

ADJUSTMENT LAYERS TUTORIAL

I briefly showed layers in the original layers tutorial but there is a lot more to layers than discussed there.

First let us recap the premise behind layers. Layers are like stacked transparent sheets of plastic onto which you put or paint images. You can see through the transparent areas of a layer to see what is on the layers below. The bottom layer in the stack is called the background layer and as the background layer it is locked in that position. If you need to change its position in the stacking order, change its opacity or blending mode you must convert it to a regular layer.

You can work on each layer independently, experimenting to create the effect you want. Each layer remains independent until you combine, or merge, the layers.

Layers are useful because they let you add components to the image and work on them one at a time, without permanently changing your original image. For each layer, you can adjust color and brightness, apply special effects, reposition layer content, and specify opacity and blending values, and so on. You can also rearrange the stacking order, link layers to work on them simultaneously, and create web animations with layers. Adding layers to an image increases the file size of that image.

You use the Layers palette and Layer menu, in the Editor, to manipulate your layers.

Ordinary layers are pixel-based, or image, layers. There are several other layer types you can use to create special effects. They are grouped under Layers on the menu bar as follows:

Fill layers:

- Color gradient
- Solid color
- Pattern

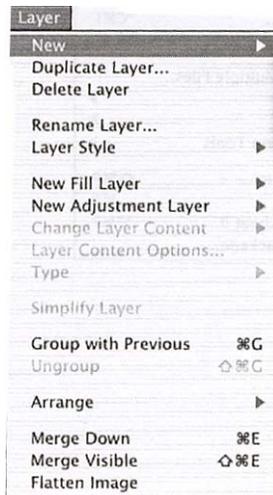
Adjustment layers:

- Levels
- Brightness/Contrast

- Hue/Saturation
- Gradient Map
- Photo Filter
- Invert
- Threshold
- Posterize

You can't paint on an adjustment layer, although you can paint on its mask. To paint on fill or type layers, you first convert them to regular image layers.

