

# Course setting using OCAD 9

An introduction

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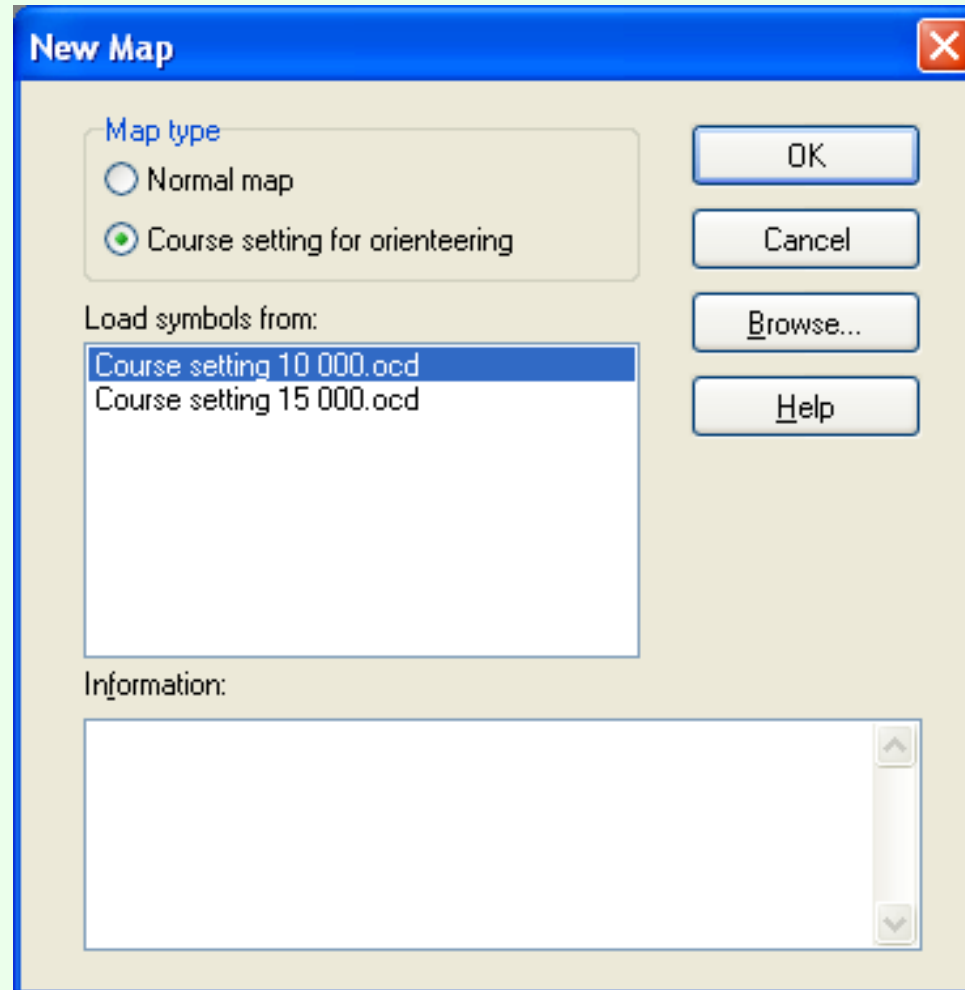
*Neil Crickmore*

# What you need

- A computer running Windows
- OCAD 9 or OCAD 9 Demo  
(<http://www.ocad.com>)
- An OCAD map file of the area  
(or possibly a scanned image of a map)

