A COURSE PLANNER'S SIMPLE GUIDE TO ACHIEVING BEST DIGITAL PRINT

Prepared by Ken Dowling

MapSport.com.au

0410 481 677

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Companion guides to this are;

- Achieving Overprint in Digital Print Maps
- A Digital Press Operator's Guide to Process Orienteering Maps

Content

- Introduction
- The Process
  - OCAD
  - Condes
  - Adobe Illustrator
  - Working with your Printery
- Postscripts
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Introduction

- This guide is focused on settings and processes that should give you a very acceptable digital press map

- It does include settings for course purple Overprint as that is a mandated IOF requirement

- It assumes you know how to use OCAD or Condes course planning software

- Credit to Jim Russell, Alex Tarr, Adrian Uppill and the staff of Worldwide Online Printing for key contributions to this guide. And Kathy Liley for proofing v2.

- The term **printery** is used for printer as a business to distinguish from printer as a person.

Be Aware

- The prime requirement of orienteering maps is legibility (ISOM 2000 et al)
- Generalisation, artwork quality and colour are key contributors to legibility
- You can contribute to artwork quality
- You probably cannot tackle colour issues unless the cartographer is available

- (Artwork comprises the lines, areas, points, text of the PDF or EPS file you hand to the printery)
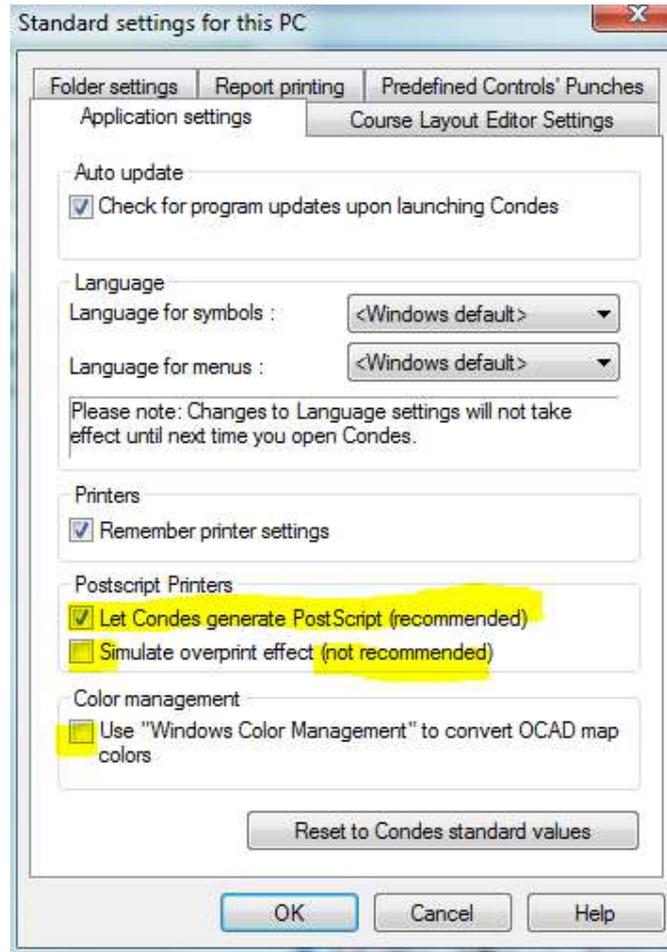
OCAD Settings & Processes

- Course purple: tick **Overprint** column for overprint
- Course purple of 100% magenta is difficult for red colour blind orienteers and it is **not** IOF spec.
- A generally acceptable course purple for digital is C30 M90 Y0 K0
- Maps with many close contours might require a darker purple in which case add Black e.g. C30 M90 Y0 K18
- **Export** PDF always gives the highest quality PDF as OCAD embeds the appropriate settings.
- Print to PDF gives unpredictable results because you may not know what settings your PDF writer is using.

