The Photo Hobbyist's Guide to Getting Started with GIMP 2.8



Table of Contents

Introduction	3
Installing GIMP 2.8	4
Learning the Basics	8
Creating a new file	8
Opening an existing image	8
Using layers	10
Recognizing Familiar Functions	12
Saving a GIMP project	13
Exporting a GIMP project	14
Additional Tips	15
Manipulating Images	16
Rotating	16
Selecting	18
Cropping	21
Adjusting Brightness/Contrast	22
Changing Saturation	23
Using Other Color Functions	24

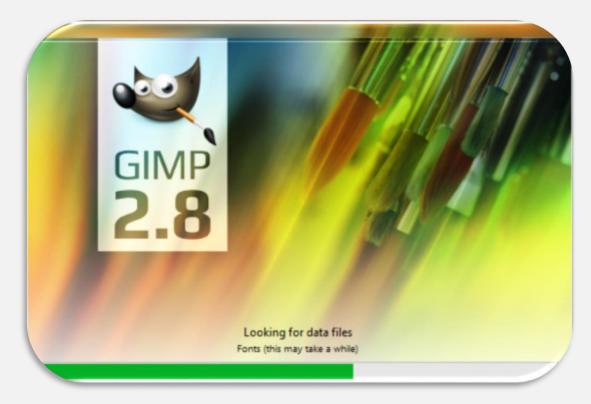
Photo Retouching	25
Using the Clone Stamp and Healing Tools	25
Using the Dodge/Burn Tool	27
Sharpening/Blurring	28
Special Effects	29
Applying Filters	32
Changing Lighting	32
Making GIFs	33
Credits	38



Introduction

As a beginning artist, photographer, or even a casual onlooker seeking to improve family photos, you may have sought out methods by which to edit your digital photos. Several solutions exist on the market, such as Corel and Adobe Photoshop, but they can be pricey. GIMP 2.8, GNU Image Manipulation Program, is a free alternative for hobbyists looking to get started with editing their own images.

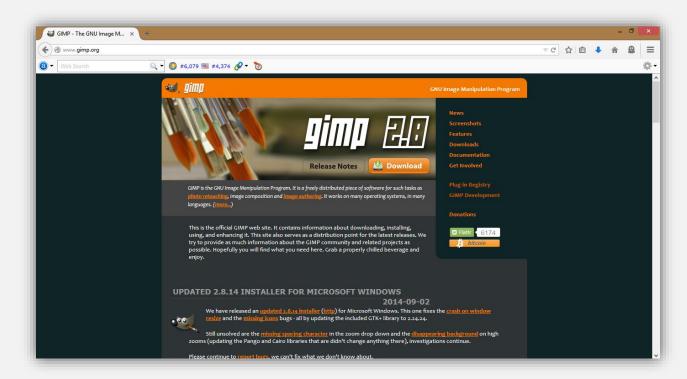
In this tutorial, you will learn how to download the software, as well as how to begin using the basic features included in the program. These features include cropping, creating GIFs, and changing color settings, among several other actions. This tutorial assumes familiarity with Microsoft Paint.exe.





Installing GIMP 2.8

To install GIMP on your computer, go to www.gimp.org and click on the Download button.



GIMP relies on donations to exist, so be sure to donate via PayPal or Bitcoin if you can.

DOWNLOADS

GIMP for Windows

The Windows installer packages by Jernej Simončič are distributed from the GIMP HTTP server (download.gimp.org) and its mirror servers.

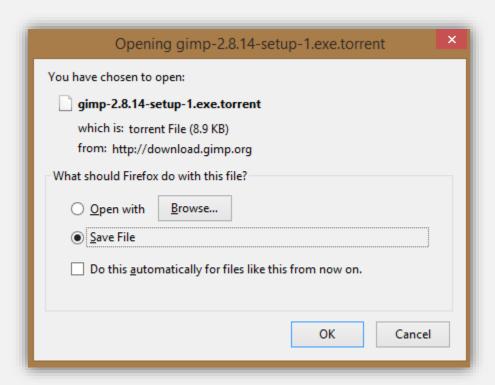
The installer contains both 32 bit and 64 bit versions of GIMP, and will install the appropriate one.

■ Download GIMP 2.8.14

If the torrent download doesn't work, you can also follow this link.

