Photoshop CS3 is now at version 10 of this phenomenally successful program (well twelfth actually, if you count versions 2.5 and 5.5). And it all started almost twenty years ago in late 1987, when Thomas Knoll with his brother John, created the first prototype version of Photoshop. Photoshop CS3 has come on a long way since then, so much so that even in a big book like this there is only enough space to cover the features that are of specific interest to photographers.

Adobe have also taken the unusual step this time around of making this version of Photoshop available as a public beta, well ahead of the prospective shipping date for the full CS3 suite. What follows is therefore also a kind of beta chapter of my book in which I have outlined the features that I think will be of most interest to photographers.

Chapter 1

What’s New in Adobe Photoshop CS3

Adobe Photoshop CS3 beta is available from the Adobe labs website. You can download the latest Mac or PC beta build of Photoshop CS3 by going to: http://labs.adobe.com/technologies/photoshopcs3/.

Accessing the Photoshop beta

New interface design

The most immediately noticeable difference in Photoshop CS3 is the new interface design, which is part of a wider strategy to give all the applications in the CS3 creative suite a more unified look and therefore make the interfaces more consistent when switching between applications.

To start with you will notice how the tools palette is presented in a single column. Now that we are all using bigger displays, there is no real need for the old two column version. You will also notice that the palette well has disappeared from the tool options bar. The palettes can now be displayed on the left or right hand side of the screen grouped into multiple column docking zones and easily hidden or made visible by rolling the mouse to either

Pen path appearance

The path outlines that are created when you use the pen tool have now been made slightly bolder and are easier to see on the display. The same applies when drawing a freehand selection using the lasso tool.

Figure 1.1 The Photoshop CS3 Windows PC layout.
What's new in Adobe Photoshop CS3

Chapter 1

Figure 1.2 The new Photoshop CS3 Mac OS X layout. In this screenshot the Layers, Channels and Paths palettes were placed in a third column docking zone. You can see here that if I click on a palette icon, this will quickly expand to reveal the normal full size palette.

side of the screen. The main intention here has been to create the most efficient use of screen space when working with the palettes and image documents. Palette docking is easier to accomplish and in the Windows layout in Figure 1.1 you can see how the palettes in the second column from the right have been compressed into tabbed palette mode. All palettes can now be collapsed in this way so that the palettes are represented as icons that graphically indicate the identity of each palette. To collapse a palette docking zone, you just click on the double arrow button at the top of each palette zone and click again to expand the palettes again.

Figure 1.3 Don’t like the single row palette? Well, a click on the double arrow icon in the palette tab will allow you to toggle between the single and double row versions of the tools palette.
**Performance**

Various things have been done to improve the performance. Mac users in particular will benefit from the program being in universal binary, so that Photoshop CS3 is now fully optimized for the latest Macintosh Intel processor computers. Windows users meanwhile will notice faster start-up times.

The Photoshop performance preferences offer guidance on how much RAM memory you should ideally allocate to Photoshop. And the scratch disk preferences are now presented in a way that makes it easier to decide which scratch disks are used and in what order of priority.

![Figure 1.4](image)

**Figure 1.4** The new Performance preferences dialog, showing the scratch disk and memory allocation.

**Camera Raw 4.0**

Camera Raw 4.0 offers several new raw image processing additions that overlap nicely with the Adobe Photoshop Lightroom program (both share the same Adobe Camera Raw processing engine). These include things like the Recovery and Fill Light controls for better tonal editing of the highlight and shadow detail and a Vibrance adjustment for boosting the saturation, but with less risk of clipping (and built-in skin tone color masking).

Dig deeper through the new Camera Raw interface and you will notice how the tabbed panel controls mirror all the adjustments that you will find in the Lightroom program,
which although not officially out yet, can be downloaded as a public beta from the Adobe labs website. This means that you now have the ability to apply what are known as parametric tone curve adjustments, instead of point tone curve corrections. You can also apply hue, saturation and luminance type adjustments (with improved controls over Photoshop’s Hue/Saturation) and custom grayscale conversions. But more importantly, because Lightroom and Camera Raw now share the same controls, settings can be synchronized precisely when you switch between editing an image in Camera Raw via Bridge or Photoshop and editing the same image via Lightroom. The other big change is that there is a preference that will allow you to edit non-raw images such as JPEGs and TIFFs directly, using the Camera Raw dialog.
New layer/paint blending modes

It would be nice if the curves dialog allowed you to control the blending mode, so that you could set it to say Color or Luminosity. But alas not this time around. However, two new blending modes have been added to the blend menu list. Lighter color is similar to the Lighten mode, except it works on all channels instead of working on a per-channel basis. Darker color is similar to the Darken mode, except it works on all channels instead of working on a per-channel basis.

