

MapOut User Manual
Version 3.2.4

Contents

1	Introduction	2
1.1	Conventions in this Manual	3
2	Map	5
2.1	Overview	5
2.2	Dashboard	6
2.3	Map Interactions	7
2.4	Location	9
2.5	Record	11
	Recording Tours	11
	Recording Waypoints	12
2.6	Download Map Data	14
2.7	Search	16
2.8	3D View	17
2.9	Drawing Tours	17
	Overview	18
	Adding & Editing Tours	19
	Adding & Editing Waypoints	22
2.10	Displaying Tours	24
2.11	Displaying Overlays	25
	Tourism	26
	Transport Network	26

Bicycle Network	26
MTB Routes	26
Hiking Routes	27
Winter Sport	28
2.12 Adding & Correcting Map Data	28
3 Tour Organizer	30
3.1 Overview	31
3.2 Information View	32
3.3 Tour List	33
3.4 Importing Tours	34
MapOut.me Account	34
Direct Import	35
3.5 Share	37
3.6 Edit	39
3.7 Draw	40
3.8 Move	40
3.9 Delete	41
3.10 Reverse	42
3.11 Visibility	43
3.12 Show on Map	43
3.13 Load Map	44
4 Settings	45
4.1 My Account	46
Register	46
Login	46
Logout	47
Change Password	47
4.2 Map Display	47
Text Size	47

Street Width	48
Level of Detail	48
Terrain	48
Contour Lines	48
Main Roads	48
Map Orientation	49
Allow Landscape Mode	49
Scale Always Visible	49
4.3 Map Data	50
Download using	50
Update & Delete All Map Data	50
4.4 Tour Organizer	51
Tour Preview	51
Sorting	51
Export Format	51
Backup Tours	52
4.5 General	52
Author	52
Optimize Recordings	53
Display Power Savings	53
Altitude Mode	53
Units	54
Coordinate Format	54
4.6 Others	54

Chapter 1

Introduction

MapOut is an offline map for your iPhone or iPad with many unique features. It is the right choice for any outdoor activity and allows you to plan, record and follow your tracks on any terrain.

*Offline map covering the whole world -
for hiking, biking or as city map.*

Offline means: Once you have downloaded your map data, all features like searching and exploring the map are fully functional without the need for an internet connection. Often when you are abroad or off-track in nature, there is no reliable cell coverage. So you need an offline map – you need MapOut.

You can download MapOut at: [MapOut.app](https://mapout.app)¹

¹<https://mapout.app>

1.1 Conventions in this Manual

This manual for MapOut is structured similar to the app itself and consists of the three main parts: **Map, Tour Organizer and Settings**. Each sub-section usually starts with the more fundamental topics first and towards the end of each section, the more advanced or expert things are discussed.

You can either read this manual from start to finish or just look-up parts you are interested in. All sections are self-describing but it might help if you read the "Overview" sections first to get a glimpse of the basic features.

Often images are annotated with touch indicators – to make it more clear where to tap and what kind of tap is required for certain actions (e.g. normal tap, long-tap, double-tap, ...). The following tap-conventions are used throughout the manual:

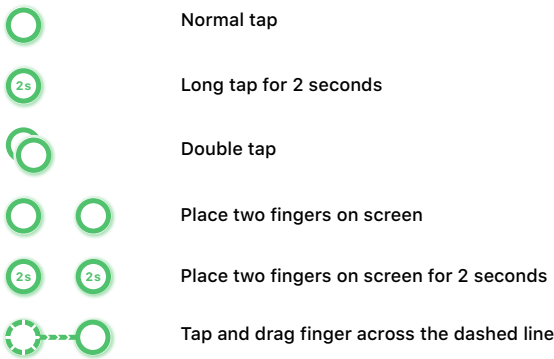




Figure 1.1: Tap-conventions used in this manual

Sometimes the taps would cover important aspects of the image, so some parts of the image are placed above the tap illustration or the tap illustration is slightly moved for better understanding.

Functions are often nested inside a menu structure – so a text stating  → **Search** means: Tap on the  icon on the screen and then on the **Search** button.

Chapter 2

Map

The map view is the main screen of MapOut and from there you have access to all features of the app.

2.1 Overview

The map is grouped in three different areas:

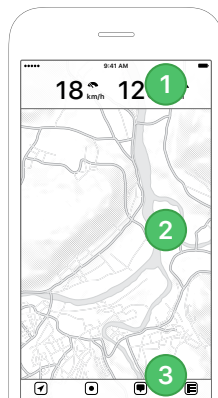







Figure 2.1: Main areas: Dashboard, Map, Toolbar

1. **Dashboard:** Gives an instant glance of useful information you need on your trip.



2. **Map:** The topographic¹ map.

3. **Toolbar:** With four main buttons and the map scale indicator  (Whether the scale always remains visible or is automatically hidden after a while, can be changed in the settings).

-  **Location:** Pinpoints your current location on the map.
-  **Record:** Allows you to record your own tours and quickly add new waypoints.
-  **Menu:** Here all map related features are included.
-  **Tour Organizer:** Manage your recorded, drawn or imported tours here.

2.2 Dashboard

When you first start your app, the dashboard shows the current speed and altitude. You can toggle the speed/pace indicator from km/h or miles/h to min/km or min/mile by tapping on it – especially for slow moving activities like hiking the min/km or min/mile pace indicator is more useful. If you tap on a tour on the map the dashboard will show an elevation/altitude profile. During recording the dashboard shows the elapsed time and distance as well.

To hide and show the dashboard you can either tap on the status bar or select  → **Hide Dashboard** respectively  → **Show Dashboard**.

¹Terrain map with shaded relief. So steepness information can easily be recognized.



Figure 2.2: Toggle between speed and pace by tapping on the speed indicator – Tapping on a tour will display an altitude profile in the dashboard – While recording the dashboard displays additional information – Hide the dashboard by either tapping on the status bar or tap “Show/Hide Dashboard”

When in other parts of the app (e.g. in search, tour drawing mode) the dashboard shows different information relevant for the specific mode.

2.3 Map Interactions

The following basic map interactions are supported:

- **Move:** Move the map with one finger in any direction.
- **Zoom in/out:**
 - **Pinch:** With a two fingers pinch you can zoom the map like in any other mapping application.
 - **Double Tap:** Will zoom in a fixed amount - handy when you want to operate MapOut one-handed.
 - **Long Tap:** Will zoom out a fixed amount - again this is handy for one-handed operation.

- **Two Finger Tap:** Same as “Long Tap”, will zoom out a fixed amount.
- **Double Tap and Hold & Swipe up/down:** This is the most complex one-handed gesture to zoom in/out and is also used in Google Maps and in Apple Maps:
 Tap + tap & hold + finger down the screen → zoom in.
 Tap + tap & hold + finger up the screen → zoom out.

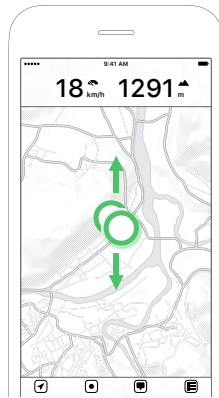



Figure 2.3: Double tap and hold & swipe up/down to quickly zoom in or out on the map

To get a feeling for the terrain you can tap with two fingers on the map (> 2 seconds) and an interactive elevation/altitude profile is shown. You can then slide your fingers over the map to get a quick estimate on the distances or altitude differences. To fine-tune your profile you can also move the black start/end dots with one finger.

