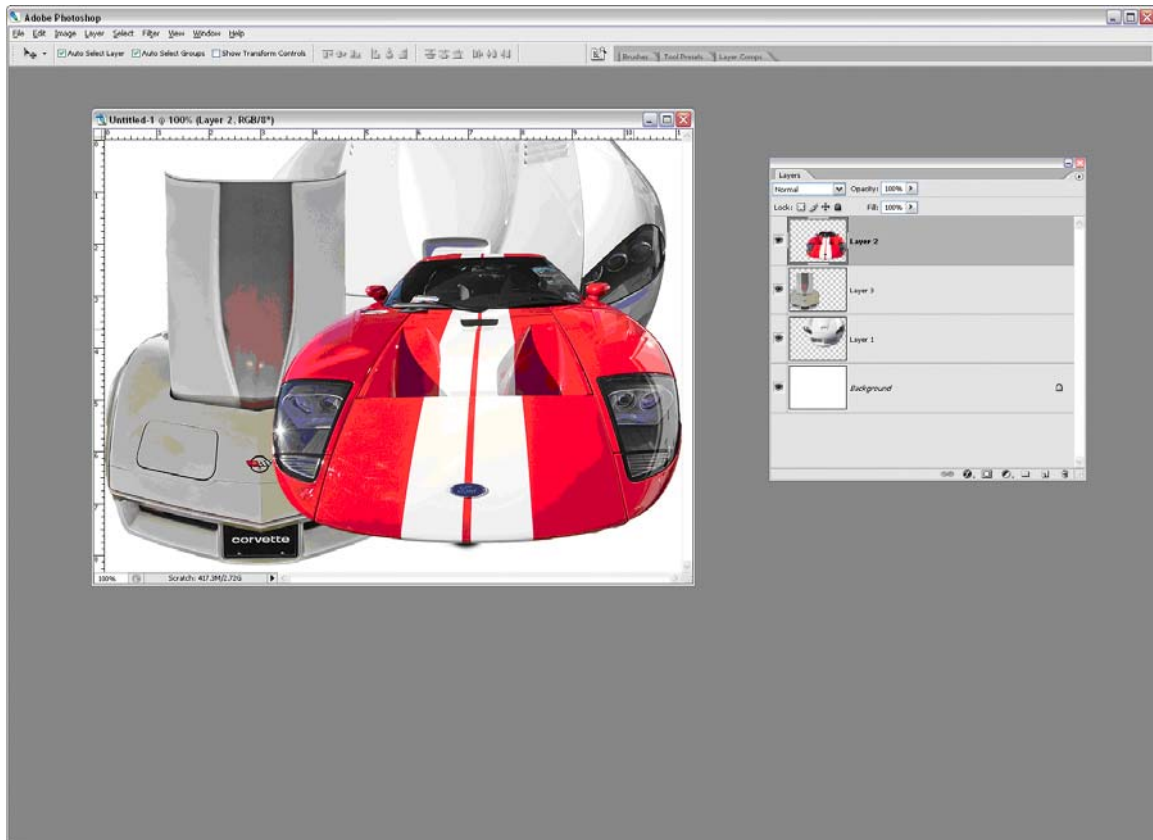


Introduction to Layers in Photoshop

PART 1 – BASIC LAYERS

Think of layers like a vertical stack of something, it could be a stack of pancakes or a stack of shelves or boxes or whatever you like. The important concept is that it is a vertical stack with one thing on top of the other.

