

MAPPERS UPDATE

Updating maps to revised IOF forest map specifications

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Welcome

The International Orienteering Federation has updated its foot orienteering map specifications.

We haven't moved to new IOF specifications.

We also need to harmonise out-of-bounds symbols.

We need to do both in a sensible and co-ordinated manner.

Definitions

- ISOM = IOF forest map specification (used for bush and urban areas, 1:7500 to 1:15000) - now ISOM 2017
- ISSprOM = new IOF Sprint Map Specification
- ISSOM = old IOF Sprint Map Specification
- 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
- Conversion = at desk work on a map to change it

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Overview of what is happening

1. ISOM:
 - Quick change of some symbols to ISOM 2017 – symbol changes will be noticeable by all regular orienteers
 - Harmonise out-of-bounds symbols
 - Events from 1 October 2021
2. ISSprOM:
 - Convert and field check maps so they comply with ISSprOM
 - Events from 1 February 2022

After 1 & 2, mapper and course setters will need to stick to the Mapping Specifications!!!!

3. NSW school maps – training of mappers

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Tonight's talk

General interest

- Overview of mapping improvements in NSW

Mostly for mappers and people with a keen interest in maps, eg controllers, course setters

- Forest/urban maps: ISOM to ISOM 2017 – quick update
- Harmonisation of out-of-bounds on ISOM 2017 maps
- Quite a bit of work at a computer (1 hour+ per map)

Events from 1 October 2021 on converted maps

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Future

Separate talk

- Convert & update sprint maps: ISSOM to ISSprOM
 - Quite a bit of work at computer – OCAD 2018, Open Orienteering Mapper??
 - Field check required

Events from 1 February 2022 on updated maps

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Other mapping projects

Also happening

- NSW mappers complete a survey
 - What types of mapping they do
 - What do they want to do
- Upgraded ONSW website on mapping

Medium term project

- Improving ONSW school map quality

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ISOM maps

- Group A and B events – NSW Champs and above
 - should be on maps that most orienteers believe are ISOM 2017 compliant (we are still working out what this means)
 - maps should be accurate and up-to-date, probably needs a field check (or a new map)
 - can be weeks of work – regardless of the change to ISOM 2017
 - Maps need to be more comprehensively converted to ISOM 2017 and field checked
- Group C events – State Leagues, Xmas 5-Days and below
 - From 1 Oct 2021: Should be on maps that are quickly converted to ISOM 2017 & with harmonised out-of-bounds
 - Course setter & controller arrange to update map if they see errors

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ISOM to ISOM 2017

Convert to ISOM 2017. Why?

- Some changes to help colour impaired vision orienteers
- Some changes to help orienteers who are used to ISOM 2017 maps
- Remove some outmoded symbols


















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Out-of-bounds

Consistency with IOF Map Specifications:

- reduces out-of-bounds breaches.
- helps assuage land owners who have doubts about orienteering
- is fairer to those orienteers who:
 - do not read or hear instructions;
 - speak another language;
 - tend to forget things; or
 - concentrate 100% on the map when they orienteer.
- is important when out-of-bounds symbols mark dangerous areas

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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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Sprint & school maps

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.
- Many orienteers' first event → consistency makes next events easier
- We want sprint & school maps to be accurate, easy to read and compliant with the IOF Specifications.
- Helps build participation, helps with land owners

School maps

ONSW Sporting Schools work has produced 230 Schools (1:500 to 1:1500 maps)

- harmonise on the new IOF School Map Symbol Set,
- work on improving ONSW school map quality – test run for a broader process
 - Probable process: Zoom session, web based Q&A, walk on map with ‘guru’, ONSW assesses one completed map, maps go on Omaps (link)
 - Use an ONSW map format template

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How long does it take?

- Conversion & harmonise out-of-bounds: 1 hour +
 - Longer if its your first time
 - Longer if the map isn't tidy
- Field checking – NSW Champs and above:
 - Time to change to ISOM 2017 will vary
 - Field check to update map can take days or weeks (depends on size of map and what's changed)
 - Asking Mapping Officer for a Nearmap or other photo can save lots of time and improve accuracy
 - Important to talk to Mapping Advisory Group before you start!

