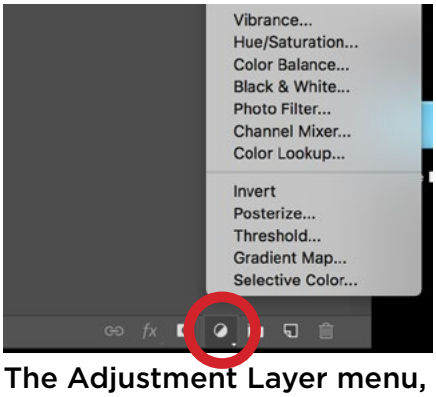
Adjustment Layers

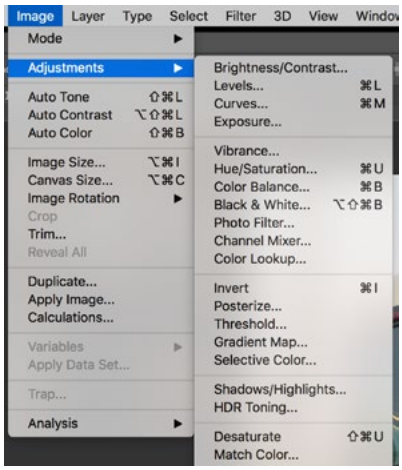
Adjustment Layers

In this lesson, we're going to cover adjustment layers. We'll start off with the basic concepts and then move on to more advanced ideas. Traditionally, there are two ways you can apply adjustments to your images. The first method is to apply a direct adjustment by going to the main menu, choosing Image > adjustments and then selecting the appropriate adjustment from the menu that appears. In general, I don't use this method. Instead, I tend to use the second method of applying adjustments, and that is by using adjustment layers.

You can apply an adjustment layer by clicking on the adjustment layer icon at the bottom of the Layers panel (it looks like a circle that's half white, half black) and choosing an adjustment from the menu that pops up. Alternatively, you can go to the Layer menu, choose New Adjustment Layer and then choose an adjustment from the menu. When you use this second method (via the Layer menu), a dialog box will appear that allows you to name the layer, choose a blending mode and specify an opacity setting.



The Adjustment Layer menu, located at the bottom of the Layers panel.



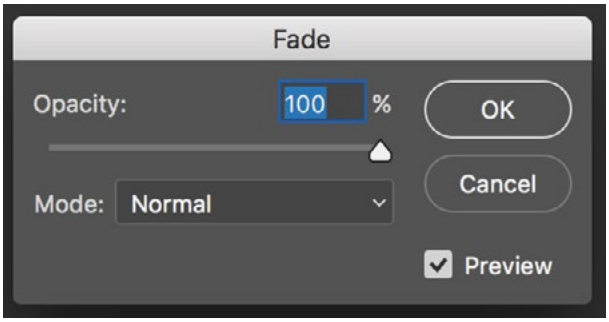
To make a direct adjustment, use the Image menu and choose Adjustments.

Direct adjustments

We mentioned earlier that you can make a direct adjustment by going to the Image menu, choosing Adjustments and then selecting an adjustment from the menu that appears. When you apply an adjustment this way, it's applied directly on the image layer and you can't go back and change it later. If you close the document and then re-open it, you will not be able to revert the image to its original state. The adjustment will have been "baked in." When you apply multiple adjustments in this method, you will not be able to go back and change the

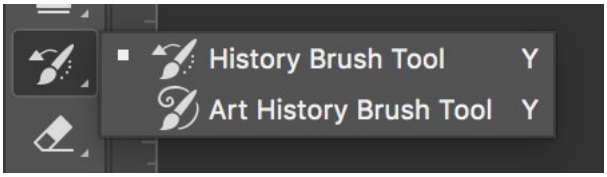
settings used on any of the individual adjustments. For example, let's say you applied a Black and White adjustment and then a Curves adjustment. If these were applied as direct adjustments, directly on the image layer, you will not be able to go back and change the settings for the Black and White adjustment, or for the Curves adjustment. The built-up effect will be permanent.

The Fade command When applying adjustments, you may not want the effect to be applied at full force. For example, when you apply a toning effect, it is often better to have the colors be applied more subtly. When you apply a direct adjustment, it's applied in full. However, there is a way to tone down the effect if you do the following immediately after applying the adjustment. Go to the Edit menu and choose Fade. When you use this command, it will take whatever you did last (it doesn't have to be an adjustment) and allow you to lessen the effect. A dialog will appear that contains an Opacity slider as well as a Blending Mode menu. Use these settings to lessen the effect of the adjustment you just made and then click OK. Remember that you need to use the Fade command immediately after making the adjustment you want to tone down because the command ONLY looks at the last thing you did to your document.



The Fade command will allow you to tone down the effect created by the last step you took in Photoshop.

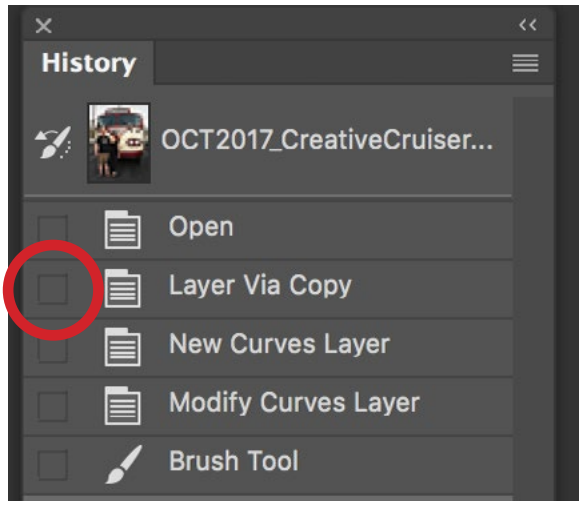
The History Brush The History Brush is another tool to be aware of if you use direct adjustments. It can be found in the Tool Bar on the left side of the interface. The History Brush will allow you to get your image back to what it looked like in a previous state as long as you have not closed the document.



The History Brush can be found in the Tool Bar on the left side of the interface.

You will need to use the History Brush in conjunction with the History panel. If it's not visible on your screen, you can access it by going to the Window menu

and choosing History. The History panel will present you with a list of everything you've done to your document. To the left of each list item is a little gray box. If you click on the gray box, the icon for the History Brush will appear there. This indicates that, when you paint with the History Brush, you will be painting in what your image looked like at that step. Note that when you use the History Brush, you have access to all the settings you would normally have when using a brush tool (Opacity, Flow, etc.). These will be found in the Options Bar at the top of the interface.



The History panel shows all the steps you've taken in the document. Specify the History Brush step by clicking the square to the left of the step name.

Adjustments not available as adjustment layers In the Image menu, there are a set of adjustments that are not available as adjustment layers. Therefore, you will need to apply them as direct adjustments. These include Shadow/Highlight, Match Color, HDR Toning, Replace Color and Equalize. Let's look at these one at a time.

