

MAPPERS UPDATE

Updating maps to revised IOF sprint map specifications

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- Conversion of maps
- Field checking: new & changed symbols
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Welcome

ONSW: maps for all events from 1 February 2022 should be converted to ISSprOM.

Why?

- Sprint races should be enjoyable and fair.
- Your first event on a sprint map is really important.
- New maps are rare and great practice for major championships.
- We want sprint & school maps to be accurate, easy to read and compliant with the IOF Specifications.
- Helps build participation, helps with land owners

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How long does it take?

- Conversion: 1 hour +
 - Longer if its your first time
 - Longer if the map isn't tidy
- Field checking: ISSprOM adds an hour +
 - Field check to update map can take days (depends on size of map and what's changed)
 - Asking Mapping Officer for a Nearmap photo - this can save time and improve accuracy

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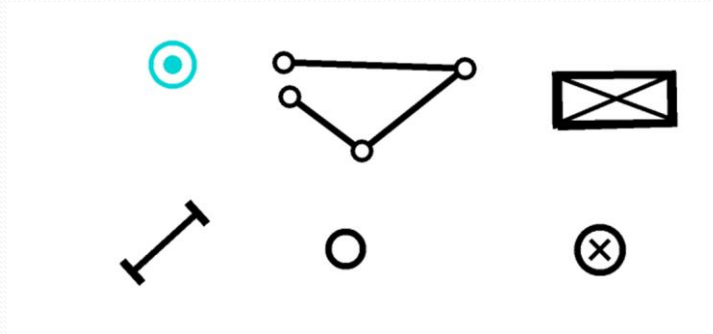
Definitions

- ISSprOM = new IOF Sprint Map Specification
- ISSOM = old IOF Sprint Map Specification
- ISOM = IOF forest map specification (used for bush and urban areas, 1:7500 to 1:15000)
- IOF Symbol Set for School Orienteering Maps
 - 1:1000 maps
 - based on ISSprOM
 - Adds symbols for seats, tables ...
- Field checking = checking an existing map to see that it is correct and up to date

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Extra school set symbols

Hydrant, playground equipment/football goal, table



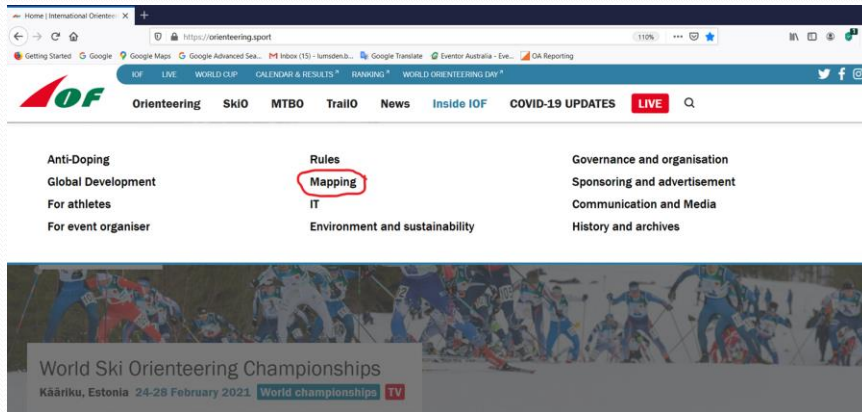
Seat,

pole/pylon,

lamppost

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Where to find map specifications



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Conversion

- Based on OCAD 2018
 - Ask ONSW Mapping Officer to do conversion?
 - Clubs might centralise to someone?
1. Tidy up the map
 2. Create Extra ONSW OK'ed symbols
 3. Convert map using Symbol Set Conversion
 4. Field check map & draw up changes
 5. Update legend

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Conversion – tidy up

You need to spring clean existing map first.

- Symbols that don't exist in or diverge from ISSOM – work out what to do with them
- When you have two of the same symbol
 - Change to one symbol; or
 - Rename symbol to show what it is
- If a symbol is not wanted, Select All Objects by Symbol → Hit Delete button on your computer → Select All Objects by Symbol again → if zero objects selected, Right click and choose delete. The symbol is now deleted from the map and the symbol selection.

