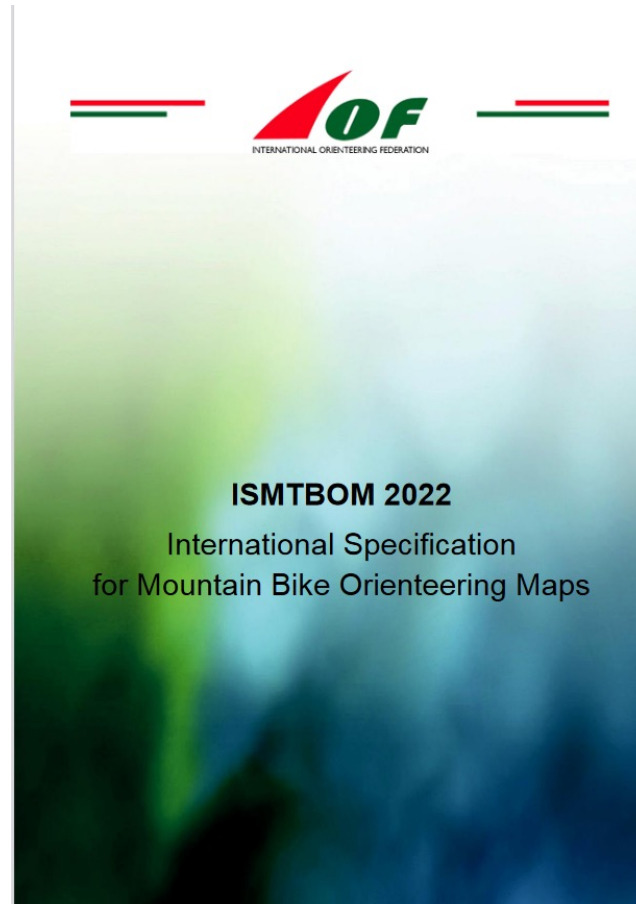


# Agenda

- Rückblick Markus
- AHV Beitragspflicht für Kartenaufnehmer Claudio
- Ausbildung Judith/Martin
- **ISMTBOM 2022** Martin
- ISOM 2017-2 / ISSprOM 2019-2 Gian-Reto
- Pause
- Kartentool & OmapCH Fritz/Camilla
- OCAD News Gian-Reto
- Verschiedenes / Ausblick 2023 Markus

# ISMTBOM 2022



[https://www.swiss-orienteering.ch/files/kommission\\_karten/ISMTBOM\\_2022\\_IOF.pdf](https://www.swiss-orienteering.ch/files/kommission_karten/ISMTBOM_2022_IOF.pdf)

# Neuerungen

- Kartografie im Fokus
- Angleichung an ISOM 2017-2
- Darstellungsvarianten für Gelände, das betreten oder befahren werden darf



# Fair mapping

- follow the specifications in this document
- give a clear picture of the path, track and road network, classified according to relative cycling speeds
- give a clear picture of the topography of the area
- only include features that are necessary for navigation and route choice
- be generalized to optimise legibility
- indicate clearly where it is allowed to cycle, and where passage is forbidden

# 1:15'000

Format	Scales	Map symbols enlargement	Course planning symbols
Long	1:15 000	No enlargement	No enlargement
	1:12 500	1.2×	1.2×
	1:10 000	1.5×	1.5×
Mass start, Middle and Relay	1:10 000	1.5×	1.5×
	1:7 500	1.5×	1.5×
Sprint	1:5 000	1.5×	1.5×
	1:7 500		



# Minimas

## Minimum gaps

- Minimum edge to edge gap between parallel paths that do not connect: 0.5 mm.
- Minimum gap between buildings where it is allowed to pass: 1 mm.

## Minimum line length

Line symbols need to be long enough to differentiate them from other symbols. Closed lines must have sufficient white space within to allow the line symbol to be recognized. For closed styled lines such as fences, walls and cliffs, there must be enough room for the styling (e.g. tags), so that the type of symbol can be recognized.

On the map for mountain bike orienteering in general:

- Shortest dashed and dotted path/track symbol: at least two dots/dashes
- Very short sections of paths can be drawn with only 1 dash for clarity in junctions etc. Use either symbol *Track: fast riding* (815) or symbol *Path: fast riding* (816).

## Minimum dimensions for areas

Providing minimum dimensions for areas is difficult as the shape varies. The minimum width is as important as the minimum area. Very thin parts of areas must be exaggerated.