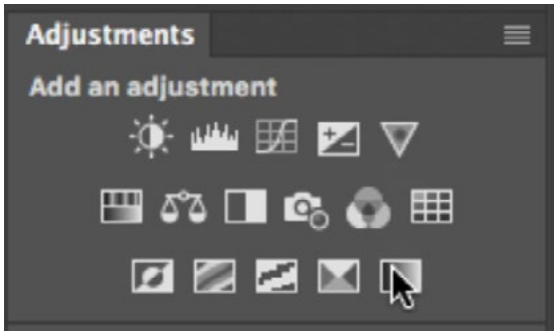
- **The Shadow/Highlight adjustment** This adjustment is useful when you need to get a good amount of detail out of the dark portion of the picture (and you've already tried other methods such as Curves).
- **The Match Color adjustment** This will allow you to match the colors of one image to the colors of another image.
- **HDR Toning** This is mainly useful for applying toning to actual 32-bit HDR images.
- **Replace Color** This adjustment will allow you to take one or more colors in your image and replace it with another color. I generally don't use this adjustment because the same thing can be achieved by using a combination of two Photoshop features that provide more versatility. It combines the Color Range feature (found under the Select menu), which will target a particular color

range in the image, and the HSL adjustment layer, which allows you to change the color range selected.

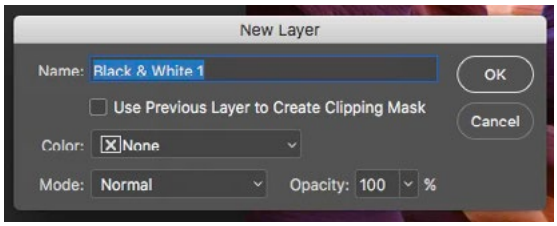
- **The Equalize adjustment** This will essentially equalize the brightness of an image.

Adjustment Layers

There are three ways to create an adjustment layer. First, you can use the Adjustments panel, which contains icons for all of the available adjustment layers. If the Adjustments panel is not visible on your screen, you can access it by going to the Window menu and choosing Adjustments. The main downside to this method is that you need to know which adjustment is represented by each of the icons. The second method of creating an adjustment layer is to go to the Layer menu, choose New Adjustment Layer and then click on the adjustment you'd like to apply. With this method, a dialog will pop up, giving you the chance to name the adjustment layer and specify the layer's opacity and blending mode. The method for creating an adjustment layer that I use the most is clicking on the Adjustment Layer icon at the bottom of the Layers panel and choosing an adjustment from the menu that pops up.



The Adjustments panel provides one method of creating an adjustment layer.



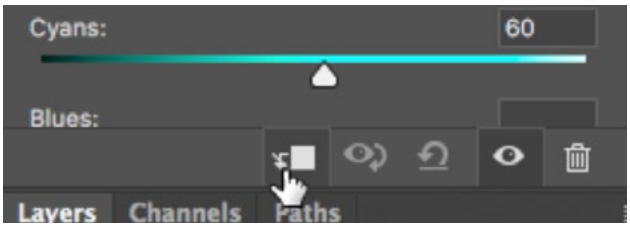
When you create an adjustment layer via the Layer menu, this dialog will appear, allowing you to name the layer, specify a blending mode and set the opacity.

How to think about adjustment layers Imagine that you're standing at the top of the Layers panel and you're looking down. If you have one or more adjustment layers in the layer stack, those adjustment layers will affect all the layers that fall beneath them. When you add an adjustment layer, it will be placed directly above

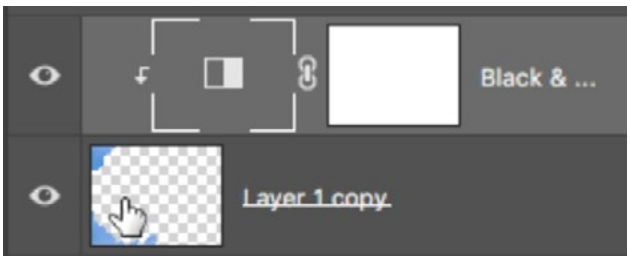
the active layer. When creating an adjustment layer in a document that already contains one or more adjustment layers, be sure to put the new adjustment layer above the others in your Layers panel. This will allow you to work with the adjustment settings without the adjustment being affected by one or more of the other adjustment layers in the image.

The benefits of adjustment layers

You can specify which layers the adjustment layer affects As we covered earlier, an adjustment layer will affect all of the layers underneath it (by default). After creating the adjustment, you can always drag the layer up and down in the Layers panel to determine which layers the adjustment affects. If you'd like the adjustment layer to affect only the layer directly beneath it, you can "clip" the adjustment layer to that underlying layer. To do this, look at the icons at the bottom of the Properties panel for the adjustment layer. (If the Properties panel is not currently open, double-click on the adjustment layer icon in the Layers panel.) The icon on the left will determine whether the adjustment layer affects all underlying layers or if it is "clipped" to affect only the layer beneath it. By default, the adjustment layer will affect all underlying layers. Click this icon and the adjustment will only affect the layer that lies directly beneath it. In the Layers panel, the adjustment layer will become indented and a down-pointing arrow will appear to the left of the adjustment icon, indicating that the adjustment applies only to the layer beneath it. To unclip, the layer, allowing the adjustment to affect all underlying layers again, click on that same icon at the bottom of the Properties panel.



Click this icon to "clip" the adjustment layer so it only affects the layer directly beneath it.

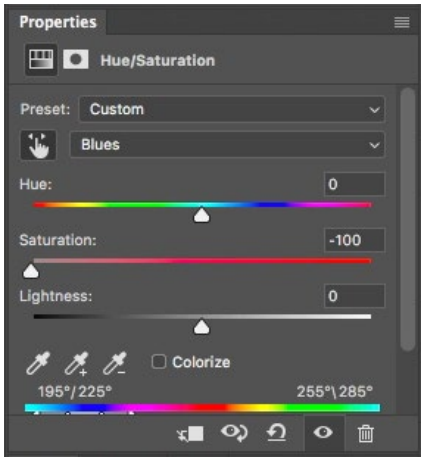


When you clip one layer to another, the clipped layer will become indented with a down-pointing arrow to the left of its icon in the Layers panel.

Change the settings of an adjustment layer at any time You can change the settings for an adjustment layer at any time. When you double-click on the icon for the adjustment layer, the Properties panel will appear and it will display the current settings. You can change these as many times as you'd like, even if you close and reopen the document. (Note that you must save the document in a format that supports layers.)

Change the settings for an adjustment layer by double-clicking on the adjustment icon in the Layers panel.

Copy an adjustment layer to another document After creating an effect using an adjustment layer, you can apply that same effect to another image simply by dragging the adjustment layer to the other document. To do this, the adjustment layer will need to be active within the Layers panel. Then, activate the Move Tool, click anywhere within your document and drag your cursor up to the Photoshop tab that contains the image you want to copy the effect to. When the target document comes to the forefront, drag your mouse into the document and release the mouse button. The effect will then be placed on your image and the adjustment layer will be visible in the Layers panel. Note that you can also do this with two or more adjustment layers at a time. You'll just need to make sure that they're all selected in the Layers panel before you drag them to another document.



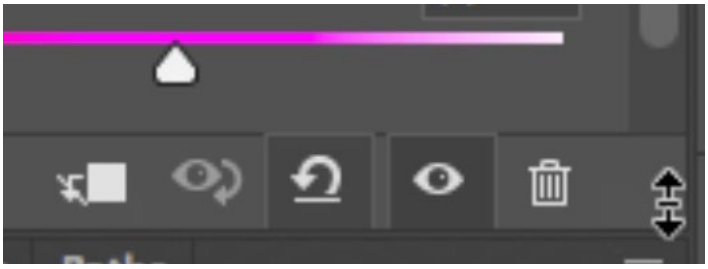
The Properties panel.

The Properties panel

The Properties panel will present the settings for the active adjustment, so these settings will be different for each type of adjustment layer. At the bottom of the panel, there are a series of icons and these are the same regardless of which adjustment you're using. Let's look at what they do.

The trash icon: Clicking this will delete the adjustment layer.

