

Colour management needs to be simple, reliable and quick and now it is By Andy Benedek

# Colour code

At last, colour management appears to be getting the attention and products it deserves. In the past, colour management has often been neglected because applications have lacked support and/or setting them up has been quite daunting — Photoshop is a prime example: device calibration and ICC profile generation are not supported and the setting up is less than straightforward.

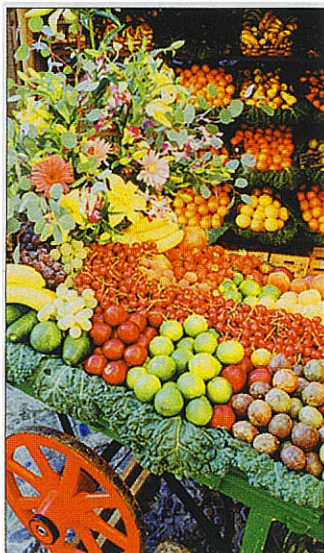
However, two colour management products have recently come to my attention which seek to rectify this situation. The first is a comprehensive colour management solution, while the second is a much less ambitious but, none the less, useful and effective product.

## ColourCase

"It's all there!" says the brochure, and so it is. All you need to calibrate your equipment and to retouch or correct images both on an individual and on a batch basis. ColourCase, as the product is called, is described as a "colour solution" in an aluminium case as it contains all the necessary hardware and software to do the job. Hardware is in the form of a spectrophotometer to calibrate CRT and LCD monitors, printers and software is in the form of PhotoRetouchPro and the IPM Workflow Server.

So who has put together this useful combination? It is Binuscan, that small but perfectly formed Monaco based company whose products have had such an impact upon the quality and consistency of images printed throughout the world.

So who is ColourCase aimed



at? Well, it is squarely aimed at those who wish to take colour management seriously by working with precisely calibrated scanners, monitors and printers and with software that can use the resultant device profiles to optimum effect. At a cost of some €5,990, ColourCase is intended for use by professionals in pre-press who have a vested interest in producing prints of the highest quality.

At present, ColourCase is only available for the Macintosh, but it runs under both Mac OS9 and Mac OS X. Binuscan has said that ColourCase will be made available to run under the Windows operating system, but no specific date has been given.

The spectrophotometer in ColourCase is a version of Gretag-Macbeth's Eye-One Pro with some modifications to the hardware at Binuscan's behest. The software used to drive it is

also Binuscan's own. The creation of ICC profiles for monitors, requires the spectrophotometer to be attached to the screen with one of the adapters supplied.

Once attached, a sequence of colours is sent to the screen by the driving software, which measures the output and then calculates the ICC profile. At the time of writing, Eye-One Match from Gretag-Macbeth is the driving software used, but Binuscan's own software should be available by the time you read this.

For printer calibration, a reference RGB or CMYK image is printed and then analysed using the Binuscan Spectrophotometer software. Although the reference image comprises just under 300 colour swatches and the spectrophotometer is hand held, the whole procedure takes less than five minutes because a special guide is supplied which enables whole rows of swatches to be measured in one sweep. When all the rows have been measured, the profile is calculated.

ICC profiles for scanners are created from within PhotoRetouchPro (PRP) by scanning one of the Binuscan reflective or transmissive targets supplied and comparing the resultant file with the target's reference file. The whole process, like the monitor and printer calibrations, is simple, effective and accurate.

## Significant upgrade

The second major component of ColourCase is PhotoRetouchPro v2-v6 of which was written about

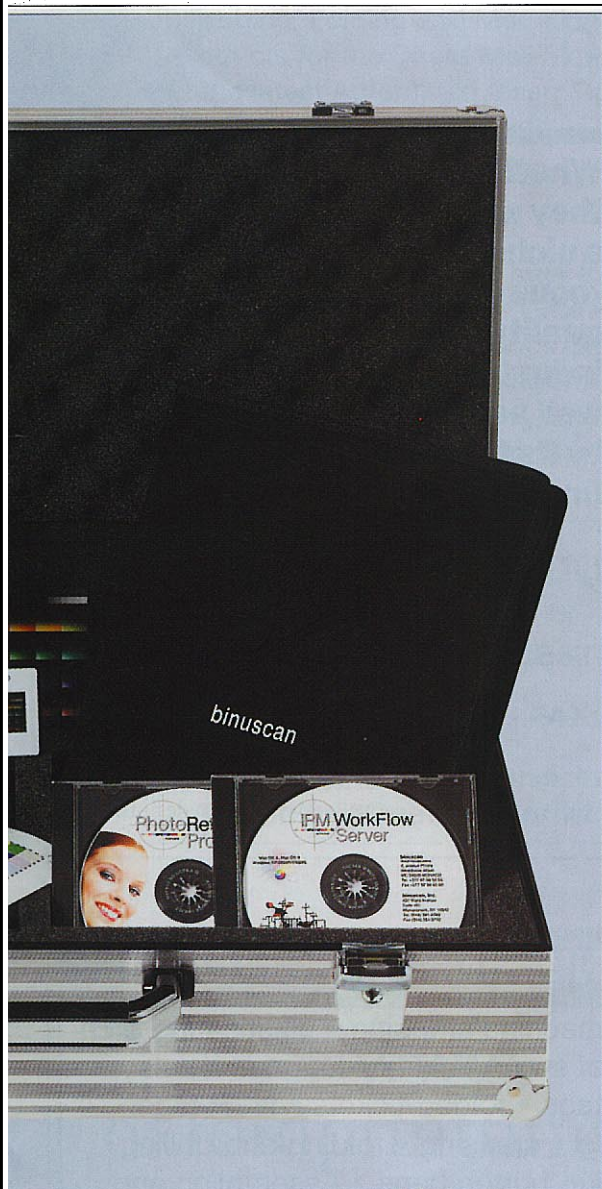


## No longer must a calibrated scanner be relied on for creating printer profiles

with enthusiasm in *Printing World* last year. V2 does not have the layers and photomontaging capabilities promised by Binuscan some time ago, but it is, none the less, a significant upgrade in many other respects.

