

Condes tips – especially for preparation for printing

Condes is powerful and friendly software, but it takes a lot of exploring to discover all its features. First time, get a demo from a regular user. There is hover-over-the-icon help and a good manual (<https://condes.net/support/condes-users-guide/>). The manual is huge but you can get started with the few “Quick Start” pages.

This guide provides tips to improve the quality of your maps when printed.

Conventions:

- black text explains **how** to do it
- *brown italic text discusses why to perform an action*
- underlined text are labels exactly as you will find them in Condes

For OST and Championship events only - before you start course planning ...

1. download the appropriate Class and Course groupings for Condes from the OT Resources > Organisers Toolkit section of the OT website.
2. Once you have initialised your new event in Condes, import the above file via Class > Import classes... Use the option Copy entire Objects
3. Name your courses exactly "Course 1" and so on, so that these names match the course-class table you have just created.

The course-class table can instead be imported after course planning, but do it first so it is not forgotten.

Print Area: Page size, orientation, map scale

It is best to look at page size and orientation at the outset to avoid later finding your courses do not fit on the page. It is preferred to print maps at their intended scale (because the level of detail and symbol sizes are appropriate to that scale.) Despite this we do often print shorter courses at larger scales, partly to assist readability for older or novice orienteers.

Different courses can be printed at different scales, page sizes, orientations, or just shifted frames. However, each change makes work and potential for errors for you (placing labels and control descriptions differently) and for the printer. There are also implications for control circle size.

Remember that controls should not be right on the edge of the page because printing margins may vary, valid route choices may be lost, and a runner who slightly overshoots a control should not be plunged into terra incognita.

Initial consideration of page frame

From the Print Area menu, select Resize to fit page size. Select A4 or A3 from the Page Size list and then Do Resize. This frame can now be dragged around and changed in orientation to let you work out the extent of your courses. (Before dragging the frame, shrink the blue outline to match the grey standard-page shadow frame. This will guarantee that it all fits on the printed page.)

If this page will do for all your courses then you can skip the rest of this chapter.

Different frames for different courses

This could be achieved by grouping courses into multiple Condes files but it is much better to use a single file and the following approach:

Select a second canvas from the canvas box on the toolbar.

Go to Canvas menu at the top of page and select Map.

Select Use the map of another canvas , select that canvas and set the print scale at the bottom. If using the same scale and not shifting the frame then you may want to check Also link the graphics layout... so that any added graphics etc is applied to both canvases. Select Ok

If you already have some courses started, allocate courses to canvases via the Canvas menu item Add/Remove courses on this canvas

Control circle size

When using multiple map scales the control circles will, by default, cover the same ground area, rather than be the same size on the page. This complies with ISOM and is good because when you break a circle or formulate control descriptions on one canvas they will be correct at all printing scales. However if you really don't like the resulting very different circle sizes on the paper at different scales, (and navigation can be hindered if circle size is extreme), then you can manually set the size of circles and other symbols. See Appendix for ISOM rule.

Note that circles are typically smaller on the [All Controls](#) map (which you also see in the [Edit Controls mode](#))– this is controlled in the [Canvas > Course Overprint Symbols and Dimensions...](#) > [Additional Dimensions and Fonts](#) menu. If so, don't base your circle cutting on that map.

Also, in the control-edit-box for each control (opened by double-clicking on a control) the depicted circle can be differ in size in the Control Description tab and the Circle tab. Trust the latter.

If you must manually override the circle, font or other symbol sizes, go to [Canvas > Course Overprint Symbols and Dimensions...](#) > [Configure dimensions and symbols for this canvas](#)

Course layout review

There are useful tools in the Course Layout menu.