The eyeball icon: This toggles the visibility of the adjustment layer. When you click this, the eyeball to the left of the adjustment layer in the Layers panel will also turn off. Click on it again to make the adjustment visible again.



The Properties panel icons.

Reset icon: When you click the icon that looks like an arrow making a U-turn, the controls for the adjustment layer will be restored to the settings used before editing the adjustment. If you created the adjustment layer and then changed the settings for the first time, the Reset button will restore the controls to their default settings. If you clicked away from the adjustment layer, returned to it later and made changes, it will restore the controls to the settings that were last used.

Previous state icon: The icon that looks like an eyeball with an arrow curved around it will show you a preview of what your image would look like if you click the Reset icon. You can also press and hold the Backslash key (\ ) to get this same preview.

Clip icon: This is the icon on the far left and we already mentioned it earlier in the lesson. Clicking this icon will make the adjustment only apply to the layer that's directly below it. If the layer that is directly below it is also an adjustment layer, it will take the mask that is attached to that underlying adjustment layer and act as if it applies to the adjustment layer you're working on. You can also clip a layer to the one beneath it by going to the Layer menu and choosing Create Clipping Mask.

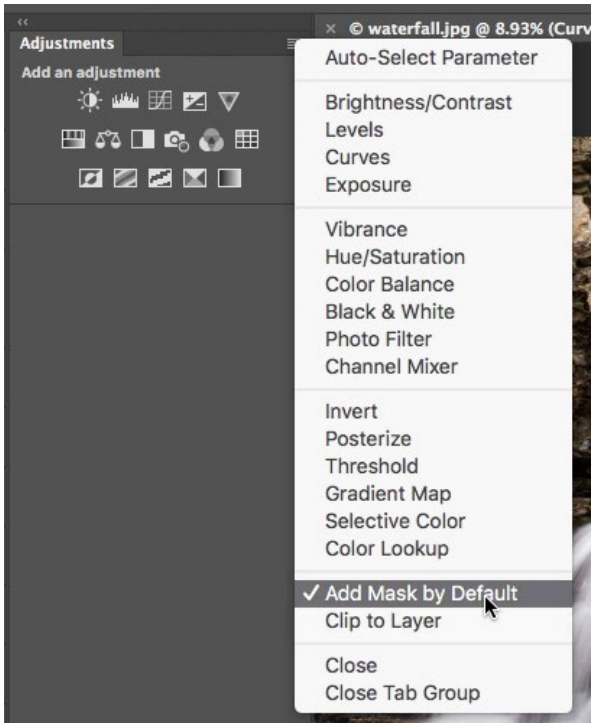
Features that make adjustment layers much more useful

Layer Masks When you create an adjustment layer, by default, it will automatically have a layer mask attached to it. A layer mask will limit where the adjustment applies. The white areas of the mask will allow

When you create an adjustment layer, it will automatically have a mask attached to it.

the adjustment to affect the image. If you add black (with the Brush Tool or any other tool), it will hide the adjustment in the areas where the mask is black.

If you ever create an adjustment layer and find that it does not have a mask attached by default, then one of your Photoshop settings may have been changed accidentally (or on purpose by a devious friend!). Open the Adjustments panel. You can find it by going to the Window menu and choosing Adjustments. Click on the menu in the top right corner of the panel and a menu will drop down. One of the options in this menu is "Add Mask by Default." If there is no check mark next to it, that means the setting is turned off. Click on it to turn it back on.



If the setting to automatically add a layer mask ever gets turned off, you can turn it on via the menu in the top right corner of the Adjustments panel.

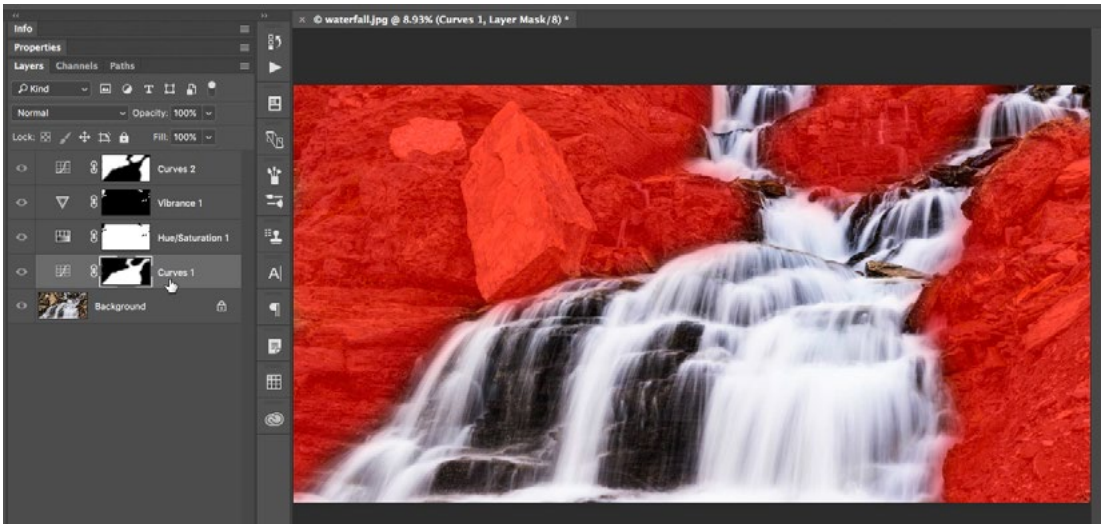
It is common to use an adjustment layer designed to affect only a small portion of your image. In the video example, the small area of greenery in the waterfall picture was too colorful. We created a Vibrance adjustment layer to tone down the color a bit, but without using the layer mask, the adjustment affected the entire image. We just wanted the adjustment to affect the small area of greenery. By default, the layer mask is white, which means the adjustment affects the entire image. In a case like this, it would be easier to start with a black mask so that we would only have to paint with white in the small areas where the adjustment should apply. You can easily switch a mask from white to black. First, make sure that the mask is active in the Layers panel (it should have little brackets around it). Then, go to the main menu and choose Image > Adjustments > Invert. This will reverse the mask so that whatever used to be white will become black, and vise versa.

Copying a mask If you ever want two adjustment layers to have the same layer mask, you may want to copy a layer mask from one adjustment layer to another. To do this, hold down the Option key (Alt on Win) and drag the layer mask from one layer to another. Note that if you do not hold down the Option key, the mask will be moved instead of copied. This means that it will no longer be applied to the layer it was originally attached to.

You can also copy the inverse of a mask from one layer to another by adding the Shift key to the mix. So you would hold down Shift+Option (Shift+Alt on Win) and then drag the mask from one layer to another.

We copied an inverse of the mask by holding Shift+ Option while dragging one layer mask to the other.

Preview a layer mask After you're done painting on a mask, you may want to check your work to make sure that the painting job was done cleanly. (It can be hard to tell when you're painting in a subtle effect rather than a blatant color.) After working on a layer mask, hit the backslash key on your keyboard (\ ). This will create a red overlay on your picture in the areas where the mask is black and it will help you to see where you've painted. You can continue to work on the mask in this view so that you can better see what you're painting.

