



Adobe Photoshop CC update: Camera Raw 8.1

Welcome to the latest Adobe Photoshop CC bulletin update. This is provided free to ensure everyone can be kept up-to-date with the latest changes that have taken place in Photoshop (and are also applicable to CS6 users).

This bulletin describes the latest changes to the Camera Raw interface. For a complete description of how to use these new Photoshop tools, with diagrams and step-by-step tools, I recommend you buy the *Adobe Photoshop CC for Photographers* book.

Camera Raw 8.1

Camera Raw 8.1 was released to coincide with the launch of Lightroom 5 and ahead of the Photoshop CC release. This version of Camera Raw is designed to do a number of things. Photoshop CS6 remains as a current shipping product sold as a perpetual license alternative for those Photoshop customers who don't wish to subscribe to the Creative Cloud and access the latest Photoshop CC program. Camera Raw support is therefore to be continued for Photoshop CS6 users so that this latest Camera Raw 8.1 release offers support for the latest raw camera formats and lens profiles. By coinciding with the launch of Lightroom 5, it provides a bridge between that and the Photoshop CS6 program, allowing CS6 customers to open Lightroom 5 images that have been edited using the new adjustment options (such as Upright or Radial filters) via Camera Raw 8.1. If you are using Photoshop CS6 this means you can read files that have been edited using the latest adjustments, but you won't be able to edit settings that would otherwise be new to Photoshop CS6.

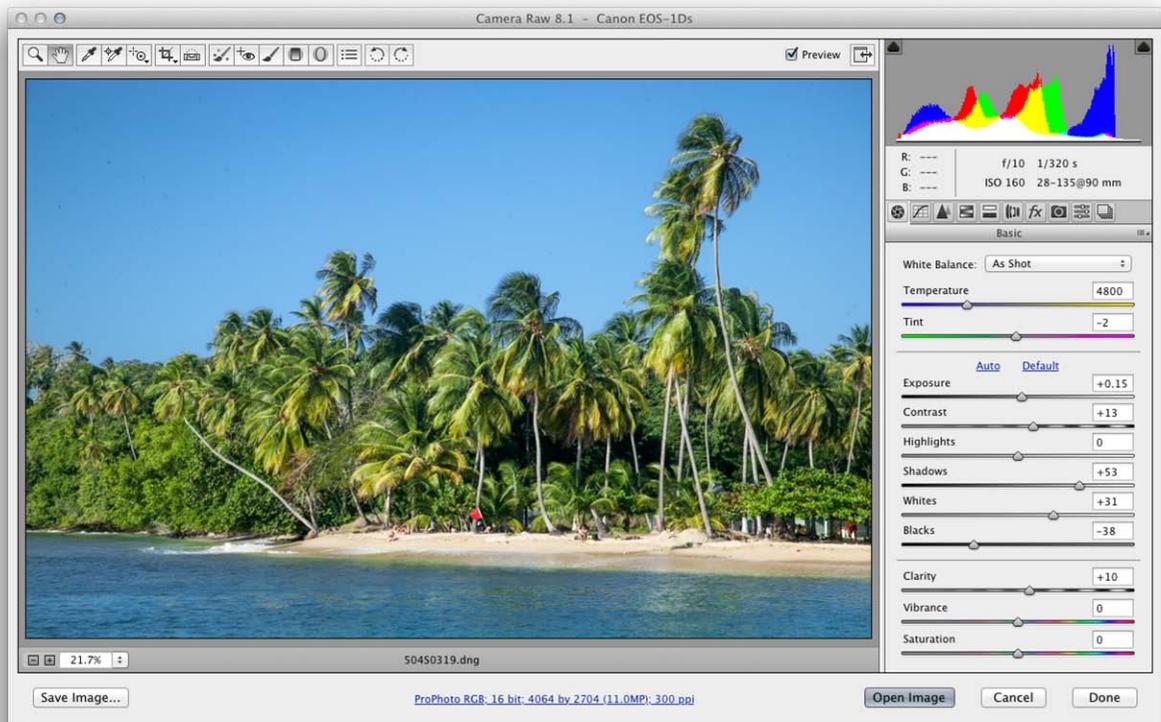


Figure 1 The new Camera Raw 8.1 interface.