Minimum widths for area symbols (if not specified for the symbol):

- Blue, green, grey, orange or yellow full colour: 1 mm
- Black, blue, brown, green or yellow dot screen: 1,4 mm

Minimum area of colour (if not specified for the symbol):

- Blue, green, grey, orange or yellow full colour: 1 mm<sup>2</sup>
- Black, blue, brown, green or yellow dot screen: 2 mm<sup>2</sup>

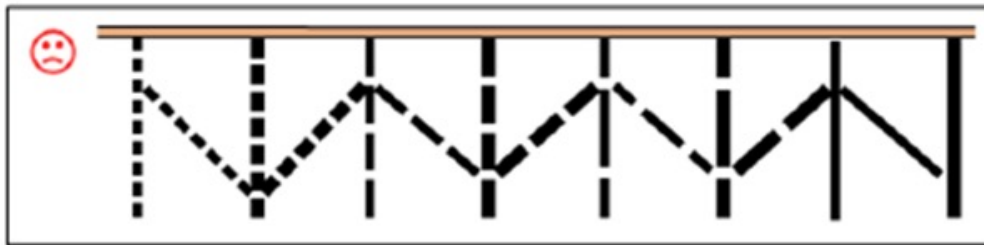
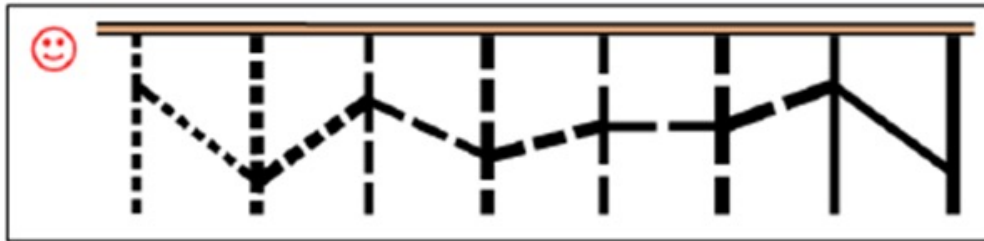
# Strichelungen



# Abzweigungen

## Connected path

Connected paths should always be clearly drawn and there should be no gap at the junction. This is especially important in relation to indistinct junctions (see below).





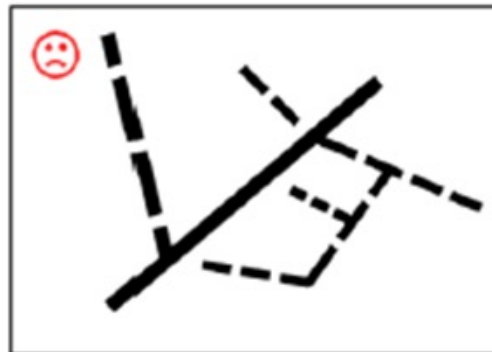
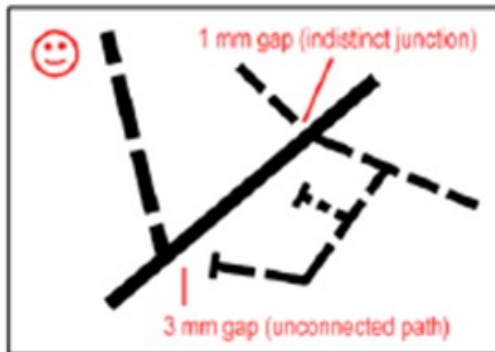
# Anschluss oder nicht?

## Unconnected path

If the paths are unconnected, this must be clearly identifiable. The gap must be at least 3 mm. This is especially important when off-track riding is restricted.

## Indistinct junction and unconnected path

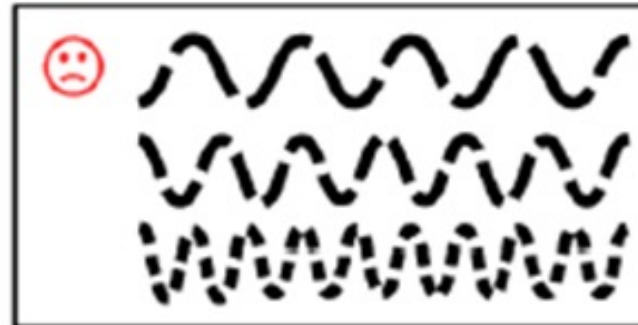
Sometimes the junction is indistinct and in such cases a gap of 1 mm is used. The optional *Track end point* (823) symbol can help identify unconnected paths and distinguish them from indistinct junctions.