In the Layers Palette in Photoshop it can look something like this



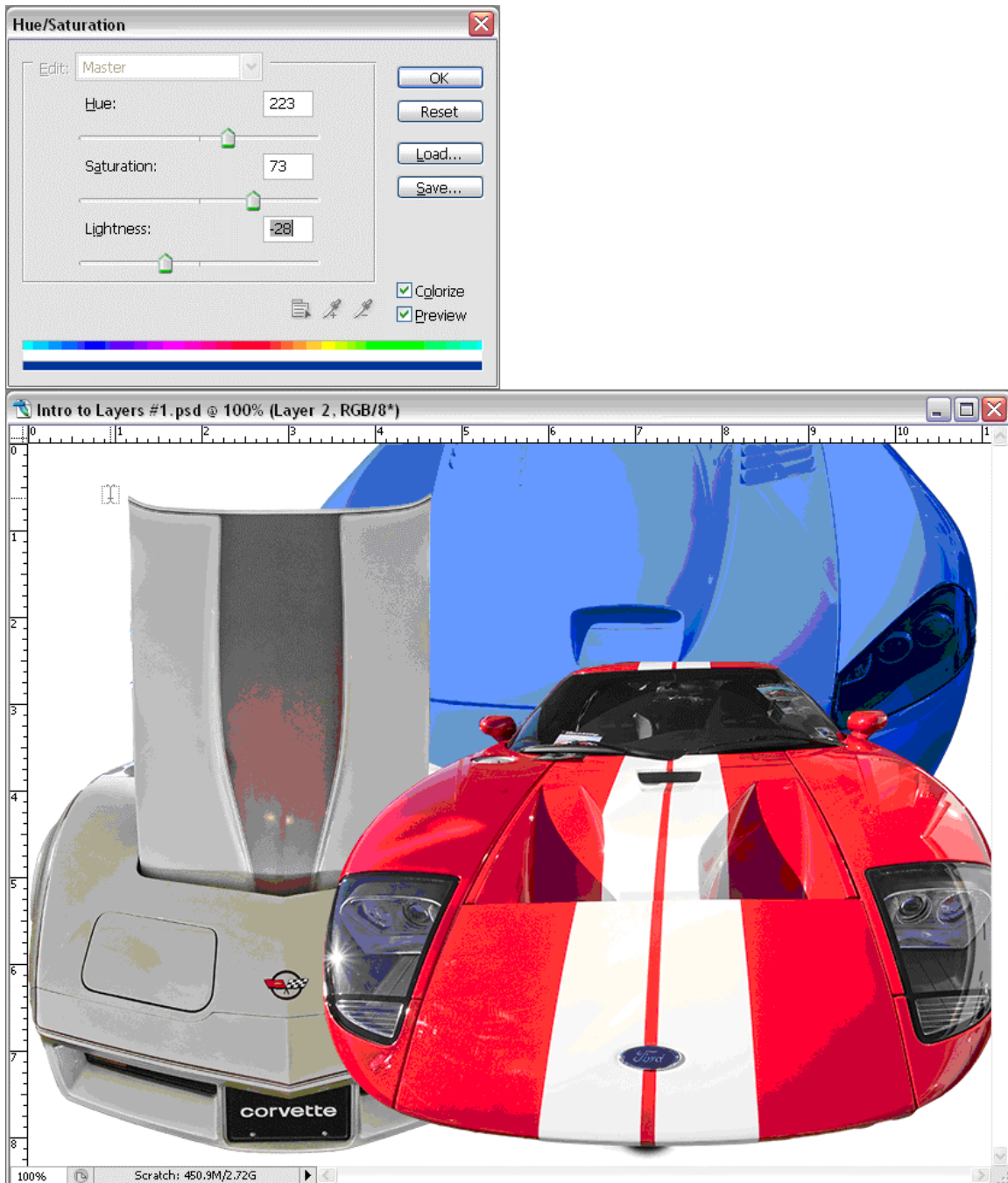
The image on the left is made up of three layers which are shown on top of a white background layer in the Layers Palette shown on the right.

The order of the layers can be moved around except for the Background layer which is fixed. The Background layer is a unique type of layer which has some restrictions that don't apply to other layers. You can't put Layer Styles on a Background layer and you can't erase to transparency on it but these are more advanced topics. You can also eliminate it if you wish, but let's get back to the basics. You can change the order of the layers and you will see one image hiding another. You can move an image that is partially hidden to the top of the Layers Palette and you will see that it can then hide some of the layers below it.

It is important to understand this concept of layers as a vertical stack as we move into some of the things we can do with layers and different types of layers. As we have seen in our example, layers in the stack hide layers below it and are hidden

by those above it. However, we also have the ability to make any layer somewhat transparent (this does not apply to the Background layer) so that we can see through it somewhat. We do this by changing the Opacity of the layer.