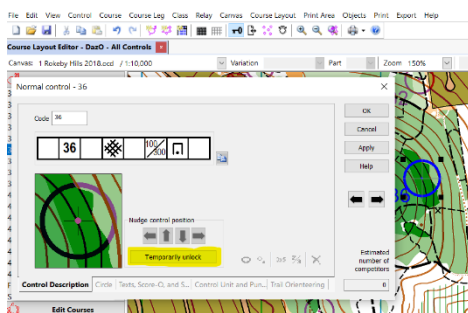
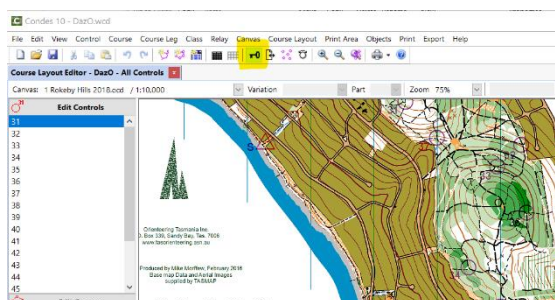
Highlight attack angles detects where the departure path from a control is close to the apparent approach route, either through doubling-back (a “dogleg”), or different courses approaching the control from very different directions. *This can be unfair if one runner is led into a control when they see another coming out. To avoid this we sometimes use "turning controls" - to convert a 180 turn into two 90 degree turns.* Attack angles for a given control can be viewed using the show attack angles button in control-edit-box.

Highlight Adjacent controls checks compliance with the rules specifying minimum distance between controls (at 1:5000 it is 30m, or 15m if the controls are on different types of features, and double those distances for 1:10000 and above. Other rules apply for Sprint orienteering.)

Preparation for printing

It is annoying if any course symbols obscure useful map details. Condes makes it easy to cut out bits of lines and circles.

When tweaking these details, controls can be accidentally moved. Prevent this by locking control coordinates (the key symbol on the toolbar). You can later unlock all controls if needed, or temporarily unlock an individual control within the control-edit-box.



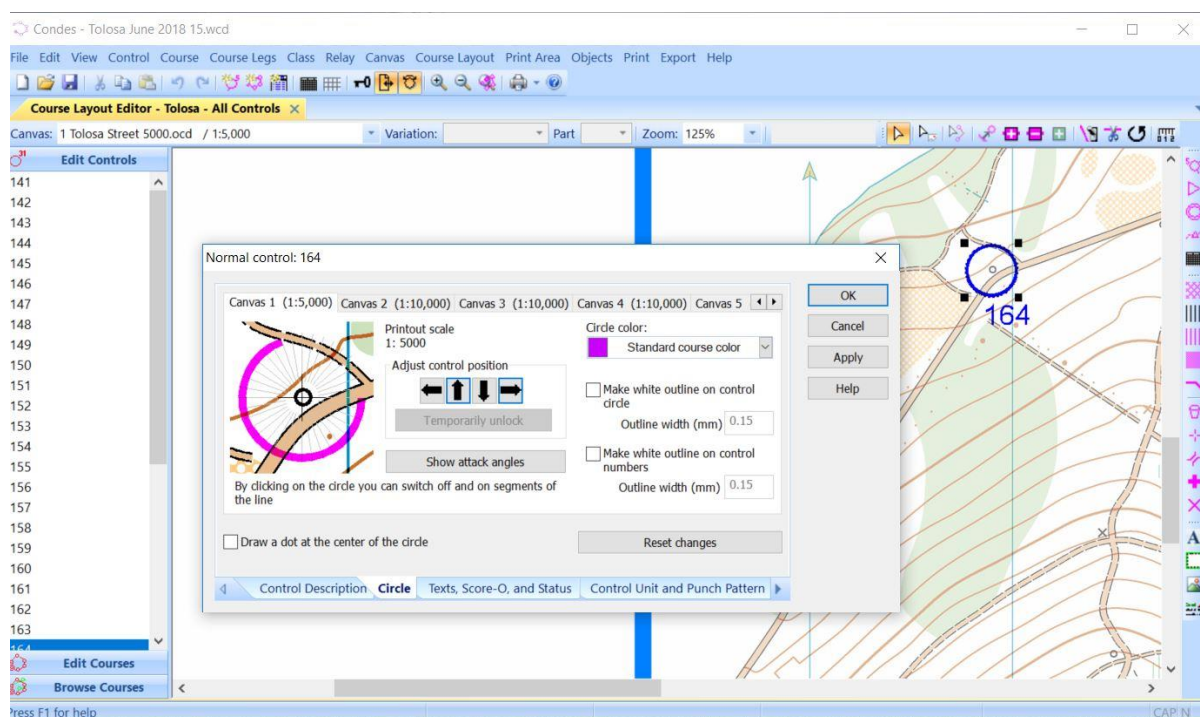
Each control should first be individually examined - ie work in the Edit Controls mode, but beware if circles are not full sized in that mode. All other assessment should be made separately for each course.