Condes v8 Settings & Processes

- **Course Layout | Setup Overprint**
  - Tick **Make Overprint Effect**
  - Set **Course Overprint Color**, to R204 G0 B255 (C20 M100 Y0 K0)
    - Some other Condes purples do not print with Overprint effect (bug)
  - If exporting courses back to OCAD, now read OCAD page
- **Export courses as EPS**
  - This is easy but unless you have Acrobat or IrfanView with Postscript add-in (read add-in documentation for GhostScript requirement), you will not be able to view and check the file you are ending to the printery.
- **Print to PDF**
  - For highest quality, apply settings per following screen snaps.
  - Don't have Adobe Acrobat? Then see **Postscripts** for alternative.

Condes v8 Application Settings

Highlighted items are critical.

Standard settings for this PC

Folder settings | Report printing | Predefined Controls' Punches

Application settings | Course Layout Editor Settings

Auto update
☑ Check for program updates upon launching Condes

Language
Language for symbols :   <Windows default>
Language for menus :   <Windows default>

Please note: Changes to Language settings will not take effect until next time you open Condes.

Printers
☑ Remember printer settings

Postscript Printers
☑ Let Condes generate PostScript (recommended)
☐ Simulate overprint effect (not recommended)

Color management
☐ Use "Windows Color Management" to convert OCAD map colors

Reset to Condes standard values

OK   Cancel   Help

Simulate overprint effect is for home printers and will not produce highest quality print
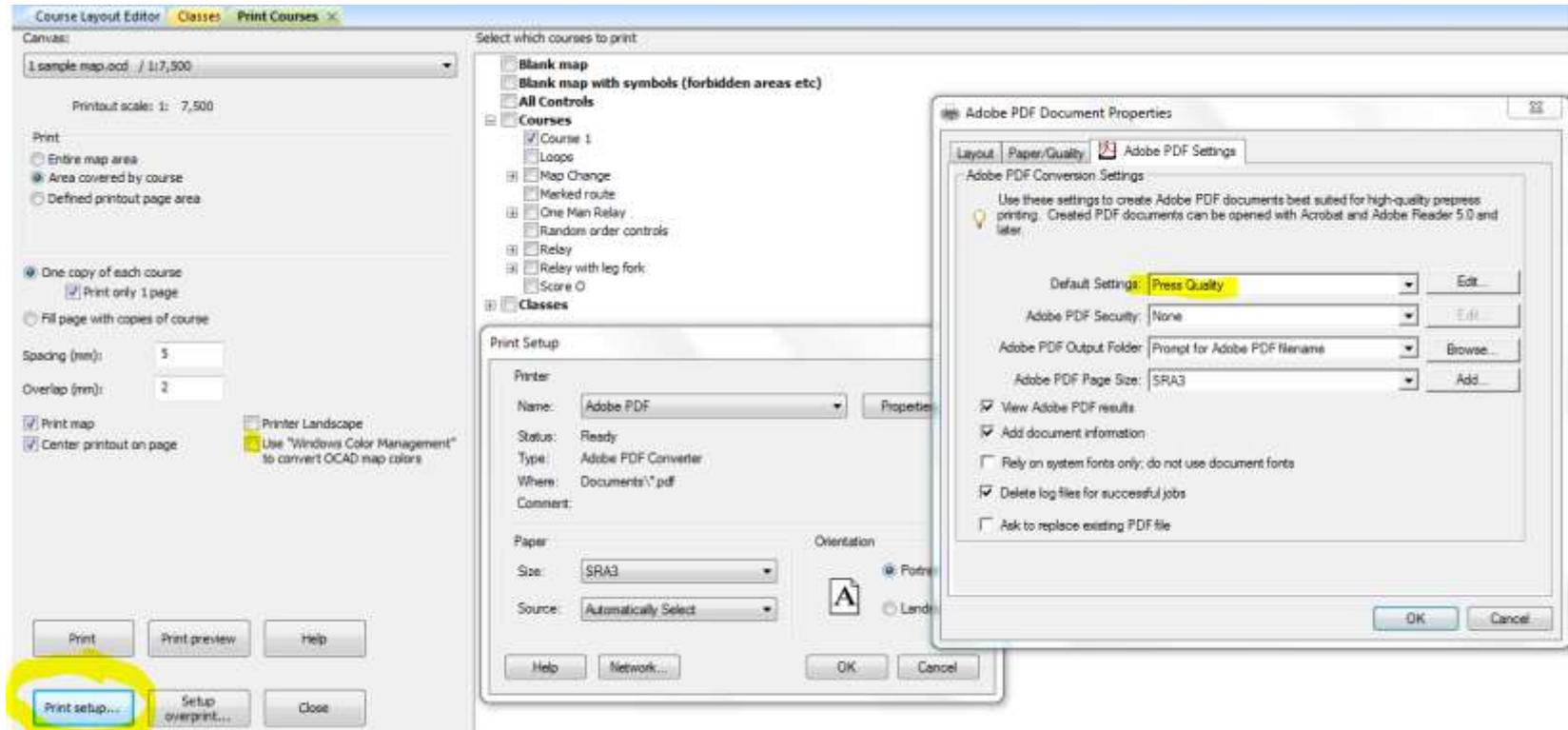
Condes v8 Setup Overprint

