

Adobe Photoshop CS4

By Stan Sholik



ALL PHOTOS BY STAN SHOLIK EXCEPT AS NOTED



The original capture



The final image

To upgrade or not to upgrade, that is the question. The answer will depend on how Photoshop fits into your digital imaging workflow. If you rely heavily on Photoshop, it is likely that CS4 will significantly increase your productivity. But if you are finding everything you need in CS2 (and aren't running it on an Intel Mac) or in CS3 on an Intel Mac, Windows XP or Vista PC and only open Photoshop occasionally, the decision is more difficult. Here's a review of new features in CS4 to help you decide. I tested Photoshop CS4 for Windows, but most of the changes are cross-platform.

Windows CS4 64-bit

If you're running 64-bit Windows Vista with lots of RAM, CS4 will be able to address as much RAM above the 3GB 32-bit limit as you allocate to it. This potentially speeds up the program as it avoids hard disk swaps. CS4 ships with support for both 32- and 64-bit Windows Vista and senses the correct version to install. I installed the 64-bit version in Vista Ultimate 64 running under Parallels on a Mac. With large files and multiple layers it avoids the hard disk swapping I find with the 32-bit version I have running on a high-end XP system with 4GB of RAM.

With Mac users having to wait for a future Photoshop version to take advantage of the Mac 64-bit OS, Parallels on the Mac with Vista 64-bit operating system and Photoshop Windows CS4 is the way for Mac-based photographers to take advantage of an eight-core



The user interface takes on a new look in CS4. Images are displayed in tabbed windows (Mac users will need to turn on this feature). The new Arrange Documents menu intelligently displays arrangements of up to six images, and the Workspaces dropdown menu has been expanded with additional presets.

processor and loads of RAM for working on large files. Other than accessing more RAM, running in 64-bit mode seems to have little other impact on performance.



1 With a single image open, the preset Essentials interface is clean and neat, with essential Tools on the left and unopened Panels to the right.



2 New to CS4 is the Adjustments Panel, which gathers common image adjustments into one place for quicker access. Clicking on one of the top grouping of icons opens up a window to apply the adjustment and creates a layer with a layer mask in one operation.



3 Below the adjustment icons in the Adjustment Panel are seven dropdown lists where presets are stored for quick retrieval and application to an image.



4 The Curves Preset > Color Negative immediately converts a color positive to negative and vice versa.



5 The Black & White Presets contains many prebuilt presets for converting an image to monochrome.



6 I chose the Green Filter preset for this conversion. A new panel opens in the Adjustments window so that you can make changes to the preset to balance it to your own taste. You can save any changes as a new preset for later use. Note in the Layers Panel that you have created a new layer complete with a layer mask.



7 The new Masks Panel can greatly simplify the creation and control of masks in many cases. Using the Color Range tool I was able to select the red background of the restaurant's sign.



8 After inverting the mask and painting out unwanted areas, I had quickly and easily created the effect I wanted without ever leaving the Adjustments Panel.

Interface Changes

One of the biggest changes in CS4, and the one that took me the most time to adjust to, is the new tabbed interface that is similar to the tabbed interface in Firefox and other Web browsers. I love the way that a number of files open in their own tabbed window rather than in a cascade or scattered all over the desktop. Clicking on the image's tab brings that image to the foreground. Maneuvering between images is now far easier and less time consuming. I am told Mac users will need to turn this feature on as it is off by default.

My initial problem was in closing images. In Windows I was used to closing an image by clicking on the "X" at the upper right of the image window. In CS4, the "X" in the upper right closes the program. To close an image you click the "X" in the right corner of the tab. It has taken me awhile to untrain myself so that I'm not closing the program when I only want to close an image.

Another new feature, the Arrange Documents button, located in the menu bar, is very useful when you have multiple images open. The available options allow different screen configurations of two- to six-up images. The configurations are intelligently managed so that they do not overlap when the interface is resized. You can drag images from one window of the configuration to another, which is an additional way to increase productivity.

Adjustments Panel

The new Adjustments Panel is really an interface change, but such a productivity enhancement deserves its own place in this review. The Adjustments Panel consolidates 15 non-destructive image



The final image created from blending six other images with varying areas of sharpness

adjustments in one position. These include Levels, Curves, Hue/Saturation, Channel Mixer, Color Balance and many more. A new addition is a Vibrance adjustment that increases saturation, but not in flesh tones or in hues that are already saturated.

After you have selected an adjustment and made the changes, CS4 saves the adjustment on a separate layer, complete with a layer mask filled with white. There are buttons for other options, such as applying the adjustment to all layers, or only to the layer immediately below, to toggle visibility on or off and more—small but welcome changes.

