



INTERNATIONAL ORIENTEERING FEDERATION

# **ISInOM**

## International Specification for Indoor Orienteering Maps

September 2025

**DRAFT**

# INTRODUCTION

Indoor Orienteering is rapidly becoming a popular event. Due to the fast growing activity IOF now acknowledges the need for a common set of symbols.

Since there is not (yet) a defined diciplin for indoor orienteering, this document will act as a guide to mapping and course setting.

## 1.1 Conventions

Several words are used to signify the requirements in this specification:

- Must / Shall / Required mean that the definition is an absolute requirement.
- Must not / Shall not mean that the definition is an absolute prohibition.
- Should / Recommended mean that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.
- Should not / Not recommended mean that there may exist valid reasons in particular circumstances
- when the particular behaviour is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behaviour / action described with this label.
- May / Optional mean that an item is truly optional.

## 2 PRINCIPLES

### 2.1 Map legibility

Map legibility depends on the chosen map scale and a well-chosen set of symbols as well as the application of generalisation rules. The ideal representation would be realised if every feature could be represented in true shape. Obviously, this is impossible, and an effort to draw each feature true to scale would result in a map impossible to read. Depending on the chosen map scale, some symbols must represent features and be exaggerated in size, often far beyond the actual ground limits of the feature represented. In addition, not all features are essential for the purpose of the map.

Features that are important for navigation indicate runnability, or which are uncrossable in indoor orienteering, have been listed in Chapter 4. Features that are not important for a competitor taking part in a indoor orienteering event should not be mapped. Examples of this are waste baskets, single chairs, and small movable items.

### 2.2 Barriers - black line width is used to show passability

It is impossible to declare an exact height when an obstacle becomes uncrossable. Effective passability depends very much on the physical characteristics of the competitors such as body height and strength.

- Barriers, such as high walls and disallowed fences, affect route choices and shall be represented unambiguously. Therefore, these features shall be represented with a prominent thick black line.
- Obstacles which can be crossed, are represented with a significantly thinner black line than the barrier features.
- Areas that are closed off for competitors are shown in dark grey color or they may be marked with course symbols to indicate disallowance.

## **2.3 Different floor levels have separate map sections**

Each floor shall be represented in a separate section of the map. Each section must clearly be divided from other floors. All segments of the same floor shall be represented within the same segment, to clearly show they are on the same building level.

Semi-levels, such as a stage/podium, landing or similar, shall be represented in conjunction to the main floor level. Such semi-floors shall clearly be indicated to show their level deviation from the main floor.

## **2.4 Stairs make the connection between floor levels**

Every staircase that leads to another floor level up or down shall be clearly marked on the map. In case of more than two staircases, each staircase that connects two or more floors shall have a staircase indicator present on each level section.

# **3 BASIC ELEMENTS**

## **3.1 Scale**

Base map scale for indoor orienteering is 1 : 700. When a map is enlarged, all lines, symbols and screens shall be enlarged proportionally. This also applies to the course planning symbols.

## **3.2 Contour interval**

For indoor orienteering contour intervals known from outdoor orienteering have no meaning.

Steps should be represented by brown lines to indicate level differences.

For stairs not leading to a new floor level, there is a separate symbol for general visualization of a staircase, but not for each step.

## **3.3 Dimensions of map symbols**

No deviations from the given dimensions within these specifications are permitted. It is however accepted that due to limitations in printing technology the final map symbol dimensions may vary up to +/- 5%.

**Dimensions in this book are given at the printed scale of 1 : 700.**

All images are enlarged to 200% to enhance reading.

All line widths and symbol dimensions must be kept strictly to their specified value. Certain minimum dimensions must also be observed. These are based on both printing technology and the need for legibility.

## 3.4 Format of the map

The map format should not exceed DIN A3.

## 4 DEFINITION OF SYMBOLS

Definitions of features to be mapped and specifications of map symbols are given in the following sections.

Symbols are classified into seven categories:

Construction – building and necessary objects to fulfill a useful building, such as fences and pillars.

Floors – floor surfaces, staircases, ramps and landings.

Water – any object made for handling water, such as pool, shower, toilet and sink.

Furniture – movable object that are mainly stationary. Other movable objects should be omitted.

Directions – symbols on the map being added for the specific event, telling competitors where to run or not. Dark purple or orange.

Course planning symbols – any symbol that gives information about the runner's course.

For area symbols, colour percentages are given in the text ("green 50%") and the illustrations ("50%").

