

Chapter 1

What's new in Adobe Photoshop CS

Photoshop CS offers a wealth of features that will truly be of benefit to photographers everywhere. In this first chapter I am going to give you a quick run through all the new major features that will be of interest to photographers. If you are a Macintosh user Photoshop CS will only run using Mac OS X 10.2.4 or later (10.2.6 or 10.3 is recommended), and only a G3, G4 or G5 computer. If you are using a PC, you will need to use Windows 2000 (with Service pack 2) or Windows XP operating systems running on an Intel Pentium class III or 4 processor.

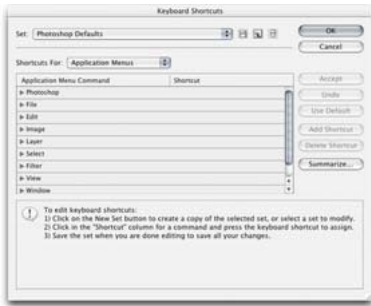


Figure 1.1 The Keyboard Shortcuts dialog.

Editing metadata

Certain metadata information is editable within the File Browser, so you can edit the File Info text entries, add keywords and conduct metadata or keyword searches, all from within the browser interface. An edit history log can be kept as you edit an image. This can be saved within the metadata or as a separate log file.

Quick folder access

You can get the File Browser to target on a folder by dragging the folder from the Mac OS X Finder or from the Windows Explorer to the File Browser Preview pane.

Improved Mac OS X performance

When Apple released the Mac OS X 10.2 update (code name: Jaguar), a number of Mac OS X users experienced terrible crashing problems when using the File Browser. Initially the problem was fixed with a free plug-in patch for Photoshop 7.0, but now Photoshop CS runs more smoothly and faster in Mac OS X 10.2.

Custom Keyboard Shortcuts

For some time now, just about every keyboard shortcut combination shortcut in Photoshop has been exhausted. Furthermore, the keyboards in some countries differ quite significantly from the standard US English keyboard design, sometimes missing keys such as the tilde (~) on the computer keyboard. In the past, because of these restrictions, not all language users are able to make the full use of the program. And not everyone has the same priorities and objectives when using Photoshop. With the Keyboard Shortcuts editing dialog, you can now decide which keyboard shortcuts you want to use to call specific Photoshop actions and save these as custom shortcut sets.

File Browser and Camera Raw

The first thing you will notice about the File Browser is that it is no longer a dockable palette. The File Browser is opened and closed by clicking a button on the Tool Options bar. The File Browser operating speed is noticeably faster in Macintosh OS X 10.2 and the Camera Raw plug-in is fully integrated, including updates for the latest raw camera file formats. Many existing customers will have already purchased the Camera Raw plug-in for Photoshop 7.0. And to my mind, this is one of the most useful productivity plug-ins for Photoshop that has ever been built. Using Camera Raw is like injecting rocket fuel into your digital capture work flow, because it enables you to shoot raw captures with your digital camera and process the data in Photoshop at a much faster speed compared to the software supplied with most of today's digital cameras. The knock-on effect of the Camera Raw plug-in has made a huge difference to the way photographers are able to process their capture files and make full use of the high quality of a raw file compared to shooting in JPEG mode.

The image file management in the File Browser has been improved. Images can be flagged and this provides a nice simple way in which to designate the pictures you like best. Using the Thumbnail View options, you can then hide all unflagged images, making it easier to conduct the image

Figure 1.2 The layout of the new improved File Browser can easily be customized to suit the way you work. The panes on the left hand side can be rearranged any way you like and the preview pane can be scaled to display larger, rendered previews. A custom size can be set for the Thumbnails which makes it possible to compare images side-by-side more easily.

