ELEVATE MAP KEY

Current version:

4.5.0, 21/04/21 (changelog)

last update of the map key: 21/04/21

VARIANTS:

There are two different variants of the map styles contained in the downloads respectively:

Elevate

I developed Elevate for mountain hiking in the alps. At first it was based on the standard hike and cycle map style of Openandromaps, but has been completely revised since. I added additional variants by and by for other uses, by user requests.

Everything should be self-explanatory without a key, as far as it’s possible with the possibilities of mapsforge. Therefore I based it on the presentation on paper maps and
guideposts in German and Austrian areas. Unified symbols and colors are used. At higher zoom levels names of amenities and areas are shown. As many things which are relevant for hiking and travelling as possible are shown without coming too much to the front or eliminating one another - e.g. big symbols or captions - therefore some symbols and captions are shown at high zoom levels only.

With Elevate 3 overlays were introduced which make it possible to switch certain elements on or off. Those can be chosen, as well as the map styles, directly within the app. Elevate has been tested and developed with current versions of Cruiser and OruxMaps.

**Elements**

Elements is a modification of Elevate and is made for sparsely populated/mapped areas or countries, mostly backcountry usage, e.g. the outback of Australia, Iceland outside of the cities etc.

Elements contains the same map styles and details as Elevate. Only all content is shown as soon as it is contained in the map. Therefore the colored dots at low zoom levels aren't necessary.

In densely mapped areas this variation is not recommended, in those it is slow and unclear.

With Elevate 4 Elements can help to find specific things in the map - just activate only
the overlay which you want to view and not the others (e.g. "Amenities" if you are looking for drinking water) and then all appropriate symbols are shown as soon as possible.

**MAP STYLES & OPTIONS:**

Elevate and Elements contain several map styles and options which **can be chosen within the app** (how this works depends on the app). The map style differ from each other in their purpose and in what can be displayed. Every map style has a different default selection of options which are selected, and for every map style different options are possible.

Essential to the rendering of the map style is how footpaths/cycleways/MTB trails are displayed - always optimized for chosen the activity, e.g. hiking/MTB difficulty is shown in the respective map styles.

**Hiking**

Key aspect is to have good overview for all features which are relevant for **mountain hiking** and perceptibility of paths and track, especially their difficulty and character (or if there isn't any information about that). Cycleways which are allowed for pedestrians look similar to footways. As "Hiking" is the basis for the other map style characteristics like the display of landscape features are included in those.
City

This is a **light version** which is especially useful in cities, for example for sightseeing or for everyday life.

Neither hiking nor cycling routes are shown. The highly emphasized footways and paths of "Hiking" are discreet and difficulty and visibility is not marked. Cycleways which are allowed for pedestrians look similar to footways.

Additionally for better overview at lower zoom landscape and protected area names and colored dots are missing. Therefore this variation is most suitable for finding names of settlements.

A public transport network can be overlayed.

Cycling

As this is a cycling version instead of hiking routes **cycling routes** are shown strongly. The highly emphasized footways and paths of "Hiking" are slimmer and difficulty and visibility isn't marked. Cycleways are strongly emphasized and surface information is shown if it's in the map data. Ways where cycling isn't allowed are marked with a turquoise cross hatch.

Mountainbike

Based on "Cycling" this map style shows MTB difficulty levels on tracks and paths, visibility of paths and MTB routes.
Options

With options different things can be switched on and off. Since Elevate 4.5 certain letters are put in front as categories: [A] for areas; [P] for POIs (points of interest); [R] for routes; [W] for ways.
MAP KEY:

Captions
- Black are peaks.
- Red are alpine huts.
- Grey, dark green and brown are landscape names.
- Green with white outlines are protected areas.

Other colors of captions are those of the assigned symbols.

Symbols
I hope that the symbols are mostly self-explanatory. Additionally, you can find an overview image of all symbols including their names by opening the image linked below. This image is also included in the PDF map key available above.

