

ONZ Mapping Committee, 2 July 2017

Changes to our Maps

To all Mappers

The IOF has agreed a new mapping specification for standard orienteering events. Orienteering NZ has adopted the following timescale: optional during 2017, applicable for ONZ events from 1 Jan 2018.

A paper summarising the changes for participants has been published. This paper outlines the changes for mappers.

“ONZ events” means those given “A status” by the federation. We know that it will take time to convert all existing maps for lesser events. We have recommended to the Technical Committee that organisers should advise which specification their maps use.

A [detailed list of changes](#) has been posted by the IOF here.

Starting a New Map under ISOM2017

Three sections: Fieldwork, Drawing and Course Setting.

Fieldwork

There has been no change to the requirement to map as if for 1:15,000. This is an area which NZ requested more flexibility on, to cater for terrains in between “suitable for the long distance” and “suitable for the sprint”. The Technical Committee has shown no alarm at larger scales in very complex terrain. However it’s very worth reading the sections on generalisation, minimum dimensions, and gaps. It’s worth re-reading the spec in detail once a year, we reckon. You can find the [full new specifications](#) on the IOF website.

If you have based your fieldwork code numbers on the IOF symbol numbers, the stream and road/track numbers have changed.

You may need to incorporate additions to cope with

- 2 categories of broken ground (does and doesn’t affect runnability)
- 2 categories of boulder field (does and doesn’t affect runnability)
- 3 categories of stony ground (slow run, walk, fight speeds)
- 3 types of water edge
- 2 sorts of paved area boundary
- 2 sorts of smooth open with scattered trees
- 2 sorts of rough open with scattered trees

Features that have changed

- Water trough: now a blue asterisk. There is no blue circle any more.
- Water tank: now a hollow blue square. There is still the black circle – we suggest not using it as for some years we will have old maps where this means tank.
- Firing range: no longer available – use out of bounds

- Grave: no longer available – we suggest using a black cross and defining it in the legend
- The pipeline symbol has been extended to other prominent line features – e.g. luge or giant slide.
- There are just two sorts of out of bounds now – where you want to show detail (black stripe), and where you don't (olive green). Olive green may become more common.

The Mapping Committee has prepared a one-page “fieldwork legend” of the new symbol numbers. It might be useful to laminate it and tape it on the back of your mapping board. You can find it on the ONZ website in the Mapping Resources.

Drawing

Users of OCAD 12 at level 12.2.1 can access a 2017 symbol table under File->New. Note that OCAD's symbols and colours change slightly from time to time, there have already been some changes to their first-issued symbol set.

Users of OCAD 11 can download a symbol set and install it in their Program folder (see the link half way down this [ISOM topic in the OCAD blog](#))

Note that this symbol table is an interpretation of the specification by a software supplier, it's not the definitive statement. The same goes for the CMYK colour table.

Users of other versions of OCAD should contact their club mapping coordinator or the ONZ Mapping Committee to discuss options.

Users of OOM will have to work with the new specification too. We don't have any advice as yet.

Drawing items that have changed

- You don't need to show detail in olive green – just contours, railways and large buildings.
- Buildings larger than 75m X 75M may have the sprint-type outline with grey infill. Pass-throughs larger than 9m X 9m may be drawn with the sprint-type outline with light grey infill.
- In OCAD 12 there are area symbols for broken ground, stony ground and boulder field which supposedly provide the “random” pattern that the spec talks about. The symbol has the nice feature that it doesn't cut off part-dots on the edge of the area. It may be a challenge to avoid obscuring e.g. contour lines, and you may prefer to hand-place single dots or triangles using the area symbol as a guide for density. In OCAD 11 you don't get either the random pattern or the freedom from edge effects, you are probably best to hand-place, as now.
- The symbol set contains “area” symbols to draw north lines at the required spacings – it's now 300m. There are some other handy things such as area symbols with and without boundary (lake, out of bounds etc.). You may have defined time-savers like this yourself, but OCAD has done it for us 😊 No doubt we'll have to do some ourselves, such as fence varieties, preferred text symbols.
- If you have your own symbol variations (e.g. fence to be hidden on some maps) your numbering will be upset by the new specification. Michael Wood has documented his variations and given them a new numbering which he hopes will stay clear of present IOF and OCAD numbers. Here is a link to [Michael's symbol extensions](#).