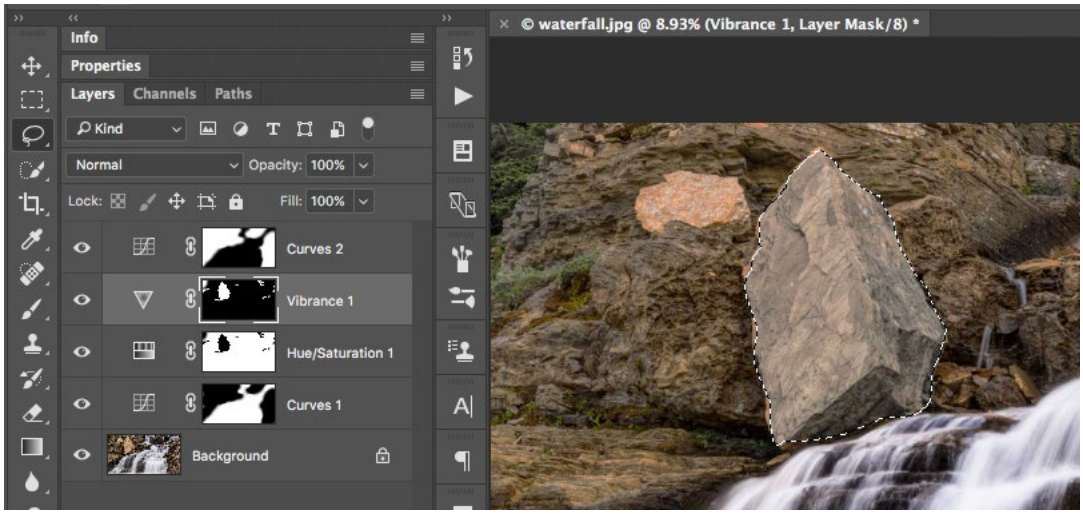


With the layer mask active, we hit the Backslash key (\ ) to get this view of the image, where all black areas of the mask are represented by a red overlay.

Shortcuts to use when painting on a mask When working on layer masks, you are generally painting with black and white, and these should likely be the foreground and background colors viewable at the bottom of the Tool Bar. If you hit the D key, these swatches will be set to their default settings, which is black for the foreground and white for the background. The X key will exchange the foreground and background colors. Alternatively, you can click the little right angle arrows above the swatches in the Tool Bar. If you don't want to paint in full strength, you can change the opacity of your brush by using the Opacity slider located in the Options Bar at the top of the image window. Alternatively, you can use the number keys on your keyboard. (5 for 50%, 2 for 20%, etc.) Type 0 (zero) to bring the opacity back to 100.

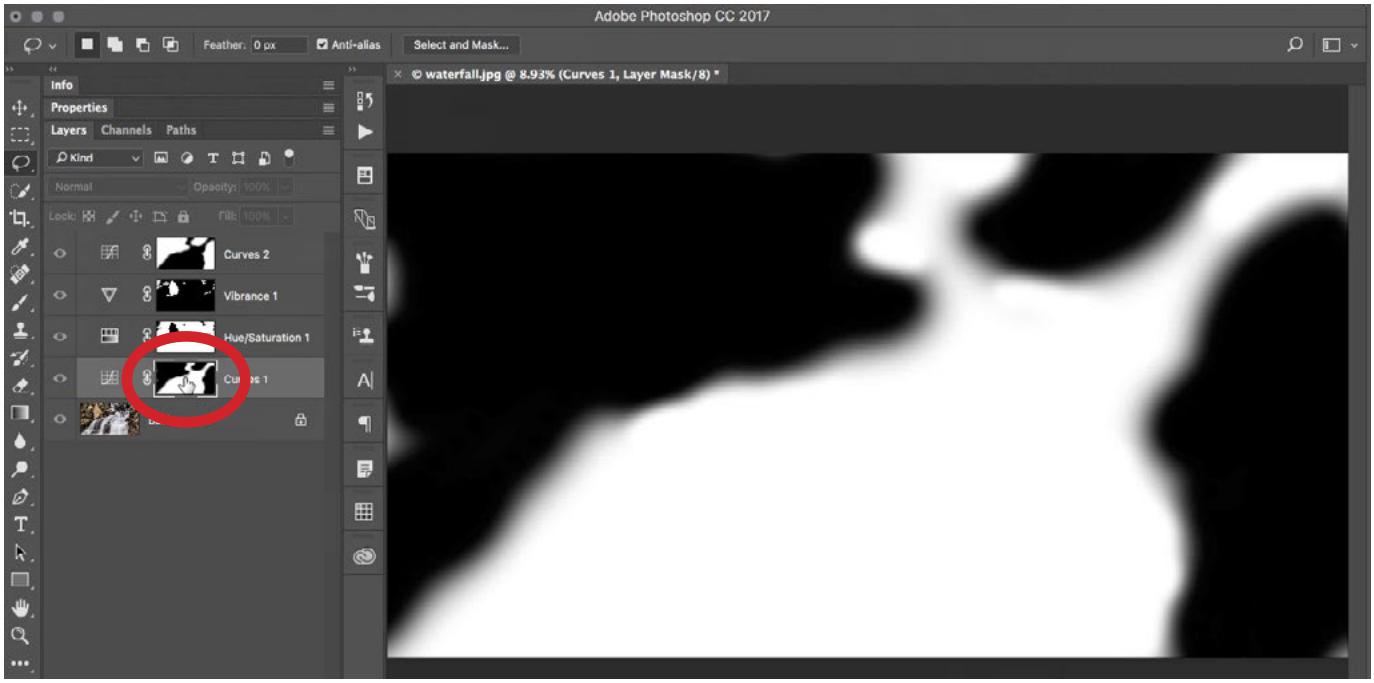
The foreground and background swatches at the bottom of the Tool Bar.

Selections & layer masks When working with a layer mask, you may not want to use the Brush Tool. Know that you can also add black or white to a layer mask by making a selection in the document and then filling that selection with black or white. First create a selection around the area you want to affect. Then, you can fill that selection with your foreground color by using the keyboard shortcut Option+Delete (Alt+Backspace on Win). To fill the selection with your background color, use the keyboard shortcut Command+Delete (Ctrl+Backspace on Win).



Here, we made a selection around the area we wanted the adjustment layer to apply to. With the layer mask active, we hit Command+Delete to fill the selection with the background color (white).

View a layer mask directly We already talked about how you can view a layer mask as a colored overlay on your image. You can also view the mask directly, right in your image window. To get this view, hold down the Option key (Alt on Win) and click on the mask icon in the Layers panel. Your image window will become filled with the black and white contents of your layer mask. This will better allow you to see any gaps or inconsistencies in the mask. You can also paint with black or white directly within the image window to modify the mask. To get out of the mask view, Option+Click on the mask thumbnail once again (Alt+Click on Win).

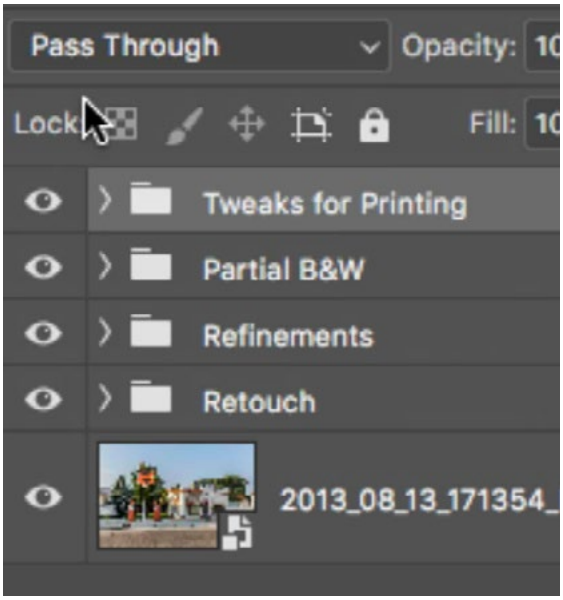


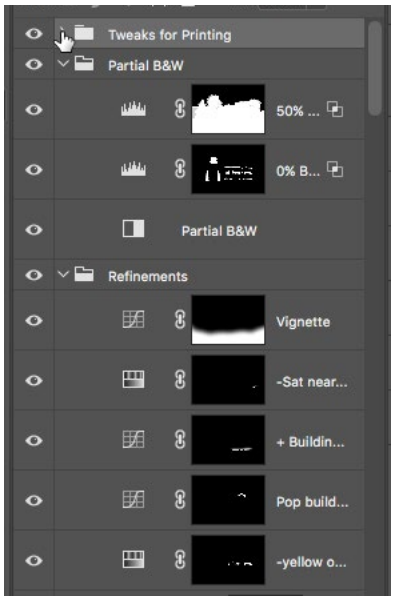
We held down the Option key and then clicked on the layer mask (circled above) to view the mask directly in the image window.

