

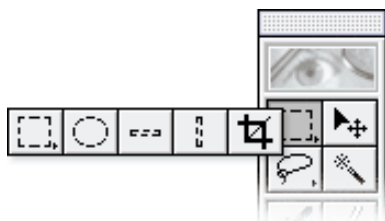
Photoshop Instant Expert

The Marquee Tool Suite

By Ben Willmore

This is the first in a series of columns written for PEI magazine by the author of Official Photoshop 5 Studio Techniques (Adobe Press). These tips can take your Photoshop skills to the next level, no matter what your expertise.

The first venue on our tour of Adobe Photoshop is the top of the tools palette, where we'll find the basic selection tools. Selection tools allow you to define the areas in your image that will be affected when you paint, apply a filter, or make adjustments. We'll start with the



From left to right: Rectangular Marquee, Elliptical Marquee, Single Row, Single Column, and Crop tools.

Marquee suite, the set of selection tools at the upper left of the Tool palette (left to right): the Rectangular Marquee, the Elliptical Marquee, the Single Row, the Single Column, and the Crop tools. We will also enhance the power of these basic tools by using them in combination with other Photoshop features.

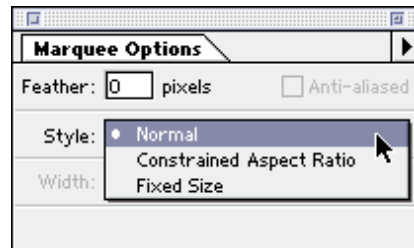
Rectangular Marquee Tool

The Marquee tool is named after the theater marquees of old—you know, the ones with a zillion flashing bulbs around the edges. Isn't that what a selection looks like after you've created it?

At the most basic level, you simply click and drag across your image with the Marquee tool to create a selection. Where you click defines one corner and where you let go of the mouse button determines the opposite corner. But under this deceptively simple façade lie some very useful features.

To unlock the power of the

Marquee tool, we'll need access to all the features in its Options palette. To bring up this palette, either double-click on the Marquee in the tool palette, or press the return key while the Marquee is active.



The Marquee Options palette is needed to access most of the Marquee's features.

Before we start making selections, we should think about the kind of edges we'd like the selection to have. You have a choice of three: Aliased; Anti-aliased; or Feathered. Your choice depends on what you plan to do to the selected area. For example, if you need to slowly blend in an adjustment to the image, you'll definitely need a feathered selection.



Left: normal, unfeathered selection. Right: selection with a feather setting of 10.

When you feather a selection, the marching ants show up only where the pixels are at least 50% selected; that means you can paint a little beyond the marching ants.



The marching ants indicate where a selection is at least 50% selected.

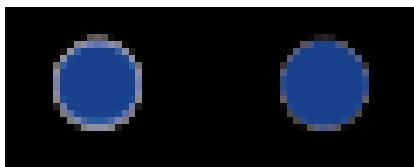
The Anti-aliased option is a little more subtle. The edges fade out

just like a feathered selection, but it's limited to the width of a single pixel. I usually leave this feature on because it prevents my images from having a jagged look.



Left: Anti-aliased checkbox turned on.
Right: Anti-aliased checkbox turned off.

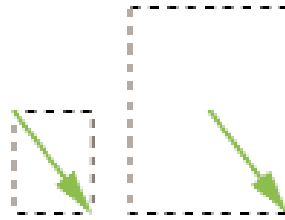
An anti-aliased edge can cause problems when you copy an image from a bright background and paste it onto a dark one. You will often see a hint of a white rim around the image because your selection picked up some of the background from the original image. After pasting the image, you can remove the white rim by choosing Layer>Matting>Remove White Matte; if the edge is a color other than white, choose Defringe.



Left: White residue typical of images copied from bright colored backgrounds. Right: Result of applying Remove White Matte.

Now that we've looked at your edge options, let's take a look at some things we can do with the Marquee tool.

When you are dragging with the Marquee tool, you can constrain the shape of the selection you are creating to a square by holding down the shift key anytime after you have started the selection. You can also force the Marquee to start at the center of your selection (instead of the corner) by holding the option/alt key while you are making the selection.

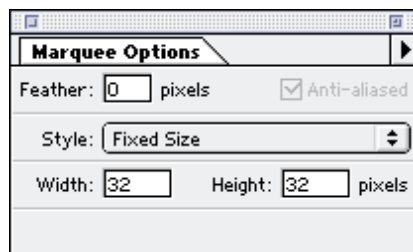


Left: Normal "corner to corner" selection.
Right: Selection made while holding option/alt key.

By holding the shift and option/alt keys at the same time, you can even combine these two features to create a selection that is a centered square.

It's often difficult to start a selection in the exact corner of a document—you'll either click a few pixels away from the edge or click on the edge of the document (which will move the document around your screen). You can make this much easier by starting the selection in the middle of your screen and then holding the spacebar, and drag it into the corner of the document. This will allow you to move the selection before you have finished creating it.

