

# Corpse (Course Planning and Setting software)

## Version 6 User manual

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## Overview

Corpse uses a computer image of the orienteering map to enable courses to be developed interactively on a computer screen. This map image can be sourced from scanning an existing map or exporting a map file out of OCAD.

All courses for an event are plotted directly on the screen over the map image. This enables the course planner to quickly see the interaction between courses and the suitability of sharing controls between courses. While the extents (length and breadth) of the map establish the bounds of the course(s), Corpse does not alter the map in any way. Instead, control circles and leg lines are drawn on a “film” covering the map. Corpse also introduces the concept of “holes” in the “film”. If a leg line crosses a “hole” then the line disappears allowing the map feature in the “hole” to be seen.

Corpse creates a single file (\*.CPE) for an event. This file contains the description of the controls, the controls in courses and their X,Y coordinates on the drawing film. Sharing of Corpse information therefore, is achieved by sharing this CPE file. The CPE file is typically very small and suitable for email. The controller/setter relationship can be effectively established by initially providing both parties with a copy of the map image. The CPE file can then be exchanged as often as desired through the life of the course setting process.

### The key steps in course-setting in Corpse

- Acquire the map file by scanning a map or getting an EPS file from OCAD
- Create new event file.
- Load map file.
- Create and name the courses.
- If necessary, define which classes use the course. (eg. a badge event)
- Design the courses by placing controls on the map.
- Agree on the basic course designs with controller.
- Assign control ID numbers – (to be used when taping control sites).
- Print a draft master map and a master control description sheet (which will be blank except for the event name).
- Check & tape control sites in the bush. Adjust control locations as necessary. Enter control description details to the draft master control description sheet as you go.
- Update the courses in the Corpse file. Verify changes with controller.
- Enter control description details to the Master list in the Corpse file.
- Calculate and enter the climb for each course in the Corpse file.
- Event controller checks control sites in the bush and verifies descriptions.
- Finalise Corpse file with event controller.
- Print. (control descriptions, maps with courses +/- control descriptions, plot to printed maps or create an EPS file for use by a printing company)

## Key features of Corpse

- Courses are planned directly onto the map on the screen. There is no need to have a master control map to build courses from.
- The master map is automatically built up as controls are placed on courses.
- Controls already used on courses are displayed on new courses in another colour and may be added into the new course with a 'mouse click'.
- The description for any control need only be entered once.
- New controls and changes to control descriptions are automatically reflected in control description sheets for all courses that make use of that control.
- The master control description sheet is automatically built up as control descriptions are added to courses.
- Control description sheets for courses can be printed in English or using IOF symbols. English descriptions are generated automatically
- Course lengths are automatically calculated and displayed as the course is being designed.
- All leg lengths are automatically calculated and displayed.
- Course climb can be automatically totalled from climbs entered for each leg, and shown on the control description sheet.
- Control description sheets can be printed in various formats, e.g. multiple copies of individual course descriptions per page for guillotining, descriptions of many courses per page for distribution with event information packages or print descriptions straight onto the map.
- Control identification codes are automatically checked for duplication. A cross-reference of all controls used in an event and the courses on which those controls are used is available.
- Check control loadings, leg loadings, whether legs are being run in both directions, etc.
- Master (all controls) maps and course maps can be printed. Leg lines and control circles can be broken so as not to hide important map features. Leg lines may be bent if required. Additional features such as crossing points, water drops, out of bounds areas and forbidden routes can be printed at the same time.
- Templates of courses (bitmaps that include the map and course) can be generated. These can be used as templates in OCAD to add courses to OCAD maps or generate courses in OCAD8. For those proficient in course-setting in OCAD 8, Corpse is unnecessary.
- Courses, Graphics, additional features and control descriptions can be inserted into the EPS file created by OCAD. Courses will then be printed at the same time as the map. Alternatively, the same Corpse data can be added to the purple colour separation and printed as an overlay onto existing maps.
- You can produce OCAD quality maps without OCAD. Corpse cannot change the map file or OCAD file.
- Courses can be planned on a map of one scale (e.g. 1:15000) and then simply moved to a map of a different scale (e.g. 1:10000).
- Courses with multiple loops can be created.
- Courses with a map exchange point can be split into 2 course maps.
- Courses can be "plotted" or printed onto existing maps with a plotter or printer connected to your computer. Contact Peter Watson for more info.

# Maps used in Corpse

## Two types of maps are used in Corpse:

- 1 **A map image to draw courses interactively on screen.**  
This map is used when printing on a home printer
- 2 **A map image to create eps files of maps and courses**  
This map is used to create eps files for sending to commercial printers to obtain high quality prints.

It is preferable that the same file (an eps exported at 300 dpi from OCAD 8) is used for both purposes. It must be loaded in two places in Corpse – the screen one in <Map><Load map>, and the eps print one in Print><Options><EPS><Background file><template>.

*Note that in OCAD 8 the eps file is exported, in previous versions of OCAD the eps file is created from the print box.*

### 1 **Map image to draw courses on**

This map can be sourced in two ways:

- 1.1 Scanning an existing map (.bmp format). Only do this if no OCAD map file is available.
- 1.2 Exporting an EPS file from OCAD (.eps format) - preferred option

### **Map standards for importing: Encapsulated postscript files (\*.eps)**

An Encapsulated PostScript file is an image file that can contain either vector or bitmap information. An EPS file has two main parts:

- The preview
- The high resolution image data

The preview of an EPS file is necessary to display the image in a page layout application, and the high-resolution portions of the file are necessary for imaging to a particular output device.

EPS files have been built specifically for the print production world, and are not supported by Web browsers.

EPS files can be created in OCAD 8 and exported.

### *Importing eps maps*

OCAD 8 allows for the resolution (dpi) of the output .eps raster file to be selected. Choose 300 dpi when exporting from OCAD 8 and 300 dpi when loading the map in Corpse. Ensure that the export scale in OCAD 8 and the import scale in Corpse are the same. Note that in OCAD 8 the EPS file is created by the export option.

Hint 1: Previous versions of OCAD do not allow the dpi of the raster output to be selected. Choose an appropriate dpi (usually 300 dpi) when the map is loaded in Corpse. Note that in previous versions the EPS file is created from the print box.

### **Map standards for importing: Bitmaps (\*.bmp)**

A bitmap file is a raster- (or pixel-) based format. The size of the raster is usually described in dots per inch (dpi)

### *Resolution*

For Corpse work, a bitmap of 300 dpi gives adequate detail. In complex granite, the higher the better. It is better to provide a map that has too much detail than one with too low a dpi. Corpse can reduce the detail with its 'Tailor Map' facility but it cannot create the detail.

