

# Adobe Photoshop

Color Correction by the Numbers in Photoshop with Julieanne Kost

Software needed Adobe Photoshop 5.0 or later

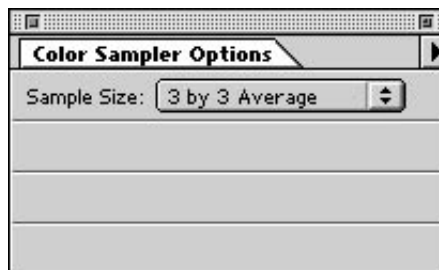


Unwanted color casts can be introduced into images from a variety of sources including – the time of day that the photo was taken, the film that the photo was captured on, the reflected lighting illuminating the scene or, incorrect developing, printing or scanning of the film. Fortunately, these color casts can easily be eliminated by making a few simple numeric adjustment in Photoshop. This tip and technique demonstrates how to expel a color cast using a combination of Adjustment Layers, Color Samplers and the Info palette. By making numeric adjustments instead of trusting our eyes or the monitor, we can achieve more consistent and reliable results .

**Open the file.** Select File > Open to navigate and open the RGB file that contains a color cast and needs to be corrected.



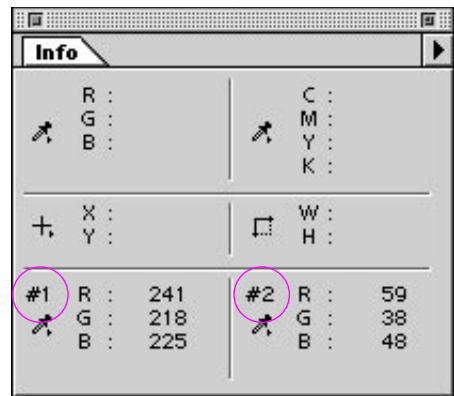
**Using the Color Samplers.** It's necessary to set the options for the Color Sampler tool to measure from either a 3 x 3 or 5 x 5 pixel average. *Note: if you base all of your color correction on a point sample, and that one point isn't representative of the rest of the image, you might get unexpected results.*



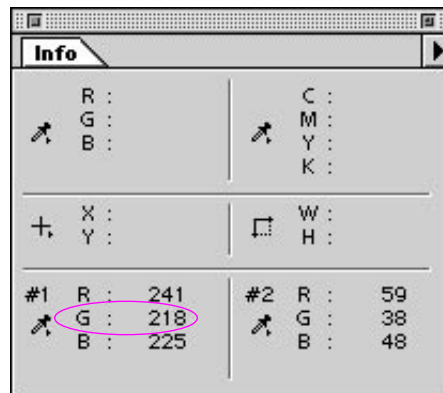
**Measuring color values.** Select the Color Sampler tool and click in the highlight area of the image. Setting a color sampler allows you to measure the values of the highlights in the Info palette and make the necessary changes. Click again to set a Color Sampler in the shadow area. In this example, the highlight area is along the edge of the plate, and the shadow area is in the darkest area of the spaghetti sauce.



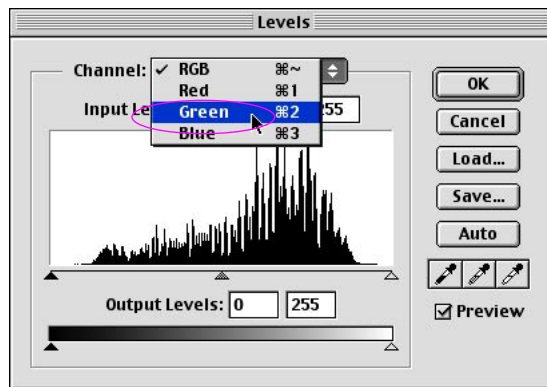
**Study the color values.** Select View > Show Info if the Info palette isn't showing. The lower portion of the Info palette displays the color values for each of the Color Samplers that were set in the highlight and shadow areas of the image. Notice that there are different values of red, green and blue for each of the samplers. If the highlight or shadow values are all the same, the image wouldn't have a color cast since equal amounts of RGB results in neutral tones. *Note: sometimes images have desirable color casts such as an image taken at sunset which don't need to be removed. However, in this image, the red color cast needs to be eliminated for the food to look appetizing.*