The colors depend on categories, which are identical with the POI options (since Elevate 4.5):

- Dark blue: settlement names
- Grey: landscape
features, barriers
Black: amenities
Light green: sports
Pink: emergency
Light blue: accommodation
Brown: restaurants + bars
Violet: shops + services
Ochre: tourism + culture
Turquoise: public transport, car
Dark green: special buildings

Most symbols are appearing at zoom 14 or higher, some important points of interest are marked earlier by colored dots:

(Hiking/Cycling)
- Alpine hut
- Camp site
- Hospital

Public transport stations
Public transport stations are marked by colorered dots:

- Bus stop (large: bus station)
- Tram
- Subway
- Railway
- Ferry

Paths and Footways

Brown - *unpaved path/footway* (or path without surface information) without difficulty information

Grey - *paved path/footway* (or footway without surface information) without difficulty information, on the top one cycling is also allowed (only in hiking mapstyle)

Hiking paths

(Hiking)

Path difficulty uses the SAC hiking scale, however the colors here are according to those used in the eastern alps.

Additionally trail visibility (if it’s available in the data) is marked by how the paths are dashed.
Yellow - **Hiking**: flat or slightly sloped, no fall hazard, SAC T1; in the example without information about trail visibility (if this information is missing is only shown on paths with difficulty information): long dash, short dash, short spaces

Blue - **Mountain hiking**: partially steep, fall hazard possible, SAC T2; in the example trail visibility is excellent or good: very long dash, short spaces

Red - **Demanding mountain hiking**: not always visible, may be secured, hands may be needed, partly exposed with fall hazard, SAC T3; in the example trail visibility is intermediate: medium length dashes and spaces
Black - *(Difficult/demanding)*

**Alpine hiking/Via Ferrata:** no trail, very exposed, climbing, glaciers etc., SAC T4-T6; *only with adequate experience, inform yourself about it before you go;*

in the example trail visibility is bad, horrible or no visibility: short dashes, long spaces

additionally T5 paths dashes are broken vertically, T6 vertically and horizontal

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**Safety measures**

On some paths fixed safety measures are included in the maps:

- A cable, chain or rope to hold on to; here the grey dots on the path mark the length of the area with safety ropes

- Rungs, stemples, pins

- A ladder

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**Via ferratas**

Via ferratas are marked with thick grey bars
and a green via ferrata symbol. Depending on how the data is mapped they can have two different styles:

- Mapped as via ferrata
- Mapped as a path (including hiking difficulty)

**Hiking routes**

(Hiking)

Hiking routes are rendered below paths and tracks starting at zoom level 14, till level 13 transparent above them.

International hiking routes are blue.

National hiking routes are red.

Regional hiking routes are green.

Local and other hiking routes are yellow.

In this example an international hiking route in blue called VAA49 and a regional hiking route in green with the number 211 can be seen.
Waymarks can be overlayed as an option, like the Jacobs mussel or the "E4" here; in lower zoom levels only a small symbol with the background color is shown. If a waycolor is given, it is marked along the trail with colored dots.

If waymarks is activated, guideposts are shown a bit earlier, and, if available, their reference number is shown right of the symbol in white with brown border.

Cycling routes
(Cycling/Mountainbike)
Cycling routes are rendered below streets starting at zoom level 14, till level 13 transparent above them.

International cycling routes are blue
National cycling routes are red
Regional cycling routes are violet
Local cycling routes are turquoise
Mountain bike routes are greenish yellow

In this example an international cycling route in blue that goes from south-west to north, besides a regional route in violet.

Mountain bike difficulty levels

Mountain bike difficulty levels are shown according to the MTB Scale, you can find all details there.

Additionally trail visibility (if it’s available in the data) is marked by how the paths are dashed.
**S0**: Blue bars on ways: no special driving skills required. In this example you can see how it is shown on tracks.