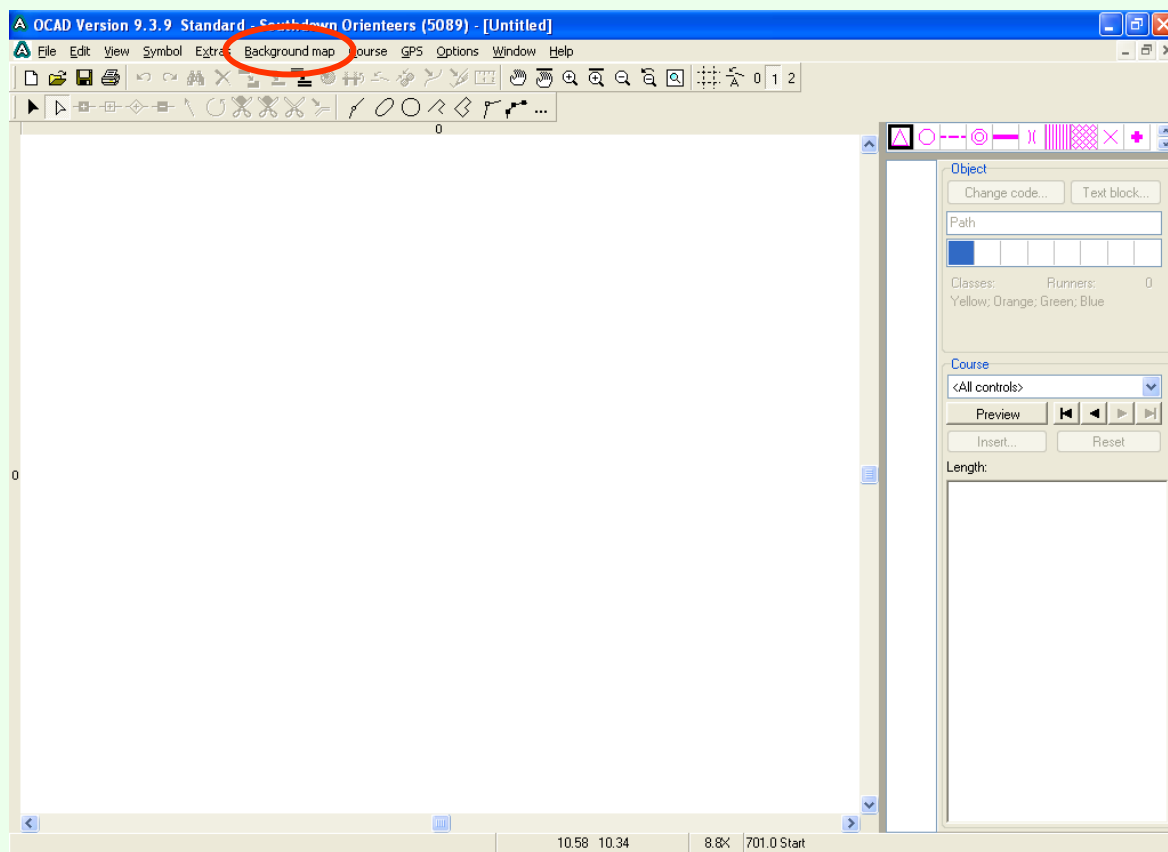
# Create a new OCAD course file

- File > new
- Select Course setting for orienteering
- Click OK



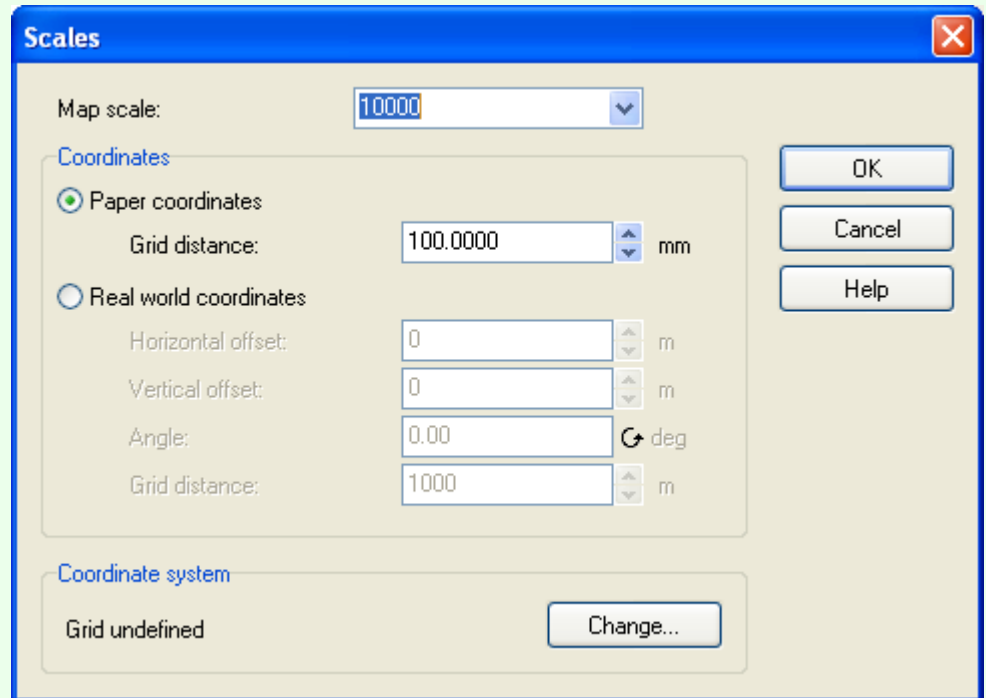
# Load the map

- When empty window appears.....
- Background map > Open
- Locate the OCAD map (or scanned image), click Open



# Checking the scale

- Options > Scale



- Make sure that the map scale is the same as the map you are using as the template
- If it isn't change the value in the map scale box

# Viewing the map

- View > entire map
- Or view > magnification factor
- Or use icons



Position box over region to be displayed at x4 magnification

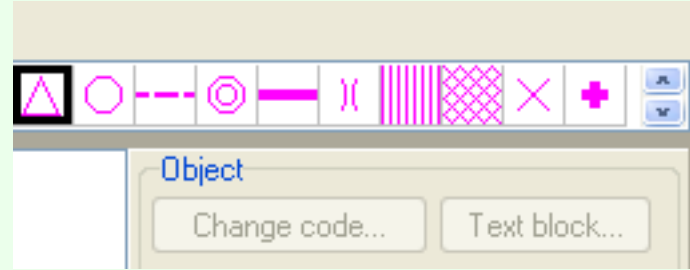
View	Symbol	Extras	Be
<input checked="" type="checkbox"/>	Normal mode		
	Spot colors		
	Draft mode		
<hr/>			
	Hatch areas		
	Anti-Aliasing		
<hr/>			
	Redraw	F5	
	Pan	F6	
	Move to...		
	Zoom in	F7	
	Zoom out	F8	
	Entire map		
<hr/>			
	0.1X		
	0.25X	Shift+F5	
	0.5X	Shift+F6	
	1X	Shift+F7	
	2X	Shift+F8	
	<b>4X</b>	<b>Shift+F9</b>	
	8X	Shift+F10	
	16X	Shift+F11	
	32X	Shift+F12	
<hr/>			
<input checked="" type="checkbox"/>	Standard toolbar		
<input checked="" type="checkbox"/>	Edit toolbar		
	Symbol favorites		
	Symbol tree		

# Start entering items on the master map

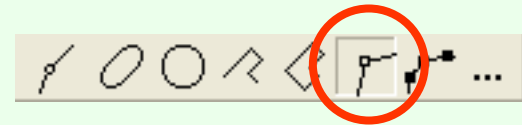
The screenshot displays the OCAD software interface for editing a topographic map. The title bar reads "OCAD Version 9.3.9 Standard - Southdown Orienteers (5089) - [Untitled]". The menu bar includes "File", "Edit", "View", "Symbol", "Extras", "Background map", "Course", "GPS", "Options", "Window", and "Help". The toolbar contains various icons for editing and navigation. The main map area shows a topographic map with contour lines, a river, and various control points. A pink circle highlights a specific area on the map, and a pink triangle highlights another area. The right-hand panel shows the "Object" and "Course" settings. The "Object" panel includes a "Change code..." button, a "Text block..." button, a text input field containing "31", and "Classes:" and "Runners:" fields both set to "0". The "Course" panel includes a dropdown menu set to "<All controls>", a "Preview" button, and "Insert..." and "Reset" buttons. The "Length:" field is empty. The status bar at the bottom shows coordinates "-96.96 30.90", a scale of "5.1X", and a "702.0 Control point".

# To place the start I

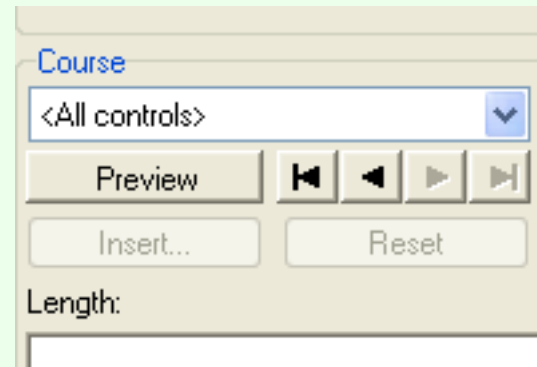
In the top right corner is a Symbol Box. Select the Start symbol



On the toolbar, select Straight Line mode icon (though others will also work)

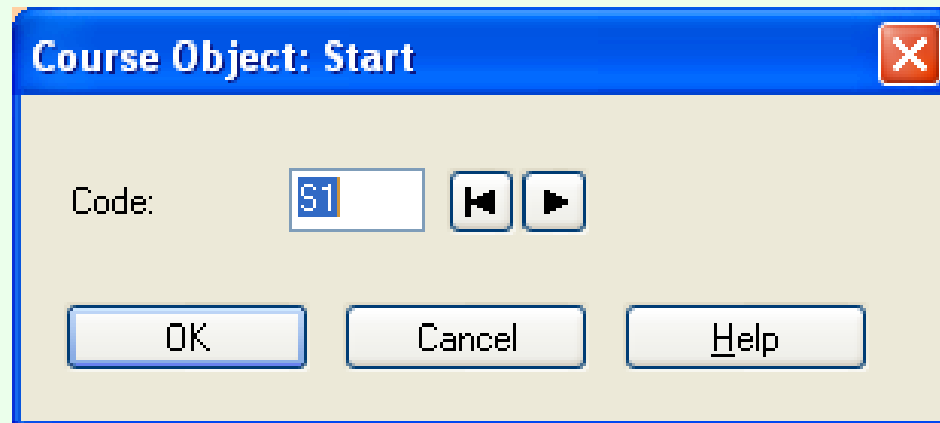


If these icons are dimmed out then make sure that the Preview button is in the off status



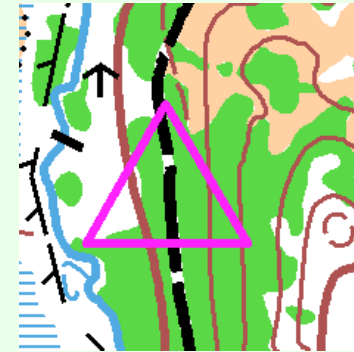
# To place the start II

- On the map, click on the location where the start kite will be
- A dialog box will ask you to choose a name for this start (this defaults to S1 for the first start, S2 for the second, etc.)

