Navigation with Smartphone

These instructions are intended to give the beginner some basics to the navigation with a smartphone.

The manual refers to the free app "Locus Map Free". Locus is free and has everything (and much more) what usually is needed. In addition, Locus is widespread and there can be found a lot of help and information in the WWW. Locus runs on Android. **Locus is not available for iOS (Apple).An extensive overview of navigation and map applications for iOS can be found in the pages of OpenStreetMap:** Apple iOS. Alternatives to Locus can also be found at the pages of Openstreetmap: Android. Who wants to dive deeper into the navigation and map subject should work through the OpenStreetMap pages: Welcome to OpenStreetMap.

Locus has so many features that the entry for beginners is probably the most difficult thing. If the entry is managed once, you will - with some Information and help found in the WWW - get along yourself.

1. Hints

For navigation, GPS must be enabled and the smartphone must receive signals from satellites.

There are often several ways to access the desired functions in Locus. For simplicity is always described here only one possibility.

This guide was created for Locus in version 3.17.2 on Android 5.0.

The numbering in this instruction corresponds to the numbers of Pictures.

2. Installation and Start

1. The installation on the smartphone takes place as usual from the Google Play Store. Locus is launchedfrom the icon, which is automatically created during installation.
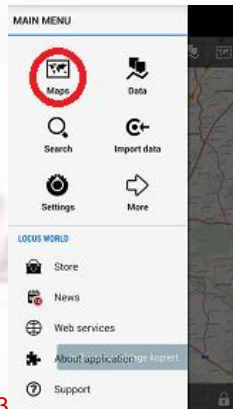

Pic 1

3. Online-Navigation (with Connection to the internet)
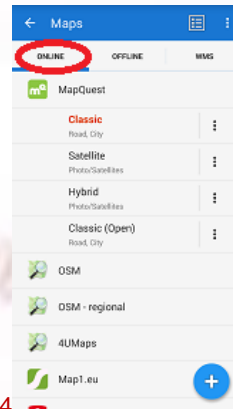
2. The menu is opened on the three horizontal bars on the top left.

3. To select a map, click "Maps".

4. Under "ONLINE" select a map.


Pic 2   Pic 3   Pic 4

5. The current location is centered on the map. with the visor icon which can be found at the left corner at the bottom. Next to the right of the visor symbol you can select "Show view" (recommendet).

6. To calculate the route to the destination you move the map so that the target is in the center of the map under the red cross.

7. Then open again the menu and select "More functions".

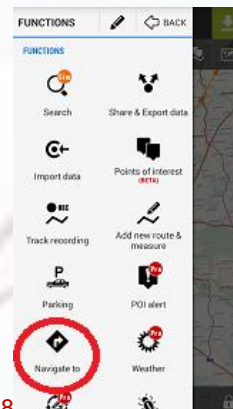8. and then "Navigate to"
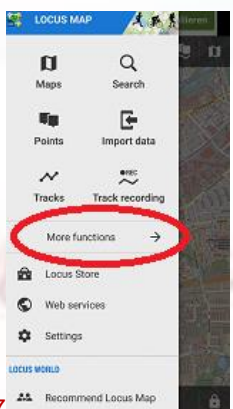
Pic 5   Pic 6   Pic 7   Pic 8

9. In the next step you choose is "Screen center".

10. Now, before choosing Car, Cycle or Foot you can tick "Store permanently". The route is then saved as a track and can be used any time without recalculation. You can for example calculate a route when you have an Internet connection and use it later without a connection to the internet This is especially useful with offline maps (see below).

11. Subsequently, the route will be displayed and the voice instructions are activated.

12. Using the route information field (see Pic 11) leads to an area where the volume can be changed and the navigation can be terminated.
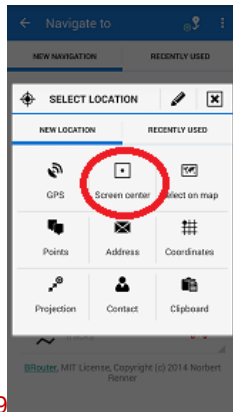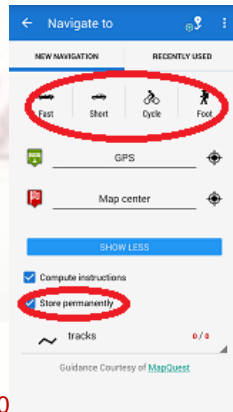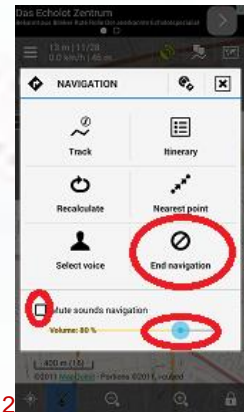
Pic 9   Pic 10   Pic 11   Pic 12

