

GRAPHICS SOFTWARE

Photoshop, Corel Photo Paint, Image Ready like all of the other graphics programs are nothing more than computer software programs which allow you to: copy, duplicate, delete, move, select, and manipulate those pixels of your choosing to your taste.

So why are these programs so difficult to use?

A close analogy to the structure of programs designed to do graphics design, graphic art, and photographic processing would be to imagine a tool box of galactic size with hundreds of drawers, partitions, shelves, and cubby holes, and they are full of new tools, words, contractions you have never heard of.

So what is the catch?

The steep learning curve you have heard about is nothing more than knowing which drawer shelf or cubby hole a tool or series of tools are located. Most of the programs have more than one tool to do the same thing. Keep in mind that some tools will not work with others or may not produce the desired effect.

BREAK FOR DEMONSTRATION: Here we will have a demonstration relating to more than one way to do the same thing. We will cut a piece of paper using a paper cutter, scissors, razor knife and a seamstress wheel. Using some of these tools we will cut a piece of paper in the shape of an S. The point is that different tools can be used to the same ends, although with at least subtle differences, related to the nature of the tools and the individual people using them.

Well here we are down to the nitty gritty. At this the entry level to digital basics you will be introduced to some of the more common tools found in most software. Demonstrations and explanations of the simplest way to accomplish basic task will be provided. The more difficult procedures can be covered in the question and answer sections following these general instructions.

Work space

A good working knowledge of the work space and the items contained within are essential.

Basic work space: That space normally displayed following the opening of a program.

Tools: The tools are normally presented in a vertical arrangement located on either side of the basic work space. Tools would include Cropping, Magic Eraser, Cloning, Pen, Text, Air Brush, History Brush, Selection, Magic wand, and others.

Palettes: Palettes are specialized interface windows providing information or an array of choices. They are different from menu dialog boxes in that they can remain open on the screen as you are working. Dialog boxes are opened from a menu and closed when either OK or Cancel has been clicked. The palettes include the history palette, histogram, layers, color picker, navigator, and etc. Palettes can be hidden when not in use. Close a palette by clicking on the X in the corner. Display a palette by selecting it from the “Window” menu. To display or hide all of the palettes currently in use, press the tab key.

Sub menus: Sub menus are specific to a particular adjustment. The dialog box opens when a specific adjustment is selected and disappears when that function has been completed or canceled. Sub menus would include the brightness/ contrast, color balance, histogram, and many others.

The manipulation process may be performed globally or on specific parts of the photograph. When only a few portions of a photograph are manipulated then that area must be selected or isolated so the manipulation process applies exclusively to the chosen pixels.

Selections: A selected area is identified by a dashed line around the entire perimeter of the area. The dashed lines appear to be moving. This is sometimes referred to as the marching ants.

Selection tools:

Marquee tool: Rectangular forms vertical and horizontal, circles, and ellipses.

Lasso Tool: A free form method of encapsulating an area of non specific sizes and shapes.

Magic Wand: An automated method of selecting an area by color.

During the manipulation of selected areas the marching ants can be distracting. To hide the marching ants while keeping them selected use the Control key and the H. This key sequence works to turn the marching ants on and off.

Cropping: Trimming a photograph to the desired width and height.

Image Tonal Adjustments

The tools for adjusting the tonal values of an image are valuable in that they allow for correcting less than ideal exposures and for expressive interpretations of the original luminance values. It is very rare for the values of the original scene and the exposure setting used to yield a file with all of desired tones. What follows is a discussion of the basic tonal adjustment tools in order from the simplest to the most complex.

Brightness/contrast: Allows adjustments of the brightness and contrast of the photograph. This can be done globally or by using the selection tools specific areas may be adjusted. A grayscale with sixteen discrete tones will be used to demonstrate the effects of the controls.



Brightness changes all tones equally, making them all either lighter or darker. This can result in different tones being raised to maximum so they all become pure white or lowered until they all become pure black.



