

PHOTO DOCTOR

THE PRINT

Maximising Your Print Quality

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PHOTO DOCTOR THE PRINT

- Why Print?
- You control how your photo looks to others
- You are not reliant on the calibration, colour space, contrast, luminance and projection distance of a projector, TV or computer monitor
- Some would argue that a print is a TRUE photograph, not just a collection of projected/screened pixels

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- The Print Process:
- Achieve consistent, quality photographic outputs
- Achieve the kind of results that YOU want
 - Is near enough good enough for you?
- Within your personal circumstances - get the best value for the heaps of money that you have already spent on your:
 - camera equipment,
 - travel to locations,
 - electronic darkroom etc.

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- When you go to a commercial printer:
- Ask the to switch off all automatic settings
 - sharpening, contrast , saturation
- Ask for the ICC profile for the papers they use
 - you can control the colour management of your file before it gets to the printer
- If unhappy with the result?
 - if your file is well produced - get them to do it again,
 - your consumer rights are protected and you should never pay for a substandard result.
- Have a sample photo on your phone to illustrate how you expect it to look.

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- The Print Process:
- Basic Photo Editing/Processing
- Choose Paper
 - gloss, lustre, semi-gloss, matt, textured matt
- “Soft Proof” = Colour Management
 - Match your photo colours to the printer/paper
- Printer Set Up

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- Getting the BEST print you can:
 - Processing
 - Calibration
 - Your Printer
 - Paper Choice
 - ICC Profiles
- What can go wrong? ... avoiding reprints

PHOTO DOCTOR THE PRINT

- What can go wrong?
- Basic Photo Editing/Processing
 - Colour
 - Contrast
 - Brightness
 - Cropping, framing
 - Colour casts
 - Over-processing – saturation, sharpening
 - Cloning errors
 - Dust Spots
 - Monochrome toning

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- What can go wrong?
- If the colours don't look right you may have issues with Colour Management
 - Calibration
 - ICC profiles
 - "Soft Proof"

Calibration and Printing

Soft Proofing

One of the main reasons for having the monitor display the correct colour is Soft Proofing.

This is the ability to use the media ICC profile as a virtual overlay on the image and simulate the result from the printer.

Without calibrating and profiling the monitor this procedure is void.

Soft proofing will, in the grand scheme save money on ink and paper due to the fact that your final image will be represented on screen

Monitor profiling and soft proofing is the best control for your images prior to printing.

Calibration

Calibration is a process of mapping colours via a set of software code instructions.

On monitors and projection display it converts the colours in the photograph file to the colours that the monitor/projector can physically display.

With printing this colour conversion goes further, in that the software code will change RGB display colours to CYMK for printing.

Calibration

- ▣ Variables Influencing Colour Calibration
 - Colour space
 - Colour saturation
 - Contrast
 - Brightness
 - Colour Temperature (White Balance)
 - Ambient light and colour temperature (eg room lighting)

Calibration

- ▣ Calibration is a process to set your system to a visual standard in terms of colour and contrast
- ▣ Computer monitor settings shift over time with use
- ▣ If they shift, so do your photographic outputs if you rely on how it looks on the monitor
- ▣ Calibration returns your monitor to a defined visual standard