Print (menu top row) | Maps with courses | Setup overprint
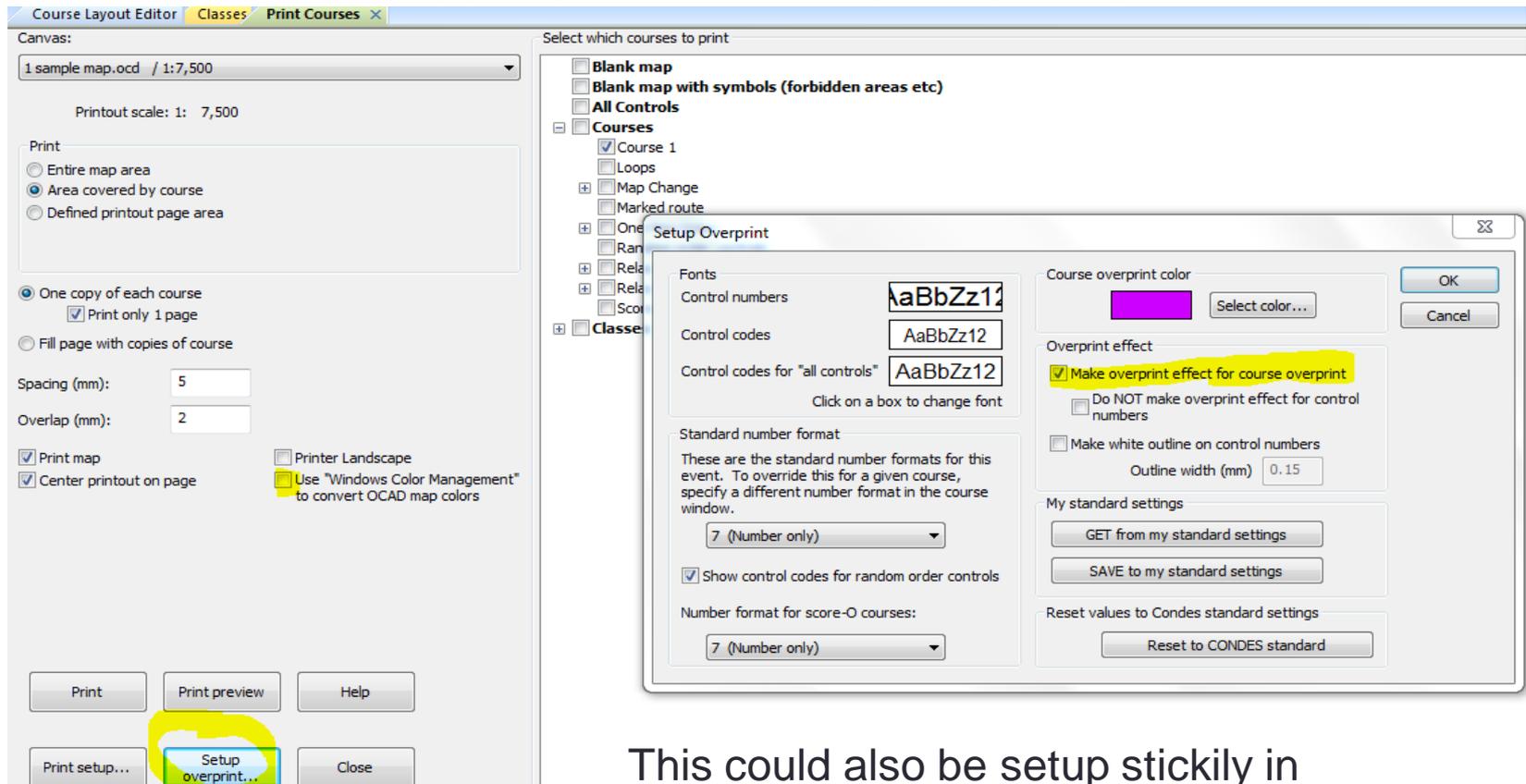
This could also be setup stickily in
Course Layout | Setup Overprint

