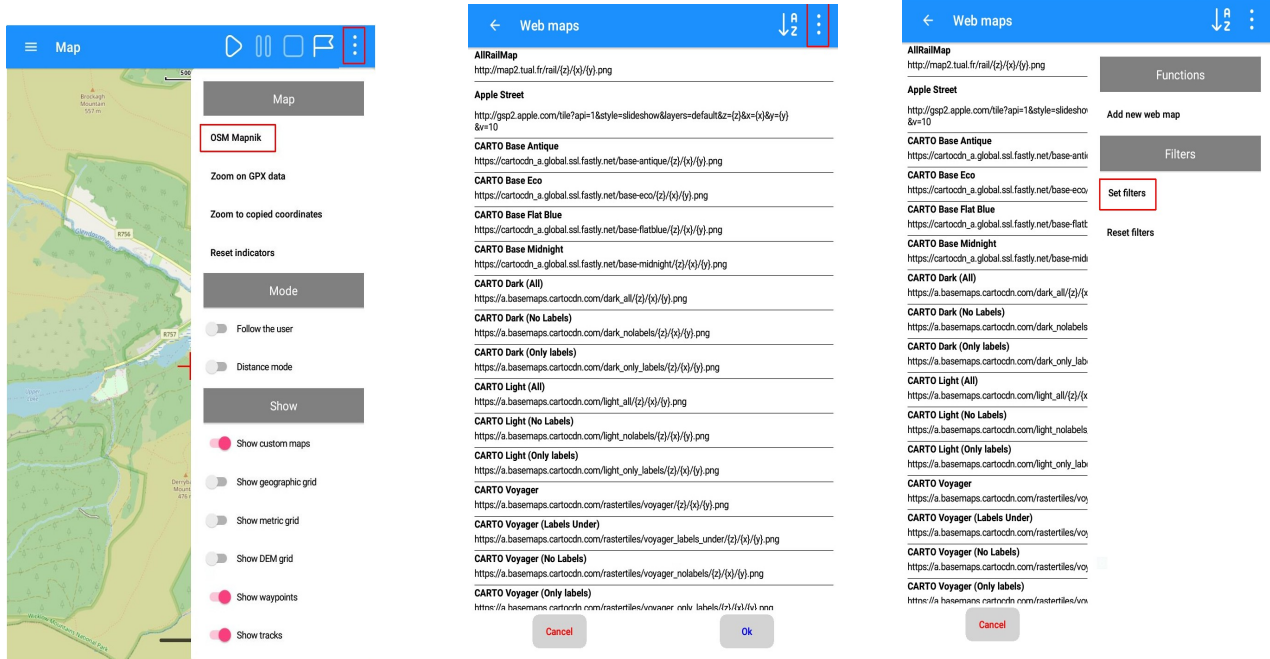
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12. Changing the base map

On the **Map** page tap the menu icon in the top right corner to get a drop-down menu [tapping again on the icon will close the menu]

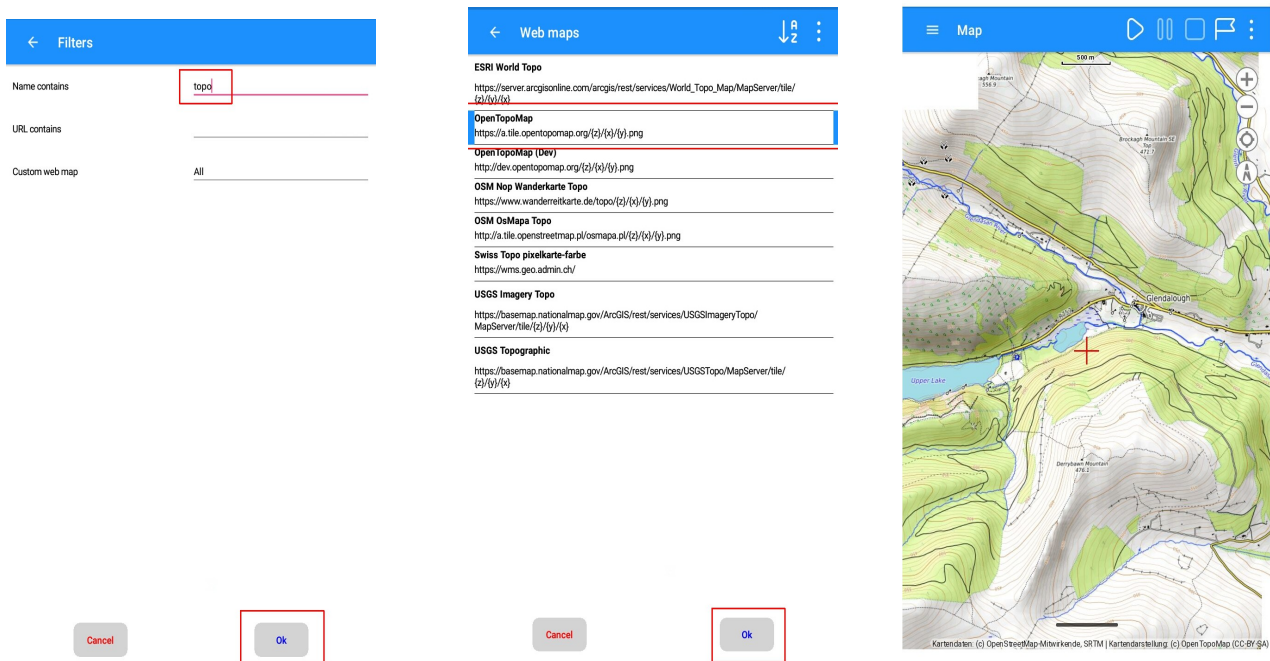
Tap on OSM Mapnik and then on the **Web maps** menu in the top right corner.