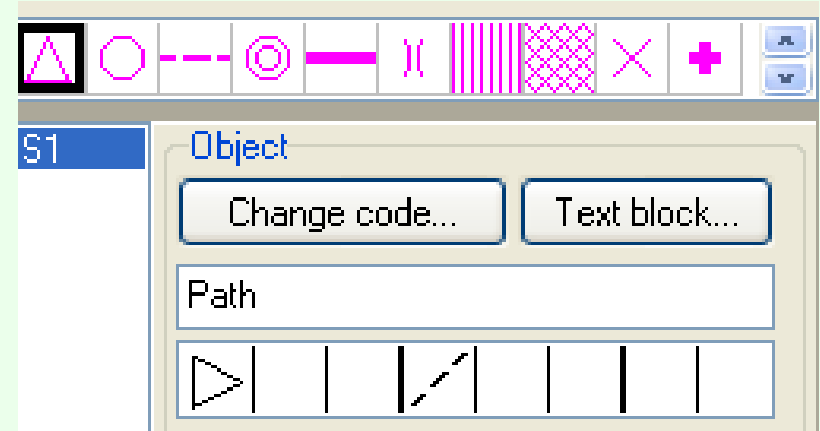


# To place the start III

A start triangle will appear on the map where you clicked

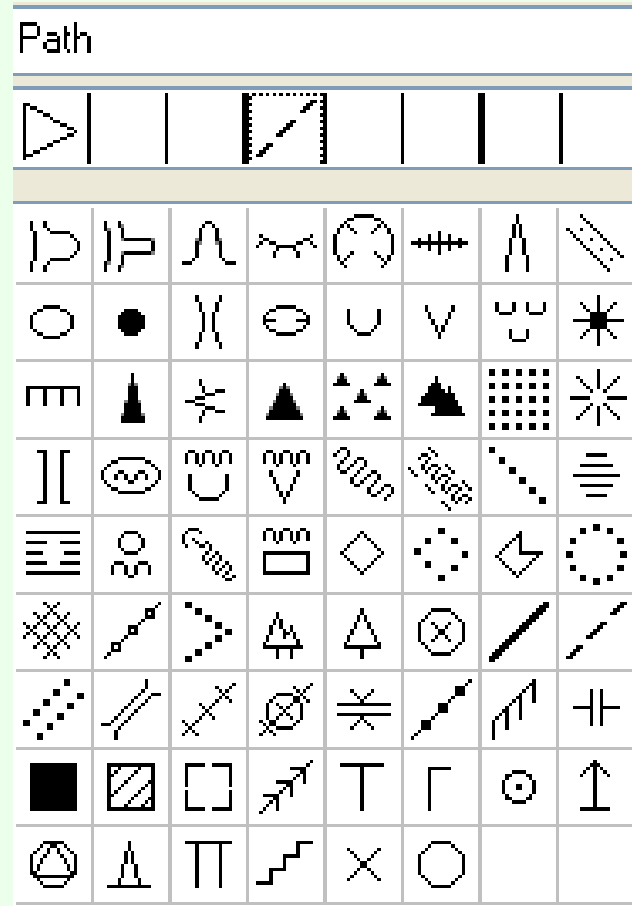


Now enter the description for this start (IOF and/or text) in the fields to the right



# IOF descriptions

To enter an IOF description, click on each box, and select from the available options



# Placing controls

Use the same procedure as with the start but with the control icon selected



It's easiest to start with the lowest number control, and proceed in order

Remember to take care if your numbering has gaps

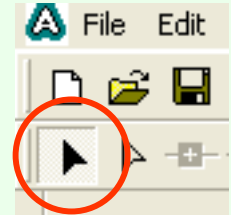
Don't forget descriptions

Enter all controls for all courses

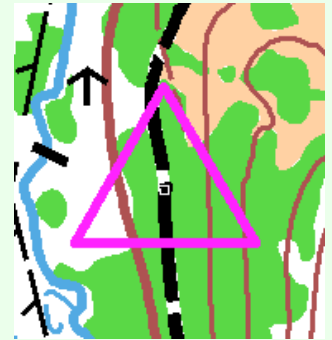
# If you need to move a control

...or start or finish or anything else

Select the Edit Object tool from the toolbar



Select the control (or start, etc.) by clicking at its centre, a square “handle” will appear



Right click and hold to drag the handle to where you want to move the feature

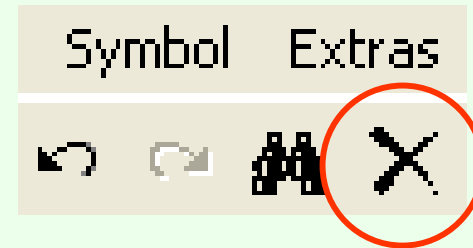
Remember to update the description if required

# If you need to delete a control

...or start or finish or anything else

Select the Edit Object tool and again click in the centre of the feature to get the square handle

Click on the delete icon to remove the object

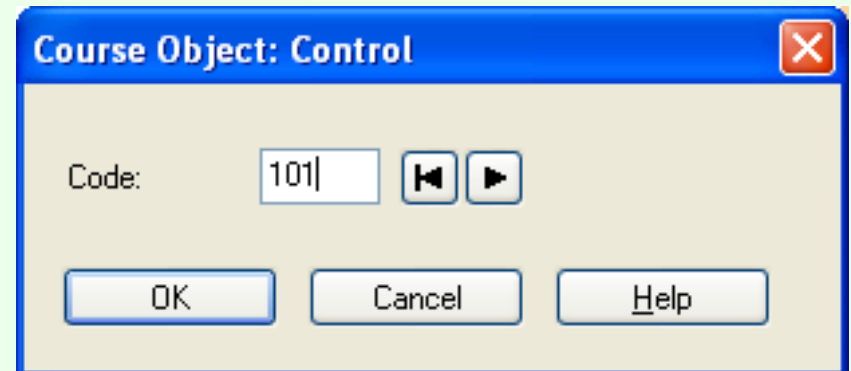
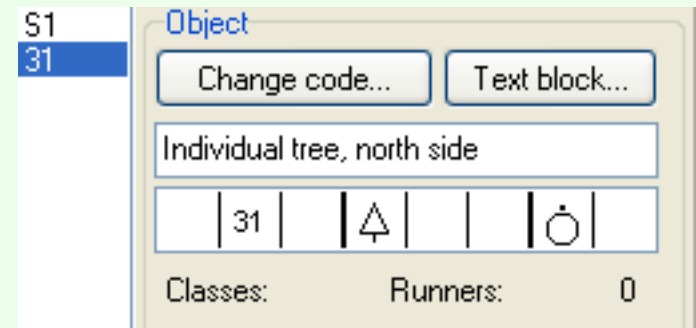