Condes v8 Print Setup Settings

Print (menu top row) | Maps with courses | Print Setup

See **Postscripts** for other PDF writers

Using PDF-XChange

Adobe Illustrator

- In general
  - Ensure overprint setting is on for the course purple
  - Create PDF with orienteeringmap.joboptions – available on mapsport.com.au or ask Ken Dowling

Working with Your Printery - 1

- Cardinal Rules
  - Your printery isn't a copy shop. It is a commercial operation with established clients and high volume scheduled work
  - Do approach your printery **early**
  - Do keep your printery informed of any (likely) delays so you are aware of the consequence
  - Give them the companion *A Digital Press Operator's Guide to Process Orienteering Maps* (see MapSport.com.au)
    - If they don't have the press configuration described in that guide, you have the opportunity to obtain that information and update the guide to their benefit
    - The Composite Overprint setting for their press is essential if you have configured it in OCAD/Condes. From the Colour Properties setting in the Guide, your printer should be able to locate the equivalent.

Working with Your Printery 2

- Establish timings
  - When you will have files to printery
  - When you desire the print
  - **Latest** date for uplift/delivery
- Provide course/quantity estimates for pricing
  - # of courses - indicates how many file access charges you face
  - # of maps per course - is hopefully not how you will be charged
  - Total # of maps - is hopefully how you will be charged
  - Other requirements such as trimming, courier…
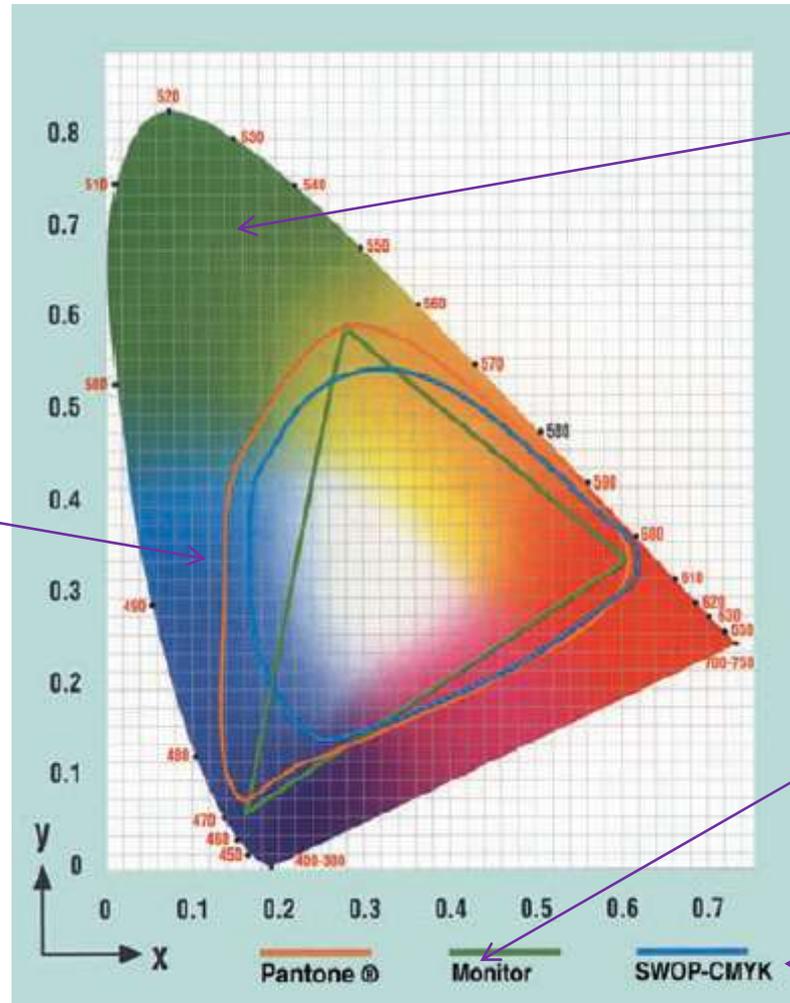- Get a quote (estimate) and ensure it specifies the information provided, including your selected paper

