



Adobe Photoshop CS6.1 update

Welcome to the Adobe Photoshop CS6.1 bulletin update. This is provided free for readers of my book in order to keep everyone up-to-date with the latest changes to the Photoshop CS6 program. The CS6.1 update contains a number of new features and workflow improvements, but is available to Creative Cloud subscribers only. The idea here is that if you subscribe to the cloud as a single-product or full Creative Suite user you will be entitled to this and any subsequent updates, all as part of the cloud service. At this point I imagine that the features that are added gradually to the CS6 program as updates will eventually form the next full product release. Overall, it seems that Adobe are in the process of switching to incremental updates on a more regular basis. Also, the timing of the announcement looks like it is intended to coincide with the cut-off point for those with older versions of Photoshop to upgrade to becoming Cloud subscribers.

Camera Raw movies

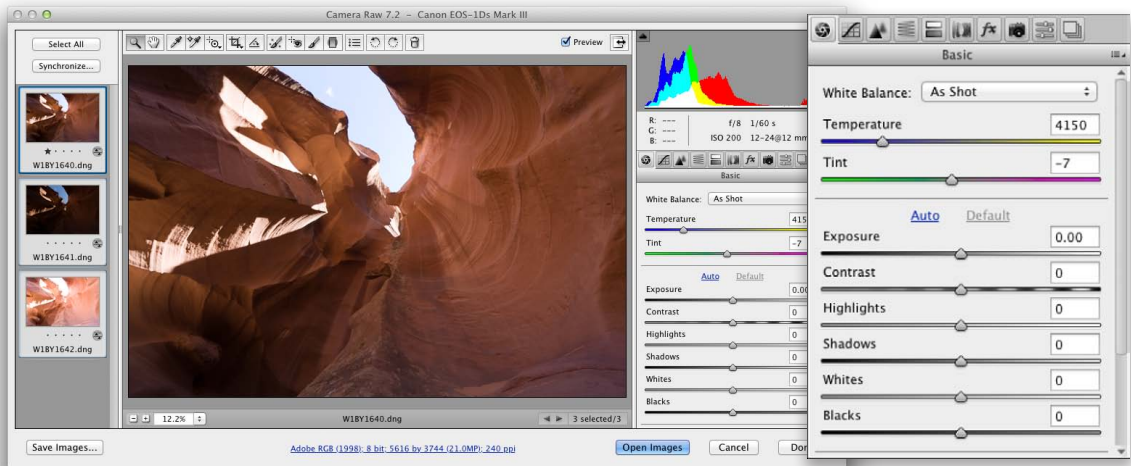
Note that at around the time when Camera Raw 7.1 was announced I added a couple of movies to the book website. These show the two main Camera Raw features discussed here in use.

Camera Raw

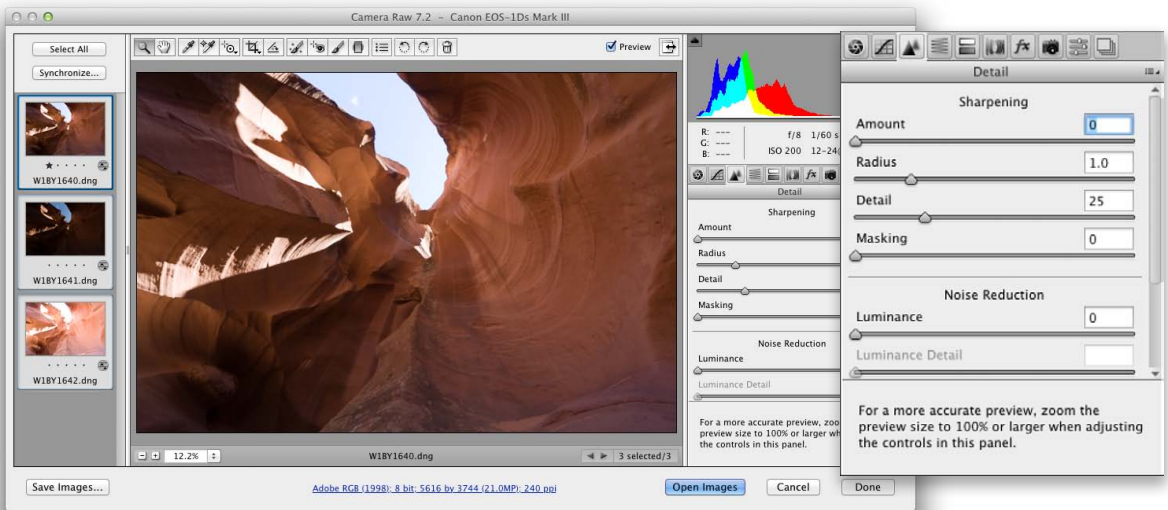
OK, this first part on Camera Raw isn't such hot news, but is something that was announced earlier in 2012 and not exclusive to Cloud subscribers. But the Camera Raw 7.1 update saw the introduction of a couple of important new features.

Processing HDR files in Camera Raw

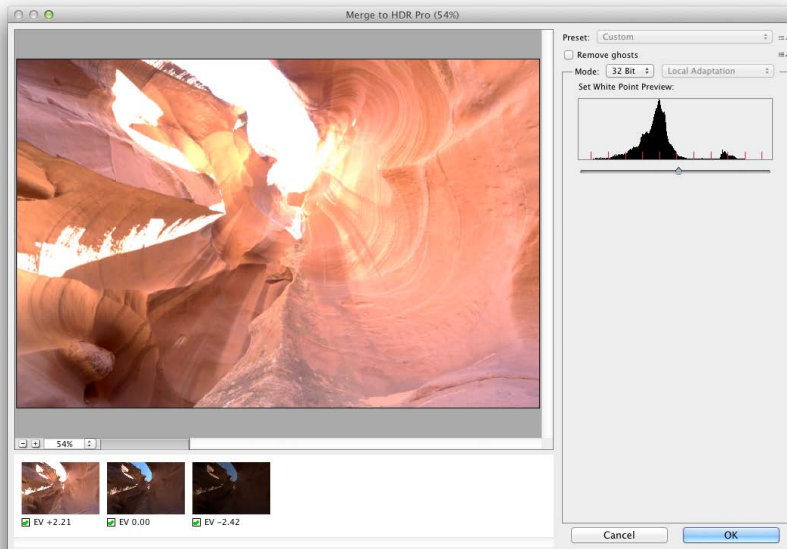
Camera Raw 7.1 or later now gives you the ability to edit TIFF 32-bit HDR files just as you would a regular TIFF or raw image. What this means is that you can now use the develop controls in Camera Raw or Lightroom to edit 32-bit HDR files (providing they have been saved as flattened TIFFs). If you have got accustomed to working with the latest Process 2012 tone controls, your editing experience working on HDR images will not be that much different from when working with regular raw, TIFF or JPEG images, except the dynamic range you'll have to work with will potentially be that much greater. In my view, working with the Camera Raw tone adjustments makes it easier to achieve the desired tone balance in an image. The other benefit is that if you use Camera Raw as an HDR editor you won't end up with the rather obvious 'HDR look' that you tend to get when processing HDR files to render low dynamic range versions. i.e. you can avoid getting the rather obvious halos (although some photographers do seem to like this kind of effect).



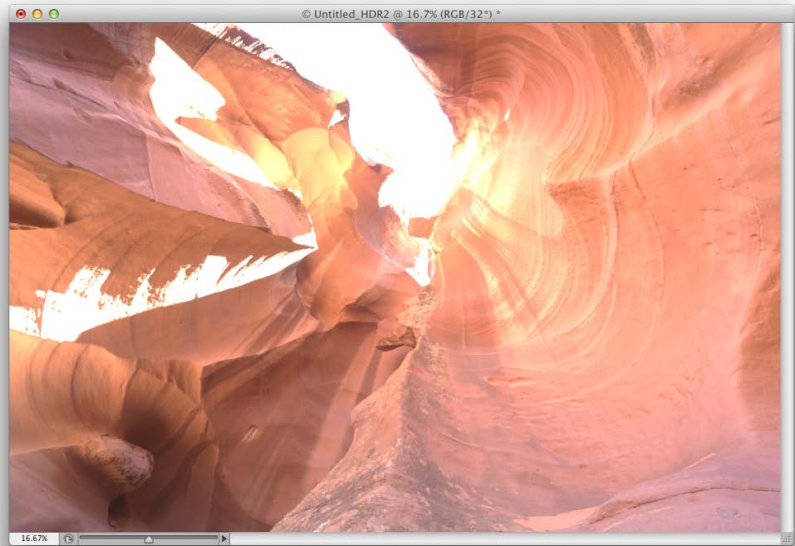
1 To begin with I needed to create an HDR file. For this example I opened three photos that were shot around two stops apart, where the camera was set to aperture priority mode and the shutter speed only was adjusted with each bracket. This ensured that the aperture and depth of field would be consistent for each exposure. To get even better results, you may want to shoot a 5-bracket sequence



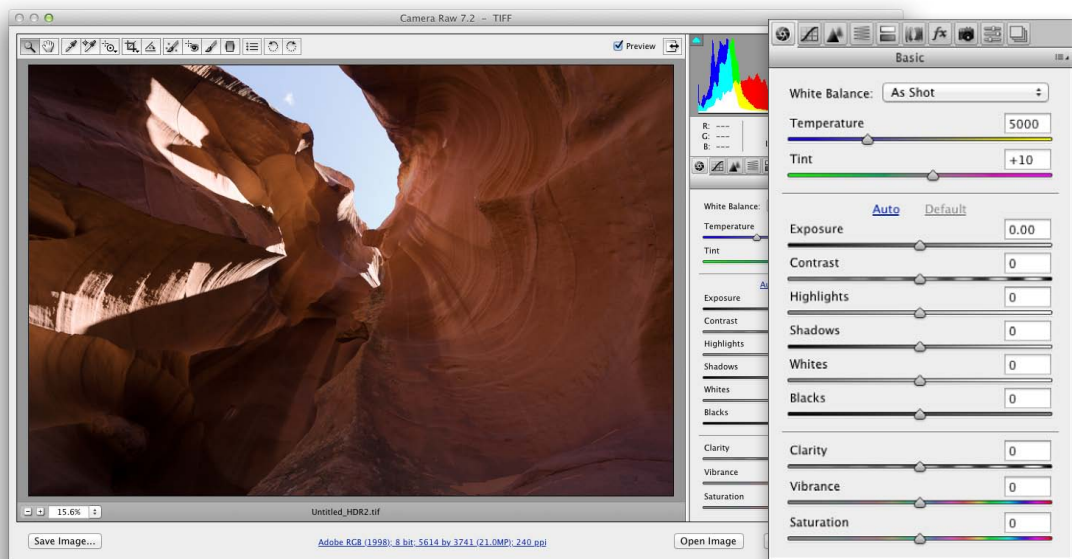
2 Before creating a merged HDR image I find it helps to disable sharpening of the raw master files. To do this, I went to the Detail panel and set the sharpening Amount slider to zero. Having done this, I selected all three of the photos I was going to merge and synchronized the Detail panel settings.