When you need to create a selection of a specific size, you might find the Fixed Size option useful. It's great for creating icons (which always measure 32x32 pixels on the Mac), or when you are creating graphics for the Internet (where people usually think in pixels).



Using the Fixed Size option, you can enter an exact pixel width and height.

But what if you'd rather measure the selection in inches, picas, or some other measurement system? Photoshop 5 offers a solution: Start by making a selection larger than you will need (scaling-up small

selections produces a feathered edge, even if the original selection was not feathered), then choose Select>Transform Selection. Now to specify an exact size, control-click (right mouse button in Windows) and choose Numeric from the pop-up menu that appears.



When transforming a selection numerically, you are not limited to percentages.

At first glance, you might assume that you must scale the selection by entering a percentage, but that is not true. Just change the pop-up menu to the measurement system you desire, and then you can set your selection to the exact size you need. If you want to specify an exact position for the selection, you'll need to change the position settings. First, turn off the Relative checkbox (relative means you would move the selection a certain distance from where it is now) and then specify where you want the upper left edge of the selection to be, relative to the top left corner of the document (X=distance from left edge, Y=distance from top).

After you click the OK button in the dialog box, you'll need to press enter to indicate you are finished making the transformation—otherwise Photoshop assumes you'll make additional changes by dragging the handles that appear around the selection.

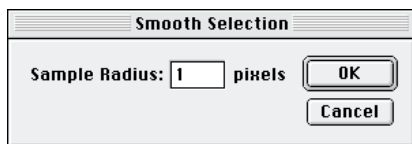
Constrained Aspect Ratio

The Constrained Aspect Ratio option allows you to constrain the width and height of a selection to a

particular width-to-height ratio. I find this useful when I'm trying to figure out how a magazine editor might crop my image to fit into an 8x10-inch layout, or a 35mm slide (which uses a 3x2 width/height ratio).

Rounded Corners

Unlike other programs, Photoshop does not offer a choice for rectangles with rounded corners. But if you choose **Select>Modify>Smooth**



*Choosing **Select>Modify>Smooth** will round off the corners of a rectangular selection.*

after creating a selection, you can do it. I don't really like this feature because it forces me to think numerically instead of visually (there isn't a preview). I usually replace this command with another technique that will also display a visual preview of the result.

First, make a selection using the Marquee tool, then press "Q" on your keyboard to turn on Quick Mask mode; this will change your selection into a red overlay. Now you can round the corner of the selection by applying the **Filter>Noise>Median filter**. If the maximum setting of 16 is too low for your requirements, then apply the filter more than once.



Using Quick Mask and the Median filter improves on the Smooth command.

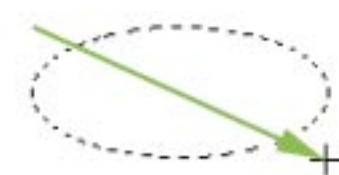
When the corners look the way you want them to, just type "Q" again to turn off the Quick Mask

mode, and you should end up with rounded corners on your selected rectangle.

Elliptical Marquee Tool

The Elliptical Marquee tool is great for selecting round and oval-shaped objects. The only problem is that it creates a selection by dragging from the "corners" of an oval.

If you find it difficult to deter-



The Elliptical Marquee forces you to create a selection by thinking about the imaginary corners of an oval.

mine the corner of an oval, you can press the spacebar and then drag the selection around your screen before you release the mouse button. That makes the Elliptical Marquee tool a little more manageable, but you do have a more intuitive choice.

To avoid having to think about corners, first create a selection larger than you will need and choose **Select>Transform Selection**. Now you should be able to resize the selection by dragging on the edges of the circle, rather than its corners. Once the selection has been manipulated to your liking, press enter to indicate that you are finished transforming the selection.

Single Row/Single Column Tools

If you click and hold on the Marquee tool in your Tool palette, you'll discover two seldom-used tools: Single Row and Single Column. I have to admit that I don't use them all that often, but occasionally they do come in handy.

If you ever create screen shots for training materials, you almost always have unwanted pixels between palettes where you can see



The Single Row and Single Column tools are useful on occasion.

the underlying image. A quick click with the Single Column tool selects those pesky pixels, and hitting delete gets rid of them.



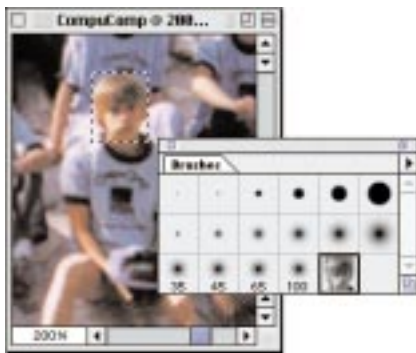
I use the Single Column tool to remove information between palettes after taking a screen shot.