Hint 2: 300 dpi works well in most situations.

### *Tailor map function to reduce file size*

This function <Map><Tailor map> has very limited application and only applies to bitmap files. It cannot produce modified EPS files for digital printing! It presents you with two images of your BMP file. The left-most image is the original, while the right-most image shows you what will happen if the changes you have selected are implemented.

You may:

- Reduce the DPI of the map
- Reduce the number of colours in the map (increasing the number of colours does not work; it simply slows Corpse by using more memory)
- Remove any white border on the map (crop)
- Select an area (window) of the map which is large enough for the courses you are setting

A new BMP file with new characteristics can be created and saved. This new BMP file can be used interchangeably with the BMP file from which it was created. Corpse automatically compensates for variations in DPI between files.

Hint 3: If you crop the map part way through the project, all controls will have to be re-positioned. In addition it will be impossible to use a cropped bitmap if you plan to produce output eps files for digital printing

## **2 Map image to print courses on**

Map printing occurs in two ways.

Using the <Print><maps> option the map used as a template on the screen will be used when printing to a home printer. The quality of this print will be affected by the resolution of the raster of the map used.

If high quality prints of maps and courses are required, then eps files are created, and the source map must also be an eps file. Enter eps file name using <Print><Options><EPS><Background file> and select the eps file as a template. After printing, the resultant eps file for each course + map can be sent to printers for high quality digital printing. The details of printing are dealt with later in this document.

Hint 4: Even though most home computers don't have the software to print these resultant map/course files, you can view and check them using the EPS viewer in Corpse at <Utilities><EPS Viewer>.

Hint 5: It is possible to print drafts with courses using the loaded .bmp or .eps raster map on your home computer via the <Print><Maps> option.

## Getting started – the basics

### 1 **Getting Corpse**

Corpse can be loaded onto PCs running Windows 95 or better. At least 64 MB of memory is recommended. The zip file and license number can be obtained by contacting the OAWA Technical Convenor. Once loaded, Corpse can be opened from the icon on the Desktop. Note that there is not a Mac version of Corpse.

### 2 **Open file**

Select <File> <new> to start a new file, or <File><Open> to open an existing corpse file. Alternatively the first or second icon (from left) on the second menu bar can be used.



### 3 **Name your event**

Select <Event><Event Name>. This name will shown on control description sheets.

### 4 **Load map**

Select <Map> <Load>

This map can either be a bitmap (.bmp) or encapsulated postscript file (.eps). EPS file preferred. Select the correct scale of the loaded map. See the section “Maps used in Corpse”.

### 5 **Create and name the courses**

Select <Event> <New Course> and give the course a name

### 6 **Add start, finish and controls to each of the courses**

Select the purple control circle icon on the menu bar and start adding circles. Each control will be assigned a number, which is the order in which it sits on the master list. This is different to the control code which you assign later. The control code is the number on the control stand.



To define the status of a selected circle, click and hold in the control code box (on right of control number) at the bottom of the screen and select the control type then release the mouse button. Control codes for standard controls are best left until courses are all set. Pre-start distances need to be added for start controls. The distance from the last control to the finish will be automatically calculated for each course once the last control and finish are selected.

*Note: Controls can be selected by clicking on the red arrow on the top menu then clicking on the control.*



Hint 6: There can be more than one start, although usually only one finish. The finish can be of three types – taped from last control, funnel finish, or no tapes. The other commonly used control type is “taped” (from previous control)

Hint 7 It's easier to add control codes much later in the process. There is a tool which does it automatically. You can then adjust any numbers which are near others having similar numbers which may confuse competitors.

Hint 8: If the control is out of order in the course you can click and drag it to the correct order in the control description sheet on the right side of the screen.

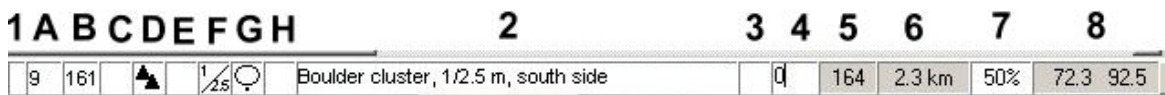
## 7 **Define which classes use the course.**

Select <Event> <Classes> Type in the classes which use this course. This is normally only necessary for Badge events and Championship events. For normal club events this field can be left blank.

## 8 **Describe the controls**

This can either be done on the MASTER course which has been automatically created as you designed the competition courses, or as you add controls to courses. Generally it will be done after taping sites in the bush, at which time the description is known for certain.

Select each control on the map or on the control description sheet. Click and hold/drag/release in descriptions boxes on the bottom of the screen in turn to select the appropriate description symbols.



1 **Checked control.** This enables you to add check marks to controls. Click the box to mark it as “checked”. This is useful when ticking off controls which have been checked or identifying controls which need special attention, etc. Check marks are printed on the master control list. Checked controls are not marked in course control descriptions, but will appear shaded grey on the screen.

- A **Control number**
- B **Control code**
- C **Which of any similar feature**
- D **Control feature**
- E **Appearance**
- F **Dimensions/combinations**
- G **Location of the control flag**
- H **Other information**
- 2 **English description**
- 3 **Punch pattern (optional)**
- 4 **Climb (for this leg)**
- 5 **Distance from previous control**
- 6 **Course length**
- 7 **Map magnification**
- 8 **Map co-ordinates**

Note: Leaving the cursor for a couple of seconds on any part of this tool bar will display a tool tip

For details on A-H see attached control description sheet.

Note: It is possible to add extra lines of text after the finish e.g to describe course closure time or safety bearing.

Hint 9: English descriptions are auto-generated in the big box. These descriptions can be edited. Note that the same description will apply to all uses of that control.

## 9 **Add climb to courses**

From the top menu select <Event><Climb>

There are two methods you can use:-

- (a) Type in the # symbol and press enter. You only do this once for an event. Then on each course select a control circle, count the climb between it and the previous one and enter that in the box to the right of the english description (as metres to the nearest 5 metres). Repeat for the whole course. Total climb for the course is automatically added into the control description sheet as you do this. Remember to update the boxes if you move controls later.  
Repeat for each course in the event.

- (b) Work out the course climb some other way and type in the result. The disadvantage of this method is that it's hard to check where the total came from. And you still have to remember to update the boxes if you move controls later.

## 10 **Add competitor numbers (optional)**

From the top menu select <Event><Competitors>

Add numbers of competitors per course. This can be useful at major events determining load on common controls and water requirements.