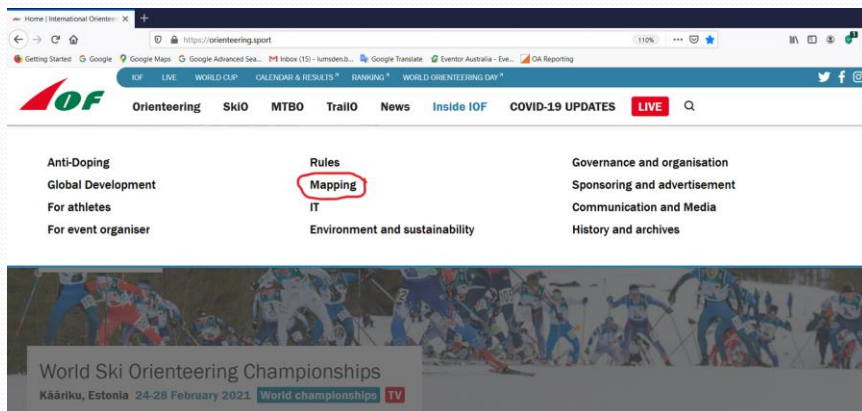
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ONSW mapping officials

- Mapping Advisory Group: Carol Jacobson, Andrew Lumsden, Hamish Mackie, Robert Vincent
- Mapping officers: Barry Hanlon, Hamish Mackie
 - Provide mappers with base maps, NearMap or other aerial photos
 - They might need some assistance if lots of people ask them to convert maps

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Where to find map specifications



The screenshot shows the IOF website with the following navigation structure:

- IOF Logo
- Navigation: Orienteering, SkiO, MTBO, TrailO, News, Inside IOF, COVID-19 UPDATES, LIVE
- Menu Items:
 - Anti-Doping
 - Global Development
 - For athletes
 - For event organiser
 - Rules
 - Mapping (circled in red)
 - IT
 - Environment and sustainability
 - Governance and organisation
 - Sponsoring and advertisement
 - Communication and Media
 - History and archives
- Footer: World Ski Orienteering Championships, Kääriku, Estonia 24-28 February 2021, World championships TV

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ISOM - Out-of-bounds conversion

See “ONSW Guidance for Mappers Out-of-bounds Symbols –ISOM” on ONSW website.

- This presentation is based on the Guidance
- There is a bit more detail in the Guidance
- ❖ Conversion will not be a straight old to new symbol conversion.
- ❖ Some knowledge of the area, checking with Google/SIX Maps or Google Street view might be needed
- ❖ Some field checking might be necessary

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Application

- Includes maps that look like an ISOM map
- Excludes maps that don't (eg Newcastle street series)
- Excludes sprint, school, MTBO, Ski-O maps

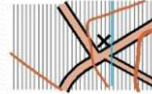
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Residential and private property - 1

- Olive green in accordance with ISOM 2017



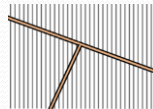
- Use ONSW symbol
 - Chosen in a survey of Sydney Summer Series competitors
 - Good for vision impaired
 - Differentiates private property from out-of-bounds bush
 - Much, much faster to map and draw
 - Less fussy to read



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Residential and private property - 2

- Black 50%, 0.20mm line width, 0.70mm distance between lines. The lines are oriented to North.
- Some additional guidance:



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Olive green

- Use for areas that are permanently out-of-bounds to orienteers, that are not clearly private property. You can add text (eg motorway).
- Examples include:
 - railway line reserves, motorways,
 - schools (eg that are sometimes used by the public and/or orienteering),
 - large gardens,
 - tennis courts,
 - petrol stations on street corners where competitors can short cut

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Out-of-bounds forest

Forest where orienteers can run on tracks only (check Council Bushland Plans of Management, National Parks Plans of Management, etc)

- Forest that is partly out-of-bounds
- Leave a gap beside tracks
- Can add text – ‘stay on tracks’

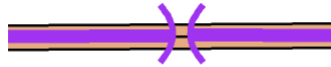
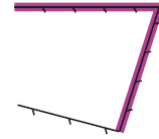


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Out-of-bounds boundary

Use:

- On any linear feature that its not allowed to cross
- fences, walls, busy roads, creeks
- edges of areas that are out-of-bounds – for example mangroves, out-of-bounds forest
- Crossing point symbol:



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Uncrossable marsh

If we or landowner do not want orienteers to cross a marsh.

Show as uncrossable marsh with an Out-of-bounds boundary.


Mangroves:



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Out-of-bounds area

Temporary out-of-bounds areas.

- areas open to the public, but not to orienteers,
eg a sporting field
- areas that have been mapped, but are 
not open to orienteers at this particular event (eg a school)
- construction sites – which can change or disappear
between course setting and the event.

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Legend

Out-of-bounds areas should be shown on the map in a legend.

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Scale

OA:

- Long distance 1:15,000 (Elites) or enlarged to 1:10,000 (non-elites)
- Other distances: 1:15,000 or enlarged to 1:10,000
- Very easy: 1:10,000, 1:7,500 or 1:5,000
- 2021 rules may allow 1:7,500

NSW Group C events:

- OA scales plus:
- 1:10,000, 1:7,500 or 1:5,000 with symbols the same size as on a 1:10,000 ISOM 2017 map

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Contour interval

ISOM:

- 5 metres; or
- 2.5m if the area is uniformly flat

NSW Group C events:

- 5m or 2.5m
- If map has another interval
 - does not show terrain well, fix when map is next field checked
 - Shows terrain well – fix when map is next field checked, if this doesn't take too much work

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ISOM to ISOM 2017 conversion

- Easiest to do this in on OCAD 2018
- Change the symbols in the slides below
- Ask ONSW Mapping Officer to do conversion?
- Clubs might centralise to someone?

