



**July Club Meeting - 7:30pm Thursday 9th
at the Canberra Irish Club, 6 Parkinson Street, Weston**

2009 PROGRAM

PRESENTATIONS

Month	Presentation & Coordinator
July	Macro and tabletop photography by Chris Fitzgerald
August	Advanced Photoshop (Photoshop Special Interest Group - Shane Baker coordinating)
September	Landscape Photography (Robert Deane)

EXCURSIONS

Month	Excursion & Coordinator
July	Close up, macro and tabletop practice Venue: Iain Cole's house at 12 Whistler Place, Kambah, Sun 12 July at 2pm
August	tba
September	Coast overnight (Giles West)
October	Botanic Gardens, (possibly overnight to Laurel Hill near Batlow as well)
November	Outdoors location - Wadbilliga, London Bridge, Legoland, Tidbinbilla ...

SPECIAL INTEREST GROUPS

See end of Newsletter for Photoshop SIG program.

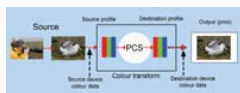
PRINTING DIGITAL PHOTOS

PRACTICAL COLOUR MANAGEMENT



November 2008 | Margaret Brown

In an ideal world, you would be able to point your digital camera at a subject, take the photo and then make prints that either match reality or improve upon it. But, in the real world, your camera must communicate with your computer which, in turn has to 'talk' with your printer. In this process, colour information is passed along a chain and re-interpreted by each device. This chain is known as a 'workflow'.



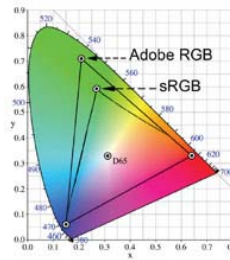
The diagram above shows how the source and destination profiles interact to produce an ICC workflow that ensures colours are reproduced correctly throughout the imaging chain.

All digital workflows start with a colour space, which is like a language that defines colours in the form of numbers. The most commonly-used colour space is sRGB, which is supported by all cameras, display devices and printers. In other words, they all use the same combinations of numbers to define particular colours.



The illustration above shows how colours can be rendered as numbers. This forms the basis of a colour space.

Professional photographers and serious photo enthusiasts who use DSLR cameras or advanced digicams have access to a second colour space, Adobe RGB, which has a slightly wider colour gamut, particularly in the green and blue bands of the colour spectrum. This can provide added accuracy and vibrancy in landscape shots.

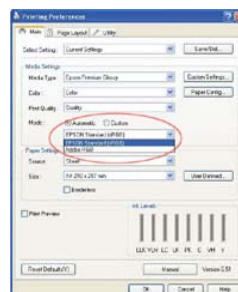


The diagram above compares the hues that can be reproduced by the Adobe RGB and sRGB colour spaces. Note the difference between them in the green and blue colour bands.

Regardless of which colour space you choose, you must retain consistency throughout your colour workflow. So if you have shot with your camera set on Adobe RGB, this should be the colour space you select for editing and printing to maintain consistent colour reproduction from image capture to printing.



Your image editing software should allow you to set the editing colour space to match the colour space setting on your camera.



If you are using the printer driver instead of your editing software for controlling the colour, you may need to select the correct colour space in the driver interface.

Setting Up a Colour Managed Workflow

Step 1: The Camera

Effective colour management starts at the camera and involves selection of settings that will provide you with the maximum amount of image data to work with. This means shooting with the highest resolution and quality settings your camera offers (using the RAW setting if possible) and selecting the correct colour space. The default colour space setting for most digital cameras (and the only colour space provided on the majority of compact digicams) is sRGB so if you wish to use the wider gamut of Adobe RGB you must set that

in your camera.

Step 2: The Working Environment

When you move your image from your camera to a PC, the lighting in your work area can affect the way you see the image's colours and tones. It's best to work in lighting that is dimmer than normal room lighting because bright ambient light can cause the colours you see on your monitor to look washed-out and flat - so what you see may not be what you get in a print.

Make sure no light is reflected off the surface of the monitor and avoid mixed lighting (such as daylight plus a desk lamp). For situations where the ability to assess colour and tonal nuances is important, aim to maintain the same type and level of lighting when you calibrate your monitor as you use when you edit and print your photos.

Step 3: The Monitor

All monitors require re-calibration and profiling at least once a month to ensure the hues and tones you see on the screen will match those in the print. This is one of the main challenges in creating a colour managed workflow. Calibration produces an ICC profile that can be used by your editing software to output the correct image data to the printer's driver.

