



# Adobe Photoshop CC 14.2 update

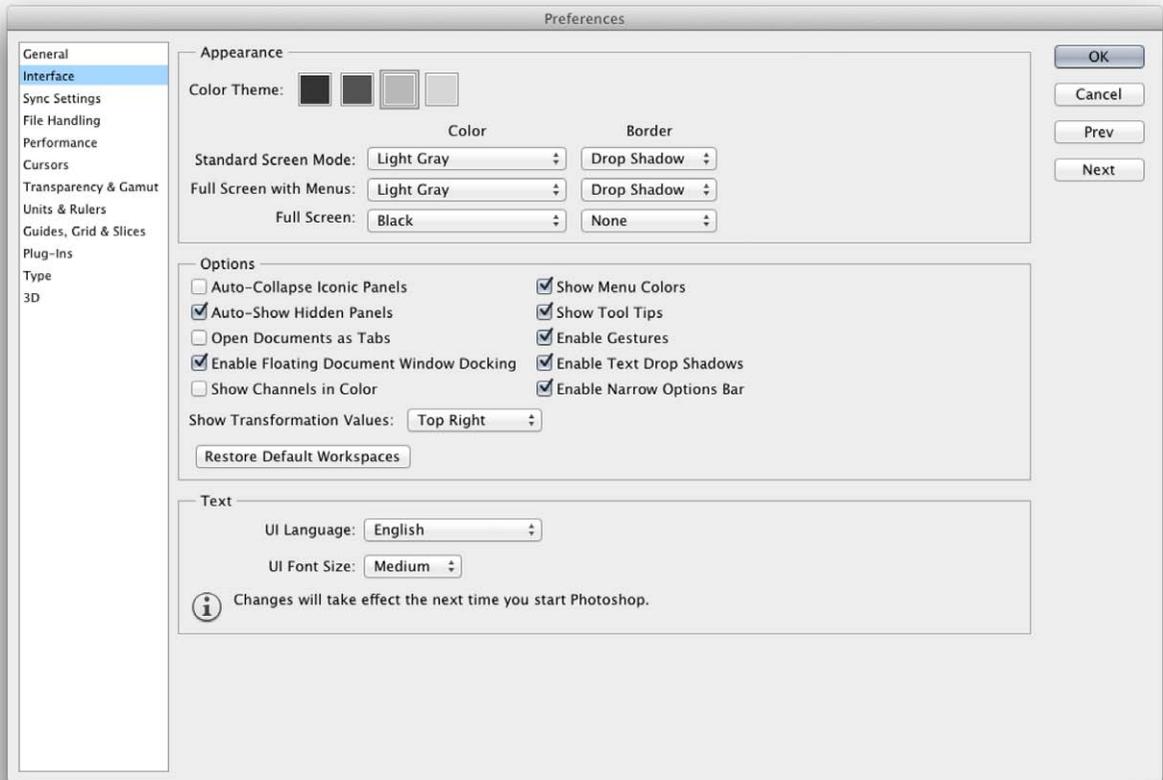
Welcome to the latest Adobe Photoshop CC bulletin update. This is provided free to ensure everyone can be kept up-to-date with the latest changes that have taken place in Photoshop CC.

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

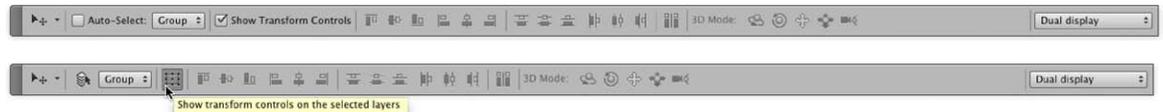
The 14.2 update contains some significant new features, such as linked Smart Objects and Perspective Warp, as well as minor improvements such as a performance boost to the Smart Sharpen filter (thanks to GPU support via the Mercury Graphics Engine) plus support for the new Mac Pro computers.

## Narrow Tool Options bar

If you go to the Interface preferences (shown in Figure 1), there is a new option to 'Enable Narrow Options Bar'. The default option is for this to be set to 'Off'. When enabled and you restart Photoshop, all check boxes and radio buttons in the Options bar will instead be displayed using Widgets (see Figure 2). The reason for this is to make the Options bar more visible for users who are working with localized versions of Photoshop on smaller displays.