These two new blend modes are quite subtle in the way they work. I have found both to be useful whenever I wish to control the blending of a curves adjustment so that only the pixels that are made lighter, or the pixels that are made darker are the ones that get adjusted. These blend modes are often great to use when applying curves adjustment layers.

New Curves

With 22 image adjustment methods to choose from, it is hardly any wonder that Photoshop users get confused when trying to decide which image adjustment tool is the best one to use. For photographic work, the only tonal correction tools you ever really needed were Levels and Curves. Photoshop CS3 has at long last merged the functionality of Levels into the Curves dialog. At the bottom of the curve grid are shadow and highlight slider controls with Show Clipping controls to help you precisely judge where to set the shadows and highlights endpoints. As with Levels, you can also preview the image in threshold mode to help judge the endpoints by holding down the \[\text{Alt}\] key as you drag on either of these two sliders. In Figure 1.7 you can see the new Curve display options which in this example were configured so that the curves adjustments made to the individual color channels can be displayed overlaying the main composite channel curve shape.

Figure 1.7 The new Photoshop CS3 Curves dialog.
**New Brightness and Contrast**

It may not seem such a big deal, but the Brightness/Contrast image adjustment has been updated so that you can now actually use it safely on photographic images without risk of clipping the highlight or shadow detail. This was always the problem with the old Brightness/Contrast command, even if users were unaware of the harm it could do when being used to adjust photographs. The legacy operating mode is still there if you need the old behavior back.

**Eyedropper options**

New eyedropper tool sample size options extend the sample size range. Previously the options included: Sample Point, 3x3 and 5x5. In addition to this the new sample sizes include: 11x11, 31x31, 51x51, 101x101 pixels.

*Figure 1.8* The new, revised Brightness/Contrast image adjustment matches more the Brightness and Contrast slider adjustments found in the Adobe Camera Raw dialog.
**Black & White adjustments**

It is now easier to convert images from color to black and white via a single dialog interface. The new Black & White adjustment is available as a direct image adjustment or as an adjustment layer. The slider settings will allow you to adjust the proportions of the color components that are used to create a black and white conversion and will help you come up with many different types of black and white conversions.

**Figure 1.9** In the example shown here I applied a Black & White image adjustment to the image in which I adjusted the color sliders so as to keep the sky dark relative to the other colors in the original RGB image. The Tint option was selected to apply a color wash to the resulting black and white photograph.
Align controls

The Edit menu includes an Auto-Align Layers and Auto Blend Layers commands. The Auto-Align command can be used to automatically combine two or more layers and bring them into register with each other using one of the alignment options shown right. In the example shown here, I wanted to combine the best of the two photographs shown here, in order to produce a more successful composite image that blended the best of these two pictures. Auto-Align Layers can also be useful for registering misaligned images when working with the Merge to HDR command. The Auto-Blend Layers command takes the auto alignment one stage further and attempts to blend layers together more smoothly by applying layer masks of varying opacity to each layer, evening out any differences in brightness between each of the layers.

Figure 1.11 In this example I combined the two images on the right by adding one above the other as a new layer. I then made a shift selection of both layers to temporarily group them. I then went to the Layer ➞ Align menu and chose Align Content and selected the Perspective option from the Align Content dialog. This made Layer 1 register in alignment with the Background layer. To merge the images together I added a layer mask filled with black to Layer 1 and painted with white to reveal the girl on the left and blend seamlessly with the layer below.

Figure 1.10 Here are the Auto-Align options for aligning layers. Auto can do a pretty amazing job of automatically registering layers. But in this instance, the Perspective alignment worked best to register the group portraits.
Automatic Photomerge

The new Align Content processing has also allowed the Photoshop team to update the Photomerge feature such that it can now do a really good job of automatically aligning a group of images, bypassing the need to use the interactive Photomerge layout dialog.

