Printer test documentation

These documents are designed to test the suitability of a colour printer for the reproduction of orienteering maps.
They also allow the optimisation of the printed map colours by adjusting colours within OCAD.

Software required:

Adobe Acrobat reader - download Acrobat Reader 7.0 from:
http://www.adobe.com/support/downloads/product.jsp?product=10&platform=Windows
OCAD8 or OCAD9 – the demo version of OCAD8 is no longer available for download.
Download the OCAD9 Demo version from:
http://www.ocad.com/en/downloads.htm

Other files used:
Printer test page Colours 2005.pdf
Printer test page Line Quality 2005.pdf
OCAD colour swatch printer setup file8.ocd for OCAD8 or OCAD colour swatch printer setup file9.ocd for OCAD9

Reference:
IOF (ISOM 2000) / BOF colour swatch – contact BOF office for a colour swatch

Note that the colour of any printing is dependant on the type of paper used. For all these tests it is important that you use the exact paper intended for printing your orienteering maps.

Printer test page - Colours 2005.pdf

This page will test the accuracy of printing the default Pantone colours against the BOF colour swatch (printed by offset litho printing).
Note that for any particular printer, these colours can later be adjusted within the OCAD colour table to achieve the best possible match.

The main purpose of this page is to test the printing of map colours as they are reduced in intensity. You should be looking for a linear reduction in intensity with no noticeable change of colour (hue). It is quite common for some laser printers to have problems with both linearity and colour when the intensity is less than about 30%. The best printers can produce almost perfect results - linear fade and with no noticeable colour change.

The bottom section of this page is designed to test some of the typical orienteering map printing problems:-

- Do the dots of the rough open with scattered trees symbol print clearly?
- Can these dots be seen clearly behind the green lines?
- Do the green lines of the undergrowth screen appear to be evenly spaced and all the same line thickness?
- Do the green lines print the same over the rough open colour?
- Do the brown contour lines look a constant width over each colour?
- Does the apparent width of the contour line vary as the direction of the line changes?
- Are the blue lines (streams and ditches) clearly visible over the '100%' green?
- Do you get any small gaps (white) around the contours or the stream/ditch symbols?

Printer test page - Line Quality 2005.pdf

This page is designed to test the line quality of the printer when printing orienteering map colours.

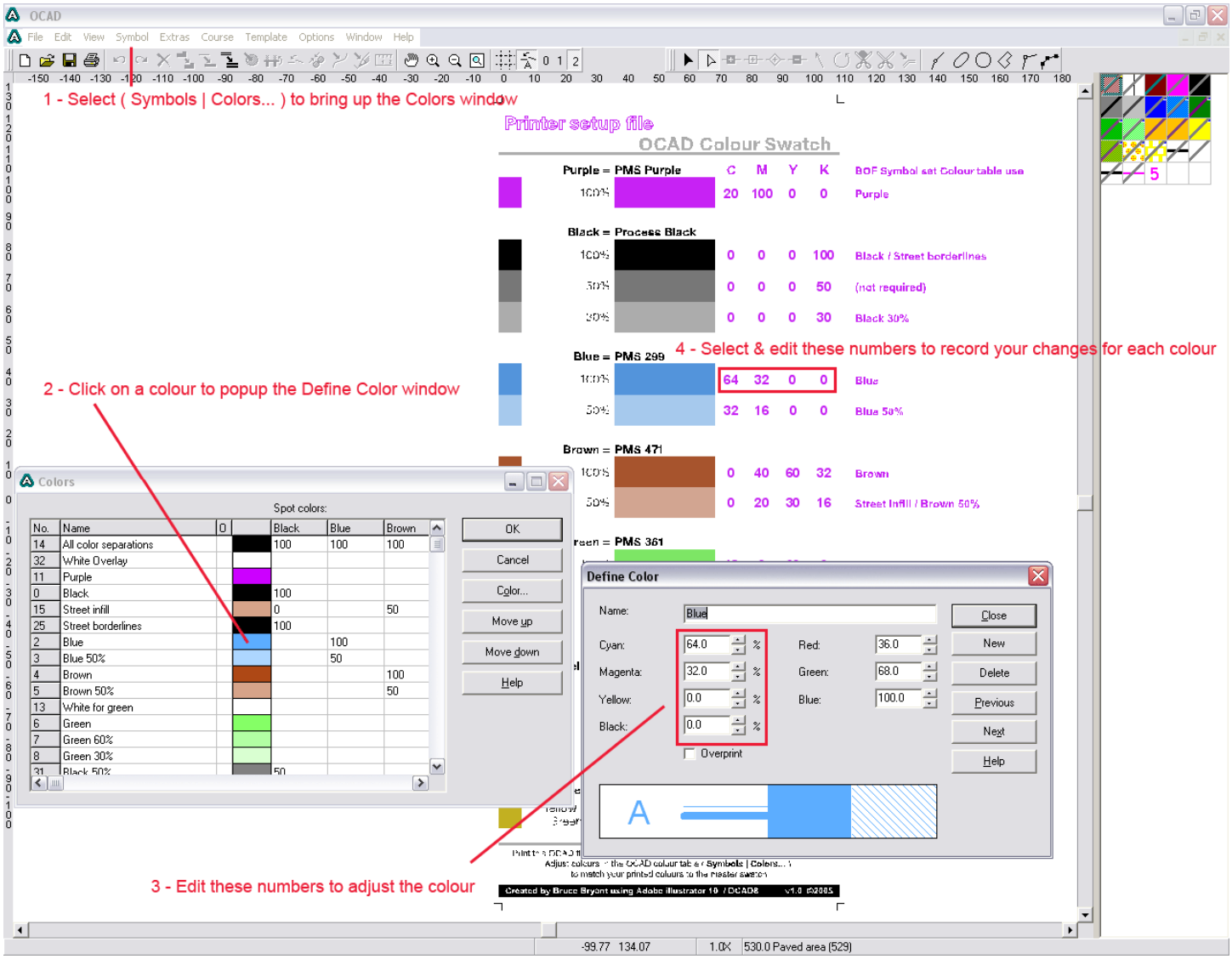
The main section of the page is comprises a series of cross hair and ellipses - in each map colour - of increasing line thickness from 0.05 to 0.40mm.