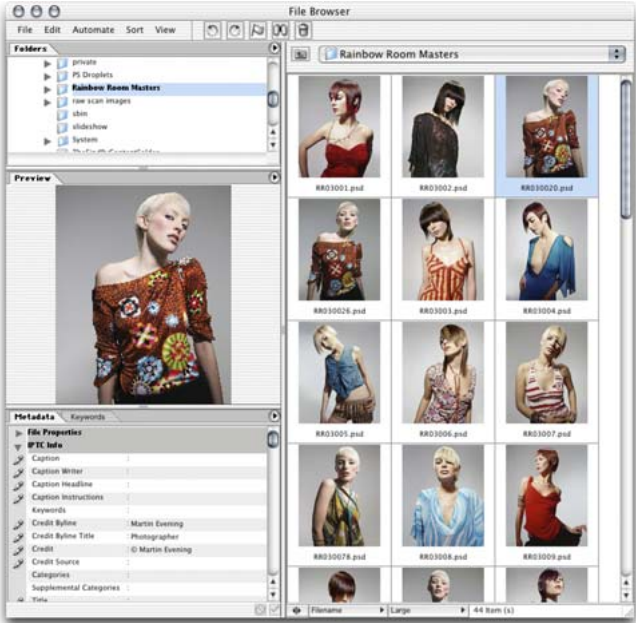
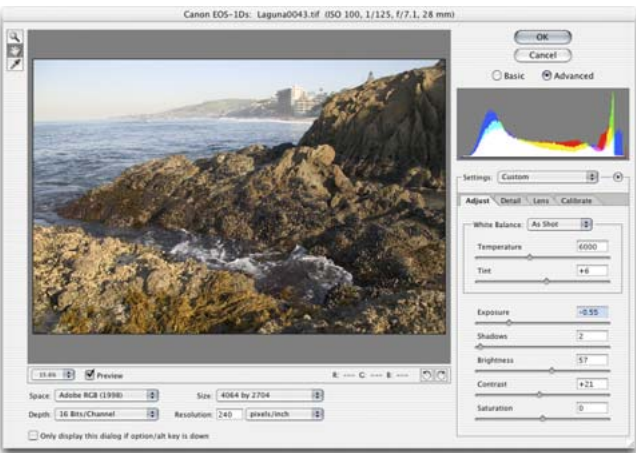


Figure 1.3 The Camera Raw plug-in enables you to process raw camera file images and open them directly in Photoshop. The revised interface also contains extra controls for advanced users, providing greater control over the image color and the ability to suppress noise and other camera file artifacts.



Backward compatibility options

You can save files with the 'Maximize Backward Compatibility' option set to Never in the General Photoshop preferences and not keep being bugged by a warning dialog every time you come to save a layered image.

selection process. Folder navigation is made easier too. The folder menu allows you to quickly access recently visited folders and assign favorite folders. The File Browser has its own menu which among other things, allows you to run automation routines within the Browser interface directly.



Figure 1.4 Photoshop CS provides extended features for images in 16-bit per channel mode. The bit depth is always indicated in the document window status/title bar

Extended 16 Bit support

The Camera Raw plug-in takes full advantage of the fact that most digital cameras are capable of capturing a greater tonal depth than 8-bits per channel. And many photographers prefer to scan their originals using 16-bits per channel mode. Over the years, the number of Photoshop features that will work in 16-bit mode have increased. Now for the first time, you can use tools such as the brush tool and history brush in 16-bit. Even more importantly, you can add image and adjustment layers as well. The image bit depth is always indicated in the title bar just after the color mode. For example, the document status title bar may show: CMYK/8 or RGB/16.

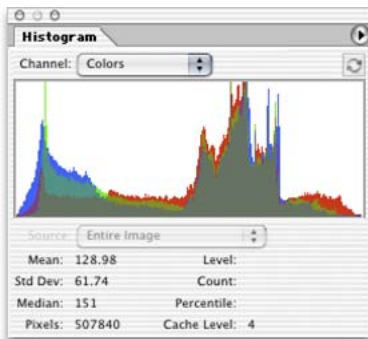


Figure 1.5 The Histogram palette.

Live Histogram palette

The new Histogram palette provides a live histogram of the image or the active selection contents. This is especially useful if you wish to view graphical feedback of the Levels histogram when making any type of image adjustment (not just Levels), such as when making a Curves adjustment. The Histogram palette can display the composite channel information along with an expanded view of the individual color channels, or a luminosity histogram (as used to be displayed in the Image menu Histogram). This latter mode is preferable for accurate image assessment. And lastly, a color histogram bar mode, like the one you see in the Camera Raw dialog.