In the Edit Mode

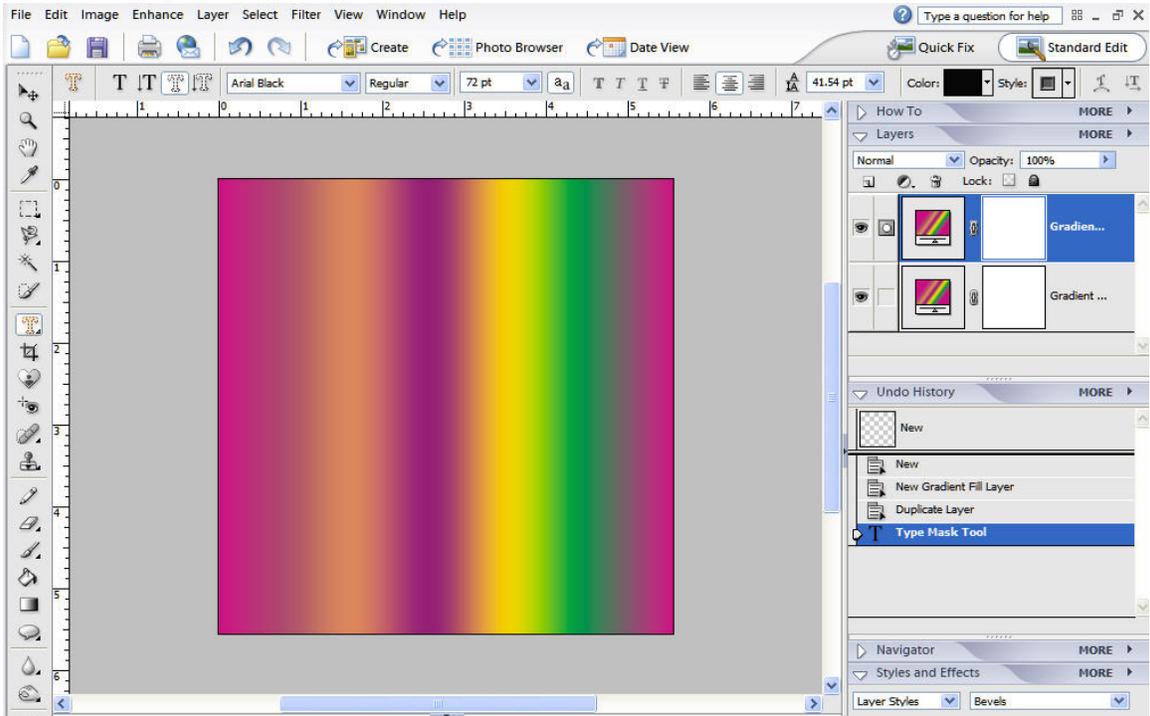


When you click on Layer on the menu bar the drop down menu appears as shown here.

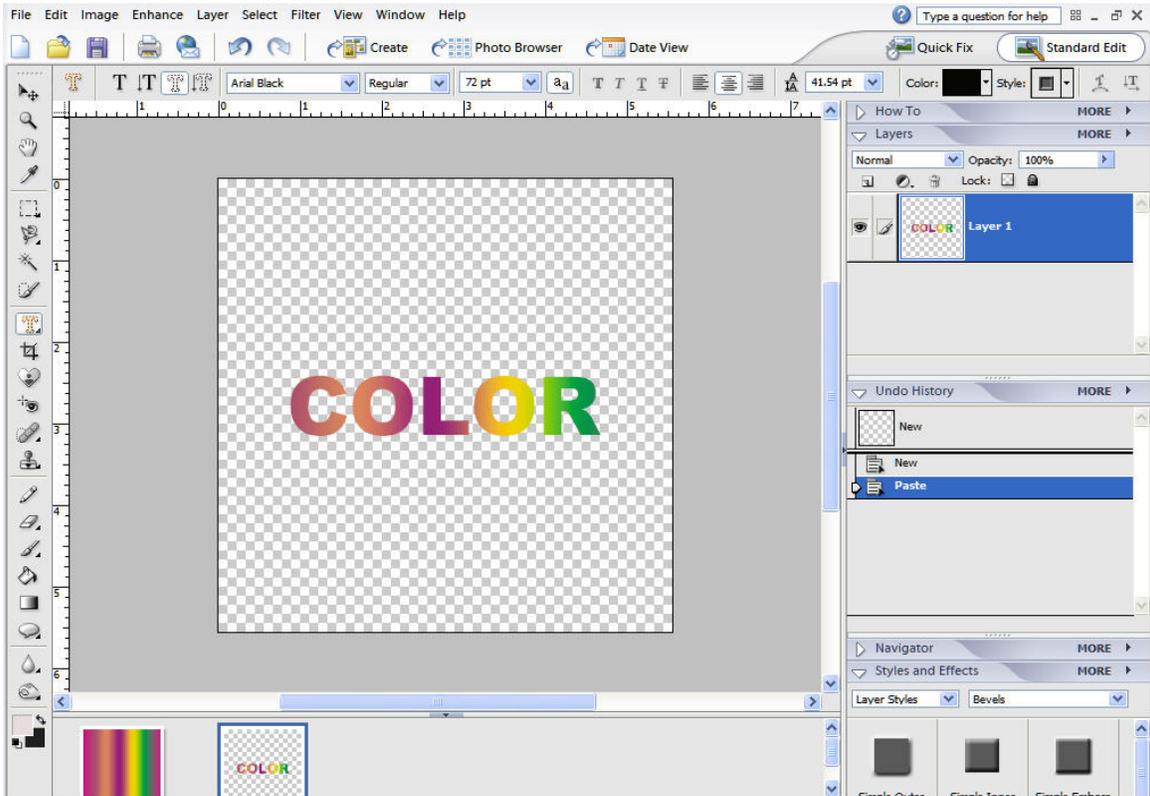
Some of the choices are grayed out as they are not applicable at the beginning. The main two are as described above, the Fill Layer and the adjustment Layer.