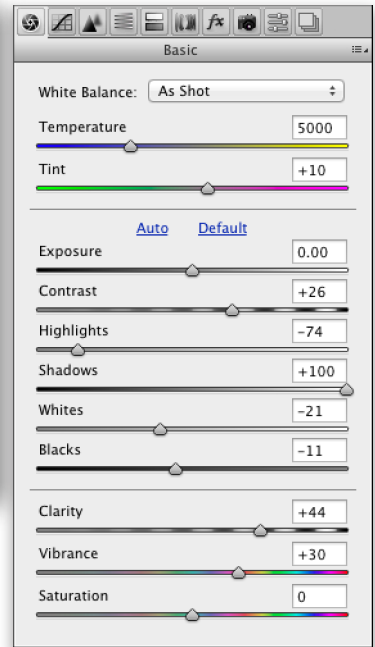
3 In Bridge I went to the Tools menu and chose Photoshop > Merge to HDR Pro... This opened all three images, blended them together and presented the Photoshop Merge to HDR Pro dialog shown here. You can use this dialog to tone map and render an 8-bit or 16-bit image from the 32-bit HDR data, but here I selected the 32-bit option to keep the image in 32-bit mode.



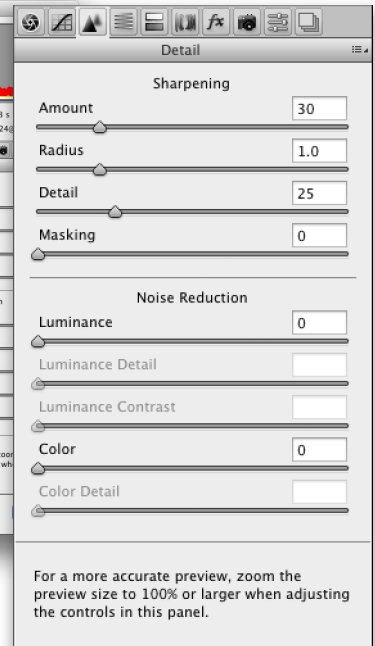
4 Here is how the 32-bit file appeared when viewed in Photoshop. It didn't look that great at this point. This was because it was a high dynamic range master and the Photoshop preview could only show one segment of the overall image file exposure range (you can if you like, select the 32-bit Exposure slider option from the document window status bar to adjust the preview exposure). At this point I chose File ⇨ Save to save the image as a TIFF.



5 Here is how the saved image looked when previewed in Camera Raw where zero settings were applied by default.



6 I then used the Basic panel controls to edit the tones. Here, I adjusted the Contrast, Highlights and Shadows sliders to balance the tones better. I also adjusted the Whites and Blacks to fine-tune the end clipping points. I also applied a large amount of Clarity (which is usually necessary with 32-bit images like this) and increased the Vibrance.



7 In this final version I went to the Detail panel and edited the Sharpening sliders to apply the desired capture sharpening. Remember, I had disabled the sharpening prior to creating the original HDR master file, so it was necessary here to apply the desired capture sharpening to the image, just as one would to a regular raw master file. I did also carry out a few further modifications to the Tone Curve and HSL panels to achieve the final result shown here.

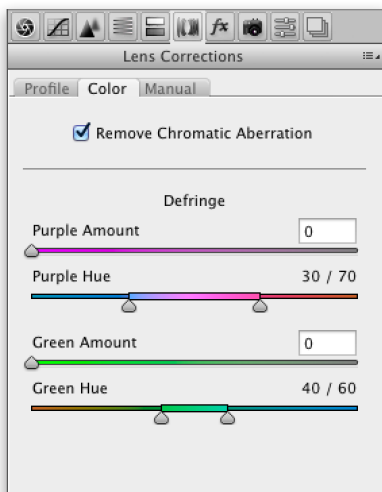


Figure 1 The Lens Corrections dialog showing the new Color tab controls in Camera Raw 7.1 or later.

Lens Corrections: Color tab

The Lens Corrections tab now contains a Color tab, which can be used specifically for making color lens corrections to do with color fringing (Figure 1). In particular, the new Defringe controls are designed to fix axial (longitudinal) chromatic aberrations. These can be caused due to ghosting, lens flare, charge leakage (which affects some CCD sensors) as well as color aberrations.

Unlike lateral chromatic aberration, which occurs towards the edges of the frame, these types of aberrations can appear anywhere in an image. It particularly affects fast, wide aperture lenses and is typically most noticeable when shooting at the widest lens apertures, where fringes will usually be at their most visible just in front of and just behind the plane of focus. These will typically appear purple/magenta when they're in front of the plane of focus, and appear green when they're behind the plane of focus. But even at the exact point of focus you may sometimes see purple fringes (especially along high contrast or backlit edges), which can be caused by flare. As you stop down a lens these types of aberrations are usually less noticeable.

The Lens Corrections panel

You will notice that the 'Remove Chromatic Aberration' check box which used to be in the Profile section has now been placed in the new Color tab section. Below that is the Defringe section, which consists of four sliders. There are now Purple Amount and Green Amount sliders for controlling the degree of correction and below each of these are Purple Hue and Green Hue sliders, which have split slider controls.

So, if we look at the two Purple sliders, the Purple Amount slider has a range of 0–20 and is used to determine the strength of the purple fringing removal. The Purple Hue slider can then be used to fine-tune the range of purple colors that are to be affected. What you need to be aware of here is that higher Purple Amount settings will apply a stronger correction, but the downside is that at higher settings this may cause purple colors in the image that are not the result of fringing to become affected also by the Purple Amount adjustment. So, to moderate this undesired effect you can tweak the Purple Hue slider split points to narrow or realign the purple range of colors to be targeted. You can drag on either of the knobs one at a time, or you can click and drag on the central bar to align the Hue selection to a different portion of the purple color spectrum. If you need to reset these sliders then just double-click on each individual knob. Likewise, double-click the central bar to reset this to its default

position. The minimum distance that may be set between the two sliders is 10 units.

The Green Amount and Green Hue sliders work in exactly the same fashion as the Purple sliders, except these two sliders allow you to control the green fringes. However, the default range for the Green Hue slider has a narrower range of 40 to 60 instead of 30 to 70. The reason for this is to help protect common green and yellow colors such as foliage colors.

The Defringe controls in use

The recommended approach is to carry out all your major tone and color edits first. Then make sure that you have turned on the profile-based lens corrections to correct for geometric distortion and vignetting. Once these steps have been taken, go to the Color tab of the Lens Corrections panel and check the 'remove Chromatic Aberration' check box. You can then start using the global Defringe sliders to remove any remaining signs of fringing. Be aware also that where the global controls are having an adverse effect on the rest of the image, you can always turn down the Purple/Green Amount sliders and use a localized adjustment with the Defringe slider set to a positive value to apply a stronger, localized adjustment. If carrying out a localized adjustment it is important to apply the geometric and any manual distortion controls first. As with the Detail panel controls, the Lens Correction defringe controls are best used when viewing an image at 100% or higher.

You can also use the **alt** key as a visualization aid. These can greatly help the user see an emphasized overlay that gives a clearer indication of what effect the sliders are having and making the most suitable slider adjustments.

Use the **alt** key to drag on the Purple Amount slider to visualize purple fringe removal. This will cause the preview to reveal only the affected areas of the image. All other areas will be shown as white. This lets you concentrate on the affected areas and help verify that the purple fringe color is being removed.

Use the **alt** key to drag on either of the Purple Hue slider knobs to visualize the range of hues that are to be defringed. As you do this, the preview will show the affected hue range as being blacked out. As you drag on a slider you need to pay close attention to the borders of the blacked out area to check if there are any residual purple colors showing still. Obviously, the same principles apply when adjusting the Green Amount and Green Hue sliders with the **alt** key held down.

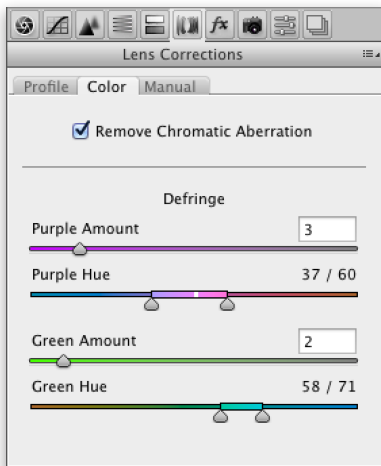




Figure 2 This shows the Lens Corrections panel where the  (Mac) *ctrl* (PC) key was held down. Here, you can see a white bar on the Purple Hue color ramp indicating where on the color ramp the sampled color lies.



