



This vs. That

This vs. That

There are many features in Photoshop that seem to perform similar functions and in this lesson, we'll talk about the differences in these sets of functions and why you'd want to use one over the other when processing your images.

Opacity vs. Flow

When you are working with a tool that uses a brush, you will find the Opacity and Flow settings in the Options Bar above the image window.

When we paint with the Opacity setting turned down, we can paint over the same areas again and again without our "paint" building up. In order for the paint to build up, we'd have to release the mouse button and start painting again.

The Flow setting is more like using spray paint. When our strokes overlap, the paint WILL build up and get darker and darker. This happens in a single stroke. We do not need to release our mouse button and start painting again in order to achieve the build-up.

You'll want to use the Flow setting when you want the paint to build up as you paint back and forth. You'll want to use the Opacity setting when you don't want the effect to build up. I find that I use the Opacity setting more frequently because I tend to overlap my brush strokes when I don't mean to. It's also import-



At left, we are using the Brush Tool with the Opacity setting at 20%. No matter how many times we brush over the same area, the paint will never build up. At right, we are using the Brush Tool with the Flow setting at 20% You can see that as the stroke overlaps itself, the paint builds up more and more.

ant to know that the number that you'd use for Flow will always be lower than the number you'd usually use for Opacity. That's because it will require a much lower Flow setting to achieve the same level of opacity as the Opacity setting.



The Airbrush setting will cause the paint to build up if you hold your mouse in one position with the button pressed down.

By default, the paint will not continue to build up if you keep your cursor in one position while holding the mouse button down. If you would like that to be the case, turn on the Airbrush setting by clicking the icon directly to the right of the Flow setting.

Opacity vs. Fill

At the top of the Layers panel, we have settings for Opacity and Fill. At first glance, these two seem to do the same things. Let's look at how they're different.

The Opacity setting affects the total contents of the layer, including both the pixels and any effects applied to the layer. The Fill setting affects only the pixel contents of the layer, whether that be paint, a photograph, etc. It does NOT change the effects applied to the layer. Those will remain at full strength.

Therefore, if there are no effects applied to a layer, then Fill and Opacity will work exactly the same. If there



Here, we created two identical layers containing red circles. On the left circle, we lowered the Fill setting to 50% and on the right circle, we lowered the Opacity setting to 50%. You can see that the effect is identical.



A Bevel & Emboss style is applied to both layers.

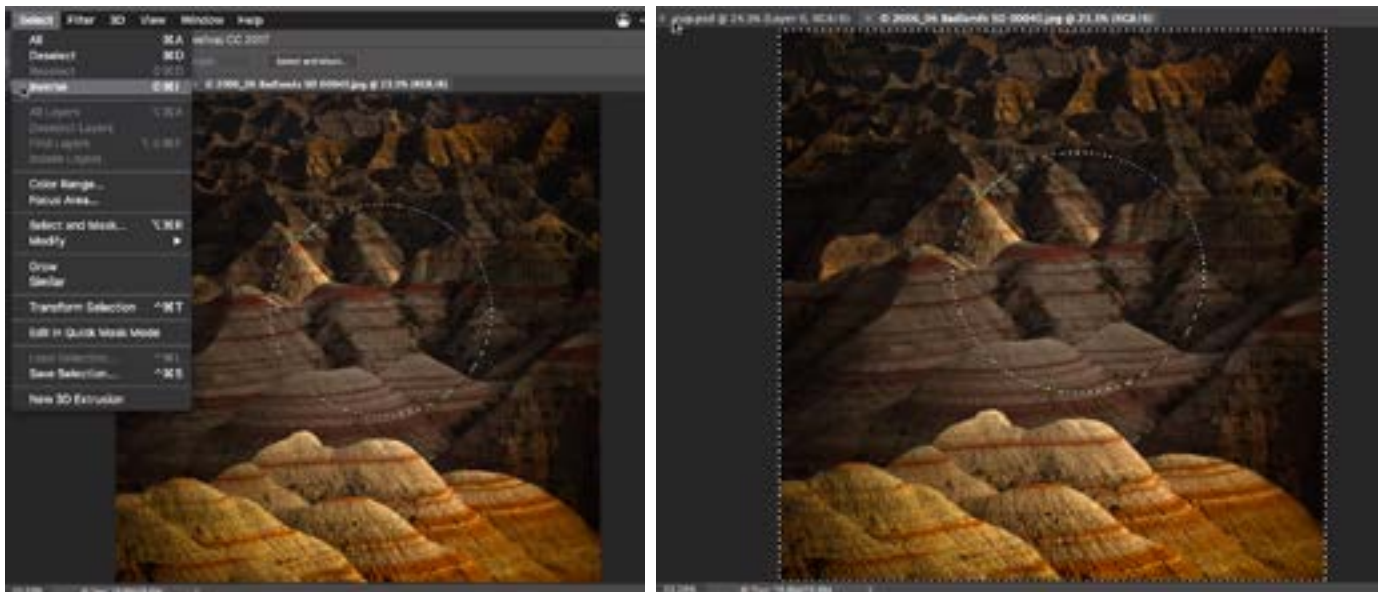
are effects applied, like the Bevel and Emboss Layer Style applied in the video example, then lowering the Fill setting will leave the effect created by that style perfectly in place while the actual contents of the layer will become more transparent.