Postscripts

FAQ

- **Condes**. Preceding instructions produces high precision vector art PDFs. But for **Overprint** you need Acrobat or a capable PDF Writer. PDF-Xchange is free to home users for a limited time. digbig.com/5bfnrp

- Digital presses use CMYK colour space, not PMS (Pantone) nor RGB.

- CMYK does not have exact or even close matches for some of the seven ISOM PMS colours (see next page).

- If necessary, tune colours in OCAD as then it is repeatable and controllable.
  - The printery would probably charge you to tune colours and the changes made will almost certainly be lost for future printing.

Colour Gamuts

Visual gamut

Pantone (PMS)
Is broadest gamut

= RGB

Ignore word 'SWOP'

Synthetics

- Pretex (VIC only)
  - Pretex, widely used in Europe, is part pulp, part synthetic and is imported by VOA.
  - Held and printed at Worldwide Online Printing, St Kilda Rd. Backup is at one other suitable centre should equipment be out of action
  - Spare Pretex is available for VIC clubs – see Ken Dowling
  - Not all digital presses can handle Pretex. List at mapsport.com.au
  - *Declaration of interest. Ken sold Worldwide Richmond in 2009 and has no current investment nor revenue from printing. Ken does work with the company on cross media marketing.*
- Teslin
  - Not all digital presses can handle Teslin. Your printer will advise.

Selecting a Printery

Selecting a Printery - 1

- Personal factors
  - Ease of access to printery may be desirable but not essential
  - Most printeries have online file upload facilities and will courier
- **Easiest** is to select a printery known for great maps
- **Next easiest** is to select a printery with equipment that has produced good maps elsewhere
  - Konica Minolta 5501 or 6501 engine with EFI Fiery or Creo RIP
  - Large Capacity Tray for airflow separation if using synthetic
  - Give them the companion Printer's Guide (MapSport.com.au)
    - Additional configurations will be added to MapSport or OA website

Selecting a Printery - 2

- **The Longer Route**
  - Can I be bothered? Keep in mind you are setting up for reuse by yourself and other club course planners
  - If the printery focuses on self help copying, probably look elsewhere
  - Get prices first as that is easiest decision
  - Get an offset print and digital copy of the IOF Printech test Sheet PDF from your state mapping co-ordinator or the Orienteering Australia mapping Co-ordinator
    - Ask the printery for a test print of that digital file, preferably just after they have done a machine calibration
    - If it becomes apparent calibration is less than daily, skedaddle
  - Compare the test print with the Printech offset printout or known good Printech digital master. Reject if any really significant differences.

The End

Evening star above the Rialto. From the Arts Precinct.   Ken Dowling