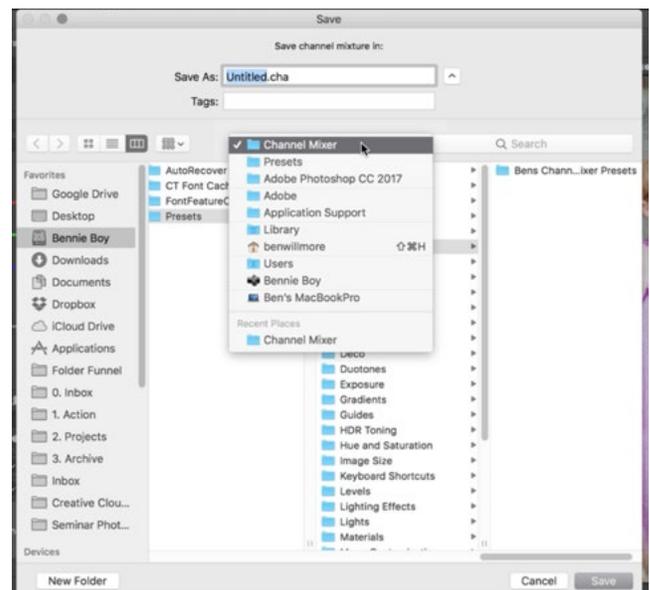video
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Channel Mixer Effects

Channel Mixer Effects

In this lesson, we're going to cover a special processing technique involving the Channel Mixer adjustment. Know that you don't absolutely need to know how to use the channel mixer in order to use the technique because we're going to be using presets to help us along. The presets you'll see me use in the video are included with the downloads on the lesson page. I'll eventually demonstrate how the presets were created so that you'll have a better understanding of how the Channel Mixer works.

Installing the Presets

First, open an image in Photoshop and then create a Channel Mixer adjustment layer by clicking on the Adjustment Layer icon at the bottom of the Layers panel (it looks like circle that's half black and half white) and choosing Channel Mixer. The Properties panel will open, show-ing the settings for the Channel Mixer. Click on the little menu icon in the top right corner of the Properties panel and choose "Save Channel Mixer Preset." The only reason we are initially choosing this option is because the Save dialog will appear, showing you the location of the Channel Mixer folder on your hard drive. You'll need to know the location of this

We are using the Save Preset dialog to take note of the location of the Channel Mixer folder on the hard drive.

folder so that you can place the provided presets inside of it. Note the location of this folder and then click Cancel. Now, navigate to that folder on your hard drive (if you're using a Mac, you'll do this within the Finder.) and place the downloaded, unzipped file inside. It's called "Ben's Channel Mixer Presets." Lastly, you will need to restart Photoshop in order for the presets to be available.
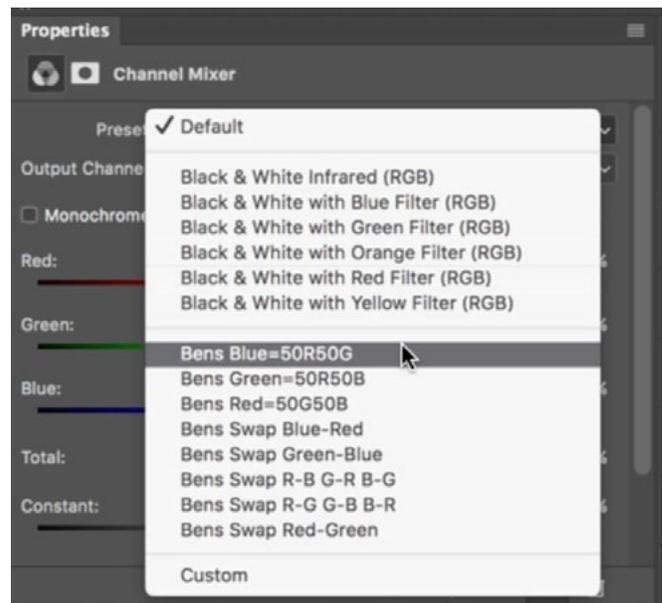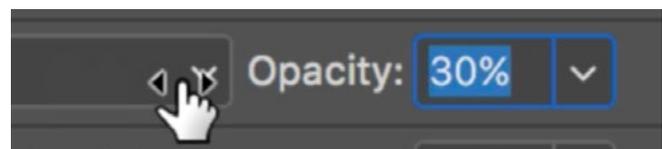
Using the Channel Mixer Presets