If you have drawn or imported your own tours, they are shown in a red color on the map. You can tap on one to get information about it. If too many tours are overlaying a pop-up will show-up and you can then select the tour you want.



Figure 2.4: Tapping with two fingers for > 2 seconds will show an interactive altitude profile – If multiple tours are overlapping, a tour pop-up is shown – Tapping on a tour will display details and an altitude profile – Tap on the download icon to quickly download missing map data

If you zoom into an unknown map area the map is gray and download buttons  are displayed. You can tap on the missing map area to quickly download detailed maps for your region. For more information, please see *Download Map Data* below.

2.4 Location

When you first open MapOut, an Apple alert is shown to ask you for permission to its location services. Permission is needed to display your current location on the map and if you later record your own tours. We only need access to location services while you are using the app and don't have access otherwise.

The location on the map is displayed as a blue dot and there might be a circular blue area around it, which indicates the current position accuracy. A small or no blue area indicates a very precise GPS location, while a large one will indicate very rough location

accuracy. If your device can determine the magnetic earth field, a heading indicator is shown.



Figure 2.5: Location indicator with heading arrow – Accuracy indicator on location

The location button is the first button in the toolbar. It has four modes, which you can toggle by tapping on it:

- **Normal:** The button is white and does not have any color otherwise. Your current location is indicated by a blue dot on the map. It does have a heading indicator and points to the direction your iPhone is facing.
- **Tracking:** The button is blue now and the map is moved and zoomed to your current location. The map is automatically re-centered as you move.
- **Tracking and Heading:** Similar to Tracking, but the map is now also rotated to display the map ahead of you. There are two heading modes available, both can be adjusted in **Settings → Map Display → Map Orientation**. Basically it allows you to rotate the map according to the included compass (so the map is rotated as you rotate your device) or course up (so the map is rotated to your current direction of


travel - this is often better suited if you are near metallic objects, like inside a car or on a bike, as those might interfere with the compass hardware).

- **Off:** To save battery you can disable the location service by tapping > 2 seconds on the location button - the GPS hardware is then turned off.

2.5 Record

The second button on the toolbar is the record menu where you can either record your own tour or quickly add waypoints (points on the map you want to remember, e.g. a nice lookout point).

Recording Tours

To record a tour, tap on  → **Record**. The dashboard will now change to recording mode and displays additional information about your elapsed time and traveled distance.

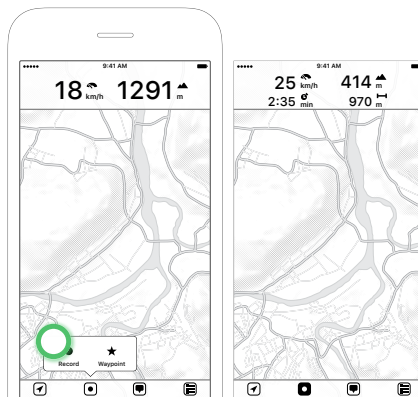






Figure 2.6: Tapping on "Record" will start a new recording – Record icon changes and dashboard shows additional Information

Starting a recording requires a precise initial GPS location² and an alert is shown if the current GPS location is not precise enough. You also see a spinning circle 🌀 in the distance indicator on the dashboard and a red location dot on the map. MapOut is now waiting to start the location recording until a better GPS reception is found and automatically starts recording then. During recording the GPS reception is always measured, so no imprecise location is added to your tour recording. If the required precision drops below our acceptable value, the location dot changes to red. If the precision is acceptable again it will change to blue. So blue is good, red is bad.

While recording you can always pause or stop your recording by pressing  → **Pause** or  → **Stop**. If you tap  → **Stop**, the tour will be saved in our tour organizer. Additionally, we try to add the passed cities and villages as a breadcrumb to your recorded tour details (e.g. Zurich - Zug - Luzern) to help you more easily find them again.

If you switch to another app during recording, you see a blue status bar on the top of the phone. This indicator is automatically added by Apple to give a hint, that MapOut is still using your location.

Recording Waypoints

To quickly add waypoints, tap  → **Waypoint** - this can be done during tour recording or also during normal operation. A waypoint is now placed in the middle of the map and you can either move your waypoint with the finger (you can also zoom in or out on your map to more precisely adjust the waypoint position) or enter the

²To start recording the GPS accuracy has to be better than 50 m / 160 ft.



Figure 2.7: Tapping on “Waypoint” will add a new waypoint in the center of the screen – Waypoint editing screen where you can move the waypoint around, manually enter coordinates or rename it

coordinates directly. Currently, you can enter coordinates in three different formats:

- **DMS - 47° 12' 34.5"**: In degrees, minutes and seconds.
- **DM - 47° 12.3456'**: In degrees and minutes.
- **D - 47.3456°**: In degrees.



To indicate the direction, you can either use +/- signs or N, E, S, W. For example -47° 12', 47° 12' S or S 47° 12', we try to understand almost any format variation. You can also set a name and detail for your waypoint. To quickly delete a text field you can use the small ✕ button on the right. Tap on **Save** to store the waypoint or **Cancel** on the left to dismiss the waypoint.

To change the color or symbol of a waypoint, tap the ★ icon to the right side of the detail field.

The name of the waypoint is directly taken from the underlying map data. E.g. if you place a waypoint at the location of a restaur-

rant, we take the name of the restaurant as the name. Of course you can change the name to anything you like.

2.6 Download Map Data

When you first open MapOut only a world overview map is included. If you zoom in the map becomes gray and download icons  appear. You can download detailed maps for your region by tapping on it. Alternatively, you can also go to  → **Download Map Data**.

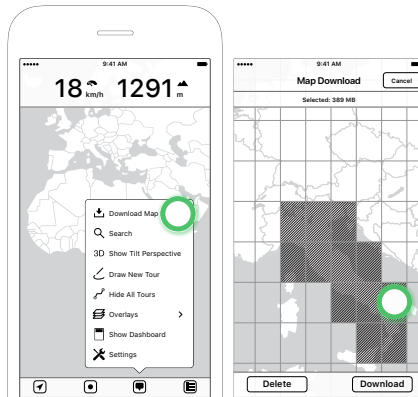



Figure 2.8: Download Map – Selecting a download region



Our detailed maps are tile based and you can select any map regions you like in the map download view. While you select your regions an indicator is shown in the dashboard, how much data is going to be needed to download. To start a download, tap on **Download**. To delete a previously downloaded region, tap on the already downloaded tiles (indicated by a brightened color) and tap **Delete**, the selected tiles are then deleted.



Figure 2.9: Tapping on an empty map area – Opens “Map Download” screen

Selecting a large area (e.g. whole of Europe) could be tedious, so you can also zoom out and you will see the selectable tiles become larger. This way you can download large areas quickly.

During download the “ → Download Map Data” button changes to a download indicator. If you tap on it, it allows you to pause, delete or resume the download.

We update our map data on a weekly basis and to update the maps on your device you can re-select the required map regions as described above. If you quickly want to update all map data on the device, there is an update mechanism in  → **Settings** → **Map Data** → **Update All Map Data**. To quickly reclaim storage space, you will also find a button there to delete all map data:  → **Settings** → **Map Data** → **Delete All Map Data**.