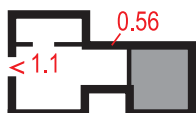
## 1000 Construction symbols

### 1101 Building body (A)



Building body is any part of building not accessible for runners. As for sprint orienteering maps, these areas are drawn in grey and must have an outline, either 1102 Outer wall or 1103 Inner wall.

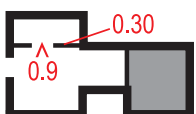
### 1102 Outer wall (L)



Outer wall is the outline of a building, weather accessible to runners or not.

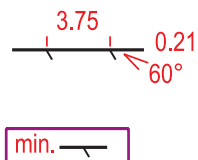
For passable openings (doors), the outer wall shall have a gap of 1.1 mm to clearly show the entrance.

### 1103 Inner wall (L)



Inner wall is the outline of a room inside the building.

For passable doors, the inner wall shall have a gap of 0.9 mm to clearly show the entrance.



### 1104 Passable fence or railing (L)

As for sprint orienteering maps, such fences or railings may be crossed, but will act as a speed reducing feature.

If the fence or railing is dangerous to cross, use 1108 Uncrossable fence or railing.

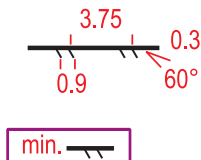
If fence or railing is caught within a set of stairs, tag line may be omitted, or use 1103 Inner wall.

### 1105 Uncrossable fence or railing (L)

If not permittent to cross, or if dangerous to cross, use this symbol for railing.

If the minimum length is shorter than 3 mm, it must be presented with the symbol 1103 Inner wall (or 1106 Temporary inner wall).

If fence or railing is caught within a set of stairs, tag line may be omitted, or use 1103 Inner wall.



### 1106 Small pillar (P)

Symbol represents small round pillars with diameter less than 50 cm.



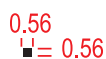
### 1107 Larger pillar (P)

Symbol represents small round pillars with diameter above 50 cm.



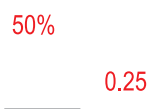
### 1108 Square pillar (P)

Symbol represents pillars with not round shape.



### 1109 Retaining wall (L)

Minor wall not necessarily reaching ceiling level.



### 1110 Forbidden area (A)

Area forbidden to enter for all participants.

Area must be separated from other objects or areas by symbol 112 (Forbidden area outline).



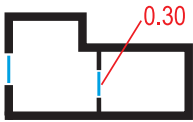
### 1111 Forbidden area outline (L)

Symbol shall divide forbidden area (1110) from other objects or areas on the map.



### 1112 Automatically closing doors (L)

This symbol represents doors that are passable to runners, but may close automatically due to electronic control. Runners are allowed to open door to pass.



## 1200 Floor

### 1201 Step (L)

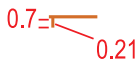
Symbol shall be used for single steps. If steps are part of a set of stairs or leading to another floor or landing, use 1206 Stairs to landing or 1207 Steps connecting to next floor.



### 1201.001 Ramp fall line (P)

Small tag to indicate falling direction of ramp.

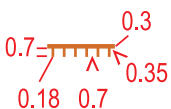
A minimum of 1 shall be used.



### 1202 Stage edge or steep stairway (L)

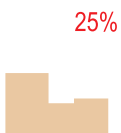
Use this symbol to mark edge of stage or steep stairway.

Tags indicate falling direction.



### 1203 Indoor runnable area (A)

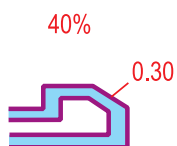
Any area permitted for runners drawn with Brown 25%.

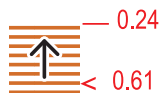


### 1204 Outdoor passage (A)

Outdoor passage, clearly marked in terrain.

Outer wall leading to outdoor passage must have a gap to show exit/entrance, see 1102 for specification.





## 1205 Stair not leading to another floor (A)

This symbol needs to be corrected in order to get steps perpendicular to running direction.

Symbol 1211.001 Stairway direction (small) or 1211.002 Stairway direction (large) shall be added to show steps direction.

100%

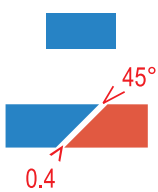


## 1206 Stairway leading to next floor up (A)

This area symbol shows a stairway connection to next floor up.

See separate explanation for «How to understand drawing stairs» at the back of this document.

100%

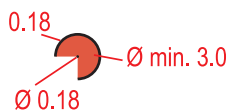


## 1207 Stairs connecting to next floor (A)

This area symbol shows a stairway connection to next floor down.