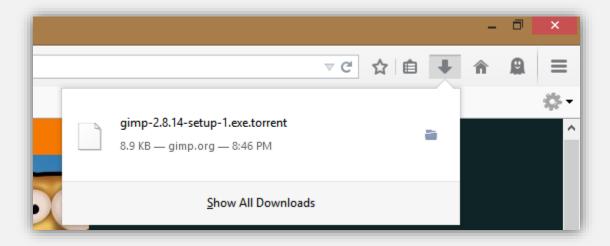
- This installer package is known to run on:
 - Windows XP SP3 and XP x64 SP2
 - Windows Vista
 - Windows 7
 - Windows 8 and Windows 8.1
 - ➡ Windows Server 2003 SP2 and 2003 R2
 - Windows Server 2008 and 2008 R2
 - Windows Server 2012 and 2012 R2
- It does not run on:
 - Anything that came before Windows XP
 - Windows RT

GIMP runs on most standard versions of Windows, as is listed above. Click the Download GIMP 2.8.14 link, or 2.8.xx as the version might be updated, to download the Setup file.



If upon saving this file and attempting to run the program it does not prompt you to install, instead choose the Click Here link shown on the Download page.

Once you have saved a working setup file, open it to run. It should be in your Downloads folder on your computer or browser toolbar.





Click Install and go through the installation process. When that completes, GIMP 2.8 should be installed on your machine.

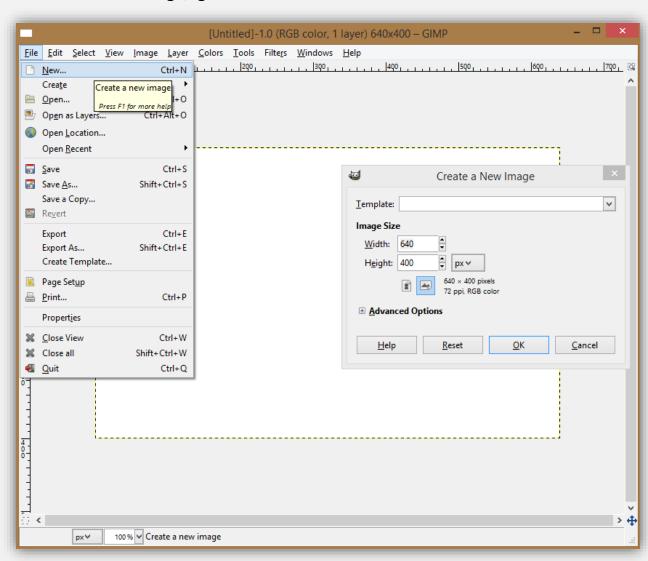


Learning the Basics

Now that you have installed GIMP on your computer, it is time to get started. Open the program by clicking on the icon on your desktop or Start menu bar.

Creating a New File

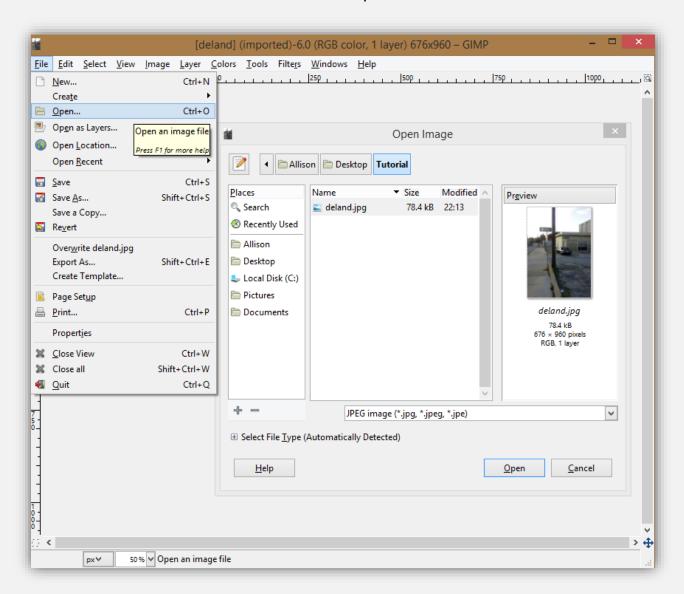
To create a new image, go to the menu bar - click on File and select New.



The screen that opens will prompt you to enter the desired size for your new image. The Template drop down box has a list of standard sizes, or you can manually set the width and height settings yourself to pixels, inches, or one of the other units of measure provided. Click OK to create the new image.

