

# Photoshop

## The Magnetic Lasso



In this episode of Photoshop Instant Expert, we complete our tour of Photoshop's basic selection tools with the exploration of the Magnetic Lasso tool. This nimble little tool can save you a ton of time, but it really shines when you use it in conjunction with some of Photoshop's other features.

### The Big Picture

The Magnetic Lasso tool clings to the edge of an object just like a magnet is attracted to a metal surface. When it starts to "cling," you simply guide the Lasso around the edge of the image, and it will attempt to latch onto the edge to create a selection that matches the shape of your object.

To give you an idea of how fast and easy this tool can be, check out the image below. I drew a crude outline of the flower in about 10 seconds (shown in yellow) and



Here you can see both the shape I drew using the Magnetic Lasso (shown in yellow), and the selection I ended up with.

Photoshop did the rest!

That's pretty neat, but unless you have a blatantly simple selection to make, the Magnetic Lasso will need a bit of help in order to deliver the accurate and refined selection that you're shooting for. Let's take a look at what's involved.

### How it Works

Before you even start a selection, you'll want to press the caps lock key. This will change your cursor into a circle. The circle indicates the area that Photoshop will analyze when it attempts to find the edge of an object.

Next, click anywhere on the edge of the object you would like to select. Be sure you have the center of the circle on the edge, because that's where Photoshop starts looking. I think Adobe noticed that people were having trouble with this concept because they upgraded the cursor in Photoshop 5.5 (released in July) so you can see more precisely where you are clicking.



Left: Photoshop 5.0. Right: Photoshop 5.5.

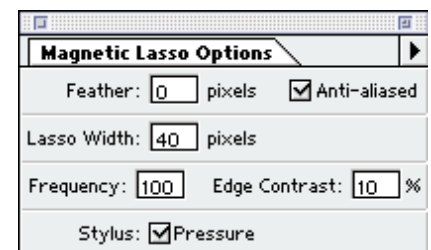
There's no need to keep the mouse button down, so just click and let go. Now, roughly trace around the

edge of the object so Photoshop will know what you are attempting to select. You don't have to be exact, just make sure the edge of the object always remains inside the cursor. If the edge ever wanders outside the cursor, then the Magnetic Lasso will not be able to find the edge.

You'll probably want to start playing with the tool right away, so I'd better tell you how to get out of it, just in case the first try doesn't work out. If that happens and you want to start over, just press the escape key to abort the selection.

You should also know that there are three ways to finish the selection: You can click where you started the selection, double-click the mouse button, or press the return/enter key.

If the cursor is too large or small, you'll need to change the Lasso Width setting. There are two ways to do this: either double-click the Magnetic Lasso tool in the Tools palette to access its Options palette, or type "[" or "]" to enlarge or reduce the size of the cursor.



Double-click on the Magnetic Lasso tool to open its Options palette.

As you drag around the edge of an object, you'll notice that some square anchor points are being added to the line every once in awhile. These points determine how far you can back up to make corrections.



Anchor points determine how far you can back up to fix an area.

If you need to back up further than your last anchor point, press the delete/backspace key multiple times. Each time you press delete, one anchor point will be removed. You can also control how often anchor points are added by changing the Frequency setting in the Options palette. These settings can range from 0 to 100; higher settings produce more anchor points. I use low numbers for simple objects and raise the setting for complex images.

### Sample Problems

Now let's take a look at some of the problems you might encounter, using this football player as an example.

#### 1. Manually Trace

If you find that the Magnetic Lasso tool can't find the edge of an object, hold down the option/alt key and then click and drag to temporarily engage the standard Lasso tool. This can be a real life saver when the subject completely blends into the background, because usually you can visually guess-ti-mate where the edge should be.



#### 2. Zoom In and Scroll

At any time, you can type cmd/ctrl-plus (+) or cmd/ctrl-minus (-) to zoom in or out of your image. Also, you can hold the spacebar and drag to scroll around the image.

#### 3. Refine Afterward

You don't always have to get the selection perfect on the first try—you can always modify it after it has been created. Using the standard Lasso tool, you can shift-click to add to a selection, or option/alt-click



to subtract from the selection.

#### 4. Resize

Be careful when the edges of multiple objects are within the circle;

Photoshop will prefer the one that is closest to the center of the cursor. Remember that you can type "]" or "[" to resize the cursor.

#### 5. Add Anchors

Occasionally, the Magnetic Lasso seems to change its mind—first selecting what you wanted, then moving to another area a few seconds later. When this happens, click the mouse button (but don't hold it) to manually add an anchor point. This will force Photoshop to stick to its current path.