Figure 1.12 Shown here is the very first attempt at using Photomerge in Auto mode to align a set of 11 photographs, all shot from the same position. I have used Photomerge quite a bit in the past, but the improved accuracy of the results has really been quite impressive.
Clone source palette and options

There are a number of new options for both the Clone stamp and standard healing brush tools. In the tool options bar you have clone source options that will allow you to sample from the current layer only or from the current layer and those below only, from all layers (ignoring any adjustment layers) and all layers, (including adjustments).

In Figure 1.13, you can see how I switched on the Show Overlay option and adjusted the overlay opacity and blend mode so that when rolling the mouse across the image prior to positioning the destination point, one can predict more accurately how the clone source pixels will register with the pixels in the image below.

Multi point source cloning

The new Clone Source palette will allow you to select up to five clone source points when working with the clone stamp or standard healing brush tools.

Figure 1.13 In this example I wanted to sample from the letter ‘O’ on the left to repair the gap in the letter ‘O’ on the right. To do this, I switched on the overlay in the Clone Source palette, so that while I rolled the cursor over the image, I could predict where to click to start cloning and make the source letter register with the destination letter.
More discoverable
Smart Objects first appeared in Photoshop CS2 but many people never got around to working with them, mainly because the group into smart object command was obscurely hidden in the layer palette menu and also because it was not easy to open a new image directly as a smart object. For example, before you first had to create an empty new document with the exact pixel dimensions before you could place an image (such as a raw file) as a Smart Object. With Photoshop CS3, you can now place a raw capture file as a Smart Object layer in a single step.

New Smart Object features
Smart objects were first introduced in Photoshop CS2 and The new Open as Smart Object command makes the Smart Object process a lot more accessible. When you place an image, or convert a layer to become a smart object, a range of non-destructive edit options will be at your disposal. As before, you can apply free transform adjustments to smart object layers so that you can scale an image layer up or down in size without permanently resizing the layer pixels. But Smart Objects will also now allow you to apply Smart Filters to a Smart Object.

Smart Filters
When you create a Smart Object, the pixels are always preserved in their original state and as a result of this, Smart Objects can now be used to apply filter effects that are fully editable. This means that when you create a Smart Object (or choose Convert for Smart Filters from the Filter menu), you can select the Smart Object layer, choose a filter effect, and the filter will be applied to a rendered version of the original layer and appear as a Smart Filter layer associated with the same Smart Object layer. This let’s you preview the result of any filter effect as applied to the selected layer. If you want to make any further changes, you then have the ability to double-click the smart object filter layer to call up the filter dialog for the filter effect. This will allow you to re-edit the filter settings as many times as you want, add extra filter effects to the Smart Object layer, drag and drop the order in which the filter effects are applied as well as drag and drop them from one Smart Object layer to another. Note that you can also use the key as you drag to copy filter effects between Smart Object layers. Each Smart Object layer will also have a single layer mask, which means that the Smart Filter masking is always applied to all Smart Filter layers. But you can’t link a layer mask to a Smart Object, which means you will have to resort to complex workarounds if you wish to move both a Smart Object layer and mask in register.

Editable shadows/highlight
Up until now it has not been possible to edit shadow/highlight adjustments, but you can do so now by using the Convert for Smart Filters command, or when editing an existing Smart Object.
In this example I opened a raw DNG image as a Smart Object and added a normal pixel layer of a backdrop image, which I then converted to become a Smart Object layer. I then added a layer mask to reveal the model on the layer below (see Chapter 8 for instructions on how this was done). Once a layer or group of layers have been converted to a Smart Object, one can then apply Smart Filters. Here, you can see how I applied a Lens Blur filter to the Smart Object and applied a gradient to the Smart Filters mask to reveal some of the unsharpened detail in the original pixel layer.

Figure 1.14  In this example I opened a raw DNG image as a Smart Object and added a normal pixel layer of a backdrop image, which I then converted to become a Smart Object layer. I then added a layer mask to reveal the model on the layer below (see Chapter 8 for instructions on how this was done). Once a layer or group of layers have been converted to a Smart Object, one can then apply Smart Filters. Here, you can see how I applied a Lens Blur filter to the Smart Object and applied a gradient to the Smart Filters mask to reveal some of the unsharpened detail in the original pixel layer.