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Point features

ISOM:



ISOM 2017:



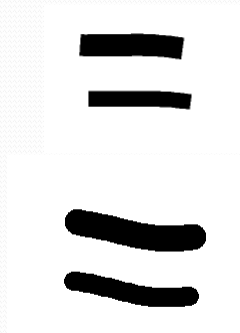
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Round cliff ends?

Might do this if there are a lot of tracks.

Tricky - OCAD lengthens lines when rounding

ISOM:



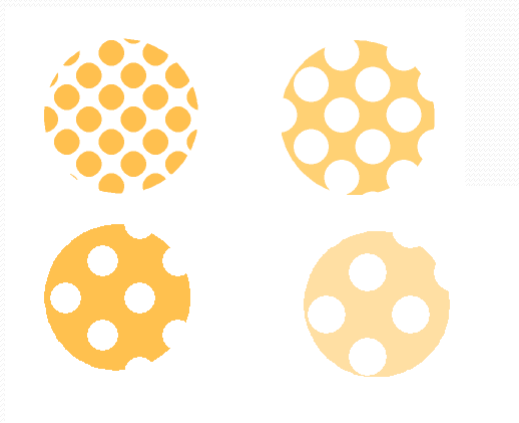
ISOM 2017:

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Open land with scattered trees

Rough open land with scattered trees

ISOM:



ISOM 2017:

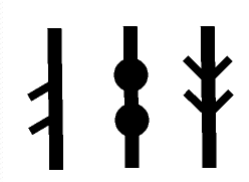
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Impassable fences, etc

Line width increases for:

- Impassable fences
- Impassable walls
- Impassable prominent line features (eg pipelines)

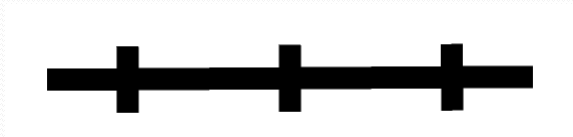
At 1:10,000 line width will be similar to the ISSprOM symbol.



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Railway

ISOM:



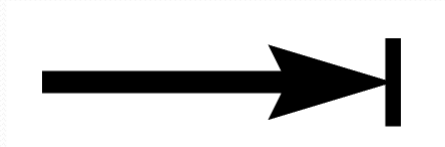
ISOM 2017:



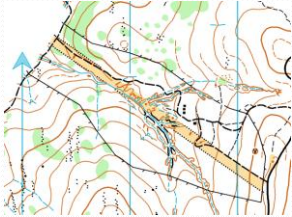
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Firing range

ISOM:



ISOM 2017:



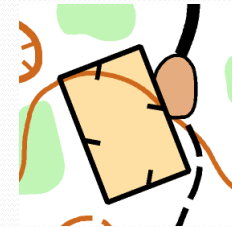
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Grave

ISOM:



ISOM 2017: 3 choices



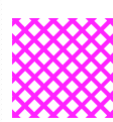
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Out-of-bounds area

ISOM: Out-of-bounds area



Dangerous area



The ISOM colours should be the same as ISOM 2017.

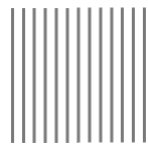
ISOM: 2017: Out-of-bounds area



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Residential and private property

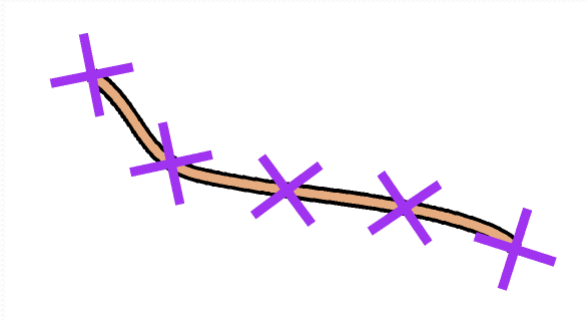
- It isn't in ISOM 2017, but change symbol on map to:



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Out-of-bounds route

- Ensure the X's are between 4 and 6mm apart.



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Magnetic north lines

ISOM 2017:

- If the map uses enlarged symbol sizes, the gap between magnetic north lines will be enlarged proportionately.
- magnetic north lines are 300m apart on the ground. That is 20mm at 1:15,000, 30mm at 1:10,000 and 40mm at 1:7,500.

ONSW:

- If the map is not 1:10,000 but has 1:10,000 symbol sizes, the magnetic north lines should be 30mm apart.

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