Removing a layer mask If you ever want to completely delete a layer mask, simply drag it to the trash can icon at the bottom of the Layers panel.

Adjustment layers with groups In order to clean up your Layers panel, you can place layers into groups, or folders of layers. Select all of the layers you would like to place in a group and then click the little folder icon at the bottom of the Layers panel. All of the selected layers will become indented under a folder icon in the Layers panel. Note if you'd like to place a single layer into a group, you will have to hold the Shift key as you click the folder icon. If you hold down the Option key (Alt on Win) while clicking on the folder icon, you'll be prompted to give the group a name.

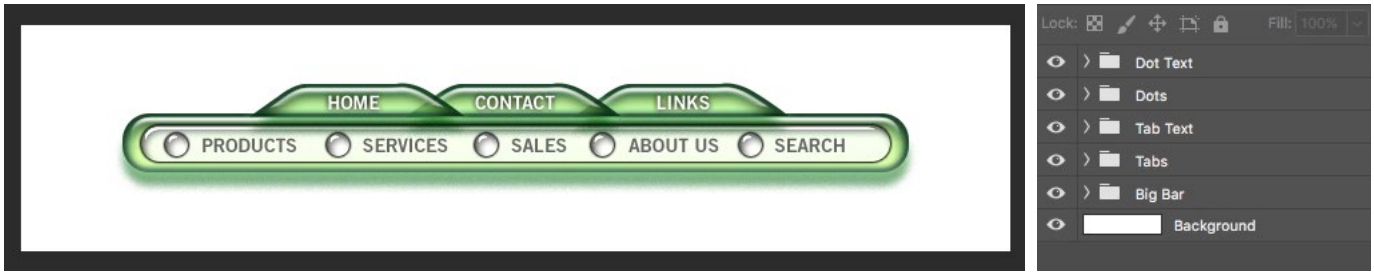
Groups can become extremely useful when you have more complex documents that contain many layers. They allow you to organize your layers so that it's easier to understand what's going on in the Layers panel, especially after you've closed the document and are returning to it later. In the video example, you can see that I placed all of the adjustment layers used to refine the image into a group titled Refinements. Within this group, there are many adjustment layers where the layer masks have been painted on so the adjustment only affects a small area in the image. There are other layer groups, titled Retouch (contains all the retouching layers), Partial B&W (contains the adjustment layers used to create the partial black and white effect) and Tweaks for Printing (contains the adjustment layers used to fine-tune the image for printing).





The Layers panel view on the left and right show how groups were used to organize the document. The view on the left shows the folders condensed and the view on the right shows the folders expanded. (There are also dozens more layers outside of the screen shot view.)

In the next example image, we have a web graphic that contains tabs and menu items. Each individual item in the graphic is on its own layer, so we organized the document so that all of the clickable dots are stored in one folder. All of the tabs are placed in another folder. All of the text is placed in yet another folder, etc. This makes it much easier to work with the document, because we know where everything is and we know what each layer is doing.

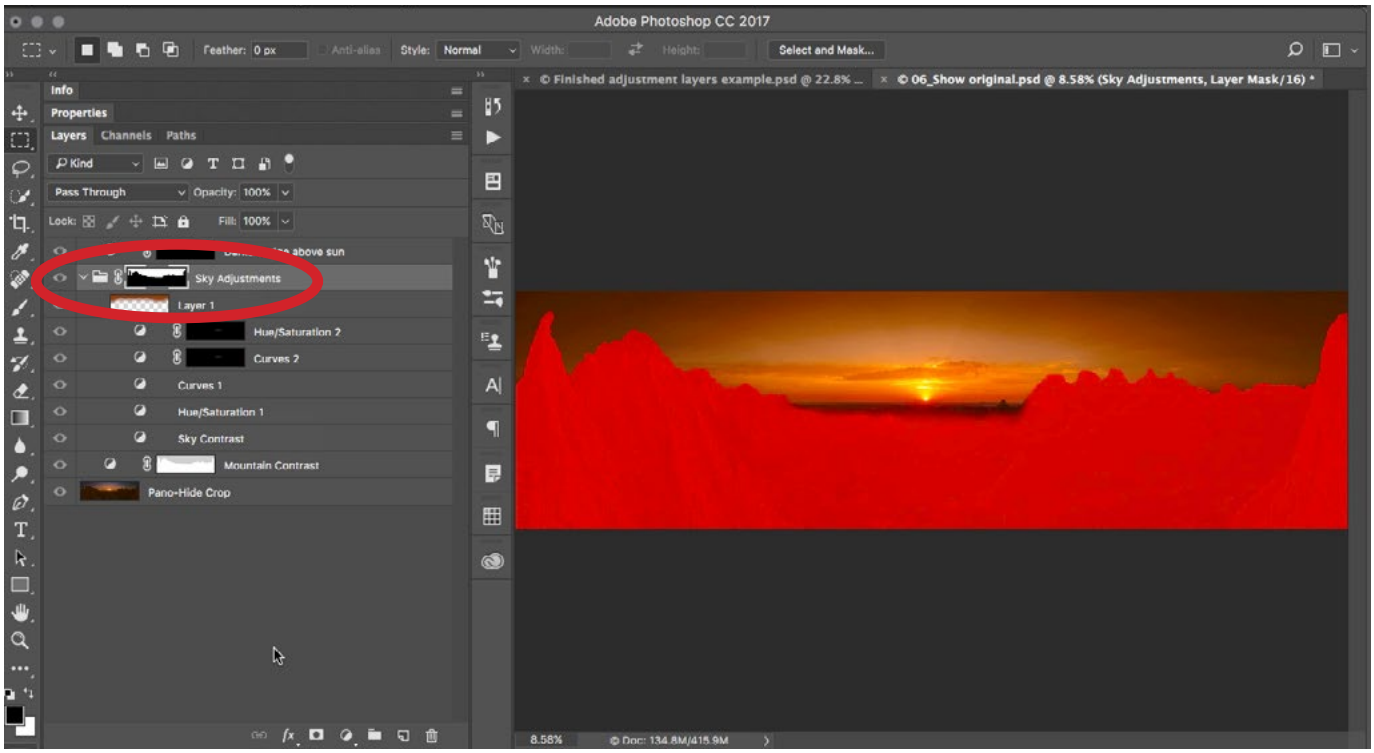


The Layers panel view on the right shows how this document was organized in to folders (or groups) based on content.

Pass Through When you create a group, the blending mode for that group will be set, by default, to Pass Through. This means that any adjustment layer or any blending mode that is applied to the layers in the group will affect the layers inside the group as well as the layers beneath the group in the Layers panel. If you would like any effects to apply only to the layers inside the group, change the blending mode menu to the Normal setting. Note that the group itself will need to be active in the Layers panel in order to change the setting from Pass Through to Normal.