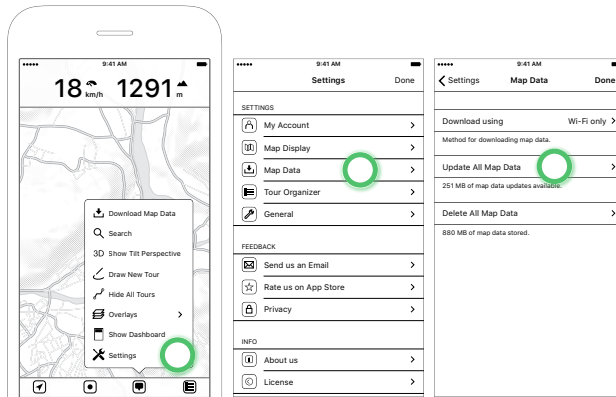


Figure 2.10: To update all previously downloaded map data, tap "Update All Map Data"

2.7 Search

MapOut allows you to search for places, streets, ... on all your downloaded map data. Go to **Search** and type in your search terms, then hit **Search** on the right or on the keyboard.

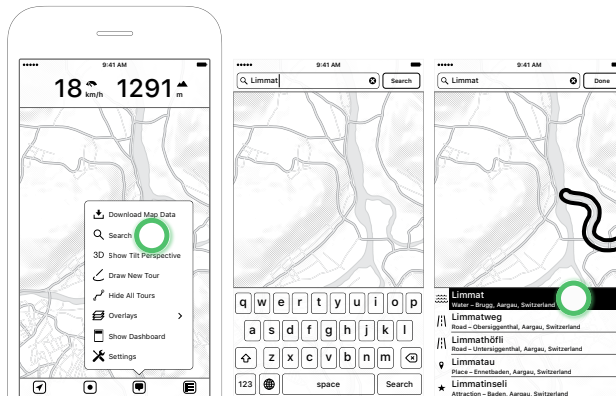


Figure 2.11: Search – Type in you search term an hit "Search" – Search results are shown in the list and highlighted on the map

The search results are highlighted on the map and also shown in a list. The list also indicates the type of result (e.g. city, peak name)

and where it is located. You can tap on the list results and see the result on the map or select a search result on the map and see the corresponding result on the list. Tap **Done** in the top-right corner to exit search mode or alter your search term and search again.

2.8 3D View




Select  → **Show Tilt Perspective** to get a new fresh look of your map. Now you can tilt your device in any direction to get a 3D feeling of the terrain. Please note: It will not work upside-down (e.g. it will not work when you lay on your bed and hold your phone upside down).



Figure 2.12: 3D View – Explore the map by tilting your device

2.9 Drawing Tours

Besides recording tours you can manually plan and draw your own tour by tapping on  → **Draw New Tour**. When you select an existing tour (e.g. an imported or recorded tour) the menu entry is called  → **Redraw Selected Tour**.

Overview

The drawing editor shows a dashboard on the top. Initially, it displays a short help. During drawing, it shows additional tour information like an altitude profile or coordinates for waypoints.



Figure 2.13: Drawing Tours – The main drawing interface

On the bottom you have another toolbar with four buttons:

- **Undo:** Reverts a change.
- **Redo:** Redoes a change.
- **Menu:** A menu button with additional actions.
- **Done:** Exits the drawing mode and asks for confirmation to save your tour (and if you edited an existing tour: Asks if you want to save it to the existing or into a new tour).

As indicated in the short help on the dashboard, you can add new waypoints or tours:

- **Double Tap:** This will begin a new tour and places the start marker **A** on the map.
- **Long Tap:** This will add a new waypoint on your map.

Please note: When editing or touching up an existing tour, we remove all timestamp information from that tour. If you have recorded your own tour and rely on the time stamps (e.g. for photo tagging purposes), save the tour as a new tour and do not overwrite the existing tour.

Adding & Editing Tours

Double tap on the map to set your start point. An **A** marker is placed on the map. Either tap on a follow-up location on the map to add a stretch or move the handle to manually draw lines. You now see a **B** marker as well. To continue drawing: Drag the **B** handle over the streets or tap on a new location to add a new stretch. After you have both **A** and **B** markers on the map, you can also make adjustments on the **A** marker by dragging it on the map. MapOut tries to automatically snap your tour on the road network whenever possible. If no roads are on the map and snapping is not possible, a dashed line is shown.

The routing is influenced by  **Route Options** and the current active  **Overlays**:

1. In **Route Options** you can control which profile should be used (e.g. walking, cycling), what roads are preferred (e.g. small or large) and how much ascent is acceptable (e.g. little or steep).
2. If you have active **Overlays** enabled, we try to set a higher priority to follow those. E.g. if you enabled the "Bicycle Network"-overlay, we try to follow any cycle routes.

You can change the route settings also during drawing, e.g. set the profile to hiking for the first part and then change to freeform to make a truly off-track part through the woods.

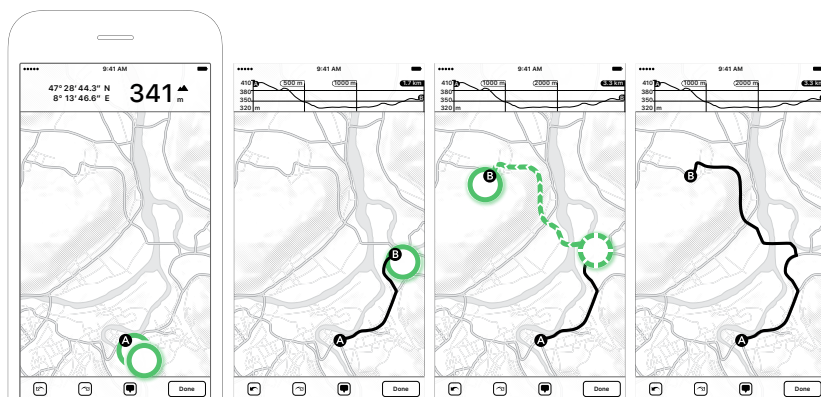


Figure 2.14: Start a new tour by double-tapping, an A-marker appears – Tap on a new location, the shortest path is calculated and a B-marker is placed – Alternatively, drag the B-marker over streets – The finished tour

To redraw parts of your tour, grab a location on the tour and drag it over the streets you want. Please make sure to close the loop back to the tour - only then your changes are accepted.

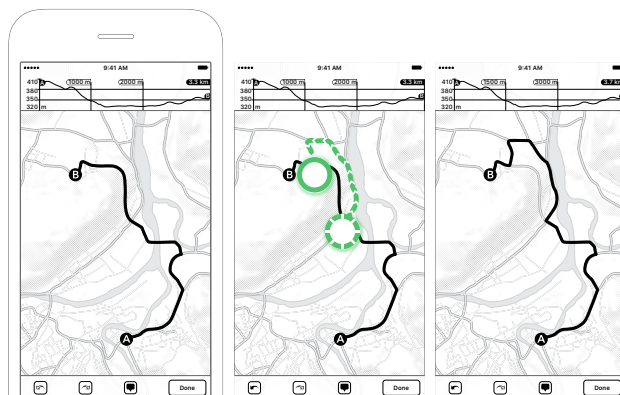


Figure 2.15: Redrawing a tour – Tap on a point of the tour and drag it along a street. Make sure you reconnect/close the loop to the tour – Redrawn tour

To add another (non-connecting) segment to the tour, double tap on another location on the map and a new segment can be drawn. You can switch between all your segments by tapping on it. The currently selected segment displays the **A**, **B** markers and distance labels.