Figure 3 This shows the two possible error messages you might see when working with the eyedropper tool. The top one shows an alert pointing out that the sampled color is too neutral. The bottom alert dialog indicates that the sampled color falls outside the supported color range.

Eyedropper tool mode

When working with the Defringe sliders you can hold down the  (Mac) *ctrl* (PC) key as you roll the cursor over the preview window to reveal an eyedropper tool. This tool can be used to help set the Purple/Green Hue slider knobs. If the Caps Lock key is enabled, the eyedropper cursor will be shown as a cross hair. This can help you to pick the fringe pixels more accurately.

To use this tool it helps to be zoomed in extra close, such as at 200%, or even 400%. This will make the color picking more accurate and you will notice a little white bar appear on one or other color ramp as you hover the cursor over different parts of the image (see Figure 2). As you click in the preview this will allow Camera Raw to analyze the pixels in the local area around where you click, which can result in one of four outcomes. Camera Raw detects that you clicked on a purple fringe and will adjust the Purple Amount and Purple Hue sliders to suit. Alternatively, Camera Raw detects that you clicked on a green fringe and will adjust the Green Amount and Green Hue sliders. Or, Camera Raw determines that the area you clicked on was too neutral, or was a color that falls outside the supported color range and you will see one of the alert dialogs shown in Figure 3.

Localized adjustments: Defringe slider

The global Defringe controls should be all that you need in order to remove troublesome fringing. However, there may be instances where it won't be possible to remove all visible fringing using the global Defringe sliders on their own. Or, it may be the case that when applying a strong global correction that the adjustment you apply has an adverse effect on other areas. In situations like this it may be useful to apply a global adjustment combined with a localized defringe correction using either the adjustment brush or graduated filter. Note that localized Defringe adjustments will remove fringes for all colors (not just purple and green) and therefore works independently from the global Purple Hue and Green Hue settings set in the lens Corrections panel.

The global lens corrections are available for all process versions, but in order to apply a localized adjustment the image you are processing must be updated to the latest Process 2012. The standard range goes from -100 to +100. A positive Defringe adjustment can be used to apply extra defringing where required, such as when working on specific problem areas in a picture. It may even be the case that with some images a localized defringe adjustment is all that you need to apply.

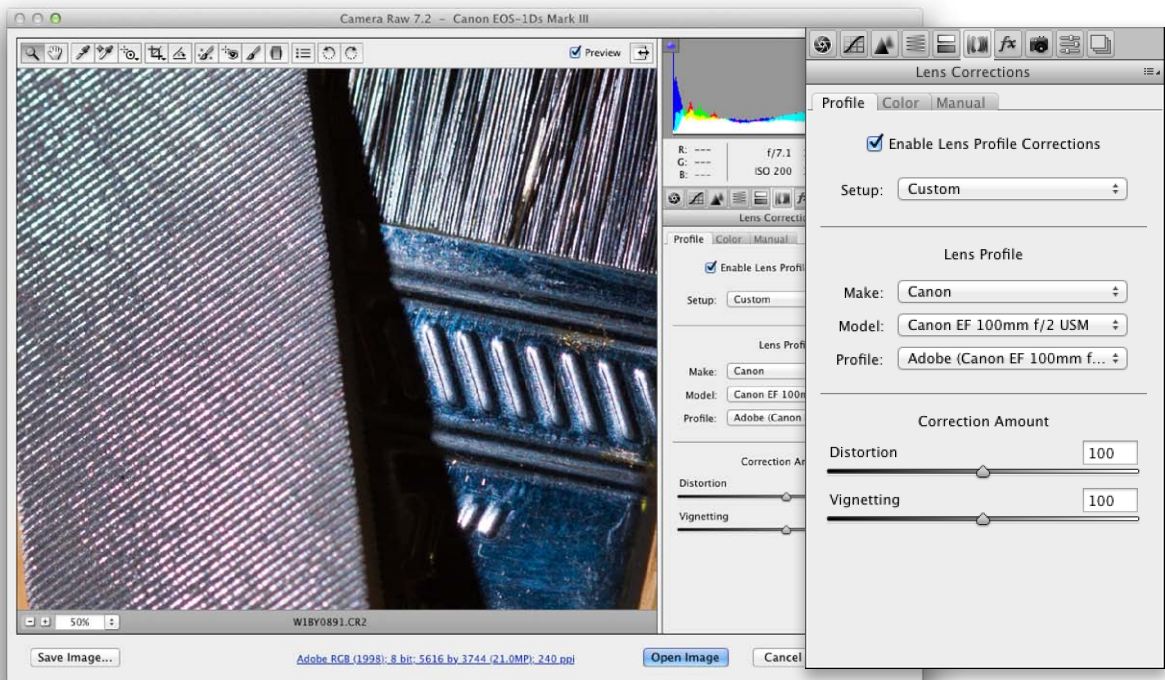
A negative Defringe adjustment can be used to say 'don't apply a defringe and protect this area'. One example of how you might want to use this would be to imagine a picture where say, a strong purple defringe was applied globally, which resulted in the edges of purple areas becoming desaturated. In a situation like this you could paint over the affected areas with the Defringe slider set to -100. This would allow you to restore the original color to these areas.

It should be noted that the localized defringe control is not as powerful as the global defringe controls and cannot therefore be as effective as processing an image using the Lens Corrections panel. This is why it is often best to use the global controls first and then use a localized adjustment to fine-tune as necessary. A negative, -100 defringe adjustment will of course completely remove any global defringing. Just be aware that there is therefore no benefit to be gained in applying multiple localized defringe adjustments to improve upon what a single application can achieve.

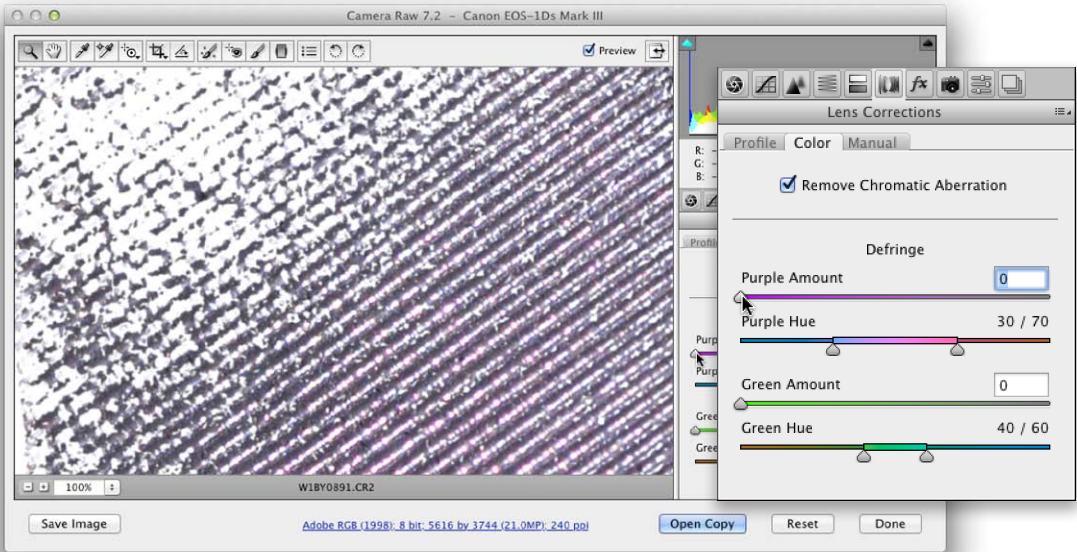
Applying a global Defringe adjustment

Defringe and Process Versions

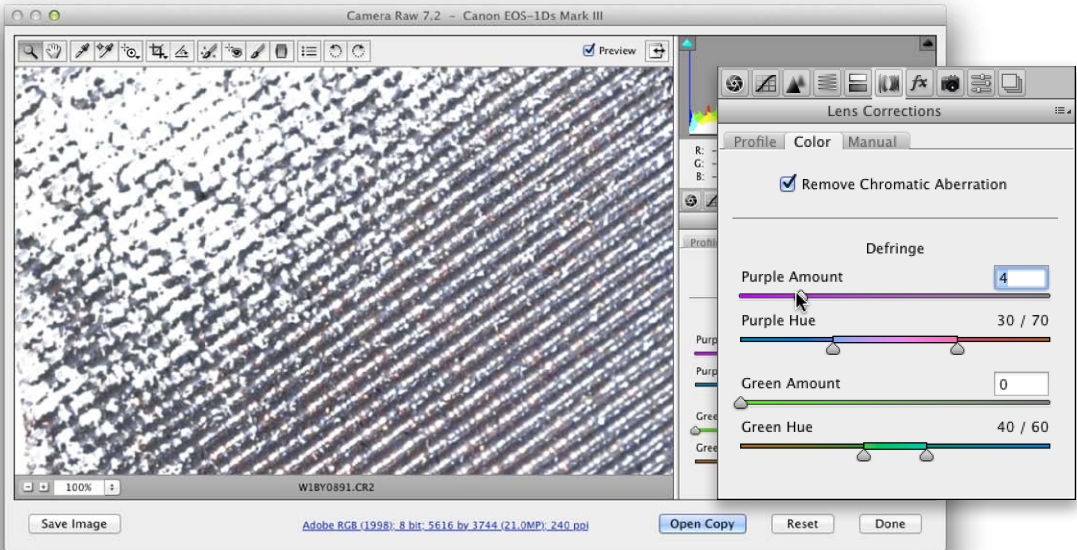
As mentioned in the main text, the Defringe slider is only available as a localized adjustment when an image has been updated to Process 2012. You do need to watch out though that once an image has been updated to Process 2012 and a Defringe adjustment has been made that you don't attempt to convert the image back to Process 2010 or Process 2003. If you do so this will cause the Defringe effect to be zeroed. The pin you added will still be present, but there will be no defringe adjustment. If you then convert the image back to Process 2012 the adjustment mask will be preserved and you can restore the Defringe effect by adjusting the Defringe slider setting.