New interface

The main thing you will notice that's different is that the tool and panel icons have been updated (see Figure 2 and Figure 3). Camera Raw 8.1 also provides support for HiDPI capable displays.



Figure 2 The new Camera Raw 8.1 tool bar.



Figure 3 The new Camera Raw 8.1 panel icons.

Workflow options

The Workflow Options dialog can be used to set the default settings for when files are opened in Photoshop or saved as an output image. Previously, when you clicked on the blue hyperlink text (at the bottom of Figure 1), this would open a Workflow Options dialog with a limited range of options that allowed you to choose from one of four RGB output spaces, select the desired bit depth, megapixel size, resolution and output sharpening.

The new Workflow Options dialog (shown in Figure 4) now lets you do more. For a start, the Color Space options now



Figure 4 The Camera Raw 8.1 Workflow Options dialog.

allow you to choose any available profile space as the output space. Note, if you are using Photoshop CS6, the menu options here will still be limited to Adobe RGB, ColorMatch RGB, ProPhoto RGB and sRGB. But if you are using Photoshop CC you can choose other profile options including printer profiles, CMYK profiles, or Lab space even.

CMYK proofing

So one of the more obvious benefits the new Workflow Options dialog brings is the ability to soft proof in Camera Raw. Some of you will be aware that soft proofing was introduced in Lightroom 4 and very effectively allows you to preview in the Develop module how an image is likely to look when printed. The new Workflow Options dialog allows you to kind of do the same thing. It does not provide a total workflow solution the way Lightroom does, but when you select a profile such as a CMYK profile this will affect the way the preview image is displayed in the Camera Raw dialog and you now also have the option to select a rendering intent and compare between the use of a Relative or Perceptual conversion. The Workflow Options dialog shown below in Figure 5 shows a CMYK profile selected.

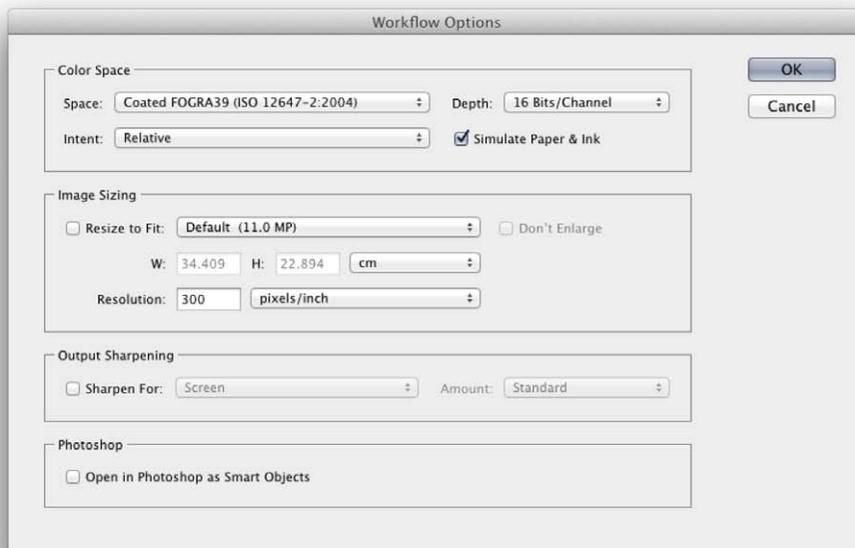


Figure 5 The Workflow Options dialog with CMYK profile selected.