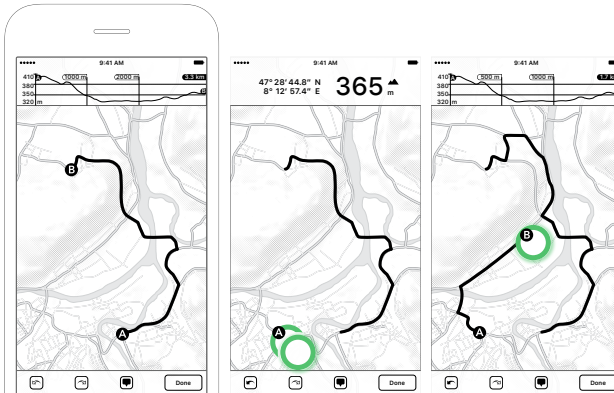


Figure 2.16: Adding an additional tour segment – Double-tap on a new location to start the new segment – tap on a new location to calculate the shortest path or drag along the streets – A new our segment is added to your tour

There is a short help if you tap the small **?** button on the dashboard or select **☑ → Help**.

There are a few actions in the **☑ Menu**:

- **🗑 Delete Tour / Tour Segment:** Will delete the selected tour or tour segment.
- **📍 Snap to Road Network:** This will try to snap the tour to the underlying road network. This is especially useful if you imported a tour from the internet or recorded a tour by yourself. Often those tours are a bit “rough” and are not aligned to the roads because of limited accuracy of the GPS receiver (GPS has a best case accuracy of approx. 10 m / 30 ft).

- ⇄ **Reverse Tour / Tour Segment:** Reverse the direction of the tour or tour segment, so **A** and **B** are swapped.
- ☑ **Rename Tour:** Allows you to specify a name and detail information about your tour.
- 🎨 **Select Color:** Choose a color for your tour. As default we use a red color.
- ☰ **Route Options:** Will set the options used for routing:
 - ⚡ **Profile:** Sets the preferred profile: *Walking* is great for hiking, *Cycling* sets priority on bike tracks, *Shortest* will try to find the shortest distance and *Freeform* will disable all street snapping and allows you to draw an arbitrary track.
 - 🛣️ **Roads:** Sets the desired street width: *Small* will prefer small roads, *Medium* will route on small and medium roads and *Large* will route on any roads.
 - ⚡ **Ascent:** Sets the desired altitude difference: *Little* tries to avoid any ascent, *Average* will try to avoid heavy ascent and *Steep* does not take altitude changes into account.
- ☰ **Overlays:** All active/visible overlays are also taken into account when routing: E.g. if you have the hiking overlay visible, MapOut will give higher priority to these routes and will lead along them if possible.

Adding & Editing Waypoints

A long tap on the map will add a new waypoint. You can freely move your waypoint on the map to precisely place it. If you need more accuracy you can also directly enter your latitude/longitude





information by tapping on  → **Edit Waypoint** and overwrite the coordinates.



Figure 2.17: Adding a new waypoint by tapping > 2 sec – Move the waypoint by dragging it over the map – Modifying the name or detail of the waypoint – Entering the exact coordinates or title and detail information

To add another waypoint, long tap on another location on the map. You can switch between all your waypoints by tapping on it. The currently selected waypoint is highlighted with a black overlay behind its name.

There are a few actions in the  **Menu**:

-  **Delete Waypoint:** Will delete the selected waypoint.
-  **Edit Waypoint:** Allows you to manually enter its coordinate, name and detail information.
-  **Select Color & Symbol:** Choose a color and icon for your waypoint. As default we use a red star.
-  **Route Options:** Will set the options used for routing – route options have no effect when placing waypoints, see *Adding & Editing Tours*.

- **Overlays:** Will show/hide overlays on the map – other than that, overlays have no effect when placing waypoints, see *Adding & Editing Tours*.

2.10 Displaying Tours


Usually, all available tours are displayed as red lines on the map. If you have many tours in the same region, it can become confusing where each tour starts or ends. Or you want to look on a clean map and do not want to display any tours for the moment.



Figure 2.18: Hide tours – Temporarily hide other tours to stay focused

For this, we have several tour display toggles in the **Menu**:

- **Hide All Tours:** Tapping on this menu item will temporarily hide all tours and you see a clean map. To display all tours again, tap **Show All Tours**.
- **Hide All Other Tours:** If you select a tour on the map and then go to the **Menu**, you can temporarily hide all other tours on the map. Now only the selected tour is shown (e.g. useful if you want to hike the selected tour. You don't need to see all

other tours in this area). To display all tours again, tap  → **Show All Tours**.

- **Zoom to Selected Tour:** If you select a tour on the map, this will zoom to the full extent of the tour to get a better look at it.

You can also manually hide special tours in the tour organizer by changing its visibility (e.g. if you want to “archive” certain tours and do not longer want to display them) - see *Tour Organizer* → *Visibility*

2.11 Displaying Overlays


MapOut provides a few map overlays you can enable in  → **Overlays**.



Figure 2.19: Selecting Overlays opens submenu – Multiple overlays can be enabled or disabled

Here you can quickly activate or deactivate multiple overlays. All activated overlays have a ✓ mark to the right. To quickly remove or enable all overlays, tap on the element at the top: **Hide All Overlays** or **Show All Overlays**.

While displaying overlays on your map, you can tap on any of them to display additional information (e.g. name) on the dashboard along with their altitude profile.

Tourism

Displays a tourism overlay, which more prominently displays hotels, restaurants, and points of interests.

Transport Network

Displays train, tram, and bus networks and stops on a bluish color.

Bicycle Network

Displays bicycle routes and trails on the map in greenish color.

MTB Routes

Displays mountain bike routes on the map in greenish color. When available also the track scale is indicated e.g. "MTB 2★". The scale is taken from OpenStreetMap³.

Scale	Description
0	Easy. No special skills are needed to ride this.
1	Some obstacles on the road (e.g. roots or small stones). Soil can be loose in some places. Riding requires care and attention, but no special skills.

³<http://wiki.openstreetmap.org/wiki/Key:mtb:scale>

Scale	Description
2	More obstacles like larger rocks. The soil is often loose. Can contain steps. Requires some advanced riding skills.
3	Large obstacles like boulders or large roots. Road can be very slippery. Constant concentration and very good skills needed.
4	Very steep and difficult. Frequent loose debris. Some trials techniques will be necessary.
5	Very steep and difficult with big boulder fields and debris. Very few can actually ride at this level.
6	Dangerous to impossible to ride. Only for the very best.

Hiking Routes

Displays hiking routes on the map in purple color. When available also the track SAC scale (Swiss Alpine Club track classification) is shown, e.g. "T2". The scale is taken from OpenStreetMap⁴.