There are a large number of options for you to try but for hiking a topographic map is desirable so tap on **Set filters**.



Type "**topo**" in **Name contains** and tap on **Ok**. Select a map such as **Open TopoMap** and tap on **Ok**

This will bring you back to the **Map** page and the map tiles start to appear as the tiles are downloaded from the internet.



Now **Open TopoMap** is the default base map. **OSM Nop Wanderkarte Topo** is worth checking out too.

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13. Custom maps

If you have a favourite paper map you may well like to have it as a **Custom Map** on the screen of your phone.

To be able to do this you first have to get a version of your map which has been scanned and saved in a georeferenced **MbTiles** format.

To learn how to do this see **A guide to using OkMap Desktop**

Using a Custom map in Okmap

Custom maps must be loaded into the **app storage** from a file sharing app such as **WeTransfer** or **Dropbox** - see P. 8-12. This process need only be done once.

Each time you use OkMap you must load the most appropriate custom map from the **app storage** into **the app** itself as outlined on P. 13 - 14

The disappearing custom map issue

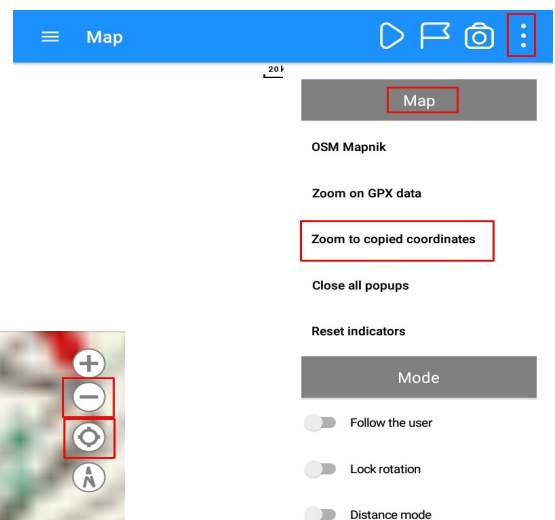
In use sometimes the display alternates between the base and custom maps as you scroll and zoom around.


At other times the screen goes blank because you have lost the internet connection. **Don't panic !**


If you have saved the coordinates of your starting point [see P. 14]

Tap the menu icon at the top right and tap the **Zoom to copied coordinates** option in the list of **Map** options.

The screen will fill with the area around the starting point - highly magnified.

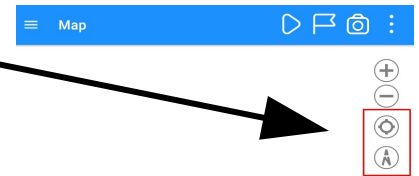


Tap on the centre map on location icon 

You may need to zoom out a bit by tapping on the  icon several times.

If you haven't saved the coordinates of your starting point

Tap on the **centre map on location** and **rotate map to the North** icons



Your map is now centred on your location and faces North



Try zooming right in until the custom map appears.

Alternatively go back to the **Custom maps** page, slide to the left and tap on **Show**.

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14. Checklist before hiking

Before leaving the house

- Make sure your phone is fully charged
- Check that any GPX files or custom maps needed are stored on the phone
- Leave a bit early so as to reach the start with some time to spare for setting up OkMap

At the start

- When you arrive switch on your phone and load OkMap
- Give OkMap time to load
- When OkMap is loaded and the **Map** page is showing go to the **GPS and navigation** page to set GPS to **on**. Return to the **Map** page
- Give the phone's GPS time to find your location. If you're still connected to the internet you'll see your location on the base map - if not your location will show on a blank page.
- Go to the **Custom maps** page and load your custom map. Slide to the left and tap on **Show**
- On the **Map** page move the map until the **Viewfinder** coincides with the blue dot of your location
- Tap the menu icon at the top right and scroll down to tap on the **Copy coordinates** option
- Just before the hike begins start recording
- During the hike pause the recording when you know you will be stopped for some time. Restart recording just before the hike resumes.
- At the end stop recording and name the track, or leave the name as the date/time given.
- Go to the **GPS and navigation** page to set GPS to **off**.
- Close down OkMap.

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