**Figure 1** This shows the Interface preferences dialog, where the 'Enable Narrow Options bar' option has been checked.

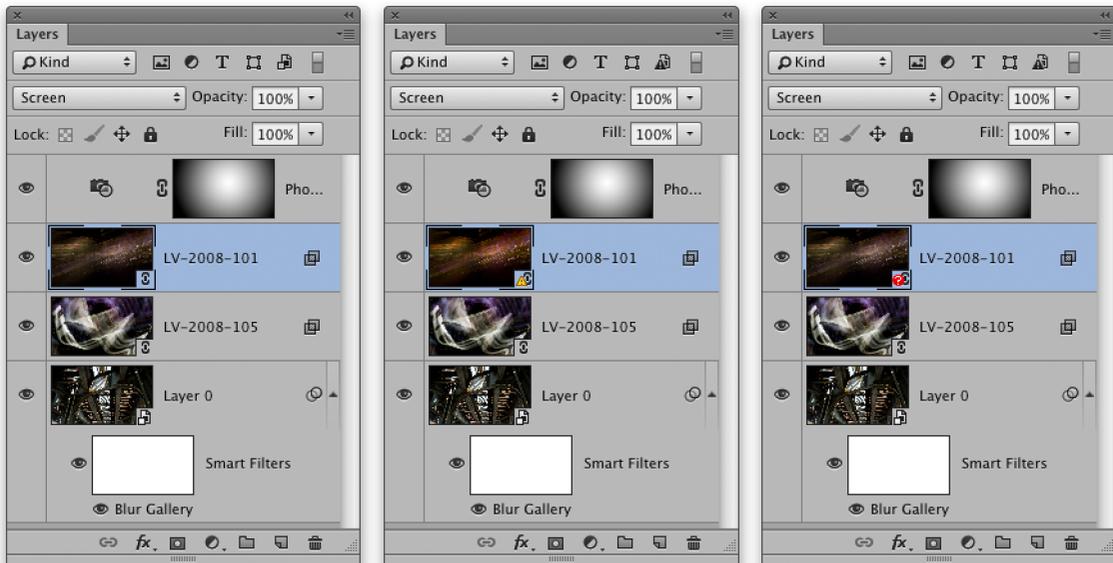


**Figure 2** Here you can see above, the standard Options bar and below it a narrow Options bar. In this example, the 'Show Transform Controls' check box has been replaced by a widget. You can roll the mouse over to see a helpful reminder.

## Linked Smart Objects

Smart Objects were first introduced to Photoshop with version CS2. These allow you to place a raster or raw image as an embedded smart object in the image that can be edited independently of the master image. For example, when placing as a smart object, or converting an existing layer to a smart object you can resize the object in the master image without resizing the original. Smart Objects can also be used to apply smart filters, where the filter effects remain fully editable.

This latest update allows you to link to an external file that can be edited independently and updated in Photoshop and will work with all the usual supported file formats, including raw files. You can now have smart objects that are either embedded (as before), or linked (new to Photoshop CC). However, images that use linked Smart Objects must be saved using the PSD format. The Layers panel now shows these two kinds of Smart Objects using different icons. Figure 3 below, shows examples of these.



**Figure 3** This shows a Layers panel view of a layered image that uses Smart Objects. Here you can see that the Background layer was converted to an embedded Smart Object so that I was able to apply a Blur Gallery filter effect as a Smart Filter. The selected layer and the layer below it are linked Smart Object layers, which means the layer contents are linked to an external file. The Layers panel view on the left shows the normal 'updated' state. The one in the middle where the linked file has been altered externally and needs updating. The one on the right shows the Smart Object file it links to is missing.

## XMP sidecar files

With linked smart objects there is support for XMP sidecar files when linking to ACR files.