Contrast changes all tones above and below the center value in opposite directions. If the lighter tones are being darkened, then the darker tones are being lightened equally. In the same way, if the lighter tones are being lightened, then the darker tones are being darkened equally. This adjustment does not change the value of the center tone. Note that this control can merge tones into pure black or pure white.

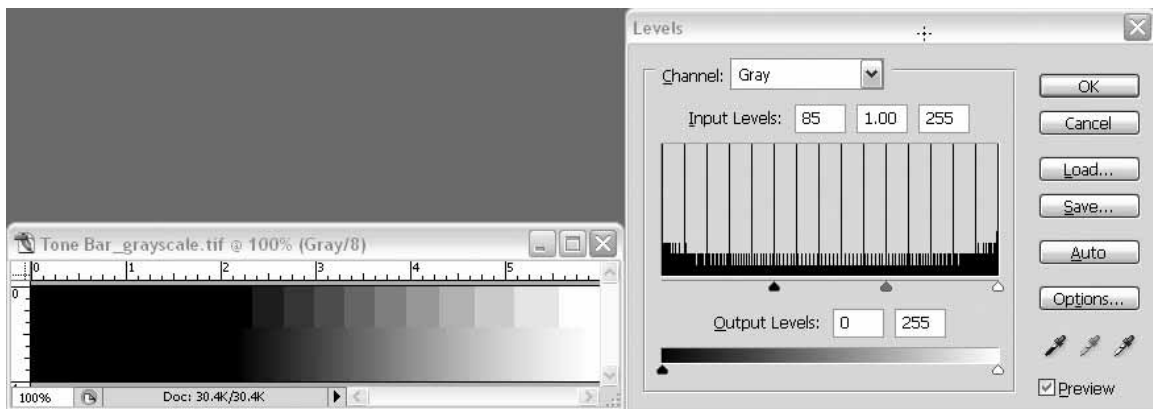


Together the brightness and contrast controls can be used to correct an image that is less than full scale and too light or too dark. In the following example the scale does not have either a fully black or white value. It appears dark and muddy.

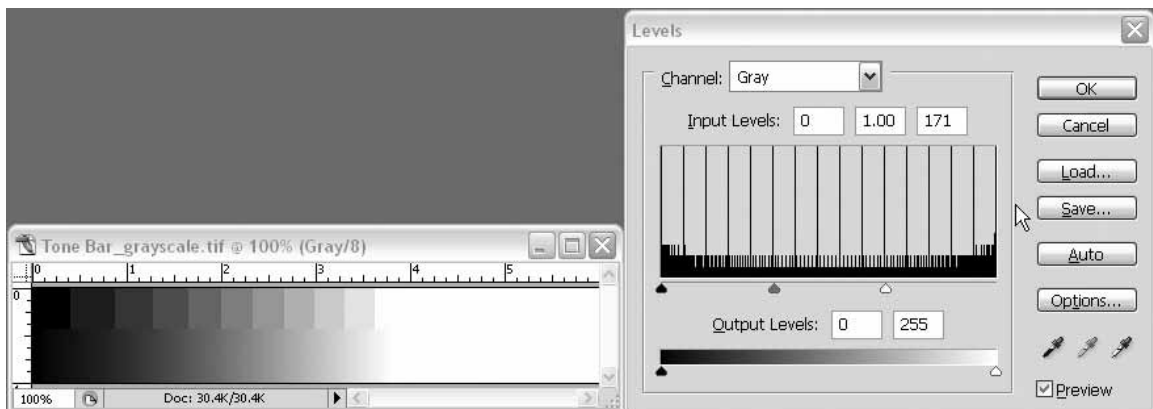


Levels: This tonal adjustment tool has three slider controls below a histogram of the image or the selected pixels. The histogram is a bar graph (with 256 vertical bars) displaying the number of pixels at each of the 256 possible levels of brightness. There are two additional slider controls which are below a gray scale representing all of the available brightness values. All five slider values may be input numerically by using the “Input Levels:” for the histogram sliders and the “Output Levels:” for the grayscale sliders. Levels can be used to obtain all of the effects of the brightness and contrast controls, along with many other tonal adjustments.