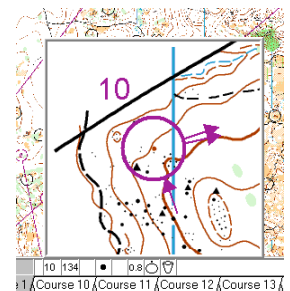
## 11 **Quick entry**

From the top menu select <Quick>

This option allows for quick entry or editing of course number, classes, competitors and climb

## 12 **Moving the control sequence numbers on the map**

The placement of the control sequence number on the map can be changed by selecting the control, then clicking (and holding the button down) in the control number box (box A) on the bottom bar. An enlargement of the map will appear and the number can be moved to the desired location. Release the mouse button when the desired location is reached.



Hint 10: If the Local Control Sites option <Event><Local control sites> is selected whilst in a course, the position of control sequence numbers on the map are unique to this course. You must select this option on each course

If this option is not selected, the position of control sequence numbers on the map are those currently used in the master (all controls) map. Moreover relocating a number on any course map will move it on all other course maps and on the master map.

This option is not available (or necessary) when the master control list is selected.

### **13 Changing the order of courses on the bottom tabs**

In the far bottom left of the screen use the red arrows to change the order of the selected course tabs.



### **Displaying course tabs not visible on screen**

In the far bottom right of the screen use the black arrows to scroll left or right



### **14 Changing the order of controls on a course**

Achieved by simply dragging the control description to its new place on the control description sheet.

### **15 Adding a control to a course**

Select the add control icon on the second menu bar.



*There are then two options:*

Add a totally new control by clicking the desired location,  
or

select an existing control (but previously unused on this course) by clicking over the control circle which will normally be marked black (indicating it is available but not used on course). Corpse will not allow you to put 2 controls closer than about 40 metres apart. This conforms to IOF regulations. You can use any control more than once in a course e.g in a “butterfly pattern” course.

### **16 Deleting a control on a course (course selected)**

Select the scissors icon on the second menu bar and click on the control to be deleted. It is removed from the course but not from the master map because it may be used on other courses.



## 17 **Deleting control/s completely - master (all controls) map selected)**



Individual controls can be deleted using the scissors icon on the second menu bar whilst in the master map. If the control is part of a course you won't be able to delete it from the master.



All unused controls can be deleted using the icon fifth from the right, although this is often unnecessary and not recommended until you are sure the controls will not be needed at a later time.

## 18 **Display control IDs**

To display the control codes (i.e. the number on the control stand in the field) in the master map screen, tick the display control IDs option under <Event> on the top menu bar. This option is useful for checking if similar control codes are near each other once control codes have been automatically assigned using the auto number option (see page 16).

## 19 **SAVE, SAVE, SAVE!**

Hint 11: Save your file regularly, preferably as a new file with date embedded so that you keep a history of changes. The .cpe files are very small, and it doesn't hurt to keep each one after a session. You can delete them later.

Note: Use <File><Save as> on the menu bar to create a new file. Using the save icon or <File><Save> will simply over-write the existing file.

## Other options from the top menu bar

### **View**

Under the <View> option there is the ability to have a variety of viewing options. Basically self-explanatory. Cross-hairs within control circles can be turned on and off under this menu. Explore.

### **Map**

Under the <Map> option there are a few choices.

**Load map** – already discussed

**Map scale** – information on scale of loaded map

**Stretch map** – change the scale of the course diagram. This enables Corpse to recalculate distances and resize the course diagram. The <Map><Load> process must be done again with the different scale map.

This option permits the courses entered into Corpse to be overlaid on a map of a different scale.

Suppose a 1:15,000 has been used for course setting and that all courses except the Easy course are to be printed on a 1:15,000 map. The Easy course is to use a 1:10,000 map. Prior to printing (or plotting) the Easy course Stretch should be used to tell Corpse that the map's scale is to be changed from 1:1,15000 to 1:10,000. A new BMP or EPS file, as applicable, should be loaded to ensure the control locations are correct (the different maps may not cover the exact same areas or may be positioned differently on the printed page). Refer to [Map Tools|Select] to see how to move all controls in a single action. Also be aware that a different area of map is enclosed by the same sized circle when changing map scales. This may mean that some control descriptions need changing for the alternative map scale. For instance an extra boulder may be introduced into the circle and the middle boulder is no longer the correct description of the control feature.

It is best to make a copy of the current Corpse event file with a new name (e.g. Event\_10000.cpe) and use this new file before undertaking this operation to avoid confusion.

**Map Borders** – It is possible to add a blank border. This may reposition control circles etc, so use with care and check the results before printing large quantities.

**Map File Information** – information about the EPS file

**Tailor map** – for editing a loaded bitmap. Use this with caution, because if the map is cropped all the control circles will be out of place. Very limited use. See previous notes.

## **Event**

<i>Event name:</i>	Name the event
<i>Event footer:</i>	text to go at the bottom of the control description sheet
<i>New course</i>	Create a new course
<i>Delete course</i>	Delete a course
<i>Rename course</i>	Rename an existing course
<i>Copy course</i>	copy a course so that you can modify it to become another course. The process: <ul style="list-style-type: none"><li>• create a new course &lt;Event&gt;&lt;New Course&gt;and give it a different name</li><li>• select the course tab for that new course</li><li>• select &lt;Event&gt;&lt;Copy Course&gt; and choose the 'from' and 'to' names</li><li>• modify the new course as required</li></ul>
<i>Explode relay</i>	Refer to relays section in manual.
<i>Separate loops</i>	Refer to relays section in manual.
<i>Climb</i>	Add climb to a course. This is usually best done by adding it leg by leg (see page 9)
<i>Length</i>	This overrides the length automatically calculated in corpse and is not normally used.
<i>Classes</i>	Classes associated with a course
<i>First sequence number</i>	The number of the first control in a course. Usually this is set to 1 (the default), but if you have a map pickup, you will need to define the number of the first control on the second map
<i>Map Markup</i>	Positioning map title, control descriptions etc. on the printed map. See page 23
<i>Local control sites</i>	Allows for the placement of the number against a control to be different for each course using the same control (see hint 10).
<i>Display control IDs (master map only).</i>	Displays the control codes instead of the number assigned by the program to each feature
<i>Order controls (master map only)</i>	Numerically re-orders the controls on the IOF control description list.

## **Quick**

Quick entry of course, class, competitor and climb details

## **Preferences**

Under the <Preferences> option several options can be selected.

**Map** – the look of the course on the screen: control circle size and line weight, text font and the gap between the control line and the control circle. Defaults are usually OK except that the Leg Line Clearance needs to be at least 1mm.