# Kurven

## Serpentines

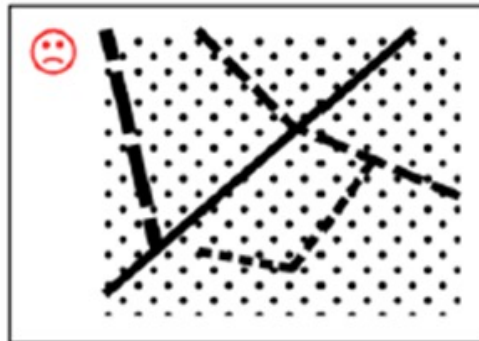
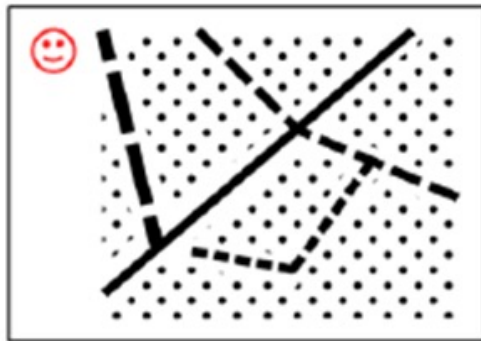
Applying dash vertices to the bends improves the readability of serpentines.



# Freistellung des Wegnetzes

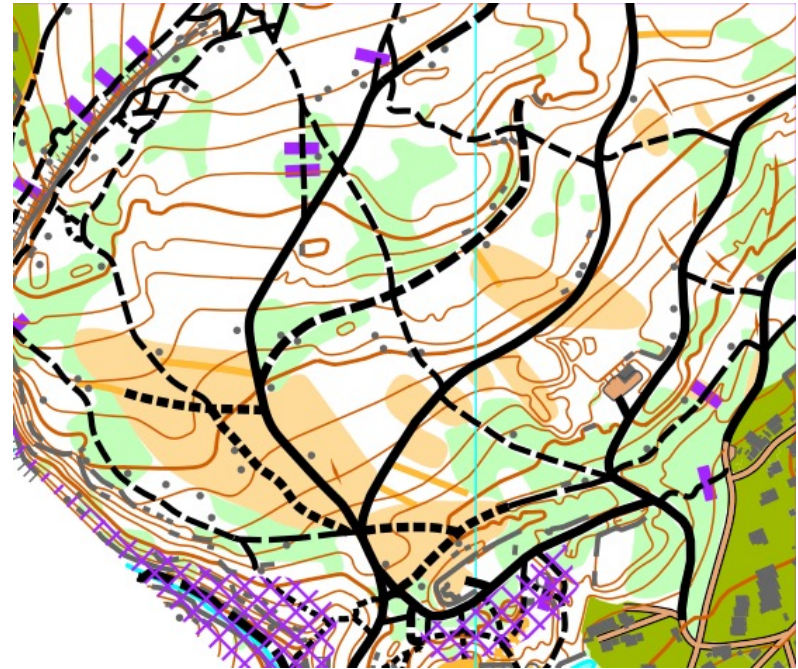
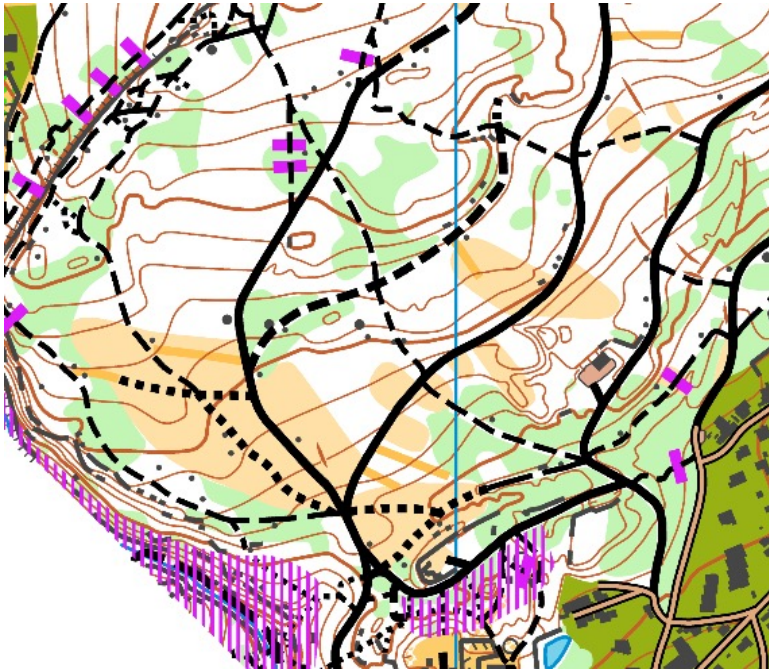
## Forested area-permitted to ride and track network

Cutting out a dot raster around tracks will greatly improve the readability of the track network. This is also suitable for other objects used for navigation in these areas.