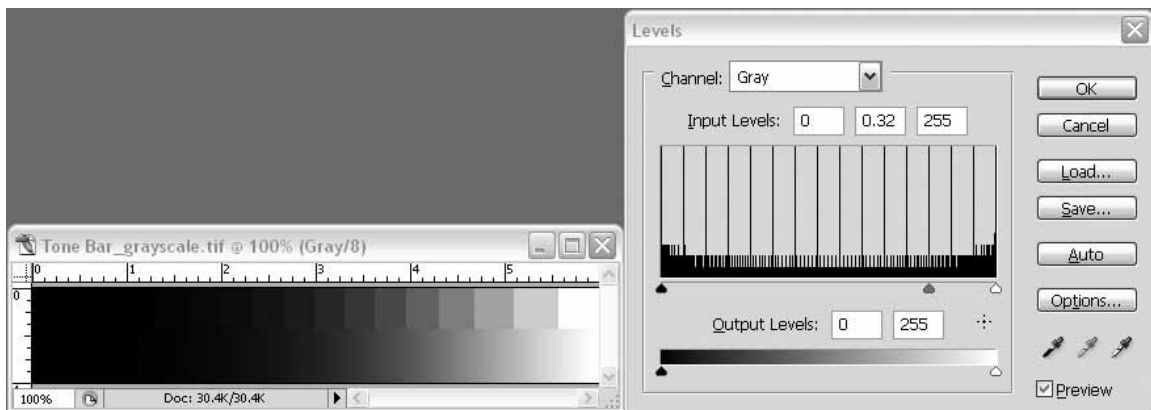
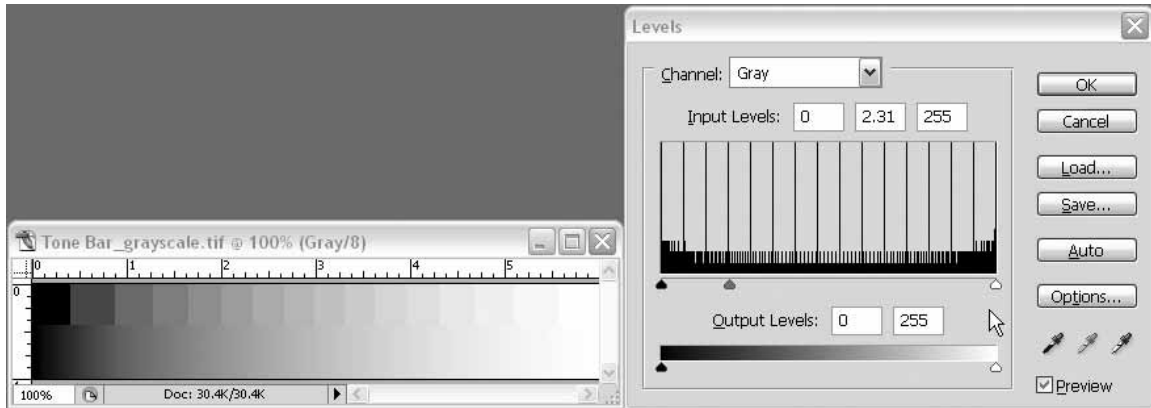
The histogram left slider: This sets the tone that is pure black. All tones which are to the left of the chosen value will also be pure black. All tones to the right of the selected value except the brightest value will darken.