Two types of tools are available: software programs and colorimeters or spectrophotometers. Both can be used with CRT screens, which are easier to calibrate because they have more adjustments. LCDs tend to be more stable than CRTs but they usually need to be calibrated with a spectrophotometer (see below).

The most widely available software utilities are Adobe Gamma and QuickGamma.

Monitor Calibration with Adobe Gamma

Adobe Gamma can be found in the Gamma control panel for Mac or Monitor Setup in PC systems. QuickGamma can be downloaded from www.quickgamma.de/infoen.html. Both have the advantage of being free of charge but they're less accurate and versatile than a spectrophotometer.

Both utilities are wizard-based and easy to use and both create an ICC profile, which is used by the computer's operating system as the default monitor profile. The illustrations on this page show the steps used to create a profile in Adobe Gamma.



First choose how you would like to work.



Next select the profile description.



Then adjust brightness and contrast.



Finally, adjust the gamma (contrast) until the two boxes look the same.

Entry-level colorimeters and spectrophotometers can be purchased for between \$150 and \$500. The most readily-available models are the Pantone Huey and Huey Pro, the XRite EyeOne Display 2 and the Datacolor Spyder.



The Huey Pro colorimeter in position on a monitor screen with the wizard-based interface that provides step-by-step instructions through the calibration process.



Successful calibration is indicated on the monitor screen, which also allows you to see how the screen appeared before and after calibration.

Each colorimeter consists of a metering device that measures the colour of the light emitted by a PC monitor plus a software application that drives it and creates the ICC profiles that are loaded automatically into the display settings. They all come with step-by-step tutorials to help novice users - and some include a facility for measuring the intensity of the light in the working area and applying it to the calibration.

Step 4: Printing

Once you've set up your printer correctly, with the correct profile selected for the paper and the correct printer controls in the driver, the next step is to press the 'Print' button. If the option is available, most photographers check the Preview button to ensure the image is correctly sized and positioned on the paper before committing to a print. This step can save both time and resources (ink and paper).

Don't be concerned if the image shown on-screen in the print preview looks grainy and over-saturated. This is because it's a 'quick-and-dirty' rendition that shows you where the image will be placed on the page. It does NOT use ICC profiles.

Most printers will offer a choice of high-speed and normal speed printing. For the best quality prints, select the latter mode - even when proofing images and making test strips (see Test Strips and Proofing Options for information on proofing). Keep an eye on the ink levels monitor - if one is provided - so you can change a cartridge before it runs out. Some printers will stop automatically when this occurs; others continue printing but the image quality suffers when the proper number of inks is not used.



Most photo-capable inkjet printers will display an ink level warning when the level of any cartridge drops below a pre-determined point. Some will also remind you to purchase new cartridges.

Step 5: Evaluation

As the prints emerge from the printer, lift them carefully from the tray and set them to one side to dry. Avoid touching the printed surface while you do this as some types of inks may take several minutes before they become resistant to smudging. Some may also take even longer for their colours to stabilise. You must always allow this to occur before evaluating any prints.

Although professional photographers who work in studios usually install special viewing stations for checking the colours and tones in prints, for amateur photographers, any location that is evenly lit with normal daylight will suffice. The key criteria are that the light be bright enough for you to see all the details in the print (particularly highlight and shadow details) and evenly distributed all over the print's surface.

Avoid viewing prints in direct sunlight - particularly if you've printed on glossy paper. Some types of artificial lighting (notably incandescent and halogen) can

produce colour casts that may cloud your judgment. However, some photographers find a daylight fluorescent tube comes close enough to simulating daylight conditions - provided the viewing environment itself is relatively neutral.

If prints are to be displayed under artificial lighting, you should also check how the print will look under the actual lighting conditions in which it will be displayed. You may need to make some slight adjustments to brightness, contrast and colour balance to 'optimise' the print for its viewing situation.

Colour Anomalies in Digital Printing

If you're using a dye-based inkjet printer, one factor you must allow for is the time it takes for ink colours to stabilise. This phenomenon is known as '**short-term colour drift**' and it varies with different printers and ink sets.

In some cases, stabilisation takes only minutes; in others, prints must be left for several hours until you can be sure the colours are stable. Newer printers usually have shorter stabilisation times than older models and printers from leading photo brands are better than those from manufacturers of office printers.