Adjustments made through the Adjustments Panel are non-destructive since they are saved as a separate layer with the layer mask. You can go back to each adjustment at any time and refine it. You can also try different adjustments and turn them on and off to preview different results. All adjustments are non-destructive, so until you flatten the layers, no pixels are changed.

For some reason, making an adjustment in the Adjustment Panel can work differently than making it in a palette in previous versions of Photoshop. For example, I make curves adjustments for most images. You can still bring up a Curves Palette in CS4 using Cmd/Ctrl+M. With the Curves Palette open, clicking on the image adds an open square on the curve at the value you clicked on.

But if you open Curves through the Adjustment Panel and click on the image, nothing happens. I finally discovered that if you hold down the Cmd/Ctrl key when you click a solid black square appears on the curve. You can then proceed as you did using the Curves Palette.

The logic behind this subtle and confusing change escapes me. Perhaps it is because Adobe has added a new targeted adjustment tool to the upper left of the adjustment. By clicking on this first, then dragging it over the area of the image you want to adjust, the result is the same as what I used to do in multiple steps. And you can make adjustments while looking at the image rather than looking back and forth between the image and the curve, which despite the initial confusion is another welcome change.

There are also seven presets in the Adjustments Panel. These contain prebuilt adjustments for Levels, Curves, Exposure, Hue/Saturation, Black & White and Channel Mixer. The final preset, Selective Color, is empty. These presets can be real timesavers if they fit your needs, and also open as a new layer with a layer mask. You can create your own adjustment and save it to the appropriate preset. If you've created a signature look for your images, saving the adjustments as presets in the Adjustments Panel should increase productivity tremendously, but still give you the flexibility to tweak it for each use.



Left: One of the new features in CS4 is the ability to extend the depth of field with image processing. I started by stacking six captures of a 4-inch model Formula One race car that was impossible to keep sharp in one capture. Stacking puts each capture on a separate layer. **Center:** Selecting Edit > Auto-Blend Layers opens up a dialog box where I chose Stack Images. If you check Seamless Tones and Colors, Photoshop will evaluate each image in the stack and adjust it to best match the others in tone and color as well as in alignment. **Right:** The Layers Panel of the completed, blended image contains layer masks that Photoshop created to produce the image. You can go into the layer masks and make adjustments to tweak the image Photoshop created.



Left: I could have cropped the top of this capture to make a full 8x10, but it would have meant losing some of the dramatic sunset behind the couple. CS4's new Content-aware Scaling tool in the Edit menu is designed to accomplish this while leaving important image content unchanged. **Center:** With the Preserve Skin Tones option selected, Content-Aware Scaling left their head sizes unchanged, but stretched their bodies and clothing. **Right:** After creating a rough mask around the couple, I ran Content-aware Scaling again with the mask selected in the Preserve window of the tool. This preserved the couple while intelligently filling the full 8x10 proportion.

Masks Panel

I welcome any change that simplifies masking in Photoshop and the new Masks Panel does just that. It gathers the tools you use to create and adjust both pixel and vector masks into one place and simplifies their use. Adjusting color is easier with the improved Color Range masking tool in the panel and mask density and feathering can be changed by dragging sliders back and forth.

Clicking on the Mask Edge button in the Masks Panel brings up a Refine Mask panel that was introduced in CS3, with a variety of controls. Rolling over the sliders activates a useful description of what the slider controls.

The combination of the Adjustments and Masks Panels can be a real productivity enhancer. I used them to convert a color image to monochrome while preserving some color information. CS4 gave me the ability to move back and forth between layers and to adjust the mask as needed to create the effect I wanted much more quickly than I could have done in CS3.

There will still be a place for third-party masking programs, but CS4 offers vast improvements in masking over previous versions.

Extended Depth of Field

My commercial photography specialty is macro photography, so I was particularly interested in seeing how Photoshop's new feature to extend depth of field compared to the third party software, Helicon Focus, that I use. While Photoshop does the job, it seems more like a beta work in progress than a completed feature.

First, you need to figure out how to begin. There's no drop-down menu item that's titled "Extend Depth of Field" and CS4 Help only offers you a video tutorial, not an instruction set.

What you need to do is open File>Scripts>Load Files into Stack. After selecting the images and making sure Auto Align is checked, clicking OK opens the images on separate layers. After selecting all layers, choosing Edit>Auto-Blend Layers>Stack Images creates the final image, including layer masks if you want to tweak the result.

Blending six 1.3MB JPEG captures into one took about 1.5 minutes on a fast Windows XP 32-bit machine. This is slower than I'm used to, and larger TIFF files or a greater number of images to blend slowed the computer to a crawl. Speed improved in the 64-bit Vista installation, but you'll want the fastest processor and most amount

of RAM you can afford in a 64-bit system to speed the extended depth-of-field feature along.