Scale	Description
T1	Hiking - area flat or slightly sloped, no fall hazard.
T2	Mountain hiking - terrain partially steep, fall hazard possible.
T3	Demanding mountain hiking - partly exposed sites with fall hazard, scree, pathless jagged rocks.

⁴http://wiki.openstreetmap.org/wiki/Key:sac_scale

Scale	Description
T4	Alpine hiking - terrain quite exposed, precarious grassy acclivities, jagged rocks, facile snow-free glaciers.
T5	Demanding alpine hiking - exposed, demanding terrain, jagged rocks, few dangerous glaciers.
T6	Difficult alpine hiking - often very exposed, precarious jagged rocks, glaciers with danger to slip and fall.

Winter Sport

Displays ski pistes, nordic and sled tracks. Ski pistes are color coded according to their difficulty (green, blue, red, black) and a direction arrow indicates the downhill orientation. Nordic tracks are displayed in a dark purple color, while sled tracks have a yellowish color.

2.12 Adding & Correcting Map Data

MapOut uses map data from OpenStreetMap.org⁵. OpenStreetMap is similar to Wikipedia – but for map data: Anybody is invited to map an area, add streets and buildings or correct mistakes. If you want to improve the map or found some mistakes, you can directly edit the map on OpenStreetMap.org with your computer. The easiest way to start editing is selecting **Edit** on the top-left corner – right next to the OpenStreetMap logo. There

⁵<http://openstreetmap.org>

are several editors available, but we like the **iD** in-browser editor best – it offers many features and is easier to use than the others.

If you click on **Edit with iD** and do not have an OpenStreetMap account, you are asked to register one first. After the registration process, you are good to go. Correcting mistakes are the easiest type of changes: You can correct spelling errors on streets or correct street layouts. Adding points of interests (e.g. restaurants, viewpoints) is also a relatively easy task and the iD editor helps you to add the relevant information required for each type (e.g. a restaurant usually has a name, a cuisine-type, ...).

We fetch the newest data on a weekly basis – so any addition you do on OpenStreetMap.org will be added into MapOut within a couple of days.

Chapter 3

Tour Organizer

The tour organizer is the place where all your tours¹ are stored and organized. On the iPhone, the tour organizer is shown in a separate screen, while on an iPad it is displayed side-by-side on the right part of the screen.



Figure 3.1: Accessing the tour organizer

¹Sometimes also known as tracks or GPX-tracks.

3.1 Overview

The organizer is grouped in three different areas:

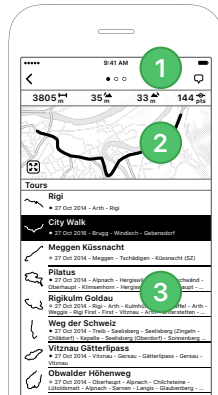






Figure 3.2: The three parts of the tour organizer: Navigation bar, information view, tour list



- 1. Navigation Bar:** It has a “<” on the left to go back to the map (on the iPad there is a “X” instead to quickly close it). On the right, there is an action button which can change its function depending on the current context (it can be a menu button ☰, an edit button ✎ or a login button). In the middle, there is a scrolling indicator, if the information view has additional screens.
- 2. Information View:** Here the details for the selected tour are shown or a help text how to get tours. Initially, it shows an overview map, but it can be scrolled horizontally to reveal an altitude profile for the tour and metadata about it (name, description, ...).
- 3. Tour List:** On the left there is always a thumbnail of the tour, followed by a title, description and the creation date of the tour. The dot to the left of the creation date indicates the color of the tour or waypoint.


3.2 Information View

Whenever you tap on a tour in the list below, an overview map is shown here. You can swipe this view to get an altitude view or tour metadata.

When you select a tour, an overview map is displayed and some statistical information is shown:

-  **Distance:** The overall length of the tour.
-  **Ascent:** The uphill difference in altitude.
-  **Descent:** The downhill difference in altitude.
-  **Waypoints:** The number of waypoints (“pts” meaning points) the tour consists of. A very detailed tour usually contains a lot of points, so all bends are nicely displayed. Some tours (often imported ones) are sometimes rough and only consist of few waypoints and you can improve it by using the *Snap to Road Network* as described in section *Adding & Editing Tours*.

On the bottom left there is a zoom button  to display this tour on the main map view. If you don't have downloaded the map area for this tour yet, a download button  is displayed on the bottom right.

By default, tour overviews are displayed in red on a black & white map. You can change it to a colored map in  → **Settings** → **Tour Organizer** → **Tour Preview**.

When no tour is selected a quick help is shown on how you can import tours or how you can login/register a MapOut.me account.

3.3 Tour List

When you have imported, drawn or recorded some tours, they are listed here. You can see a thumbnail, title, creation date and some details for your tour. Whenever a tour contains multiple parts (tracks, waypoints) an ⓘ is displayed on the right side. Tap on it and you can see all the tracks and waypoints this tour consists of.

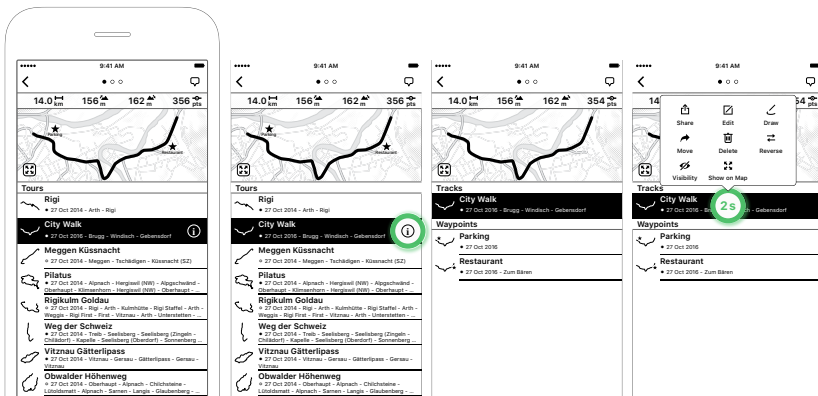


Figure 3.3: Tour list with selected “City Walk” – Tap on the info button to reveal details about the tour – Detailed tracks and waypoints of the tour – Long tapping on a track (or tour, waypoint) displays a pop-up with available actions

To perform an action on a tour (e.g. share, edit or delete) tap > 2 seconds on it or select the **Menu** ⓘ icon on the top-right of the screen. Both methods will then display a pop-up with all available actions.

You can set the ordering of the tours in ⓘ → **Settings** → **Tour Organizer** → **Sorting**.

You can also organize the list hierarchically by adding folders or even subfolders. Folders are always shown on the bottom of the

list. Creating folders is done inside the **Move** action – see *Move* below.

3.4 Importing Tours

Beside directly drawing or recording your own tours, you can find tours on the internet – usually GPX files. There are two ways to get them into MapOut. Either you register a free MapOut.me account and use its import service – or you can directly open GPX files with MapOut.

MapOut.me Account

The easiest way to import tours is by registering a MapOut.me account. What you get is your own “*username@mapout.me*” email address. You can then send emails with attachments² to this address and all included tours are automatically imported to your tour list.

When you first open your empty tour list, a help screen is displayed and you see a **Login** button on the top-right of the screen. You can now either register or login to your account. The username you choose becomes your account name, (e.g. using a username of *happy* you get *happy@mapout.me* as your MapOut.me account email address).