Figure 1.6 The Photoshop CS Welcome splash screen.

Interface changes

The first thing you will see When launching Photoshop CS is the Welcome screen. Use this to access the latest information about what is new in the program, learn about hot new tips and access the latest Photoshop tutorials which are available on-line.

The canvas area has been extended. If you are using one of the full screen viewing modes, you can scroll the image beyond the limits of the document bounds. This is particularly useful if you are viewing a large image at an Actual Pixels display view but the Photoshop palettes are

obscuring part of the picture and you want to draw a pen path that extends outside of the image area.

As before, you can use the Window ⇨ Arrange menu to force all open image documents to display in a cascade or tiled view. In Photoshop CS you can now hold down the Shift key to apply zooming and scrolling simultaneously to all open documents. And if you thought the previous 30,000 pixel limit was too limiting, this has been raised to 300,000. However, there is still a 4 GB cap on the size of file that can be saved using TIFF and 2 GB for the native Photoshop file format. If you need to save a larger image, you can do so by enabling the new PSB file format in the general preferences.

Image Adjustments

Photoshop CS offers some useful new image adjustment tools. The Shadow/Highlight Correction can be simply described as an image adjustment that can be used to selectively bring out detail that was otherwise hidden, such as in images that have heavy shadow areas or where the highlights appear to be almost completely blown out. This adjustment tool can apply a shadow or highlight correction but without affecting the contrast in the midtone areas. The Match Color adjustment enables you to match the color and tonal range between two images. This works exceptionally well if you have a series of almost identical looking pictures, but where the white balance of the lighting has maybe shifted a little and you want the appearance to match, such as a portrait series shot under changing lighting conditions.

The Photo Filter adjustments simulate the Kodak Wratten™ series of photographic filters. Applying one of these image adjustments is just like adding a Kodak™ color correcting filter over the lens at the post-production stage. You can warm or cool the colors in your photos or color correct pictures that were photographed using the wrong white balance setting, the same way as using the white balance controls in the Camera Raw dialog.

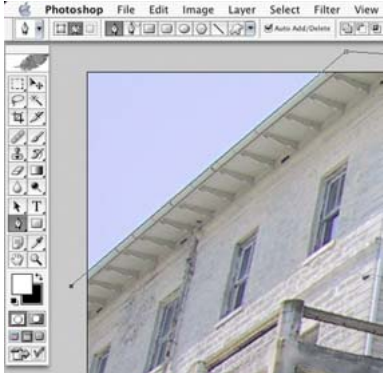


Figure 1.7 The extended canvas area allows you to work up close without having palettes get in the way.

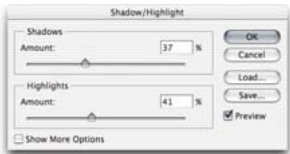


Figure 1.8 The Shadow/Highlight Correction adjustment can be used as shown here, to lighten the shadows and darken the highlights, to produce an improved full tone image. The advanced options provide even more subtle control.

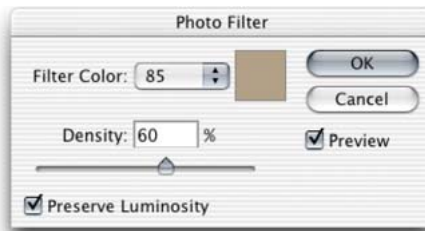


Figure 1.9 The Photo Filter image adjustment can replicate in Photoshop the effect of adding a colored camera filter over the lens. The naming scheme used matches the Kodak Wratten color correction camera filters. So if the image you are editing looks too cool, you can use the 85 filter setting in Photoshop to 'warm up' the picture.