Tests by Wilhelm Research have demonstrated that pigment inks are relatively immune to short-term colour drift. This is one reason why they are favoured by professional photographic printers because being able to see how the colours are rendered immediately after the print is made is critically important to productivity and proofing applications. If colours change after printing, you must wait until the colours stabilise to ensure the print is colour-correct.

Metamerism is another factor that can affect inkjet prints. The term refers to the tendency for colours to look different under different types of lighting. Two prints that may appear identical in daylight may look quite different under different types of fluorescent lighting and also with incandescent or halogen lights.

Metamerism was relatively common with older pigment-ink printers but is now relatively rare. Nevertheless, it's important to evaluate your prints under the type of lighting you plan to display them in.

Calibrating with Colour References

Reference cards printed with calibrated values for a range of hues and tones can be handy for fine-tuning monitor settings and will help you to make what you see on-screen even closer to the printed result. However, care, excellent colour vision and practice will be needed to become proficient because monitors can display a much wider range of tones than you can print.

Consequently, images that look good on a monitor

often fail to print well because colours are less vibrant in reflected light. With a reference card you can narrow the gap between the on-screen view and the print. You can also fine-tune colour accuracy.

GretagMacbeth's ColorChecker cards have long been used by photographers as a colour reference. Prices start at over \$100 for the smallest 24-patch reference card and extend to around \$550 for a 21.6 x 27.9 mm card with 140 colour and greyscale reference patches. Cheaper (\$77) but less versatile, is the Kodak Q13 Colour Separation card.

But neither is as versatile as a recent addition to this category from Canadian firm, Pixel Place (www.pixelplace.ca or www.perfect-pixs.com), whose Perfect Pixs cards are much more affordable. The standard three-card kit, which contains colour, greyscale and white balance reference cards, sells for \$55, while an A4-sized 'Natural Colour' card is priced at \$34.69 and an 8-Colour Target Card costs only \$15.50. The cards are distributed in Australia by Vanbar.

The cards are supplied with a CD containing reference images of each card plus instructions for using them to calibrate monitors. You can also display these reference images on your monitor and compare them with the printed cards to detect colour casts and tonal compression. The cards themselves can be photographed, either in the first shot or before a shooting session, to provide a colour or greyscale reference for the ambient lighting in which the shots are taken. This can be



Finally, photographing a reference card allows you to assess the accuracy of your camera's exposure system. If you cannot see differences between the

zones at the right end of the greyscale zone reference, over-exposure is occurring. When zones at the left end of the scale appear to merge, correct for under-exposure.

Shots of calibration cards can also be used to fine-tune colours and tones when editing images, using the eyedropper tool to select relevant patches in the reference target. Overall, a set of reference cards is one of the cheapest and most valuable tools a photographer can possess.

USEFUL URLs

The following websites provide additional information on the topics covered in this chapter.

www.wilhelm-research.com for information on image permanence and the results of tests on the latest printers and media.

www.computer-darkroom.com and www.digitaldog.net for useful information on inkjet printing.

www.normankoren.com for information on colour management and gamma charts.

www.rags-int-inc.com/PhotoTechStuff/AcrCalibration/ for a step-by-step guide to camera calibration.

www.rags-int-inc.com/PhotoTechStuff/ColorCalibration/ for information on using standard colour targets plus downloadable scripts for validating image colours against known values.

www.pixelplace.ca/ for information on using colour cards to obtain better photo prints.

www.vanbar.com.au local distributor of Perfect-Pix colour reference cards

www.photoreview.com.au for articles on digital printing and printer reviews.

INDUSTRY NEWS

PHASE ONE AND LEAF MANAGERS LOOK TO BUY LEAF ASSETS

PHASEONE Phase One and product managers of medium format maker Leaf are in the process of buying key elements relating to the Leaf brand from owners Kodak. These brand rights, research and development and production capabilities are being bought by a new company called Leaf Imaging Ltd which is 100%

owned by Phase One. The new entity will have access to Kodak's intellectual property portfolio via a licensing agreement. The new company will continue to make and develop the Leaf Aptus range of digital backs but will not initially sell the AFi-II camera system.


FIRMWARE UPDATES

PANASONIC ISSUES 'BATTERY SAFETY' FIRMWARE

Panasonic has released firmware updates for its latest digital cameras including the GH1, G1, ZS3 and TS1. The new firmware can identify genuine Panasonic batteries and prevents the use of any third party battery packs. The company says it has taken this move to ensure safety of its users against possible injuries because of overcharging, internal heating or short circuit in third-party batteries.