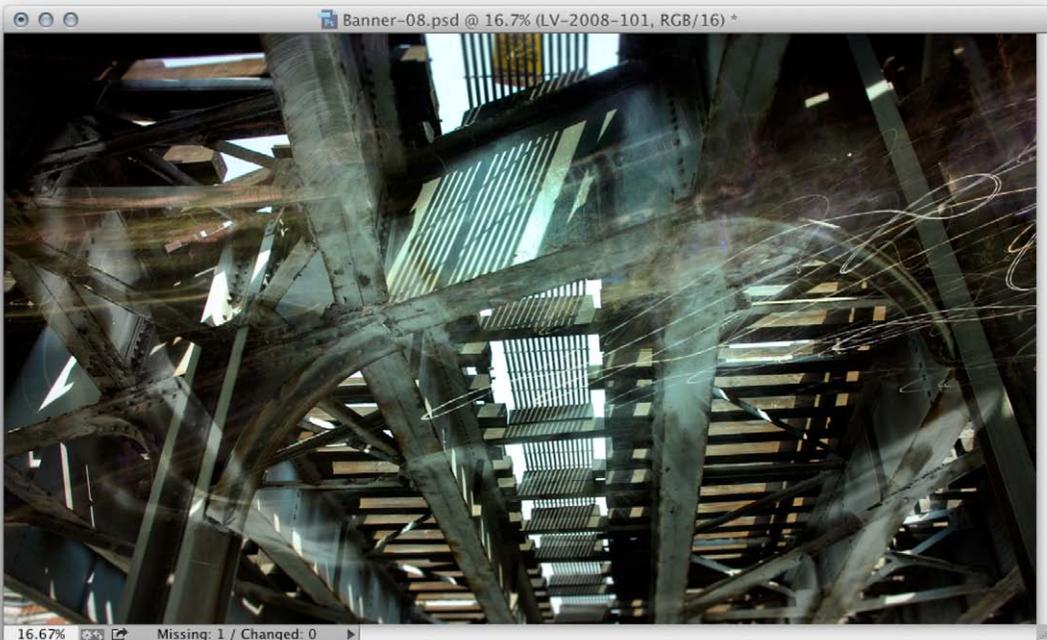
## Creating linked Smart Objects

To create a linked Smart Object, you can **alt**-drag an image document from the Finder/Explorer, or from Bridge to an open image document in Photoshop. This places the dragged document as a layer, where you will see a placed image bounding box. Click **Enter** to confirm and create a linked Smart Object. You will then see the Smart Object layer appear in the Layers panel as a linked Smart Object (see Figure 3). This particular image was constructed from the selected image shown at the top of the Bridge Content view in Figure 4, where the linked layers were created by **alt**-dragging the two separate image documents below.

If you go to the Status bar at the bottom of the application screen, or bottom of the image document window (Figure 5), there is a new option 'Smart Objects', which allows you to see the latest status for any smart objects in the current image. This indicates how many Smart Objects in an opened document are either missing or need to be updated. This is also available as a selectable option in the Info panel.



**Figure 4** The images used to create the image shown here with linked Smart Objects.



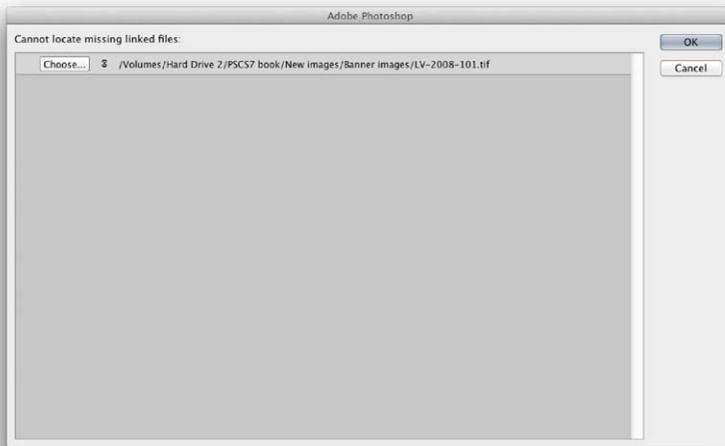
**Figure 5** The status bar now has a Smart Objects option that shows the current status for linked Smart Objects.

Once you have created a linked Smart Object, if you move or rename a folder or file the relative linking will be retained. When you click on a Smart Object layer, the Properties panel (Figure 6) provides information about the current Smart Object layer status, allowing you to click on the Edit Contents button to edit the original Smart Object layer/image, or click on the Embed button to convert a linked Smart Object to a regular embedded Smart Object. You can also change a Linked Smart Object to an Embedded Smart Object by choosing Layers ⇒ Smart Objects ⇒ Embed Linked, or Embed All Linked.

