

Know your sport

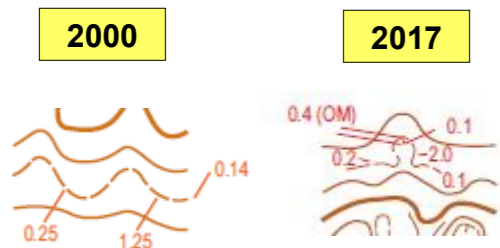
ISOM 2017: The new map symbols explained



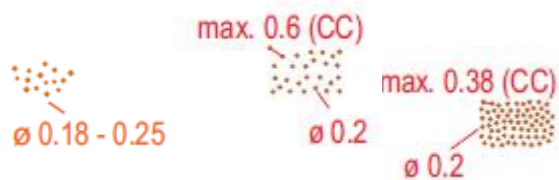
For a fair orienteering competition, it is fundamentally necessary for all competitors at an event to have the same understanding of the symbols used on the map. This applies both at international events and at the smallest local competition. To achieve this, the International Orienteering Federation adopts an approved listing of symbols and includes instructions on such things as the size of the symbols and the thickness and colour of the lines. Mappers then use these when drafting the map for an event. For the last 17 years, orienteering maps have been based on a version adopted in 2000. Earlier this year a new version was agreed and published as the **International Specification for Orienteering Maps** - known as **ISOM 2017**. Although much has remained the same, there are important variations. Here we provide a summary of the main things which have changed.

Good luck everybody !

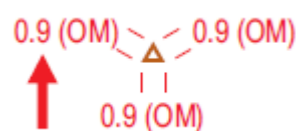
Landforms [Brown symbols]



Form Lines: The change here is to reduce the thickness of the line. Previously the form line used the same thickness as the standard contour (0.14mm). Now it is slightly thinner (0.10mm) reducing the problems of gaps between symbols.



Broken ground: There are now two different symbols. The more open symbol represents broken ground where there is 'little impact on runnability'; the denser spaced dots is used when the broken ground 'affects runnability'.



Prominent landform feature: For the IOF, this is an entirely new symbol. However here in the UK we have used an approved national symbol for a 'platform' (a flatter area of ground on a slope). This was a solid brown triangle with a point facing down the slope. This new symbol has more general use but its definition must be given on the map.

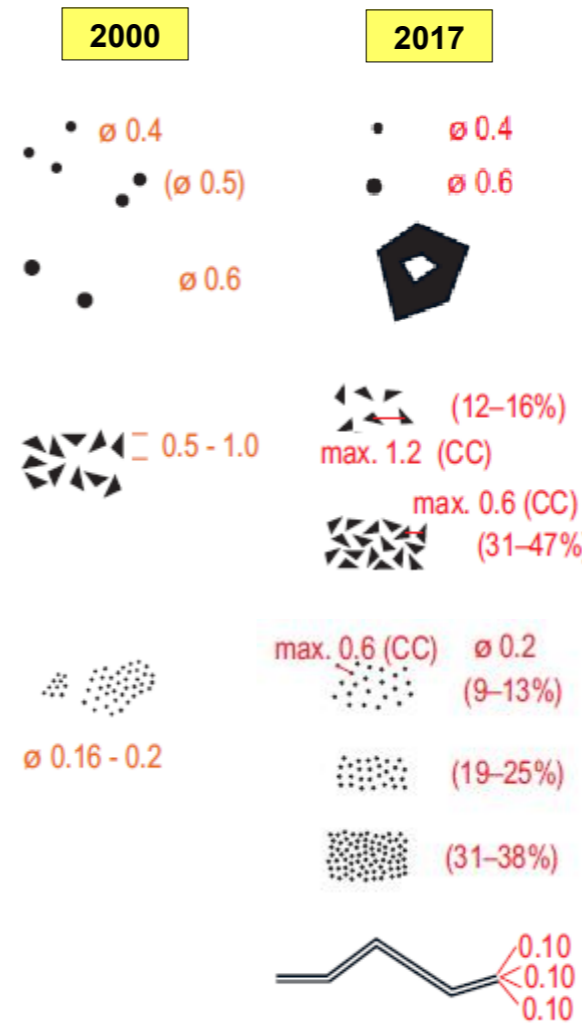
For a copy of the new **ISOM 2017**, see:

- http://orienteering.org/wp-content/uploads/2017/04/ISOM2017_20May2017.pdf

The description provided on this pages follows the information provided by the IOF in a separate document available at:

- http://orienteering.org/wp-content/uploads/2017/04/Changes_from_ISOM2000_to_ISOM2017.pdf

Rocks and Boulders [Black symbols]