**IOF control descriptions** – Options for text size, size of boxes on control description sheets etc. Defaults OK, but you may wish to vary the font size to 12.

**English control descriptions** – Options for text size, sheet width. Defaults OK, but you may wish to vary the font size to fit more text. Note that the default text descriptions can be amended (see Hint 9).

### ***Xref (reporting options)***

This is an output request item. Set the reporting options on control usage etc. The amount of detail presented in the detailed report can be amended in the <File><Settings> options.

### ***Utilities***

<i>Off map</i>	Clears all controls that are not within the map extent
<i>Clear holes</i>	Deletes all holes placed in corpse
<i>Clear cartography</i>	Deletes all cartography placed in corpse
<i>Clear checked</i>	Clears all controls that have been checked (see page 8)
<i>Load punch patterns</i>	Not usually used
<i>Set courses ascending or descending</i>	Orders the courses on the tabs at the bottom on the map
<i>Punch pattern</i>	Edit punch patterns for controls (not usually used)
<i>EPS viewer</i>	Allows EPS files created during printed to be checked

## Explaining the options from the icon menu bar

### **Windows standard commands**



Open new file, open existing file, save and print

### **Add control circle**



When this button is down, the cursor will change to crosshairs with a circle when it is over the map. The effect from <click>ing while the cursor is over the map depends on the following:

The master (all controls) map is showing. <Click>ing on any area on the map that does not have a control marked will cause a control to be placed on the map and an entry added to the master control list. Controls cannot be placed directly on top of each other.

A course map is showing. <Click>ing on any area on the map that does not have a control marked will cause a control to be placed on the map. That control is placed after the control highlighted at the time on the control description list for the course. A control circle is also added to the master map and an entry added to the master control description list.

<Click>ing on top of an existing control which is not already part of the current course will cause this control to be added to the course after the control highlighted at the time on the control description sheet. Adjust the sequence if necessary.

The new control will become the active control.

Controls can be placed with their centres at a distance of one eighth of the diameter of the control circle. To create close controls it may be necessary to create the second control clear of any existing controls and then drag it into position. This is not a good idea except where trying to have different English descriptions for legs converging on a common point from different controls. For instance it could be taped from one direction but not from the other. The restriction would have been written into Corpse to conform with technical rules.

### **Select/move symbol**



When this button is down, the cursor will change to an arrow when it is over the map. Four actions are possible in this mode.

*Select Control.* <Click>ing on top of a control on this course will cause it to become the active control. The colour of the control on the map will change to reflect this (the default setting for an active control is red). The control will be highlighted in the control description panel if it is displayed. The control description will be displayed in the status bar at the bottom of the screen.

*Position Control.* If the left mouse button is held down while the cursor is over a control on the current course then that control can be dragged off to a new location on the map. The drag action is started when the cursor changes to directional crosshairs. The drag action is stopped when the mouse button is released. The dragged control will also become the active control.

*Position All Controls.* If <Ctrl> is held down before the “position control” action is started, then all controls will be moved.

*Control Usage.* The usage of individual controls can be viewed by holding down the right mouse button while the mouse is over a control in the map panel. This will display a list of courses using the particular control. The list disappears when the right mouse button is released. The list does not display the name of the current course. If the box displayed is empty then the control is only used on the currently displayed course.



### **Delete control**

When this button is down, the cursor will change to a pair of scissors when it is over the map. Two actions are possible in this mode.

*Delete Course Control.* <Click>ing on top of a control on this course will cause it to be removed from the course.

*Delete Event Control.* Controls can only be removed altogether if the delete function is carried out on the master control map. If the control is in use on any other courses it cannot be deleted unless it is first deleted from the other courses.



### **Break control circle**

Breaks the control circle by increments of  $22.5^\circ$  ( $1/16$ th of a circle). The double finish circle can also be broken but you must <click> over an imaginary circle midway between the double circles. This action is usually not necessary for finish circles.

**WARNING: Don't overdo the amount of circle deleted!**



### **Holes on map**

Places holes on map. These are used to break lines between controls

<Click>ing over the map area will cause a hole to appear at the crosshairs. The visible black spot(s) will disappear when you select another tool. Holes cannot be moved. They must be deleted and redefined.

Holes can be removed by <Ctrl>+<Click>ing with the crosshairs over a hole. There is no restriction with the placement of holes. They can be placed directly on top of each other (causing some confusion when trying to delete a hole) or they can be overlapped to form an elongated effect.

Hint 13: Holes should only be added when nearing completion of course setting as a large number of holes may slow down the operation of Corpse. It should be remembered that holes only affect leg lines. Control circles, triangles and text are not affected by holes. Hole size is set under <Preferences><Map> (hole size)

They affect all courses, and therefore their effect on other courses must be considered

### ***Print window***



Places a print window on screen using the current settings on your default printer on your PC. Use this to define what part of the map you want to print, otherwise the whole map is printed on many sheets of paper.



### ***Registration points***

Used for registering a print over an existing map.

### ***Zoom Tools***



The tools in this group affect the magnification of the map display. The current magnification is displayed on the status bar at the bottom of the

screen.

#### **Zoom to fit**

<Click>ing this button changes the view magnification so that the entire map is displayed on the screen. A magnification of less than 25% can occur depending on the size of the map.

#### **Zoom out**

Each time this button is <click>ed the map is moved further away. The current magnification is reduced by 25% of full size. The minimum magnification is 25%.

#### **Full scale**

<Click>ing this button causes the map to be displayed at the size at which it was scanned (100%).

#### **Zoom in**

Each time this button is <click>ed the map is moved closer in. The current magnification is increased by 25% of full size. No upper limit has been set on the magnification.

#### **Zoom to Course**

<Click>ing this button causes the map to be displayed at the size at which all controls of the current course will just fit in the map display window.

## Mode Tools



The tools in this group affect the display. These buttons are mutually exclusive with one and only one button being selected at any one time.

- M** The screen displays only the map.
- I** The screen displays the map and the corresponding control descriptions in IOF symbol notation. This is the most useful mode.
- E** The screen displays the map and the corresponding control descriptions in English notation.
- C** The screen displays the map and a set of cartographic tools. These tools allow features such as crossings, out of bounds, water drops, etc. to be placed on the map. Many of the other tools are disabled when in this mode. See separate section on using these tools.



### **Auto Number**

The auto number tool is only active when the master (all controls) list is displayed.