This will test the ability of the printer to print lines of a certain width, both horizontally, vertically and any angle in between. It is quite common for the colours other than black to look as if they vary in width around the ellipse. Some printers struggle to print the yellow in the finer line widths.
If you examine closely it is very common for the printed line width to increase in distinct steps about every 0.04mm. One important one to check is the brown (contour) at 0.14mm which is the standard contour width for 1:15000 maps. It may be necessary to print contours using 0.15mm to get a more consistent line quality!

The bottom section of the page is to test accuracy of line width and placement by printing 0.05mm lines at line spacing increasing by 0.01mm, printed horizontal, vertical and on a diagonal. The black arrows indicate a gap of 0.05, 0.10, 0.15 and 0.20mm. If your printer is printing lines wider than nominal, no gaps will appear between lines until part way across each block. Note this test can be significantly affected by the type (smoothness) of print paper that is used.

OCAD colour swatch printer setup file8.ocd

This OCAD8 file is designed to assist in the fine tuning of the OCAD8 colour table so that map colours are the best possible match to the default Pantone colours as defined by the International Specification for Orienteering Maps (ISOM2000).
Open the file with OCAD8 and print on your printer. Using the IOF (ISOM 2000) / BOF colour swatch as reference, compare the printed colours against the swatch. Adjust colours in the OCAD8 colour table (**Symbols | Colors…**) and reprint until you achieve a the best possible match.



For assessment of printed colours, you should ideally view the any printouts in daylight rather than artificial light.