NEW COMPANY TO DEVELOP FUTURE NIKON FIRMWARE

 Firmware development for all Nikon digital cameras and interchangeable lenses will now be undertaken by a new company named Nikon Imaging Systems. The new company is a joint venture between Fujitsu Broad Solution & Consulting Inc. and Nikon Systems, a subsidiary of Nikon Corporation. The initial investment will be around \$1m and the company will employ 100 people.

PANASONIC UPDATES GH1, G1 & 14-140MM HD FIRMWARE

Panasonic has released firmware updates for its Lumix DMC-GH1 and DMC-G1 Micro four thirds cameras and the Lumix G Vario HD 14-140mm F4.0-5.8 ASPH. MEGA O.I.S. lens. The updates improve compatibility with recently launched lenses and bodies from Olympus along with minor corrections and original battery confirmation. The latest updates take the GH1 and the 14-140mm HD lens to Firmware v1.1, and the G1 to v1.3. The firmware updates are now available for download.



[Click here for further information and to download the firmware](#)


SOFTWARE UPDATES

SIGMA UPDATES PHOTO PRO SOFTWARE

Sigma has released an update to its Photo Pro image-editing software. Version 3.5.2 for Windows and v3.3 for Mac claim to improve processing of highlight areas in RAW images and now offer the 'ProPhoto RGB' color space. Exposure warning is also displayed for RGB channels in the histogram in the Windows version.




DNG UPDATED TO ALLOW RAW CORRECTIONS

 Adobe has updated its DNG digital negative specification to allow a series of image corrections to be embedded in the file. Version 1.3 of the non-proprietary RAW file format allows a series of 'corrections and enhancements', which Adobe is calling opcodes, to be defined in DNG files. These opcodes include the ability to specify corrections for lens aberrations such as geometric distortion and lateral chromatic aberration that should be made to the RAW data when it's processed. (10:45 GMT)

ADOBE RELEASES LIGHTROOM 2.4 & CAMERA RAW 5.4

Adobe has released Photoshop Lightroom 2.4 and Camera Raw 5.4. The full, release version of the ACR update, that was originally posted as a release candidate on the Adobe Labs site, is now available for immediate download along with the Lightroom update. Both provide additional Raw support for Canon EOS 500D, Nikon D5000 and 18 Hasselblad models. (08:45 GMT)

OLYMPUS UPDATES MASTER AND STUDIO SOFTWARE

 Olympus has released an update to its Master and Studio image-editing software. Version 2.2 of the Master and v2.3 of Studio enable users to apply Art Filter effects to

RAW files, rather than having to choose them as you shoot. It also extends RAW support to the E-P1 and now includes a video editor to edit that camera's HD videos.

EQUIPMENT

HASSELBLAD UNVEILS CFV-39 DIGITAL BACK

Hasselblad has announced the CFV 39 digital back to be used in conjunction with its V series of camera bodies. Featuring a 39 megapixel sensor, it offers two capture formats: 4:3 and square (at 29MP). It allows tethered shooting and offers a capture rate of 0.7fps. The bundled image processing software features digital lens correction for Carl Zeiss lenses that corrects distortion, lateral chromatic aberration and vignetting.



SANDISK LAUNCHES WORLD'S FASTEST 32GB SDHC CARD

SanDisk has introduced the world's fastest 32GB SDHC card. It reads and writes at speeds of up to 30 megabytes per second and adheres to the new SD Association Class 10 specification. The card can record up to 160 minutes of 1920x1080 pixels HD videos at 24Mb/s data transfer rate. It will start shipping in August.

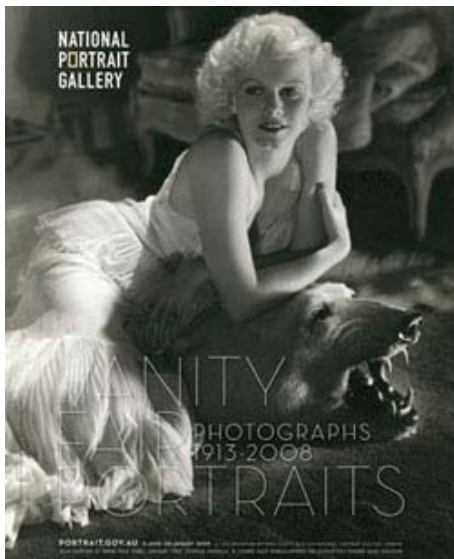


WHAT'S ON – EXHIBITIONS & EVENTS

Want to see what's on around Canberra?
Try www.communitiesonline.org.au, you may be surprised at what you find!