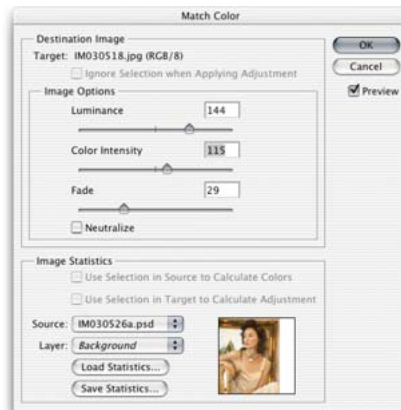


Figure 1.10 If you have a series of photographs where you wish to make the colors all match, then the Match Color image adjustment can be used to select a sample image, sample the colors and apply as an image adjustment to another photograph. This adjustment tool can also work using selections from a sample image, or a separate layer in the same picture. In this example the photograph on the right shows a split view of before and after where this image was made to match the color of the one on the left.



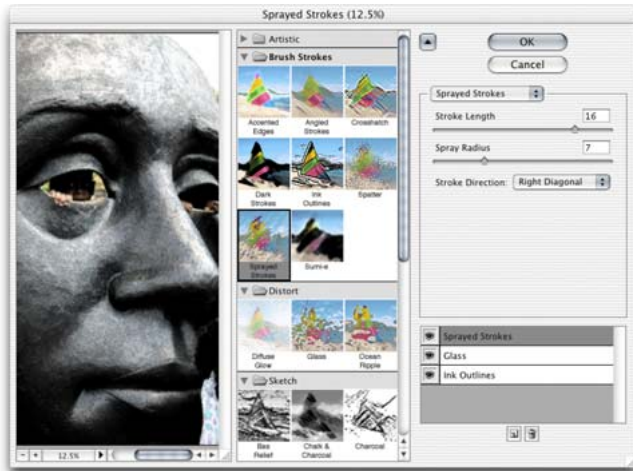



Figure 1.11 The Filter Gallery dialog makes it easier to navigate the Photoshop special effects filters and compare the outcome of the various filters more quickly using the filter history section.

Image interpolation

Photoshop CS provides two new interpolation options that will produce better results when you increase or decrease the number of pixels in an image. Bicubic Smoother will produce smoother results when enlarging an image and Bicubic Sharper will preserve more detail when you reduce an image in size. These interpolation methods will produce results as good as if not better than using what was known as the 'step interpolation' method, and more quickly too.

Filters

The Photoshop Effects filters namely the Artistic, Brush Strokes, Distort, Sketch, Stylize and Texturize series, can all be accessed via a single dialog in the Filter menu called the Filter Gallery, which is shown in Figure 1.12 Instead of trying out one filter after another, you can use the Filter Gallery to quickly compare the outcome of using different filter effects. And as you try out different filters, the individual effect settings are stored in the dialog's history.

The Fibers filter is new. It is located in the Filter  Render menu and can be used to generate natural fiber texture effects. The Lens Blur filter is also new and can be used to simulate camera lens blur and is capable of making

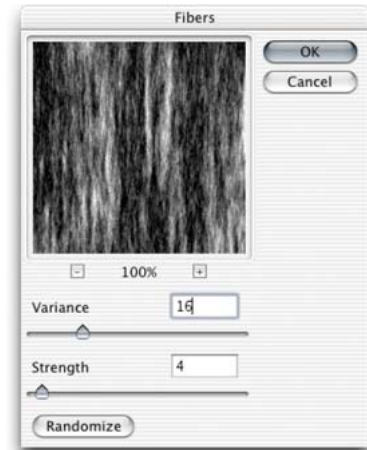




Figure 1.12 The new Fibers filter dialog.

Hard Mix blending mode

The new Hard Mix blending mode produces a posterized image consisting of up to eight colors: red, green, blue, cyan, magenta, yellow, black and white. The blend color is a product of the base color and the luminosity of the blend layer.

Scrubby sliders

You can change the unit values for a numeric field by  **ctrl** clicking and dragging the 'scrubby slider' cursor to the left or right. If the field label has a name, you can simply mouse-down over the label name and drag. Holding down the **Shift** key at the same time will make the units change ten times faster and holding down the  **alt** key will change them ten times more slowly.

a background look realistically out of focus. This is achieved by accentuating flare from the brightest highlights and producing iris-shaped highlights. And you can use the transparency of a layer that is being filtered to create a graduated focus effect.

