

How to correct color

Once you've opened an image in Photoshop, you may want to adjust color quality and light levels. This can improve an image's appearance and correct problems that arise during scanning or taking a photograph.

Note: Most of the tasks in this guide apply primarily to photographs.

Using automatic adjustments

Photoshop includes several commands to adjust image quality automatically. In many cases, these will be all you need. The latter part of this guide covers how to make such adjustments manually.

The Auto Color command adjusts the contrast and color of an image by searching the image to identify shadows, midtones, and highlights.

To use Auto Color:

1. Open the image you wish to correct.
2. Choose Image > Adjustments > Auto Color.

Photoshop applies Auto Color to the image.

Observe the changes in the photo. It should lighten in some areas and darken in others. Overall, the color's clarity (though not its sharpness) should improve.

3. Choose Image > Adjustments > Shadows/Highlights.
The Shadows/Highlights dialog box appears (**Figure 1**).
4. Make sure the Preview option is selected.
The Preview option lets you see changes in the image as you make them.
5. Drag the Shadows and Highlights sliders until you are satisfied with the image.
6. Click OK.

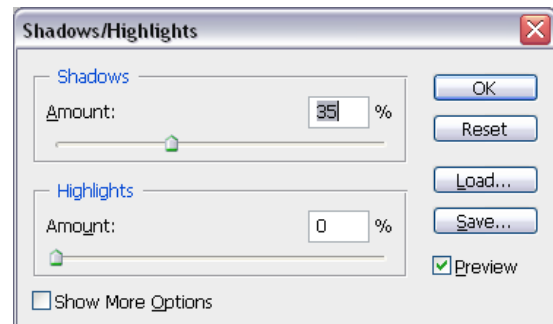


Figure 1 Shadow/Highlight dialog box

Adjusting levels with an Adjustment Layer

Every image has a range of tone, from the darkest pixels to the lightest pixels. Photographs tend to look better when their darkest pixels are close to black and their lightest pixels are close to white, giving the photograph a wide *tonal range*. You can use the Levels command in Photoshop to adjust the darkest and lightest pixels in your picture. You can also adjust the midtones: the gray or gamma tones of your picture that are in the middle of the brightness range.

In the Adjustment layer, you can make changes to tonal levels while preserving the original image. Nondestructive editing means you can experiment endlessly without worrying about losing or changing your original photo. By using adjustment layers to alter an image, your original remains intact. At any point, you can turn layers on or off to fine-tune your image.

To use the Levels command through the Adjustments panel:

1. Make sure nothing in the photo is selected. (You want to apply your changes to the entire image.)
2. In the Adjustments panel, click the Levels button **(Figure 2)**.

A variety of other options are available in this panel, along with some commonly used presets.

The Adjustment panel with Levels options appears.

3. Drag the left (black) triangle to the point where the darkest colors begin **(Figure 3)**.

Observe that the darker parts of the image become darker.

4. Drag the right (white) triangle to the point where the lightest colors begin **(Figure 3)**.

Observe that the lighter parts of the image become lighter.

5. Drag the middle (gray) triangle slightly to the left **(Figure 3)**.

Observe that the midtones lighten.

6. When the image looks right to you, minimize the Adjustments panel.

Note: The Adjustments panel with Levels options includes an Auto button. The Auto Levels button automatically adjusts the black point and white point in an image. This may give good results in certain images that need a simple increase in contrast; however, because Auto Levels adjusts each color channel individually, it may remove color or introduce color casts. Manually adjusting levels often yields more subtle adjustments to your images.

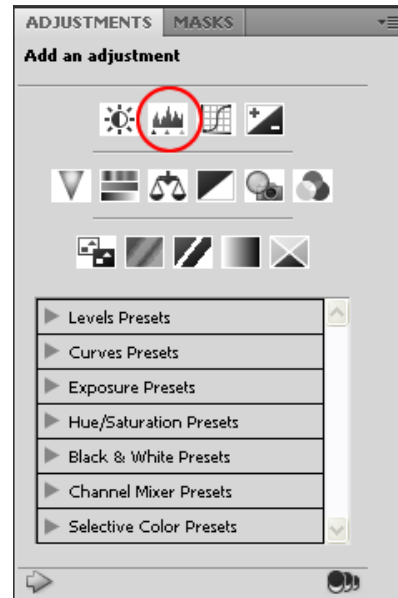


Figure 2: Adjustments Panel with Levels button

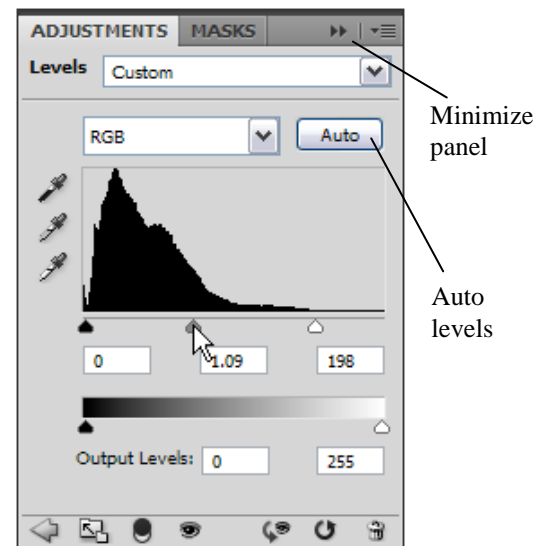


Figure 3: Adjustments panel with Levels options

7. Choose Windows > Layers.

The Layers panel appears. Notice that a new adjustment layer named Levels 1 has been created (Figure 4). The original image remains unaltered in the Background layer.