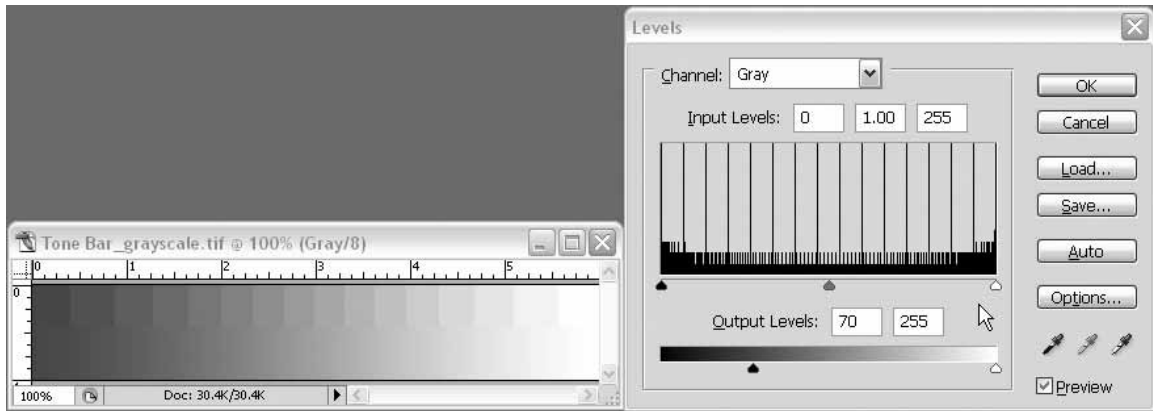
The histogram right slider: This sets the tone that is pure white. All tones which are to the right of the chosen value are pure white. All tones to the left of the selected value except the darkest value will lighten.



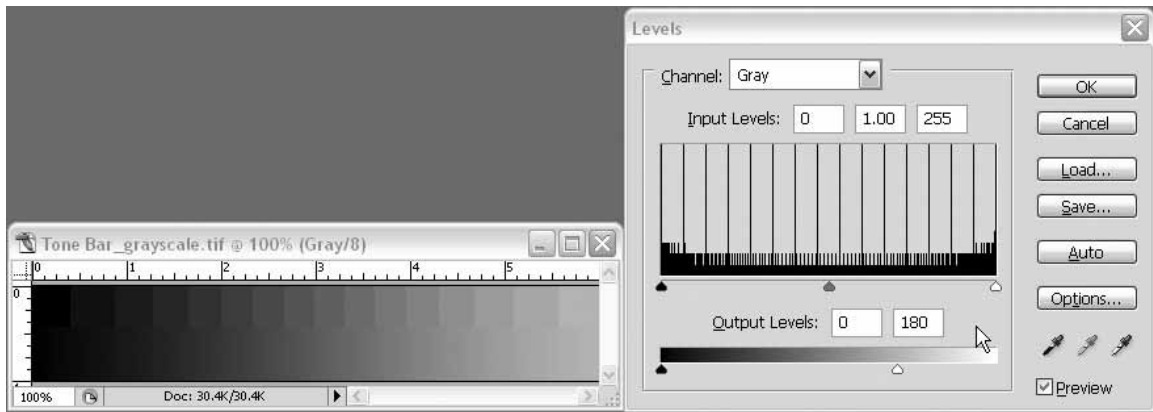
The histogram center slider: This sets the value that will be the center tone. Moving the slider to the left raises darker tones to the center values, thereby lightening the image. Moving the slider to the right lowers lighter tones to the center value, thereby darkening the image. When the slider is moved to the left, tones to the left of the center slider will be increased in contrast, while those to the right of the center slider will be decreased in contrast. When the slider is moved to the right, tones to the right are increased in contrast and those to the left are decreased.