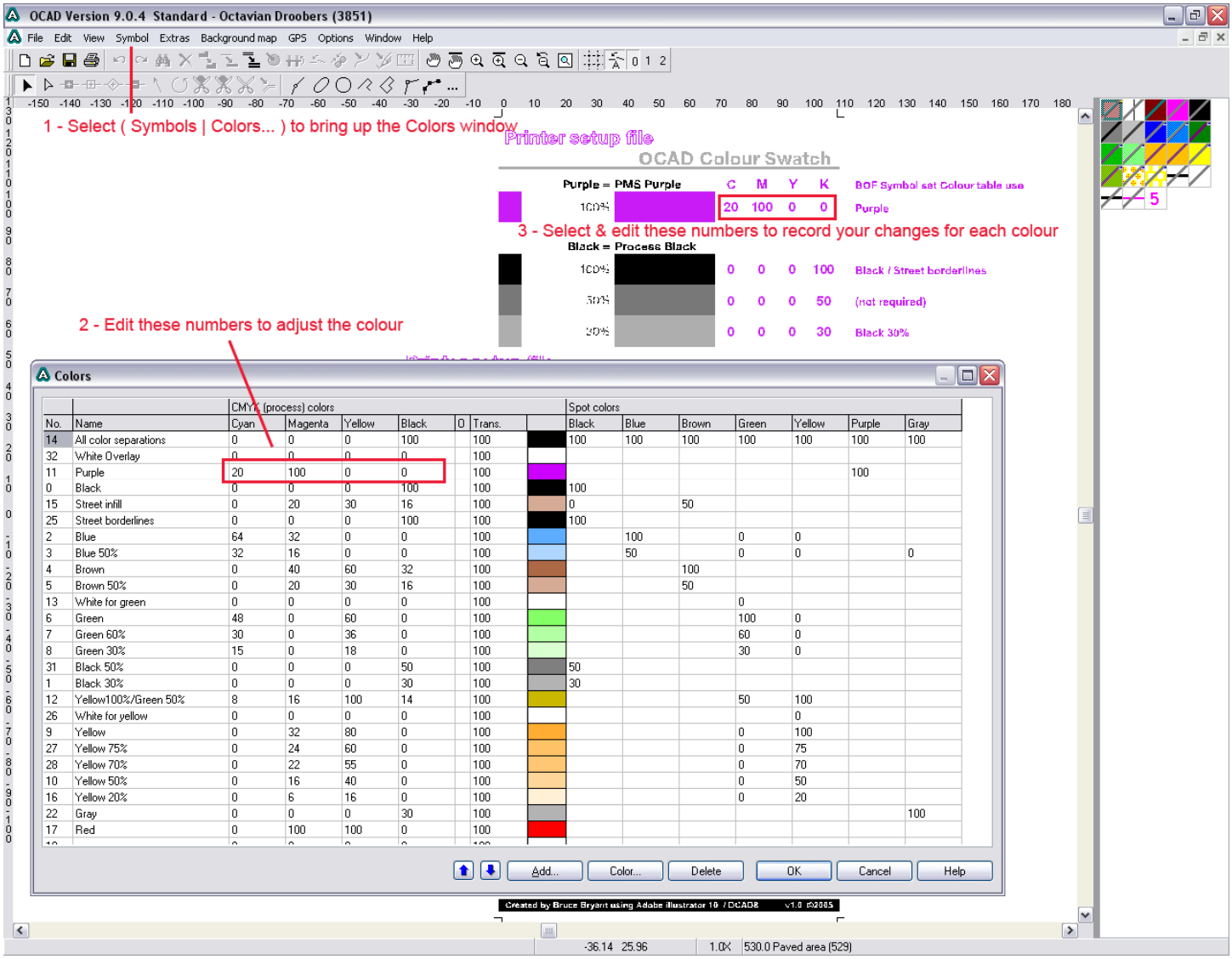
Note that the file has been setup so that it is possible to edit the numbers for each colour within the print - the print will then be a record of the colours used to print it.

Colour Table Order

It is important not to alter the order of colours within the colour table, although it is possible to move colour 11 – Purple to below colour 0 – Black to help with the visibility of black features when combined with a course overprint.
If you need a specific colour for logos etc. add additional colours to the colour table.

OCAD colour swatch printer setup file9.ocd

This OCAD9 file is designed to assist in the fine tuning of the OCAD9 colour table so that map colours are the best possible match to the default Pantone colours as defined by the International Specification for Orienteering Maps (ISOM2000). Open the file with OCAD9 and print on your printer. Using the IOF (ISOM 2000) / BOF colour swatch as reference, compare the printed colours against the swatch. Adjust colours in the OCAD9 colour table (**Symbols | Colors…**) and reprint until you achieve a the best possible match.



		CMYK (process) colors						Spot colors						
No.	Name	Cyan	Magenta	Yellow	Black	0	Trans.	Black	Blue	Brown	Green	Yellow	Purple	Gray
14	All color separations	0	0	0	100		100	100	100	100	100	100	100	100
32	White Overlay	0	0	0	0		100							
11	Purple	20	100	0	0		100						100	
0	Black	0	0	0	100		100	100						
15	Street infill	0	20	30	16		100	0		50				
25	Street borderlines	0	0	0	100		100	100						
2	Blue	64	32	0	0		100		100		0	0		
3	Blue 50%	32	16	0	0		100		50		0	0		0
4	Brown	0	40	60	32		100			100				
5	Brown 50%	0	20	30	16		100			50				
13	White for green	0	0	0	0		100				0			
6	Green	48	0	60	0		100				100	0		
7	Green 60%	30	0	36	0		100				60	0		
8	Green 30%	15	0	18	0		100				30	0		
31	Black 50%	0	0	0	50		100	50						
1	Black 30%	0	0	0	30		100	30						
12	Yellow100%/Green 50%	8	16	100	14		100				50	100		
26	White for yellow	0	0	0	0		100					0		
9	Yellow	0	32	80	0		100				0	100		
27	Yellow 75%	0	24	60	0		100				0	75		
28	Yellow 70%	0	22	55	0		100				0	70		
10	Yellow 50%	0	16	40	0		100				0	50		
16	Yellow 20%	0	6	16	0		100				0	20		
22	Gray	0	0	0	30		100							100
17	Red	0	100	100	0		100							

IMPORTANT NOTICE FOR OCAD9 Demo

If you are using OCAD9 Demo (which is save disabled) you will not be able to save any changes – this makes it important to note any changes to the colour table. I would recommend that you change the numbers visible in the file and then record the changes by either keeping a print of the file or save an electronic record by exporting the modified file as a pdf file.

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