The fill layer has a choice of solid color, gradient (a rainbow effect) or pattern. Under each are numerous choices. The fill options are used mostly with drawings and objects rather than photographs. A very striking way of using them is to create text for inserting in postcards etc.

To illustrate this I created a canvas in the work space 400 pixels square and opened a fill layer where I applied a gradient fill. See below:



I then typed color using the type mask tool in the middle, clicked accept and then inverse>backspace/delete to separate the text.



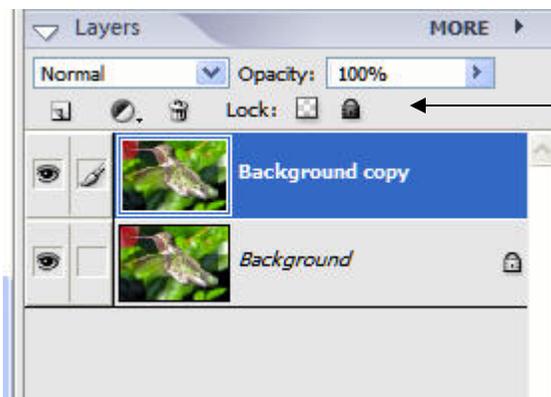
I then cropped the image down to just the text and now I have a multi-colored text item to put into any document as a jpeg. (See below).

COLOR

This can be done with any of the components in the fill option, patterns etc.

Before we go into the adjustment layers lets take a look at the layers pallet on the right hand side of your screen. (If it isn't visible go to Window on the tool bar and check the pallet bin).

When you open up a picture it appears as a thumb nail in the pallet bin and across the top are the controls: (I have put in a duplicate layer):



ICONS

From this end the icons are:

1. Locked
2. Lock transparency
3. Delete a layer
4. Create a new fill/adjustment layer
5. Create a new layer

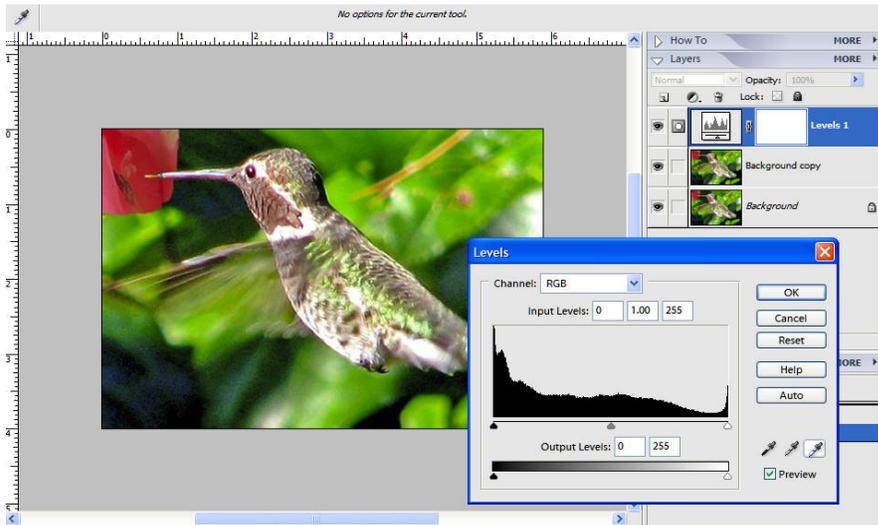
The eye symbol means the layer is visible (click on this to hide it) and the paint brush coupled with the highlighted title indicates this is the layer we are working on. You can also access all of these commands from the menu bar under layers. If a chain link appears where the brush is the layer is linked to its neighbor.



In the above picture a new adjustment layer has been opened and the slider box and new layer are shown.

You might wonder why you need to put in a new layer when you can easily go to Enhance> Adjust Lighting>Brightness and Contrast from the menu bar. It is very simple when you make an adjustment in a layer and the layer is saved the settings are saved with it and can be recalled and further adjusted if necessary. From the menu bar once you accept a change the settings used are lost. If you are doing a lot of changes enhancing a picture using brightness and contrasts: shadows and highlights: and color saturation each may have an effect that you may not want on another adjustment and it is preferable to be able to go back and fine tune any changes without starting from scratch.