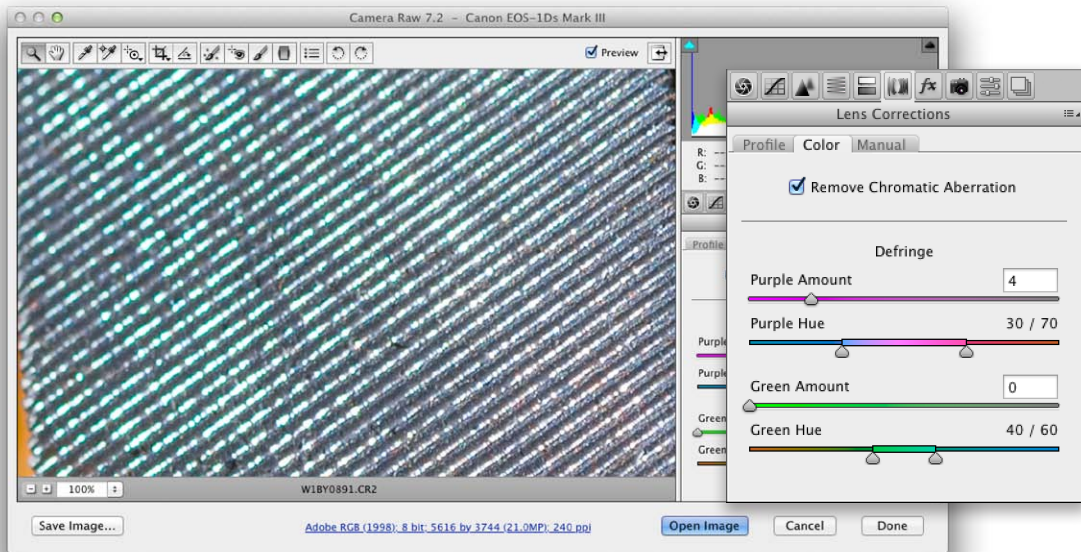
1 The first step is to apply all the main color and tone adjustments as well as enable the lens profile corrections in the Lens Corrections Profile tab section.



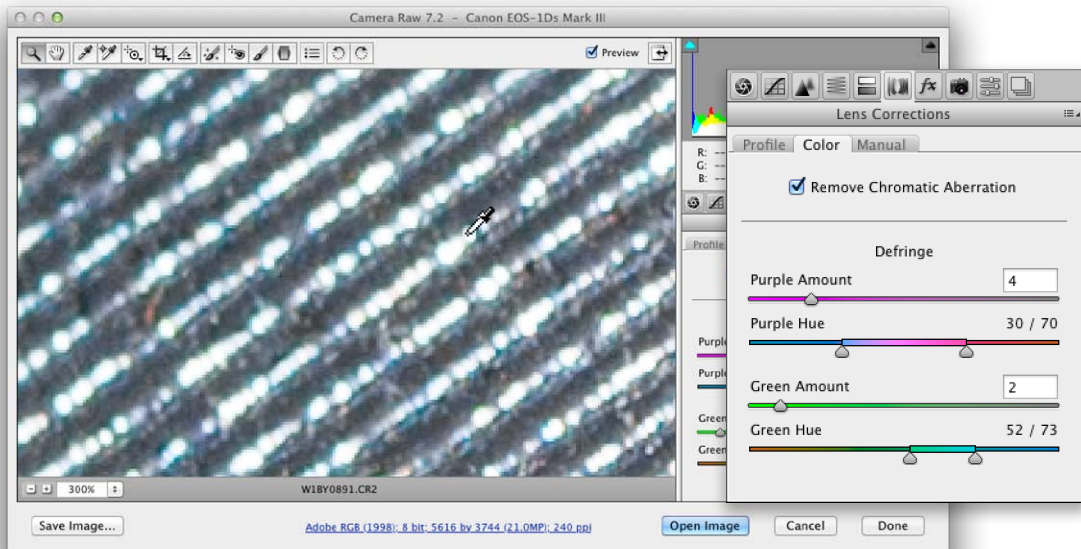
2 I clicked on the Color tab to view the color controls. It is usually best to simply check the Remove Chromatic Aberration option to auto correct the image. I then held down the **alt** key and moused down on the Purple Amount slide to get a visualization of the extent of the purple fringed area, with everything else displayed white.



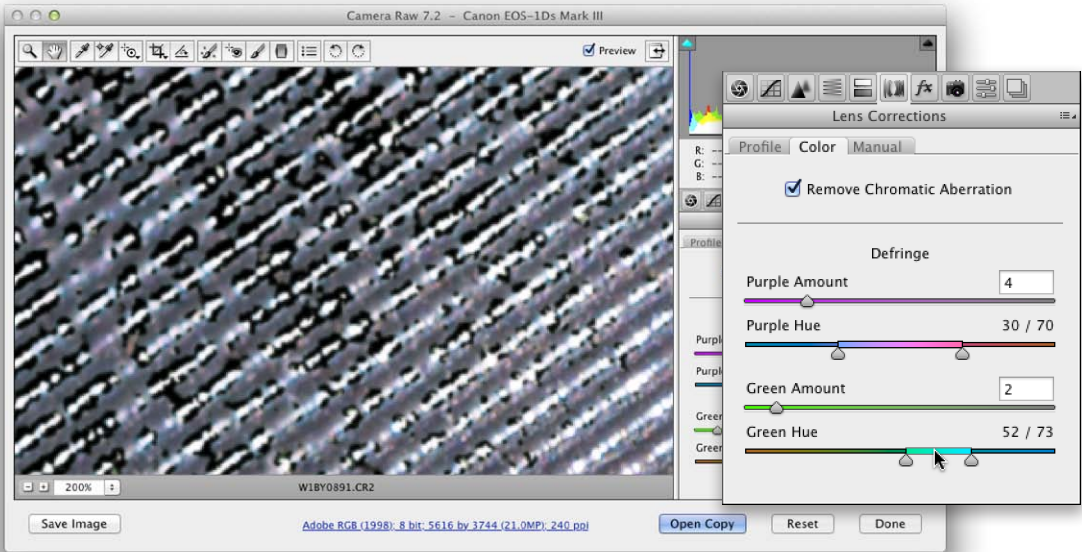
3 With the **alt** key held down still I dragged the Purple Amount slider till all of the purple fringing seemed to have been removed. Note that it may often help to use a close-up view beyond 100% when judging the effectiveness of such an adjustment.



4 Next, I wanted to concentrate on the Green fringing. Here, you can see the extent of the green fringes in the areas that were behind the plane of focus.

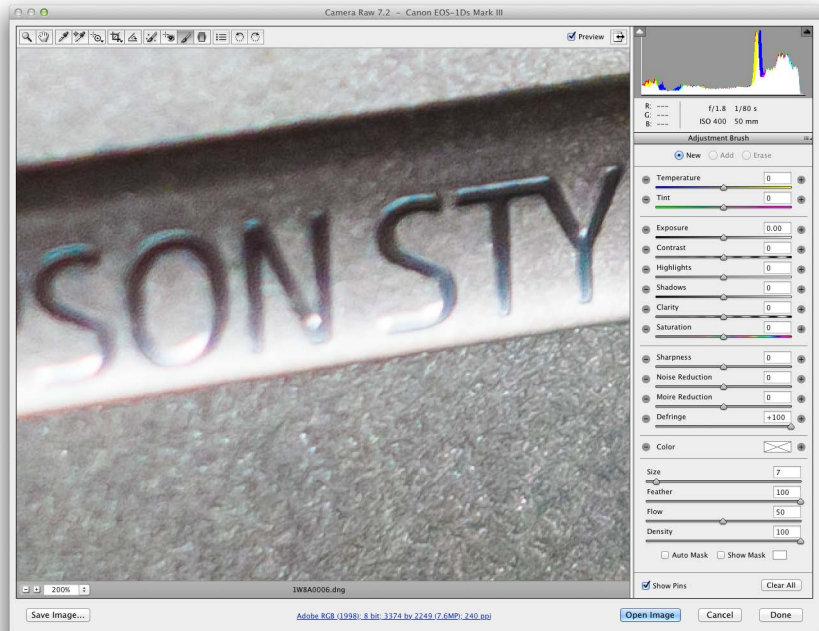


5 In this instance I decided to use the eyedropper mode to determine both the Green Amount and Green Hue slider settings. I held down the ⌘ (Mac) *ctrl* (PC) key to change the cursor to an eyedropper and clicked on the green fringe area. This single step auto-set the Green Amount and Green Hue sliders.