# If you need to renumber a control

Select the control you wish  
to renumber

Click on the change code box

Type in the new number  
and click OK



# Creating courses

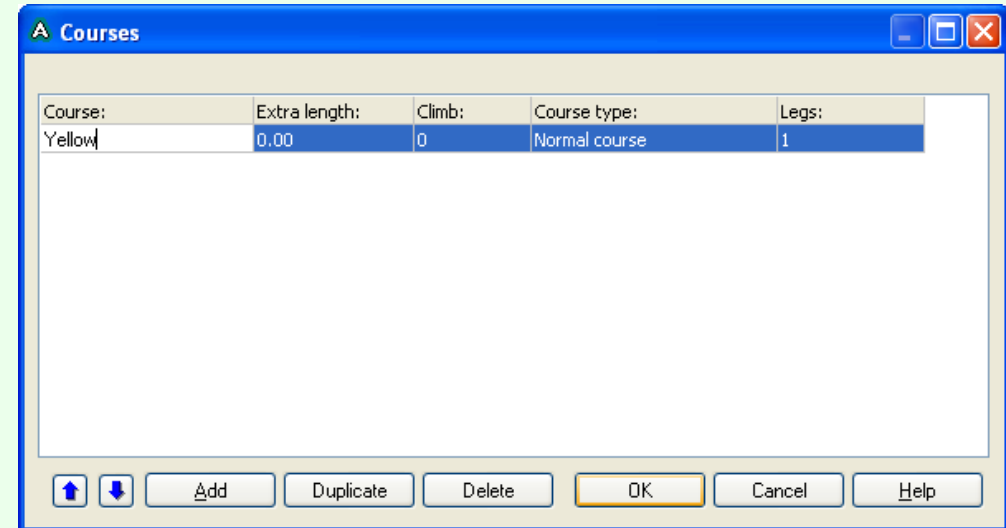
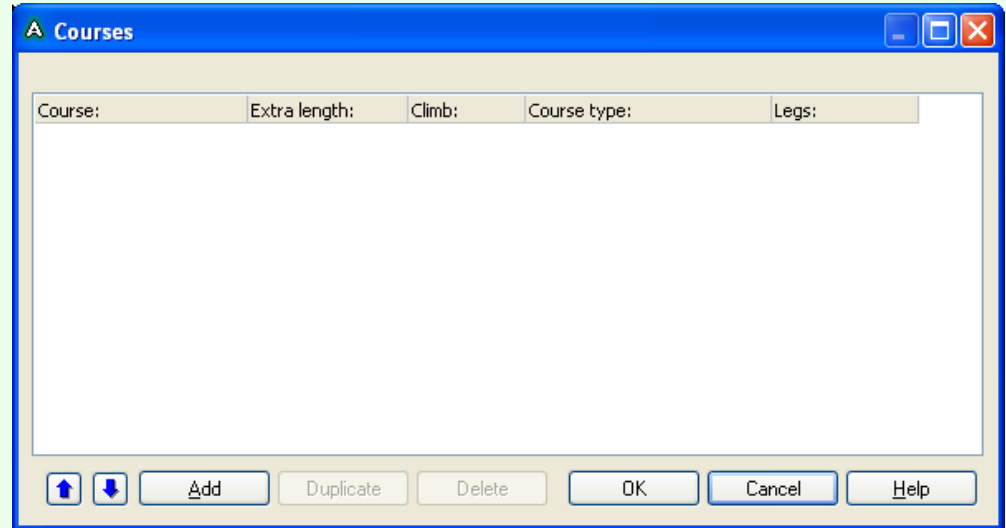
When you have added all the controls it's time to define the courses

Course > Courses

Click the add button

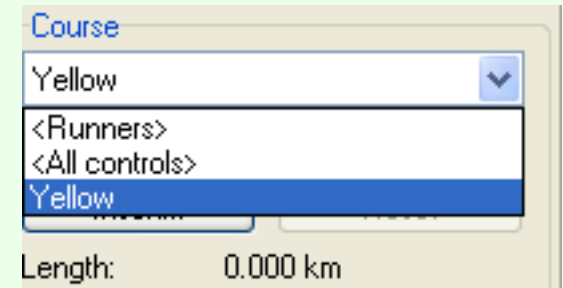
Type in course name  
enter the climb if you  
have calculated it

Click OK

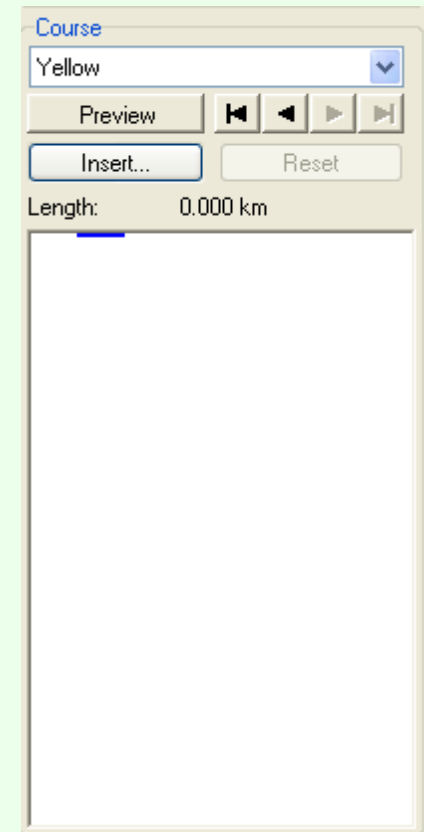


# Defining the course

The new course will now have appeared in the Course pull down menu on the right. Select your course.

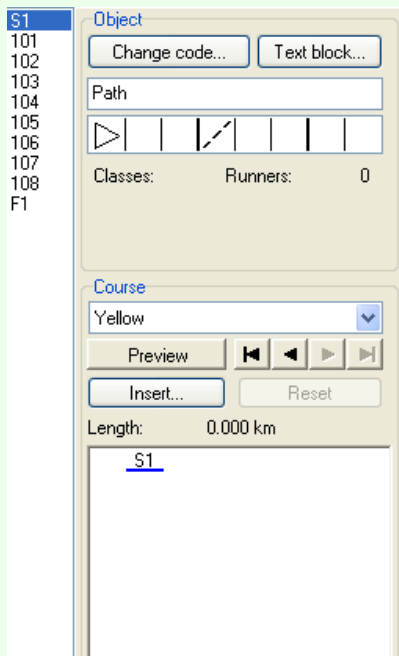


You will now enter the course in the empty box in the bottom right side of the screen

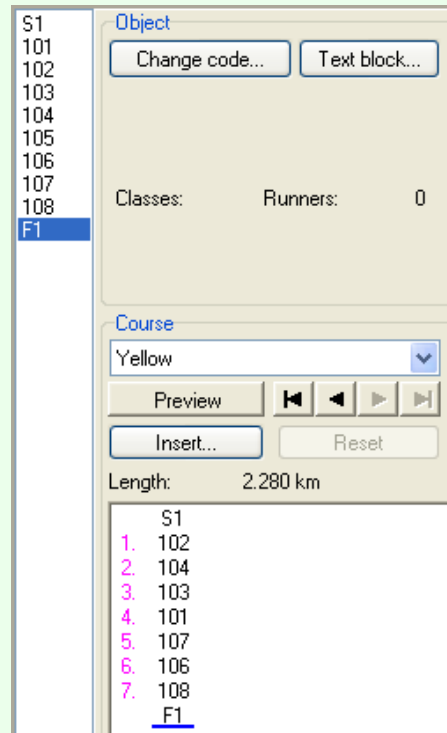


# Adding the start, controls and finish

In the master list of objects, double-click on the desired start to add it to the course



Then do the same for each control, in order, and finally the finish



Note that controls can also be selected by double clicking on the desired control on the map rather than the control code

# Deleting objects

To delete a control (or start or finish), highlight the control by clicking on it.

Then hit the delete button on your keyboard.