Now let us return to the adjustment layers. The first adjustment is **LEVELS**.



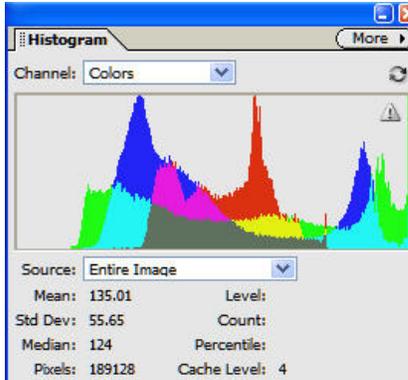
This is a way of adjusting either the whole RGB (red, green, blue) spectrum or choosing each color individually. The graph shown has sliders for input and output and can give you very precise control over the

colors.

As its name suggests the layer adjusts the levels of the colors together as RGB or separately as red, green and blue. It is a fairly complex tool and it is much easier to use it than to understand it! Using levels Photoshop considers the range of colors in the picture and redistributes them accordingly. To understand the histogram it measures the brightness from 0 (black) to 255 (white) and the corresponding range in between. To help in the distribution there are 3 eyedroppers on the histogram for selecting black, white and gray from the picture so that the program has some idea of where to start. You can select with these and sometimes you will get a very credible result. However remember when you select the black, gray and white it is objects that are **supposed** to be these colors not how they appear on the screen!

You will find that if this method doesn't work the sliders can be adjusted. The upper left input slider regulates the "black" portion and the right one the "white". Normally place the black slider at the position where the histogram begins to rise and the white one at the first "bump" in the histogram. Always have the preview box checked so that you can watch the changes in the original. This requires

practice and patience but sometimes the results will amaze you. Again practice is the key. As a rule of thumb if the histogram if the bars in the graph are all in the middle there is very little tonal range: if the bars are all together at the left side the picture is underexposed, on the right overexposed.



If you want to see the effect your changes are having on the color distribution you can always go to Window>Histogram and choose colors from the pull down menu. To update the histogram click on the triangle on the right hand side. This probably gives you more information than you can ever use but it is interesting!

This tool can take the place of the brightness/contrast in many pictures but experiment.



The picture on the left is before trying to improve and the one on the right after adjusting the levels, especially the green. No change was made to brightness or shadows which may have helped even more.



The output sliders (situated below the input work roughly the same as brightness and contrast controls on your monitor. Moving the sliders makes the darkest pixels darker and the lightest pixels lighter.

Adjusting levels is a very good way of making any picture better and is a lot more exact than just using the brightness/contrast and hue saturation. However there are times when a picture may have color cast too yellow or orange or too blue. To get rid of this you may need to go beyond the levels and use "remove color cast" or sometimes use a photo filter. The color variations box is also useful for this problem. Although these are not layers I thought I would mention them here to allow you to experiment with them. They will be discussed further in another tutorial.

The next two available layers are the brightness and contrast and hue and saturation. Brightness and contrast is self – explanatory the sliders for both are adjusted whilst the preview box is checked.

Hue and saturation can be used for more than adjusting the color it can also be used for changing colors.



In this series of pictures this is the original. By applying a hue saturation layer and adjusting the blue the sky was made a better shade and more attractive.



Although the picture is improved I have never liked red sports cars (they attract too many CHP's) so I decided to change that.