Fine-tuning control circles and descriptions

Settings for each individual control are adjusted by opening the control-edit-box, by double-clicking that control on the map or in the Edit Controls list.

Cutting circles

The control circle should not obscure any useful map detail. Detail which is only slightly obscured on your computer screen may be easily missed by the stressed runner using a printed map, so be generous in breaking the circle.



Select the Circle tab at the bottom of the box. Click on any segment of the circle to remove it.

Refining circle centre: use the arrows on the Circle page. *Irrespective of the location of the control relative to the feature, the circle should be centred on the feature if the symbol does not convey the feature's shape. That is, "Prominent Feature", "Pit" or "Cairn" symbols are always the same, irrespective of the actual feature. On the other hand, "cliff" or "building" symbols convey the size and shape of those features, so centre the circle to indicate the control's position relative to the feature.*

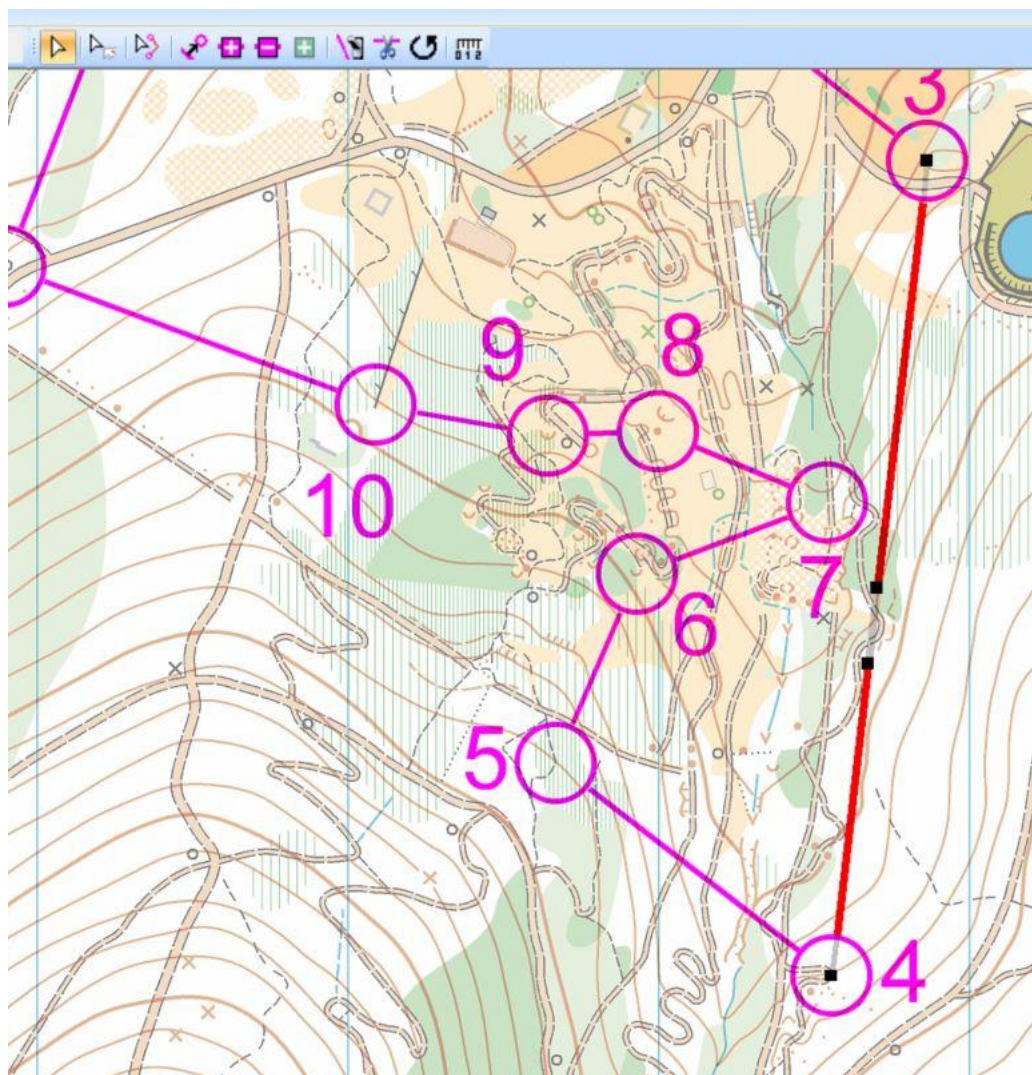
White outline on circle or numbers: *can be useful with dark or complex maps, but use with care because this masks even more of the underlying map detail.*