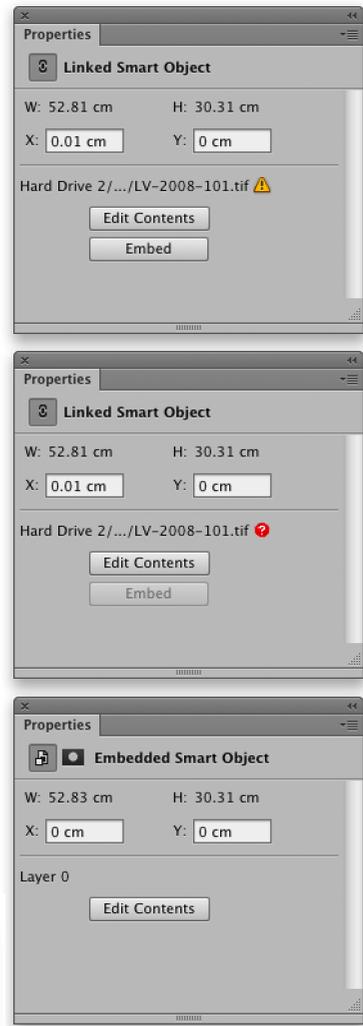
### Resolving bad links

If a link is missing on opening you will see the dialog shown in Figure 7. This alerts you to any missing links Photoshop can't find. Maybe the linked Smart Object has been deleted?

To update a bad link, click on the red question mark icon in the Properties panel and choose 'Resolve broken link...' from the menu. Alternatively, use a right mouse-click on the Smart Object layer in the Layers panel to open the contextual menu and select 'Resolve broken link...' from this menu. If you open a child Smart Object image directly, edit it and choose save, the parent image won't update until you force it to do so (for example, by going to the Properties panel). If you open a child Smart Object image by double-clicking the Smart Object layer, the parent image will update automatically.



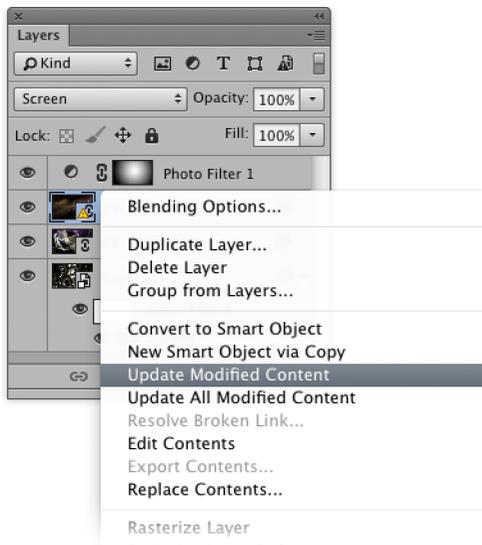
**Figure 7** This shows the missing assets dialog that will appear on opening a parent image and linked Smart Objects can't be found.



**Figure 6** This shows a Properties panel view for the status of a Smart Object (linked or embedded).

You can also create Smart Object layers via the File menu. Choosing File ⇒ Place Linked will allow you to select an external file and link it to a file saved using the PSD file format. Choosing File ⇒ Place Embedded will embed the file in the parent image. i.e the same behavior as used currently in Photoshop.

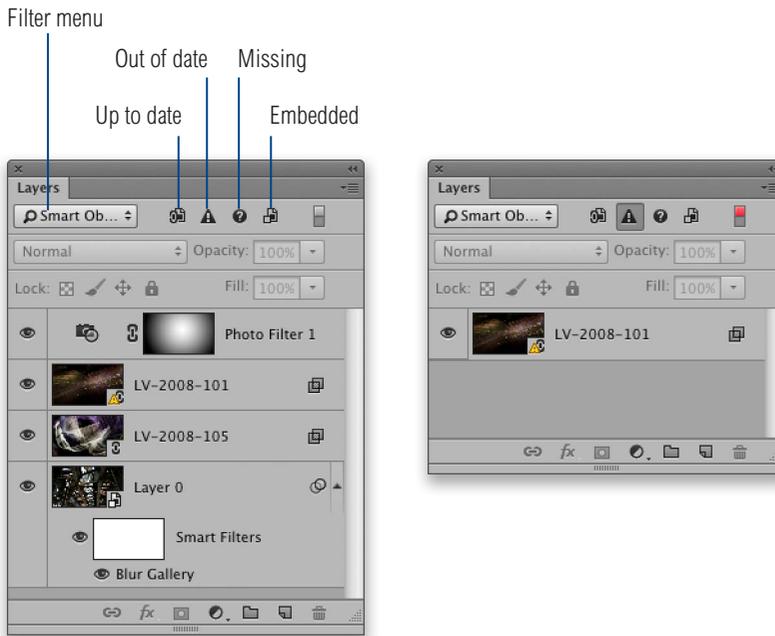
You can use the contextual menu (shown in a figure 8) to resolve broken links and update them. The update process only modifies the current selected Smart Object (or duplicate thereof), rather than all linked Smart Objects. Choosing 'Update All Modified Content' updates all Linked Smart Objects in your file. You can use 'Replace Contents...' to change the source file used as a Linked Smart Object.