EXHIBITIONS

VANITY FAIR PORTRAITS: PHOTOGRAPHS 1913-2008



VANITY FAIR PORTRAITS 1913-2008 NATIONAL PORTRAIT GALLERY 5 JUNE - 30 AUGUST 2009

Temporary Exhibition Gallery



Wrap yourself in the covers of Vanity Fair magazine this winter. Stroll among rare vintage prints and contemporary classics of the great thinkers, actors, artists and celebrities of the 20th century including the works of master photographers such as Edward Steichen, Cecil Beaton, Annie Leibovitz and Mario Testino.

Vanity Fair Portraits traces the birth and evolution of photographic portraiture through the archives of Vanity Fair magazine. Visitors can expect to see many familiar and famous faces in this exhibition

depicting the history of celebrity portraiture for which Canberra is the only Australian venue. This is a touring exhibition from the National Portrait Gallery London.

UPCOMING EVENTS

NATIONAL YOUTH SELF PORTRAIT PRIZE 2009

A selection of entries, including the prize-winning work, will be displayed at the National Portrait Gallery and as an online exhibition from 23 July–13 September 2009.

CANBERRA NARA CANDLE FESTIVAL



Join in the celebration of Canberra's sister city relationship with Nara, Japan. Fun and interesting activities for children include origami, calligraphy, didgeridoo and boomerang painting. You can even make your own Japanese lantern, then participate in a spectacular lantern procession in the evening. A variety of Japanese cuisine and beautiful designer Japanese handicrafts will be for sale. At dusk the scene is set for the event's centrepiece - more than 2000 floating candles arranged in the dry riverbed of Canberra Nara Park. As the sun sets, the candles flicker into the evening sky and illuminate the park with a soft glow.

Where: Canberra Nara Park, Lennox Gardens, Yarralumla

No admission charge.

When: 26-09-2009-09-

Enquiries: events@act.gov.au

Ph: 13 2281

URL: www.events.act.gov.au

2009 WORLD MOUNTAIN BIKE AND TRIALS CHAMPIONSHIPS

Where: Stromlo forest Park

When: 01/09/2009 - 06/09/2009, -

FLORIADE 2009

Saturday 12 September to Sunday 11 October

PHOTOGRAPHIC WORKSHOPS

Morning workshop times

7.00-9.30am (followed by breakfast at Cafe Valenti)

- Saturday 12 September
- Saturday 19 September
- Saturday 3 October
- Saturday 10 October

Twilight workshop times 4.30-7.00pm (followed by refreshments at ActewAGL Look and Learn Marquee)

- Wednesday 30 September
- Thursday 1 October
- Thursday 8 October

Workshop format

Workshops will be run by Geoff Comfort and Ben Kopilow, both members of the Australian Institute of Professional Photography and experienced photographic lecturers. Geoff and Ben will both attend each session. The sessions are stand alone and not part of a series. Short course notes will be supplied to participants. The sessions will include two hours of hands-on workshop and a 30-minute debrief and photo critique.

To get the most value from the workshops it is recommended that participants bring a camera that has a manual override.

Workshop numbers

Numbers will be limited to a maximum of 12 participants so book early to avoid disappointment. Workshops will also require a minimum number of eight participants to run.

Workshop cost \$154 per person (GST inclusive).

Price includes:

- 2.5 hour photography workshop by Geoff Comfort and Ben Kopilow
- Breakfast for the morning sessions and refreshments for the evening sessions
- A Floriade bag containing a Floriade cap and mug.

How to book

Workshops are limited and bookings are essential.

Please download the booking form.

F22: Southside Camera Club Newsletter July 2009

Complete the form and address it ATTENTION TO THE FLORIADE PHOTOGRAPHIC WORKSHOP COORDINATOR.

Return the form by one of the following ways:

Email susie.dunn@act.gov.au

Fax 02 6205 0629

Post Australian Capital Tourism Locked Bag 2001
Civic Square Canberra ACT 2608

[Terms and Conditions, Booking and payment form \(PDF\)](#)

Experience and be inspired by a rich harvest of workshops and presentations to inspire throughout Floriade.

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SOUTHSIDE CAMERA CLUB - PHOTOSHOP SIG MEETING TOPICS 2009

July 23	TBA		
August 13	<i>Presentation to Club- advanced PhotoShop topics</i>		<i>Irish Club</i>
August 27	HDR	Claude Morson	18 Bancks Crescent, McKellar
September 24	TBA		
October 22	TBA		