To use the Channel Mixer presets you just installed, open an image in Photoshop and create a new Channel Mixer adjustment layer by clicking on the Adjustment Layer icon at the bottom of the Layers panel and choosing Channel Mixer. The Properties panel will appear and above the Channel Mixer sliders, you will see a "Preset" dropdown menu. The first several items in this menu will be the presets that come with Photoshop and below those will be your User presets, including the ones you just installed. Click through the presets to see what kind of effects they will apply to your image.

The presets menu in the Channel Mixer Properties panel.

Lessen the effect strength You may find one that you like, but you'd prefer that it not be applied so strongly. If that's the case, you can lower the opacity of that Channel Mixer adjustment layer. To quickly change the opacity of a layer, click your mouse over the word "Opacity" at the top of the Layers panel and drag left and right with your mouse.

We are quickly adjusting the opacity of a layer by clicking and dragging over the word "Opacity" in the Layers panel.

Prevent the adjustment from affecting the brightness After choosing one of the presets, you may find that you like what it does to the color in the image, but you don't like what it does to the brightness. If that's the case, change the blending mode of the adjustment layer to Color. (The Blending Mode menu is located at the top of the Layers panel.) The Color blending mode will only allow this adjustment layer to affect the color of the image but not the brightness.

The blending sliders Some of the Channel Mixer presets may look great in the dark areas of the image, but bad in the bright areas (or vise versa). Here is how you can limit the adjustment so that it only applies to the bright or the dark areas in your image. First make sure the adjustment layer is active in the Layers Panel. Then click on the FX icon at the bottom of the Layers panel and choose Blending Options from the pop-up menu. The Layer Styles dialog will appear and you will see the blending sliders at the bottom of the dialog.

You use the sliders attached to the "This Layer" gradient. If you move the slider on the right (the white one), you will bring more and more of the light areas back to normal, removing the effect. If you move the slider on the left (the black one), you will bring more and more of the dark areas back to normal, removing the effect.
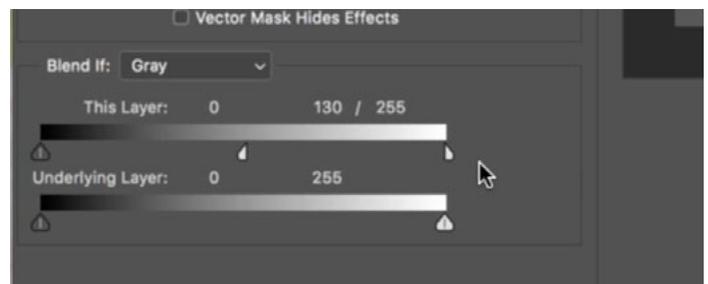