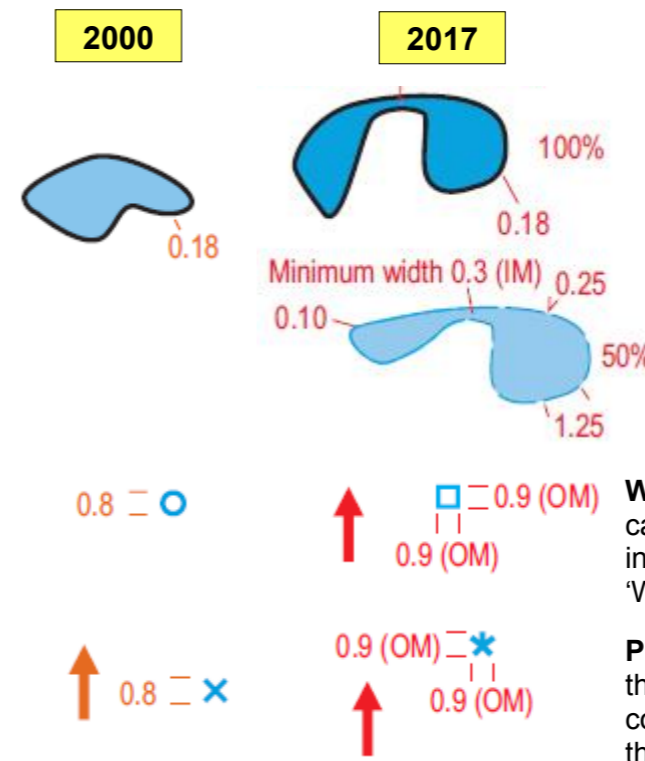
Boulders: There are now three separately defined boulder symbols: '**Boulder**' (1-2m), '**Large boulder**' (more than 2m) and the new '**Gigantic boulder**' (a 'boulder that is so high and steep that it is impossible to pass/climb.').

Boulder fields: In 2000 a single symbol was provided for a boulder field although the specification did state that 'the going is indicated by the density of the triangles'. Two separate types of boulder field have now been defined. The upper symbol is used when the boulder field 'will generally not impact runnability'; the lower symbol for a '**Dense boulder field**' is to be used when 'the runnability is affected'.

Stony ground: As with the boulder field symbol, the stony ground symbol has been expanded to emphasise the relative runnability of the terrain. The 2000 specification indicated that the density of dots would indicate 'the amount of rock'. Now the three symbols are for '**stony ground - slow running**', '**stony ground - walk**' and '**stony ground - fight**'.

Trench: A new symbol for 2017 is for a 'rocky or artificial trench'. Note however that they state that 'collapsed and easily crossable trenches should be mapped as erosion gullies'.

Water and Marsh [Blue symbols]



Body of water: In the 2000 specification there was a single symbol for 'lake'. However variation was possible as it stated that 'a black line around a water feature indicates that it cannot be crossed under normal weather conditions.' Now this has been introduced more formally with two separate symbols. The top symbol is for an '**Uncrossable body of water**'. The lower symbol is for a '**Shallow body of water**'. Although in this case the blue colour would usually be 50%, for small ponds in can be 100% (but with no line).

Well, fountain or water tank: A small change which, in this case, is to benefit colour vision impaired runners. However in the 2000 specification the circle was simply used for a 'Well' but the new version has a much wider usage.

Prominent water feature: Another small change. In 2000 the blue cross was for a 'Special water feature'. Now this is converted to a blue star (and oriented to north) - also to help those with colour vision impaired vision.

Vegetation [Greens and Yellows]



Open land with scattered trees: In this case the colours have been inverted and now may be white (scattered trees) or green (scattered bushes/thickets).

Vegetation, slow running: This change is minor but it is apparently 'to restore the logic of the ISOM.' However, when printed, the screen may appear quite faint - which might be why 30% was adopted in 2000.

Vegetation, slow running, good visibility: This was formerly known as 'Undergrowth: slow running'. In fact there has been no real change but is included for comparison.

Vegetation, walk: As with the screen for 'slow running', the one for 'walk' has been slightly reduced to a 50% green screen.

Vegetation, walk, good visibility: Can you spot the difference? By having thicker lines and a darker green (from 28.6% to 33%) in order 'to give a green impression that corresponds better with the runnability.'