**Figure 8** This shows the layers panel contextual menu for a selected layer with options for updating or replacing a linked Smart Object.

## Layers panel searches

The search feature in the Layers panel can be used to find both Linked and Embedded Smart Objects. Figure 9 below shows the Smart Object filter options for the Layers panel. Basically, a search can be carried out to find up-to-date, out-of-date or missing Smart Objects, as well as Embedded Smart Objects.



**Figure 9** This shows the Layers panel view and new Smart Object filter options. The buttons highlighted above show the following filter options: Up to date linked Smart Objects, Out of date linked Smart Objects, Missing linked Smart Objects and Embedded Smart Objects. The Layers panel view on the right shows an example of a Layers panel filter search where I filtered for out-of-date linked Smart Objects.

## Perspective Warp

Perspective Warp provides a new way to warp photos in order to correct or manipulate perspective. It allows you to manipulate the perspective in parts of your image, while maintaining the original perspective in other parts.

You can find Perspective Warp under the Edit menu: Edit ⇨ Perspective Warp and it is particularly well suited to images that have a lot of architecture, straight lines or flat surfaces.

One way to use this new tool is to correct the perspective of buildings in a photograph, where you wish to make a building's perspective look more correct, but without distorting everything else in the image. The thing is, this only works if the building in question is fairly rectangular in shape. Anything with a pitched roof isn't going to work, though the animated Perspective Warp help screens shown in Figure 10 demonstrate how this tool can be applied to some architectural photographs where the building shape is irregular. You can also use the Perspective Warp feature to manipulate a layered object as I have shown over the following pages.

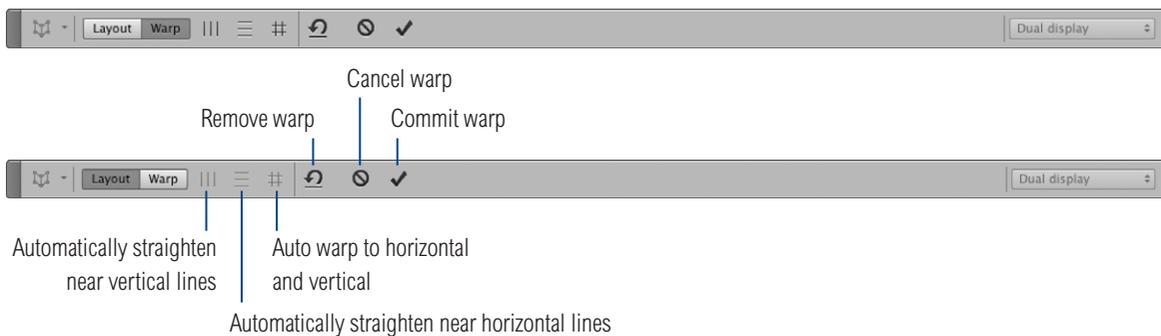
When you apply a Perspective Warp you will initially be working in the Layout mode (L) where the idea is to define the warp planes. You do this by clicking and marquee dragging to define the first warp plane and then click on the corner handles to adjust the shape. Subsequent warp planes can be added to define other object planes and these will automatically snap-align to the edges of other existing planes. Once you have done this you can click on the Warp button in the Options bar to access the Warp controls shown in Figure 11 below.

### Enable Graphics Processor

To get Perspective Warp to work, make sure you have enabled the Graphics Processor in the Photoshop ⇨ Performance preferences. In the Advanced Settings make sure Use Graphics Processor to Accelerate Computation is selected.



