INTERNATIONAL ORIENTEERING FEDERATION

ISTrailOM 202X

International Specification for Trail Orienteering Maps

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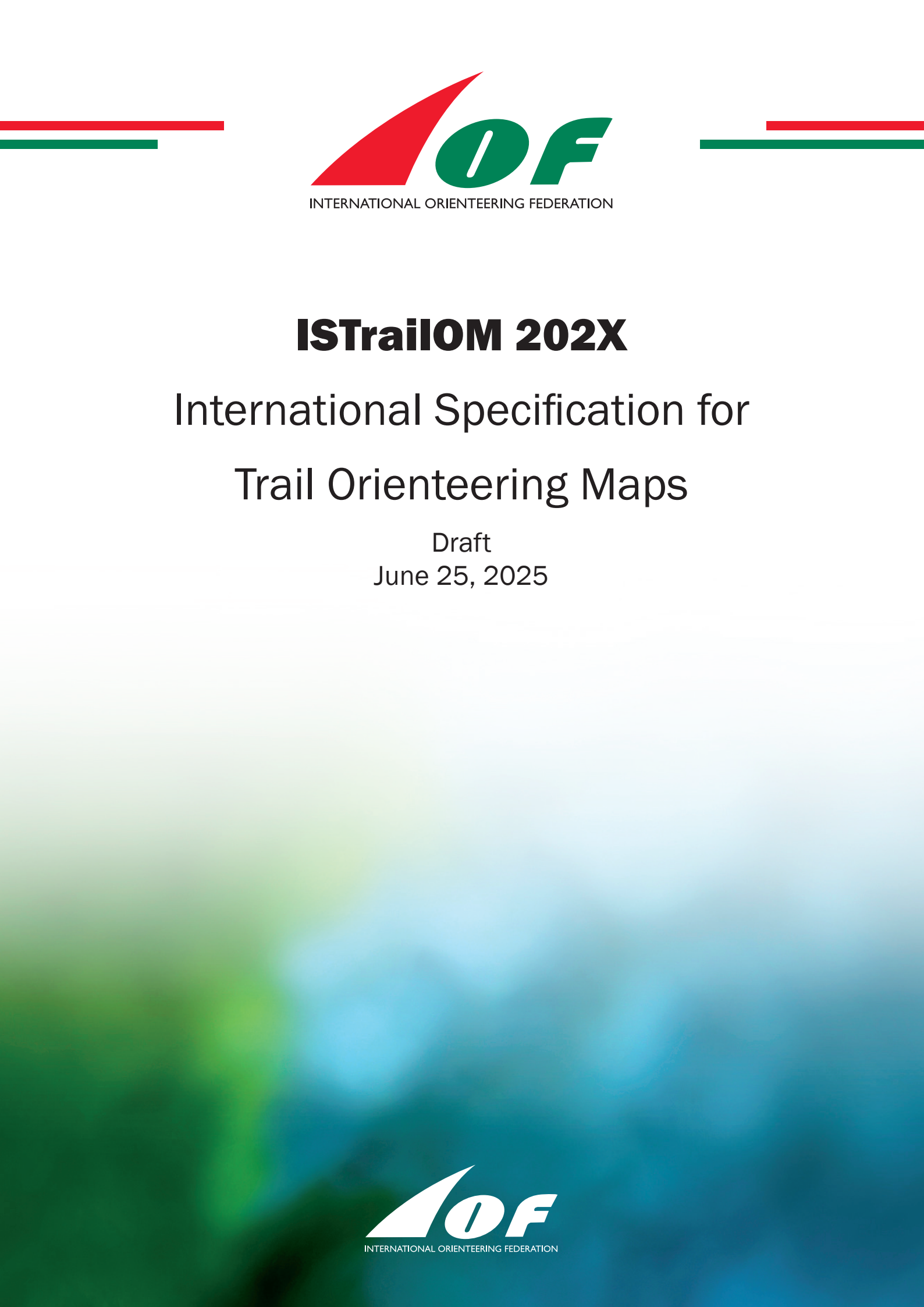

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Revision History

This International Specification for Trail Orienteering Maps (ISTrailOM 202X) has been compiled and edited by the IOF Map Commission (<date>) in cooperation with the IOF TrailO Commission.

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IOF INTERNATIONAL SPECICATION FOR TRAIL ORIENTEERING MAPS

1 INTRODUCTION

Generally, maps for trail orienteering (TrailO) adopts symbols from the current IOF International Specification for Sprint Orienteering Maps (ISSprOM). However, maps made for sprint-orienteering events may not be suitable for TrailO events (and vice versa). Hence, in order to meet the specific requirements for the discipline, some deviations to ISSprOM is needed. Furthermore, the application and interpretation of the specification must also be different. These deviations are described in this document together with a few additional symbols that are needed.

2 MAPPING CONSIDERATIONS

2.1 Rules

Competition Rules for IOF Trail Orienteering Events, section 15 specifies some rules regarding maps for TailO events.