These two tools can also be useful in creating backgrounds for Web pages. In the HTML code used to create Web pages, you can specify an image to be used as a background. This background image will be tiled until it fills the entire screen of the Web browser. A one-pixel-high image will create an extremely small file, but when it is tiled, you would never know the original was only one pixel wide.

Hide Edges

Since the marching ants don't print, and they are constantly moving around your screen, it is often useful to hide their edges. You can accomplish this by choosing **View>Hide Edges**, or by typing **cmd/ctrl-H**. The selection will still be active, but you won't see any marching ants. To make them reappear, type **cmd/ctrl-H** again. If you'd rather get rid of a selection so you can work on the entire image, you can choose **Deselect** from the **Select** menu (or type **cmd/ctrl-D**).

Once you've got a basic selection, the possibilities are limitless. You can lighten the image within the selection—great for overlaying text—by choosing Image>Adjust>Levels and moving the lower left slider. You can choose Edit>Fill to fill the shape of the selection with a color, or Edit>Stroke to draw a line around the edge of the selection. Or you can open the Brushes palette and choose Define Brush from the side menu of the palette to turn the selected area into a brush. Almost anything you attempt to do to the image will happen to only the area that is selected.



You can create a custom brush by choosing Define Brush from the side menu of the Brushes palette.

Crop Tool

The Crop tool has lots of interesting options. At its most basic level, you simply click and drag across your image to create a rectangle, then press the enter key to discard anything that is outside the rectangle. If you screw up, you can abort by pressing the escape key.



The Crop tool discards anything that appears outside the cropping rectangle.

While you are using the Crop tool, you can move your cursor to just outside one corner of the cropping rectangle, and drag to rotate and crop the image at the same time.



Move your cursor just outside the corners of the cropping rectangle to rotate and crop the image at the same time.

You can even add extra space to your document by typing “F” to turn on Full Screen mode, and then pulling the cropping rectangle beyond the edge of the document.



Full Screen mode allows you to extend the cropping rectangle beyond the edge of your document.

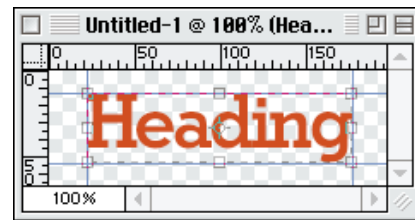
The space that is added will be filled with the current background color. It's often helpful to option/alt-click on the edge of the document using the Eyedropper tool to match your background color to the content of the image.

If you ever need to crop an image by a very small amount (to remove residue from the edge, for example), then you might become frustrated when you realize that the cropping rectangle has a tendency to snap to the edge of your document. You can prevent this by holding down the cmd/ctrl key as you drag.

Occasionally, you might need to crop an image right up to the edge of the non-transparent areas (for instance, after entering text for a

Web site). To accomplish this, first turn on the rulers by choosing View>Show Rulers, then drag out a guide from the ruler and move it close to the edge of the text (it should snap to the edge). Repeat this on all four sides of the object. Then when you use the Crop tool, it should snap to those guides!

Tip: Press option/alt while dragging a guide to switch between vertical and horizontal orientation.



Use guides to force the crop to snap to the edges of objects.

You can easily crop an image to a specific size by double-clicking on the Crop tool to open its options palette and then turning on the Fixed Target Size checkbox. This allows you to set a specific width, height, and resolution for the cropped image. When you specify both width and height, Photoshop constrains the shape of the cropping rectangle to reflect the ratio of width to the height you entered. But if you supply only width (or only height), then Photoshop will not constrain the cropping rectangle, and will instead determine the height from the shape you create—a square makes the height the same as the width, for instance. If you leave the resolution setting empty, then Photoshop will not change the resolution.

There is one special choice in the Width and Height pop-up menus that very few people use, but I think it's immensely useful: Columns. When I create graphics that will be used in a magazine, newspaper, or book, I'm usually forced to make my graphics fit within the column grid of the

publication. This becomes easy if I specify the column width and gutter size (space between columns) in the File>Preferences>Units & Rules dialog box.



You can specify the width of a crop using columns if you first set a few preferences.

After I've let Photoshop know how wide the columns are, I'm able to crop and scale any image to a specific number of columns wide. I also enter the resolution requested by the particular publication I'm working on. Then I enter the number of columns wide I'd like the image to be, and leave the height setting blank; that way, Photoshop will determine the height based on the shape of the cropping rectangle.

If you ever need to crop an image to match the size of another document, you'll love the Front Image button. It will copy the width, height, and resolution settings of the active document and use those settings in the Crop Options palette.

Now that we've made it through some of the basic selection tools, I'll fill you in on a few keyboard commands that can really speed things up: type "M" to make the Marquee tool active; type Shift-M to toggle between the Rectangular and Elliptical Marquee tools; type "C" to make the Crop Tool active. ◀

Ben Willmore is the founder of Digital Mastery, a training and consulting firm in Boulder, Colorado. You can contact him through his Web site: www.digitalmastery.com.

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