

SELECTIONS:

Much if not most of the time required to prepare a photograph for printing will be done within selected areas, sub parts of the photograph. Adjustments are made to the pixels in two ways. One: All of the pixels in the photograph may be adjusted at the same time. This procedure is known as global adjustment. Two: When only those pixels in a portion or portions of a photograph require adjustment, a process known as SELECTION is used to isolate those specific pixels to be adjusted. Once the desired pixels have been selected, most of the tools within the toolbox and the image adjustment menus may be used to modify the selected pixels.

The following is a partial list of the selection tools available.

Marquee:

Rectangular: Squares and rectangular forms both horizontal and vertical.

Elliptical: Circles and ellipses.

Single Row: This identifies only those pixels in a single row horizontally or vertically.

Lasso: A free form method of surrounding an area of non-specific size and shape.

Polygonal: A free form method utilizing only straight lines from one pint to another.

Magnetic: A free form method which allows the computer to aid in the selection process by following the edge of an object which has a distinct tonal value differential to that of an adjoining area.

Magic wand: The magic wand tool is an automated method of selecting pixels based on color (tonal value). This tool selects pixels of the same color (tonal value) that are contiguous to each other (touching), or all of the areas of the photograph containing pixels of the same color (tonal value). This is a very versatile tool; it may be adjusted from a very narrow to a very wide range of color (tonal value) from which the selection is made. This setting is called tolerance. Making a new blank image and then filling it with a smooth black to white gradient can be used to test the effect of the tolerance setting. If a tolerance of 0 is selected, clicking anywhere in the gradient will select a very narrow band of the image. Setting the tolerance to 10 will cause a much wider band to be selected. If the tolerance is set to 128, clicking in the center of the image will select all or most all of the image, while clicking on either the black or white ends of the gradient will select half of the image. This is because the tolerance is the range of values above and below the value of the pixel clicked on that will be selected. Since there are 256 different values, clicking on a middle value will include those 128 lower and 128 higher, or all values. Clicking on a black value will select up to value 128 and nothing lower as black is already the minimum value. Likewise clicking on white (255) will select down to 128 but

nothing higher as white is the maximum value. If the tolerance is set to 255, clicking on any pixel will select the entire image.

Color Range: There is a menu tool on for selecting all of the pixels of a certain color in an image. By choosing “Select” and “Color Range”, clicking on a particular color in the image with the “Sample Color” eyedropper (a plus [+] eyedropper and a minus [-] eyedropper are also available to add additional colors or subtract colors) and adjusting the “Fuzziness” slider, one can select, for example, the sky or skin tones to allow modification of only those areas.

Quick Mask: This is a tool for viewing and modifying selections that, once learned, is easy to use and applied in a very visual way.

Quick mask mode is entered by clicking on the quick mask mode button located near the bottom of the tool palette, just below the foreground and background color icons.