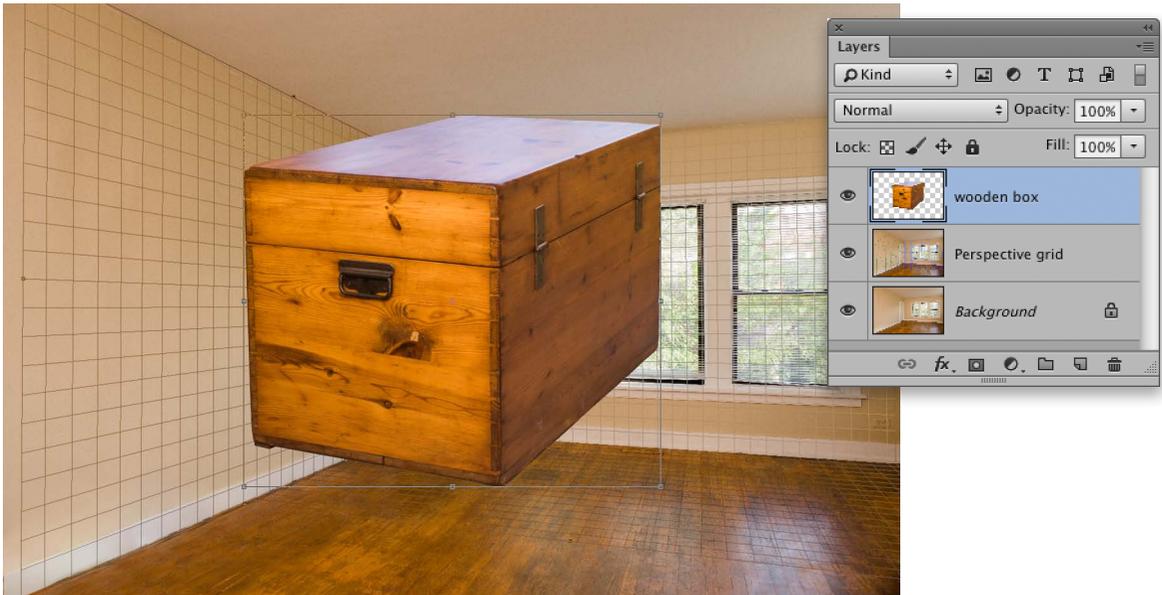
**Figure 10** When you first select the Perspective Warp you will see these helpful animated help dialogs. They go away after the first time you use Perspective Warp.



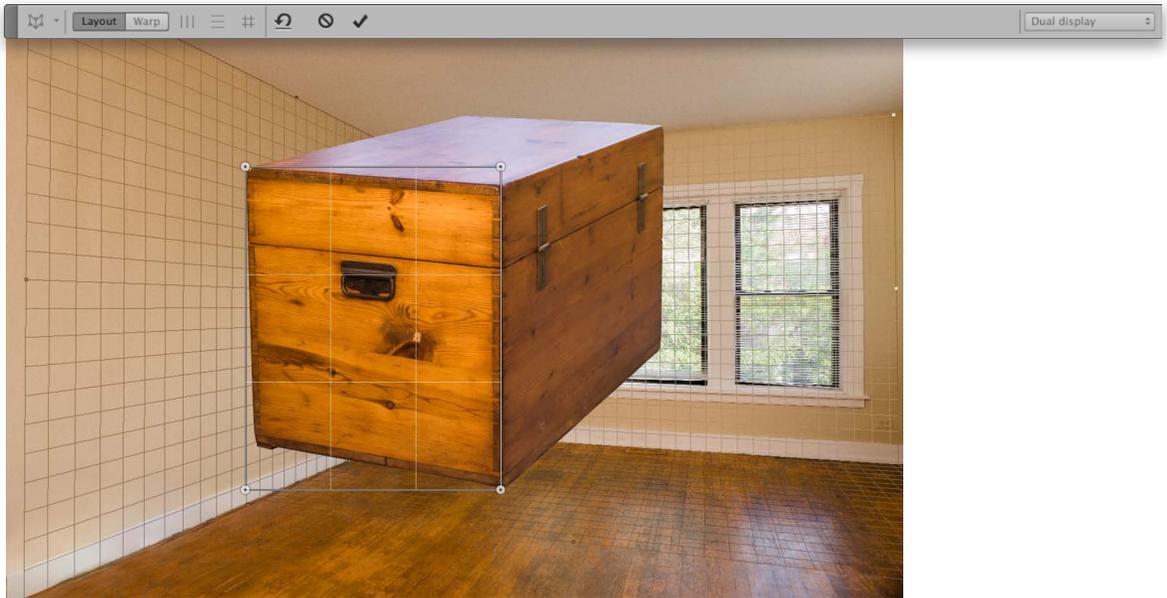
**Figure 11** This shows the Perspective warp Options bar in Layout mode (L), at the top and Warp mode (W) at the bottom.



**1** To illustrate working with the Perspective Warp feature, I used the two photographs seen here. One is an empty room interior and the other, a photograph of a wooden box cabinet, which I had cut out using a pen path.



**2** I placed the box as a layer in the Empty Room image document. As an optional step, I created a layer containing perspective grid guide lines, which I added here as a temporary layer and would use later to help guide the positioning of the box in the image.



**3** I went to the Edit menu and chose Perspective Warp. I began by marquee dragging over the box image layer to add the first quad plane.



