

GIMP Demonstration and Tutorial

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This is a demonstration of abilities and tutorial for **The GIMP**. This outline was developed using GIMP version **2.0**. See <http://gimp.org> for more details about how to obtain a copy of the GIMP for free.

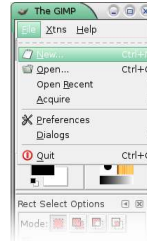
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Freehand drawing + the Basics

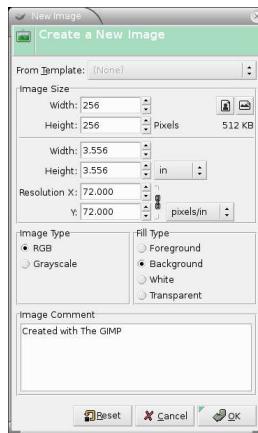
Creating a New Image

In the main dialog, select **New**, under the **File** menu.

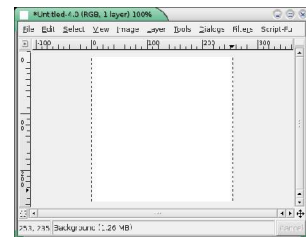


In the **New Image** dialog, click **OK**.

We will create our new image with the default size of **256x256** pixels and **RGB** color mode.

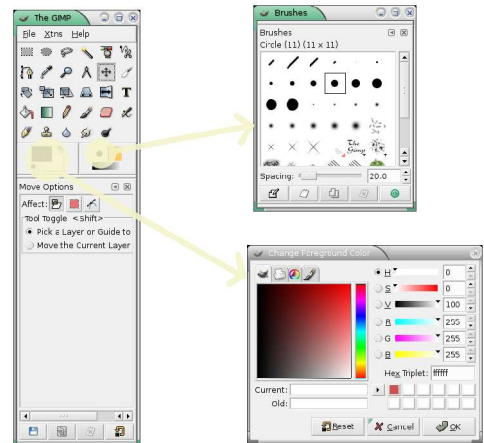


The new, blank, image that is created will look like this.





Selecting Colors, Paintbrushes, and Tool Options

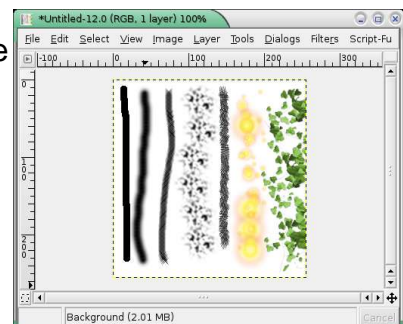
Double-click the **foreground** or **background** color, or the **current brush**, to open dialog boxes to select new colors and shapes for your tools to use.



Pencil and Paintbrush Tools

Try out the pencil  and paintbrush  tools and doodle a little bit in the blank image we created in the first step in this section. Notice the difference between the hard edged pencil lines and the softer paintbrush strokes when using the fuzzy edged brushes.

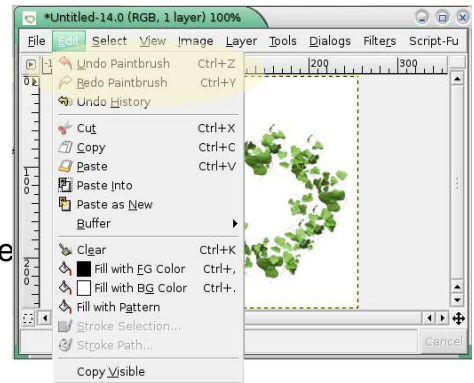
Be sure to use the **Color Selection** and **Brush Selection** dialogs, which you should already have open, to create an image using a number of different brushes and colors.



Undo and Redo

The keyboard shortcuts are **ctrl-z** for **undo**, and **ctrl-y** for **redo**. These features can also be accessed through the **Edit image menu**.

The **image menu** is accessed by **right clicking** on the image window, or by selecting one of the menu items in the menu bar **at the top of the image you're working on**. Every image operation in the GIMP is available through this menu system.

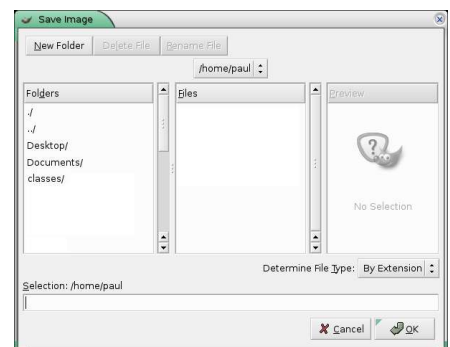


Note: A default limit of **5 steps** can be undone. To set this limit to a higher value, see the **Environment** section of the preferences dialog found under the **File - Preferences...** menu item in the **main dialog**.