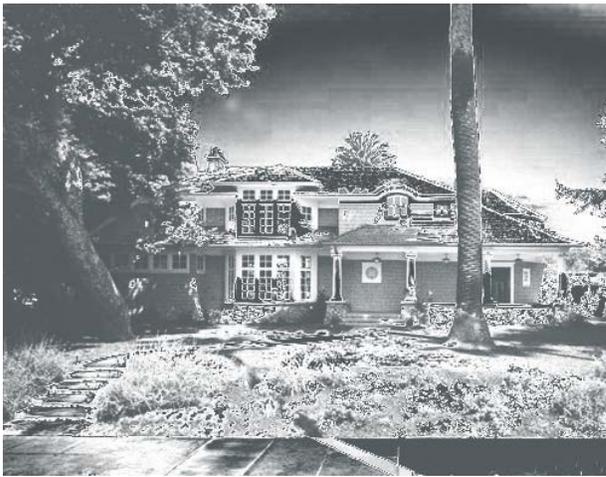
All that was done was to select the car with the magnetic lasso tool and apply another adjustment layer for hue and saturation. Playing with the hue and saturation sliders the color is changed from red to white. Other colors are also available!

The next adjustment layer is the **Gradient Map**. This is a peculiar area of PhotoShop Elements. The gradient map as we saw in the fill layers was a rainbow of colors but with this gradient you choose the colors, grayscale or multicolor. All the books I have read on the subject of gradient maps are at best very vague, talking about making plain pictures “interesting” (this definition of interesting gives a whole new meaning to interfering!) Usually the effect being added is very “artsy” and not what I would normally expect to be trying to

accomplish. Just for example I am showing three pictures next showing the type of recommendations I have found:



This picture was deemed “boring” by a certain well known PhotoShop Elements writer who suggested applying an adjustment layer with the “steel bar” gradient to (and I quote) “zest and interest to an otherwise boring real estate agents picture”. WOW!



This is the result she thought had zest and interest. I am not sure I would be rushing to the real estate office to buy this one!



I then just added an adjustment layer for brightness and contrast and came up with this picture.

I personally prefer my effort but then I’m not artistic.

I am going to investigate further on the merits of gradient maps but in the meantime I would regard them as a novelty for amusement mainly.

Photo filter adjustment layer allows you to put over the picture a filter in one of many colors and adjust the opacity of the color to create a special effect. One of my favorites is adding a sepia effect to old photographs; it adds a little authenticity to it after a picture has been restored.



The photograph on the left was restored from a very old and faded picture and after the restoration a sepia filter was added for the historical interest!

Again the photo filters are, I suspect, from the full blown version of PhotoShop and probably be of more use to professionals. I still play around with them but so far I haven't run into any pictures where I have had the

need to use them extensively.

The Invert adjustment layer turns your picture into a negative. This does not mean black and white (unless the picture is black and white or grayscale to begin with) but negative as you would look at a 35mm color slide. The image below illustrates this.

The **Threshold Adjustment Layer** is another adjustment for specialized photographic effects. . Threshold turns every pixel into pure white or black you won't find any shades of gray here. See the image below.

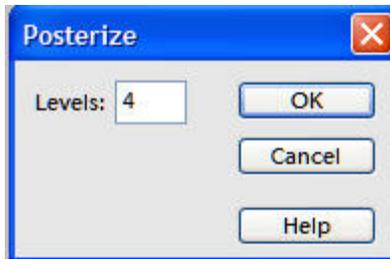


INVERT



THRESHOLD

Again these two are for special occasions where a particular effect or setting is required and I do not think they have a lot of bearing on our everyday efforts. However remember they exist!



The final adjustment layer is **Posterize**. This reduces the number of colors in your picture and can be adjusted by the number box from 2 (lowest colors) to 225 (all colors). You will probably remember the numbers as they were quoted in the histogram as being 0 for black and 225 for white, same scale.

This is the house picture with the setting of 4. As you can see it gives the picture a poster look (which is where the name came from) and can be quite interesting in some settings. You will note however the reduction in the number of colors is very apparent in the sky where there are distinct bands instead of a gradual merging of several shades of sky.



This then is a brief rundown on the adjustment layers. There are numerous uses for all these effects and no one tutorial can cover all possibilities. I can only suggest that you play with them and find uses for them. I would appreciate any feedback and examples of your work, using layers especially, but for any of the topics we have covered and suggestions about what you would like to see in a tutorial.

Keep on playing it can be a lot of fun!