Using groups to selectively adjust certain areas Another benefit to layer groups is that they allow you to use a series of adjustment layers to modify a selected area in your document. For example, in the sunset image (shown on next page), we needed to use multiple adjustment layers in order to achieve the desired effect on the sky. We didn't want these layers to affect any areas other than the sky. Instead of painting on each and every layer mask, we placed all of the sky layers in a group and then added a layer mask to the group. When we painted on the

group's layer mask, it was applied to all of those sky layers. The blending mode of the group needed to be set to Pass Through in order for the adjustments to be applied to the image layer (which is at the bottom of the Layers panel).

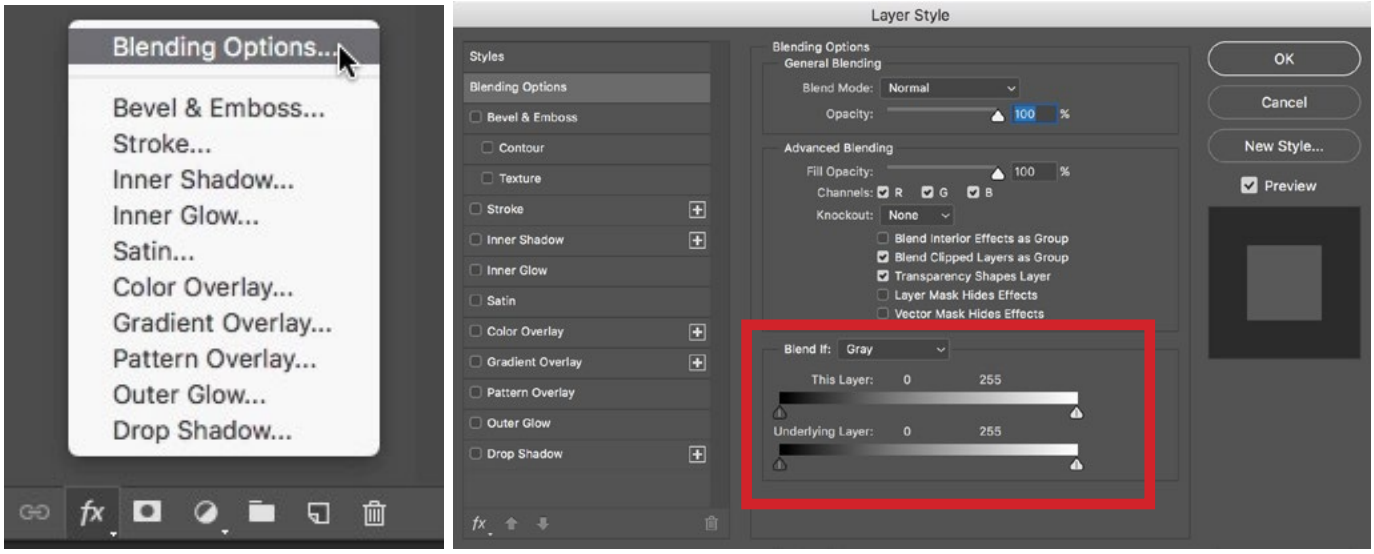


All of the adjustment layers used to adjust the sky area were placed inside a group. A mask was then added to the group (circled above) and we painted on the mask in order to affect all of the adjustment layers within the group. In the view above, we're viewing the mask with the red overlay so that you can see it more clearly.

The Blending Sliders Another great feature that works well with Photoshop's adjustment layers are the blending sliders. These are found within the Blending Options portion of the Layer Styles dialog. The blending sliders will limit where an adjustment applies based on brightness. This means that we can prevent an adjustment from affecting the brightest area or the darkest area of a picture.

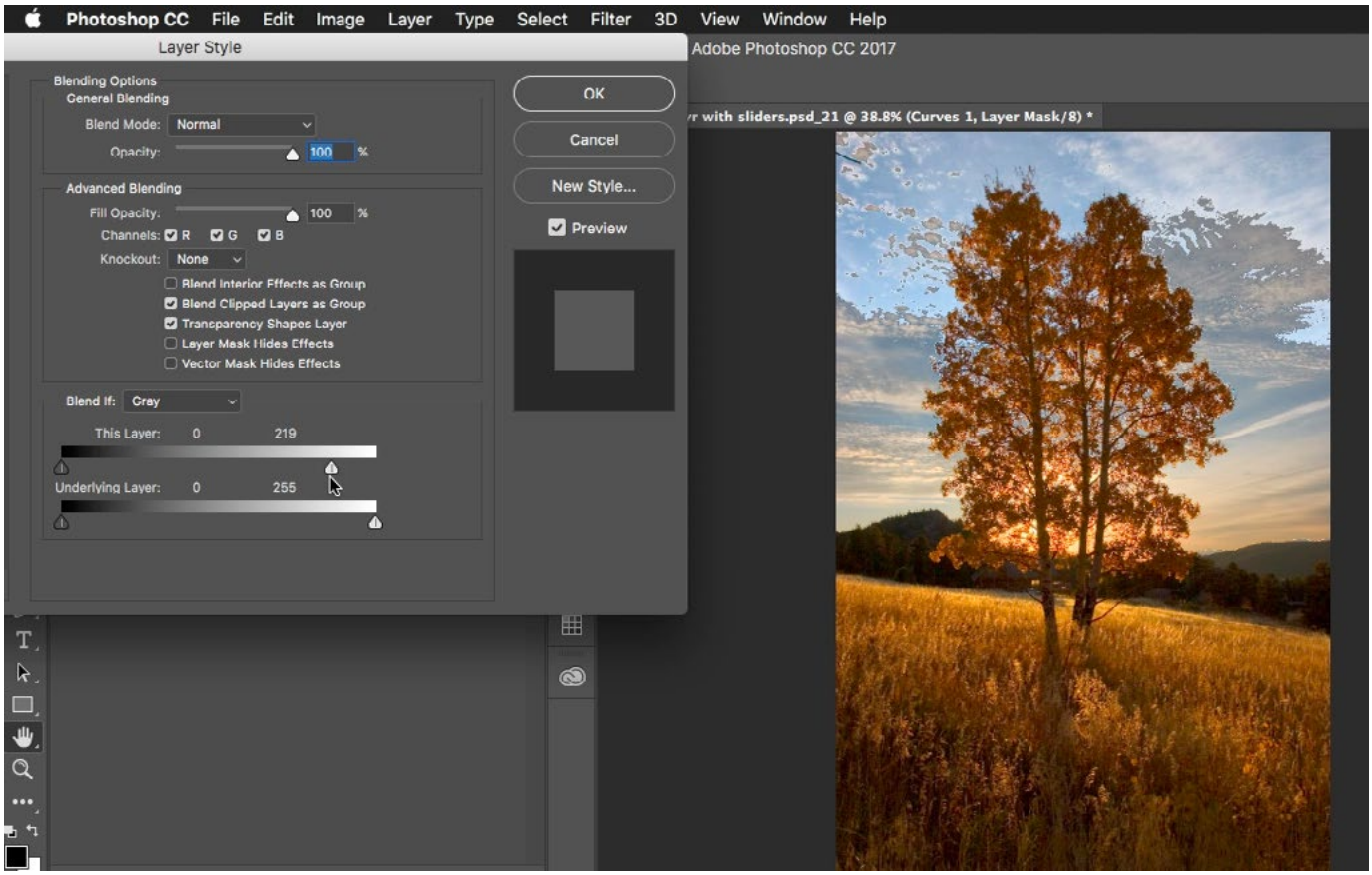
To use the blending sliders with an adjustment layer, first make sure that the adjustment layer is active in the Layers panel. Then, go to the bottom of the panel, click on the Layer Effects icon (FX) and choose Blending Options from the menu

that appears. The Blending Options settings will appear in the Layer Styles dialog, and the blending sliders can be found at the bottom of this dialog. There are two blending sliders, titled “This Layer” and “Underlying Layer.” The “This Layer” slider refers to what the image will look like with the adjustment applied. The “Underlying Layer” slider refers to what the image looks like without the adjustment being applied.