4. Offline Maps

Offline maps are maps that are stored in the smartphone. They can be used without an Internet connection and are a prerequisite for offline navigation ..

Version 1

The easiest way to store a map is to download a part of an online map. If possible, you should have a WiFi Connection for that purpose.

13. You open "Menu", "Maps" as described above and tick the three Points next to the desired map.
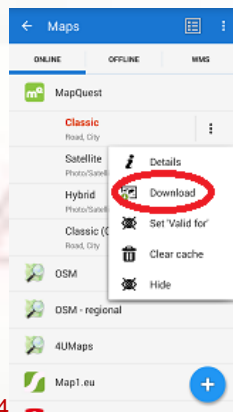
14. And then "Download".

15. Now you can choose "This screen" or "Select area". At this point, the latter is taken.
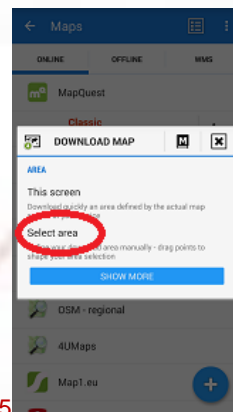
16. Once you have selected the desired area, you confirm the selection with the blue hook.
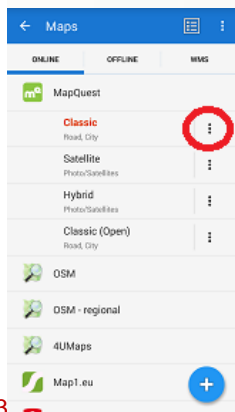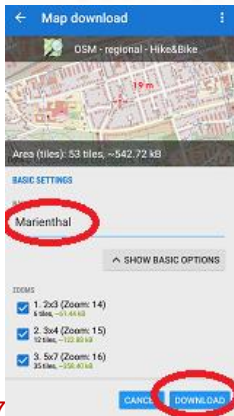

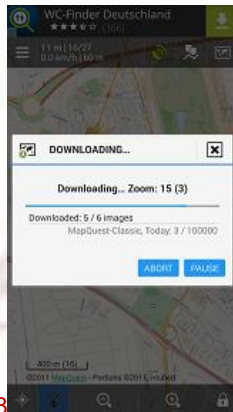
Pic 13   Pic 14   Pic 15   Pic 16

17. Fill in something suitable for "Name" and select "Download".

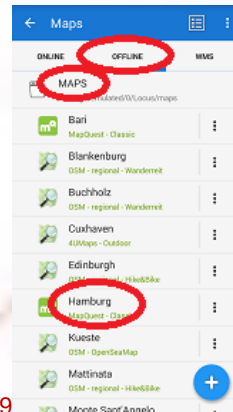18. Now the area is being downloaded.

19. When the download is complete, you will find the map in the map selection ("Menu", "Maps") under the tab "Offline" under "MAPS".

Pic 17   Pic 18   Pic 19

Version 2

Another way to store maps on your smartphone is to download maps from the Internet. These are mostly space-saving so-called vector maps. There are different maps and sources. At this Point freizeitkarte-osm.de is used. One can first transfer the maps of "freizeitkarte-osm.de" on the PC and then copy them to the smartphone. However, it is easier to download the maps directly to the smartphone because they automatically end up in the correct directory. Locus must already be installed.

20. Start a browser (eg Chrome) on the smartphone and open http://freizeitkarte-osm.de/. Opt for "Karten für Android Smartphones / Tablets"

21. The menu item "Karten" leads you to the download area.

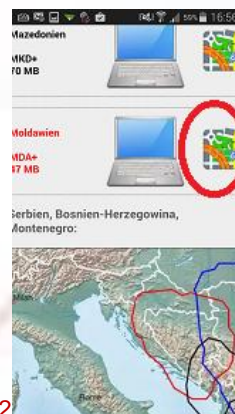22. The download is started by clicking on the locus icon of the desired map.