Figure 1.13 The Lens Blur filter has a range of controls that enable you to simulate the blur produced when something is photographed out of focus. The results this filter produces are more convincing than the simple gaussian blur. You can also use a variable density layer mask to govern the focal blur amount.

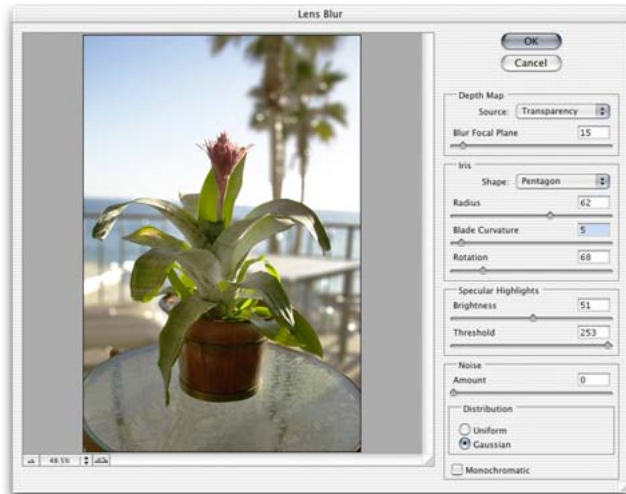
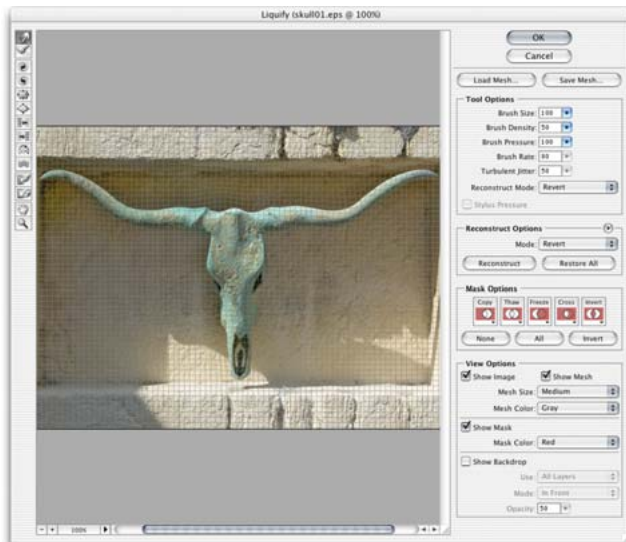


Figure 1.14 The Liquify dialog interface has been updated to provide improved brush setting controls, masking and backdrop viewing options.

Extracting textures

The Extract command features a textured image mode which utilizes the image texture as well as the color to calculate an image extraction. This can come in handy when there is a contrast between the texture of the subject and that of the background you want to cut out from.



Layer management

The Layer Comps palette can help you organize your layers by saving the layer visibility configurations. This feature can have many applications, but will be particularly useful to web page designers who very often work with lots of layers and who need to quickly switch between different layer visibility settings. With layer sets you can now create new sets by dragging linked layers to the layer set button in the Layers palette. And layer sets can also now be nested within Layer Sets, up to five levels deep.

Automation

Several new changes have been made to the Automate plug-ins (located under the File ⇨ Automate menu). Most of the Automate plug-ins can also be accessed via the File Browser Automate menu and applied directly to selected images in the File Browser.

The Crop and Straighten Automate plug-in will neatly auto-extract single or multiple images from a scanned image, like the example shown in Figure 1.16, applying rotation as necessary and automatically cropping to the edges of the picture.

There are many applications that can be used to create slide shows (such as iPhoto). The new PDF Presentation feature will enable you to produce a simple self-contained PDF format slide shows of selected images which can incorporate a variety of image dissolve effects. PDF Presentation files will work best with Acrobat 6 and the latest Acrobat Reader programs. They will be able to activate special features such as 'Picture Tasks', that allow operations to be done on each image individually, such as ordering prints and uploading images to other picture services, etc. As a professional tool it is unfortunately somewhat limited, but nonetheless it has interesting potential for the future.