Course

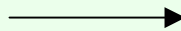
Yellow

Preview

Insert... Reset

Length: 2.280 km

- S1
- 1. 102
- 2. 104
- 3. 103
- 4. 101
- 5. 107
- 6. **106**
- 7. 108
- F1



Course

Yellow

Preview

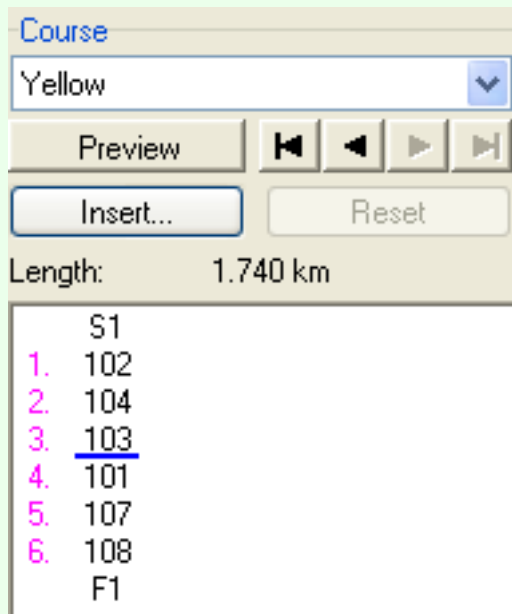
Insert... Reset

Length: 1.740 km

- S1
- 1. 102
- 2. 104
- 3. 103
- 4. 101
- 5. 107
- 6. 108
- F1

# Inserting objects

To insert a control (or marked route or text box), place the cursor between the controls where you wish to insert a control. Double click on the control (or its code) to insert



Course

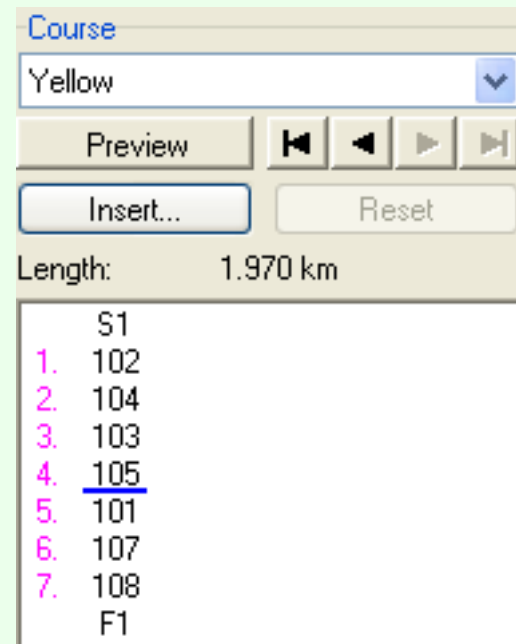
Yellow

Preview

Insert... Reset

Length: 1.740 km

- S1
1. 102
2. 104
3. 103
4. 101
5. 107
6. 108
- F1



Course

Yellow

Preview

Insert... Reset

Length: 1.970 km

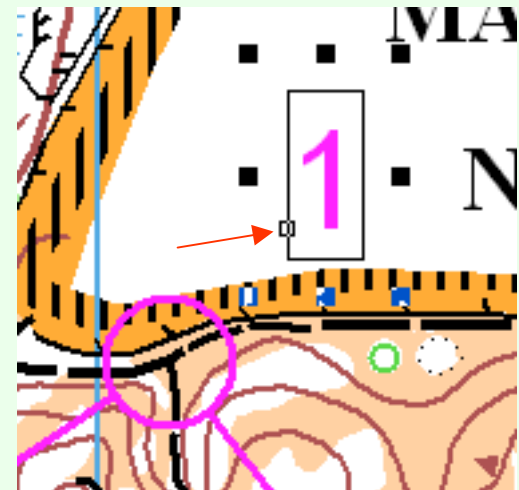
- S1
1. 102
2. 104
3. 103
4. 105
5. 101
6. 107
7. 108
- F1

# Seeing and modifying the course

Turn the preview mode on to see what your course looks like

You will need to move the control numbers around – do this by selecting the Edit Object tool again and then click on the control number. A small open box will appear within a solid box around the number

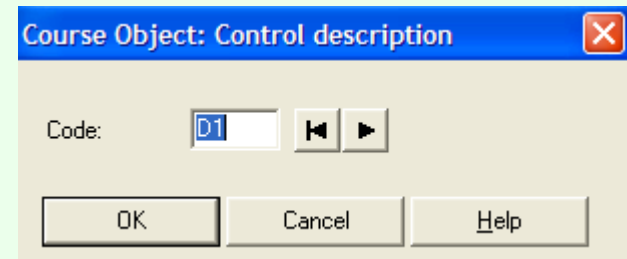
Left click and hold on  
this box to drag the number  
to a new location



# Adding control descriptions

Select the description placement icon. With the preview mode off select the straight line mode icon.

Place this object on the map where it will mark the top left hand corner of the descriptions. The object will be given a name (eg D1). Descriptions will be visible in preview mode.

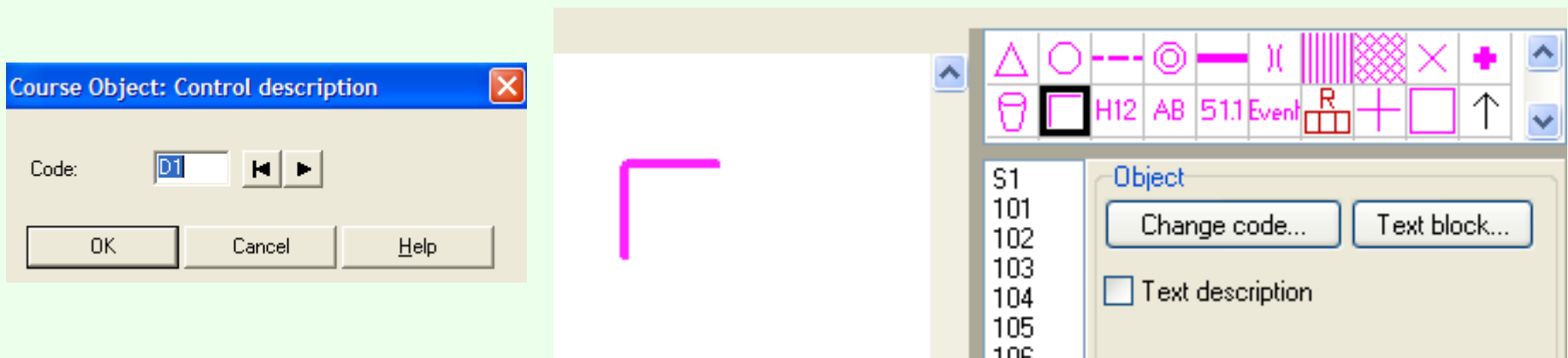


If you need to print on top of some existing map create a white background using the white background object



# English and/or IOF descriptions

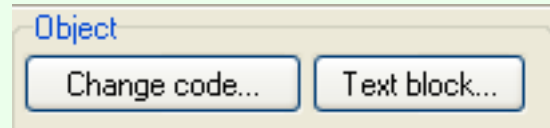
When you click OK to place the description object you get to choose to use text descriptions



You could have two sets of descriptions eg  
D1 – text, D2 – IOF pictorial

# Adding text boxes to descriptions

Click the text box box



Click OK



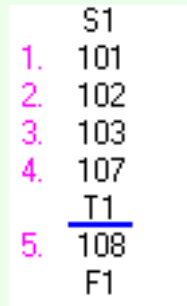
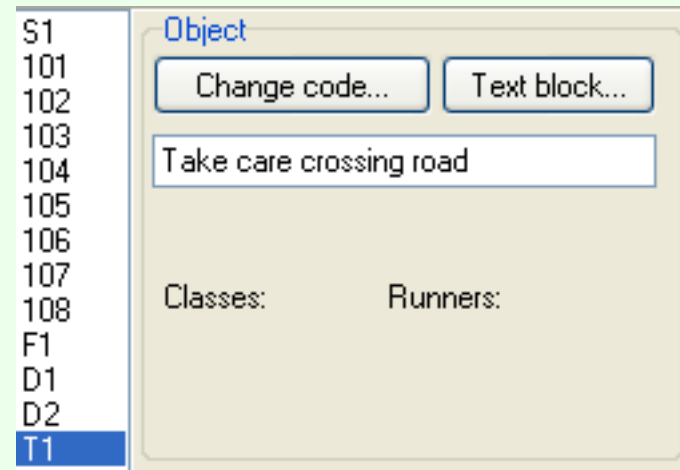
Type text into empty box

The object can then be

inserted into a course

and will appear in the

descriptions



# Adding marked routes

This is the way to add a taped route in the middle of a course.

