

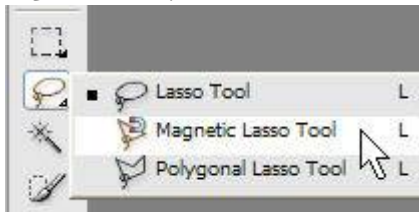
Photoshop Elements SIG - June 8, 2005
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Selection Tools

Last month we looked at some of the initial selection tools, such as the Rectangular and Elliptical Marquee tools. We also talked about using the Lasso and Polygonal Lasso selection tools. This month we will add the Magnetic Lasso and the Magic Wand tools, and show you how to add and subtract from any initial selection.

Magnetic Lasso

The Magnetic Lasso tool is found as one of the three Lasso tools in the Tool Bar. Click and hold the Lasso tool icon and select the Magnetic Lasso tool.



Magnetic Lasso Tool

The Magnetic Lasso tool works best when you are trying to select an object that has clearly defined color tones from the rest of the picture. Open a photo with a flower that is distinct from the background. Then, to protect the picture, Duplicate the photo using File>Duplicate and save a version of the photo as a psd file. To further protect what we will do to the photo, make a copy of the Background Layer. Then we can start with the Magnetic Lasso.

To use the tool, click and move the Magnetic Lasso around the flower in the picture. Move slowly and as you trace the outline of the flower, the lasso will follow that outline. (You do not have to keep the mouse depressed to

create the selection. Just click and release the mouse at the starting point. Then move the mouse slowly around the selection.) Don't worry if the lasso does not follow the flower exactly. Just keep moving until you have completely enclosed the flower. When you reach the beginning, double click and the selection will be established. If you can see a small zero beside the Lasso tool icon under the mouse pointer when you have reached the starting point, then just use a single click of the mouse. The selection is complete.



Magnetic Lasso - Applied

The reason to move slowly is to give the algorithm that drives the Magnetic Lasso time to resolve and place the dots along the separation line between the objects in the picture. When the selection is completed, you will see the marching ants along the boundary of the flower. But you will probably need to alter the selection to make it better. Next is a portion of the picture showing how the selection mainly follows the flower, but has not quite done the job correctly.



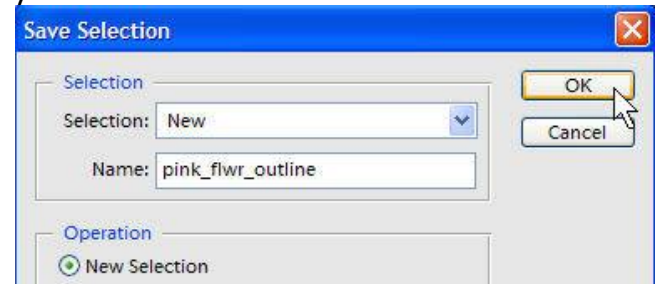
Error in Selection

Since the enclosed selection is around the flower, what we need to do is remove that small segment of the background from the flower selection. We can do that using one of the Lasso tools. My preference here is to use the Polygonal Lasso tool. To apply it here, I select the Polygonal Lasso tool and hold down the Alt key!!! Note that the Tool becomes a Polygonal Lasso with a Minus sign beside it as you hold the mouse over the picture. Click outside the flower selection in the background area to start the Polygonal Lasso tool. (Keep the Alt key depressed throughout this entire process until the Polygonal Lasso tool selection is completed!) Then click and follow the background section outline that is in the corner of the flower with the selection portion that you want to remove. Finish clicking near your starting point which is outside the flower selection. When you click to complete the selection with the Polygonal Lasso tool, the background is immediately removed from the flower selection.

If you need to add to the flower selection, you can use either the Lasso tool or the Polygonal Lasso tool and hold the Shift key down while using the tool to make the selection. You will see a plus sign next to the Lasso tool under the mouse pointer when you

are adding to a selection. When you complete the selection, that additional portion is immediately added to the central flower selection. Continue adding (with the Shift key) or subtracting (with the Alt key) until the selection is complete.

