

Grayscale Conversions

Converting to grayscale from a digital color image is more than just Image> Mode> Grayscale. Photoshop uses 30% Red, 59% Green, and 11% Blue in an RGB image when converting to grayscale. Unfortunately this doesn't work for every image or even very many images so at best it generally serves as a comparison for other methods.

Method 1

Make a duplicate of the original RGB image, Image> Duplicate. Convert to grayscale, Image> Mode > Grayscale. Save the image as Grayscale1.tif.

Method 2

Make another duplicate of the original image. In many cases, an individual channel makes a better grayscale. Of all the channels green tends to hold the tonal values of most images. Look at all three channels, is a channel better than the original grayscale channel? If so, chose it and covert to grayscale which will delete the other channels. Save the image as Grayscale2.tif

Method 3

Make another duplicate. This time, covert the grayscale image to Lab, Image > Mode > Lab. Select the Lightness channel. Is this a better choice than the any of the RGB channels? If so, convert to Grayscale. There is no point in looking at any of the other choices as the A and B channels hold color information and won't work for grayscale conversion. Save this image for reference as Grayscale3.tif.

Method 4

Make another duplicate. This time create an adjustment layer by clicking the Adjustment layer button at the bottom of the Layers palette. In the pop-up menu select Channel Mixer. As an adjustment layer doesn't affect the underlying image it is a good approach to image manipulation and editable until flattened. Click Monochrome. Adjust the values to achieve a good contrasty B&W image. (see example settings next page)

Method 5

Make another duplicate. This time create two Hue/Saturation layers. Don't make any adjustments to the Hue/Saturation dialog yet. Just create 2 and Click OK in the dialog. Select the top H/S and double-click the layer to open the dialog. Drag the Saturation slider to -100, all the way to the left. Click OK. Set the Layer mode to Color. Double-click the middle H/S layer to open the dialog. Adjust the Hue slider to a good grayscale image is achieved. Click OK and save the image.

In these examples we made duplicates to compare results. Each image is unique and that is why Photoshop's default method doesn't usually provide a quality conversion. With experience the process is faster.



Original RGB



Method 1

Standard

Image> Mode> Grayscale



Method 2

Image> Mode> Lab

Select Green (in this

example) channel in

the Channels palette

Image> Mode> Grayscale



Method 3

Image> Mode> Lab

Select L channel

Image> Mode> Grayscale



Method 4

Layers Palette

New Channel Mixer

Adjustment Layer

Adjust as necessary

More detail next page



Method 5

Grayscale con-

version from 2

Hue/Saturation

Adjustment Layers

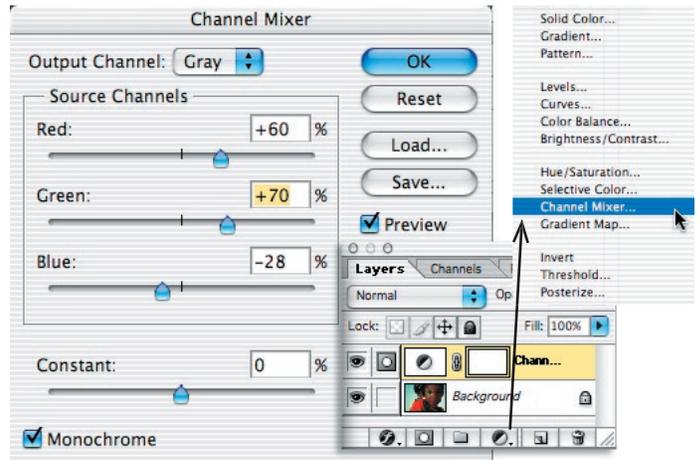
In the top

More detail next page

Method 4

*Layers Palette
New Channel Mixer
Adjustment Layer
Adjust as necessary*

Click the Adjustment layer icon at the bottom of the Layers palette. Choose Channel Mixer from the pop-up menu. Adjust the Red, Green and Blue sliders to achieve a good contrast grayscale image.



Method 5

*Grayscale conversion
from 2 Hue/Saturation
Adjustment Layers
In the top*

This method uses 2 Hue/Saturation Adjustment layers. Click the Adjustment Layer icon and choose Hue/Saturation from the pop-up menu. Click OK in the H/S dialog without making any changes. Click the Adjustment Layer icon and choose Hue/Saturation from the pop-up menu to make another H/S layer. In this dialog drag the Saturation to the left (-100) and click OK. Change the layer mode of this layer to color as shown at right.

Double-click the H/S layer beneath the top one. Drag the Hue slider to achieve a good contrast grayscale image. Click OK.