Each layer in our example is a different image; they just don't fill the entire space. We can apply any of the Photoshop adjustments to an image that is on its own layer. For example, let's colorize the white car in the back (turn it blue) with a Hue/Saturation adjustment. It will only affect that layer and we'll have the following:



This adjustment application permanently changes the pixels of the image on that layer. Later we'll discuss the use of Adjustment Layers which is a better way to change an image without permanently changing pixels in the image. The advantage of that is that you can change your mind later or make additional corrections as long as you save the file in a format that preserves the layers.

There is another special type of layer called the "Type" layer which you use when you want to add text to an image. If you select the Type tool in the Tools Palette (or just hit the letter "t" which is a shortcut for the Type tool) and start typing you will see that a new layer is created. There are options available for the Type Tool which allows for the selection of font type, color and size among other things. You can also change the opacity of a Type layer just like any other layer and you will be able to see through the type. Below is an example:



PART 2 – INTRODUCTION TO LAYER MASKS

Layers without layer masks would be very limiting. When you think of a mask you think of hiding something. Well, that is exactly what a layer mask does. It can be used to hide part of a layer. It can also hide the entire layer or allow the entire layer to be visible but the real advantage of layer masks comes from hiding part of a layer. Of course, it doesn't have to be all or nothing when it does that hiding either. As we'll see it can also "kind of" hide part of the layer by making the mask somewhat transparent.

OK, so how do we get this layer mask? First click on the layer you want to add the layer mask to in order to make it active. Go select “Layer>Layer Mask>Reveal All” from the pull-downs on the top of your Photoshop session. “Reveal All” will put a white rectangle on the layer entry in the Layers Palette and will allow everything on that layer to be visible. There is also a “Hide All” option which will put a black rectangle on the layer entry in the Layers Palette and that will prevent anything from being visible on that layer. Now you might be thinking “what good is that”, I could already see everything on the layer and if I didn’t want to see anything on the layer I could turn off the eye icon for the layer or simply delete it. Well, there’s more (there’s always more in Photoshop). That white (or black) rectangle that you put on the layer entry can be painted on with a brush to remove some of the black or add black simply by painting with a brush with the color set to either black or white. Also, the brush can have an opacity setting so when you paint in black it is not a solid black but black that you can see through a bit (which turns out to be gray). Remember that “white” allows you to see the layer and “black” hides the layer, so “gray” is like looking through something that is somewhat translucent. That’s the power of a layer mask.

So if you wanted to erase something on a layer and instead of actually erasing it, which will permanently delete pixels, you can simply put a layer mask on the layer, click on the layer mask and then paint in black on the parts of the image (in that layer) that you want to erase. You will actually be painting on the layer mask since that is active and you will not be destroying any pixels but they will disappear and if you ever want them back then simply paint in white while the layer mask is active and they will return. Make sure you have clicked on the layer mask before using your brush. If you only clicked on the layer and missed the mask then you would actually be destroying pixels and you could not recover them after re-opening the image. Also, be sure you save your image in a file format that preserves the layers.