Fine-tuning the line between controls

Breaking the red line

Click on the line. It becomes highlighted. This now gives a better idea of detail that may be obscured by the line on the printed map (when viewed while running.)

To break the line, select the line then the scissor icon in the tool bar. Click and drag along the line where you want the line removed. To adjust the endpoints of the break, unselect the scissors by selecting the arrow icon in the toolbar. Then you can drag the black squares which control the break limits. A line can have multiple breaks. The removed segments will show grey on the screen but be invisible when printed.



The final leg to the Finish should be marked as a solid line, unless you really are using a taped finish shute. This is achieved by selecting the Finish control and setting Control type to Finish point / No Markings

Control Numbers

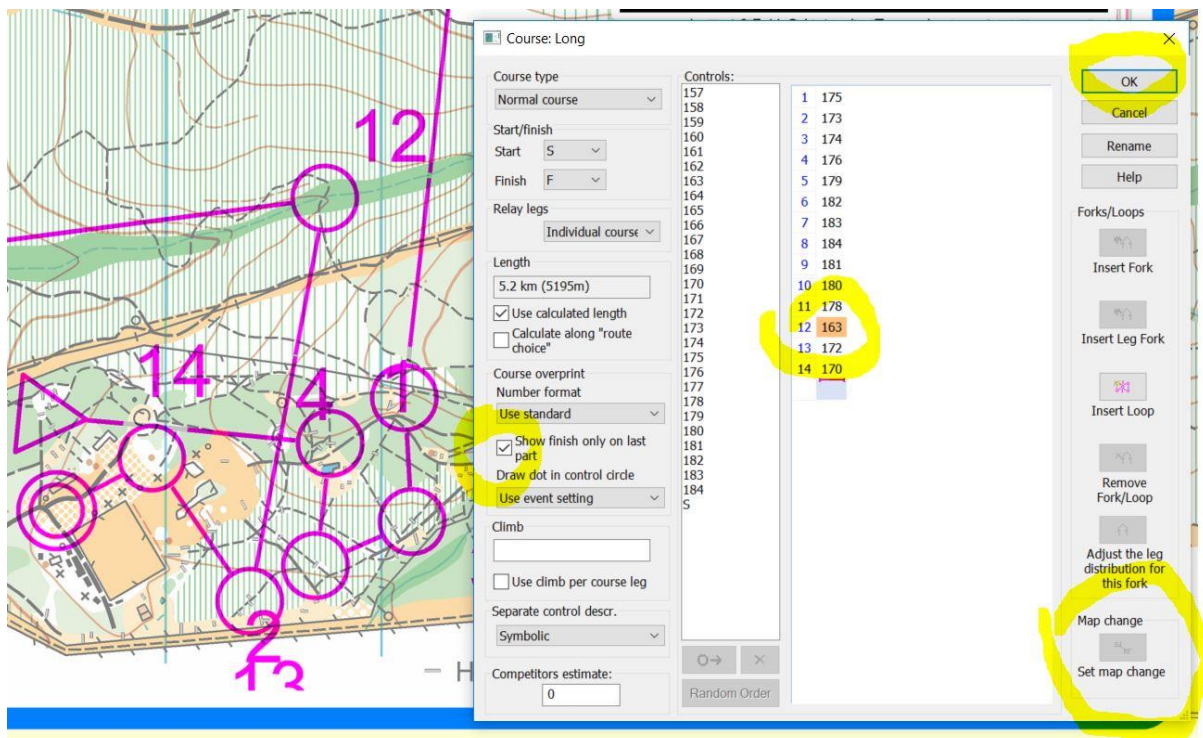
For every course map and the All Controls (Master) map, adjust control number locations so they are legible, unambiguous and do not obscure detail. Sometimes it works better to have numbers further away from the controls.