See separate explanation for «How to understand drawing stairs» at the back of this document.

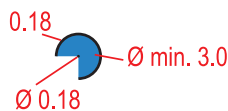
100%



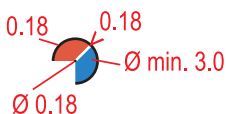
## 1208 Spiral stairway leading to next floor up (P)

Gap shall be rotated so that entry of steps is in open sector.

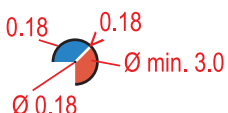
100%



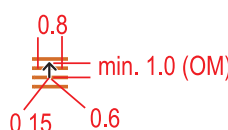
## 1209 Spiral stairway leading to next floor down (P)



## 1210.001 Spiral stairway leading to next floor up and down (P)



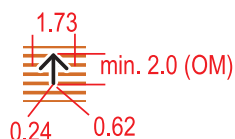
## 1210.002 Spiral stairway leading to next floor down and up (P)



## 1211.001 Steps direction (up) (L)

This symbol (or 1210.002) may be added to show up direction for steps.

This symbol shall only be used in conjunction to 1205.



## 1211.002 Wide steps direction (up) (L)

This symbol (or 1210.001) may be added to show up direction for steps.

This symbol shall only be used in conjunction to 1205.

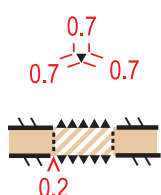
100%

**B** 1.94

## 1212 Stairway identity letter (T)

This letter shall be present next to all stairs if building contains more than 2 stairways. Purpose of letter is to ease reading of map and connection stairways between floors.

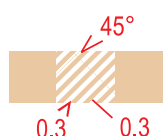
Letter shall be located clearly visible, preferably on white or Brown 25% background.



## 1213 Bridge or underpass (L)

This symbol indicates runnable area in the levels both included in the same floor mapping.

Symbol must be used in conjunction with symbol 1213 and with 1214 if enough room.

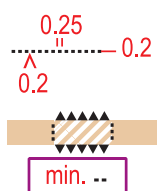


## 1214.204 Area accessible in two levels in same floor (A)

This symbol indicates accessible areas both mapped via the same floor, e.g. high ramp or landing where area below is accessible for runners.

This symbol shall not be part of a staircase.

If accessible area is mapped at different floor, do not use this symbol.



## 1215 Underpass or tunnel walls (L)

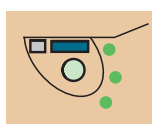
Underpass or tunnel below a mapped surface at the same floor.

Line symbol indicates a passage at the lower level.

Leave a gap at the start and end of symbol.

If too short a passage, leave this symbol out.

0.10



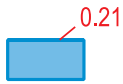
## 1216 Distinct floor marking (L)

Symbol is only to be used where floor marking is distinct and will aid runners navigation, otherwise leave out.

Symbol shall not be used to show steps, then use 1201.

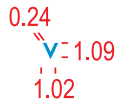


# 1300 Water



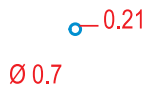
## 1301 Body of water (A)

Body of water other than elements shown with separate symbols.



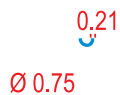
## 1302 Toilet (P)

Toilet accessible to runners.



## 1303 Shower (P)

Shower accessible to runners.



## 1304 Sink (P)

Sink accessible to runners.

Sink may also be included in a bench where it may then be omitted.



## 1305 Prominent water feature (P)

Prominent water feature not owning a separate symbol.

# 1400 Furniture



## 1401 Table (A)

This symbol represents any surface 110 cm or lower ment to put things on, like a table, bar table or bench.

Symbol shall be represented surrounded by 1404 Furniture outline.



## 1402 Cupboard or tall shelf (A)

This symbol represents any item used to store goods, such as bookshelf or cupboard with a total height of above 110 cm.

Item may have doors or it may be open shelves.

Symbol shall be represented surrounded by 1404 Furniture outline.

### 1403 Couch / sofa (A)

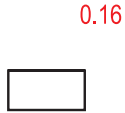
This symbol represents any item ment for sitting comfortable, thant means not ordinary chairs.

Symbol shall be represented surrounded by 1404 Furniture outline.



### 1404 Furniture outline (L)

This symbol shall outline any furniture symbol.



### 1405 Tree or plant (P)

Prominent plant or tree.