The Fill setting was set to 50% on the left circle and the Opacity was set to 50% on the right circle.

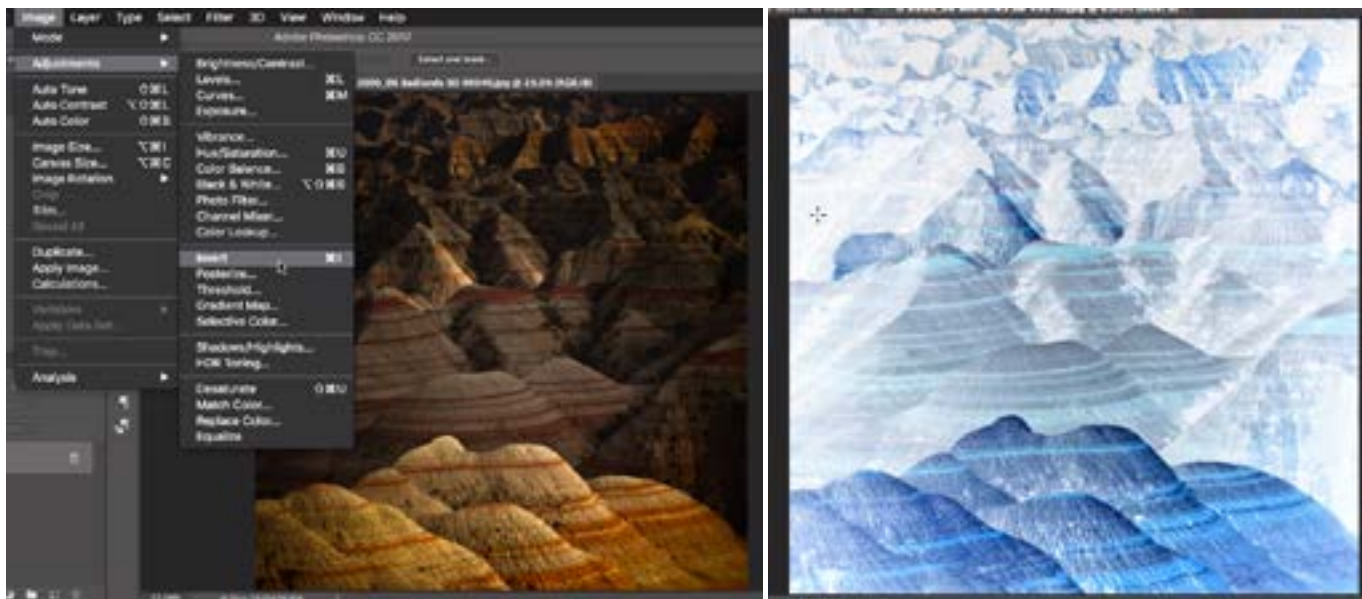
Invert vs. Inverse

Any time we refer to the Inverse command, we're talking about something that we'd do to a selection. When we have a selection active and we go to the Select menu and choose Inverse, we will get the opposite of the selection we created. This means that if we had a circular selection in the middle of the document and we used the Inverse command, we would end up with a selection that includes everything except the middle of the document. If we don't have an active selection, the Inverse command will not be available under the Select menu.



Left: We have a circular selection in the center of the document and we are choosing the Inverse command. Right: The Inverse command gave us the opposite of our original selection.

The Invert command can be found by going to the main menu and choosing Image > Adjustments > Invert. This command will also give us the opposite of what we currently have, but instead of affecting a selection, it will affect the image itself. It will turn the image into a negative of what it currently is. If the entire layer is filled with white and we use the Invert command, we will get an entire layer full of black.