Opening an Existing Image

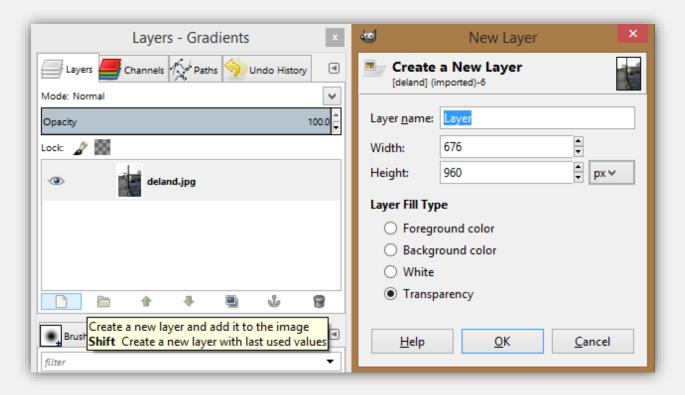
Go to the menu bar – click on File and select Open.



This window will allow you to open a variety of image files from your computer's documents. Select the image you wish to open, verify that it is correct in the preview window, and click Open. The image will then be available for editing.

Using Layers

When editing an image, you sometimes might want to create layers for each step in the process to avoid having to re-do a step if you decide to undo one that came before it. Layers are also useful for collaging and creating GIFs, which will be touched upon later. To create a layer, go to the Layers-Gradients window.



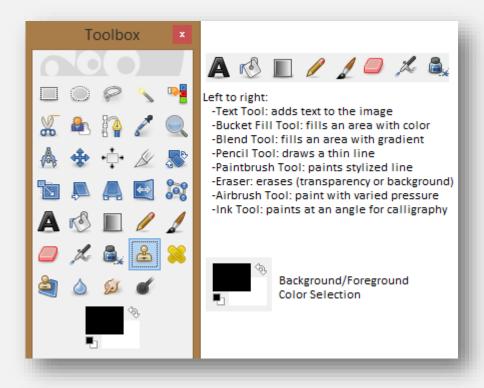
Click on the blank page icon shown above to create a new layer. Again, size can be adjusted, as well as the name of the Layer for your reference. Layer fill type specifies what color, if any, the new layer will have.

Layers will be shown in the Layers-Gradients window, which has a few key features:

- Opacity adjusts the level that a layer is shown in relation to other layers
- The eye icon signifies whether the layer is visible. By turning it off, you can more easily work on another layer without distractions
- The arrows allow you to move from layer to layer
- The anchor icon merges a floating layer down, locking changes to the anchored layer down
- The trash can icon to the right of the anchor deletes the selected layer
- Locking a layer by clicking the square to the right of the eye icon or the "Lock" prompt prevents you from making any changes to that layer

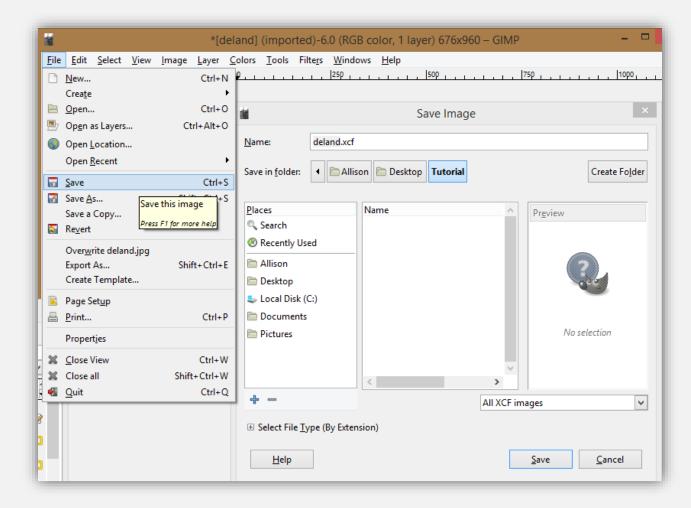
Recognizing Familiar Functions

The most basic drawing actions are available within GIMP. The can be found within the Toolbox window, which is similar to that of Microsoft Paint.exe. However, it has a few added features and can be relocated on your screen.