2.2 Detail and Accuracy

In sprint orienteering, the most important thing is to clarify for the runners where they can run, and where they cannot. It is therefore important to exaggerate narrow passages beyond a minimum width (0.4 mm), and to clearly show barriers and forbidden areas. To make this as clear as possible for the runners, unnecessary details is removed from the map, this includes e.g. fences between road and olive green, street curbs, and even contour detail inside forbidden areas. Recall that runners are going to read the map at high speed.

In TrailO, this situation is reversed. Participants are traversing the course at low speed and there is usually an obvious route to follow. Instead, participants may rely on even obscure details to identify controls and their placing. Hence, maps made for TrailO need to include more detail than maps made for sprint orienteering, and they need to be spatially accurate.

The map must fairly represent the terrain as seen from the trails and permitted access areas and, in exceptional circumstances, non-visible features may be omitted, if their inclusion would otherwise unacceptably distort the distances to and between visible features on the map (for example a small non-visible marsh between 2 visible boulders that would make it necessary to draw the boulders more distant from each other than they really are).

However, for TempO events, legibility remains an issue as participants need to read and interpret the map as quickly as possible. Hence, some exaggeration may still be necessary for legibility.

2.3 Mapping Runnability

Another important distinction between sprint orienteering and trail orienteering is mapping of runnability, particularly in forest and park environments. For traditional orienteering, a runner is concerned about how much he/she is slowed down while crossing an area of thick forest, while in TrailO, it is the *visual appearance* of the area that matters, seen from the outside. This also applies to yellow.

2.4 Mapping Accessibility

In TrailO, participants are required to traverse the course along trails or roads, any other area is out of bounds. Some symbol definitions, such as symbol *520 - Area that shall not be entered* may be mean-

ingless with such a definition. In fact, an area that is mapped with olive green on a sprint map, may be mapped normally for TrailO. The area may contain important information to the participants, and organizers may even put controls in the area.

Yet, symbol 520 shall still be used for flower beds, private gardens and similar areas.

Trails that are out of bounds shall be marked with 708 where the out of bounds areas starts and with symbol 811 beyond.

2.5 Mapping Paths and Trails

Using ISSprOM symbols in trail orienteering allows the competitors to be instructed that, unless marked as no-go on the map and/or on the ground, only the brown routes may be used – and no other path.

If, in a particular competition, small paths form part of the course, two options are possible:

- Change the small path symbol (ISSprOM 506 or 507) to the Unpaved footpath or track symbol (505). This is the preferred option.
- State in the pre-race information and bulletin that at some point it is allowed to use the black path according to signs and markings in the terrain, showing a sample of the map.

2.6 Other Resources

Section 3 of the document *Technical guidelines for Elite Trail Orienteering* published by the *IOF Trail Orienteering Commission* contains further information about mapping for TrailO, and is a *must read* for everyone who is to create maps for TrailO events.

3 GENERAL REQUIREMENTS

3.1 Map Scale

The map scale in official IOF Trail orienteering events shall be 1:5000, 1:4000 or 1:3000.

In contrast to ISSprOM, symbol dimensions shall remain invariant at different scales.

3.2 Contour Interval

Contour interval shall be 2,5 or 2,0 m.

The height of a contour line may be adjusted by up to 25% to improve the representation of a feature, provided relative height differences between closely adjacent features are maintained. If further representation is required, to indicate a definite change in gradient, for example, a form line may be used. The form line is not a specific intermediate contour and may be at any height between contours. Only one form line may be used between adjacent contours.

3.3 Colours and Reproduction

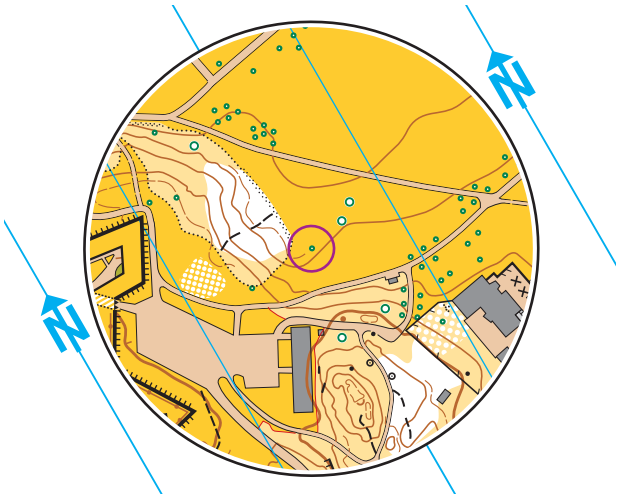
In General, the document *IOF Map Specifications – Printing and Colour Definitions for sprint maps* applies.

However, for the solution map, two more colours need to be added on top of the other colours.

Colour Name	*C*	*M*	*Y*	*K*
Top Red	*0*	*100*	*100*	*0*
Top Blue	*100*	*50*	*0*	*0*

3.4 Magnetic North Lines

As participants heavily depends on compass to determine control locations, it is paramount that the north lines accurately points to magnetic north at the time of the competition. Moreover, north lines should extend well beyond the mapped area, particularly for timed controls (TC). The example below shows a sample map provided at a TC.