First select the marked route icon



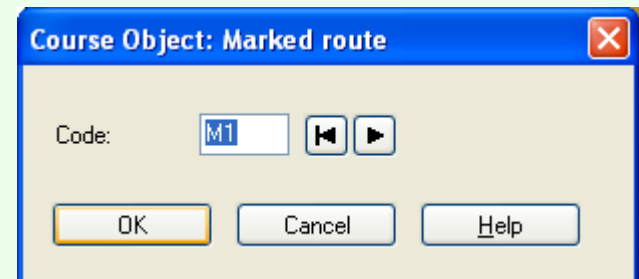
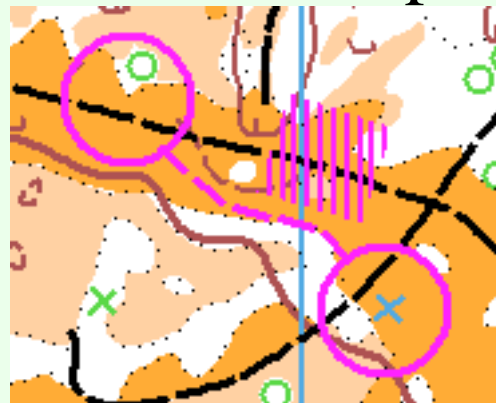
You now need to draw the route.

The easiest way of doing this is by using the freehand mode tool. Place the cursor at the point where the



marked route will start. Click and release the left mouse button, trace the route on the map until you reach the end at which point click and release again.

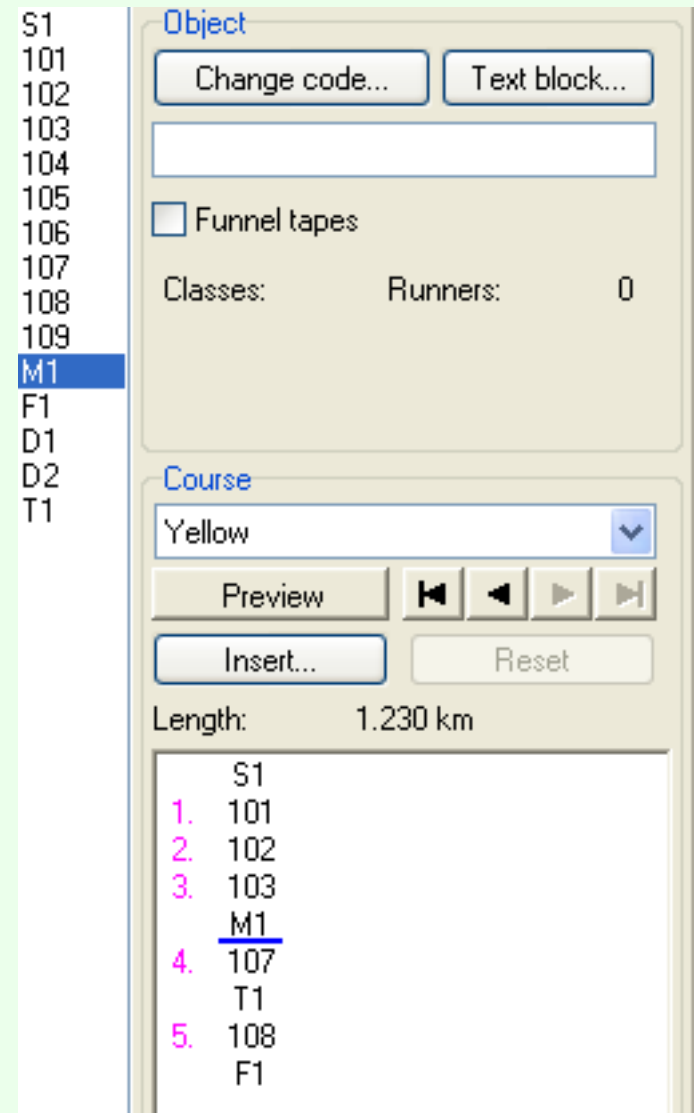
A dialogue box will appear...



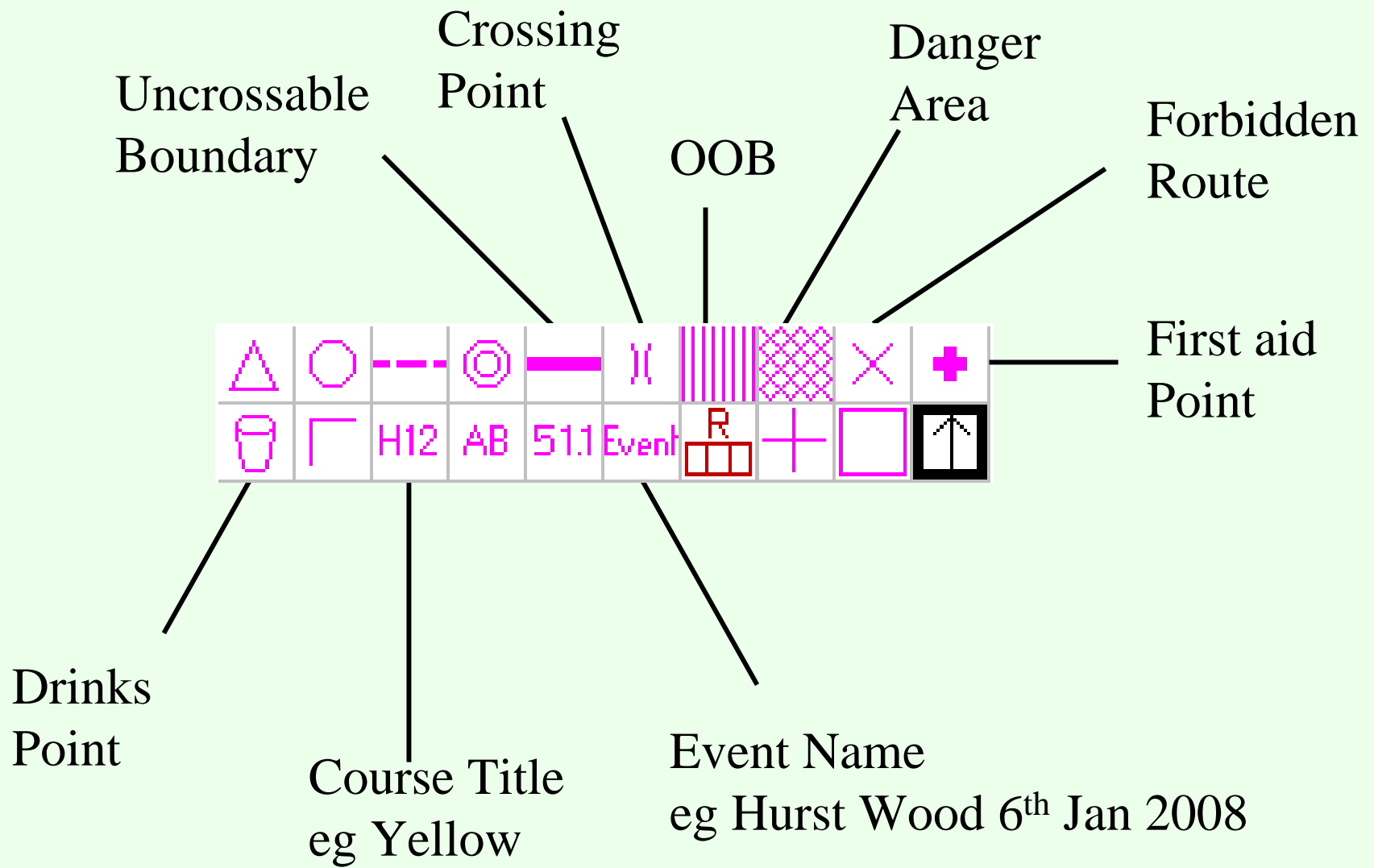
# Adding marked routes cont...