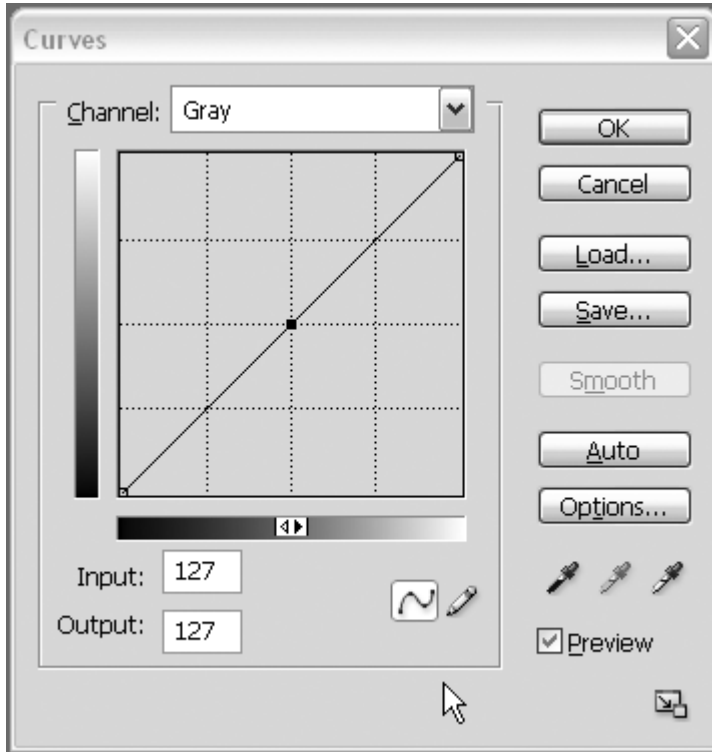
The grayscale left slider: This sets the brightness for the darkest tone. Moving this to the left makes the dark tones lighter and reduces image contrast.



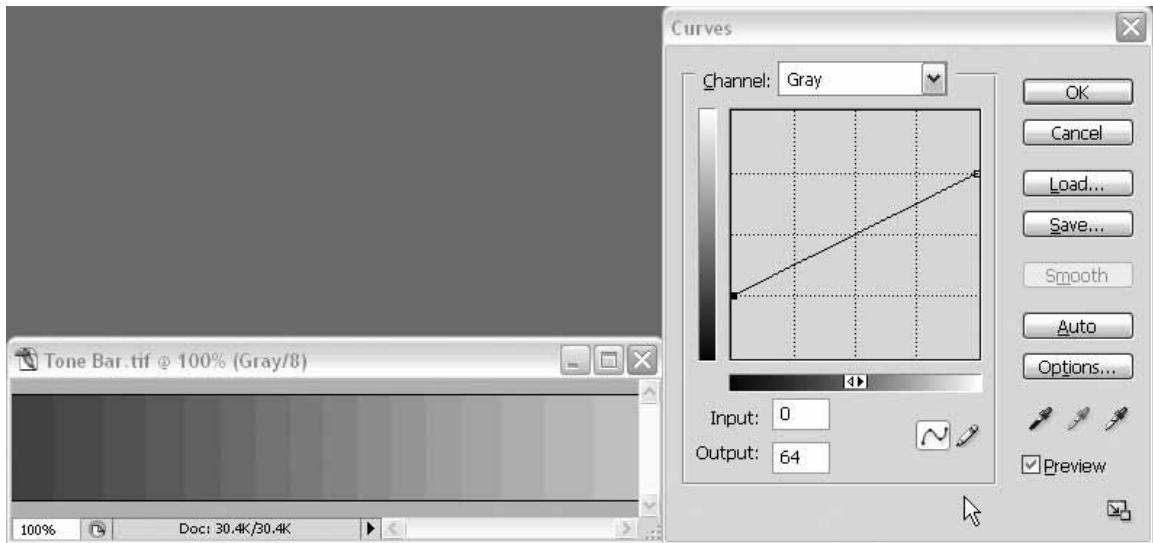
The grayscale right slider: This sets the brightness for the lightest tone. Moving this to the right makes the light tones darker and reduces image contrast.