**4** I then clicked on the quad plane corner pins to fine-tune their placement and align with the first plane of the wooden box. You can also use the keyboard arrow keys to nudge a selected quad pin.



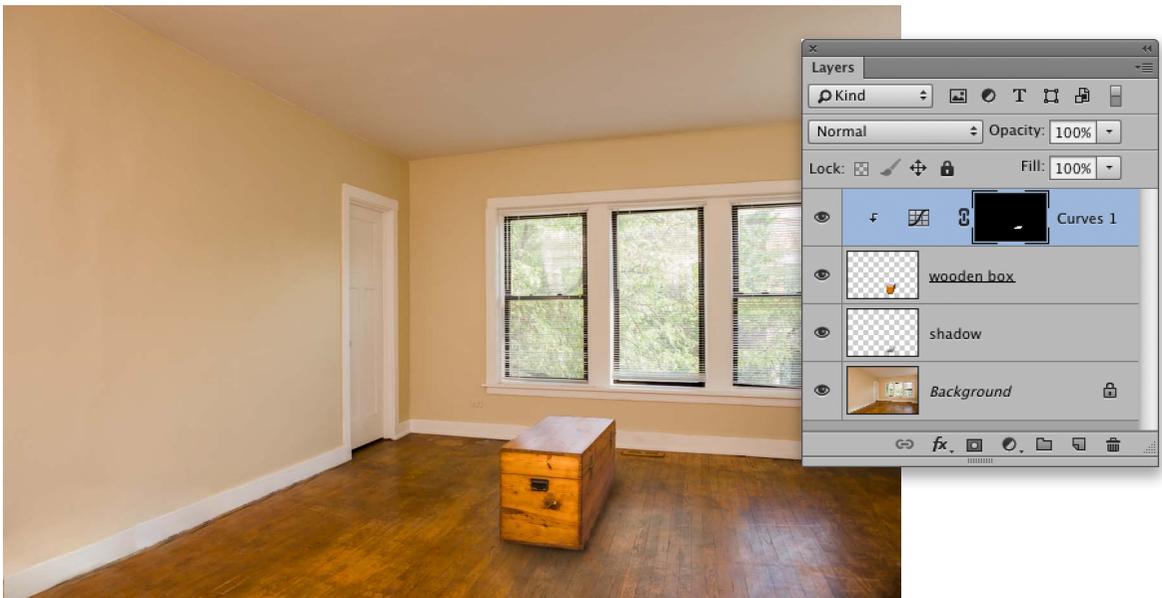
**5** I then clicked and dragged to add a second quad plane. You will note as you do this how when the second plane edge meets the first the two edges are highlighted blue and the second plane snaps to the edge of the first. After doing this I fine tune adjusted the corner pin positions of the second quad plane. Note you can Hold down the **⌘** (Mac) **ctrl** (PC) key while drawing quads to place them close but without joining.



**6** I added a third quad plane to define the top of the box. I then clicked on the Warp button (**W**) in the Options bar to prepare the layer for warping. You can also use the **H** key to hide the grids when working in the Warp mode.



**7** I clicked on the quad plane corner pins to move them and create a new perspective for the layer object. You will notice how if you hold down the **Shift** key as you click on a segment between two pins the segment turns yellow and will automatically snap to the horizontal, vertical, or a 45° angle (**Shift** click again to disable).



**8** Lastly, I clicked Enter to OK the Perspective Warp adjustment. I then removed the perspective guides layer and carried out some further retouching to change the color of the top of the box and add some shading beneath it.

## Updated Windows Stylus and mouse tracking support

Stylus support on Windows OS for non-Wacom devices has been updated, especially targeting new tablet-based computers that use n-trig tablet technology. As part of this work the mouse tracking code has also been updated to take advantage of modern OS APIs. These changes include some performance tweaks which should speed up painting and other input device interactions.