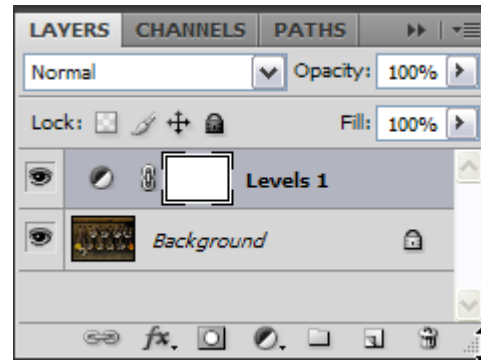


Figure 4 Layers panel with Levels adjustment layer

Adjusting lightness and darkness with the Dodge and Burn tools

The commands in the previous section change lightness and darkness in the image as a whole. Sometimes you might need to lighten or darken particular areas of an image. For example, you might want to lighten the shadows on someone’s face or brighten the colors in an area of the image without much light.

You can use the Dodge and Burn tools to change the lightness and darkness of particular areas of an image. Dodging and burning may seem like odd names, but like many other features in Photoshop, they are named after film-development processes. *Dodging* allows more light to show through the negative, making the area lighter, while *burning* allows less light to show, making the area darker.

Both tools are available in the toolbar above the Pen tool. The Dodge tool appears by default. To access the Burn tool, click the Dodge tool and hold down the mouse button (Figure 5).

To use the Dodge tool:

1. Click the Dodge tool in the toolbar (Figure 5).
The cursor changes to a brush. Usually, the brush appears as a circle.
2. You can change the size and shape of the brush in the Options bar (Figure 6).
Size the brush in proportion to the area you want to lighten.
3. Drag the brush across the photograph in the areas you want to lighten.

Note: Dodging and burning require some practice. You may want to keep the History panel open so you can undo your actions.

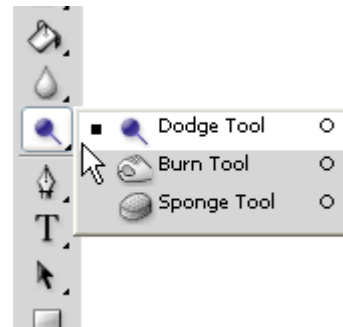


Figure 5 Dodge and Burn tools in the toolbar

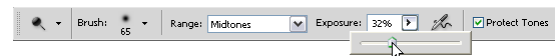


Figure 6 Brush options

To use the Burn tool:

1. Click the Dodge tool in the toolbar and hold down the mouse button to select the Burn tool (**Figure 5**).

The cursor changes to a brush. Usually, the brush appears as a circle.

2. You can change the size and shape of the brush in the Options bar (**Figure 6**).

Size the brush in proportion to the area you want to darken.

3. Drag the brush across the photograph in the areas you want to darken.

Note: Dodging and burning require some practice. You may want to keep the History panel open so you can undo your actions.

Applying the Unsharp Mask filter

After retouching a photo, many Photoshop professionals apply a filter called the Unsharp Mask filter. When you apply color corrections, you can sometimes produce subtle blurriness in the image. The Unsharp Mask filter makes the image appear sharper by adjusting the contrast of edge detail.

Note: The Unsharp Mask filter is just one of Photoshop's many powerful filters. Many of these apply an artistic look to images. You can experiment with these by selecting different options in the Filter menu.

1. Make sure nothing in the photo is selected. (You want to apply changes to the entire image.)

2. Choose Filter > Sharpen > Unsharp Mask.

The Unsharp Mask dialog box (**Figure 7**).

3. Make sure the Preview option is selected so you can see changes in the image as you make them.
4. Drag the Amount slider until your image is as sharp as you want it.
5. Drag the Radius slider to change its setting.

The Radius slider determines the number of pixels surrounding the *edge pixels* that affect sharpening. *Edge pixels* are pixels located where two different colors meet. The default setting is 1 pixel. Higher-resolution photos may benefit from a higher setting.

6. Set the Threshold setting to 0 pixels.

Threshold determines how different pixels need to be before they are considered edge pixels. A setting of 0 sharpens all pixels in the image. Generally, you will want to keep Threshold set between 0 and 20 to avoid introducing unwanted "noise" into the image.

7. When the image looks right to you, click OK to apply changes and close the Unsharp Mask dialog box.

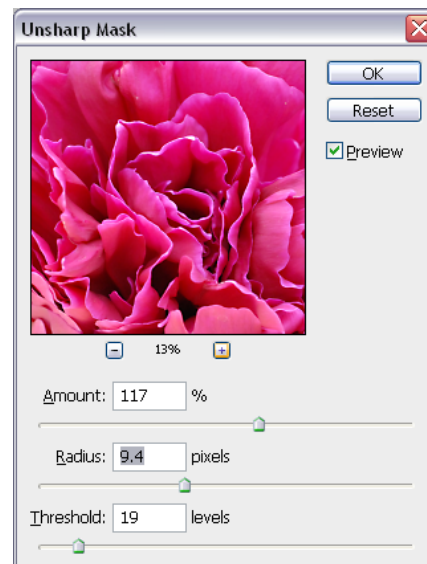


Figure 7 Unsharp Mask dialog box