The default number size should be fine but if it seems bad then it can be adjusted in the font selection in Setup Overprint Numbers in the Course Layout menu.

Numbers can be made clearer by adding white outline, as for the control circles, but this obscures more map detail.

De-cluttering using a map flip

If legibility of a course is compromised by too many controls in an area then a map-flip is easily created.



Double-click the course in the Edit Courses panel to open the course-edit-box. Select the control where you want the map-flip. Select Set map change. Check Show finish only on last part. *This reduces risk of people failing to notice the map-flip*. Select OK.

This course will now be listed with Part 1 and Part 2 in Print > Map with courses. It is a good idea to use Print Preview to check the map-flip.

I recommend adding prominent text on the map to warn of the map-flip. Whatever text is added will appear on both sides, so you cannot use "Side 1" and "Side 2", for example. Instead, use something like "Turn map over at control 12".

Control descriptions

It is preferable to define control features using symbols, but provide alternate text where the standard translation is poor.

In the Texts, Score-O and Status page of the control-edit-box, select Use my manually entered text, and type it in.

Before printing, check all descriptions

Position the control description box for each course. The box can be stretched to make multiple columns.

Double-click inside the box to make adjustments. In the Appearance page, we usually reduce font size to 6 or even 5, and select Symbols or Text according to course. Some prefer to change colour to purple rather than black.

Added Text and Logos

For clarity you may wish to first blank over portions of the map, using the white square icon on the right-hand toolbar.

Text is added using the A icon on the right-hand toolbar.

Necessary text:

- map scale (appropriate to each canvas used!)
- contour interval
- event name

Other useful text could include: safety bearing, warnings, map notes and errors, course closure time, landowner acknowledgement.

Images are added using the picture icon on the right-hand toolbar. *Ideally the OT logo is added, and that of any sponsors or landowners (eg State Gov, local councils.)*

Colours

Some maps show areas as olive in OCAD, say, but when viewed and printed from Condes the same areas might be a range of shades of green. Botanic Gardens is a case of this, which arises from overlapping colour patches which OCAD treats as just the "overprint" colour but Condes blends together.

In the Canvas / Map menu, uncheck the box "Use overprint for colours marked "overprint" in OCAD map" (This box is checked by default).

Marking the pre-start

Condes allows you to mark the map collection point on the map and draws the marked route from the map collection point to the start triangle. It also puts the distance to start triangle at the top of

Control Description box. This can be useful for important events but does unfortunately mean that people can start navigating from the pre-start and increases the temptation to bypass the start flag.

To use this option, double click on the start triangle and select the Marked route from the start and Show in control description check-boxes. Condes draws an arbitrary line, which you then move to its correct position. The line can be bent using the [+] icon in the toolbar.

The control description will now display an extra row with the distance to the triangle. If you don't agree with the calculated distance, then de-select Use calculated distance and a Distance box will appear for you to fill in.

Loading your courses into SiTiming or Livelox

To set up the timing software for the event, send the .wcd file to the relevant people. To set up Livelox the .ocd map file is also needed. If instead you are doing the setup then you need to export your courses so they can be imported into the timing software. Do this in the Export menu using Export event data (IOF XML). In the next menu page Select all courses and use the default settings.

After printing

Check the prints. Better that you find where a last minute change has mucked something up, rather than hearing about it from the competitors.

Appendix

Circle Size

ISOM 2017 - 3.7 Overprinting symbols

The sizes of the overprinting symbols are given for the map scale 1:15 000. For larger map scales the symbols shall be enlarged proportionally (to 150% for 1:10 000, to 300% for 1:5 000). All overprint symbols shall be printed over the map content (transparently). They shall never mask out other map details.

Symbol sizes (at 1:15 000):

- *Start, equilateral triangle, sides 6 mm*
- *Control point, circle diameter 5 mm*
- *Control number, height 4 mm*
- *Course line thickness 0.35 mm*
- *Finish, concentric circles, 4 mm and 6mm diameters*

(This can be defined as “circle diameter is 75m on the ground”. For Sprints, the definition is 24m on the ground, which is again 6mm on a 1:4000 map.)