We don’t share your email address with anybody outside of our company and will not spam you. The email address is only used if

²Technically we use *gpsbabel* from <https://www.gpsbabel.org> on our servers, so any format supported by it can be imported. E.g. GPX, KML, KMZ, ...

you forgot your account password and request a password reset or other account related matters.

There is no requirement to apply for an account – all other functions of MapOut work equally well with or without an account.

You can also send ZIP files (compressed files) to your mapout.me address. If you structure your files in a ZIP with folders and subfolders, they get imported in the same hierarchical structure. This can come handy if you want to import a lot of tours.

If you want to import a tour into a special folder in MapOut, you can start the email subject with a dash "/" followed by your folder (and subfolder) names. E.g. if you mail a tour to your mapout.me address and set the subject line to "/Holiday Tours/Day 1" they get directly imported into the folder "Holiday Tours" and its subfolder "Day 1". If the folders do not exist yet, they will be automatically created while importing.

Direct Import

There is also the possibility to directly import tours by using the standard Apple mechanism to open files with apps. At the moment only GPX files are supported for direct import. Usually, you select "Open in ..." in your iOS app and select "Copy to MapOut". The tour will then be imported.

- **Example with Apple Mail:** If you received your tour as an attachment in your Mail app, download the attachment by tapping on it. Then tap > 2 seconds on it and a share sheet is displayed. Now find "MapOut" in the list and tap on "Copy to MapOut".

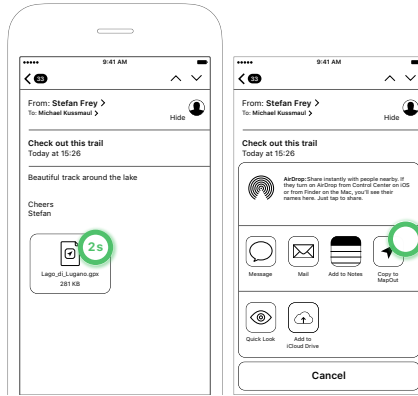


Figure 3.4: Importing from Email

- Example with Apple Safari:** If you have downloaded a GPX file you can either select **Open in "MapOut"** or tap on **More...** if another app is proposed there. The **More...** sheet will again display all apps capable of opening GPX files - scroll until you find "MapOut" and select "Copy to MapOut".

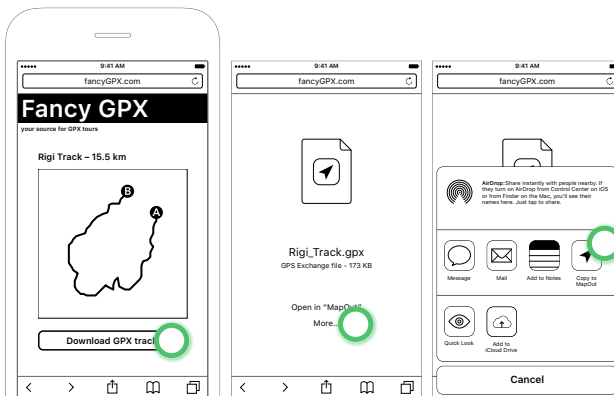



Figure 3.5: Importing from Safari

3.5 Share

Tours and waypoints can be shared with others. Tap on a tour for > 2 seconds (or tap on the **Menu**  button on the top-right corner of the screen) and a pop-up will show up. Selecting “Share” will display the standard Apple share dialogue. Depending on the capabilities of your sharing destination we export your tour either as an image (e.g. if you export it to your photo album), as GPX file or both.

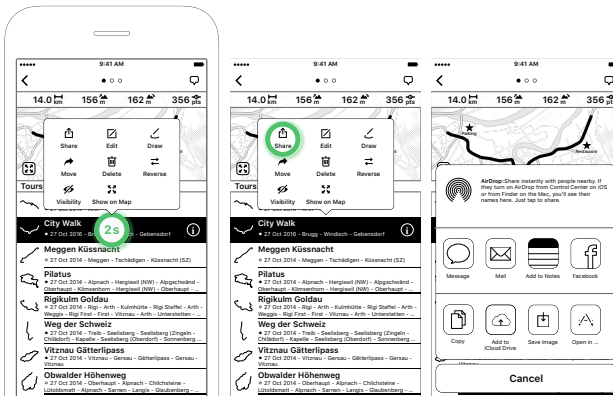


Figure 3.6: Sharing a tour

There are several methods available and depending on what apps you have installed on your device others might become available. Here is a list of standard share destinations:

- **AirDrop:** This comes handy if you quickly want to transfer a tour to another device (e.g. from your iPad to your iPhone or Mac). This usually also works, when you are completely offline.
- **Mail:** This adds an overview image of your tour as well as a GPX file to an email. The standard mail message composer is shown where you can add a recipient, alter the subject

and add some text. You can also delete the overview image if you prefer to send the GPX tour file only.

- **Facebook/Twitter:** You can directly post your tour on your preferred social media network. Because most don't support GPX file attachments in your post (only text and images are usually allowed) we will upload your tour to one of our servers and add the link to a "mini-page"³ to your post. This "mini-page" has a tour overview image, and allows your recipients to directly download the GPX file from there. You can also embed this "mini-page" on your own website if you like.
- **Copy:** You can quickly copy your tour to your clipboard. Similarly to Facebook/Twitter, we will upload your tour to one of our servers and add the link to this "mini-page" into your clipboard. You can now add this link to any app (mail, word processing app, ...) and your recipients can then directly download your tour from this link.
- **Save Image:** Will save a tour overview image to your photo album. The resolution of this image is sufficiently large (2048 x 2048 pixels) to include it in your own publications or website if you like.
- **Open in ...:** This will show a list of apps you have installed on your device and are capable of opening GPX files. Tap on an application to open/import the file. This comes handy if you want to export your tour into another app.

³See <http://tour.mapout.me/3FUKjR+IRE+TGPLYufeOBw> as an example of such a "mini-page".

3.6 Edit

Allows you to change the tour or waypoint metadata. You tap on the text you want to change and it will show you a text editor.

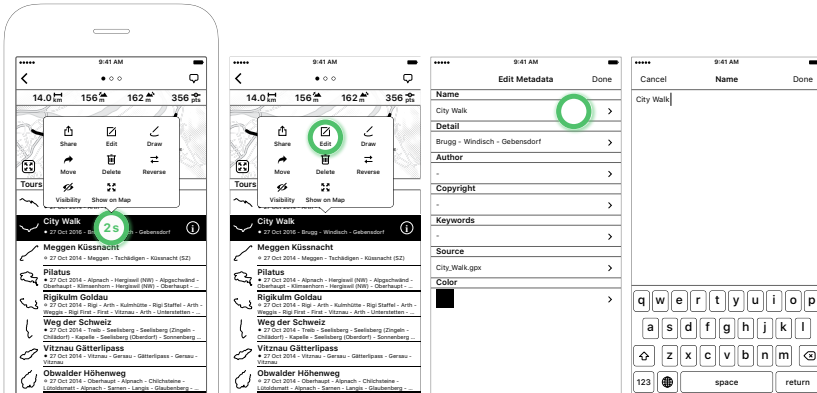


Figure 3.7: Editing a tour

The following metadata can be edited:


- **Name:** The name (title) of the tour. You see the name on the map if you tap on a tour and also on the tour list.
- **Detail:** The details of the tour can be any text. When you record a tour, we pre-fill it with the cities/villages you passed along.
- **Author:** You can add an author to the tour. For recorded or drawn tours this defaults to the author field set in **Settings → General → Author**.
- **Copyright:** If you like to add your own copyright information. If you imported your tour from an internet site, that site might have special copyright requirements (e.g. if you are allowed to share this tour).
- **Keywords:** You can add your own keywords to your tour.