Client: Indola.
Quick Selections
The quick selection tool is grouped with the magic wand in the Tools palette and takes priority as being the default tool for making magic wand type selections, To make a quick selection you simply drag with the tool to select a sample range of colors from an image, either selecting pixels from a single layer or sampling all layers. From this, Photoshop will calculate a rough selection of pixels that you can further modify by using the refine edge options.

![Figure 1.15 The quick selection tool options.](image)

Refine Selection Edge
If you click on the Refine Edge button, you can then refine the selection edges using the slider controls shown at step 2 on the page opposite. Although you can also use the Select ⇒ Refine Edge command to refine any active selection.

1 To use the quick selection tool you select a sample area size and click or drag with the quick selection tool in the image area to define the area you wish to select.
2. The selection area can then be refined by clicking on the Refine Edge button and using the Refine Selection Edge options. In this example, I applied a +60 Nudge adjustment to expand the selection more.

3. After modifying the selection edge, I then kept the selection active while I went to the Layers palette and added a radial gradient fill layer above the Background layer to replace the wall with the gradient color fill shown here.

**Refining layer masks**
Refine Selection Edge can also be applied to active layer masks. This means that you can use Refine Selection Edge to preview and perfect a layer mask while it is being applied to an image layer.
Vanishing Point 2.0

The Vanishing Point plug-in was an interesting addition to the Photoshop CS2 program, because it allowed you to retouch and place images so that they matched the perspective in the original photograph. Vanishing Point has been updated in CS3 to include some extra new features. Now when you import image data into the Vanishing Point modal dialog you can wrap images around multiple pre-defined plane surfaces. And there is an angle control that can be used for positioning linked planes at angles other than 90°. This means you can define complex geometric surfaces, import an image and paste the image data across more than one plane surface at a time. Plus you can also use the transform tool to rotate a pasted selection before placing it.

Figure 1.16 The Vanishing Point 2.0 dialog showing angled plane selections.
Printing
The Print dialog now uses the Print with Preview interface and incorporates more print options such as being able to set the paper orientation and printer model directly within the dialog, or go direct to a Print On-line print service. And at long last, the preview image is now properly color managed.

Figure 1.17 The new Photoshop CS3 Print dialog.

PDF enhancements
Any PDF documents created in Photoshop CS2 will be cleaned up when opened in Clean up from CS2 when opening PDF files in Photoshop CS3. And when saving files using the Photoshop PDF format, you can save them using the PDF 1.7 (Acrobat 8 compatible format).

The PDF presentation module has also been updated. PDF presentations are easier to create out of Photoshop CS3 and let you include extra items (such as those listed in the sidebar) to your presentations.
Bridge 2.0

Bridge 2.0 is undoubtedly an improvement, especially as some of the frustrating bugs that were in version 1.0 have now been resolved. The first thing you will notice is the new look interface. The dark gray theme offers better contrast for viewing images with. There are some nice refinements in the way the metadata information is displayed and the Preview panel now provides a properly color managed preview of selected images and the thumbnail previewing has been made faster and smoother.

The new Filter panel provides extensive image filtering options and file search times have improved, allowing you to filter images with a single mouse-click using criteria such as file type, keywords, image rating and orientation. The Slideshow view mode has also been updated, offering a choice of slide transitions but with less confusing controls, plus the new ability to zoom into images to check sharpness.

Figure 1.19 The Bridge 2.0 interface.