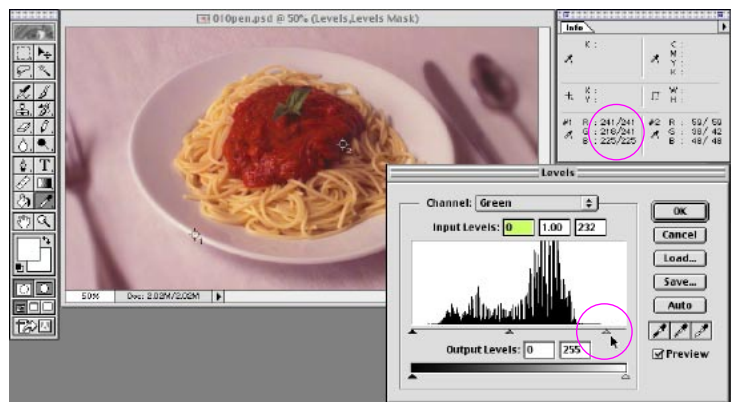
**Find the lowest value.** In the Info palette, look at the values for red, green, and blue for Color Sampler number one (the highlight area of the image). Find the color with the lowest value. In this example, the lowest value is for G (green).



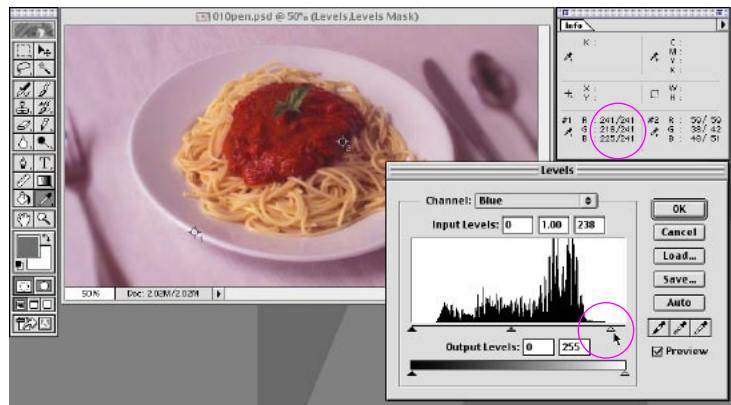
**Add an Adjustment layer.** Select Layer > New > Adjustment layer. For the adjustment type, choose Levels and click OK. From the Channel menu, select the channel that had the lowest measured value from the previous step (in this case Green).



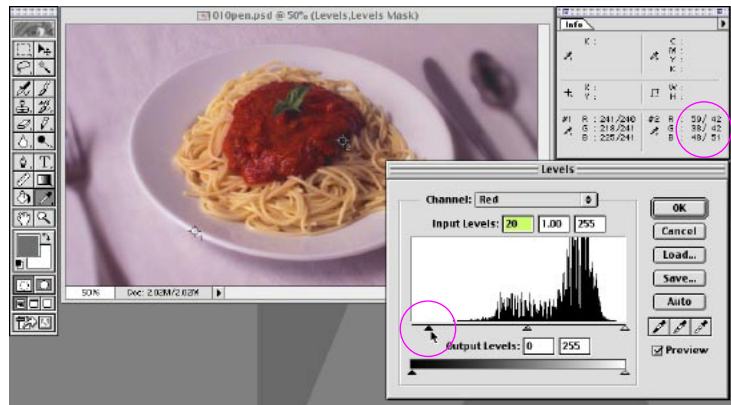
**Neutralizing the highlights.** While watching the values from the Color Sampler number one (the one in the highlights), in the Info palette, begin dragging the white triangle in the Levels adjustment layer dialog box to the left. The Info palette displays an adjusted value for the color samplers. Keep dragging the triangle in the Levels adjustment layer dialog box until the value matches the highest value for the highlights.