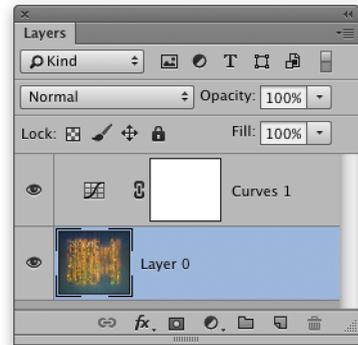
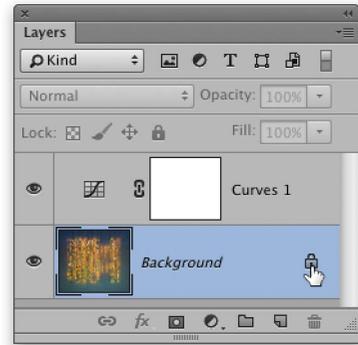
## Codeathon JDIs

At the 2013 Photoshop World in Las Vegas, Adobe assigned a team of Photoshop engineers, including Russell Williams, Tai Luxon and Stephen Nielson to carry out a live codeathon on the show floor. Photoshop users were able to stop by to make suggestions about things they would like to see in Photoshop and the engineers were able to work directly on the code to show how these could be implemented into the program. Now that Photoshop CC can be updated more frequently, the following JDIs (just do it) have been added to Photoshop.

Whenever you wanted to convert a Background layer to a regular layer you would previously have had to select the Background layer, go to the Layer menu and choose New ⇒ Layer from Background... Now, you can do all this by simply clicking on the Background layer lock icon (see Figure 12).

In the New Document dialog you can set a custom color as the background color. The Background Content menu now features an Other... option. When this is selected it opens the Color picker, allowing you to select a custom color.

The Swatches panel now allows you to see the most recently selected colors. In Figure 13 you can see a new bar of swatches that runs across the top of the panel. This is used to display in sequence, the most recently sampled swatch colors. This can be useful because it means you can make a series of color samples by clicking with the eyedropper tool and these will automatically be added to the Swatches panel ready for use in the same or another document. You don't have to explicitly save the swatches, semi-permanently adding them to a swatch collection. This is now a tidier solution.

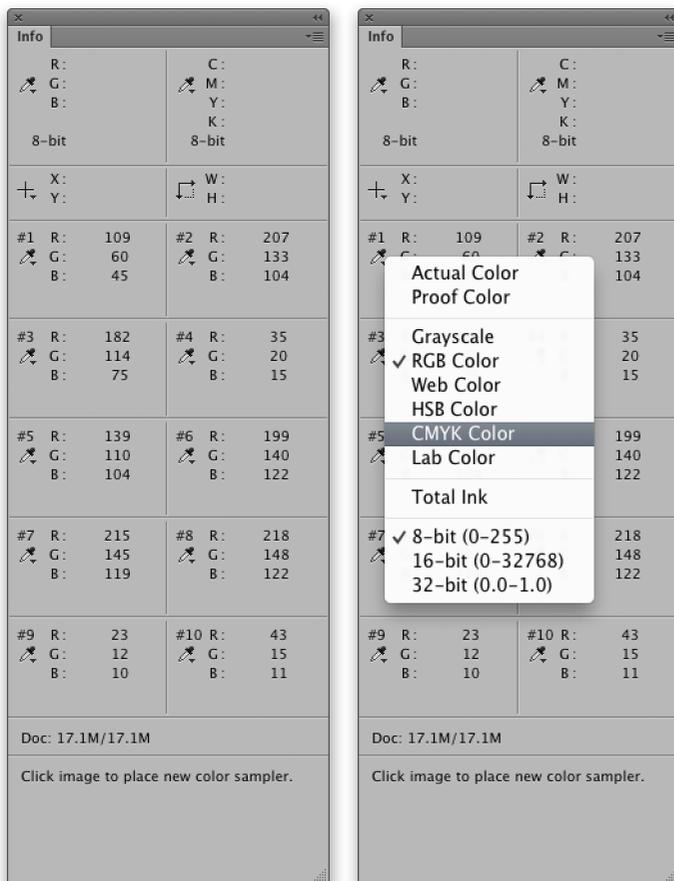


**Figure 12** A click on the Background layer lock icon converts it to a regular layer.



**Figure 13** This shows the Swatches panel showing the most recent selected swatch colors.

You can now have up to 10 color samplers in the Info panel, instead of just 4. Figure 14 shows an example of the Info panel with 10 color sample readouts. You can change the color mode of each of these by clicking on the eyedropper icon next to each (see Figure 13). Also, if you hold down the **alt** key as you do so, you can change the color mode for all the color sample readouts. Meanwhile, the Tool Options bar for the color sampler tool has changed the “Clear” button to now say “Clear All!”



**Figure 14** You can now have up to 10 color sampler readouts in the Info panel.

### **Better negative number support in Curves**

When applying a Curves adjustment and editing an image in Lab color mode, it is now possible to enter triple digit numbers directly into the fields in the Curves dialog. Previously, you could only type in two digital negative numbers, or three digit positive number values.