Calibration and Printing Process Map

SET UP

Regular Monitor
Calibration
sRGB or Adobe RGB



Photoshop
Colour Settings
Working Colour Space



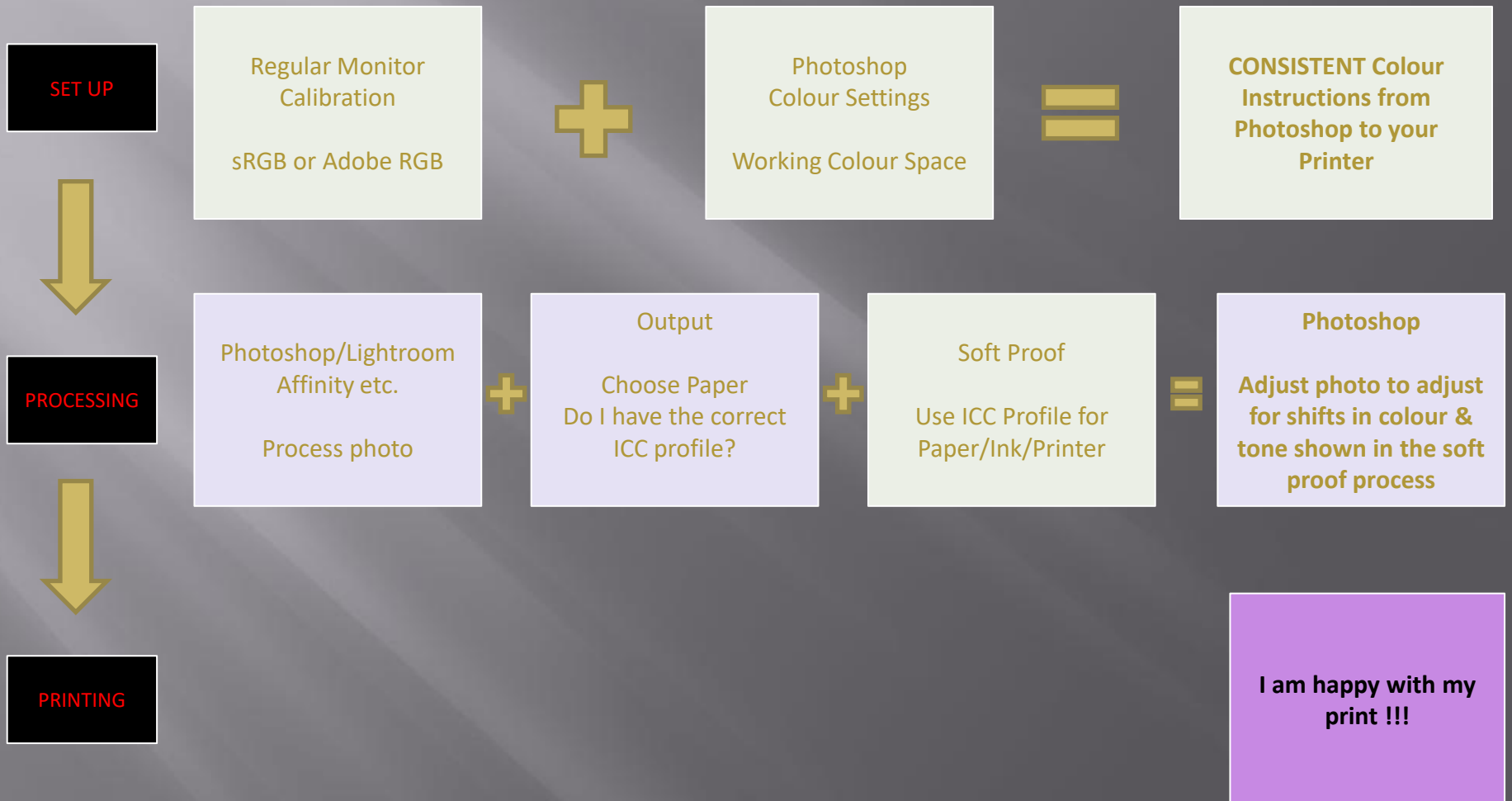
CONSISTENT Colour
Instructions from
Photoshop to your
Printer