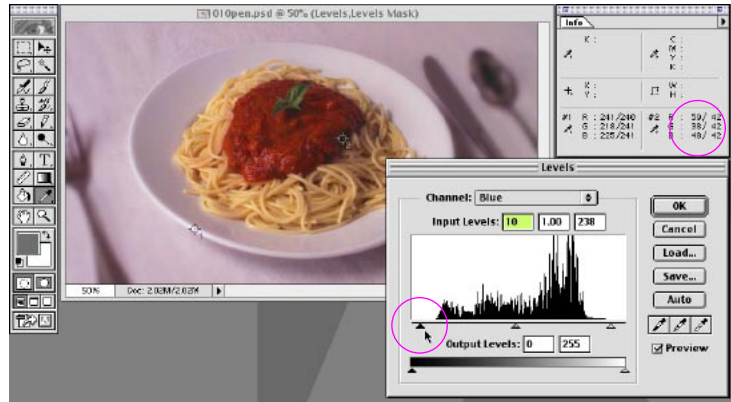
**Correct the other channel.** Select the remaining channel who's values don't match (in this case blue), and move the white triangle to the left until it equals the other channels in the Info palette. When all three of the red, green and blue values are equal, any color cast that was in the highlight area will be removed.



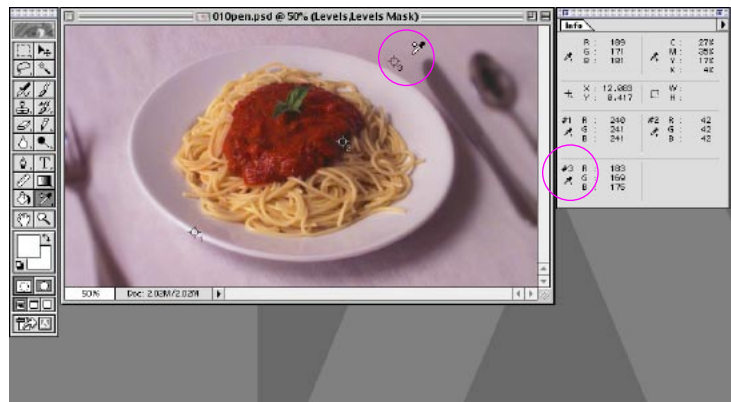
**Neutralize the shadows.** While still in the Levels adjustment layer dialog box, select the channel that has the highest value for the second Color Sampler (the one in the shadows). Drag the black triangle to the right until it matches the lowest value in the Info palette.



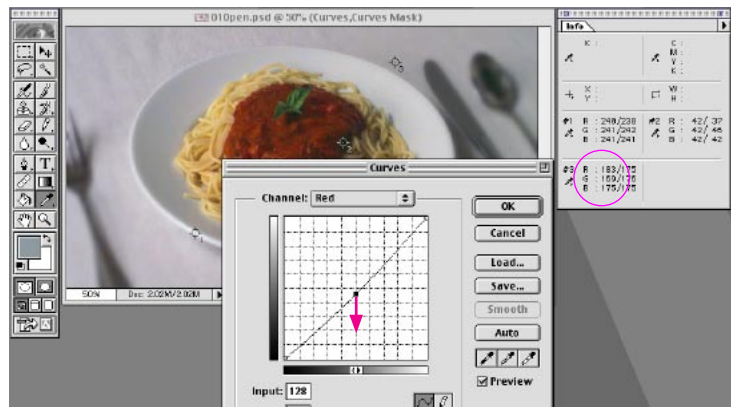
**Correct the other channel.** Select the remaining channel who's values don't match and move the black triangle to the right until it equals the other channels in the Info palette. When all three of the red, green and blue values are equal any color cast that was in the shadow area will be removed. Click OK.



**Neutralize the midtones.** Even with the shadow and highlights neutralized, a color cast still remains in the image's midtones. Add another Color Sampler in a midtone area of the image that should have a neutral value. In this example, the place mat.



**Adjusting the Curves.** Select Layer > New > Adjustment layer. For the adjustment type, select Curves and click OK. While watching the Info palette, select and modify each of the channels by raising or lowering their curve until they all match in value. In this case I lowered the Red channels curve and raised the Green channels curve to match the blue channels measured value. Click OK.



**Final Adjustments.** To add a stylized effect, I flattened the adjustment layers and selected Filter > Distort > Diffuse Glow to add some character to the otherwise boring image. For the finishing touch I selected the green herb and lightened it slightly using Curves.