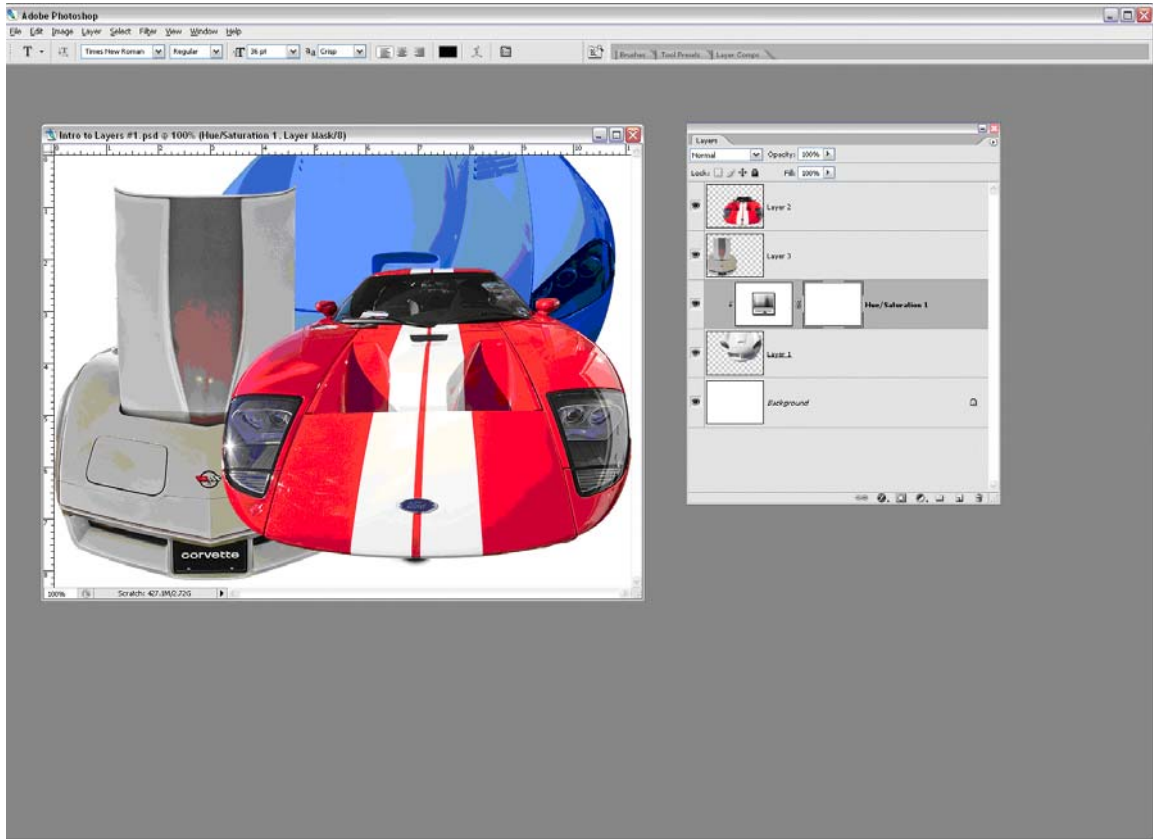
Remember the black hides (it’s dark, no light, can’t see a thing) and white reveals (lots of light shining on the layer).

There are many things that you can do with a layer mask to create special effects upon a layer and the beauty is that no pixels are affected and you can always come back later to restore what was there originally if you wish or change how you want to affect the layer.

PART 3 – INTRODUCTION TO ADJUSTMENT LAYERS

Adjustment layers are a different kind of layer and they give you a great deal of flexibility when working on your image without actually affecting any of the original pixels. This has two major advantages, first you can always go back and change the effect you created and second, since it is a layer, it can have a layer mask and you can change its opacity. Most of the adjustments available to you under “Image>Adjustments” are available as Adjustment Layers and are found under “Layer>New Adjustment Layer”.

Remember when we changed the color of the car using a Hue/Saturation Adjustment (page 3 above). If we came back to the image after saving it and wanted to get the exact original color back it would be rather difficult since we no longer have that color in our image. (The car was white, but it wasn't a pure white.) But if we used a Hue/Saturation Adjustment Layer instead we could simply turn it off to see the original color or change the Adjustment Layer to create something else. In that case, the Layers Palette would look like the following:



Now I had to do something else here. When you apply an adjustment to a layer it only affects that layer but when you create an Adjustment Layer it will affect everything below that the new Adjustment Layer. So the first thing I did was to put the Hue/Saturation Adjustment Layer immediately above the layer I wanted to effect. Next, in order to be sure it did not affect anything below the layer I wanted to affect (in this case I did not want to affect the white background). I needed to “clip” the Adjustment Layer to the layer immediately below it which is called “Create Clipping Mask” and is found by selecting “Layer>Create Clipping Mask”. Now when I save the file in a format that preserves layers and re-open it I can always get back the original color of the car if I wish or make any other change I might want since I never affected the original pixels.

It is highly recommended to always use Adjustment Layers instead of making adjustments directly to a layer containing pixels. The additional memory required for Adjustment Layers is very small and will not make a significant difference in the size of your image file.

Note: This tutorial uses the features of Photoshop CS2 in the discussion above. Other versions of Photoshop would be similar but could use different terminology or commands. Photoshop Elements may be significantly different and may not have some of the features discussed.