PROCESSING

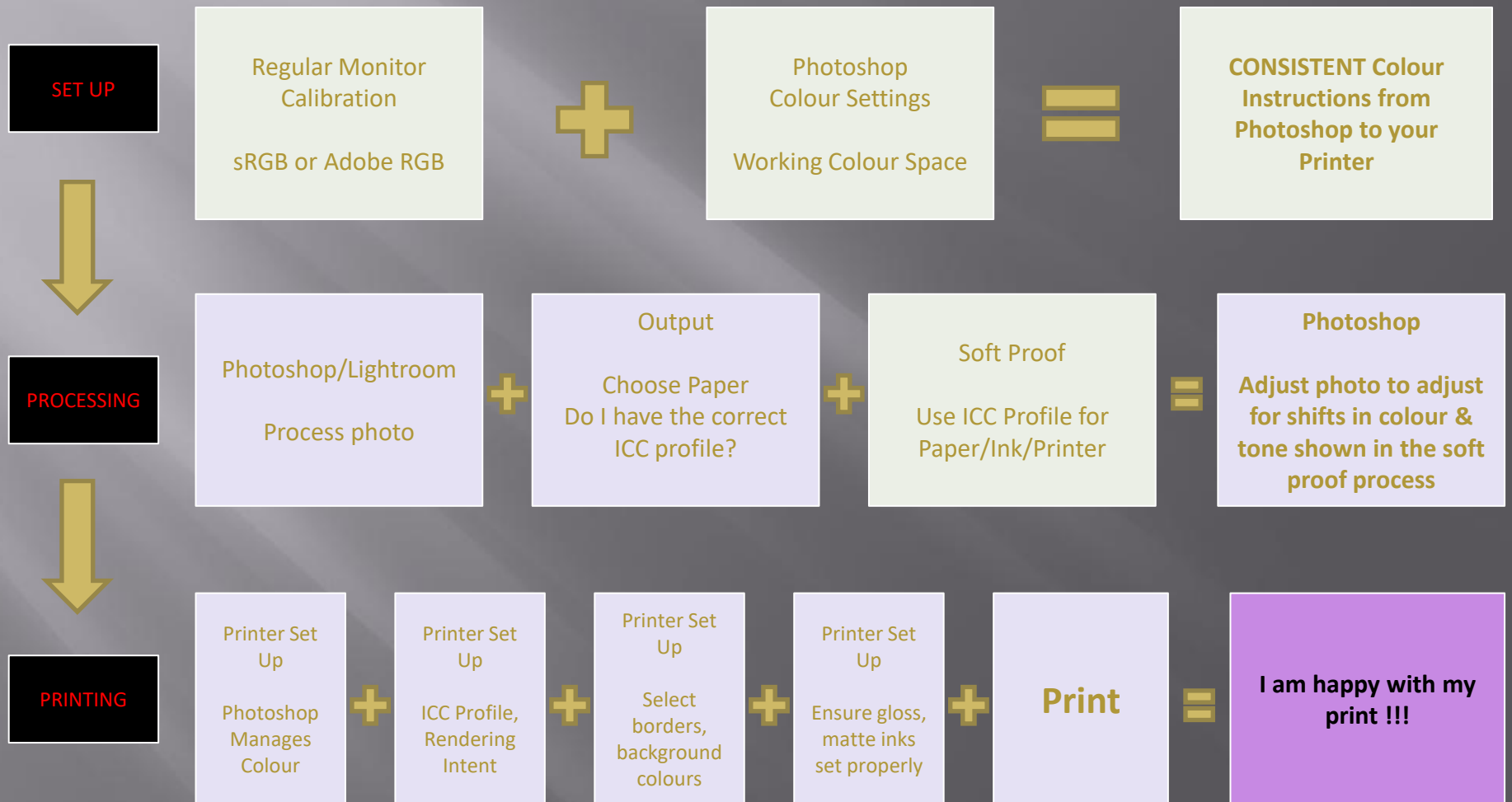
PRINTING

I am happy with my
print !!!