Figure 1.18 The Bridge 2.0 Preview panel provides accurate color managed previews with smooth rendering and the ability to display a selected group of images at once and has a magnifier zoom viewer for close-up 1:1 previewing.
Up until the beginning of 2006, I had been using Bridge 1.0 in conjunction with Camera Raw to manage my digital workflow for everything from capture through to print, using Bridge as my main program for importing, file browser management and as a digital asset manager to manage my image library. As the number of photographs I was shooting each day increased and the library collection grew in size, the task of carrying out all these jobs in Bridge got harder. The main problems with Bridge 1.0 were that it lacked an automated import procedure, the length of time it took to generate contact sheets and Web photo galleries, plus the awkwardness of inputting metadata. Bridge 2.0 is now better because the thumbnail navigation is faster and the Previews can be made to display a properly color managed preview. But on the other hand, not enough has been done to improve upon these other, more pressing concerns. At the time of writing, the new Import Photos plug-in has the potential to offer good automated camera file importing, but unlike other file importers, it fails to provide proper control over the file renumbering. All print outputs have to be processed via Photoshop, and the contact sheet generation is still reliant on Bridge having to open every image fully via Camera Raw or Photoshop in order to render the contact sheet images. Other programs, like Adobe Photoshop Lightroom can generate their contact sheets in a hundredth of the time it currently takes Bridge. The faster file searching and thumbnail stacking do make make Bridge a more effective asset manager, but the metadata input process remains as cumbersome as it was before. Adding custom IPTC metadata or custom keywords can still be a rather slow process.

My overall impression of Bridge 2.0 is that it has certainly improved as an image browser, in that it offers better browsing and some new additional digital asset management features. However, for professional-level file imports and full asset management, I would suggest you will need something more than Bridge, but for basic image browsing, Bridge 2.0 does offer some useful extra built-in functionality for Photoshop.
Overall impressions

After two years of waiting for this latest upgrade, Photoshop customers might well expect some major new features in this latest release. But at the same time, when new operating systems or computer hardware changes require a revision of the existing code, the task of keeping all the code up-to-date becomes increasingly harder. This is exactly what happened when Apple decided to adopt the Intel chip Mac platform. The Photoshop engineers were obliged to do a complete recompile of all the existing Photoshop code just to keep pace with this change. Consequently, Macintosh users will now be able to appreciate the real benefits of faster Photoshop performance on the latest Intel Mac computers, while PC customers they will gain the narrower benefit of improved, faster startup times.

Apart from this, the engineering team have still managed to come up with a larger number of new features. I have highlighted here some of my favorites here in this introductory chapter. I have not included every new feature because not all these will necessarily be of interest to stills photographers. The new Camera Raw 4.0 plug-in shares the same new image adjustment controls as will be found in the Adobe Photoshop Lightroom program. And as was pointed out, these new Camera Raw controls can now be applied to any image, not just to raw files. Therefore I would say that if you were to buy only Photoshop CS3, then there is actually quite a lot on offer photographers in this upgrade of Photoshop. If on the other hand you intend to buy Lightroom, or will choose to rely on some other third party program to process and manage your digital captures, then there may be less compelling reasons for you to upgrade.

My own personal view is that I very much like the new Photoshop CS3 interface design. I am also enthused by the new things you can do with features such as the Align Content feature and how this has been implemented to enhance Photomerge, which have all featured in this introductory chapter. I would also rate the new Clone
Source palette for providing accurate clone control, the Black and White adjustment and new Curves dialog and even Brightness/Contrast, for improved pixel editing. The Refine Edges command has a lot of great potential, especially as you can use it to edit layer masks as well as selections. In my opinion, these new features all provide practical tools for photographic Photoshop users. I am less enthusiastic about Live Filters, because it seems like a lot of overhead in terms of increased file sizes and processing times, for not much gain. And the inability to link a mask to a Smart Object does limit Smart Object functionality. I am also rather lukewarm over Bridge 2.0. During this particular test cycle I could not help but directly compare the usefulness of Bridge 2.0 alongside the new workflow capabilities of Lightroom. None of this personally matters to me so much, because I now mostly rely on using Lightroom to process all the file imports and manage my photographic library collection. I just happen to think that more resources could have been put into redesigning Bridge to make the workflow process easier to manage and faster, rather than adding things like a loupe tool in the Preview panel, which does not necessarily function as well as the zoom controls that are available in other programs. But that said, when you get Photoshop CS3, you will be acquiring the mighty Camera Raw processing plug-in which will now let you process over 150 different raw file formats. Camera Raw 4.0 will definitely be providing a big upgrade here. I think I am being fair here in pointing out what I believe to be the shortcomings in this release. But despite these reservations, I do believe Photoshop CS3 still has a lot to offer photographers everywhere.