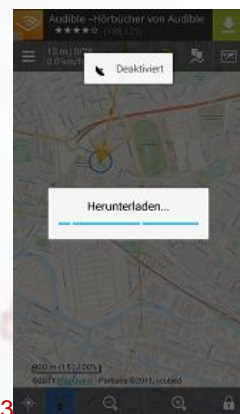23. Now you wait until the download is complete.
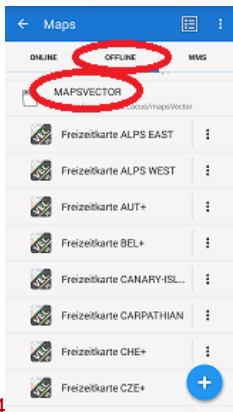
Pic 20   Pic 21   Pic 22   Pic23

24. The vector maps can be found in the map selection ("Menu", "Maps") under the tab "Offline" under the heading "MAPSVECTOR".
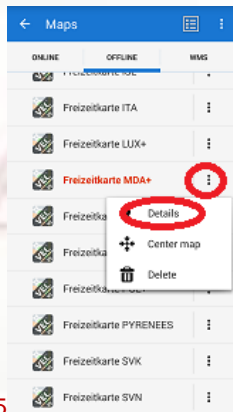
25. By clicking on the three dots next to a map and then chosing "Details" you can select a theme (representation of a map). This works only on vector maps.
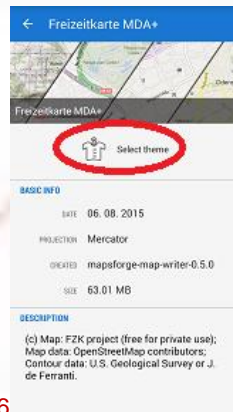
26. "Select Theme"
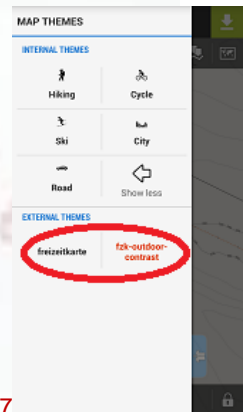
27. There are several themes to choose from.Try out.

Pic 24   Pic 25   Pic 26   Pic 27

4. Offline-Navigation (no Connection to the internet)

28. Offline navigation does not require any Internet connection. The route calculation is carried out with the additional free app BRouter. The installation on the smartphone takes place as usual from the Google Play Store. When you first open, you are prompted to select a base directory (base dir). One should read the information about Brouter and KitKat. Since Android 4.4 (KitKat) the write access to the external SD card (which is the memory card that can be removed) were severely restricted and it gets a bit complicated if you want to use the external SD card for the extensive BRouter data which makes a lot of sense: Surviving with Android 4.4 (KitKat) using BRouter 1.0.1 For simplicity (and if you have enough disk space), you can accept the default of BRouter.

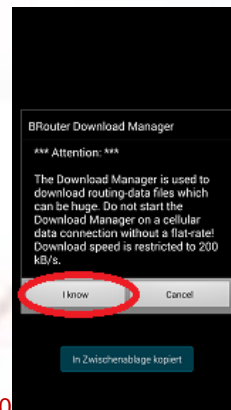29 Then start the download Manager. It can be started manually later at any time.

30. You should definitely have a wireless connection because large amounts of data are transmitted. It is also useful to have a fully charged battery or a network connection (power cord). Confirm the message with "I know".
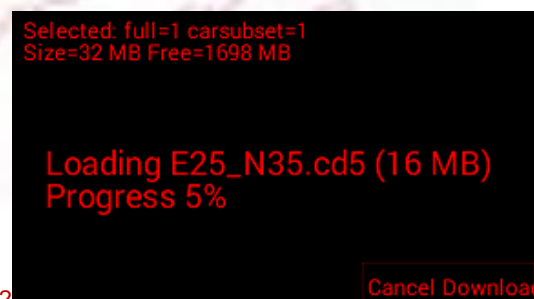

Pic 28
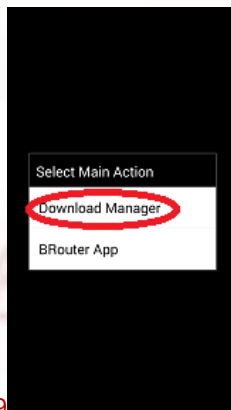
Pic 29

Pic 30

31. Click on the areas that you want to download. Already downloaded areas are marked gray. Newly selected areas are highlighted in green. By repeatedly clicking on a green area it is deselected. Continue with "Start Download".