Essentially, when you select a specific CMYK profile the preview adjusts to show how the image you are editing in Camera Raw will look when output or saved as a CMYK TIFF, PSD or JPEG pixel image. When the Output options are configured in this way everything you adjust in Camera Raw is filtered through the prism of the selected CMYK output profile. You can also check the 'Simulate paper & Ink' box to try to simulate how the image will appear when printed. The underlying image is still being edited as a full raw image, it is just the preview that is modified to provide a more realistic interpretation of the final output.

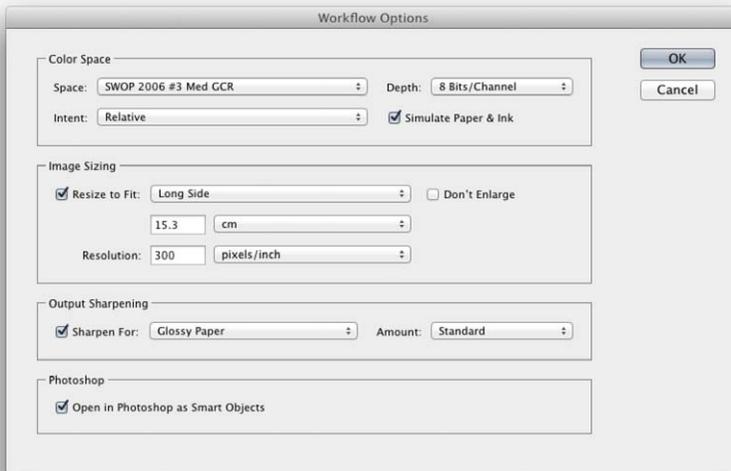
Output proofing and the computer display

The same thing applies when you select an inkjet printer profile. The Camera Raw preview aims to show the outcome when printing to a specified printer profile.

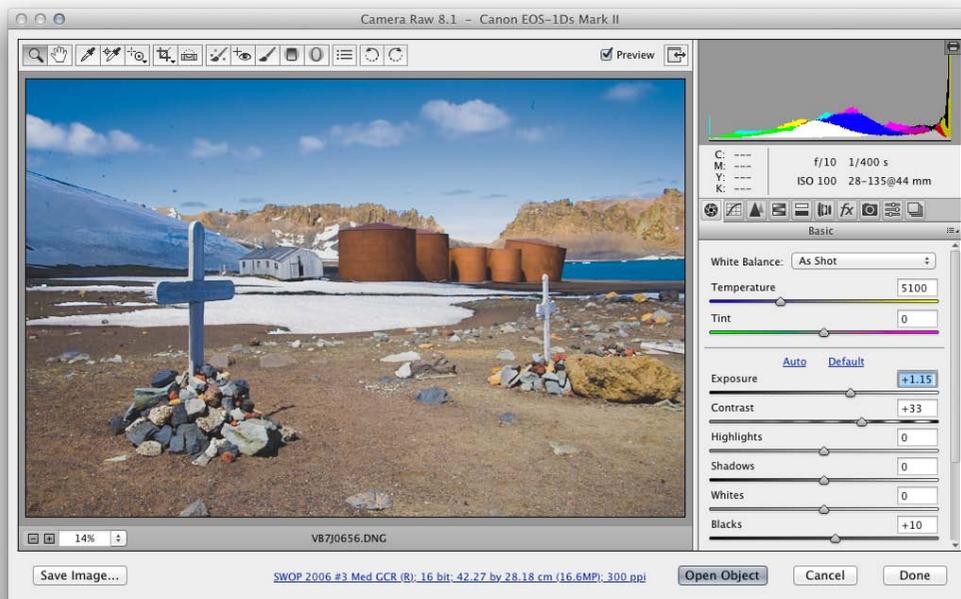
The one thing to point out here with soft proofing in Camera Raw is that the accuracy of the soft proof view can only be as good as the monitor display you are using to view the image. Most standard LCD displays have a native color gamut that is not that different from the sRGB color space. Consequently, a basic display isn't going to help you much when evaluating color output if the gamut of the display is smaller than the output space. However, even in these situations the soft proofing can still be valid in terms of judging the tone contrast. You will at least be able to get a sense of the tone appearance of the intended print output and modify the contrast accordingly. A better answer is to use a professional quality display that is able to match closely to the Adobe RGB gamut. That way you should be able to at least gauge CMYK color output reasonably accurately.