Calibration and Printing Process Map

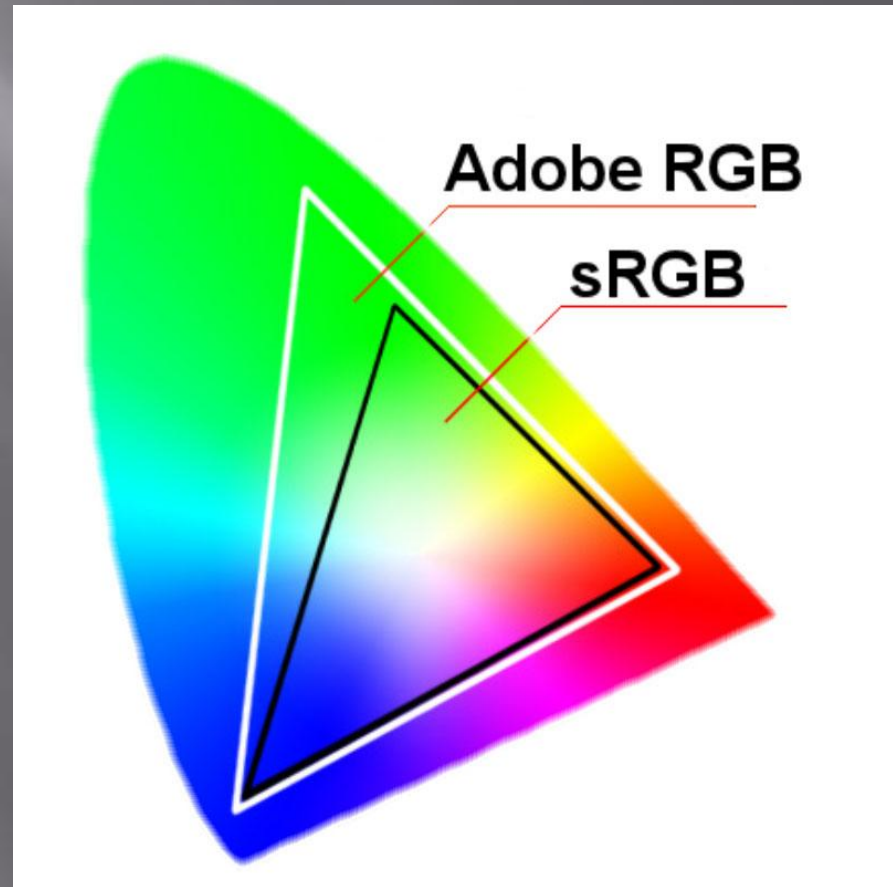


Calibration and Printing Process Map



Colour Space

- ▣ sRGB or Adobe RGB



Calibration Devices



Hardware Calibration

ColorNavigator 6 X

ColorEdge CG303W(20848080)

Target
<input checked="" type="radio"/> SJ CMYK 90cd (0.3384, 0.3399) 2.20
<input type="radio"/> SJ Photography 80cd 6500K 2.20
<input type="radio"/> SJ Proofing paper fogra 39 145cd (0.3366, 0.3399) 2.20
<input type="radio"/> sRGB for screen capture
<input type="radio"/> 120cd (0.3371, 0.3400) 2.20 PE2
Photography
Printing
Web design


Brightness :	90 cd/m ²
Black level :	Minimum
White point :	(0.3384, 0.3399)
Gamma R :	2.20
G :	2.20
B :	2.20
Priority :	Standard

Adjust...

Validate...

Advanced ▾

Help ▾



Time since last adjustment : 0 hour(s)

Adjustment date : 2016-10-07 15:33

Create a new target...

Delete...

Detail...

Preferences...

Quit

Calibration – ICC Profiles

In colour management, an ICC profile is a set of data that characterises a colour input or output device, or a colour space, according to standards as formulated by the International Colour Consortium (ICC).

Profiles describe the colour attributes of a particular device or viewing requirement by defining a mapping between the device source or target colour space and a *profile connection space* (PCS).

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- What can go wrong?
- Choose Paper - does it suit the colour/tone/contrast of your photo?
 - Gloss
 - Semi Gloss
 - Lustre
 - Matte
 - Textured Matt
 - “Metallic” Gloss

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- Gloss papers have very smooth, highly reflective surfaces. Inherently, they offer the punchiest images due to their extremely strong blacks. The gloss surface can be prone to scratching so these papers are not ideal for handling.
- Semi-Gloss papers have a slight reflective texture but are very robust and stand up well to handling - the surface tends to hide minor imperfections like finger prints and slight scratches.

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- Matte Papers are truly matte - sometimes called ultra-matte, or watercolour papers, and have no reflectivity issues at all. However they do have somewhat weaker blacks.
- Smooth matte papers are the very best papers at letting the image speak because there is no surface texture or reflection to interfere with the image.
- Textured matte papers can be quite beautiful and particularly with simpler images the paper texture can really add to the substance of the image presentation.

Calibration – ICC Profiles

Each major paper manufacturer has a set of ICC profiles for each major printer and ink combination.

These are known as “canned” profiles – they represent the average performance of the paper/ink/printer combination. These are generally acceptable at our level of photography.

Calibration – ICC Profiles

The next step is to obtain custom profiles where your printer's output is measured against a standard test template for colour accuracy and a specific profile developed for each paper/printer combination that is tested.

Photographers printing for fine art sales and gallery exhibitions will generally choose a limited number of papers to use regularly and have custom profiles developed for each paper that they use to ensure consistency.

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- What can go wrong?
- Printer Set Up
 - Paper Type
 - Paper size
 - Paper thickness (esp. for Fine Art Papers)
 - Colour Space
 - ICC Profile
 - Software control of colour or Printer Control Colour

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- What can go wrong?
- Human Error
 - Don't change one or more of:
 - Paper Type
 - Paper size/thickness
 - Which side of the paper to use
 - Don't clean printer nozzle/heads
 - ICC profile – when using different papers during a session
 - Software or printer management of colour
 - Printer manages Black and White (Epson)

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<http://tech.epson.com.au/downloads/product.asp>

Or search for

RGB_Print_Guide_V6.pdf