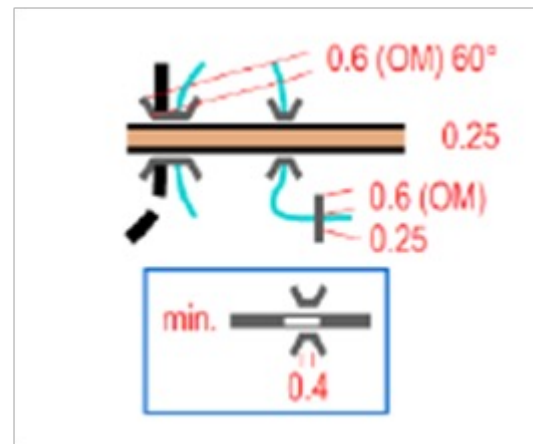
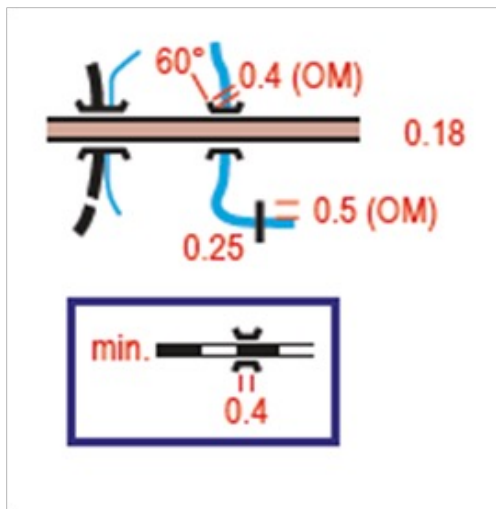
# Geänderte Symbole

- Wegnetz: Generell kleinere Lücken



# Geänderte Symbole

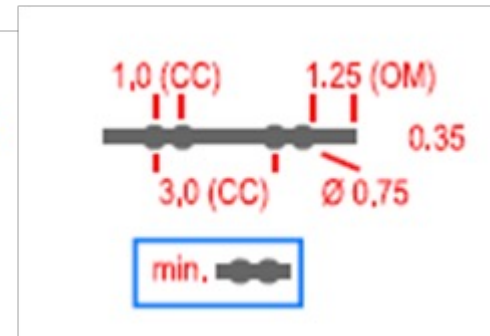
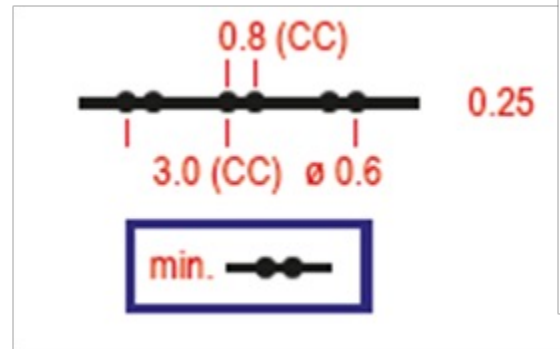
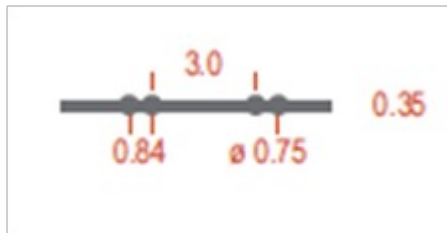
- Allgemein wurden die Symbole an die ISOM angepasst. Viele kleine Änderungen und neue Symbolnummern.
- Aber auch kleine Abweichungen von der ISOM.