The auto number tool numbers control identifiers in the following way. Working in the master control list, the first standard control (i.e. not a start or finish control) is located; the search commences from the currently selected control. If the control identifier is numeric then all subsequent standard controls receive a sequential number based on the first standard control. You need to assign a control code (stand number) from the set which you are using to at least 1 control description. Logic says start at the top of the list and allocate the lowest code number. You can reassign a few numbers manually later if there is a need to keep similar numbers apart to avoid confusion. Dragging the description of a control within the master list **will not change** the control code, (only the sequence number).



### **Generate English descriptions**

This tool is no longer necessary. Corpse automatically generates English control descriptions for controls as you add IOF symbols. You can elect to have Corpse generate English descriptions in long (e.g. north eastern) or short (e.g. NE) format (an option under <Preferences><English control descriptions>



### **Delete unused controls**

This tool removes any controls which are included in the master control list but not used in any course descriptions. The listing of these controls can be viewed with XRef. Unused controls can be removed from the master control list using the normal control removal tool. See section 16 under "Getting started".

Hint 13: Use this option with extreme care as you can unwittingly remove controls that you may want to use later.



### **Show all courses**

Shows all course diagrams together on screen. Useful for reviewing control utilisation.



### ***Hide inactive controls***

Controls which do not belong to the course currently being displayed are hidden. This means that important map detail will not be obscured by these controls. However, controls which are not currently visible can still be added to the current course using the add control tool – be wary though - you may end up putting a new control much closer than you wish to another.



### ***Runner's view***

When this tool is down a floating, resizable and movable window is displayed. The window contains an image of the map as the runner would probably hold it. The current control is displayed at the bottom of the window.



### ***Undo***

Undoes up to 10 commands. It also tells you what it is undoing.

## Cartography mode

This mode has been introduced to permit the addition of additional features to the map. These features are called cartographic objects. The cartography mode is selected from the main toolbar <View><Cartography>

Cartographic objects fall into four categories:

*Area Object* Enclosed areas which are dangerous or out of bounds

*Line Object* Lines representing boundaries or forbidden routes

*Point Object* Single points such as marked crossings, water drops, first aid, etc.

*Text Object* A single point which can contain any required text

*Pictures* Any picture file or bitmap. Handy for including sponsors logos. Can be resized or moved around the map.

*Colour Text* A single point which can contain coloured text.

### Editing Tools



#### **Change Object**

This button is activated when an object is selected and when a symbol is selected which is compatible with the selected object. For example, an area can be changed to another area, but not to a point or line symbol.

<Click>ing this button will cause the currently selected object to be changed to the new symbol. For example, this allows you to change an out of bounds area to a dangerous area.

If the object is a Text object, Change object provides a dialog box to enable you to change the text of the selected object.



#### **Delete Object**

<Click>ing this button will cause the currently selected object to be deleted.



#### **Edit Object**

When this button is down <click>ing over an object will select it for editing. The selection process gives priority to point objects.



#### **Edit Points**

When this button is down the individual nodes of an object can be moved or deleted. New nodes may also be added to area or line cartographic objects. Refer to following sections on Area Tools, Line Tools, Text Tools, Point Tools and Rotatable Point Tools.



## **Draw**

When this button is down new cartographic objects may be drawn. Refer to following sections on Area Tools, Line Tools, Text Tools, Point Tools and Rotatable Point Tools.

### **Area Tools**



*Out Of Bounds Area* - boundary not marked on the ground

*Out Of Bounds Area* - boundary marked continuously on the ground

*Out Of Bounds Area* - boundary marked intermittently on the ground

*Dangerous Area*

To add an area object select the draw tool and the required area tool. Define the object by <click>ing on the map at adjacent points of the object. When all points have been defined complete the operation by <click>ing the right mouse button.

The object can be adjusted by selecting it and dragging the node boxes to new positions. New nodes can be added to an object by selecting it then, with the edit points tool selected, holding down <Ctrl>+<Shift> and <click>ing over the edge of the object in which you wish to add a new node. The new node can then be dragged to the desired position.

Nodes can be removed from an object by selecting it then, with the edit points tool selected, holding down <Ctrl> and <click>ing over the node to be deleted.

Area objects which have less than three nodes (corners) are automatically deleted.

Area objects cannot be moved. This is achieved by selecting the edit points tool and dragging the individual nodes to new locations.

### **Line Tools**



Uncrossable Boundary

Line objects are created using the steps outlined for Area objects. Line objects which have less than two nodes (corners) are automatically deleted. Line objects cannot be moved. This is achieved by selecting the edit points tool and dragging the individual nodes to new locations.

## Text Tools



**Text** and



**Colour Text.**

A text object is placed on the map by <click>ing at the desired point with the draw tool selected. The text will be centred on that point. A dialog window will appear to enable you to enter the desired text.

The text can be changed by selecting the object and pressing the Change object tool. A dialog window will appear to enable you to enter the desired text. Text size/font is set under <Preferences><map> although changing the preferences will affect all text used in the event including control numbers. Use common font types such as “Arial” if the cpe files are to be shared. If courses are to be plotted then you should select a font which is available or similar to the fonts provided by the plotter hardware.

Text objects can be moved by selecting the edit points tool and dragging the object to the new location. Text objects which have no text are automatically deleted.

With Colour Text objects, font and colour are changeable by selecting the object and <click>ing the “change object” tool to access the choices.



## Picture Tools

<Click> the icon, move the cursor near where you want to put the picture and then <right click>. Select *Draw*, then right click picture location and follow the prompts. Change the suggested size to 50 x 50 so that you can find it when it is imported.

The graphics object and its size can be changed by selecting the object and pressing the Change object tool. A dialog window will appear to enable you to enter the desired changes

## Point Tools

*Drinks*

*Radio Control*

*Manned Control*

*First Aid*

*Hash House*



A point object is placed on the map by <click>ing at the desired point with the draw tool selected. Point objects can be moved by selecting the edit points tool and dragging the object to a new location.

These generally clutter up the map and should not be used on course maps. They may be useful for the setters in the planning stage.

## **Rotatable Point Tools**

*Forbidden Route*  
*Crossing Point*



A rotatable object is placed on the map by <click>ing at the desired point. If the mouse button is held down and dragged off to the side, a line will appear showing the angle to which the object will be rotated when the mouse button is released.

Rotatable objects can be dragged to new positions by selecting the edit points tool and dragging the object to the new location.

Rotatable objects can only be rotated at the time of creation. To change the rotation, delete the object and create a new one at the desired angle.

## **Placing titles or control descriptions on map**

### ***Map markup***

When a course is selected, several options are available for printing control descriptions or map title on the map. These are all found under the <Event><map markup> menu.

The Map markup facility provides you with control over the way your maps are prepared for printing. You can decide whether maps have IOF or text based control description sheets on the front of the map, where the descriptions are positioned and whether they are overprinted or whether the area behind the control description is blanked out first.