Left: We are choosing the Invert command from the Image menu. Right: The Invert command gave us a negative of our image.

There is an instance where the Invert and Inverse commands will do the same thing, and that is when we view our selection in Quick Mask Mode. When we view an image in Quick Mask Mode, our selection is represented as a red overlay. If we use the Invert command in this mode, we will get the opposite overlay, and this is essentially giving us the opposite of our selection.



When viewing a selection in Quick Mask Mode, the Invert command would have the same effect as the Inverse command, in that it's making a change to a selection.

Crop vs. Trim

Under the Image menu, we have settings for both Crop and Trim. If we have a selection active, both of these options will be available. If we do not have a selection active, the Crop command will not be available. That's because the Crop command will crop the image down to what we currently have selected. If there is not a selection, it doesn't know what to do.

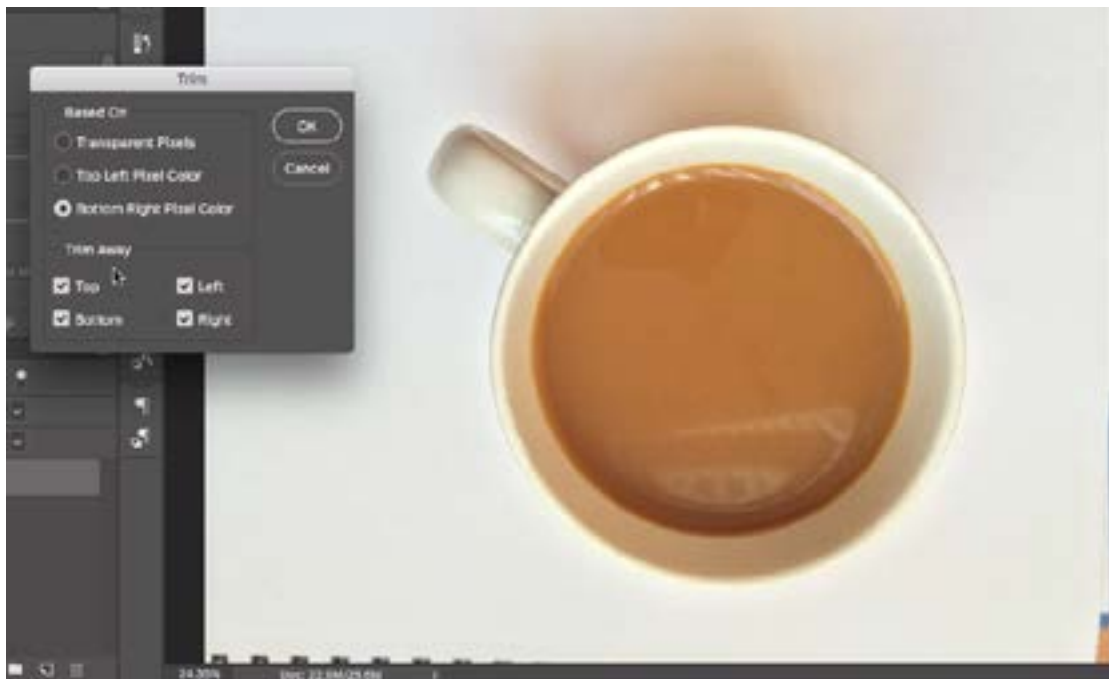
When we have a selection active and we choose the Crop command, it will crop the image into the smallest rectangular document that will contain just the selected area.