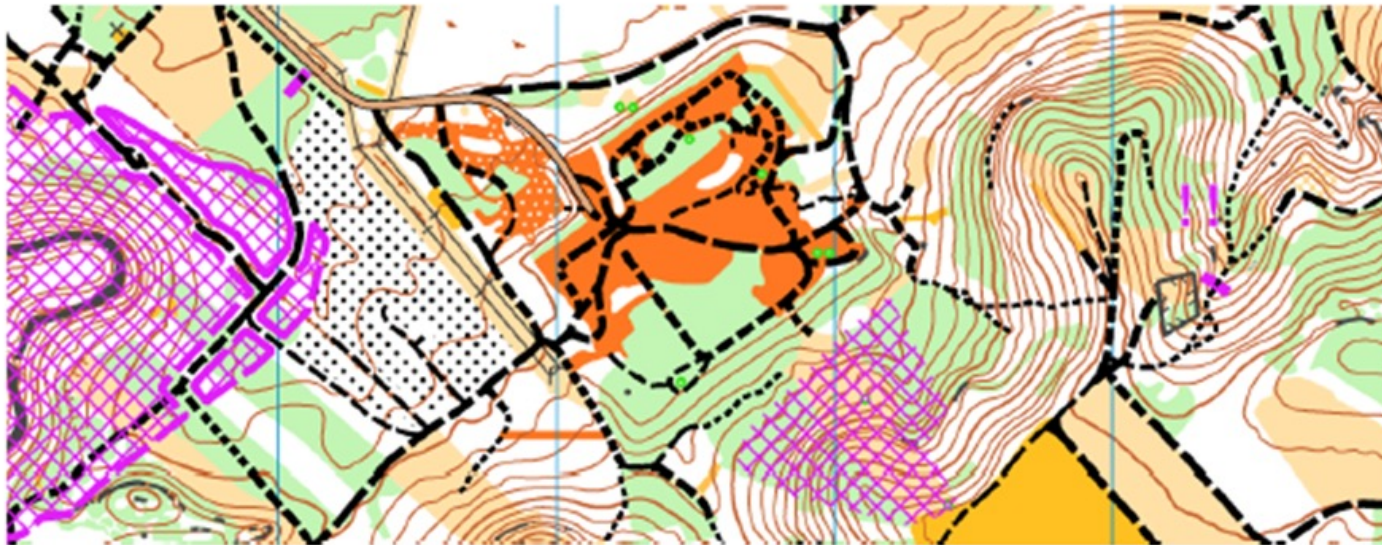
# Geänderte Symbole

- Eine automatische Aktualisierung der Symbole visuell prüfen



# Befahrbares Gelände

If off-track riding is generally forbidden in the terrain, symbol *Open land, permitted to ride* (824), *Rough open land, permitted to ride* (826) and *Forested area, permitted to ride* (825) may be used to show areas where this off-track riding is allowed.



# Neue Symbole

- Befahrbares Gelände bei generellem Verbot



## 824 Open land, permitted to ride (A)

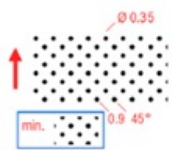
An area of open land that is permitted to ride, when off-track riding is otherwise forbidden. The permitted area should have obvious borders or be marked in the terrain.

Minimum width: 0.9 mm (footprint 13.5 m).

Minimum area: 2 mm<sup>2</sup>.

Colour: orange (60% magenta, 100% yellow).

**On the printed map a clear colour differentiation must exist between this colour and yellow 100%.**



## 825 Forested area, permitted to ride (A)

An area of terrain with a dense track network or little ground vegetation where riding everywhere is allowed. Predominant track/paths through this area shall be shown to aid navigation. The permitted area should have obvious borders or be marked in the terrain. Black dots shall not interfere with other black elements and other optional point and line symbols which serve for navigation or as features for control points.

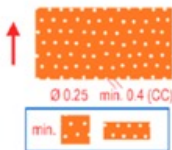
When riding in the terrain is generally allowed use this symbol to show networks of tracks which are too dense to map individually.

The symbol is orientated to north.

Minimum width: 2 mm (footprint 30 m).

Minimum area: 25 mm<sup>2</sup>.

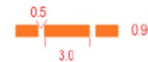
Colour: black.



## 826 Rough open land, permitted to ride (A)

Heath, moorland, felled areas, newly planted areas (trees lower than ca. 1 m) or other generally open land with rough ground vegetation, heather or tall grass that is permitted to ride, when off-track riding is otherwise forbidden. The permitted area should have obvious borders or be marked in the terrain.

Smaller areas must either be left out, exaggerated or shown using symbol *Open land, permitted to ride* (824).