Content-aware Scaling

If you have ever had to stretch an image horizontally or vertically to fit a layout, then you'll appreciate the new content-aware scaling feature. If you do this often, this feature alone may well be worth the upgrade cost. Using Content-aware Scaling, found in the Edit menu just above Free Transform, you can (usually) re-size your image without distorting important elements, such as people.

When I attempted to resize a 2:3-proportion wedding photo to 4:5, the Content-aware Scaling tool correctly sensed all of the bride and the groom's head, but not the rest of his body! This was quickly corrected by making a fast selection around the couple, then saving the selection as an alpha channel. A drop-down menu in the Content-aware Scaling menu bar allows you to select a channel to protect from scaling. By selecting the couple channel, I was able to scale the image to an 8x10 without having the groom look like a linebacker with shoulder pads.

There are limits to the amount of scaling before things look out of whack, of course, but if you need to fit a certain crop or layout, this is a great new feature.

Revised Interaction with Lightroom 2 and Bridge CS4

CS4 is more tightly integrated with both Lightroom 2 and Bridge CS4, which I found both welcome and frustrating. On the plus side, the changes made to an image in Lightroom 2 will be transferred to the image as it appears in Bridge CS4 if you choose Metadata>Save Metadata to File. Changes you make in Camera Raw 5 are transferred to Lightroom if you read the metadata file in Lightroom. And you can now open files from Lightroom 2 directly into Photoshop as layered documents, merge to HDR, merge to panorama or as Smart Objects.

Bridge CS4 has undergone some changes itself. It seems much faster, particularly when creating thumbnails the first time it looks into a folder. I love the addition of the folder's path above the preview window, and the ability to navigate using this path. Icons have been added to access commands used frequently and you can now view and sort by metadata. You can even create virtual collections just as you can in Lightroom. These are all useful and welcome changes.

What I don't like is the removal of many of the items from the Automate menu of CS4. Some, like Contact Sheet and Web Photo Gallery, both of which I use often, have been moved to Bridge. A contact sheet can now only be saved as a PDE, not an image file, and not as an 8x10, only as common U.S. and International paper sizes. Picture Package is gone completely and must be downloaded and installed separately. Depending on your workflow, these changes may be irrelevant or a deal breaker for you.

Other New Features

There are a few other changes and new features worth mentioning. Whether they'll be important to you will, again, depend on how often you use them.

Camera Raw 5 has been updated with tools like those added in Lightroom 2. An Adjustment Brush allows you to perform localized adjustments to an image, and a Graduated Filter tool as well as a Crop tool are now available. Adobe continues its questionable decision to require Camera Raw users to upgrade to the latest version of Photoshop in order to use the latest cameras in Camera Raw.

According to Adobe, the Dodge, Burn and Sponge tools have been improved. I've never used them in previous versions as I found them to be kind of clumsy in their effect on images. They seem to maintain tonal relationships fairly well now, but I've developed other ways to do the same adjustments, so it's too late for me.

Adobe is also promoting the ability to rotate the on-screen image to make retouching easier, the ability to pan and zoom smoothly, and the ability to preview images accurately at every scale percentage on-screen. If these features are a major selling point for you, make sure

you check the Adobe site (<http://www.adobe.com/go/kb405711>) to see if your video card is compatible with the OpenGL 2.0 features built into CS4. Neither of my computers had an appropriate card, so I wasn't able to test the usefulness of these changes.

Finally, Adobe has revised the Clone Stamp and Healing Brush cursor, which you may or may not find useful. Within the cursor, you can see a preview of the area you have chosen as the source. With a large enough cursor, this can be helpful, especially when you're trying to clone a line or perform particularly precise work. I would find it much more useful to have both the source area and the painting area both visible at the same time, and connected with a line so you could see precisely what area is going where and the relationship between them.

CS4 is packed with other changes for other disciplines that photographers will have little use for. In fact, there are probably more of these type changes than there are changes for photographers, as CS4 seems more targeted at users outside of the photographic field than within.

Still, if you are using Photoshop extensively, CS4 can enhance your productivity in many ways, from its ability to address large amounts of RAM to speeding up adjustment layers and masking. If you're not using Lightroom 2 and if you buy a new digital camera and love Camera Raw, you'll definitely need CS4. Photoshop upgrades to CS4 begin at \$199, with the full version available for \$699. Visit www.adobe.com for more information and other pricing options.



Stan Sholik is a contributing writer for NewsWatch Feature Service. He is also a commercial photographer with over 30 years of large format studio and location experience.