The markup for each course can be based on the markup of the Master map. For example, if all maps are to have IOF descriptions in the top right hand corner then these options should be selected for the Master. All of the other courses should then identify "Use Master". If one or two of the other courses require something different then turn off the "Use Master" and set the specific requirements for that course.

When producing EPS files as output, you have the option to specify printing control descriptions on the back of the map. Corpse produces a new file which has the same dimensions as the map. This is a blank sheet with the specified markup. As a result you can have control descriptions printed on both the front and the back of the map. You may even have IOF on the front and text on the back.

## Creating Relay Courses

A relay is a course where team competitors visit one control of a cluster of controls as opposed to all competitors visiting the same control. Control clusters are set up so that the courses are ostensibly the same (in distance, climb and complexity) but are not identical.

Relays can be planned by allocating alternative controls on a course. If, for example, an alternate control is specified at control 2 then two relay courses will be available. These are: Start, 1, 2, 3...., and Start, 1, 2a, 3....

To develop a relay follow the following steps:

- Develop a course in the normal way. (See [Create Courses](#)). The controls defined at this time are called "primary controls". Primary controls are the ones which appear in the control descriptions at the side of the screen. This is called the "primary course".
- Select a control on the primary course for which you wish to define an alternative control.
- With the [*control tool*] from the [map tools](#) selected, click on a new control site with the <Ctrl> button down. Corpse will now display the original course and the alternative path. If a control description sheet is displayed, it will only show details for the primary course.
- Controls can be deleted from a relay by clicking over the control to be deleted with the [*cut tool*] from the [map tools](#) selected. If the control is an alternative control, it will be deleted and the map updated. If the control is a primary control, it will be deleted and replaced by one of the alternative controls (the control description sheet will also be updated). The map will then be updated.
- Details of the various relay courses can be viewed using [XRef](#). Alternatively, relays can be "exploded" into the individual courses. Once a relay has been "exploded" it cannot be "unexploded". However, the "explode" can be undone with the [*Undo*] button.
- Print the courses or control description sheets as required. If component courses and control description sheets for relays are required then the relay must be "exploded" first. Otherwise, only the "primary" course will be printed. Refer to the [[Event/Explode Relays](#)] function.

### **Course Setting Limitations**

The relay is a standard course with alternative courses. You can work on the standard course (primary course) in the normal way e.g. add controls, delete controls, move controls on the map, etc.

Alternative courses are added to the standard course by defining alternatives for the primary controls on the standard course. If you reposition the primary control in the control sequence, the alternative controls are also repositioned in the control sequence.

To modify an alternative control you will need to gain access to it; usually through the master list. It is only there where you may enter the description, break the control circle, or move the position of the control on the map.

### ***Relay Course Names***

The following rules apply during the "explode" process:

- The names of the "exploded" courses will be based on the original course name with "-01", "-02", ... added. The original course name may be truncated if the resulting name exceeds 10 characters. If the resulting names are not unique, the "explode" process will be terminated with an error message.
- If the original course uses "local control sites" then, these positions will be used wherever possible when placing the control identifier. Generally, for alternative controls, the control identifier will be positioned as specified in the master list.

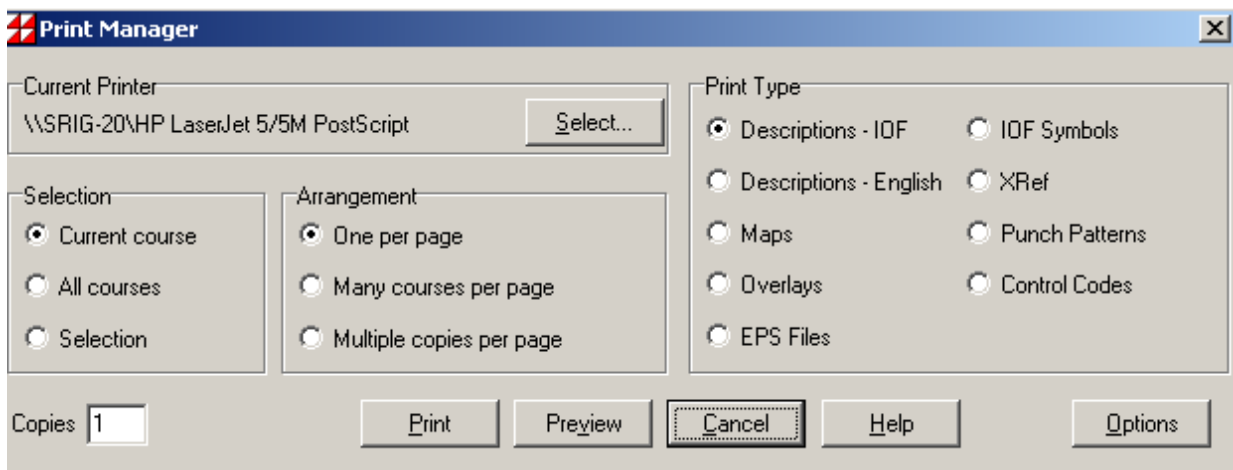
# Printing

## **Printing overview**

There are four main printing options:

- Printing control descriptions
- Printing draft maps with courses
- Printing digital eps files with maps and courses for commercial digital printing
- Printing course only to eps files for later overprinting (B&W and colour)
- Printing course overlays onto existing maps.

Before these options are explored it is important to understand the print manager dialog box, accessed using the <File><Print> command.



## **Current printer**

The current printer initially is the default printer attached to your PC. This allows you to print drafts of the map/course and copies of the control descriptions at home. If you are plotting you will be able to select the plotter here (after the correct driver has been added to your list of printers). Drivers for the Roland Plotters and the plotters that the OAWA owns can be obtained from Peter Watson ph 9291 0367. Note that plotter drivers for the OAWA plotters are not available for Windows XP operating system.

## **Selection**

A single course (the active one), all courses or a selection of courses can be chosen for printing

## **Arrangement**

An option only available for control descriptions. Self-explanatory

## **Print type**

*Descriptions- IOF.* Control description in IOF format

*Descriptions – English* Control descriptions in English. Ensure that you have converted the required control descriptions to English – see hint 9.

*Maps –* Draft maps with courses to be printed on home printer

*Templates* - Templates are output as Windows BMP files. These can be used as OCAD templates or can be printed at a later time. Templates cannot be previewed.

*EPS files* – EPS files with courses ready for sending to a commercial digital printer.