**S1**: Blue-red bars on ways: basic driving skills required, obstacles can be passed over; in the example without information about trail visibility

**S2**: Red bars on ways: advanced driving skills required; in the example trail visibility is excellent

**S3**: Red-black bars on ways: very good bike control required; in the example trail visibility is good or intermediate

**S4**: Black bars on ways: at least perfect bike control with trial skills required; in the example trail visibility is bad, horrible or no visibility
S5/S6: Several thin black bars on ways: exzellent mastering of special trail techniques required or nearly completely impassable; in the example without information about trail visibility

Easy hiking path: Yellow bars alternate with brown bars: if MTB scale isn't available it is possible to mark easy hiking paths (according to SAC T1, see above) with an overlay. If and how those are rideable isn't for sure, and if it is allowed to ride them depends on local legislation.

MTB Scale uphill is marked by horizontal dashes under ways:

0: Blue dashes: 15% incline max.

1: Blue-red dashes: 20% incline max, the two bars with different length also mark the uphill direction - the shorter one points uphill.

2: Red dashes: 25% incline max.
Tracks

Forest tracks and agricultural roads are marked in Openstreetmap by grade:

3: Red-black **dashes**: 30% incline max

4: Black **dashes**: 40% incline max

5: Two thin **black dashes**: uphill riding not possible.

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Paved track

Unpaved track, gravel road

Track made out of a mixture of gravel and dirt

Track mainly made out of dirt/grass, some gravel

Track only made out of dirt/grass

Track without grade
Cycleways and road surfaces

If a normal road (not tracks/paths) or cycleway (when using cycling/mountainbike) has a different surface than asphalt or another flat sealed surface it is marked as following, if the "surface" is included:

Cycleways have a **blue border**. This only means that cycling is allowed here. If the border is a continous line, the way is paved, dashed means unpaved or unknown. The picture shows an emphasized cycleway in the cycling map style without surface information, which is marked by thin stripes along the way.

Cycleway which might need a cross-country bicycle because of steepness/roughness (only in cycling mapstyle, not MTB)

- paved/asphalt
- paving stones or similar
cobblestone or similar

compacted unsealed road

loose gravel

natural ground

Option "extended road surfaces": paved/asphalt (on major roads white alternating with color of road importance, on normal roads just white)

Option "extended road surfaces": no road surface information available

Option "emphasized paved cycle paths" (Cycling)

Option "emphasized paved footways" (City)

Access limits

Only those access limits are shown, which are valid for the mode of transportation the map style is intended for. In "Hiking" only if they are valid for pedestrians. In
"Cycling"/"Mountainbike" only, if they are valid for cyclists. In "City" only general access limits.

Local traffic only - only when travelling to this area.

Private road - only with permission of the owner.

No access allowed.

Option marking of permitted foot/cycle paths: usage permitted - important for countries like England, where e.g. a track can only legally be used if it's permitted for this track toll road, marked by red dots

only use with permit (might be with costs), marked by red dots

Winter sports
To avoid collisions or not so nice areas ski and sled pistes are marked unobtrusively:
Ski piste (with hiking path)

Sled piste (on track)

cross-country ski-tracks

**Landscape**

- Fell/Mountain meadow
- Heath/dwarf-shrub
- Wetlands/Marsh
- Rock
- Scree, loose rocks
- Scrub
- Wood, forest mixed
- Wood, forest coniferous
Wood, forest deciduous

Glacier

Meadow, grass

Farmland

Orchard

Vineyard

Body of water

Intermittent body of water (sometimes water, sometimes dry)

Military

Protected area

Strictly protected area with strictly limited access
Protected area, seasonal strictly limited access

Protected area, discouraged access (might be seasonal)

Protected area, no off-road access (might be seasonal)

Aboriginal lands

Cliff, rock face

Ridge, arete

Earth Bank

Gully

Ditch

Dyke
Embankment

Prominent Tree

Spring

Powerline/Minor powerline
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