Course setting

If you use OCAD 12, there's a 2017 option for a course setting project. You will find circles etc smaller at 1:15,000 (5mm dia instead of 6) but 150% at 1:10,000. Enlargement or not was a user's choice before.

If you use other course setting software, they may handle the circle size differently. To take a popular scale, ISOM2017 specifies 7.5mm circles for 1:10,000.

You can have a marked route leading from the map issue point to the triangle. Your course setting software may or may not be able to do this.

Converting a Map from ISOM2000

Read the [full new specifications](#) on the IOF website.

Assume:

Assume your existing map (A) that you want to convert complies exactly with the most recent OCAD colour and symbol numbers for ISOM 2000.

Then:

1. Read the [OCAD blog item about symbol sets](#). If you are using OCAD 11 there is an extra step you'll have to do to get the new symbols
2. Make a copy of your map A. Do not start by trying to convert your original file.
3. In the Map drop-down menu, 'Load colours and symbols from'... and find them in the OCAD program subfolder \symbol\ Look for the appropriate ISOM2017 symbols file.
4. There's an option to "use CRT file". Tick it, and "Load"
5. The CRT file does the translation, it's like "change every X to a Y". You find the CRT file in the OCAD program subfolder \crt\, it's called ISOM2000 to ISOM2017. Open it.
6. Then you can "OK" to carry out the colour/symbol change.

Reality:

It's rare to have a symbol set that exactly matches the OCAD default. Any extra symbols that you had defined, e.g. text of various sizes, fence on some maps only etc. will be unknown in file B. They'll just be purple or grey lines/symbols/areas. This means they have converted incorrectly or not been assigned.

It's even possible that a symbol set that has been "passed down" from long ago has valid but different numbers. It's possible to get green X's turned into green circles, or worse! Take a close look.

Next steps:

So, now you need to identify what your variations on map A were from the default. Open both alongside each other and it's quickly obvious. You are going to have to learn to construct or at least edit a CRT file. This is a text file with a line for every symbol, and its new symbol number. The

Mapping Committee has modified the OCAD 2000/2017 CRT file to include the words corresponding to the numbers, this may make it easier to work with. Find it on the ONZ website under “Mapping Resources”. The Committee calls it the “ONZ Vanilla CRT” because it is stock-standard, no changes except for adding the words..

Fix a copy of the CRT file to include these all the variant symbols for THIS map (chances are the next map you try to convert will have different variations). Save the new CRT file with this map.

Make a new copy of map A and repeat the conversion steps above.

The other thing to look closely at is whether any symbols have got larger, and objects are now too close together, for example the distinctive tree has changed from 0.8 to 0.9mm outside measurement. Don't change the symbol back to the incorrect size, fix the map. The point of the new specification is ***more legible maps***.

Conclusion

If you have been a tidy worker, you may only need to make one CRT file for all your work – Michael Wood has made one for some of his maps and posted it on the [Mapping Resources section of his MAPsport website](#). But Michael reports that he is modifying this all the time as he comes across numbering variations. Name your CRTs to reflect the files they work for.

Remember you now have a Swiss colour table. Your club may have “tuned” its colours to suit your regular printer - consult your club mapping coordinator. Colour numbers (invented by OCAD) have changed which may affect your map conversion. The only true test is an actual print run at the printer your club uses for events. The computer screen, and your home printer look different.

This advice was prepared quickly, and does not purport to cover all situations. Mapper feedback is invited. We will share additional advice through a new version of this paper, or ONZ Mapping Bulletins.