Saving a GIMP Project

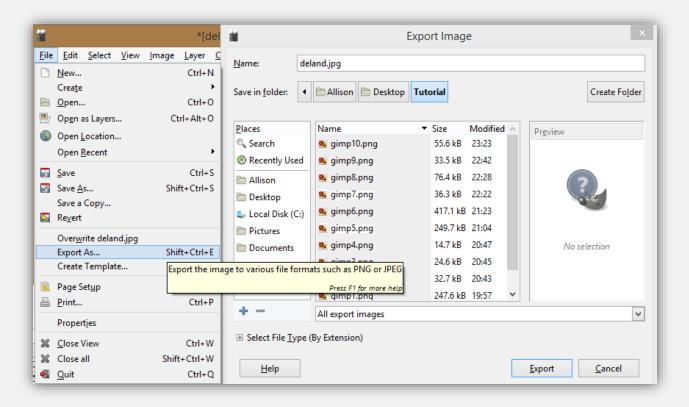
To save a GIMP project, go to the menu bar – click on File and select Save. This will not overwrite the original image if you opened an existing image.



.xcf is the file extension for GIMP projects. Saving in this format will allow you to open the image again in GIMP, as well as any layers.

Exporting a GIMP Project

To Export a GIMP project, go to the menu bar – click on File and select Export As.



You can save your image in a variety of file formats here. Alternatively, if you do not want to keep the original image, you can choose Overwrite instead to skip a few steps. Click Export to save your image for use outside of GIMP.

Additional Tips

Listed below are a few additional functional features of GIMP that are useful to know.

- Multiple files can be open within GIMP 2.8 at a time. These are each contained within their own windows and can be minimized and maximized when you are working with them.
- Images can be opened directly from file as layers within the project you are working on.
- Presets exist within the file menu for creating images and buttons specifically for web page themes, making GIMP a useful tool for designing internet applications.
- Under the menu bar, the View option allows you to toggle grids, bars, and boxes on or off, as well as reposition them depending on how you would like arrange your workspace.

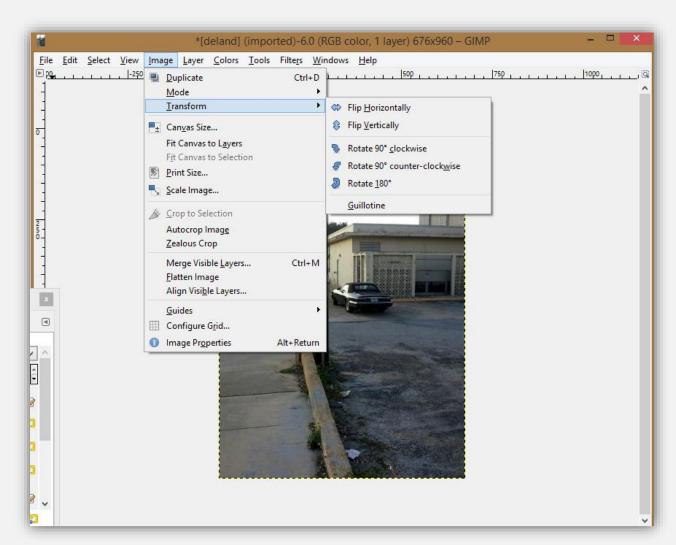


Manipulating Images

Now that you know how to Create, Open, Save, and Export images, you are ready to begin with simple editing tasks.

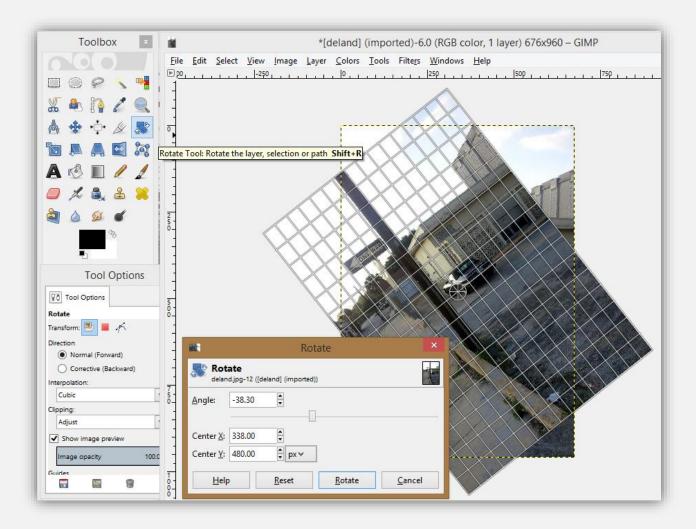
Rotating

To rotate an image, go to the menu bar – choose Image -> Transform to view a list of options for transforming the image.



