






Movie 6

Content Aware scaling

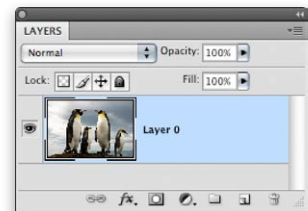
Content-Aware Scaling

This is probably the star feature of Photoshop CS4, yet also the most controversial since it invites Photoshop users to tamper with photographs in ways that are likely to raise the hackles of photography purists. Does this spell the ‘death of real photography (DORP)? I don’t know, but over the next few pages I have outlined some of the ways you can work with this new tool and suggested some practical uses. Advertising and design photographers will at least appreciate the benefits of being able to adapt a single image to multiple layout designs.

To use this feature, you need an image that’s on a normal layer (not a Background layer) and you simply go to the Edit menu and choose Content-Aware Scale (or use the   **Shift C**  **ctrl alt Shift C** shortcut). You can then drag the handles that appear on the bounding box for the selected layer to scale the image, making it narrower/wider, or shorter/taller. The preview updates to show you the outcome and you can use the Options bar to access some of the extra features discussed here.

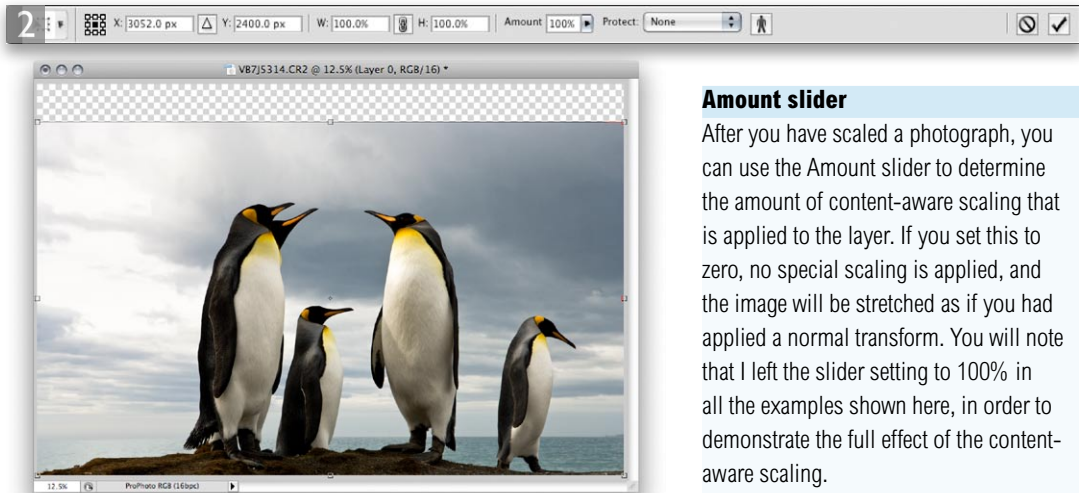
Edge detection success rate

The Content-Aware Scale feature is very clever at detecting which edges you would like to keep and those you would like to stretch or squash, but it won’t work perfectly on every image. You can’t expect miracles, but if you follow the suggestions on these pages, you will pick up some of the basic tips for content-aware scaling. What I have noticed though, is it does appear to do a very good job of recognizing circular objects and can preserve these without distorting them. Russell Brown has done some very cool demos on working with this feature and I can recommend you check them out on his site: www.russellbrown.com/tips_tech.html.



1 There is a set routine that you will want to carry out before applying any kind of ‘content aware scaling’. To start with, double-click the background layer (or create a new merged copy layer, positioned at the top of the layer stack) and then add extra canvas to the image. This can be done using either of the methods shown on the previous page. You can use the Canvas Size dialog to enter a precise image size, or simply drag with the crop tool beyond the boundaries of the image. Alternatively, use Image ⇒ Reveal All after applying a scale adjustment.

Photograph: © Jeff Schewe 2008



Amount slider

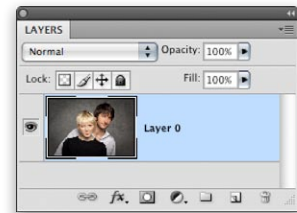
After you have scaled a photograph, you can use the Amount slider to determine the amount of content-aware scaling that is applied to the layer. If you set this to zero, no special scaling is applied, and the image will be stretched as if you had applied a normal transform. You will note that I left the slider setting to 100% in all the examples shown here, in order to demonstrate the full effect of the content-aware scaling.