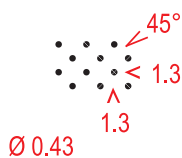
### 1406 Large tree or plant (P)

Prominent plant or tree being significantly larger than other plants.



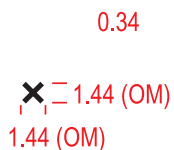
### 1407 Untidy area (A)

This symbol may be used in a room where furniture may be moved and thus making it hard to map exactly, e.g. desks in a classroom or apparatus in a gym.

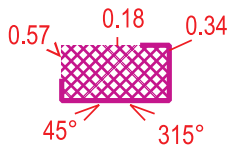


### 1408 Special feature (P)

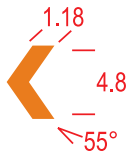
Any item not being described by other dedicated symbols.



# 1700 Directions and map overview



0.34



## 1709 Forbidden area (A)

Forbidden area for runners.

Area should be shown clearly in terrain by funnels tape borders.

## 1709.004 Forbidden area border (L)

Forbidden area border line. If not forbidden on either side, then use 1775 Impassable border.

## 1771.001 One way passage - one large arrow (P)

This symbol will change according to courses made for the specific event. Symbol shows legal running direction.

Symbol must be accompanied by clear markings showing running directions. Such marking may be either on floor or by signs no less than A3 size.

## 1771.002 One way passage - several arrows (L)

This symbol will change according to courses made for the specific event. Symbol shows legal running direction.

Symbol must be accompanied by clear markings showing running directions. Such marking may be either on floor or by signs no less than A3 size.

## 1772 Text (T)

Important information about map etc.

Text 2.4



2.5



## 1773 Floor level number (T)

Number to tell which floor is mapped within the marking lines made with 1774 Floor level separation line on map print.

## 1774 Floor level separation line on map print (T)

Separation line on map print to distinguish and group floor levels.

1.25



### 1774.001 Thin level separation line on map print (T)

Thinner separation line on map print to distinguish and group floor levels.

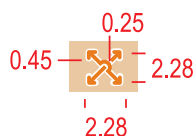
1.1



### 1775 Impassable border (L)

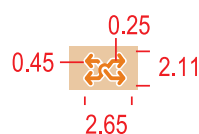
Uncrossable funnel tapes.

This symbol must be printed with a distinct darker purple to avoid markings being mixed up with course symbols.



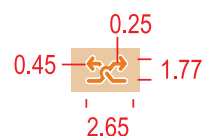
### 1776 Compulsory crossing (P)

Point where runners can pass straight ahead, but not turn sideways.



### 1777 Compulsory diagonal switch (P)

Point where runners must change diagonally to opposite lane. Runners may not turn back or switch lanes other than arrows indicate.



### 1778 Compulsory diagonal switch (P)

Point where runners must change diagonally to opposite lane. Runners may not turn back or switch lanes other than arrows indicate.

## 700 Course print

0.28

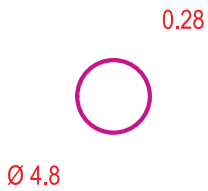


### 701 Start (P)

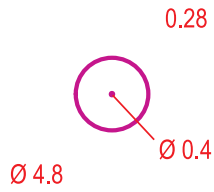
0.48



### 702 Map issue point (P)



### 703 Control point (P)



### 1703 Alternate control point (P)

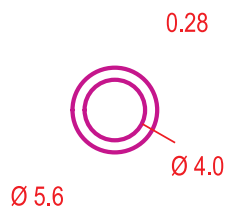
Control point showing exact location of control. This may be used to avoid misunderstandings about localisation among narrow walls.



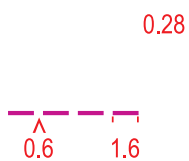
### 704 Control number (T)