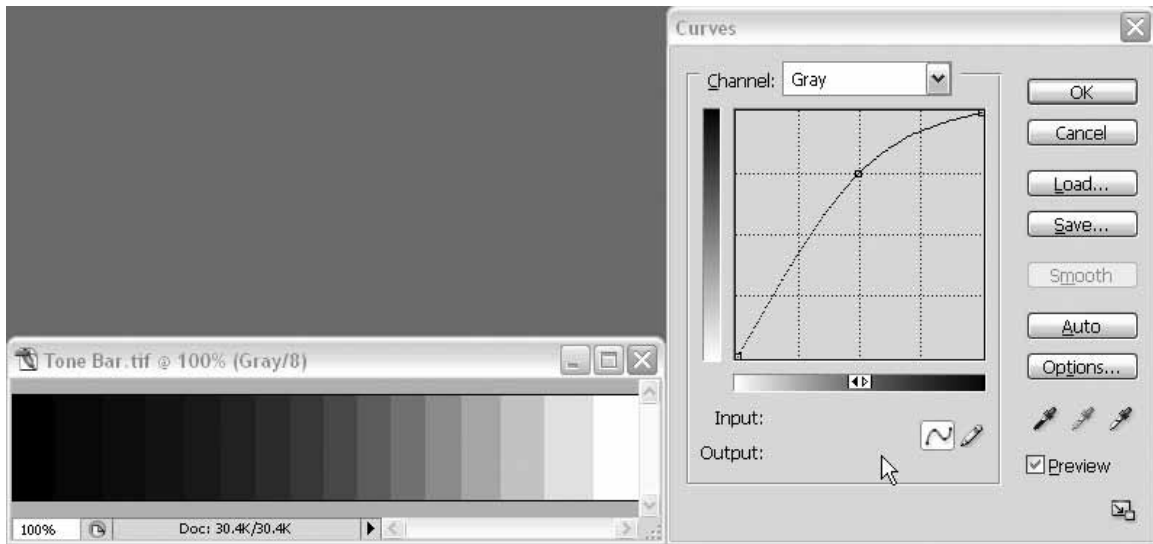
Curves: The most powerful tonal adjustment tool is “Image – Adjust – Curves”. It is also the most complex one to learn. If you want to make a picture that has really ugly tonality, curves is your tool. However, if you take the time to learn to use the curves adjustment correctly, you will be rewarded the ability to make very fine adjustments effectively.



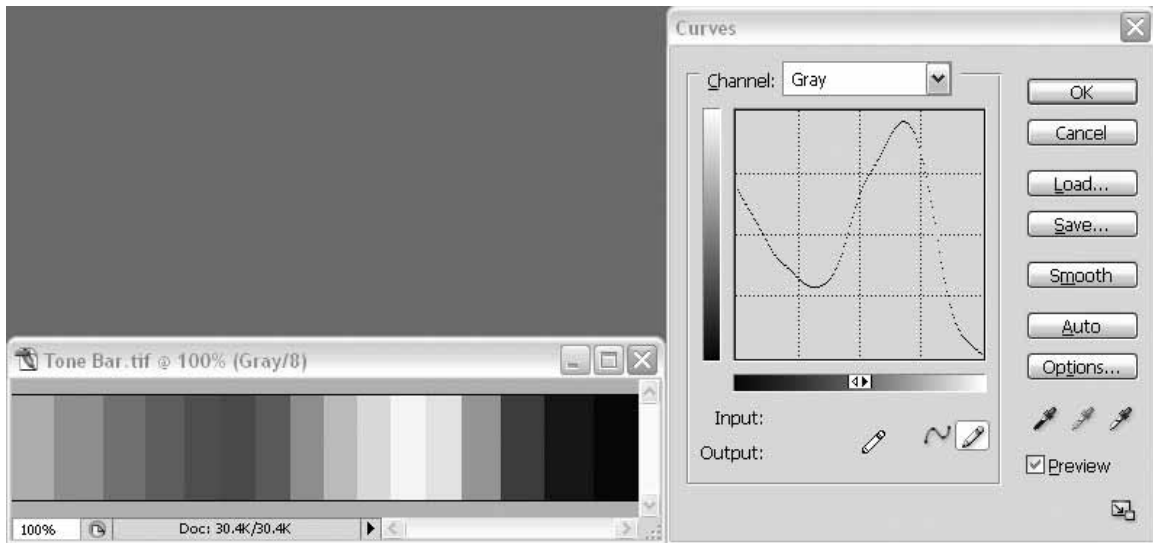
The curves dialog box opens with a straight line indicating that the image is not being changed. The grayscale across the bottom represents the original tones of the image. The grayscale up the left side represents the tones that the image will have after adjustment. (Clicking on the two arrows in the center of the bottom grayscale reverses both grayscale so that the lightest tones are on the left/bottom and the darkest are on the right/top of the two grayscale.) When the dialog box opens, there is no point in the center. Adjustment points may be added anywhere on the curve by clicking on the line.