*IOF symbols* – IOF control description symbols

*Xref* – Course statistics. Output dependant on settings made in <File><Settings><Xref>

*Overlay* – Print course diagrams onto an existing maps

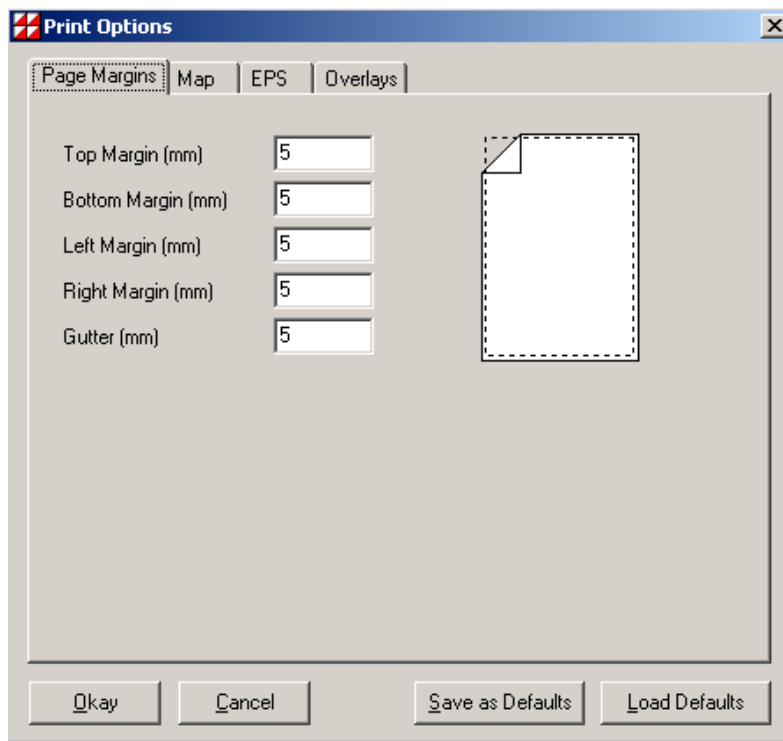
*Punch patterns* – Output of punch patterns (if used). largely redundant because SportIdent is used at major events

*Control codes* – Lists of control codes used for selected courses.

## **Print options**

### **Page margins**

This option sets the size of page margins for selected printer  
This box is accessed via <Print><Options><Page margins>.



## Map

This box is accessed via <Print><Options><Map>.

*Area* – Full map or window of selected area. Window area selected using print window icon

*Size* – Full (100% size which may go over several pages), or Fit on Page (full map or map window resized to fit on one page)

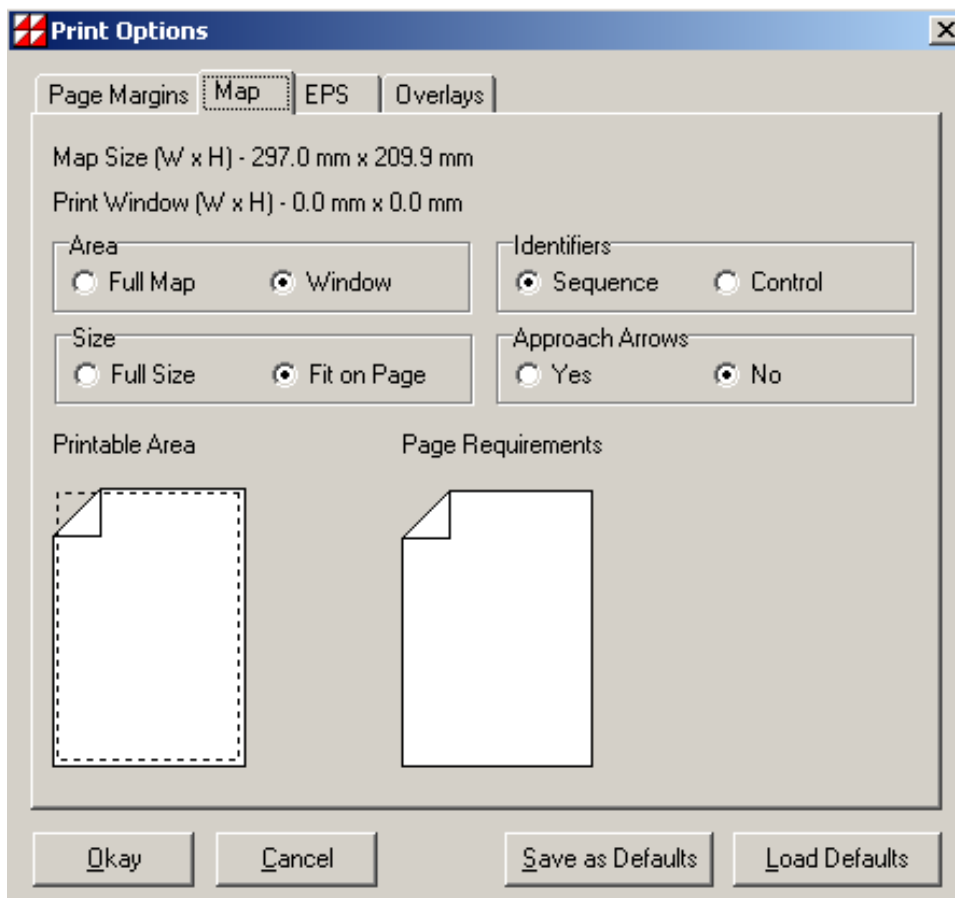
*Identifiers*

*Sequence* – Controls on course number in sequence (1, 2, etc.)

*Control* – Controls on course numbered by control number

*Approach arrows* – when on, this displays the various approach directions to a control. Useful for determining if any controls are doglegs (i.e. competitors coming to the same control from opposite directions)

**Note: All selections must be confirmed by pressing the Okay button**



## EPS

This box is accessed via <Print><Options><EPS>.

Select the colour of the purple overprinted on the EPS output map. This is only relevant when the EPS option is chosen. Experience has shown that **Cyan 30, Magenta 80, Yellow 0 and Black 0** works well. 43,91,0,0 is recommended by Adobe as the best match to the IOF purple, but in practice it is far too dark. 100% magenta is sometimes used. Experimentation may be needed to get the best result. 30,80,0,0 is recommended as a starting setting.