This option will allow you to rotate the image, as well as the canvas it is on.

Alternatively, if you wish to rotate the image within the canvas at an angle, choose the Rotate Tool from the Toolbox.



By clicking and dragging, you can turn the image at a central point. Portions that are not in the canvas area will be cropped and canvas that the image does not cover will be reduced to transparency.

Selecting

To select part of an image, you must first decide what area to select. There are five methods available: Rectangle Select, Ellipse Select, Freeform Select, Fuzzy Select, or Select by Color. These are shown from left to right in the image below.



To use the Rectangle Select Tool, click the rectangle button in the Toolbox, then click and drag on the image where you want the selection to be. You can adjust the rectangle's dimensions after selecting.

To use the Ellipse Select Tool, the same method as the Rectangle Select Tool applies after clicking on the ellipse button in the Toolbox, and the selection will be in an adjustable ellipse.

To use the Freeform Select Tool, click on the lasso button in the Toolbox. Click anywhere on the image that you wish to use as the starting point for your freeform selection. Click a second point to create a straight line, or click and drag to make a freeform line. The selection shape is only complete when the final point and the initial point meet, as is shown by the yellow circle on the image in the next page.



If you change your mind on one of the selection lines that you make, pressing the Backspace key will return your selection to the previous point.

To use the Fuzzy Select tool, click on the wand button and then click on the area of the photo that you wish to select. This tool will choose contiguous sections of the photo that are similar. An example of the selection of the asphalt in the image is shown below.



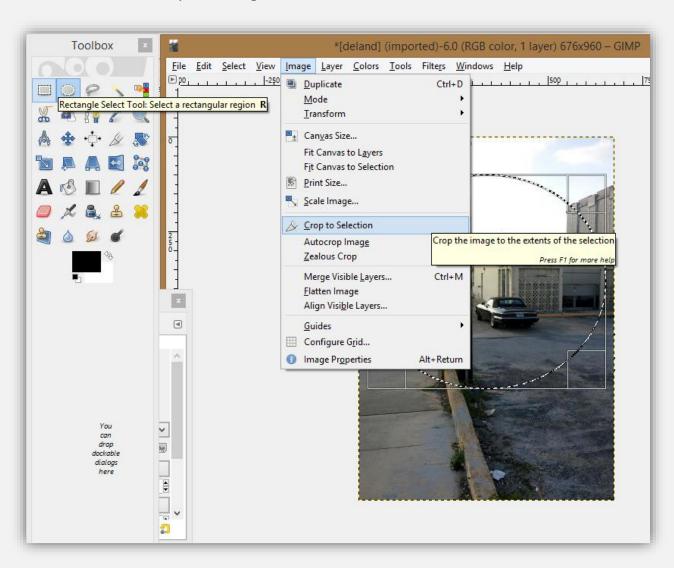
To use the Select by Color tool, click on the last icon in the selection row of the Toolbox. This tool will select all areas of the image with the same color. An example of a Select by Color operation, in which the gray of the pole was selected, is shown below.



Cropping

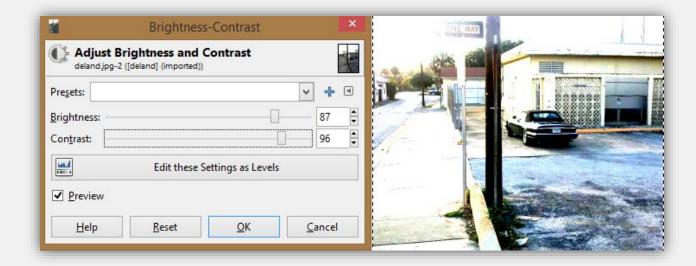
To crop an image, you must first make a selection. If your selection is a freeform shape, GIMP will still crop the image to rectangular dimensions to a best fit on the edges of your shape.

Once you have made your selection, go to the menu bar – choose Image -> Crop to Selection. This will crop the image to the selection's dimensions.