Saving soft proofed raw files as smart objects

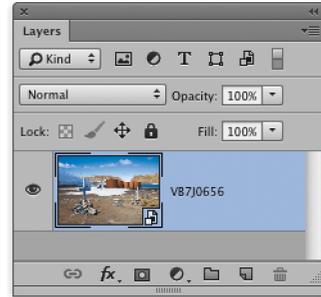
Prompted by my colleague, Jeff Schewe, it became clear that you can take this one stage further. If you check the 'Open in Photoshop as Smart Objects' box at the bottom of the Camera Raw Workflow Options dialog (Figure 5), this allows you to open a raw image as a Smart Object in Photoshop. Now, if you happen to select a CMYK profile that matches the intended print output you can edit your raw images seeing how they would look when printed in CMYK. When you save the smart object image as a TIFF, it can be placed directly into an InDesign layout. The following steps summarize such a workflow.



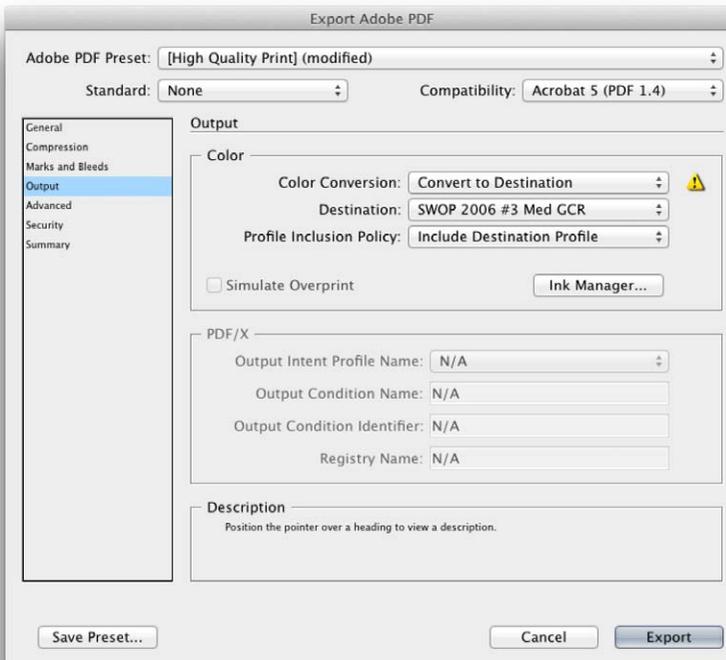
1 To begin with, I opened the Workflow Options. I set the output space to the intended CMYK output space, set the rendering intent in this case to 'Relative' and checked the Simulate Paper & Ink box. The long side image dimension was adjusted to match that of the page layout column width. In the Output Sharpening section I checked the Sharpen For box and chose 'Glossy Paper' from the menu using a 'Standard' Amount. I also checked the 'open in Photoshop as Smart Objects' box.



2 In Camera Raw the Open Image button now showed as 'Open Object'. I clicked this to open as a smart object in Photoshop.



3 Here you can see the Layers panel view of the image opened in Photoshop as a smart object, which I then saved as a TIFF that could be placed into an InDesign layout such as this.



4 When exporting from InDesign as a PDF, I needed to go to the Output settings, select the intended CMYK output space and choose 'Convert to Destination'. This would mean that during the PDF export, the images such as the one shown in step 3 would be converted to CMYK from the original raw data directly.

Summary of the proposed soft proofing workflow

Let me now go back over the steps described on the previous two pages. The Workflow Options in Camera Raw were set to the CMYK profile of the intended CMYK output and the size settings were adjusted to match the column width. The rendering intent was set to Relative (because this tends to be the optimum rendering intent for most colour images) and the simulate Paper & Ink option was checked so the preview gave a reasonable indication of how the final image would look when printed.