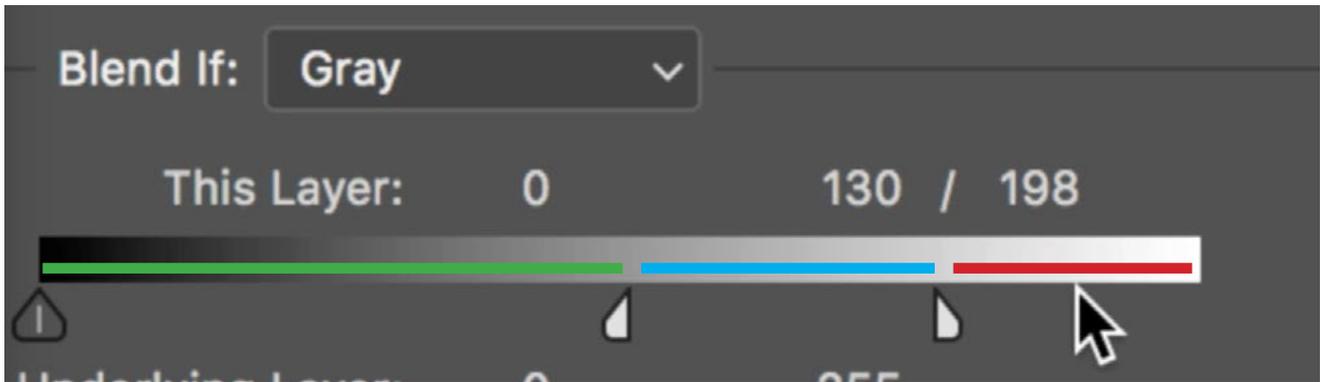The Blend If sliders within the Blending Options section of the Layer Styles dialog box.

The problem with moving the sliders like this is that you will end up with abrupt transitions. If you'd like a smooth transition (and this is usually optimal), you will need to split the triangular slider in half, moving the two halves away from one another, creating the transition in the brightness range represented by the two halves. To break the slider in half, hold down the Option key (Alt on Win) and drag one of the halves away from the other. Then you can move the two halves independently of one another.

The Blend If sliders created an abrupt transition.

By splitting the white slider in half, we were able to create a smooth transition between the areas where the effect is visible and the areas where the effect is not visible.

By using the white slider under the "This Layer" gradient, we are controlling how much of the bright areas will be affected by the adjustment. The adjustment will be completely hidden in the red range. It will be completely visible in the green range. The transition will occur in the blue range.

Left: The original image. Right: We applied an effect using one of the Channel Mixer presets and then we used the blending sliders to remove the effect in the bright areas of the picture (the areas where the girl is).

Using Layer Masks to limit the adjustment

After creating an effect using the Channel Mixer adjustment, there is another way to limit where that effect is visible, and that is by using the layer mask. Every time you create an adjustment layer, a layer mask is already attached to it, and the mask is automatically active by default. You can tell that

When you create an adjustment layer, it automatically has a layer mask. You can tell that the mask is active because it will be highlighted with square brackets.

it's active because there will be little square brackets surrounding the mask's thumbnail in the Layers panel. With the mask active, activate the Brush Tool and set the foreground color to black. Painting on a mask with black will hide the layer (in the areas where you paint), so use the brush to paint over all the areas where you don't want the effect to be applied.
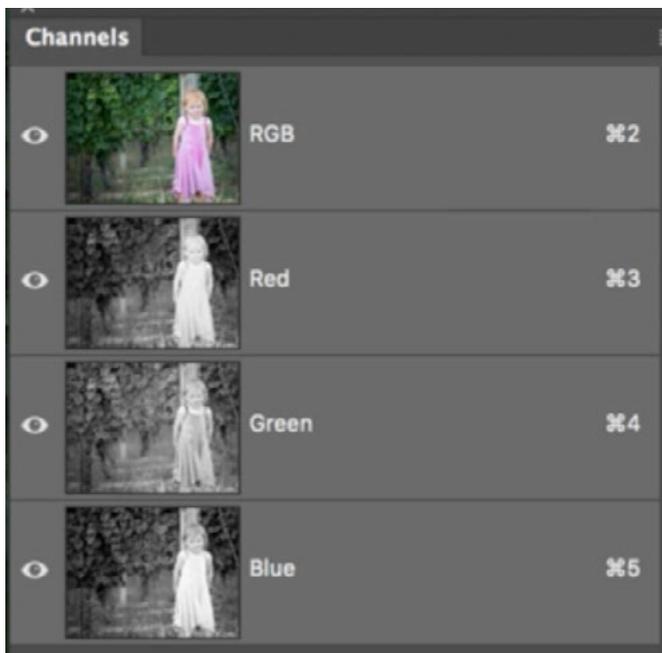

Here, we are painting on the mask with black in order to hide the effect in the area where the grapes are.