Now that you have gone to all this work to get your selection, let's save it. Go to the menu, and select **Select > Save Selection**. Give your selection a name and click OK.



Saving the Selection

If you ever lose the selection of the flower, you can try either **Select > Reselect**, or **Select > Load Selection**. If you use Load Selection, pick your flower selection name from the drop down menu and click OK. You will have your selection back again.

To make a copy of your flower selection, select Edit > Copy. Add a new layer to your picture, and select Edit > Paste. That will place the flower in the new layer. To see it clearly, click off the visibility of the background layer and the copy of the background layer (click the eye icons).

You may want to clean up the flower on the new layer using the Clone Stamp tool or the Eraser tool. But before you do that make a copy of the isolated flower layer and work on the copy of the layer. That way if you mess it up, you can always trash the copy of the

isolated flower and start over on a fresh copy.



Initial Flower Picture



Isolated Flower after Selection

Magic Wand Tool

The Magic Wand tool is invaluable when you are trying to isolate a part of the picture that contains nearly equal color tones. Consider the following picture of a flower. The stems of the flower are fairly delicate and if we tried to use a Magnetic Lasso, we would probably miss a great deal of the flower. So the Magic Wand is the ideal tool. Select the Magic Wand and set the Tolerance to 20 and have check marks beside Anti-aliased and

Contiguous. Be sure Use All Layers is unchecked.



Orange Flower with Nearly Constant Background

To start, click anyplace on the background with the Magic Wand. To add to that selection, hold down the Shift key and click again on another part of the background. Now your selection has grown. You could continue to hold down the shift key, but there is an easier way to add when you are planning on adding a lot of selections. Review the options for the Magic Wand in the Option Bar above the picture, and select the second icon group for Add to Selection.



Add to Selection Option

When this Add to Selection icon is activated, each click of the Wand on the picture will add to the original selection. Try it.

This works fine, but there are a lot of grey holes of background behind the flower. Isn't there an easier way? Yes, there is. Try unchecking the Contiguous box in the Option Bar, but leave the Add to Selection icon active. Now click another grey area behind the flower. In one step, almost all the grey

background has been selected. You will have to Zoom in on the individual background areas to complete the total background selection. But be careful!!! If you stay with Contiguous unchecked for too long, you will find that added selections may start picking up some of the stems of the flowers. To prevent this, you will need to recheck Contiguous and lower your Tolerance to around 10. Go ahead and complete the background selection.

Now comes the real magic. You have the background selected, but you do not have a selection of the flower. To get the flower, simply invert the selection by choosing **Select > Inverse**. It may look the same, but now the flower is selected. Just as you did for the first example, save the selection by choosing **Select > Save Selection** and naming the saved selection. Click **OK**. With the orange flower still selected, choose **Edit > Copy**, add a new layer and **Edit > Paste the flower** to the new layer. Turn off the visibility of the background layer and its copy, and examine the flower. If you want to modify the selection, activate the Background Copy layer and add/subtract from the selection of the flower. The extracted flower looks like this.



Orange Flower Extracted from Background

Selection Secrets

The biggest discovery I had when I started working with adding and subtracting to selections, was when I realized that you can use any selection tool when you add or subtract selections. For example, you may start with the Magic Wand tool, and add to the initial selection using the Lasso tool, or the Polygonal Lasso tool. It doesn't matter. I have started a selection with the Magic Wand tool, and then added to it using the Rectangular Marquee selection tool. Then I switched to the Polygonal Lasso tool to add more. You can really mix and match. Whatever works for you. But - you have to remember to crosscheck any new tool and be sure you are either in the addition or subtraction mode before you do the next click. If you don't, then you are liable to lose all that past work doing the selection. If this happens, just do a Ctrl+Z to undo the latest mistake, and start again. Good luck with your selections.

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