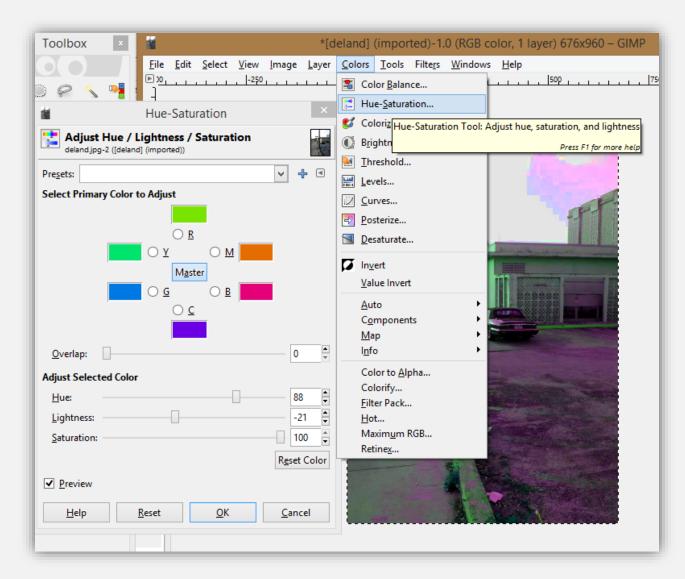
Adjusting Brightness/Contrast

To adjust brightness/contrast, go to the menu bar – click on Colors and then choose Brightness-Contrast... to view the adjustment window. Here, you can drag the sliders right or left to increase or decrease the brightness and contrast of the photo.



Changing Hue-Saturation

To change the saturation of the image, go to the menu bar – choose Colors -> Hue-Saturation... and use the window to adjust color levels in the image.



You can also use this window to adjust the lightness of the image, as changing the hue and saturation may call for it.

Using Other Color Functions

Several other color functions exist under the Colors tab on the menu bar. Here is a brief outline of their functions:

- Color Balance adjusts color levels in shadows, midtones, and highlights
- Colorize replaces all colors with one hue and allows you to adjust that hue's saturation and brightness
- Threshold increases contrast so the image is in the foreground and background color on the color palette; which levels are expressed is adjusted through the slider
- Levels adjusts color levels of the image as a whole using a slider
- Curves adjusts color levels using a curve or freehand deviation from the existing levels in the image
- Posterize reduces the number of colors in the image
- Desaturate removes all colors from the image, reducing to grayscale
- Invert inverts colors so they are the opposite in hue and brightness



Photo Retouching

This section will deal with some of the more involved image manipulation actions within GIMP. These include adjusting highlights and shadows to improve digital photo lighting, using tools to remove imperfections, and sharpening or blurring sections to alter texture.

Using the Clone Stamp and Healing Tools

The two tools covered in this section are found in the Toolbox and shown below. The Clone Stamp is on the left and the Healing tool is on the right.



The clone stamp is a paint brush that uses a section of the image as a source rather than a color. To use the Clone Stamp, press the CTRL key on your keyboard and click anywhere on the image that you want to clone. Then click and drag to paint the cloned section onto the other area of the image. This clone source will follow the path of the Clone Stamp as you drag. An example is shown below, with the image on the left and the cloned fencing on the right.



The Healing tool is similar to the Clone Stamp, but is best utilized for repairing minor inconsistencies within the photo. The same process applies. Press CTRL and click on a section of the image that is similar to the area you wish to heal. Then click and drag over the imperfection or blemish to remove it. In the example shown below, the Healing tool was used to remove sidewalk cracks and litter.



Using the Dodge/Burn Tool

Shown in the Toolbox below from left to right are the Sharpen/Blur Tool, the Smudge Tool (which blurs and shifts portions of an image away from the point of clicking), and the Dodge/Blur Tool.



The Dodge/Burn Tool is used to lighten (Dodge) or darken (Burn) the image along a selected path, similar to a paintbrush.

In order to Dodge, click and drag along the area you wish to lighten.

To Burn, hold down the CTRL key as you click and drag along the area you wish to burn.

An example of these functions is shown below. The picture on the right has light areas of the sign emphasized using the Dodge Tool and dark areas emphasized using the Burn Tool.



Sharpening/Blurring

The Sharpen/Blur Tool is utilized in the same manner as the Dodge/Burn tool.

To sharpen along a path, hold the CTRL key and then click and drag along the area of the image that you wish to sharpen.

To blur, do not hold down a key and instead click and drag along the area of the image that you wish to blur.