Photomerge was first introduced in Adobe Photoshop Elements and has now been included with Photoshop CS. This new version of Photomerge has none of the file size restrictions that were associated with Photoshop Elements.

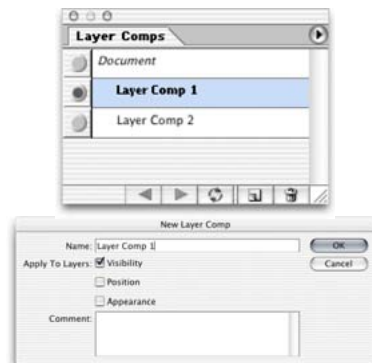
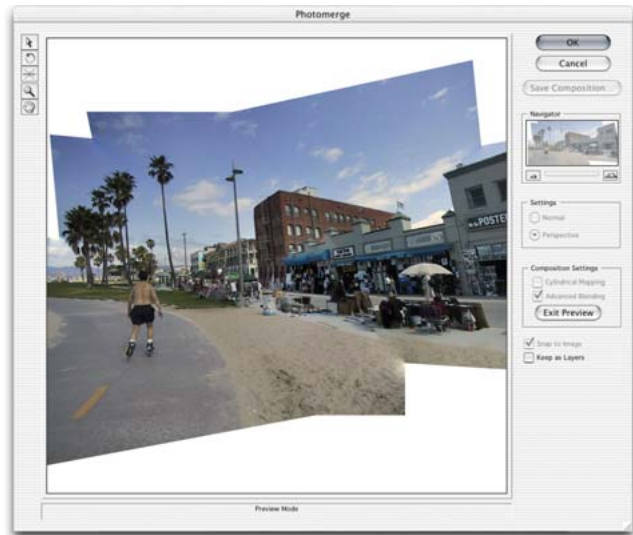


Figure 1.15 The Layer Comps palette and New Layer Comps dialog.



Figure 1.16 You can use the Crop and Straighten Photos automate plug-in to automatically prepare scanned images that need to be cropped and rotated. In this example, two photographs were scanned at the same time. The Crop and Straighten Photos command will extract both images, rotating and trimming them and preparing them ready for you to edit.

Figure 1.17 The Photomerge plug-in first appeared in Photoshop Elements 1.0. Now for the first time, it is included in Photoshop CS and robust enough to allow you to make quite large composite files compared to the limitations of the Elements version of this plug-in. You also have the facility to save a Photomerge document with the layers preserved. This makes the plug-in even more versatile to use.



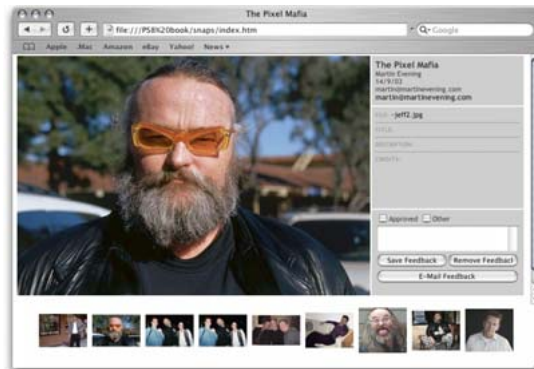
On-line Services

The Automate menu hosts on-line services, which will enable you to access external services such as a remote printing service, like 'Shutterfly', directly without leaving Photoshop.

It features a 'Make Layered Image Only' option, which means you can use Photomerge to align multiple exposures of the same image. For example, if you want to align and merge two or more almost identical exposures, Photomerge will automatically take care of the alignment and produce a layered document for you.

The image spacing in Contact Sheet II is more efficiently designed. It can be set manually to tighten up the gaps in your contact sheets quite considerably. The spacing is improved even when the Auto spacing option is selected. Picture Package features a new layout editing

Figure 1.18 The Horizontal Feedback template is one of several new templates that are used with the Web Photo Gallery. The page shown here includes a feedback form that will enable visitors to the gallery site email picture selections and any comments back to you.



dialog with an easy-to-use interface. Designing your own custom Picture Package layouts has never been simpler. The Web Photo Gallery has a completely new set of web gallery templates. Figure 1.18 shows an example of a website created using the Horizontal Feedback template. Examples of the other new templates can be seen in Chapter Fifteen.