4 DEVIATIONS FROM ISSprOM

4.1 Minimum Dimensions

Minimum dimensions of area symbols may be, if not ignored, treated with common sense. Minimum size of 100% green and dark green must be maintained though.

Generally, passages should be mapped at true scale, not with minimum width of 0.4 mm. Though for TempO events and timed controls some exaggeration may still be necessary to provide sufficient legibility.

4.2 Green Symbols

To improve legibility, the symbols 417 through 419 shall be defined using dark green colour. For the same reason, hedges shall always be mapped using dark green symbol (411).

4.3 Impassable Walls and Fences

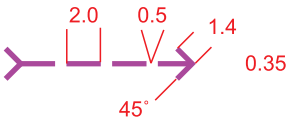
Symbol *515 – Uncrossable wall* and *518 – Uncrossable fence or railing* may have a line weight of 0.3 mm. After all, the crossability itself of these features is not important for the participants. Instead a thinner line for these features makes it easier for the mapper to map tight situations in a legible manner without compromising on accuracy.

In many cases lower fences and walls that are mapped with symbol 515 and 518 on a sprint map, may just as well be mapped as crossable fences and walls (513 and 516) on a TrailO map.

5 TRAILO-SPECIFIC SYMBOLS

Note that the illustrations in this section is scaled to 200% and all measurements are given in millimetres.

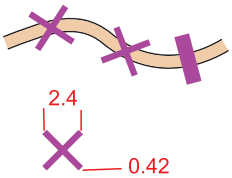
5.1 Course Planning Symbols



707.1 One-way corridor (L)

Marks a section of the intended route where participants are not allowed to backtrack. This can, e.g be used in sections where the intended route is too narrow for two wheelchairs to meet

Colour: Upper Purple



711 Out of bounds route (L)

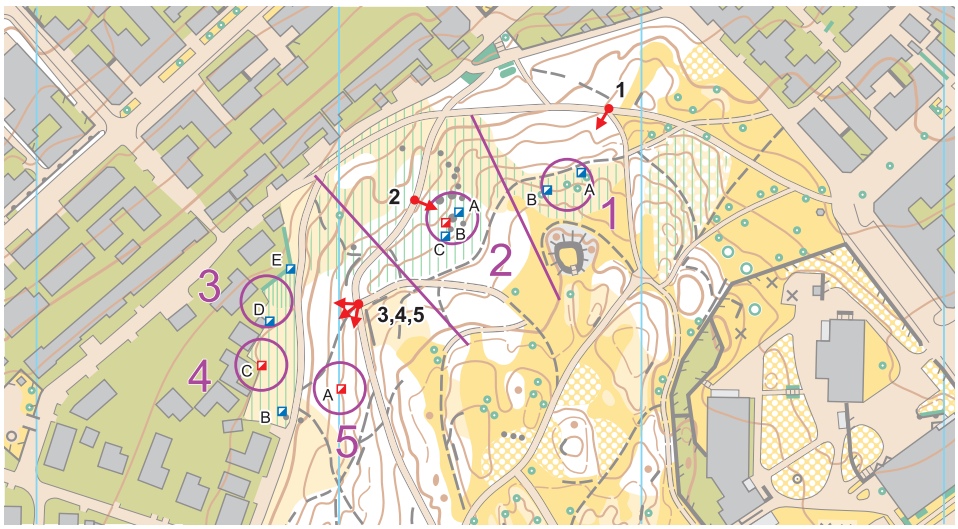
A route which is out of bounds. The symbol shall be used together with symbol *708 Out of bounds boundary* as shown in the illustration.

Minimum length: 2 symbols

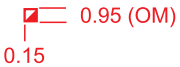
Colour: Upper Purple

5.2 Solution Map Symbols

The solution map is the map provided to the participants after the competition to provide the correct answers to the course. In this map, the colours of the background map, apart from the course, may be reduced up to 50%. The map may preferably be an enlargement of the competition map.



801 Correct control



Marks the location of the correct control flag in the centre of the control ring. In case of a Zero-control, this symbol shall not be shown for that control

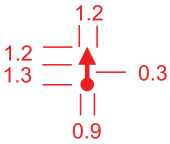
Colour: Top Red

802 Incorrect control

Marks the location of incorrect control flags.

Colour: Top Blue

803 Viewing station



Marks the location of the viewing station. The arrow must point in the viewing direction indicated in the control description.

Colour: Upper Purple or Black

804 Control Label

D 4.5 pt (Sans Serif)

Indicates the letter associated with a control flag. The letter should be in uppercase.

Colour: Upper Purple or Black

For improved legibility, the labels may have a white outline.

805 Station Label

2 6.0 pt (Sans Serif Bold)

Indicates the control number(s) associated with a viewing station, If more than one, separated by a comma.

Colour: Top Red or Black

For improved legibility, the labels may have a white outline.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