

Photoshop Tutorial

University of Chicago Computer Science Instructional Laboratory
(MacLab / linux lab)

1 Getting Started

1.1 File → New

Select the size of the blank document that you want to create. Pay special attention to your choice of resolution. If you're creating an image for the web, 72 pixels per inch will suffice. If you're creating a detailed art project, you want at least 300 pixels per inch, but obviously the more the better.

1.2 A Few Words About Color

Computers recognized many different color formats. Some common choices include:

RGB color — lists a value between 0 and 255 for each of the Red, Green, Blue components of a color. (0, 0, 0), the absence of color, is completely black. (255, 255, 255), the presence of all colors, is completely white. Most Photoshop artists work in RGB.

CMYK color — lists a percentage of each of the colors (Cyan, Magenta, Yellow, black). CMYK can best be thought of as the “color printer cartridge colors.” Some graphics designers choose to convert their work (after it has been done in RGB) to CMYK so that they have a better sense of how it's going to look after it is printed.

Grayscale — this is exactly what it sounds like. It's a color mode that operates entirely in black and white. Usually in order to convert an image to grayscale, you will first need to flatten it. (More about this later)

Bitmap — Only allows for black and white dots (pixels); I wouldn't recommend using this in most cases

Lab color — Represents color with 3 components: (Lightness, color value from red to green, color value from blue to yellow). This is another non-standard color channel.

2 Saving Your File

2.1 File → Save As ...

The default format for Photoshop files is aptly named “Photoshop Format.” Keeping your document in Photoshop format is a good idea if you're planning to go back and edit it later. However, if you want to e-mail it or put it on a website, you will want to change the format to something more universal.

2.2 Popular Format Choices, Explained

Photoshop PDF —PDFs have gotten a bad reputation here in the Mac Lab, mostly because we don't print them. However, PDF was developed by Adobe for file-sharing purposes, which makes it an excellent choice for e-mailing a document to someone else (particularly someone who doesn't have the same version of Adobe Photoshop that you do).

TIFF —Tagged Image File Format, another format that is pretty universally readable.

2.3 File → Save For Web

Photoshop has a special Save For Web feature that allows you to choose between GIF, JPEG, PNG and WBMP formats. It also allows you to choose between “High,” “Medium,” and “Low” quality resolution.

3 Size Issues

Even the steadiest hands make small mistakes with a mouse. The best way to minimize the visibility of these mistakes is to zoom in sufficiently far on your project so that any mistakes that you make are not apparent once the project is restored to normal size.

4 Simple Photo Re-Touching

Say we want to edit Lime Cat:

Maybe we don't like the brown spot on LimeCat's lime. We want to find a way to fill in an appropriate texture and color to match the rest of the lime. Using the rubber stamp tool, we can do just that.

4.1 Using the Rubber Stamp Tool

To use the rubber stamp tool, first select a “brush” size that looks appropriate for the error that you're correcting. The rubber stamp is a cloning tool, and you don't want your cloning area to be too large.

Next, select the area that you wish to clone by holding down the option key while you click the mouse over that area.

Now, “dab” the mouse in short strokes over the area that you wanted to cover up (ie. The brown spot on the lime)



Figure 1: limecat.png

Look at the difference!

The one on the right has been re-touched. I also removed some unwanted whiskers.



Figure 2: limecat.png and limecat2.png

4.2 Cutting Out an Image

Suppose that we want to (precisely) cut out a picture of Homer Simpson.



Figure 3: homer.png

Using the magnetic lasso, trace (approximately) the border of the image. You'll notice that this is difficult to do in a precise manner (even if you are viewing the image at 400% its actual size). We will use the mask feature to make our selection more precise.

Click on the button that looks like a grey box with a white circle inside of it on the tool bar. This will enable you to enter the mask mode.

Once you are in the mask mode, you will notice that the area that doesn't show up in red is the area that you have selected (the red highlighted part is the "throwaway area"). By using the eraser and the paintbrush tools, you can add or subtract from this red area with amazing precision.

Once the selected (white) area on your image is to your liking, exit from the mask mode. Edit → Copy will copy your image and allow you to paste it into a new document.

Tip: In Photoshop, it is always a good idea to paste an image onto a different layer from its background. This will make it easier to move your image around the canvas.

4.3 Overlaying Two Images

4.3.1 For Example



Figure 4: homer2.png

We put the image of Homer Simpson on layer 1, leaving the photo of the University of Chicago campus as the background, layer 0.

4.3.2 New Layer

Go to the layer tool bar at the right of the screen and click on the arrow in the upper right hand corner.

The default opacity level is set to 100%. You can always change this later if you want your layer to allow some of the background to show through.

Note that the “color” does not affect the color of the content of your new layer, it just creates a tag of that color on the toolbar to help you organize your layers or flag layers that still need work.

What was “bad” about the preceding image?

You will notice that Homer Simpson still doesn’t quite fit with the background. There’s a blurry edge that goes all the way around Homer that seems to separate him from the University of Chicago campus.

The image on the left looks much more natural than the image on the right, namely because we used the rubber stamp tool to clone the background over the white border in the “Homer” layer (layer 1).



One useful layering trick is to take a photograph, place it on one layer, and then create new layers on top of it to trace different parts of the photograph.

Once you're finished with tracing the photograph, you can "hide" this layer by clicking on the eyeball icon on the Layer toolbar.

4.3.3 Layer Template Example

I created this drawing of my cat by tracing a photograph of her. I used over 100 layers to create it, assigning one color to each layer.

5 Text Special Effects

How to make drop shadow text with (optional) sparkles:
Instructions:

1. Create a black background
2. Write text (should automatically open in a new layer)
3. Hide background layer so that you can see the text
4. Make a Duplicate Layer. Change the color of the text in this layer to white.
5. Select Gaussian Blur for the Duplicate Layer from the Filter Menu.
6. Move the Duplicate Layer beneath the Text Layer on the layers list. Now feel free to move the Duplicate layer in relation to the Text layer in order to get the drop shadow effect that you want.



6 Resources for Further Photoshop Study

6.1 Web Resources

Adobe Design Center

This website is run by the makers of Photoshop.

<http://www.adobe.com/designcenter/tutorials/>

About: Graphics Software

This website has a large number of free Photoshop tutorials and tips.

http://graphicssoft.about.com/od/photoshop/Adobe_Photoshop_Resources.htm

6.2 Live Courses

The Apple Store on Michigan Avenue offers two free weekly courses: Adobe Photoshop Elements and Adobe Photoshop Pro Workshop.

For schedule, see : <http://www.apple.com/retail/northmichiganavenue/>

Adobe offers some fairly expensive professional training programs.

For more information, see: <http://www.adobe.com/products/photoshop/training.html>