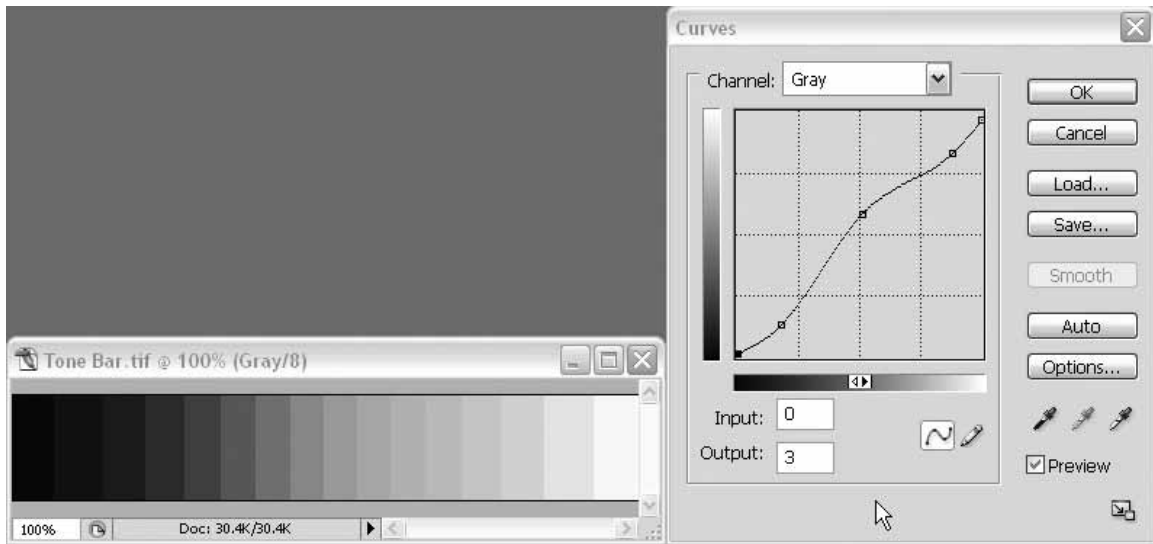
In the example above, the highlights have been darkened to 75% of maximum brightness and the shadows lightened to 25% of maximum brightness.



Here the middle value has been darkened from 50 to 25% and the minimum and maximum values are unchanged. (Note that grayscales are reversed so moving the curve up darkens the image.)



Using the curves adjustment very complex tone reassignments may be made. While the results will be anything but natural, they may also be very interesting.



The curves adjustment allows the setting of the black and white points as well as adding adjustment points across the entire curve. This permits the tone scale to be compressed across one range of tones, maintained normally over another, and expanded in other areas. While it is most complex tonal adjustment tool to learn, it also provides for the most specifically controlled results. Learning to use it properly is time well spent.

Image Content Alteration

Cloning Tool: This tool is used to duplicate image information from one area of an image to another or from one image to another. This is one of the main ways to correct image defects, remove stray hairs, wires and other undesirable image content.

For more detailed explanations and examples please visit the following web sites.

<http://graphicssoft.about.com/od/photoshop/ig/The-Photoshop-CS2-Workspace/Photoshop-CS2-Workspace.htm>

pages 1, 2, 3, 4, 5, 14, 15, 16, 17

keyboard short cuts

<http://graphicssoft.about.com/od/photoshop/ig/The-Photoshop-CS2-Workspace/Photoshop-CS2-Workspace.htm>

Selection tools

<http://www.uwec.edu/help/PhotoshopCS2/selecting.htm#Marquee>

University of Wisconsin select subject on search bar. Most of CS2 commands available

<http://www.uwec.edu/help/PhotoshopCS2/toolbox.htm>

To get information on a particular program try a search as follows.

-----color space ex. Photoshop cs2 color space. I have tried several different programs and that search parameter seems to work pretty well. You might also try

----- tools