2 This shows what the photograph looked like after I had used the Edit ⇔ Content-Aware Scale command to stretch the image width-ways. You'll notice how the penguins have not been stretched, but instead have been moved further apart and the left side of the image has been stretched most of all.

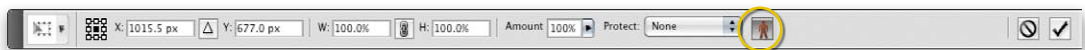


3 This shows what happened when I used the Content-Aware Scale command to make the photograph taller. Whenever you scale an image using this command, you have to watch carefully for the point where parts of the picture start to show jagged edges, or critical areas of the photo (such as the penguins) show signs they are being stretched. When this happens, you'll need to ease off and consider scaling the image in stages. In this example I stretched the photo upwards half way clicked OK and then applied a second scaling to complete the picture.

How to protect skin tones



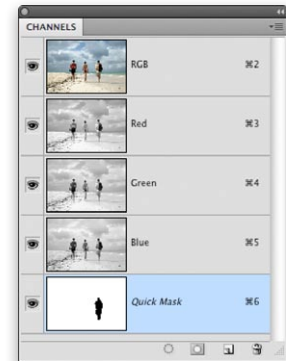
1 In this example I wanted to show how you can help protect people's faces from being squashed or stretched as you scale an image.



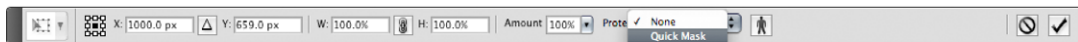
2 In general, you will find that the Content-Aware Scale feature does a pretty good job of distinguishing and preserving the important areas of a photograph and tends to scale the less busy areas of a photograph first, such as a sky, or in this case the mottled backdrop. However, if you click on the Protect Skin tones button (circled), this will usually ensure that faces in a photograph remain protected by the scaling adjustments. As you can see here, I was able to stretch this picture so that the couple in this photograph were moved across to the right. I stretched the image quite a bit, but without distorting the faces.

Photograph: © Jeff Schewe 2008

How to remove objects from a scene



1 The Content-Aware Scale feature can also be used as a tool to selectively remove objects from a scene. The results won't be completely flawless, but it can still work pretty well where you wish to squash an image tighter and remove certain elements as you do so. For the first step, I hit the **Q** key to switch to Quick Mask mode (see Chapter 9) and painted on the image to outline the bits that I wished to remove from the scene. Remember, white protects and black indicates the areas to remove.



2 Next, I reselected the RGB composite channel in the Channels panel and then selected the **Edit** ⇨ **Content-Aware Scale** command. In the **Protect** menu in the Options bar, I selected the Quick Mask I had just created, and as I scaled the image, the masked figure started to disappear. As before, it is important to watch carefully for jagged edges and not compress the image too much. As you can see, this technique doesn't completely remove all the pixels, but this edited image could easily be tidied up using the healing brush.

Photograph: © Jo Cowler 2003

Adobe™ Photoshop™ CS4 for Photographers

This PDF on digital capture is supplied on the DVD that comes with Martin Evening's book: Adobe Photoshop CS4 for Photographers. This latest update in the Adobe Photoshop for Photographers series contains 704 pages in full color, plus a DVD containing video tutorials. The book layout has been further improved to make navigation easier and contains 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 CS4.

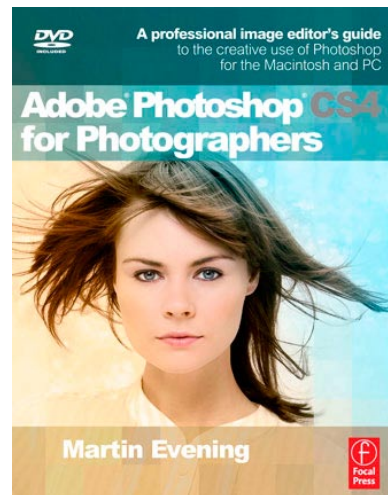
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