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Conversion – create extra symbols

- See last slide: on Extra ONSW OK'ed symbols
- OCAD converts to Passable walls, for most NSW sprint maps it is probably quicker to convert to a Passable retaining wall
- OCAD 2018 has a line around a canopy –it might be easier to convert to a canopy grey infill symbol without the line
- OCAD 2018 does not have a form line slope line symbol

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Conversion – how to

- Look at OCAD Symbol Set Conversion [Wiki](#)
- Look at OCAD's Andreas Kyburz [video](#)

- Buildings in OCAD 2018 are drawn with a line around them. If that's not how you draw maps, some adjustments will be necessary.

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Lots of symbols

- Change shape
- Change size
- Have a minimum area or length

Eye check = look carefully at revised map to check its clarity.

It is worthwhile having another orienteer do this in addition to the mapper.

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Magnetic north lines

- If the map is not 1:4,000 but has 1:4,000 symbol sizes, the magnetic north lines should be 30mm apart.
- If the map uses enlarged symbol sizes, the gap between magnetic north lines will be enlarged proportionately.

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Field check – what has changed in ISSprOM

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Heavy v light traffic



In NSW:

- Brown 30% = no cars or pedestrians have priority over cars.
- Brown 50% = quiet roads, footpaths in busy areas (shops, stations)
 - NSW sprint races tend to avoid busy footpaths
- Brown 50% + purple hatch = roads where an orienteer is likely to wait for a break in traffic

➤ Safety.

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





Out of bounds

- Don't use 410 Impassable vegetation (100% green) for out-of-bounds gardens. Use 520 Area that shall not be entered (olive green).

ISSprOM: The area shall always be delineated by a boundary line (at least 0.1 mm in width).

- Most 520 areas in NSW have other features drawn at their edges; it is OK to do this.
- Mappers can also follow the ISOM specification that "if the border is unclear no black line shall occur".

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Forest	
ISOM 520 Area that shall not be entered Alternative for NSW events	
ISOM 708 Out-of-bounds boundary	
ISOM 709 Out-of-bounds area	
ISOM 711 Out-of-bounds route (Competitors are allowed to cross directly over an Out-of-bounds route)	
Sprint	
ISSprOM 201 Impassable cliff	
ISSprOM 301 Uncrossable body of water	
ISSprOM 307 Uncrossable marsh	
ISSprOM 410 Impassable vegetation	
ISSprOM 515 Impassable wall	
ISSprOM 518 Impassable fence or railing	
ISSprOM 520 Area that shall not be entered	
ISSprOM 521 Building	
ISSprOM 529 Prominent impassable line feature	
ISSprOM 708 Out-of-bounds boundary	
ISSprOM 709 Out-of-bounds area	
ISSprOM 714 Temporary construction or closed area.	

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Land owner says orienteers shall not cross

- If the public does not cross – use olive green
- If the public does cross – use purple hatch (eg very busy road)
- Water that is passable – use uncrossable water symbol
- Marshes – use uncrossable marsh symbol
- Passable fence or wall – overlay symbol with purple line (708 Out-of-bounds boundary)

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Scale of sprint & school maps

NSW Champs and National events:

- 1:4,000
- 1:3,000 enlarged from 1:4,000
- Other scales would need a Rule Deviation

Other events – as above plus:

- 1:2,000 through to 1:5,000 – use ISSprOM symbol sizes for 1:4,000
- 1:1,500 or larger (1:500?) – use IOF Symbol Set for School Orienteering Maps

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Contour interval

ISSprOM:

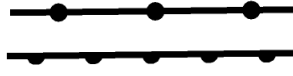
- 2.0 or 2.5m
- 5m in steep areas is allowed.

Other intervals OK for minor events, not encouraged.

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Passable wall

Passable retaining wall



- Is it a retaining wall? (change symbol)
- Which way does it slope? (reverse direction?)
- Higher than 1.5m? (change to impassable wall);
- If it is a retaining wall, is it lower than 0.6m? (change to step)
- If it is not a retaining wall and is lower than 0.6m? [ONSW - delete it?]
- Is it longer than minimum length for isolated walls of 1.4mm (passable wall) or 2.4mm (retaining wall)? (delete or ONSW: use non-standard wall without dot symbol – only if the wall is very obvious)

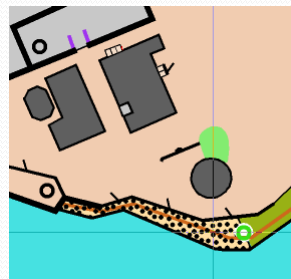
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Fight - 1

There is not a symbol in ISSprOM for Fight vegetation (1-20% of normal running speed).