32. When the download is complete, you can quit BRouter.
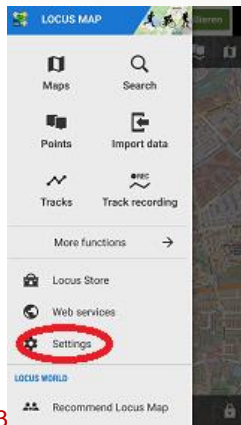

.Pic 31

Pic 32

33. To use BRouter in Locus, you have to notify Locus about it in the settings. Start Locus and open the menu and then "Settings"

34. Select "Navigation".
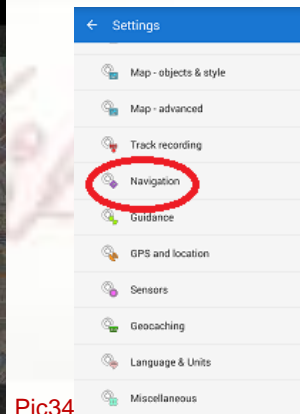
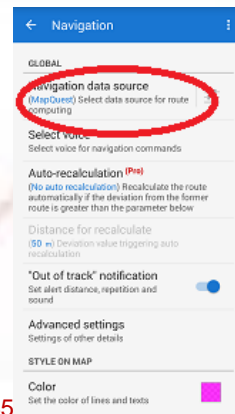35. Now open "Navigation data source".

36. Here you hopefully find "BRouter" to choose. The selection can be changed again at any time of course.
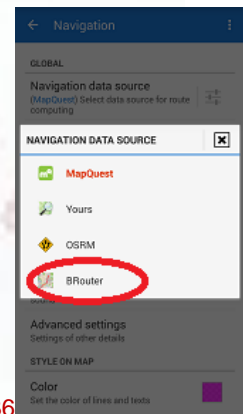
Pic 33   Pic34   Pic35   Pic 36

Now you can calculate routes without an internet connection. The procedure is the same as described in "3. Online-Navigation (with Connection to the Internet)". The only difference: Select an offline map.

5. Save power

The navigation requires unfortunately a relatively large amount of energy and reduces the battery life noticeably. Therefore, a few tips on how to save energy when using Locus.

Deactivate "Display always on"

In locus menu you can under "Settings", "Display", "Display Always on" enable or disable this setting. If enabled, there are more options available. The most energy-saving setting is "disabled". The display automatically switches itself off as with other apps in accordance with the system settings when not in use and must be manually turned on when you need it again. Additionally you can set the brightness to automatically through the system settings or set it manually as dark as appropiate.

Stop the Navigation

Beside the display the most computing power is required by the navigation. During navigation, the GPS is active even when the display is off. Often one can get along without the navigation. If you have stored the calculated route (see the section "Online Navigation"), you can stop the navigation. Thus you forgoe the voice messages. If the screen goes blank, the GPS switches off as well, if you told so to Locus: "Menu", "Settings", "GPS and Location", "Disable when hidden". If you want to check if you're still on the track you activate the display and open Locus. It takes a moment until Locus indicates the current position. Is this on the track's all is good, otherwise you have lost. To save even more energy, you can also terminate Locus and start it again when needed. The track will also appear after the restart.

Navigation with vocal instructions and earphones

The vocal instructions are sufficient in many cases and the display can be turned off (dark). Activate the display in ambiguous situations only. Working with earphones is particularly efficient (one ear is enough). At temperatures around +4 degrees Celsius I could navigate over 8 hours uninterruptedly with the Samsung Galaxy S5. At above 10 degrees Celsius even over 10 hours.