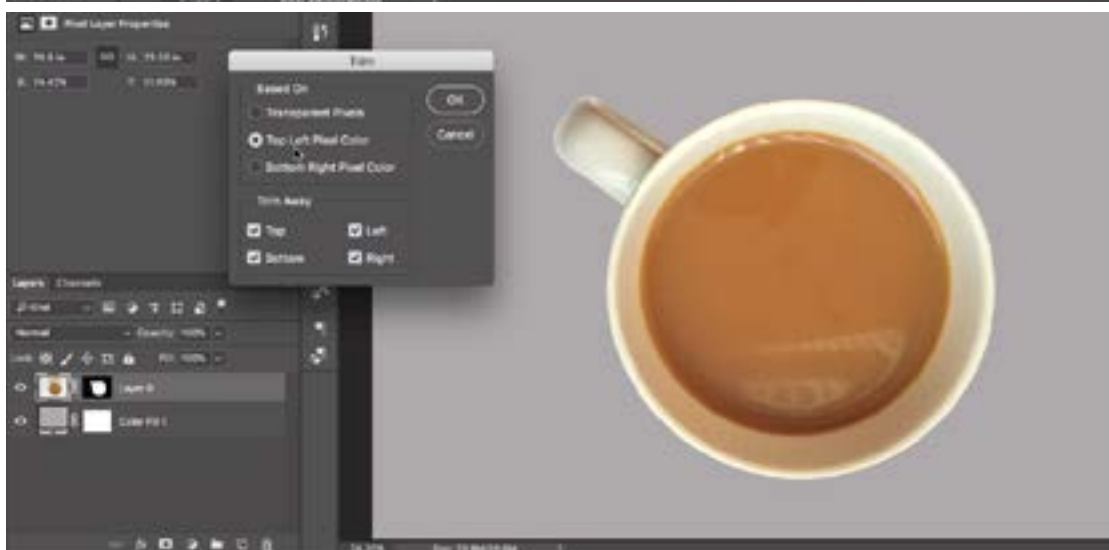
At left, we have the mug selected and we are choosing the Crop command. Above, the image was cropped to the smallest rectangle that contains the mug.

When we choose the Trim command from the Image menu, we'll be presented with some settings. One of the options will crop out all transparent pixels. With the other two options, Photoshop will look at what color is occupying either the top left pixel or the bottom left pixel and crop the image to remove as much of that color as possible. The problem with Photoshop referencing a single pixel is that most images, even those containing mostly a single shade, will vary from pixel to pixel. This makes the two corner options unusable UNLESS we've done

something to the picture first. In the video example, the image layer had a layer mask attached to it that made it so only the object (a coffee mug) was visible on the layer. A solid color layer was placed underneath the mug layer. In this case, the corner trim option would work in cropping everything except the mug because the solid color layer contains pixels of only one color.



With the image at left, using the Trim command based on one of the corner pixels would not work. That's because the background color varies slightly, so the pixels will vary in color. There is also a slice of brown in the bottom right.



We altered the image, creating a layer mask for the mug layer and inserting a solid color underneath, so the Trim command would work using the top left or bottom right pixel setting.

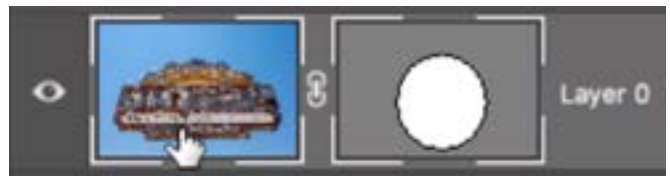
Layer Mask vs. Vector Mask

A layer mask is a grayscale picture attached to a layer where areas of the mask that are white leave the layer alone and areas that are black hide the layer. To create a layer mask, first make sure that the layer you want to attach the mask to is active. Then click the Layer Mask icon at the bottom of the Layers panel. It looks like a rectangle with a circle inside of it. If you have a selection active when you do this, the selection will automatically be applied to the mask, where everything that was selected will be white (visible) and everything that was not selected will be black (hidden).

On first glance, a vector mask looks like a layer mask, but the difference is that the mask is NOT a grayscale picture attached to a layer. It is a path, which is something that can be adjusted using the Path Selection Tool and the Direct Selection Tool. We would use these tools to adjust the points and handles attached to the path (as opposed to editing the mask with the Brush Tool, as we would with a layer mask). To create a vector mask, we need to start with an active path. When you create a shape using either the Shape Tool or the Pen Tool, there will be a menu on the left side of the Options Bar where you can determine what kind of result you'd like. The options are Shape, Path and Pixels. We will choose the Path option. Once



We had a selection active at the time we clicked on the Layer Mask icon, so the selection was automatically applied to the mask, as you can see from the mask thumbnail in the Layers panel.



We created an active path using the Shape Tool and when we added a vector mask, the path was automatically applied to the mask.



The Path Selection Tool is being used to alter the path.

we have defined a shape, either using the Pen Tool or the Shape Tool, we can go to the Layer menu and choose Vector Mask > Current Path.



The tools we use to change a path.

In summary, a layer mask uses pixels, and we would use our common retouching tools to make changes to the mask. A vector mask uses a path, which can be changed by adjusting the points and handles attached to the path. You can think of creating a path as using a pair of scissors that give you a very crisp edge.