Click OK and the route will become an object in the list of controls.

This object can then be added into a course



# Adding other objects to the map



# Other Display Options

Course > Options

Gives you this box that allows you to alter the appearance of your course and descriptions

Best to stick to the defaults though

**Course Options**

**Titles**

Event title

**Course title**

Classes  
 Course name and class(es)  
 Course name only

**Controls**

**Numbering**

Number  
 Number and code  
 Code only

Distance from circle to number:  mm

**Connection lines**

Distance from circle to connection line:  mm

**Control description**

Thicker horizontal line:    
Maximum length:  Rows

**Control description on the map**

Box size:  mm

White background  
 Add control descriptions for all controls

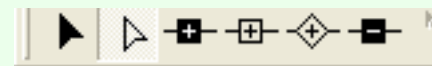
**XML Export**

Export course relay combinations (not IOF standard)

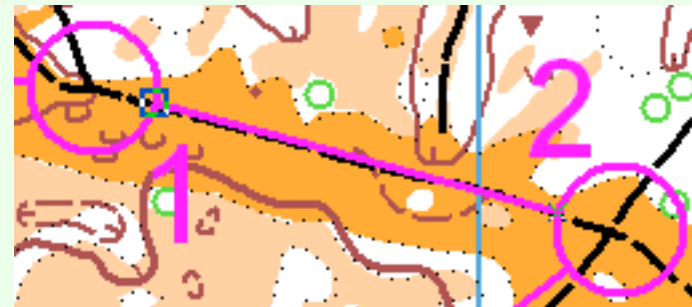
# Improving print clarity

Make sure that the control numbers are clearly positioned and don't obscure important detail.

To avoid the connecting lines obscuring underlying detail (eg a path) you have the option of moving, bending or cutting the line.

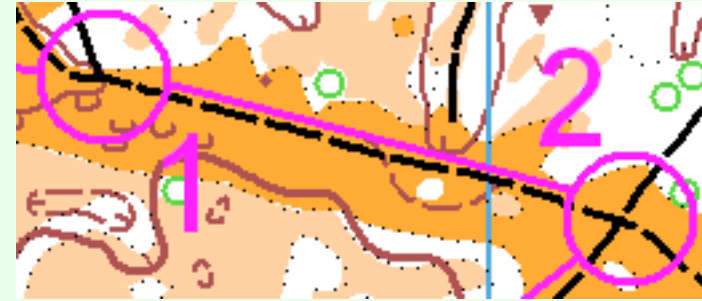


In each case you need to select the Edit Point tool. In preview mode left click on the line you wish to adjust. Square and cross symbols will appear at either end.

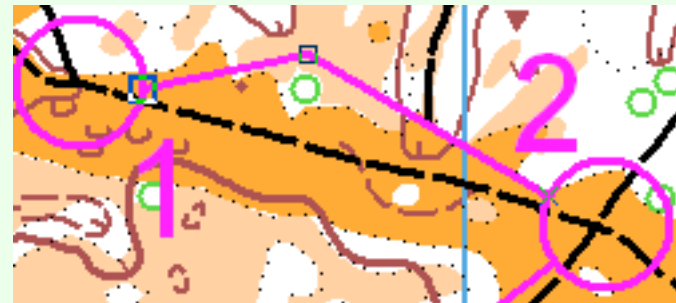
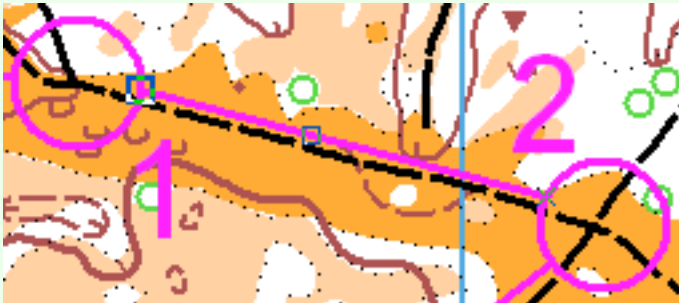
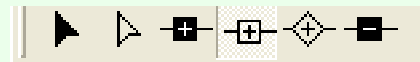


# Moving and bending lines

You can now move the ends of the line to shift the line slightly here allowing the path to be seen.



To bend a line first select the line using the edit point tool as before. Then select the corner point tool and click somewhere on the previously selected line. A small square will appear. Reselecting the edit point tool will allow you to drag this small square and thus bend the line.

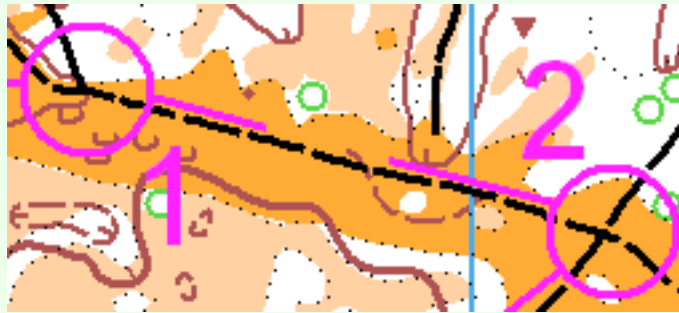


# Cutting lines

To cut a line first select the line using the edit point tool as before. Then select the cut (scissors) tool.



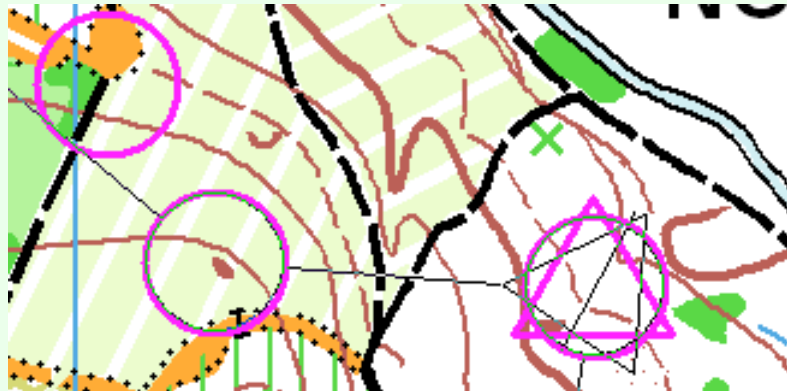
Place the centre of the cross cursor at the point where the cut will start, right click and hold. Now move the cross to the point where the cut will end (a line will join the start and finish points) and release the mouse button. The line will be cut.



# Splitting a course onto 2 maps

Sometimes when using a small area it is necessary to split a course onto two maps for clarity. To do this:

Display the course and turn preview off and add a new start control at the control where the second part of the course should start.