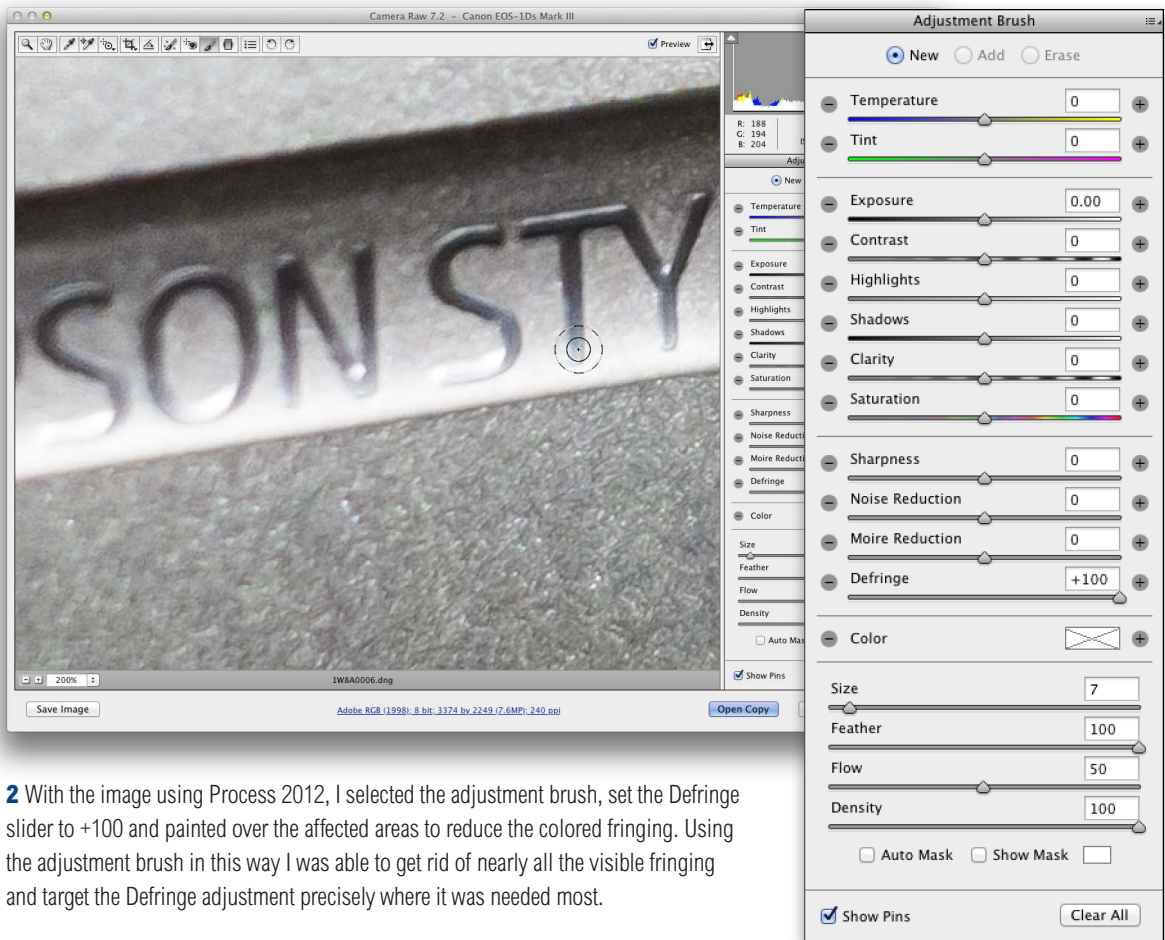


6 I held down the **alt** key and moused down on the Green Hue ramp to obtain a visualization of the green hues and the extent they were being adjusted. However, there was no need to tweak the hue ramp sliders – the auto correction worked fine as it was.

Applying a localized Defringe adjustment



1 This shows a close-up view of an image with noticeable fringes.



2 With the image using Process 2012, I selected the adjustment brush, set the Defringe slider to +100 and painted over the affected areas to reduce the colored fringing. Using the adjustment brush in this way I was able to get rid of nearly all the visible fringing and target the Defringe adjustment precisely where it was needed most.

Fuji files

Fuji has developed a more complex matrix for its raw files. While a Bayer matrix is based on four units of recurrence using RGGB (one red, two green and one blue photosite), the new Fuji matrix is based on 36 units of recurrence. Camera Raw 7.2 now supports the Fuji X-Trans sensor (which is found in the Fuji X-Pro I and X-E1 cameras).

Smart Object Support

Smart Objects (also known as Smart Filters) allow you to post-edit filter effects applied to a Smart Object layer. This can be done for most filters, but not all. The new CS6.1 update now provides Smart Object support for the Liquify and Blur Gallery filters.

Liquify

The reason why Liquify was not supported as a Smart Object was because the filter relied on the creation of a mesh, which was automatically deleted once you clicked OK to apply a mesh edit. Now, when a document or layer is converted to a Smart Object, Liquify saves a compressed mesh into the document. This means that when you choose to re-edit a Liquify filter setting the mesh can be reloaded. Note though that while the mesh is compressed, this will still cause documents to increase in size.

Performance and user interface enhancements


A number of improvements have been made to the user interface as well as steps to increase performance.

Liquify now runs faster; maybe as much as 16 times faster; when working on large documents. Also, zooming in on large documents is much faster now and aliasing has been removed when zooming levels at in-between full magnification views (i.e. at 33% and 66%).



Previously, the cursor ring and cross hairs were showing different thicknesses in CS6 and this was due to differences in GPU cards. This problem has now been ironed out so that cursor rings and cross hairs are smoother and thinner; plus the cross hairs are now made smaller on the Macintosh interface. You will also notice that the Photoshop preferences for cursors now determine the cursor appearance in Liquify as well. The brush slider responsiveness is now non-linear in behavior. In other words, the slider control feels more natural and this is especially noticeable when you use the bracket keys (**[]**) to adjust the cursor size.

When the Reconstruct tool is selected and you hold down the **alt** key this temporarily turns the tool into a new Gaussian Warp Smoothing tool. You can use the tool in this mode to smooth out ripples in the mesh caused by multiple, small warp tool applications.

On-screen cursor adjustments

Providing you have the OpenGL option enabled in the Photoshop Performance preferences, you can now apply on-screen cursor adjustments in the Liquify dialog preview. This means that if you hold down the **ctrl**  keys (Mac), or the **alt** key and right-click (PC),

dragging to the left makes the brush cursor size smaller and dragging to the right, larger (and keeps the cursor position centered as you do so). If you drag upwards with these same keys held down you can decrease the brush pressure settings and dragging downwards will increase the brush pressure (see Figure 4).

If you hold down the  key the Cancel button changes to 'Reset'. But in addition now, if you hold down the  (Mac) **ctrl** (PC) key, the Cancel button changes to 'Default', which returns the controls to the 'factory original settings'.

Sticky Tool Settings

Each tool remembers its own settings for size, density, pressure and rate. When you switch tools, the new tool remembers its last-used settings.

Blur Gallery

Having the ability to apply the Blur Gallery filters to Smart Objects opens up a number of interesting opportunities. Primarily, it means that you can now apply Blur Gallery filters non-destructively and you can easily toggle the smart filter visibility on or off like any other smart filter effect. You can combine Blur Gallery filters with other filter effects and create different results by placing other filter effects above or below the Blur Gallery smart filter. But above all, you can now apply Blur Gallery filters as a video layer. This means that you can easily apply effects such as a Tilt-Shift Blur filter to any video clip to produce the classic miniaturization effect (see page 16). Note, if you apply a Blur Gallery filter effect to a video layer as a smart object and check on the 'Save Mask to Channels' option this will cause an alpha channel for each video frame to be saved to the Channels panel. Photoshop only stores up to 99 channels and can therefore soon max out. So be sure to keep the 'Save Mask to Channels' option unchecked so as to avoid this happening.

If you apply a Blur Gallery filter to a Smart Object layer with a selection active, the filter effect is applied to the whole layer and the selection is used to create a smart filter mask (see page 17). It also means that the selection bleed effect is fixed at 100% and for this reason the Selection bleed setting appears grayed out.

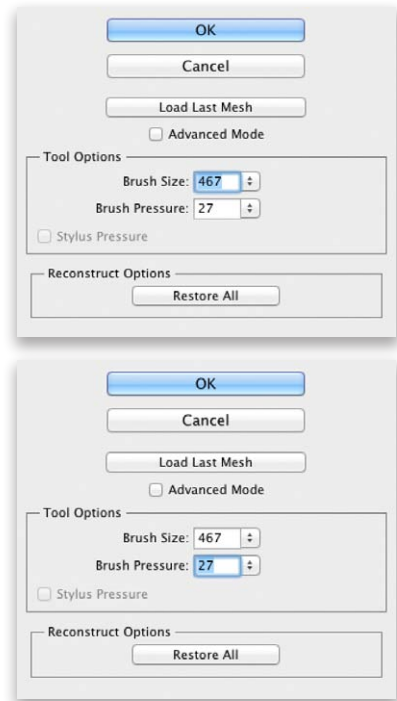
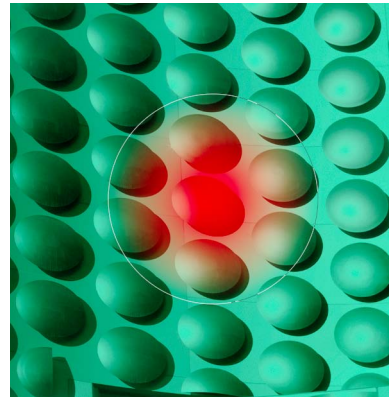



Figure 4 In the Liquify dialog, if you hold down the **ctrl**  keys (Mac), or the **alt** key and right-click (PC), this reveals the on screen cursor display. Drag left/right to make the cursor smaller or larger and drag up/down to decrease or increase the brush pressure setting.

