

Adobe Photoshop

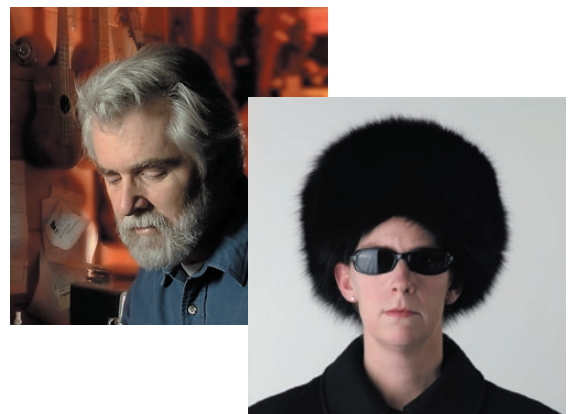
Creating Masks from Channels
Julianne Kost and Daniel Brown

Software needed: Adobe Photoshop 6.0 or later

Using channels to create masks is an advanced technique very useful for creating those intricate masks needed for highly detailed and complex objects. If you've spent much time in Photoshop compositing images, then you know the ones I'm referring to: the model with the long flowing hair blowing in the wind, the million and one leaves of a tree, and the individual feathers of a bird in flight. This is an older technique, but is just as valuable today as it was in the past because there is no substituting the creation of a mask from the image itself. In the example to the right, the image of the woman was removed from the background she was shot against so that it could be replaced with a more exciting one.



Before you begin, if you're a photographer and have control of the photo shoot, take advantage of the opportunity to set up the lighting and background for the image. It will be to your advantage to shoot the subject against a contrasting tone, evenly lit, unsaturated background. Setting up the shot this way will facilitate the masking process as the subject will be more defined from the background with minimal color contamination. If you're not the photographer and are given an image to isolate, then more time making the mask may be required, especially if they are similar in tone and color. In the examples to the right, the woman is going to be much easier to isolate than the man would be even though she's wearing a very fuzzy hat.



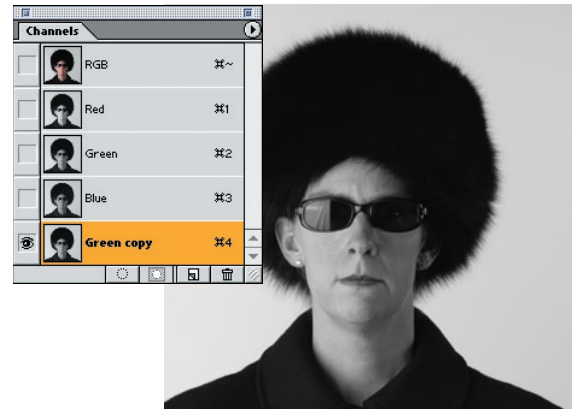
Before beginning the mask, show both the Layers and Channels palettes. If they're not showing, select Window > Show Channels and/or Show Layers. If the palettes are nested together, click on the tab of one of the palettes and drag it out of the grouping making both palettes visible at the same time. In the Layers palette, target the layer with the subject on it (by clicking on it). If the subject is on a background, turn the background into a layer by double clicking on the layer, name it and click OK.



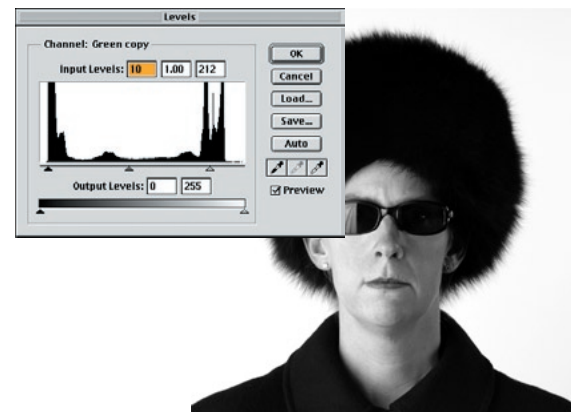
In the Channels palette, click on the names of the channels to view each one independently. Find the channel that has the most contrast between the subject and the background and target it (by clicking on it in the Channels palette).



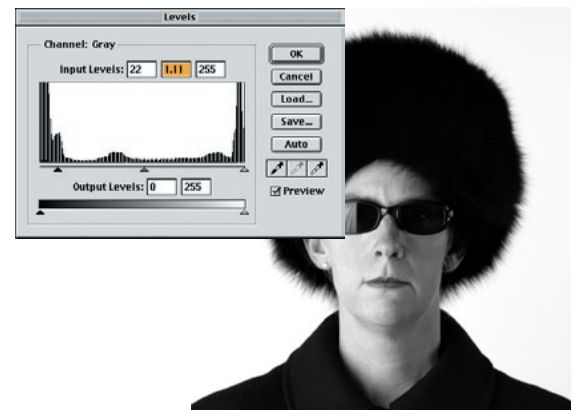
Click and drag the channel with the most contrast to the new channel icon at the bottom of the Channels palette to duplicate it. This duplicated channel will be the starting point for your mask. The goal is to make your subject either all black or all white and the background the inverse color while keeping the transitional areas such as hair (or in this example the fuzzy edges of the hat) varying shades of gray.