## 828 Narrow ride or linear trace through the terrain, permitted to ride: medium riding (L)

A forest ride or a prominent trace (forestry extraction track, sandy track, ski track) through the terrain which does not have a distinct rideable path along it, medium riding.

Minimum width: 0.9 mm (footprint 13.5 m).

Minimum length (isolated): 2 dashes (6.5 mm – footprint 97.5 m).

Colour: orange (60% magenta, 100% yellow).

**On the printed map a clear colour differentiation must exist between this colour and yellow 100%.**



## 829 Narrow ride or linear trace through the terrain, permitted to ride: slow riding (L)

A forest ride or a prominent trace (forestry extraction track, sandy track, ski track) through the terrain which does not have a distinct rideable path along it, slow riding.

Minimum width: 0.9 mm (footprint 13.5 m).

Minimum length (isolated): 2 dashes (3.4 mm – footprint 51 m).

Colour: orange (60% magenta, 100% yellow).

**On the printed map a clear colour differentiation must exist between this colour and yellow 100%.**



## 830 Narrow ride or linear trace through the terrain, permitted to ride: very slow riding (L)

A forest ride or a prominent trace (forestry extraction track, sandy track, ski track) through the terrain which does not have a distinct rideable path along it, very slow riding.

Minimum width: 0.9 mm (footprint 13.5 m).

Minimum length (isolated): 2 dashes (1.9 mm – footprint 28.5 m).

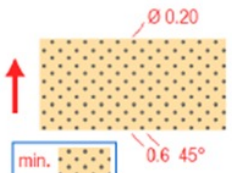
Colour: orange (60% magenta, 100% yellow).

**On the printed map a clear colour differentiation must exist between this colour and yellow 100%.**

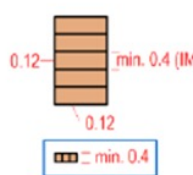


# Neue Symbole

- Sandige Flächen
- Fahrbare Treppen



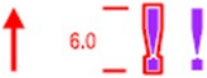
**213 Open sandy ground (A)**  
An area of soft sandy or soft gravelled ground where cycling is difficult or impossible, but it is permitted to ride.  
The symbol is orientated to north.  
Minimum width: 1.4 mm (footprint 21 m).  
Minimum area: 16 mm<sup>2</sup>.  
Colour: black 60% and yellow 50%.



**532 Stairs (L)**  
Steps or stairways which present a challenge to riding. A stairway going through rock passages or between impassable objects may be drawn without border lines.  
An easily rideable stairway or indistinct stairway should be drawn as a footpath. Steps of a stairway shall be represented in a generalized manner.  
Minimum length: 3 (graphical) steps (1.2 mm – footprint 18 m).  
Minimum width: 0.4 mm (IM).  
Colour: black, brown 50% background.

# Neue Symbole

- Gefährlicher Abschnitt



**719 Dangerous section (P)**  
Two exclamation marks with a white outline to represent a dangerous section.  
The symbol is orientated to north.  
Font: Arial, 4.0 mm, non-bold, non-italic. Symbol shall be bordered with a small white borderline (0.15 mm) to improve legibility if necessary.  
Footprint: 90 m.  
Colour: upper purple (over black).

# Neue Symbole

- Wegende



## 823 Track end point (P)

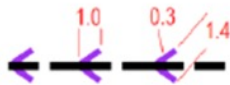
The end of the track or path, it is no longer possible to continue in its direction.

Footprint: 16.5 m.

Colour: black.