About the Channel Mixer

To understand what the Channel Mixer does, let's first look at the Channels panel (which is usually docked next to the Layers panel.) The Channels panel is showing you what your image is made of be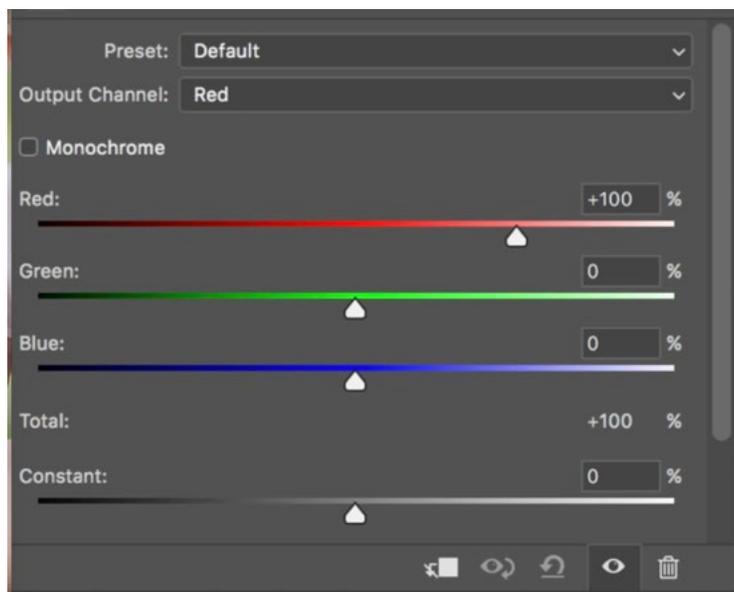hind the scenes. Photoshop is making the image out of red, green and blue light, so you will see the individual channels for red, green and blue. The Channel Mixer will help you switch the channels so that you copy from one channel and paste into another channel.

The Channels panel shows you what your image is made up of behind the scenes.

Create a Channel Mixer adjustment layer and look at the Properties panel. At the top, there is a menu called "Output Channel." This is where you specify which channel you would like to work on. The sliders below will be affecting whichever channel is chosen in that menu. If you select the Red channel, then the Red slider will start at 100%,

because that's what is original-ly in that channel. The Green and Blue sliders will be set to 0%. If you move the sliders around, you will be affecting only the red channel, because that's the one selected in the Output Channel menu. If you move the Green slider up, you'll be introducing more of the light from the green channel into the red channel and it will end up chang-ing the way the image is rendered. The important thing is that the three sliders create a total that is at or near 100%. This will ensure that the overall brightness of the image stays the same.

The Output Channel menu within the Channel Mixer properties panel determines what channel is being affected by the sliders below. Here, the Red channel is selected and you're seeing the original slider positions.

In this example, we can look at the Channels panel and see that the girl's dress is dark in the green channel and bright in the red channel. That means there's more red light making up the dress than there is green light. Let's say we want to make the dress less red. We can do that by copying what's in the green chan-nel and placing it in the red channel. To do that, we'll select the Red channel from the Output Channel menu in the Channel Mixer Properties panel. Then, we'll set the Red Slider to 0% because we don't want to use anything that was originally in the red channel. Now, we'll set the Green slider to 100%. This will introduce the same amount of light that's in the green channel into the red channel.

Left: In the original image, the red channel is very bright. Right: We used the Channel Mixer to copy the info from the green channel into the red channel.

This technique can be used in different ways to create the various Channel Mixer presets we used earlier in this lesson. It will also help you to understand what the different class presets are doing. For example, the preset titled "Bens Swap Blue-Red" will take the information that's in the red channel and place it in the blue channel, and it will take the information that's in the blue channel and place it in the red channel. The preset titled "Bens Blue=50R50G" will fill the blue channel with 50% from what's in the red channel and 50% from what's in the blue channel.