An example of these functions is shown below, with the background emphasized using the Sharpen/Blur Tool.

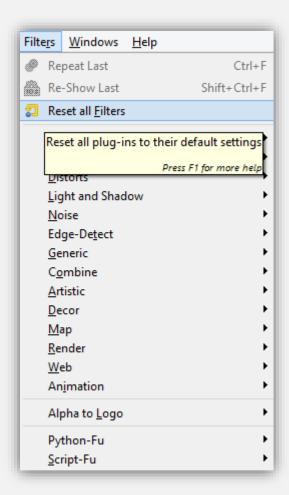




Special Effects

Applying Filters

Filters are plug-ins within GIMP that contain preset actions to create an overall effect on an image. These plug-ins perform multiple image manipulation operations at a time to create an overall effect.



To apply a filter to an image, choose the Filters option under the Menu Bar, find the filter category, and then choose the filter you wish to apply. Often, these plugins will prompt you to set parameters to control the levels at which the image will be manipulated. Once those are set to your preferences, click OK to apply them.

To apply the last filter used with the exact same settings, click the Repeat Last option under Filters.

To apply the last filter used, but with new parameters, click the Re-Show last option under Filters. This will display the settings window again for the selected filter. The parameters will already be set to those used previously and will be adjusted from those points.

GIMP saves parameters that you set within filters. To restore to default filter settings, click on the Reset all Filters option under the Filters menu.

The next page offers examples of a few of the filters available within GIMP.



From left to right: Blur -> Gaussian Blur, Distorts - > Newsprint, Edge-Detect -> Neon

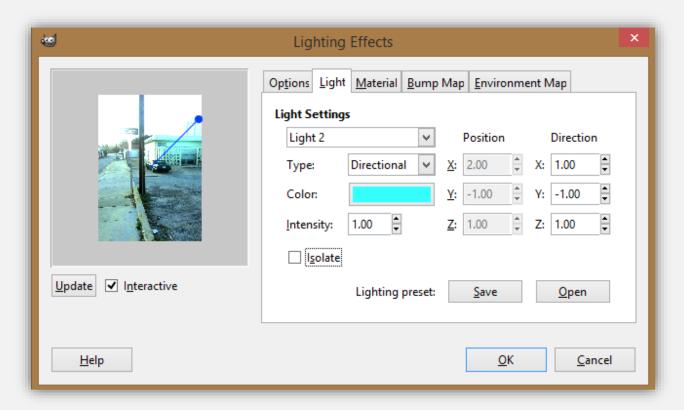


From left to right: Render -> Pattern -> Jigsaw, Decor -> Old Photo, Artistic -> Cartoon

Changing Lighting

To alter the lighting in the image, GIMP offers tools within Filters to apply effects after the digital photo has been taken. These create variances in brightness along a set path to create the illusion of a different light source.

To access Lighting Effects, go to the Filters tab on the Menu Bar and hover over the Light and Shadow option to select it. A window will open, and from here you will be able to adjust lighting position, source, type, color, size, and a variety of other factors.



Up to six lights can be set to either Directional, with intensity moving along a path, or Point, with a set intensity moving along a radius from the point.



Making GIFs

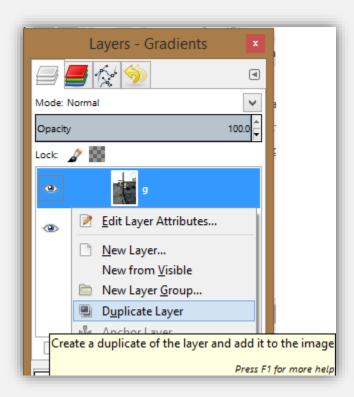
Creating a GIF is a simple task that is less known amongst most users of image manipulation programs. The type of GIF that you can create within GIMP is at its basis a slideshow, but can be made complex enough to create cartoons or action effects within photos.

To create a GIF, first outline the steps that will occur within the GIF. Think in frames. These frames will become your layers.

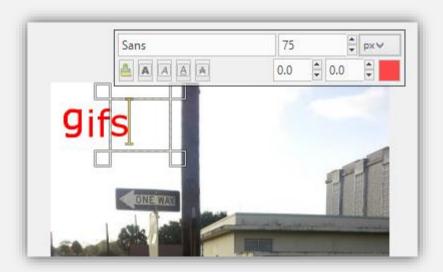
The GIF created in this tutorial will be the image with a marquee that will load the message "gifs are fun" letter by letter. Therefore, the first layer will be the base image.