# Neue Symbole

- Ein-Bahn-Weg



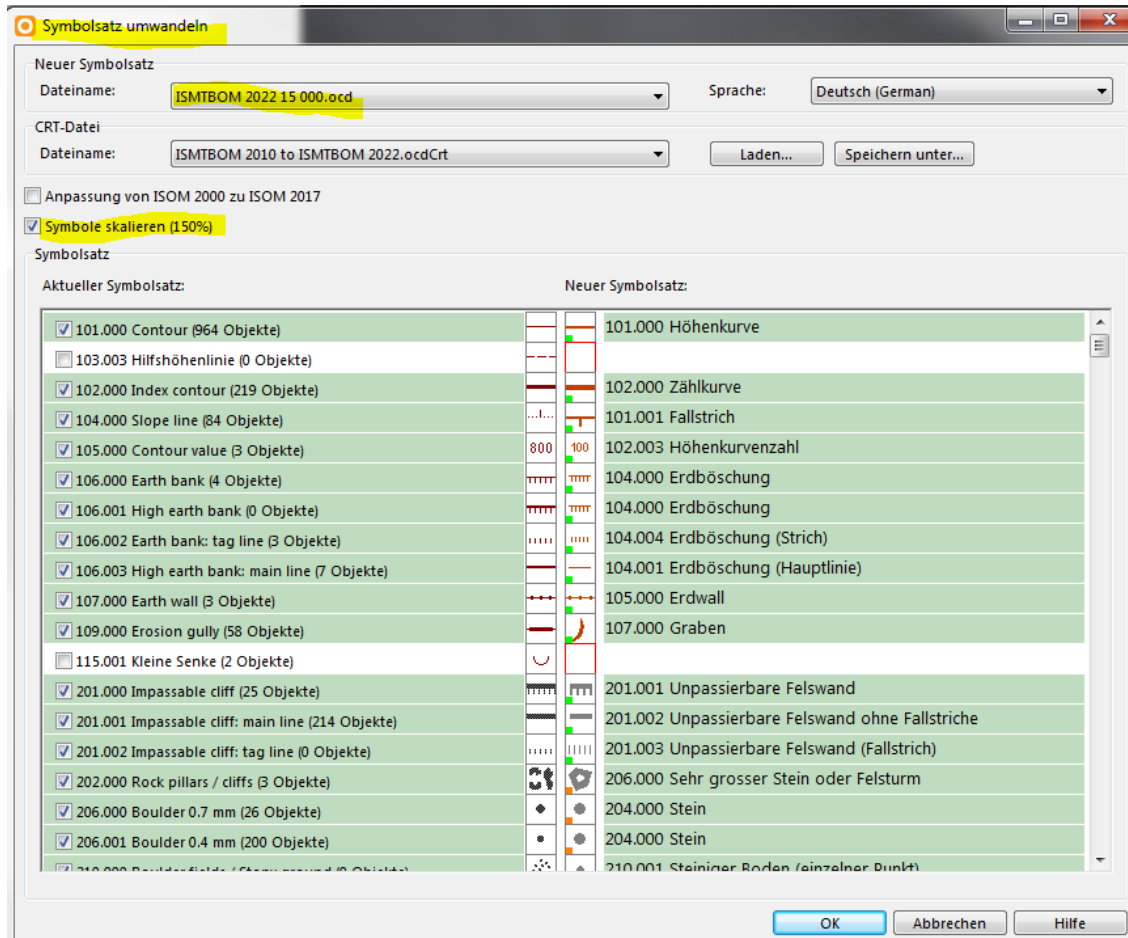
## 841 One-way compulsory (P)

For use on tracks and paths where it is only allowed to ride in one direction, for example on mountain bike single tracks. The frequency of chevron arrows depends on the overall length of track/path in question. At minimum, there should be one at the start, after each adjoining junction, and at the end.