## Template

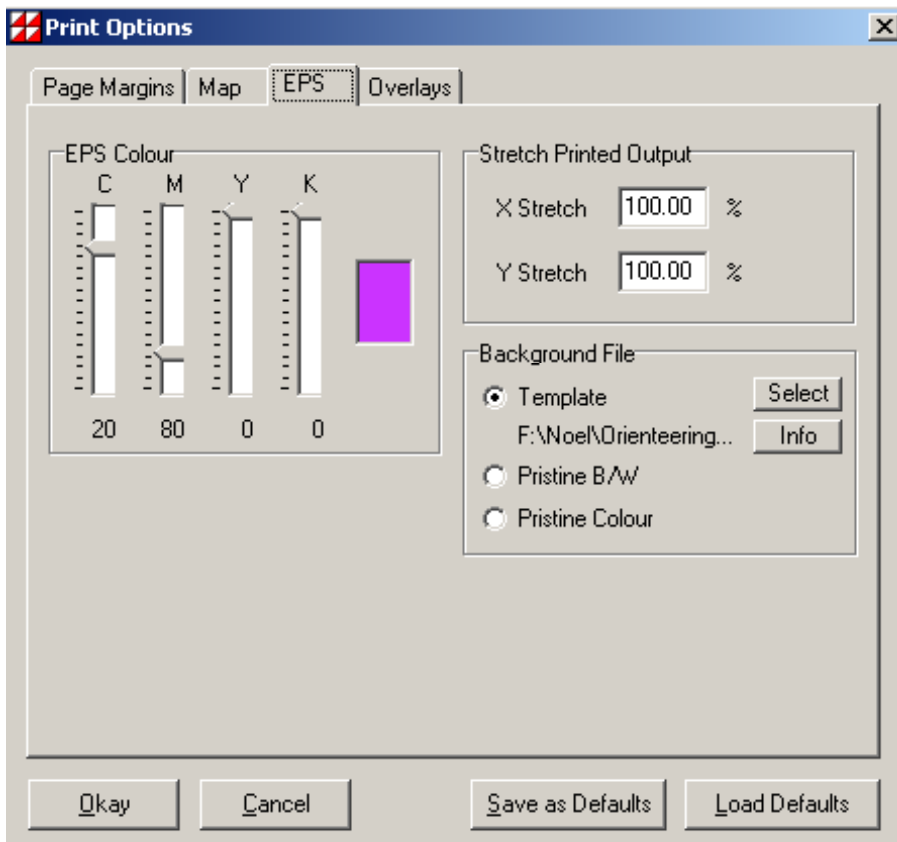
Select the map file (eps) you wish the courses to be printed with. Usually this is the same eps file as the one you have been course setting on.

## Pristine B&W

B&W eps file of courses only. Includes control descriptions, course title etc. as specified.

## Pristine colour

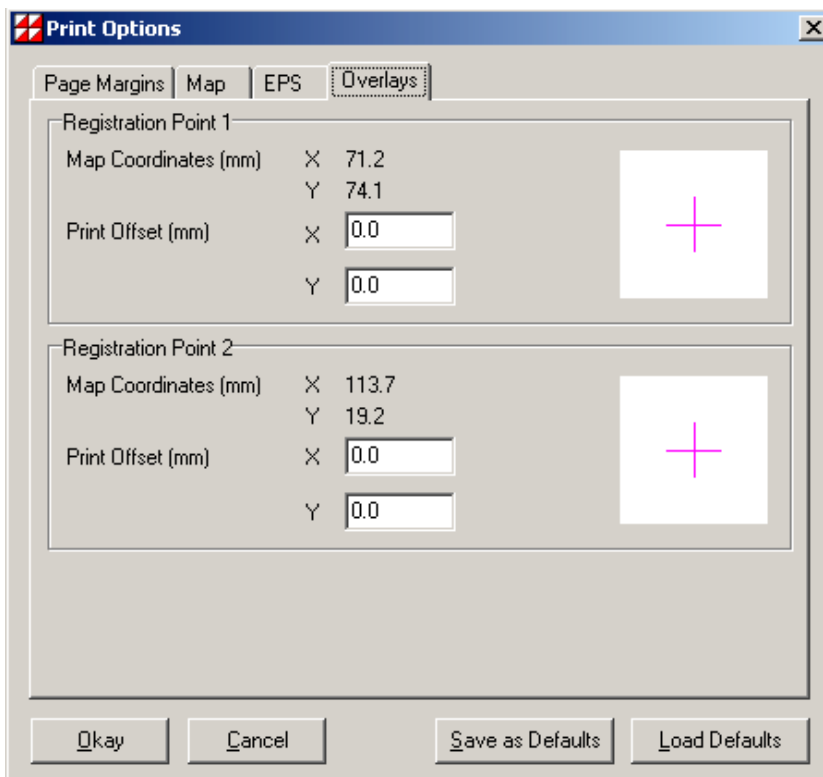
Colour eps file of courses only. Colour specified using CMYK ramps. Includes control descriptions, course title etc. as specified.



## Overlay

This option is used when you want to print courses and control descriptions onto existing maps, usually with your own printer. It is assumed that all output fits onto one page. The output can also be shifted and scaled using the Overlay Options.

The map co-ordinates are defined by placing registration points on the map using the icon on the top menu bar of the main screen.



### ***Printing control descriptions***

In the print manager box select the course/s required, arrangement of descriptions on the page, and whether IOF or English descriptions are required. Check the output in Preview before printing

### ***Printing draft maps with courses***

In the print manager box select the course/s required and in print type select maps. Define the extent of the print using the map options. If you are only printing part of the map define the print window off the top menu icons prior to opening the print manager box. Check the output in Preview before printing.

### ***Printing digital eps files with maps and courses for commercial digital printing***

In the print manager box select the course/s required and in print type select eps. Remember to set the location of control descriptions map and course titles etc. prior to opening the print manager box. Check the output in <Utilities><EPS Viewer> before sending to a commercial printer. For major events get a proof print done first before you commit to a large print run.

### ***Printing course only to eps files for later overprinting (B&W and colour)***

In the print manager box select the course/s required and in print type select eps. In the <Print><Options><EPS> box select either B&W or colour pristine file. Check the output in <Utilities><EPS Viewer>.

### ***Printing course overlays onto existing maps.***

This can be done by putting an offset printed map through your home printer (A4 standard size usually), or using the association's plotters.

Pristine B&W or colour eps files (see previous section) can be registered to print over existing maps. Registration setup is via the overlay option as discussed previously. Some trial and error is required to register the course properly.

The task of plotting/printing course overlays is fairly specialised, and is not discussed in any detail in this document. Peter Watson maintains the OAWA's plotters and can give expert guidance on this matter.

Peter can be contacted on 9291 0367, 0409 031 088 or whiskers@iinet.net.au

## **Need help?**

Try the help menu in Corpse, it's pretty good.  
Contact a regular Corpse user in the OAWA  
Contact Rex Saye

## 2004 Control description sheet