As might be expected now that PRP is a component of ColourCase, its colour management capabilities received particular attention during the updating process. Now, the whole process of calibrating input and output devices, creating profiles and applying them to images, can be performed entirely with PRP in combination with the Binuscan Spectrophotometer to a much higher professional level than hitherto.

No longer must a calibrated scanner be relied on for creating printer profiles and monitors can be calibrated with precision because the Binuscan Spectrophotometer is capable of



and aggravation, when, for example, a batch of images arrives for processing which includes one without a profile. Now, a profile from one of the other images in the batch can be exported and used to correct the image without the profile.

#### Improved capabilities

In addition to improved colour management capabilities, PRP's correction and retouching features have not been neglected. For example, the efficacy of Auto Process ReCo has been enhanced by enabling it to simultaneously apply an ICC profile corresponding to an input device. Luminance and threshold settings have been added to the Selective Saturation process to give extra control and the Colour Change process can now perform saturation and luminance changes in addition to hue changes. Two new processes are a Grey Neutralizer which neutralises a grey background in an image without a mask, and Backlight Enhancer which enhances the darker areas of an image with strong backlighting in a more intelligent way than through simple gamma adjustments.

It may have come to your notice that Photoshop v7's filters do not function with PRP. To counter this, Binuscan has developed a range of its own which includes Color Emboss, Mosaic, Color Matrix and Texture. Of the remaining changes, one noteworthy one is PRP's ability to generate an image analysis report, which lists a range of parameters to aid less experienced operators in deciding whether an image is suitable for printing. It details the gaps in the histogram, the coverage, the lightness level and an analysis of the percentage of burned pixels.

#### IPM Workflow Server

The IPM Workflow Server is the third component of ColourCase. It is a package which uses hot input folders and processing orders, created by client applications, to automate image

processing. Image manipulations such as colour mode conversions (using either ICC profiles or conventional separation tables), the application of ICC profiles with profile mismatch management, file format conversions, geometric operations (such as cropping, resizing, rotating, skewing, flipping and resampling), interpolations, together with saturation, gamma, unsharp masking and image correction operations can be automatically applied.

Four software components comprise the IPM Workflow Server. These are the IPM Workflow and IPM Administrator which manage and define image workflows, respectively, Job Manager which is a plug-in for the likes of page layout applications (eg an XTension for XPress) which creates processing orders (ie specification files) and sends them to the IPM and ColorCorrect which is a standalone application that complements Job Manager and the IPM by applying global, post-processing manual corrections on Postscript images (such as EPS, DCS and DCS2) created by Binuscan software.

The version of the IPM Workflow Server supplied in ColourCase enables up to five workflows (ie five sets of input and output folders) to be in operation at any one time. Although each workflow can only perform one process, such as a colour mode change or a file format conversion, a number of processes can be applied by concatenating workflows, ie by making the output folder of one process the input folder of the next. Similarly, if different versions of an image are required for say the screen, print and archiving, workflows can be so arranged as to automatically create these.

So there you have it, you really do have all you need for calibrating, retouching/correcting and automating image workflows in a case, and Binuscan is ready to prove the quality obtainable with its product. Binuscan is prepared to create an ICC profile for your printer and apply it to some of

your images so that you can print them and see for yourself just what ColourCase is capable of. Want to know more? Then visit [www.binuscan.com](http://www.binuscan.com) for further information and software demos.

#### Colour Confidence Studio

Though not in the same league as ColourCase, this is a simple but effective package which could bring greater colour accuracy to your images. The package comprises a PDF file which explains the basics of colour management and how to set up your graphics applications to use ICC profiles, the Pantone Spyder with Pantone's OptiCal calibration software for monitor calibration, What Profile?, a software utility for viewing files using different ICC profiles or rendering intents and a Repro Pack for checking the colour accuracy of monitors and printers. The Repro Pack contains a reference print, corresponding reference files (RGB and separated CMYK with embedded profile) and a PressMatch ICC profile.

The intention is that you read the PDF file, calibrate your monitor, view and print the reference files to check the colour accuracy of your monitor and printer, and check/colour manage files from any source using What Profile? by viewing them using up to four different source profiles or rendering intents and embedding the most appropriate profile.

What Profile? itself is almost worth the purchase of the package, but when you consider that the whole package, consisting of the Spyder and software, costs £295+VAT (which is almost the cost of the Spyder alone) then studios on even the smallest of budgets have no excuse for poorly colour managed files. Check it out by visiting [www.colourconfidence.com](http://www.colourconfidence.com) from which you can download the PDF document FOC. Alternatively, call TypeMaker on 0121 604 1234. [printing.world@cmpinformation.com](mailto:printing.world@cmpinformation.com)

#### In brief

- Profiling for monitors
- Single matched suite of applications
- Workflow automation

measuring both emitted and reflected light. Even LCD screens, whether free-standing or built-in to laptops, can be calibrated.

The on-screen softproofing of printers has been significantly enhanced through the implementation of an all-new architecture. Furthermore, v2 of PRP enables lists of ColorSync profiles, pertaining to specific configurations, to now be saved and re-loaded when required.

Also new is that profiles embedded within images can be exported for use elsewhere – a feature that can save much time

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