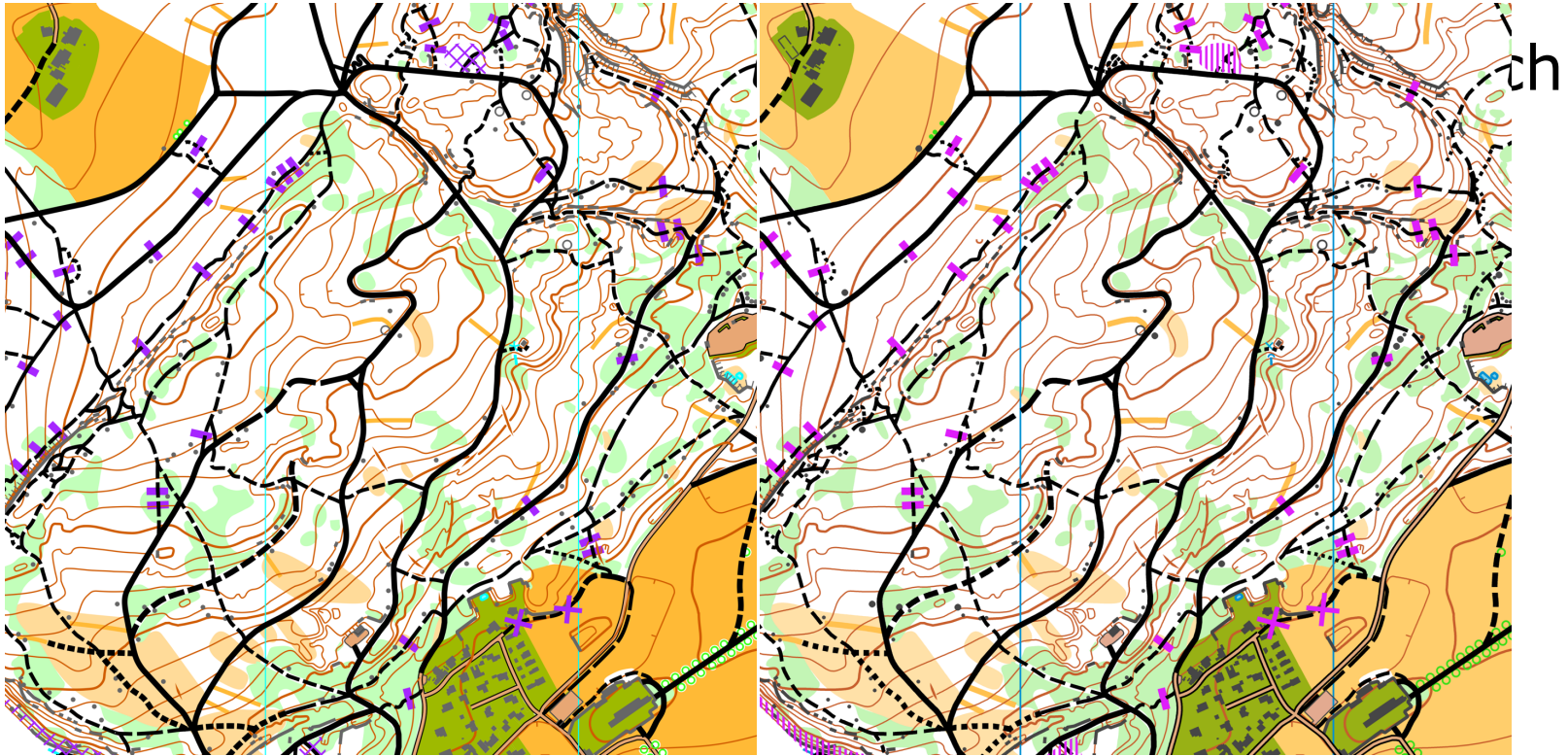
Footprint 15 m × 21 m.

Colour: lower purple (under black).

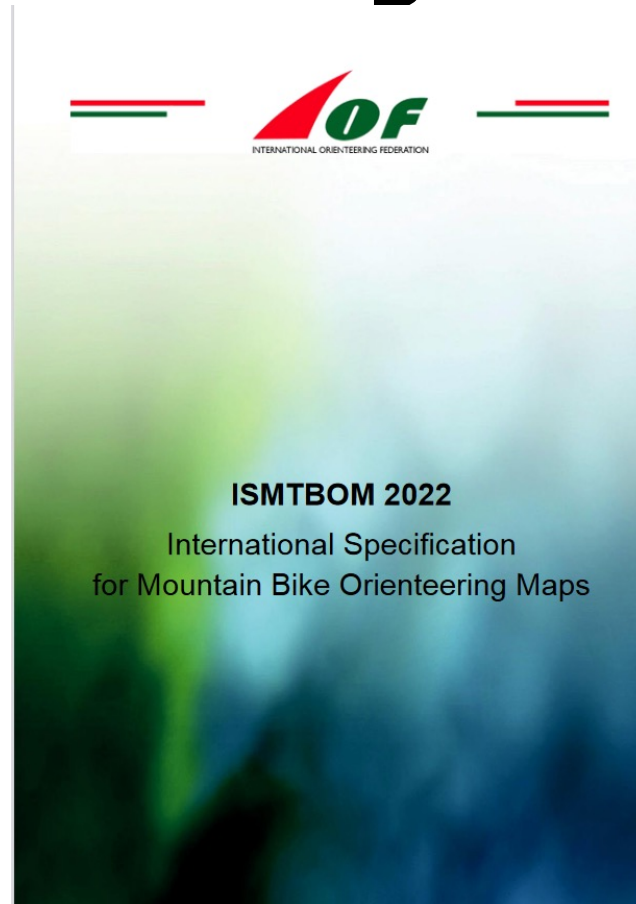
# OCAD > Karte > Symbolsatz umwandeln



# Karte Martinsflue



# Fragen?



[https://www.swiss-orienteering.ch/files/kommission\\_karten/ISMTBOM\\_2022\\_IOF.pdf](https://www.swiss-orienteering.ch/files/kommission_karten/ISMTBOM_2022_IOF.pdf)