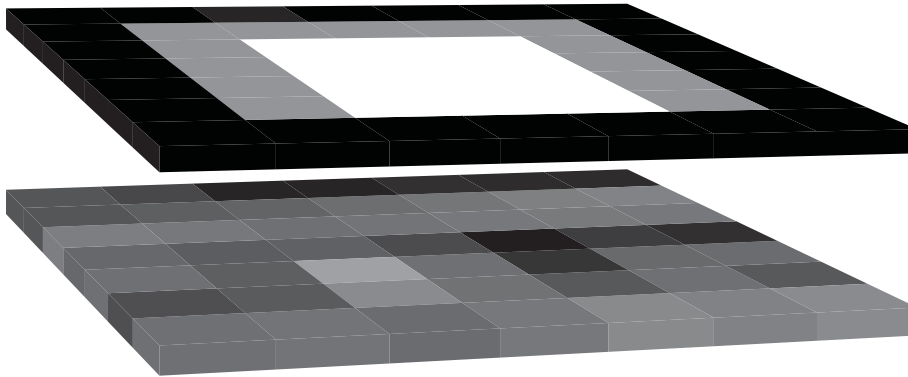


Enter Quick Mask Mode button

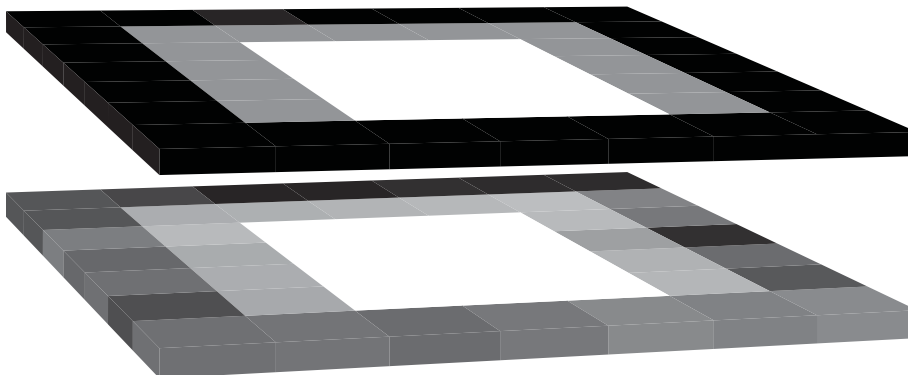
Double clicking on the Enter Quick Mask Mode button allows selecting whether color indicates selected or unselected areas and also lets the user select the color for the mask (red is the default) and the visual opacity of the mask (50% is the default). If a selection is active when entering quick mask, it will immediately be visible and the “marching ants” marquee will no longer be seen. Once quick mask mode has been entered, the selection can be modified by using any of the painting tools, adjustment menus, or filters that work with 8 bits per pixel grayscale images. Once the quick mask editing is completed, normal editing is restored by clicking on the Exit Quick Mask button immediately to the left of the Enter Quick Mask button. Upon exiting quick mask, the selection marquee will once again be visible. If there is no active selection when quick mask editing is entered, it will appear that nothing has happened. However, the selection process may be started by painting an area that should not be selected with a black paintbrush or by using any of Photoshop’s other tools to add to or subtract areas from the quick mask. The quick mask is not stored with the Photoshop file. Any selection may be saved for future use by choosing “Select” “Save Selection...” and saving the selection to an alpha channel. A saved selection may be reloaded by choosing “Select” “Load Selection...” and choosing the desired alpha channel.

The quick mask function is a way of making the selection visible and allowing it to be visually modified with painting and other Photoshop tools. Whenever there is an active selection, there is a mask present. It is only visible by way of the “marching ants” marquee. The rule for the marquee is that any area that is selected by a value of 50% or more will be surrounded by the “marching ants”. An area that is selected by a value of less than 50% will not have a visible selection, although adjustments will still affect pixels to the degree that they are selected.

It may be helpful to visualize a selection as a protective mask placed above the image pixels. The selection has one pixel for each image pixel. Each selection pixel may have a value from 0 to 255. A value of 0 will prevent adjustments from having any effect on the image pixel, while a value of 255 will allow the image pixel to be adjusted as if there were no selection present. Values from 1 to 254 allow corresponding degrees of adjustment.



This illustrates a group of image pixels with a corresponding group of selection pixels above them. The black selection pixels prevent changes to the image pixels. The 50% gray selection pixels permit half of any adjustment or effect to be applied to the image pixels, and the white selection pixels allow the effect to be fully applied.



This illustration shows the result of applying “Edit” “Fill...” “White – Normal – 100%” through the selection. All of the image pixels in the fully selected area have been replaced with white. Each image pixel in the 50% selected area is now a combination of 50% of the white and 50% of its original value. The image pixels in the unselected (black) area have not been altered.

When making a complex or difficult selection, it is a good idea to periodically leave the Quick Mask Mode and, with the selection active, choose “Select” “Save Selection...”. The selection may be saved in a new alpha channel each time, or existing alpha channels may be replaced, which will keep the file size smaller. Once the selection is complete, the “marching ants” marquee may be hidden by pressing Control+H. This can make

evaluation of the adjustment much easier by removing the distraction of the marquee. It is very important to remember to either deselect (Control+D) or unhide the selection (Control+H) after the adjustment has been completed. Attempting to work on portions of an image outside of the selected area with the selection hidden tends to result in embarrassing episodes of cursing and equipment destruction.

Time spent learning to make selections efficiently is well spent indeed. Of all the Photoshop functions, selecting the pixels to be altered is certainly the most time consuming and the most revealing of poor technique when not done well. At the same time, it is also the way to the most refined control of the final image. Any skilled darkroom worker can only dream of having that degree of control under an enlarger.

Now it is time to get all those pixels rounded up, happy hunting.