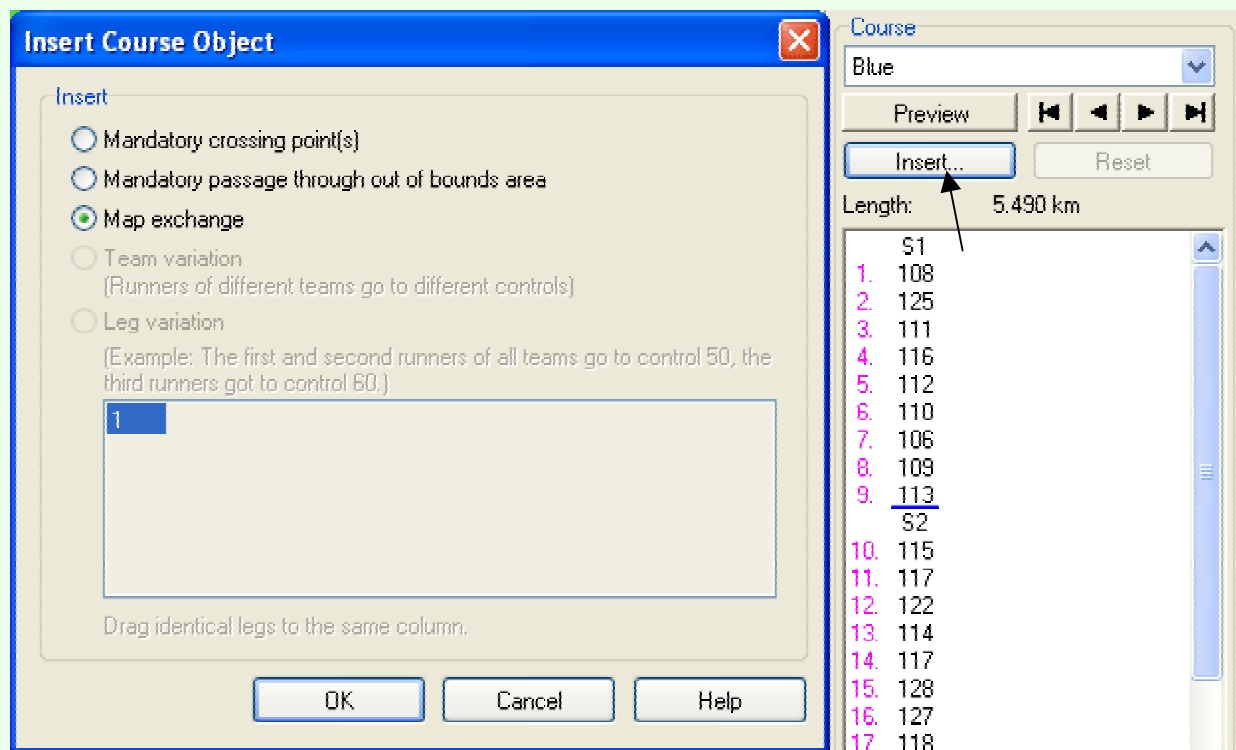


# Splitting a course onto 2 maps

Now on the list of controls for that course click in between the controls where the map exchange will be (eg 113 and 115) and insert the new start.

Now click above the new start and click on the insert button and select the Map exchange button in the new dialogue box.

Click OK.



# Splitting a course onto 2 maps

The map exchange will now have been inserted

Although the course will still appear as one big course in preview mode it will print as two separate parts.

In order to do this it is important to print using:  
Course>Print>Courses and not File>Print

Only one file name is shown for the course but  
It will print on two pieces of paper – try it!



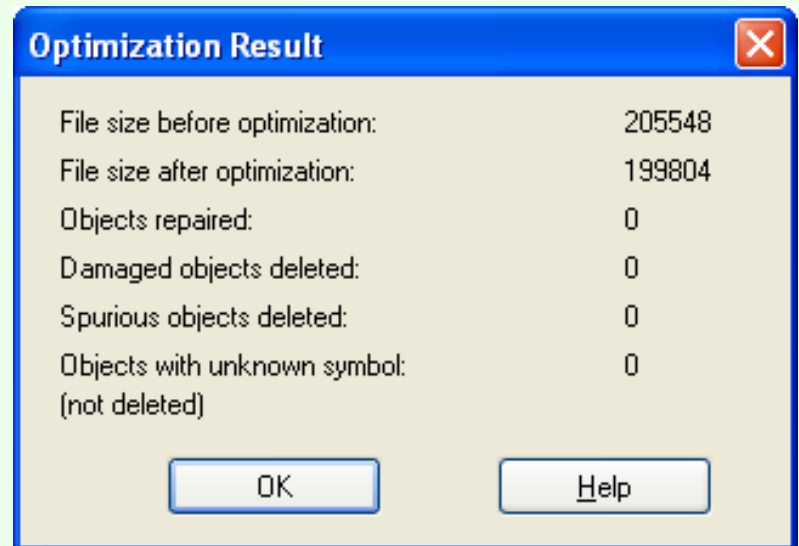
# Cleaning up and saving

Manipulating your course file can cause it to increase in size quite considerably. To clean the file up, first move out of preview mode if you are in that.

Now go to Extras > Optimize / Repair

And click OK when the dialogue box appears

Make sure you regularly save your work. Whoever is printing for you will need both the file you have created and the map file.

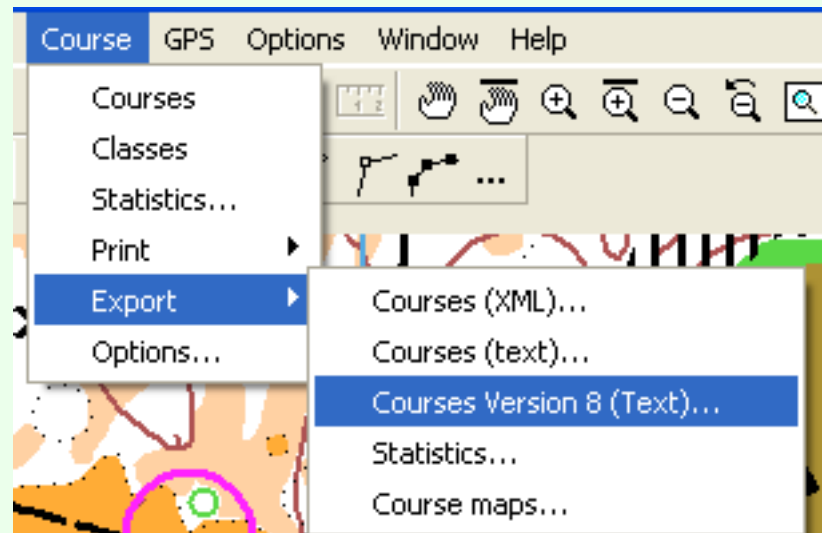


# Exporting course information

The course information (distances, control order etc) can be exported in a small text file that can be sent to whoever is doing the IT for your event. The results software can import this file.

To do this Course>Export>Courses Version 8 (Text)..

Follow the prompts to save the file



# Printing loose control descriptions

Course > Print > Control Descriptions

Choose between symbol or text

If you select multiple courses the program will try and fit multiple descriptions onto a single sheet of paper

For web publication try and use a utility that will allow you to 'print' to a .pdf file.

# Good luck!

OCAD9 has greater functionality than covered here. Play with other features yourself (on a practice file)

The OCAD website has many useful tutorials on the basic and advanced use of OCAD9.

<http://www.ocad.com/en/howtos.htm>