- **Source:** You can edit this field, but usually it is pre-filled by MapOut to indicate where this tour comes from. E.g. if you record a tour it is set to “Recorded *Date*” or if you have drawn it, it is set to “Drawn *Date*”. And if you imported this tour, it usually is set to the original filename or website URL (e.g. large_tour.gpx).
- **Color / Color & Symbol:** Specifies the color of a tour. For waypoints you can also set an icon.

3.7 Draw

Allows you to redraw parts of the tour. This will open the drawing editor. See section *Drawing Tours* for details.

3.8 Move

You can hierarchically structure your tours into a folder structure. To move a tour, tour segment or waypoint, tap on it for > 2 seconds (or tap on the **Menu**  button on the top-right corner of the screen) and a pop-up will show up. Select **Move** and a moving dialogue is shown where you can either choose a destination - or add a new folder (on the very bottom of the list).

If you don't have an existing folder yet, create one by tapping **Add a new folder** on the bottom of the list. You will be asked to give it a name and optionally a detail text.

You can move a tour, track or a waypoint into another folder or another tour:

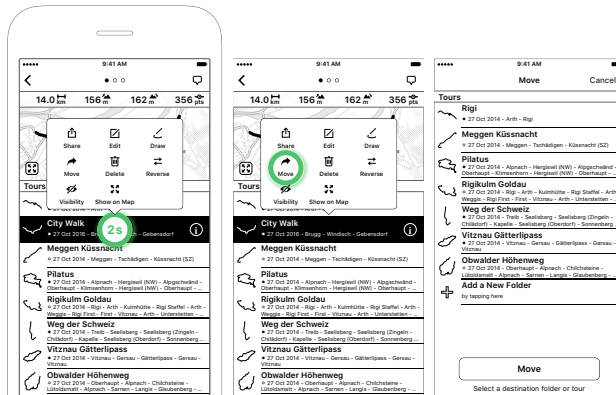



Figure 3.8: Moving a tour, to another tour (merging) or in a new folder

- **Moving to a folder:** This allows you to organize your tours, e.g. to hold together different tours for the same region. You can also extract tour segments or waypoints and move them out of a tour.
- **Moving to another tour:** You may have several waypoints and want to put them all together in your own tour, or you may want to combine several tracks into one tour. Then simply move them to a tour instead of a folder.

3.9 Delete

To delete a tour, tour segment or waypoint, tap on it for > 2 seconds (or tap on the **Menu**  button on the top-right corner of the screen) and a pop-up will show up. Select **Delete** to permanently delete it.

Alternatively, you can also swipe the tour to the left to delete it. In Apple terms, this is called “swipe-to-delete”.



Figure 3.9: Deleting a tour

3.10 Reverse

Sometimes you want to walk/bike a tour in the other direction and would also like to see the altitude profile reversed.

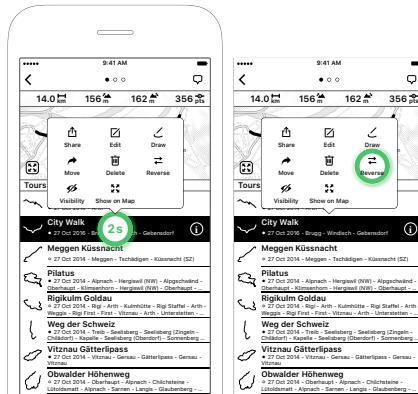



Figure 3.10: Reversing a tour

To reverse a tour or tour segment, tap on it for > 2 seconds (or tap on the **Menu** ☰ button on the top-right corner of the screen) and a pop-up will show up. Select **Reverse** to change the direction of the tour.

3.11 Visibility

If you have a lot of tours stored on your device the main map can become crowded - especially if many of your tours cover the same region. You can hide some of your tours and even whole folders. Hidden tours and folder are marked with a crossed eye icon .

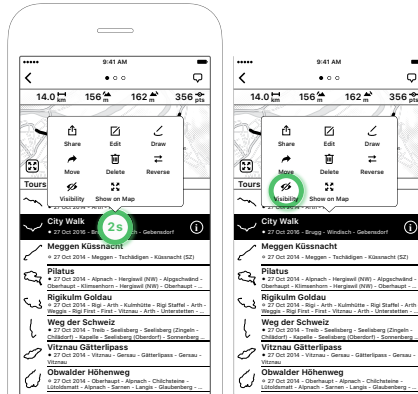



Figure 3.11: Change the visibility of a tour

If you hide a folder, all containing tours get hidden as well. If you later unhide a specific tour in that hidden folder, the containing folder is displayed with a dashed-crossed eye icon , meaning: This content of this folder is only partially hidden.

3.12 Show on Map


To quickly display the whole tour, tour segment or waypoint on the main map, tap **Show on Map** and your map gets centered directly on this tour.

3.13 Load Map

If you don't have downloaded map data for the region covered by this tour yet, this will directly select all needed map regions for a quick download.

Chapter 4

Settings

There is a general settings screen available where you can set all configurable elements. It is available on the map view when tapping  → **Settings**.

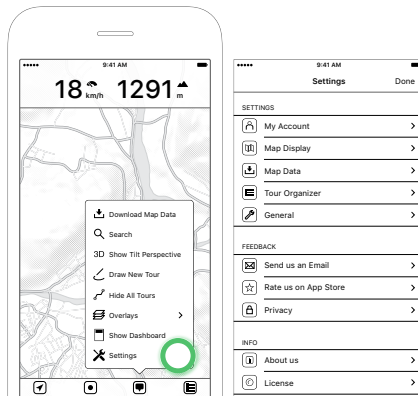


Figure 4.1: Accessing the main app settings

4.1 My Account

You can register a new MapOut.me account or log in to an existing one. An account is not mandatory and is just a convenience to more easily import tours (e.g. GPX tracks) into MapOut. When you register you get your own “username”@mapout.me email address and you can send tracks by email to your MapOut application. See *Importing Tours / MapOut.me Account* above.

Register

Register a new MapOut account:

- **Username:** This will be your MapOut.me account name. E.g. if you choose *happy* your resulting email address will be *happy@mapout.me*. Because the resulting email address has to be a valid one, certain letters are not allowed, so only letters (no blank space), numbers, dot, _ and - are allowed as username.
- **Password:** This will be your password if you later want to re-login (e.g. at a different device).
- **Email:** This is your private email address and will only be used for password-reset procedures or account related matters. We will not share your email address or otherwise misuse it.

Login

Login to your existing MapOut account:

- **Username:** This will be your MapOut.me account name. Please note: This is not your email address. So if you have

previously registered *happy@mapout.me*, your username is just *happy*.

- **Password:** Enter your MapOut.me password. If you forgot your password tap on the lower-left part of the screen **Forgot password?** An email will be sent to your private email address, which you have supplied at the register stage.