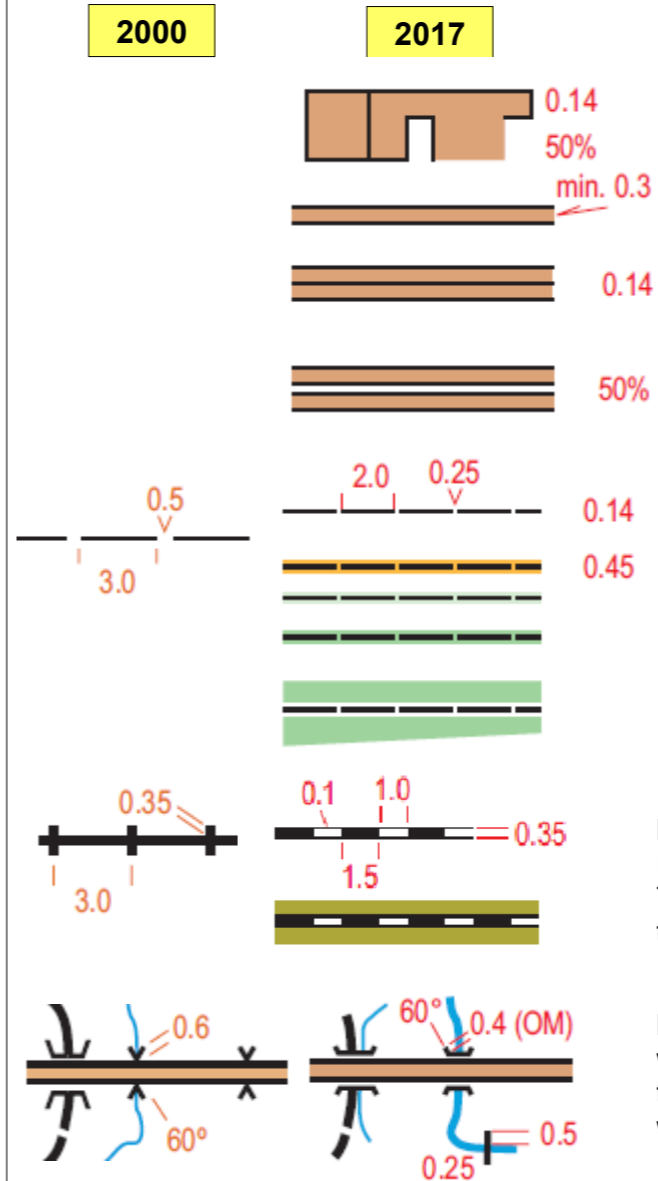
Vegetation, fight: Although in this case the screen has remained the same, the previous terminology for this symbol was 'Vegetation: very difficult to run, impassable'. This change is to allow the new symbol below to be introduced.

Vegetation, impassable: A new symbol with 100% green + 50% black - the same as the symbol used in sprint maps (ISSOM). The specification states: 'An area of dense vegetation (trees or undergrowth) which is effectively impassable. Most useful for narrow and small areas.'

Distinct vegetation boundary: A new alternative symbol is provided for this. The intention is for it to be used in areas with many boulders so as to avoid confusion. However any map must only use one option.

Prominent large tree / Prominent bush or tree / Prominent vegetation feature: For those used to sprint maps, this might appear no change. Previously the three symbols were alternatives for 'Special vegetation features'. Now this only applies to the cross.

Man-made features



Paved area and Wide road: This is another change linked to trying to make ISOM closer to the sprint version (ISSOM). By newly adopting the ISSOM symbol for a paved area, this allows for its additional use in the more accurate representation of various types of 'wide road'. The 2000 version has separate symbols for 'Motorway', 'Major road' and 'Minor road'. These are now included as different variations of the 'Wide road' symbol as shown here.

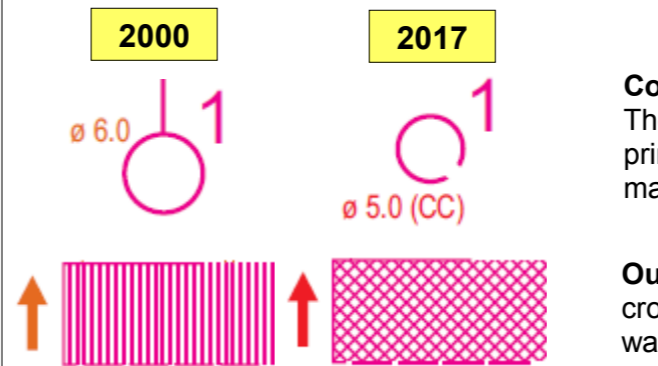
Narrow ride or linear trace through the terrain: Now, in addition to providing an indication of the location of a 'Narrow ride', there is the new requirement to show its relative runnability by adding an additional slightly wider colour line. This will require mappers to reconsider all the rides on current maps. Also notice that the dashes are shorter with a small gap between them.

Railway: This is yet another change to adopt the ISSOM symbol to provide greater consistency. The use of the additional green band indicates that the line is uncrossable.

Bridge / tunnel: These now use a single symbol with the use of the 'v' being discontinued. Note that the symbol is only used to show places which a runner can use.

Deletions: Two symbols specified in 2000 have been deleted - the 'Firing range' and the 'Graveyard'.

Overprinting symbols [Purple symbols]



Course symbols (Start triangle/control circles / finish): These have all been slightly reduced in size for printing at 1:15000 but will be enlarged (to 150%) for maps using a 1:10000 scale.

Out of bounds: This will now be shown with a crosshatch rather than just vertical lines. For 2000 this was only used for 'Dangerous area'.

It is also important to know that maps printed at 1:10000 will now be a simple enlargement of the equivalent version of the map at 1:15000. All the dimensions shown here are for printing at 1:15000. Finally, as part of this, magnetic north lines will now always be 300 metres apart - 20mm on a 1:15000 map or 30mm on a 1:10000 map.