In the Output Sharpening section I chose to apply a standard glossy paper output sharpening setting. Ideally, I would prefer to apply a custom Photoshop action that applied a more precise form of sharpening designed for CMYK printing. However, the paper sharpening settings offered here are the same ones used in the Lightroom Book module for sharpening files for output for Blurb books printed on an Indigo press. Experience shows that this sharpening workflow, while not intended for CMYK repro, does appear to work well for this purpose.

The raw image was opened as a smart object in Photoshop, preserving all the raw data. The Camera Raw settings remained editable and the Camera Raw preview allowed me to make color and tone adjustments while being able to preview the CMYK outcome.

The smart object image could be saved as a TIFF and placed in an InDesign layout. It would still be possible to double-click the layout image to open it in Photoshop and double-click the smart object layer thumbnail to edit the Camera Raw settings.

At the PDF export stage the PDF settings were set so that when the PDF generation took place, the original raw data was read, the Camera Raw adjustment settings applied and the image data then resized to the desired pixel dimensions. Next, the image data was sharpened for output and converted to CMYK according to the settings configured in the Export to PDF dialog, making sure the Camera Raw Output and PDF Export Output settings both matched.

Camera Raw soft proofing in practice

These few simple additions to the Workflow Options dialog have some interesting implications. The ability to select various output profiles is definitely a big step forward and gives photographers the option to edit their photographs while being

able to preview the expected print outcome while working in Camera Raw. That much is easy enough to implement and get to grips with. The other thing we can now do is devise a non-destructive Camera Raw to print workflow in which the raw data remains completely editable right through to the final Export to PDF stage. This is seemingly a good thing to do, but comes at a cost. I would not choose to do this with the Photoshop books I produce because of the sheer number of images involved. Saving raw images as smart objects will result in image files that are very large and always much bigger than a rendered TIFF resized to match the required output size. This would work if the rendering intent is to be the same for all printed images. In practice I tend to use both Relative and Perceptual rendering intents when converting images to CMYK as well as different black generation profiles. Now, if it were possible to achieve a link between Camera Raw and InDesign whereby you could assign the rendering intent and profile in the Workflow Options and have these picked up at the Export to PDF stage, this would make such a workflow more practical. Maybe this will be on the cards for the future?

Camera Raw 8.1 and Photoshop CS6

As I mentioned at the beginning, Photoshop CS6 users can also install and use Camera Raw 8.1. Adobe's policy is that those who choose to work with Photoshop CS6 rather than subscribe to the Creative Cloud, will be able to access all the Camera Raw updates for Photoshop CC, starting with Camera Raw 8.1. This appears to be roughly in line with stated policy for Photoshop CS6 support: that the Photoshop CS6 program will continue to be supported by Adobe with program updates, including Camera Raw. If a future Mac or PC operating system update means rewriting code, Adobe say they are committed to doing so for CS6 customers. In the case of Camera Raw 8, updates will be provided, starting with 8.1 that allow Photoshop CS6 users to read the latest raw file formats. They will also be able to open raw or DNG files created in Photoshop CC or Lightroom 5 that contain Camera Raw 8 edits (such as Upright or Radial filter adjustments). These can be read using Camera Raw 8.1, but you won't be able to edit them.

To sum up, Photoshop CS6 customers who use Camera Raw 8.1 will see the new style icons and access the new Workflow options dialog (limited to the four main RGB output

spaces). They will be able to read files edited in Camera Raw using Photoshop CC, or Lightroom 5, but won't be able to edit the newly introduced settings such as Upright adjustments or Radial filters. Basically, if you are now using Lightroom 5 to manage and process your raw files and have decided to continue using Photoshop CS6 in place of Photoshop CC, the Camera Raw 8.1 update provides the link you need between these two programs.