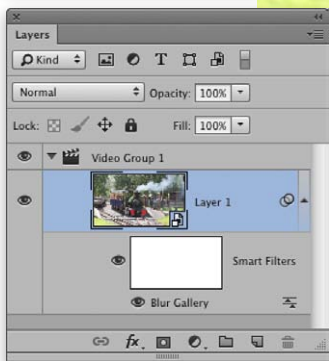
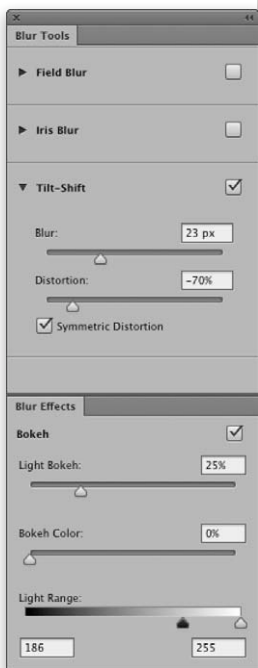
Applying a Blur Gallery filter to a video clip



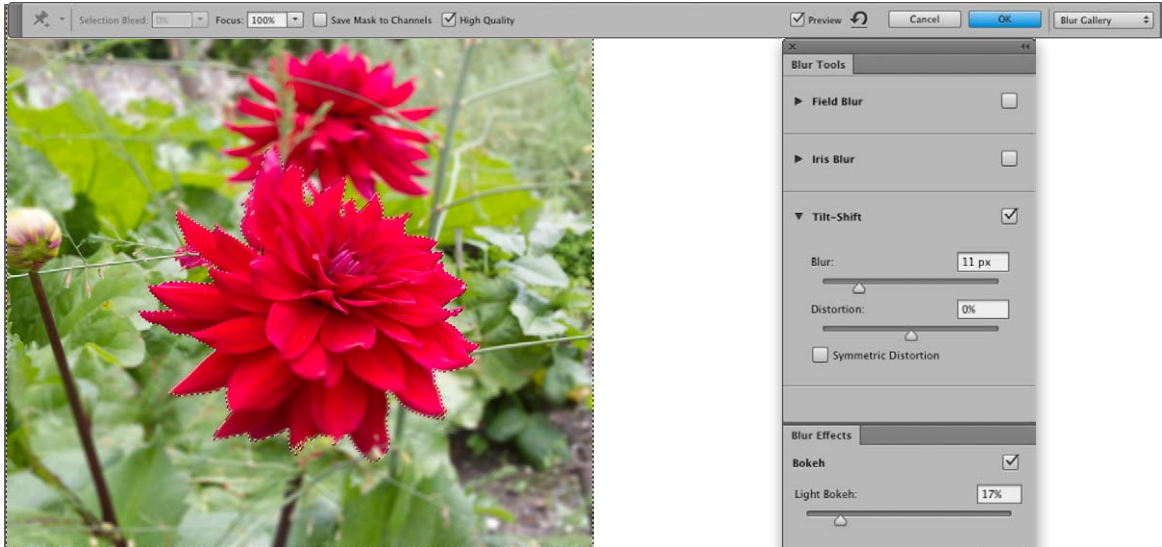
1 Here is a frame from a video clip, shot using a regular camera lens. I opened the video clip in Photoshop and chose Filter ⇒ Convert for Smart Filters.



2 Having converted the opened video file to a Smart Object, I went to the Filter menu and Chose Blur ⇒ Tilt-Shift... This opened the panels shown here, where I adjusted the Tilt-Shift blur effect. In the Layers panel you can see how the Blur Gallery filter has been added as a smart filter to the video clip. Then, when finished, use File ⇒ Export ⇒ Render Video... to create a video with the effect applied.



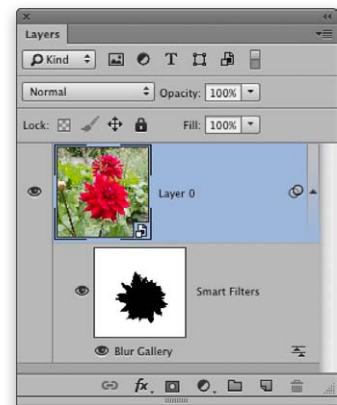
Blur Gallery filter with a smart object plus mask



1 In this example I converted a layer to a Smart Object (Smart Filter) and loaded a selection that selected everything but the flower in the foreground. I then went to the Filter menu and selected **Blur** ⇨ **Tilt-Shift...** and applied the settings shown here. You will notice that despite the selection being active, the blur filter affected the unselected areas as well. In the Options bar the Selection Bleed option was grayed out.



2 After clicking OK in the Options bar to apply the filter the active selection was converted into a mask that masked the Smart Filter layer. Unlike in the previous step, the unselected areas now appeared unfiltered.



Crop tool refinements

The aspect ratio controls have been updated in order to address some of the confusion over the previous layout design.

The first thing you will notice is that when the crop tool is selected, the crop bounding box does not become visible until after you roll the mouse over the document window, which is now less distracting I think. The 'Unconstrained' option has been removed and there is now a clearer indication between the Ratio and the W x H x Resolution modes (note you can use the 'Clear' button to clear all the current fields to quickly get the 'unconstrained' behavior). You can mouse-down on the menu to select which mode you want to use and each of these will remember the last used settings. When the W x H x Resolution mode is selected, a Resolution field box appears in the Options bar (see Figure 6). The Original Ratio option is still there, but has been moved down among the factory ratio presets list (see Figure 5).

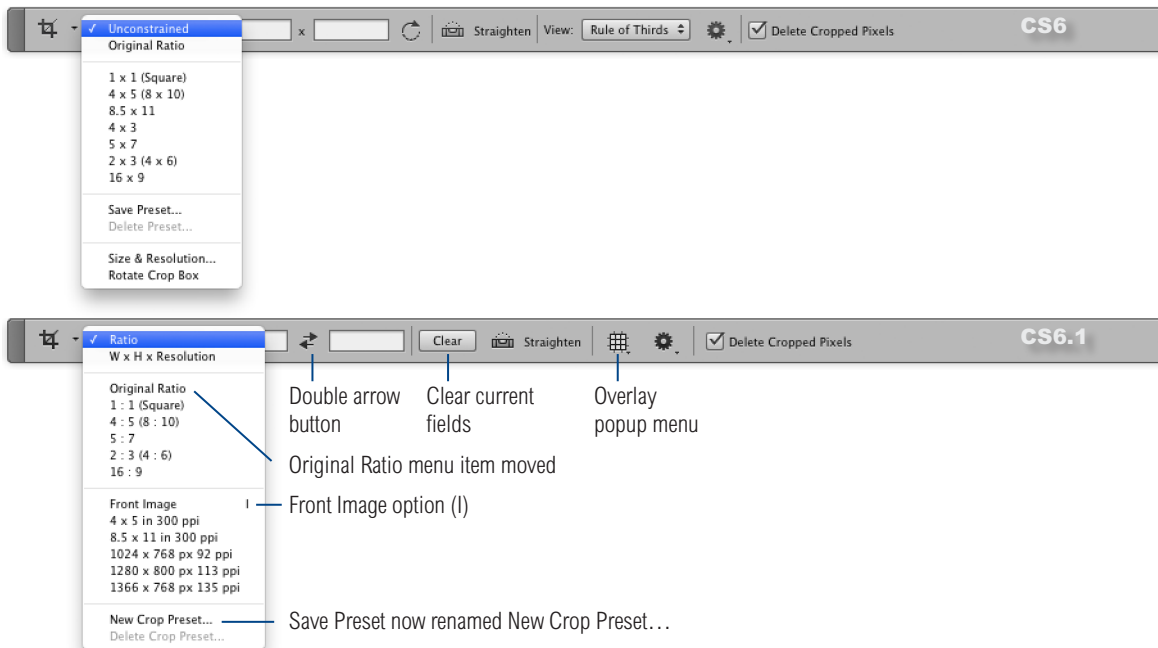


Figure 5 This shows the CS6 crop tool Options bar (top) and the CS6.1 crop tool Options bar (bottom). Note that with CS6.1, ratio presets use ':' as a separator and W x H x Resolution presets continue to use x as a separator. There is a new double arrow button for switching width and height field settings and the Overlay popup is now an iconic fly-out menu.



Figure 6 When the W x H x Resolution mode is selected in Photoshop CS6.1 a Resolution field box appears in the crop tool Options bar.

You will also notice that the swap width and height double arrow button has been returned to the crop tool Options bar. This used to be there in earlier versions of Photoshop, but got removed in the CS6 reorganization for this tool. At the same time the Rotate Crop Box button has been removed (see Figure 5). What happens now is that, by default, the value entered in the first entry field always corresponds to the width and the second value corresponds to the height. You then have the option to click on the double arrow button to swap these values around as necessary. All in all this refinement makes more sense and is easier to get to grips with.

The 'Size and Resolution...' option and corresponding 'Crop Image Size and Resolution' dialog box is also gone since it is not needed now with this redesign of the crop tool Options bar interface. New factory presets have been added for the 'W x H x Resolution' mode as well as an easy to access 'Front Image' option (the shortcut is now **I**, it used to be **F**). Selecting this loads the current document full image size dimensions and resolution settings (there remains also a Front Image button in the perspective crop tool Options bar).

New tool presets

When saving a new crop tool preset the name of the tool (either crop tool or perspective crop tool) will be added as a prefix. (see Figure 7).

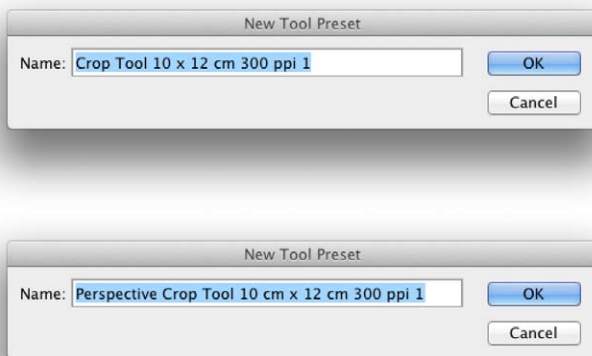


Figure 7 This shows the New Tool Preset dialog for the crop tool (top) and perspective crop tool (bottom).

Conditional Actions

Actions have been around in Photoshop since version 4 of the program. Nothing much has been done to improve actions since then, other than a recent innovation in CS6, which now allows tool recording. When enabled this means you can now record things like brush strokes. The CS6.1 update now includes conditional actions, which can be inserted into regular actions.

Essentially what you can do is create a new action and insert a conditional via the Actions panel flyout menu to reveal the Conditional Actions dialog shown in Figure 8. From there, you can choose a condition from the menu shown in Figure 9 to determine which action will be played if this condition is met. If not, you can choose an action from the Else menu to play instead. Only actions that are included within the current action set will be displayed in the 'Then' and 'Else' pop-ups. Note that if both menus are left set to

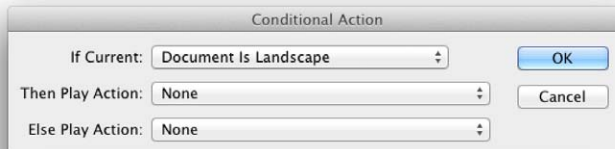


Figure 8 The new Conditional Actions dialog.