A small selection of JavaScripts can be accessed via the File ⇨ Scripts menu. More scripts can be added to the Adobe Photoshop CS\Presets\Scripts\ folder. Ready made Scripts can be found on the Adobe Studio Exchange website at: <<http://share.studio.adobe.com>>.

Brushes

The healing brush will now work on a separate, empty layer. This means that you can do all your healing work on a new layer and be able to easily remove or selectively erase any healing brush or patch tool repairs that are carried out. When the patch tool is used in Source mode, a preview of the patch blend is displayed in the Source selection area.



The color replacement brush is a new brush tool, grouped with the patch tool and healing brush. It is an effective tool for certain basic retouching tasks such as reducing red eye from flash photographs.

Creating new documents

The New Document dialog contains new preset options that are designed with video designers in mind. You can select a preset size that matches the screen resolution of all popular video formats and some of these also open with preset guides. The View menu includes a Pixel Aspect Ratio Correction option. This can be used to render a scaled preview on the screen that more closely represents the proportions of a video pixel display, that uses non square pixels.



Figure 1.19 The color replacement brush is ideal as a fast and effective tool for fixing red eye in snap shots such as this.

How do you do that?

Photoshop CS has many useful tips built-in to the program. The Help menu is a good starting point, from where you can load the Welcome Splash screen, or launch the Photoshop Help web document or you can use the new 'How To' menus and sub-menus to get instant help and advice on a range of Photoshop issues. The How Tos you see here are integrated within Photoshop Help, but the How To format is available for anyone to write their own series of top tips for use in Photoshop CS.



Figure 1.19 Type can be added to an active pen path by clicking anywhere near to the path with any of the type tools. Type can also be made to fill the interior of a shape vector path.

Illustration: Rod Wynne-Powell

Type features

The type engine has undergone another overhaul. Improvements have been made to improve compatibility. One consequence of this is that when a text layered document created in Photoshop 6.0 or 7.0 is opened in Photoshop CS you will always see a warning requiring you to update the text layers. In common with other Adobe applications like InDesign, GoLive and Illustrator, Photoshop CS uses a shared linguistic library for the spelling library database. So if you update a word in the spell checker in a recent version of one of the above mentioned Adobe programs, the spelling update will be shared with all other Adobe programs sharing the same capability.

Type can be added to a pen path or vector shape so that any type entered will follow along the path outline. Simply move the type cursor close to the edge of the path to begin adding the type. You can then edit the shape of the path to change the shape of the type.

Overall impressions

Photoshop CS is bound to receive a mixed reception, which is always the case with every new release of Photoshop. There has certainly been an ongoing expectation that each new version of the program should include a 'killer feature'. At first Photoshop CS may appear to lack exciting new features such as the healing brush which was introduced in version 7.0. But nonetheless this is another important step forward in the evolution of Photoshop. As a working photographer, the refinements made to the File Browser, with its full integration of the Camera Raw plugin and the new Web Photo gallery feedback templates have all significantly aided my production work flow. The Shadow/Highlight image adjustment is another powerful tool, which I can't live without now.

Adobe Photoshop CS for Photographers

This review of Adobe Photoshop CS is an extract from Martin Evening's forthcoming book: Adobe Photoshop CS for Photographers, which will go on sale from early 2004. This latest update in the Adobe Photoshop for Photographers series will contain 576 pages in full color. The book has been completely redesigned and contains information and updated advice on everything you need to know about using Photoshop, from digital capture to print output, as well as all that is new in Adobe Photoshop CS!

To order the book

Adobe Photoshop CS for Photographers is published by Focal Press, an imprint of Harcourt Education.

The title will be stocked in most major bookstores throughout the UK and US and via many resellers worldwide. It will also be available for purchase from: www.focalpress.com and also through the on-line bookstores: www.amazon.com and www.amazon.co.uk.