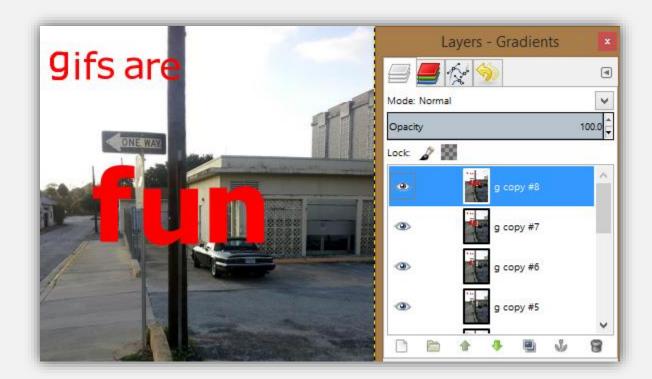
Go to Filters on the menu bar. Under Animation, select Optimize (for GIF) to convert colors to the GIF protocol. Now the image layers should be smaller.

The next layer is the image with the letter "g". In order to create the next image, right-click the original layer and select the Duplicate Layer option. This is shown in the image on the next page.



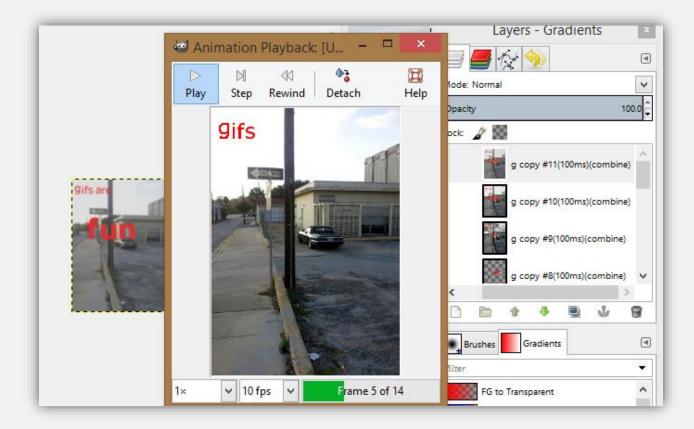
We will repeat this function as we add more layers, stacking onto the set of letters displayed.



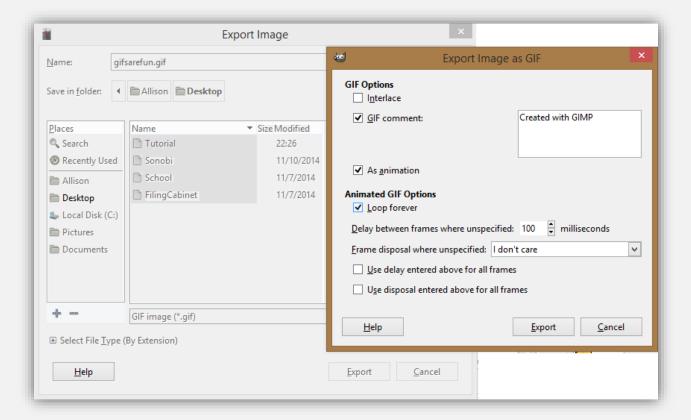


Above, the message is shown being typed out. Each layer for each letter is shown on the right. For this example, a few transition layers with blur and contrast changes were added.

Go under Filters, Animations again and select Playback. Here, you will be able to preview your GIF, changing fps (frames per second) and the playback speed. The higher the playback speed, the faster the GIF will play. The more frames per second, the greater the smoothness and quality of the image.



Finally, go under File and select Export As. Save your file as a GIF and select the As animation option to make sure that it plays as a GIF. Set milliseconds as preferred to change the rate at which the frames change.



Your GIF should be ready for playback. To view the GIF created in this tutorial, go to http://young-allison-wonderland.tumblr.com/gif example>.

Credits

Thanks to the GIMP Team at www.gimp.org for creating and actively patching their image manipulation software.

Formatting and style influence taken from Janice Redish's Letting Go of the Words: Writing Web Content That Works. 2nd ed. Waltham: Morgan Kaufmann, 2014. Print.

Images used in this tutorial are the sole property of the author, Allison Young, and are not intended for redistribution or commercial use.