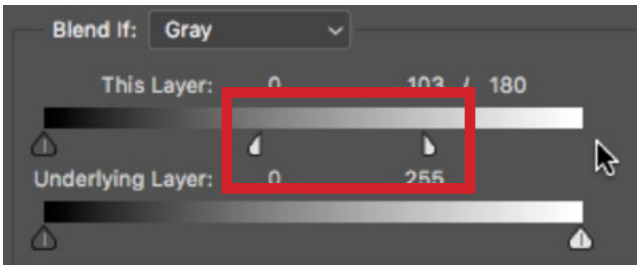
Left: The FX (Layer Styles) menu at the bottom of the Layers panel. Right: The blending sliders can be found at the bottom of the Blending Options section of the Layer Style dialog.

In the example image, we used a Curves adjustment layer to brighten the image. I liked the brightening effect in the foreground and in parts of the tree, but I did not like the brightening effect in the sky. I want to use the blending sliders to hide the effect in the brightest areas of the image (the sky). To do this, I’ll take the white handle on the right side of the “This Layer” slider and drag it to the left. This will start to hide the adjustment in the brightest areas of the image. The more I drag it to the left, the wider the brightness range that will be affected. The problem is that when I do this, the transition is quite abrupt (see screen shot on next page). We need a smoother transition in order for it to look visually pleasing. To create a smooth transition, I’ll hold down the Option key (Alt on Win) and drag the left



When the blending slider handle is not split in half, the transition from where the layer is hidden to where it's visible becomes very abrupt, as you can see in the sky part of this image.

side of the little triangular slider away from the right, splitting it into two halves. You can only split one of these sliders in half when you have the Option key held down. When you move the two halves away from each other, you create a more gradual transition between the brightness range being affected by the adjustment and the brightness range not being affected by the adjustment. The farther apart the two halves are, the smoother the transition will be. The area to the right of the slider on the right represents the brightness range where the adjustment is completely hidden. The area to the left of the white slider on the left represents the brightness range where the adjustment is



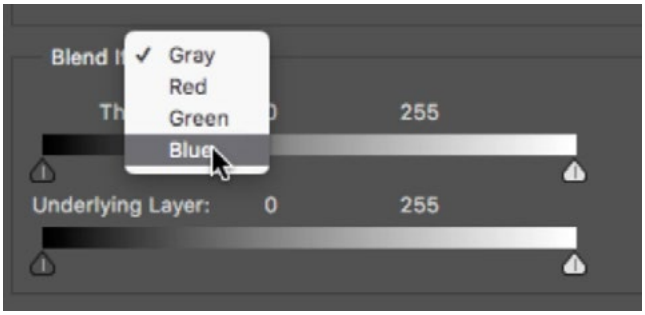
When you split the blending slider in half, you create a smoother transition.

completely visible. The area in between represents the transition area. The black slider on the left side works in the same way as the white slider works, except it controls the darkest areas of the image.

If we were to use the Underlying Layer slider, the slider handles would control where the underlying layer breaks through the adjustment on top of it. Moving the white handles to the left would cause the brightest areas of the underlying layer to break through the adjustment. Moving the black handles to the right would cause the darkest areas of the underlying layer to break through the adjustment.

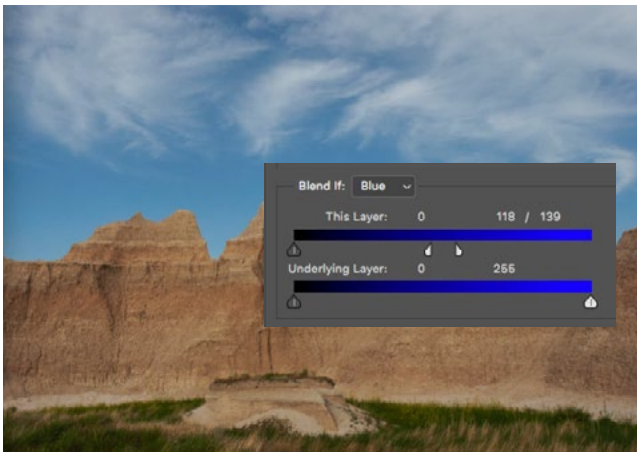
In this image, I wanted to warm up the shadows, so I created Curves Adjustment Layer to warm up the entire image (shown left). Then, I went to the Blending Options section of the Layer Styles dialog and used the white handle under the This Layer slider, breaking it apart and moving the two halves to the left. This removed the warming effect from the lighter areas of the image so that the adjustment layer only warmed the tones in the darkest areas of the image.

The Blending sliders & color When looking at the blending sliders in the Layer Styles dialog, you'll notice that there is a Blend If menu above the sliders. By default, this menu is set to Gray, which means that the sliders will not think about color when you move them. The other options in this menu are Red, Green and Blue, and these refer to the channels that make up the image. When would you use one of these channels options instead of the default gray option? You would use them when the area that you're trying to isolate within your image contrasts greatly in color with the rest of the image. With your image open and active, open the Channels panel. (If it's not open already, you can access it by going to the Window menu and choosing Channels.) Click through the different channels and notice if the area you want to target stands out greatly in one of the channels. In our image, the Blue channels causes the sky to be very light and the rocky landscape structures to be very dark. Knowing this, we will set the Blend If menu above the blending sliders to Blue. The adjustment layer we're working on is a Curves adjustment and it was used to add contrast. We did not want the contrast to be applied to the sky, so we want to use the blending



The Blend If menu above the blending sliders allows you to target a specific channel within your image.

Looking at the Channels panel, we can see the most separation between the sky and rocks in the Blue channel.



We used the Blue channel blending slider to remove the brightening effect on the sky, created by the active adjustment layer.