#### 6. Subtract from Selection

You can use the Magnetic Lasso to subtract from a selection that already exists by holding option/alt (or shift to add to a selection) when using the tool.

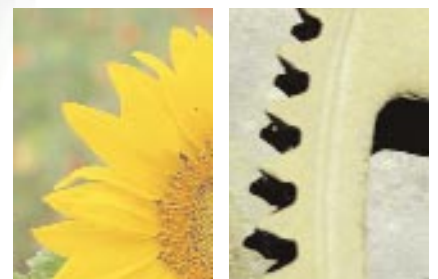
#### 7. Fix Contrast

The Edge Contrast setting is one of the most critical settings when using this tool. Edge Contrast determines how sensitive the Magnetic Lasso will be to small variations in the image.

Look at the images below. If you want Photoshop to ignore the small

variations in the petals of the sunflower below, then you must use a high Edge Contrast setting.

Otherwise, the Magnetic Lasso might attempt to select the fine lines in the middle of the petals. On the other hand, you would need a really low Edge Contrast setting to be able to select the barely visible indentations in the green gear.



Left: A high Edge Contrast setting is needed to select the outer edge of the flower. Right: A low Edge Contrast is needed to select grooves in the gear.

### Graphic Tablets

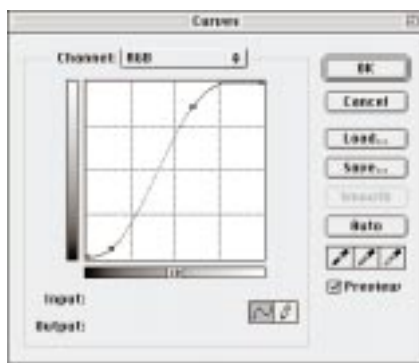
If you are having trouble with images that have high contrast in one area and low contrast in another, you should consider purchasing a graphics tablet. The Stylus Pressure checkbox (in the Options palette) allows Photoshop to change the Edge Contrast setting based on how hard you are pressing with a tablet.

## Problem Images

Occasionally, you'll run across an image in which the Magnetic Lasso just can't distinguish between the subject and the background. In that case, you can choose New Adjustment Layer from the pull-down menu on the side of the Layers palette and use Brightness/Contrast or Hue/Saturation to exaggerate the transition. When adjusting the image, don't be concerned with how it will look when printed; this adjustment is temporary and will only be used while you are making the selection. Once you are finished using the Magnetic Lasso, simply drag the adjustment layer to the trash, and your image will return to its original settings.



Left: Original image. Right: After applying Curves using an Adjustment Layer.



The curves adjustments that were applied to the castle image.

Another option is to limit how much information Photoshop is looking at when attempting to find the edge of the image. You can do this by typing cmd/ctrl and a number (1-3 for RGB images, 1-4 for CMYK). This will display only

one of the color channels of the image (red, green, or blue in an RGB image). If it's easier to see the difference between the subject and background in one of these channels, then the Magnetic Lasso might do a better job when only that part of the image is visible. Again, this is just a temporary way of viewing the image to make it easier for the Magnetic Lasso to do its job.

When you have finished making a selection, type cmd/ctrl ~, or click on the topmost channel in the Channels palette to return your image to normal.



Clockwise from upper left: Full-color image, Red channel, Green channel, Blue Channel.

## Hard-Edged Selections

The Magnetic Lasso is just like any other basic selection tool in that it delivers a generic hard-edged selection. That means it is less than ideal for images that blend slightly with the background, such as hair.

When Adobe released Photoshop 5.5, they added some new masking tools that make it much easier to remove the background from objects that fall into this category. These include the Image>Extract command and the Background Eraser tool. They work very much like some third-party plug-ins, such as Extensis Mask Pro and Ultimatte Knockout. These new tools even try to remove slight contamination in areas that you are not necessarily

trying to remove, such as areas where the background might reflect light onto the subject of the image. If you need to remove the background behind someone with curly blonde hair, for example, be sure to check out Photoshop 5.5.



Images that contain soft edges or blend with the background are not ideal for the Magnetic Lasso tool.



Left: Magnetic Lasso tool. Right: The new Photoshop 5.5 masking tools.

This concludes our tour of Photoshop's basic selection tools. Have fun playing with these tools while you wait for your next issue of *PEI*. In the meantime, you're welcome to stop by my Web site and help yourself to my latest Photoshop tricks. ◀

Ben Willmore is the presenter of the national seminar tour, "Master Photoshop in Three Days." You can contact him through his Web site: [www.digitalmastery.com](http://www.digitalmastery.com).

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