No 100% green, 50% black symbol in ISSprOM.

Solution 1: show small bits as Walk – people will run around Regardless.



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Fight - 2

It's awkward to DQ someone who passes through impassable vegetation.

Solution 2 – show fight as impassable.

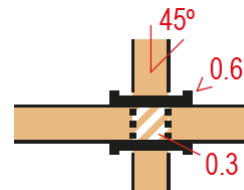


Event info says 410 Impassable includes fight. DQ those who pass through.

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Multi-level structures

- New symbol
- Don't be too ambitious.
- You only have one sheet of paper, so it's hard to map two or more levels.
- The tests are:
 - Can runner at speed understand map and terrain?
 - If they get lost can they relocate easily?
- If you are not sure whether to map two levels, talk to other mappers or experienced orienteers.



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Vertical dimensions change

- Cliffs 1.5-2.0m high are now impassable

Now show:

- Knolls 0.5-1.0m high
- Boulders <1.0m high
- Depressions & pits 0.5-1.0m deep
- Small fountains or wells 0.5-1.0m high

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Stairways - 1

- Stairways have big footprint – map & draw complex areas first.



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Stairways - 2

- Cut contours at stairways

ONSW:

- OK to only have line, gap, line (IOF min is 3 graphical steps)
- Comply with 0.4 x 0.4 mm per step min area – legibility!
- Infill: paved area (usually 30%), canopy, open land, Area that shall not be entered (olive green)
- Sides:
 - If you can run across stairway at right angles: 0.1mm black line
 - Otherwise, use relevant symbol – eg impassable wall

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Stairways - 3

- If a stairway goes up or down to an unmapped level, use an impassable wall to end the stairway.



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Distinct cultivation boundary



IOF: between cultivated land (crops), orchard, vineyard

ONSW:

- Use for distinct boundaries for any change in manmade vegetation.
- Nearly all vegetation on an urban sprint map is manmade.

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Open land



IOF:

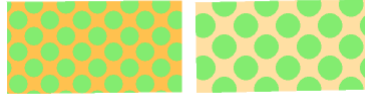
- adds bark mulch to the definition
- old & new specification = “without trees”

ONSW:

- OK to show a prominent tree
- OK to show a prominent bush
- OK to show more than one widely separated trees or bushes

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Open land or rough open land with scattered bushes



Running speed:

- open land – very good runnability or better runnability than typical open forest
- rough open land - same runnability as typical open forest
- calculated point to point, not over distance travelled.

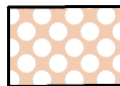
Green = slow running.

- Use the new symbol sparingly.
- Think of alternatives.

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Other new symbols

- Paved area with scattered trees



- Small footpath in urban area – stepping stones



- Boulder cluster



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Field check - other things to consider

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Prominent features



Point features on should be:

- consistently prominent
- few in number (unless other features are lacking);
- definable; and
- fixed in the terrain.

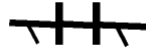
More important in sprint maps than ISOM maps. Why?

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Crossing point



- Not often shown on a sprint map
- OK to use a closed crossing point symbol for a gate that is normally closed and can be opened



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Canopies

- If it looks like there is a canopy show it – wisteria arch
- If there is a mappable canopy show it, unless ground level:
- would normally be mapped as slower than open land
 - is out of bounds
 - there are numerous features that would normally be mapped eg under Sydney Harbour Bridge approaches.

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Extra ONSW OK'ed symbols

- Impassable cliff, no tags, OK to have rounded ends if needed to distinguish from impassable walls
- Passable wall or retaining wall –without the dot
or Passable fence – without the tag.

When?

- shape – eg not very long curved walls
- proximity to other features
- wall is obvious, but shorter than specification.

use 0.21mm black line

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