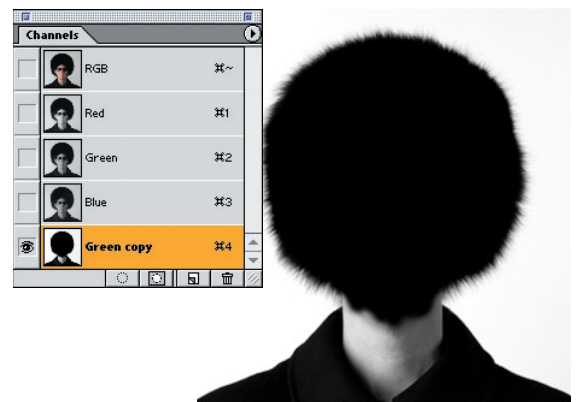
Begin by selecting Image > Adjust > Levels and increasing the contrast by moving the black point and white point sliders in towards the middle of the histogram. Be careful not to move the sliders too far or you will begin to lose important information in the transitional, detailed areas of the image. In this example, I used the white point eyedropper to set the white point in the darkest area of the background and forced it to white. Click OK when finished with the adjustment.



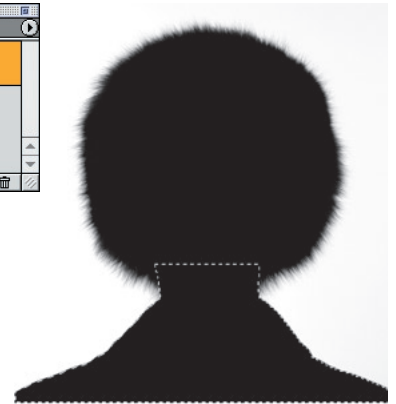
After making the first global adjustment, it might be necessary to go in and select specific areas and make additional local adjustments. Use one of the selection tools (like the Lasso) to select the area that needs to have contrast added and use Levels to make the adjustments.



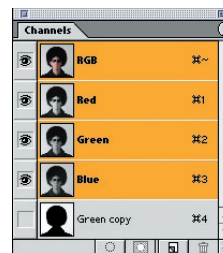
To refine the channel, use the paint brush and paint in black and white to continue differentiating the subject from the background. This is the most time consuming part of the masking process, but the effort will pay off.



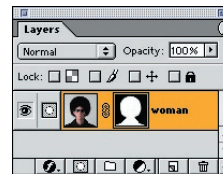
There might also be hard edges areas in the image. Instead of trying to adjust them with Levels or by painting, use the Pen tool to select the edge. Then, click the fly out menu on the Paths palette and select make selection (or click the selection icon at the bottom of the Paths palette). To save the path (in case you need to use it later, select save Path from the Paths palette fly out menu. Select Edit > Fill to fill the area with the appropriate color (black or white). Note: if there are areas on the other side of the path that need to be filled with the opposite color, choose Select > Inverse and then paint those areas in with a brush.



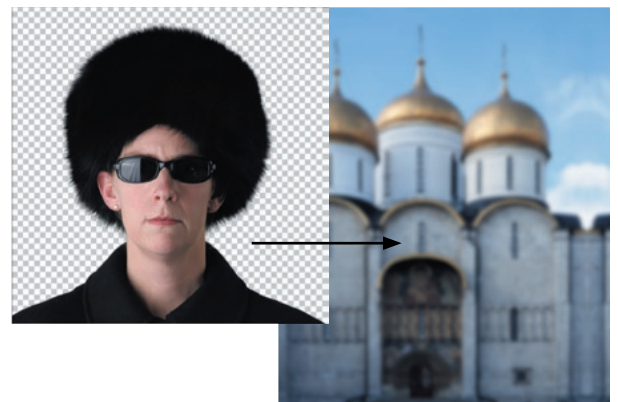
When the channel appears to mimic the desired mask, in the Channels palette, click on the composite RGB (or CMYK) channel to view the image. To make a selection from the channel, choose Select > Load Selection and select the channel from the pop up list. A selection marquee appears in the image.



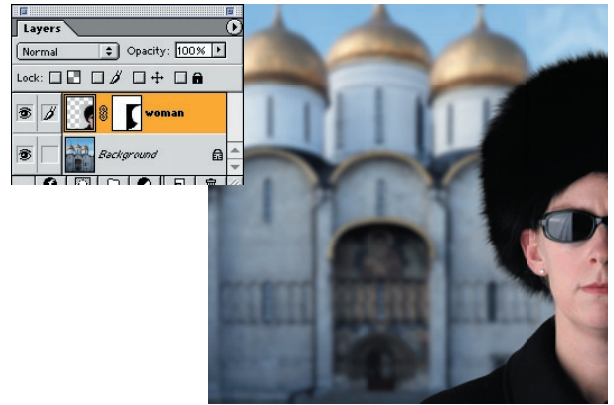
To convert the selection into a mask, select Layer > Add Layer Mask > Reveal (or Hide) Selection (depending on your selection). If the selection marquee is around the subject, then choose Reveal selection, if it's around the background, then select Hide selection.



Composite the subject with another image. Open both of the images and drag and drop the modified image into the new background image. Note: to drag and drop one image into another, arrange them on the monitor so you can see both sets of images side-by-side. Using the Move tool, click and hold on the image that you want to move and drag your cursor over the destination file. As you position your cursor over the destination file, the file will display a highlight around the edges, signaling that it's OK for you to "drop" (or release the cursor).



Depending on the image, simply removing the background may not be enough to make a realistic composite. To clean up the edges, try using the dodge and burn tools on the layer to darken or lighten the edges as needed. If touch ups to the mask are necessary, view only the mask by Option (Mac)/Alt (Win) clicking on the mask icon in the Layers palette. Then, use the painting or selection tools to make corrections.



If the edges of the mask aren't quite exact, select the areas that need improvement and choose Image > Adjust > Levels to adjust the edges of the mask. After creating a few composites, it doesn't take long to see how important it is to get the lighting and perspective of two images to match!