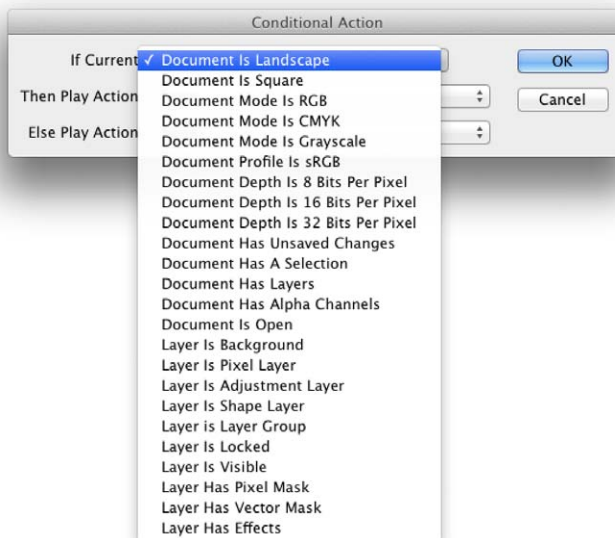
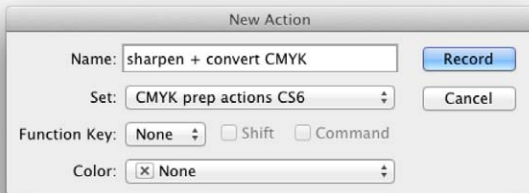
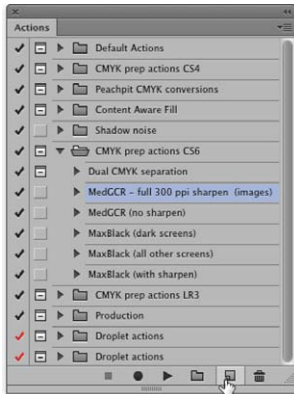


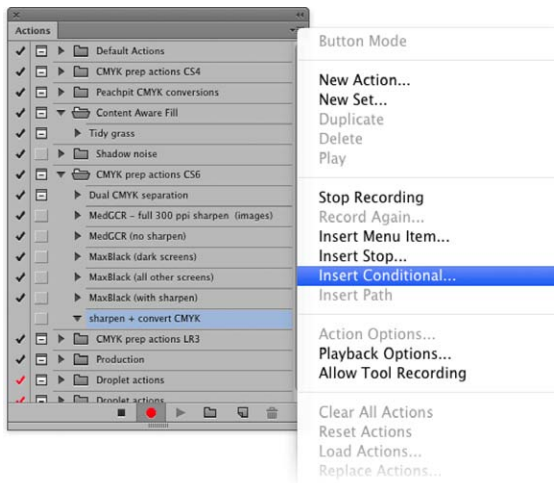
Figure 9 The new Conditional Actions dialog showing all the available conditional action options.

'None', no conditional action will be created because the resulting action would do nothing.

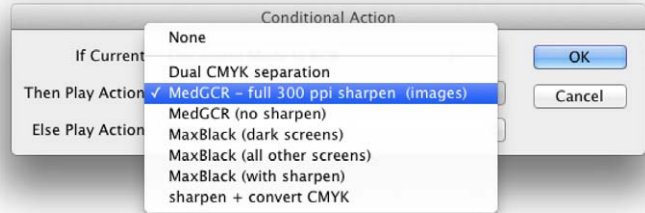
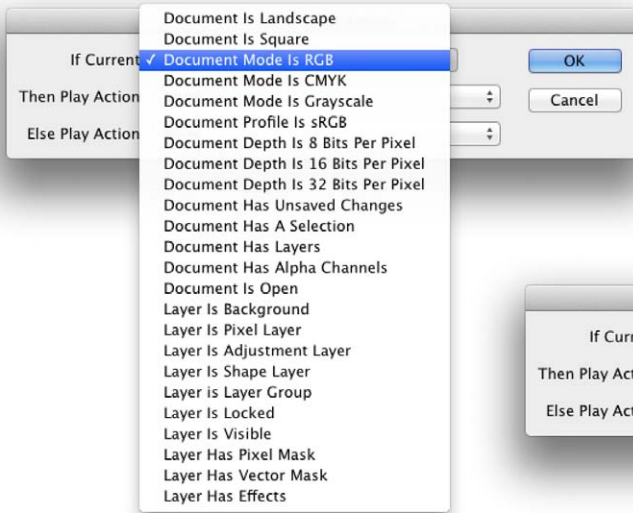
A conditional action can then be included in batch or droplet operations. The following steps show how.



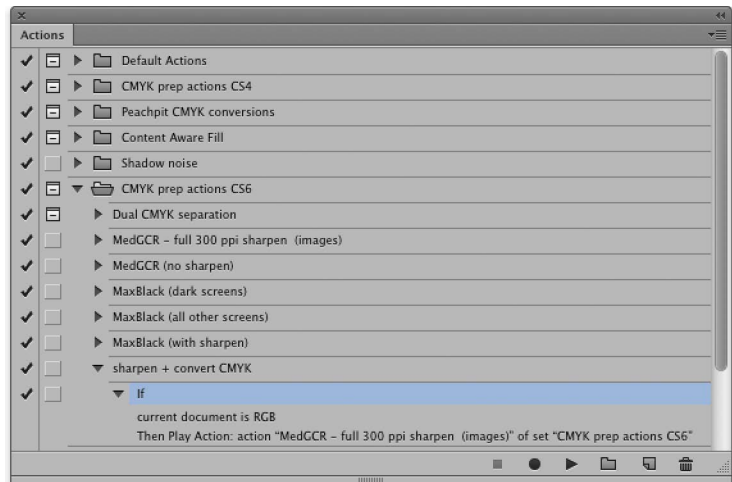
1 I went to the Actions panel, expanded an existing Action set and clicked on the Create New Action button to create a new action, called 'sharpen + convert CMYK'.



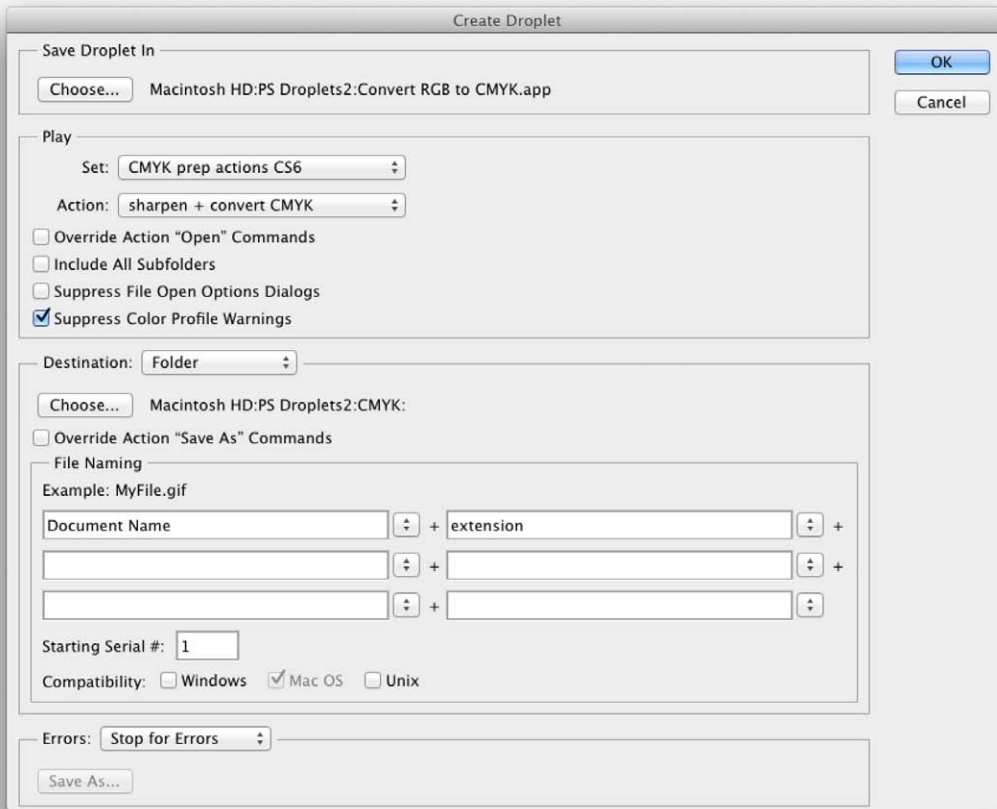
2 I then went to the Actions panel flyout menu and selected 'Insert Conditional...'



3 My aim here was to create a conditional action that was able to filter out the RGB images only to apply a convert from RGB to CMYK action that also included an output sharpening step. In the 'If Current' menu I selected 'Document Mode is RGB'. Then, from the 'The Play Action' menu I selected the appropriate action from the same parent Actions folder. I left the 'Else Play Action' menu set to 'None'.



4 Here you can see an expanded view of the Actions panel after creating the above conditional action. The action called here was designed to process RGB images only, which would otherwise fail to run if applied to an image already in CMYK mode. So, by creating the conditional it would only process files in RGB and leave CMYK files untouched.



5 I was not ready to put the conditional action to use. I went to the File menu in Photoshop and chose Automate ⇨ Create Droplet... This opened the dialog shown here which I configured so that a new droplet was added to a special folder I keep all my droplets in and saved the processed files to a destination folder called 'CMYK'.