Logout

When you are logged in, the *My Account* page changes, and instead of *Register* and *Login*, you see *Logout* and *Change Password*. *Logout* just logs you out of your current MapOut.me account.

Change Password

Allows you to change your existing MapOut.me password. You have to supply your current password and you can then choose another one.

4.2 Map Display

This section allows you to change the appearance of the map and configure which map overlays should be enabled.

Text Size

Draws all labels on the map (street names, city names, ...) with larger or smaller text size. *Normal* is the default value.

Street Width

Draws all streets on the map with wider or narrower lines. The default is *Normal* and compared to other maps we tend to display streets narrower.

Level of Detail

Allows you to display more or less map features on the map. The default value is *High* and shows hiking tracks even on low map magnifications. When you have a slower device or are in an area with a lot of streets you can set it to *Low*. The default is *High*.

Terrain

Darker provides more contrast and is the default value. *Lighter* is a more traditional shading common on paper maps. The default is *Darker*.



Contour Lines

Additionally, to the terrain shading, you can enable/disable contour lines to better judge the altitude or steepness of the terrain. The prominent lines are also labeled. The default is *Contour Lines On*.

Main Roads

Main roads and highways can be displayed in *Color* or *Black & White*. The default is *Color*.

Map Orientation

This setting allows you to choose the desired map orientation when you set the location button to “heading and tracking”  / . Also see *Location* above.

Two modes are available:

- **Compass:** Uses the magnetic compass to align the map. If you rotate the device, the map will rotate with it.
- **Course Up:** Aligns the map to the direction of movement (like in a car navigation device). This mode is useful if you experience magnetic disturbance.


The default value is *Compass*.

Allow Landscape Mode

Allows to rotate your device while in map view, and a full-screen map is displayed, without any distracting toolbar. To display the toolbar again, rotate your device again in portrait orientation. This can be useful if you want to enjoy the map on the whole screen or while in *3D-View*. But it can be disturbing if you frequently take out your device from your pocket and often rotate it by mistake – so we made a setting for it.

The default is *Allow Landscape Mode: Off*.

Scale Always Visible

On the toolbar we usually show a scale indicator . Here you can choose whether this scale is displayed all the time or if it should be hidden automatically after some time.

The default is *Scale Always Visible: Off*.

4.3 Map Data

Download using

Map data can be large - depending on the area you download. It might be best to download all required data already at home. You can switch between *Wi-Fi only* and *Wi-Fi & Cellular*.

With *Wi-Fi & Cellular* map data may be downloaded using your cellular network. Depending on your phone contract this can be costly, especially if you enable data roaming abroad.

Even when you enabled *Wi-Fi & Cellular* we will display a warning when you are about to download a large amount of data - but nevertheless, it is your responsibility.

The default is *Wi-Fi & Cellular*.

Update & Delete All Map Data

To quickly bring all map data to the newest available version, you can tap on **Update All Map Data**. We usually update worldwide map data on a weekly basis.

To quickly reclaim storage space, you can delete all on-device map data by tapping on **Delete All Map Data**.

Please refer to *Download Map Data* on how to download your required map data.

4.4 Tour Organizer

Tour Preview

Normally tour previews in the tour organizer are shown in *Black & White* and the tour in red. This gives the best contrast. If you like to display the previews in the same color as on the map, switch to *Color*.

The default is *Black & White*.

Sorting

Specifies the sorting method for the tour list. Three options are available:

- **By Import Date:** Orders the tours on the dates you imported them. So if you import a tour that was originally recorded back in 2007 - it will still appear on top of the list for easy finding.
- **By Creation Date:** Orders the tours on the date of creation. So if you import the very same tour from 2007, it might appear down below in the list.
- **By Name:** Sorts the list alphabetically on the tour title.

The default is *By Import Date*.

Export Format

Specifies the format for sharing/exporting tours. Two options are available:

- **GPX:** Shares the tour as GPX (**GPS Exchange Format**) file. This is the most common file format for tours and is usually the preferred format. Almost any tour website allows you to import or export GPX tours.
- **KML:** Shares the tour as KML (**Keyhole Markup Language**) file. This format is often used in Google services (e.g. Google Earth or Google Maps). If you want to send tours to your friends they can easily display them in Google Earth.

The default is *GPX*.

Backup Tours

Creates a backup of all your tours. All tours are exported in GPX format, including your folder structure and a ZIP is generated. You can then share this ZIP file with the standard Apple sharing sheet. So you can e.g. save it in your iCloud file system, send it via email or transfer it to your computer via AirDrop.

4.5 General

Author

The name you enter here will be used as the “author” field in recorded or drawn tours. So if you export those tours the author field will be assigned to this value.

Default is your device name (e.g. Michael’s iPhone).

Optimize Recordings

Filters redundant GPS track points. To record raw GPS data, turn the setting off. Please be aware that the GPS hardware in your device usually reports one GPS location every second. So in raw mode, this can accumulate a lot of recorded track points.

The default is *Optimize Recordings: On*.

Display Power Savings

Dims the screen and puts the device to sleep during inactivity. You can turn this off if you e.g. use MapOut in your car and have it plugged-in to power.

The default is *Display Power Savings: On*.

Altitude Mode

On the map dashboard, the altitude is displayed. This setting allows you to control how the altitude should be calculated from. There are three settings:

- **Map Data:** Displays the altitude information contained in the map data, based on a 90 m / 300 ft grid. Mountain peaks and narrow depressions can sometimes be inaccurate. Altitude profiles for tours are also calculated using this method - so choose this if you want to have the best consistency between the altitude shown on the dashboard and the altitude profiles shown for tours.
- **GPS:** Displays the altitude readings from the GPS-receiver. GPS altitude readings are frequently undependable. But if

you are above the ground (paragliding, airplane) this is the best method.

- **Automatic:** Chooses the best mode, depending on GPS signal accuracy and signal strength.

The default is *Map Data*.

Units

Allows you to choose the units for displaying distances and altitudes: *Kilometer / Meter* or *Miles / Feet*.

The default is set according to your device language and locale.

Coordinate Format

Allows you to choose the format for displaying waypoint coordinates:

- **DMS - 47° 12' 34.5"**: In degrees, minutes and seconds.
- **DM - 47° 12.3456'**: In degrees and minutes.
- **D - 47.3456°**: In degrees.

4.6 Others

There are some less important settings and information in the *Feedback* and *Info* sections.

You can send us an email with feedback right inside the app. This will add your current map location to your email if you want to report map related issues (you can delete this if you don't want us to see this information). As we are only two developers, sometimes

it might take a while to respond to all of our emails, but we try our best!

As any app developer, we also like App Store reviews, as this helps us increase our reach and keeps us motivated to work on MapOut.

In the event that MapOut crashes, the app can send additional anonymous information to help us improve our software. You can toggle this setting to *off* if you don't want to send any information in *Privacy* → *Send Crash Reports*. Generally, we always like feedback if you experience something strange. Some issues are location dependent and sometimes only happen if you zoom to a certain region and are otherwise hard to spot for us.

In the *About us* section we have a short description about Stefan Frey and Michael Kussmaul, the two MapOut developers.

And finally, in our *License* section we list all used 3rd party software libraries and data we use in our app.