

PHOTOGRAPHIC COLOUR WORKFLOW

- Throughout the flow from image capture to printing there must be a consistent colour space in use.
- Examples of colour space definitions are sRGB, Adobe RGB and Lab Colour – all cover a restricted colour gamut. None of these colour spaces cover the complete range of red, green and blue which are visible. The usual standard colour space for creating photographic images is Adobe RGB (1998)
- Set your camera to Adobe RGB if available – not sRGB, which is a limited colour space
- Save images in Raw if possible. Jpeg files are already processed by the camera software to compress the file information, which is out of your control and distorts the image. The quality is lower than for raw files, with no chance of recovery for incorrect exposure and colour balance.
- Convert raw files at 16 bit to capture maximum amount of information
- In the image processing software (eg Photoshop) set,
 - Colour Space set to Adobe RGB (1998)
 - Grey Scale set to 2.2 gamma
 - Set file handling to convert all incoming files to your colour space

SCREEN

- Profile your screen to get a true relationship between your image file and what you see on the screen. Without this profiling it is impossible to go to the next stage and expect true colours or perfect black/white images from your printer.
- The best profiling is done using a light measuring screen profiler unit – I use Eye-One, but other types are available and they all do a similar job
- This unit progressively measures the contrast and colour of the screen against a known standard. A profile is created to correct the screen anomalies and is applied automatically on computer start up – with a re-profiling recommended every 4 weeks for CTR screens and occasionally for LED types
- If profiling equipment is not available, the minimum is the use of the Adobe Gamma programme – found under Control Panel
- Set the screen resolution to the maximum available – mine is set at 1680 x 1050 – even though this means the desk-top short cuts logos are small.

PRINTER

You have two choices

- 1) Let the printer manage the printing colour control with your manual corrections, which makes it more or less impossible to obtain consistency of colour.
- 2) Let the processing software (i.e. Adobe Photoshop) control the printing, using an ICC profile for the particular paper, printer unit and ink you are using. Each chosen paper type requires a different correction profile to enable a true representation of the image file to be printed out.

(ICC – means International Colour Correction standard)

I am going to concentrate on second method of printing using ICC profiles

- Set the resolution of the file to be printed to 240 p.p.i – you can use higher (some have standardised on 300) but has little benefit with a six colour printer – $6 \times 240 = 1440$ dots/inch, which is normally the best quality setting
- There are a number of methods to obtain an ICC profile for your paper – firstly a generic one for the paper downloaded from the Paper Manufactures web-site, secondly a profile generated by software supplied by the manufacturer or agent using your computer and printer together, to give a much more accurate adjustment profile and thirdly using a spectrophotometer which can be purchased as an extension to the screen profiling unit.

Obtaining a Generic Profile

The majority of inkjet paper manufacturers have facilities to down-load profiles from their web site. Log on to find the recommended settings for the type of paper you have chosen, then down-load the profile for this paper and your printer model onto your desktop.

An example follows using Ilford paper with an Epson 1290 printer and Epson ink
www.ilford.com

- 1) Choose Ilford Galerie – Inkjet photo range
- 2) Choose best paper types printer settings – for make/model/media
- 3) Settings found – 1440dots/inch – High speed off – *Colour correction required if using printer colour management of minus 5 magenta*
- 4) Then down load the paper profile – choose ICC Profiles.
- 5) Note, you then have to register to obtain this profile
- 6) Choose paper type and printer model
- 7) Download to desk top

The final stage is to load profile into the correct folder

Right click on Start – Explore – Windows – System 32 – Spool – Drivers – Color
 (drag across profile file from desktop)

Obtaining an accurate profile for your printer/paper/ink.

Go to the paper manufacturer's web site for instructions and downloads

www.fotospeed.com

www.permajet.com

PRINTING

- Open Printing Dialog box and go to page set up – choose paper size and orientation, paper type as recommended by manufacturer, printing quality/resolution and switch to “no colour adjustment”
- Then go back to main printer page and choose colour management
 - In colour handling menu select Photoshop manages colour (NOT the Printer)
 - In the profile dropdown menu find and select the profile you have down loaded from the manufacturer's web site
 - Rendering intent select Relative Colormetric
 - Tick black-point compensation
 - Un-tick scale to fit media
- Print