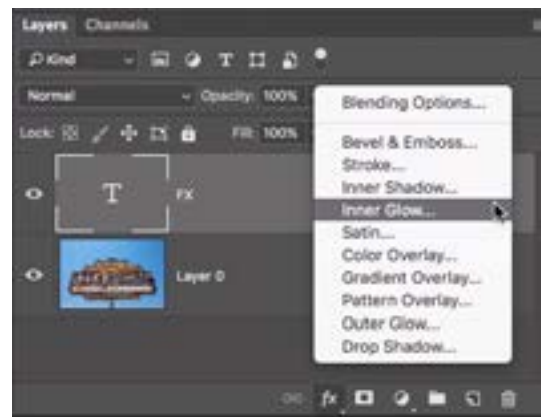
Note that if you have the Command Key (Ctrl on Win) held down as you click on the Layer Mask icon, you will get a vector mask instead of a layer mask. Additionally, if you click on the Layer Mask icon twice, you will get a vector mask in addition to a layer mask.



If we click on the Layer Mask icon twice, we can end up with a vector mask in addition to a layer mask.

Layer Effects vs. Layer Styles

When it comes to layer effects and layer styles, Adobe uses both terms interchangeably. We see the different terms in different areas of Photoshop. For example, the Layer Style icon at the bottom of the Layers panel is labeled “FX.” To add a layer style, click on this icon and choose one of the menu options. The Layer Style dialog will appear, showing the settings for the specific menu option you chose. You can also access the Layer Style dialog by going to the main menu and choosing Layer > Layer Style. Some of the options within this Layer Style menu use the word effects (Hide All Effects, Scale Effects) and it’s important to know that layer styles and layer effects are the same thing.

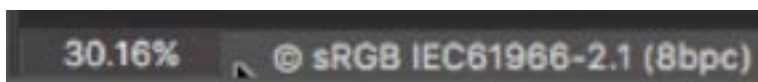


A Layer Style, or Layer Effect, can be added by clicking the FX icon at the bottom of the Layers panel and choosing one of the options from the pop-up menu.

Assign Profile vs Convert to Profile

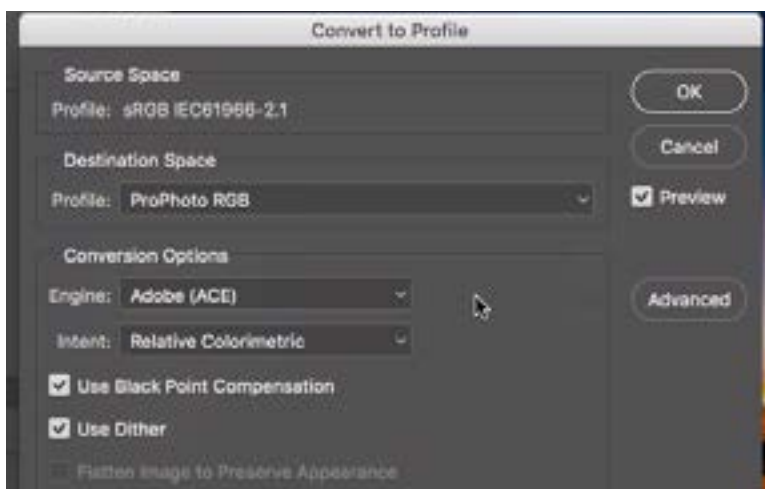
Under the Edit menu in Photoshop, there are choices for “Assign Profile” and “Convert to Profile” and they both have to do with color management and color spaces. Let’s look at the difference.

At the bottom of the Photoshop interface, there is an info bar that displays information about our document. If it does not already display the document’s color profile, we can tell it to do so by clicking on the little arrow to the right of the text and choosing Document Profile from the menu that pops up. If we need



The info readout at the bottom of our Photoshop interface can be set to display the color space.

to change the document’s color profile, we can do that by using the “Assign Profile” or “Convert to Profile” settings.



The Convert to Profile dialog. This command will not change the look of our picture.

If we choose the “Convert to Profile” option, a dialog will appear and the main setting that we’ll want to deal with inside this dialog is the Destination Space menu. This will determine what the new color space will be. If we use this “Convert to Profile” option, it will maintain the current appearance of the image. It will simply convert the color profile.

If we choose the “Assign Profile” option from the Edit menu, we will get a dialog that includes a Profile menu. Choosing one of the options within this menu WILL change the appearance of your image. For this reason, I would only use this option if the image did not have a profile at all to begin with. In that case, the info bar at the bottom of the Photoshop interface would read “unassigned.”