### 705 Course line (L)



### 706 Finish (P)



### 707 Marked route (L)

## Control description



### 7.119 Pillar (P)



### **7.132 Toilet (P)**



### **7.133 Shower (P)**



### **7.134 Sink (P)**



### **7.141 Table (P)**



### **7.142 Cupboard / shelf (P)**

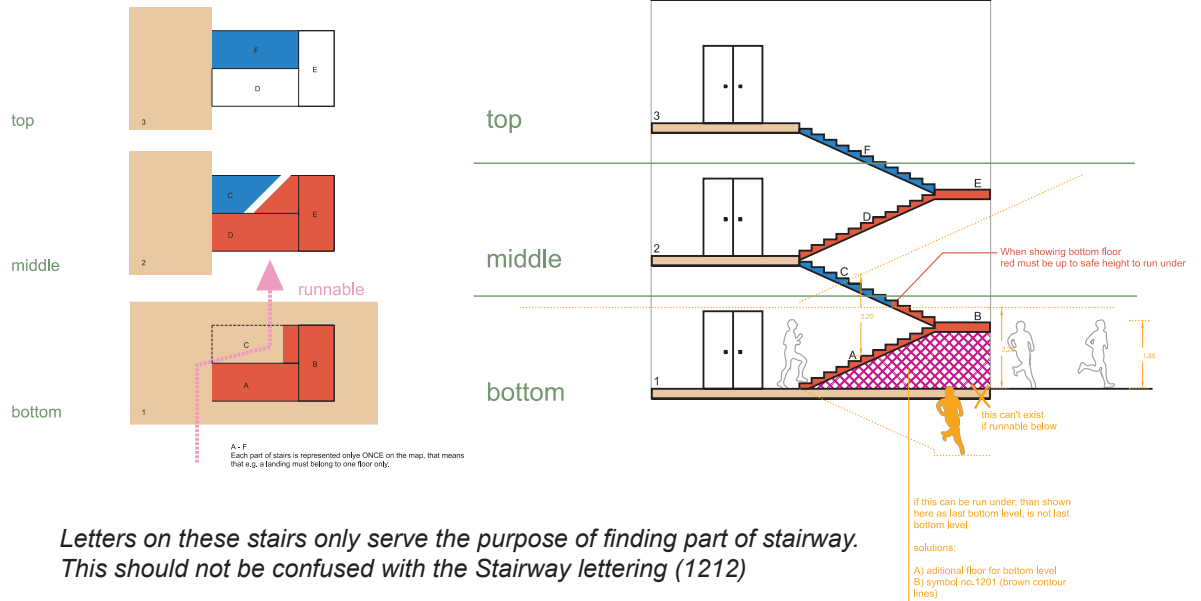


### **7.143 Couch / sofa (P)**

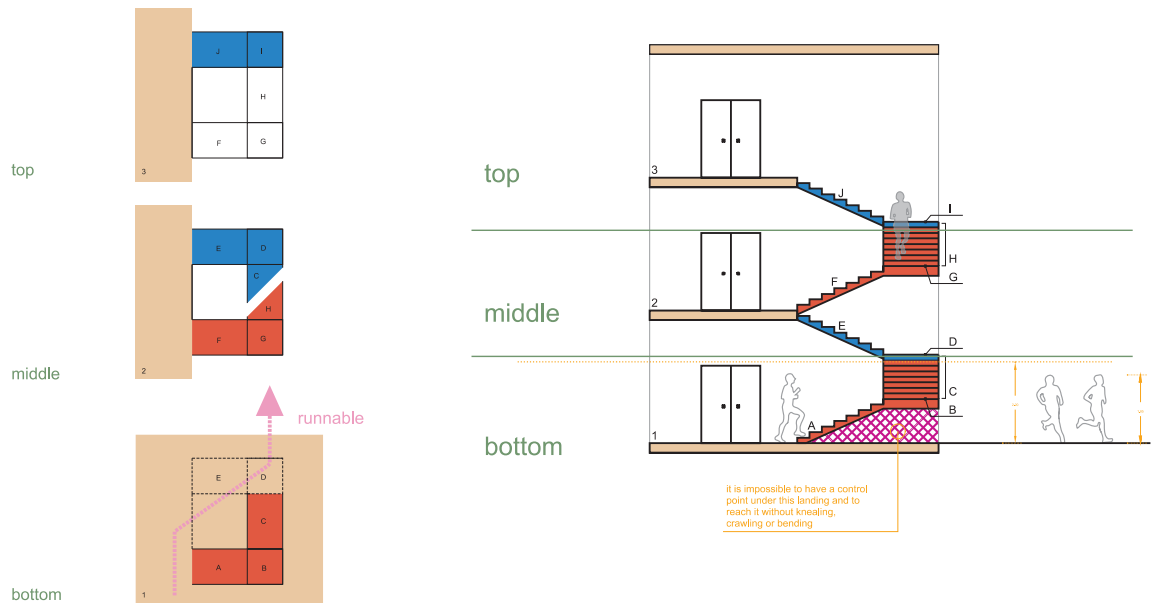
## Floors and stairs explained

Below figures show some common stairway types and how to divide floors.

### Example 1



## Example 2



### Example 3 – Spiral stairs