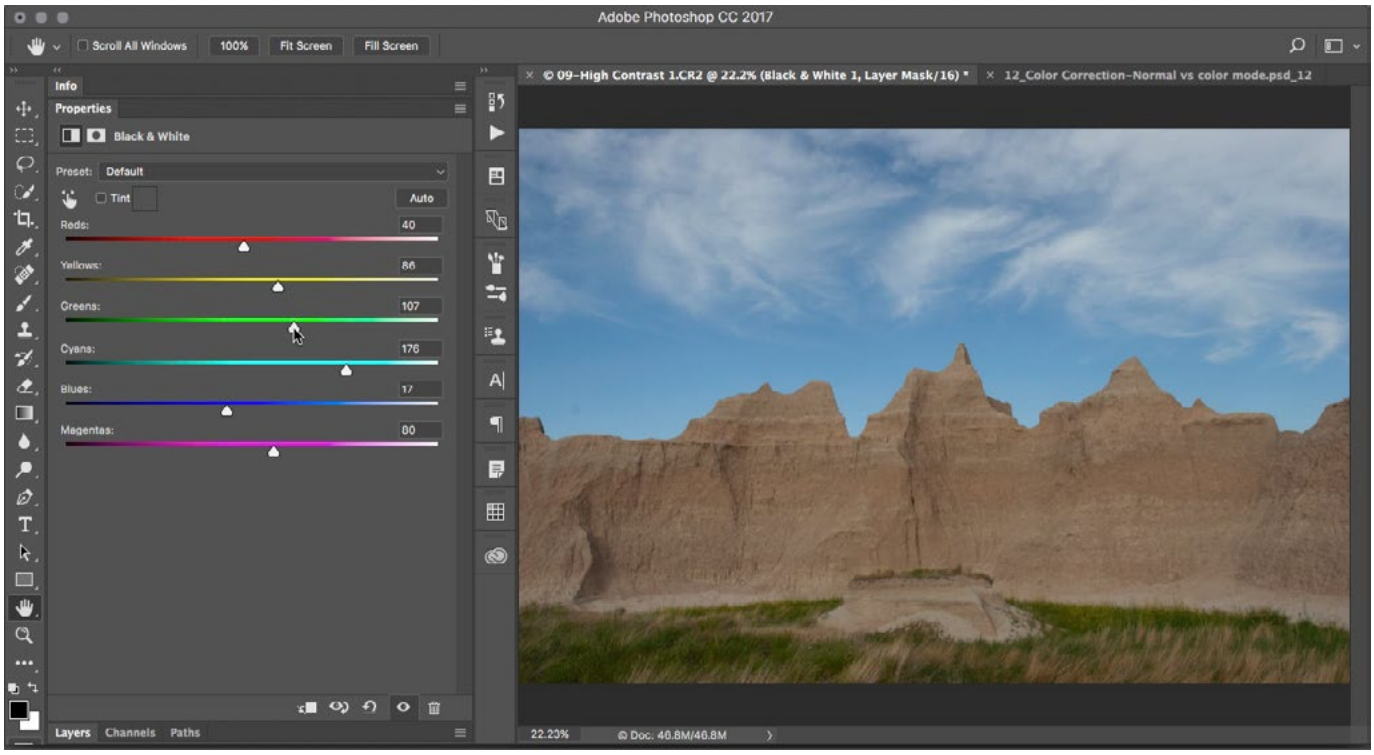
sliders to remove the adjustment from the sky. When looking directly at the blue channel, the sky was very light, so we'll use the slider handle on the right of the This Layer slider, moving it to the left in order to remove the adjustment from the bright areas of the channel.

Adjustment Layers & Blending Modes

We covered blending modes in earlier Masters Academy videos, and now we're going to use them with adjustment layers. The Blending Mode menu can be found at the top of the Layers panel. When applying blending modes, Photoshop looks as the adjustment layer as if it is literally a picture with the result of the adjustment. Then it uses the chosen blending mode to determine how that layer should interact with what's under it.

The Luminosity blending mode One of the blending modes I often use with adjustment layers is the Luminosity mode. Luminosity (brightness) will allow the layer to affect the brightness of what's underneath, but not the color. It will take whatever is in the selected layer and let it only affect the brightness of the image underneath. This can be useful when you use an adjustment layer to increase the contrast of the image. Often times, increasing the contrast will in turn increase the saturation of an image. If you don't want that boost in color, change the blending mode to Luminosity so the blending mode is unable to affect the color. It will only change the brightness.

The Luminosity blending mode can also be useful when used in conjunction with a Black and White adjustment layer. When you create a Black and White adjustment layer and then change the blending mode to Luminosity, the image will appear unchanged. After all, because the Luminosity blending mode can not affect color, it will be unable to turn the image black and white. So why would this be useful? Well, if you look inside the Properties panel for the Black and White adjustment layer, you will find a series of color sliders. These sliders affect the



Here, a Black and White adjustment layer was added to the document. The image still appears in color because the blending mode of the adjustment layer was set to Color. This allows us to adjust the brightness of each individual color by using the sliders within the Black and White adjustment layer Properties panel.

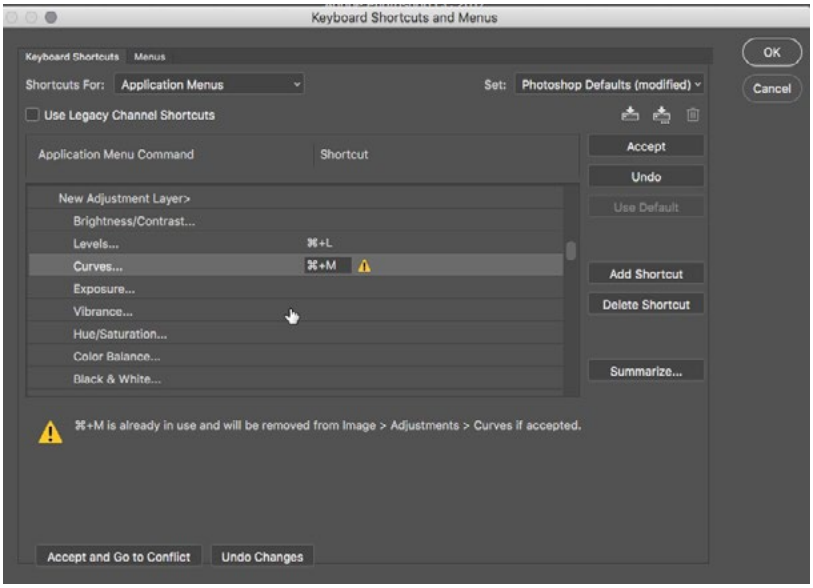
brightness of each individual color in the image. Using the Black and White adjustment layer, set to Luminosity, will allow you to adjust these sliders so that you can work on the brightness of each color in your image independently.

The Color blending mode This blending mode will do the opposite of what the Luminosity mode does. When you use the Color mode, the adjustment layer will only be able to adjust the colors. It will not be able to affect the brightness. This can be useful when you are using an adjustment layer (like Levels or Curves) to color correct the image via the eyedropper tool. When doing this, the color will be corrected, but the contrast can sometimes also be affected. If this is undesirable, change the blending mode to Color and the adjustment layer will be unable to affect the contrast. It will only affect the color.

Keyboard shortcuts

By default, there are no keyboard shortcuts for creating adjustment layers. There are shortcuts for creating direct adjustments (via the Image > Adjustments menu), but I rarely make adjustments this way. Because of this, I have "stolen" the keyboard shortcuts from the direct adjustments and changed them so that they create adjustment layers instead. Let's look at how to do that.

First, go to the main menu and choose Edit > Keyboard Shortcuts. The dialog box will appear and, at the top, make sure the "Shortcuts For" menu is set to Application menus. This will give you a list of all the menus you find along the top of the screen. Scroll down and click on the Layer menu to expand it and then scroll down until you find the New Adjustment Layer listing. Expand that menu item and you will get a list of all the different types of adjustment layers. To create a keyboard shortcut for one of them, click in the field to the right of the menu item and type in the shortcut you'd like to use. For the Levels adjustment layer, I typed in Command+L, which is the shortcut that was previously set to create a direct Levels adjustment. Because this shortcut is currently assigned to something else, a warning will appear, letting us know that if we proceed, the shortcut will be removed from its former command and assigned to the new command. Click the Accept button on the right. Do the same thing for the Curves adjustment layer, typing in Command+M in the text field to the right of the word Curves. Continue working through all the adjustment layers you would like to add keyboard shortcuts to and then click the OK button at the top right of the dialog box.



The Keyboard Shortcuts dialog allows you to assign custom shortcuts to the different commands available in Photoshop.