Convert RGB to CMYK



CMYK

6 I clicked OK in the Create Droplet dialog to create the droplet and folder shown here. I was now able to test the new droplet. I made a selection of files that were a mixture of RGB and CMYK images. I dragged these across to the droplet and Photoshop knew to process all the RGB files and ignore the CMYKs. Without a conditional action a droplet like this would trip up on the CMYK files and display an alert message asking if you wanted to stop or continue. With conditional actions you can avoid distracting dialog messages that would otherwise halt an automated batch process.

Sidebar

There are implications for web design layouts. Do you need to incorporate dual resolutions for people visiting a website where a Retina display is detected? I am aware of conversations where such a strategy has been proposed. This might possibly be important for photographers wishing their portfolio pages to be viewed as optimally as possible.

HiDPI (Retina displays)

This is something that affects Macintosh users only and even then, only those who have upgraded to one of the most recent MacBook computers with Retina™ displays. Essentially, a Retina display on a Macintosh computer contains twice the usual density of pixels. This gives the user the option of doubling the pixel resolution of the display, but at the expense of everything appearing tiny on the screen (especially user interface designs). But there are other configurations available that you can configure in the Macintosh system preferences. If you choose not to double the pixel resolution you will still ideally want the software you use on that computer to be Retina display enabled, where the user interface (UI) icons are designed at twice the usual resolution. This will result in a smoother UI appearance.

With an image editing program such as Photoshop, the Retina display throws something of a curve ball. How should Photoshop images be displayed? Do you want them to be displayed at the native pixel resolution of the Retina display device where one Photoshop image pixel is displayed using one Retina display pixel. Or, do you want the image magnification set so that one Photoshop image pixel is displayed using 4 Retina display pixels? Add to this the fact that we have people on Retina displays who are designing images for non-retina displays and vice versa. Therefore, extra controls are required to manage the difference between what is seen and what is perceived. Plus, we now have to think carefully when we talk about pixel sizes, since in the context of a Retina display this can now mean different things.

Retina display and default zoom settings

When a Retina display is set to a pixel resolution where four Retina display pixels equals one display pixel, the default behavior is to open images in Photoshop such that one Retina display pixel equals one Photoshop pixel. However, when opening smaller images this may mean them appearing really tiny on the screen. The initial image opening zoom rate used to default to 100% and where the image document was unable to fit in the document window, the zoom rate was decreased until it was able to fit within a document window that filled the screen. The initial image zoom opening has now been revised to 400%. Therefore, image files with small pixel dimensions will now be displayed much bigger than was the case previously.

If you are working with a Retina display, your images may be displayed at a much finer resolution than was the case previously and you may wish to quickly change the zoom setting so that four

Retina pixels equal a single Photoshop pixel. In other words, have a means to quickly switch to a 200% view setting instead of 100%. You can use a **⌘** (Mac) **ctrl** (PC) double-click on the zoom tool to zoom a document to a 200% view. You can use a **⌘ Shift** (Mac) **ctrl Shift** (PC) + double-click on the zoom tool to set all open documents to a 200% view. Whenever the hand or zoom tool are active you will notice that the context menu now includes a 200% view option (see Figure 10) and in the Options bar the Actual Pixels button has been renamed '100%' so as to avoid any confusion (see Figure 11). Lastly, there is now a 200% option in the View menu and you can also assign this with a custom keyboard shortcut should you wish.

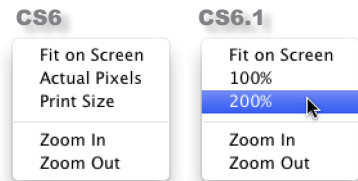


Figure 10 The zoom tool context menu has been changed in CS6.1. Instead of an Actual Pixels item it now includes 100% and 200% zoom options. Note also that the Print Size menu item has been removed

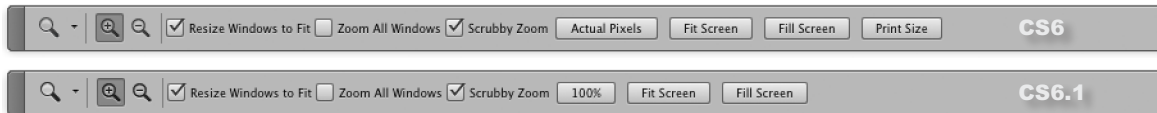


Figure 11 This shows the Photoshop CS6 crop tool Options bar (top) and the new CS6.1 Options bar (bottom). Here, the 'Actual Pixels' button has been replaced by a '100%' button. As mentioned already, the Print Size item has also been removed.

The future of Retina displays

For now, retina displays are only available to a niche sector of the market. There are certainly fewer Macintosh than PC users and of those who do use a Mac, only those who have purchased a new MacBook Pro computer in the latter half of 2012 or later will have a retina display to work with. That being said, Apple may be in the lead here coming up with a high density display and PC operating systems may too need to accommodate such displays. So while only a few people may be affected by this news for now, I would expect this technology to become more commonplace in the future.

Big JPEG

Previous versions of Photoshop were limited to a maximum of 30,000 pixels. However, Photoshop is now able to open and save JPEG documents up to 65,535 pixels in width or height.

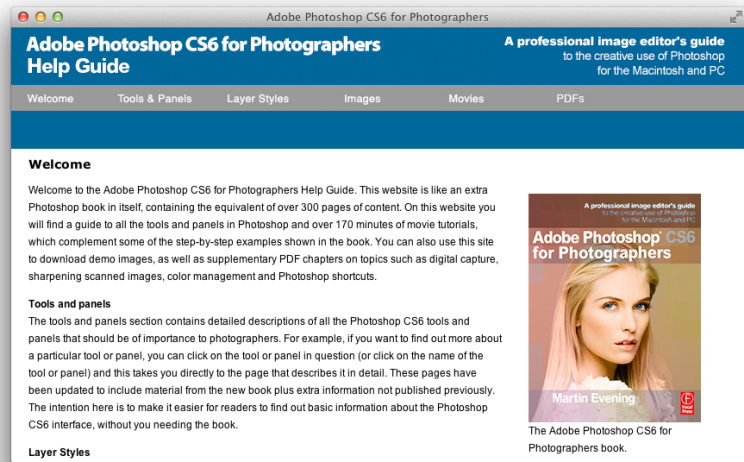
Sidebar

This feature recognizes HTML/CSS color syntax: #112233 #123 rgb(1,2,3) rgba(1,2,3,4) hsb(1,2,3) and hsba(1,2,3,4).

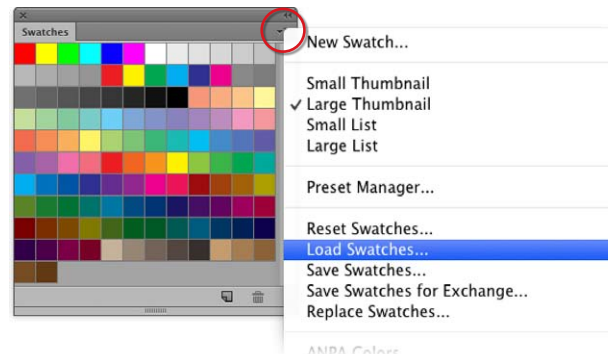
Load/Replace Swatches from HTML

From the Swatches panel it is now possible to load swatches from an HTML page you are working on. As shown here, you use the Swatches panel menu to select the Load Swatches... or Replace Swatches... menu item and then select an HTML document to read from (this option is also available via other swatch pickers). This option will read color swatches from HTML, CSS and SVG files. It only loads colors that are unique to a document as opposed to every instance a color appears in a document.

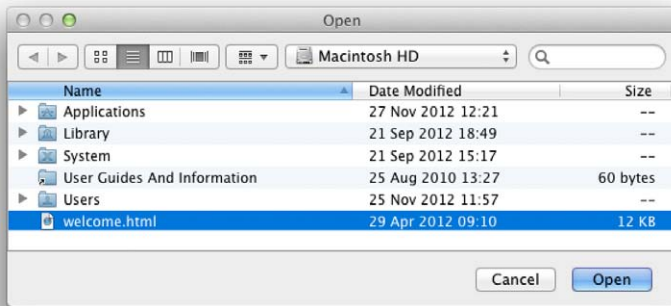
The main benefit of this feature is that when working on a web page design you can now efficiently import precise HTML colors into Photoshop.



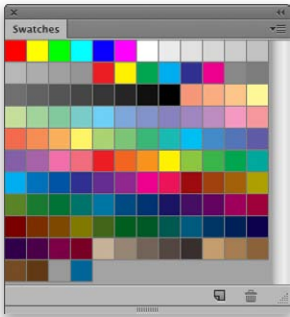
1 Here is a web page that I created in Adobe Dreamweaver and is saved as an HTML file.



2 In Photoshop, I went to the Swatches panel, moused down to reveal the panel options menu (circled) and chose Load Swatches...



3 I then navigated to select the HTML document that was shown open in step 1.



4 This then added two colors from the web page design to the Swatches panel.

Hex Field

When working in RGB mode, the Color picker; the Hex Field is now selected by default (see Figure 12).

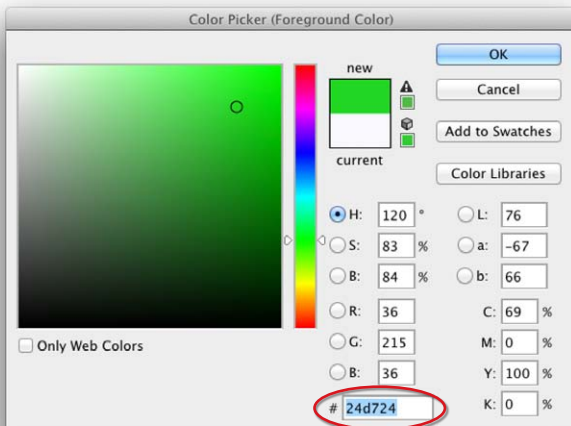


Figure 12 The Color Picker dialog with the Hex field auto-selected.