Saving Images

To save the image:

- 1) From the image menu, select **File - Save As...**
- 2) Make sure that the file type **XCF** is selected. This is the GIMP's native file type, and will preserve all information about your image.
- 3) Enter a name and select **OK**.

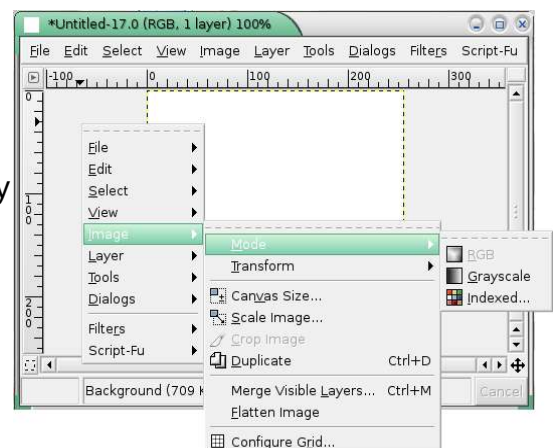


Note that there are many other file types available. For publishing photographs to the web, **JPEG** is a good choice. **PNG** and **GIF** are lossless formats that are preferred for publishing designed images, such as logos. If you are saving a work in progress that you plan on editing again in the GIMP, **XCF** is the best file type to use, as it is the GIMP's native file type.

Image Types

GIMP images can be one of three modes:

- **RGB** – Images with a full range of colors. Typically used for PNG, JPG, and XCF format images.
- **Indexed** – Images with a fixed pallet of colors or grays. GIF images load as this type.
- **Grayscale** – Black and white images. These are also typically saved as PNG, JPG, or XCF format files.




Introduction to Photo Retouching


In this section, we will correct a variety of common image quality problems with some example photographs.

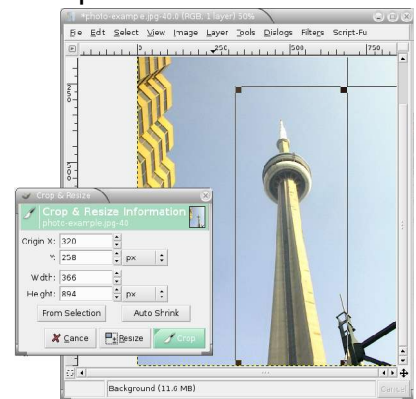
Open the [photo-example.jpg](#) file, which we will retouch in the following steps.

Rotating the Image

Use the **Image - Transform - Rotate 90 degrees CW** menu item, in the **image menu** to rotate the image 90 degrees, or right side up. Or, use the **Rotate** tool  to rotate images any number of degrees, getting it as close as you can to right side up.

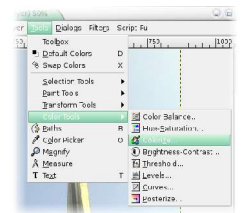
Cropping and Image Size.

You can use the crop tool  to cut down an image. Keeping in mind what the subject of your photograph is, cut off any extra portions of the photograph that seem to contain too much empty space, or material that is not interesting. For the [photo-example.jpg](#), this might mean cutting away all of the photo but the tower.




Simple Color Correction

The **Tools - Color Tools** menu contains the GIMP's tools for correcting and enhancing the overall color characteristics of an image. The **Color Balance** and **Hue-Saturation** dialogs have sliders to perform basic color adjustments.



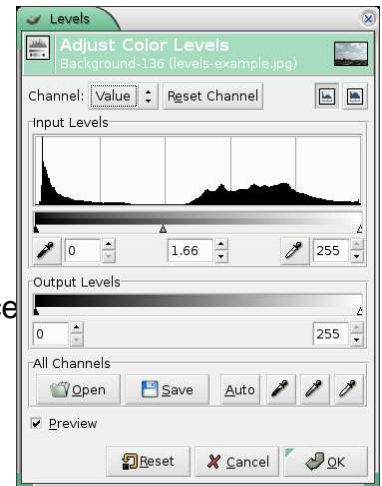
Using the Clone Tool

The clone tool  is used to duplicate parts of the image, using the current paintbrush. **Ctrl-click** to select a spot on your image to clone, then click and paint, in the same way as using the paintbrush or pencil tool, to paint a duplicate copy of that portion of the image in another location. It is important to note that the current paintbrush sets the pattern in which the cloned image is painted onto the new location. Try using the clone tool to remove any unwanted objects from the photo.

Advanced Color Correction

Open the [levels-example.jpg](#) file, which we will use for this step.



Sometimes the color correction tools covered above do not feature enough control to produce the desired result. This is particularly true when one end of the brightness spectrum needs adjustment, but the other does not. The [levels-example.jpg](#) is such a case, so we will use the levels utility to selectively enhance the brightness and contrast of the image. Open the levels dialog from **Tools - Color Tools - Levels...** in the **image** menu.

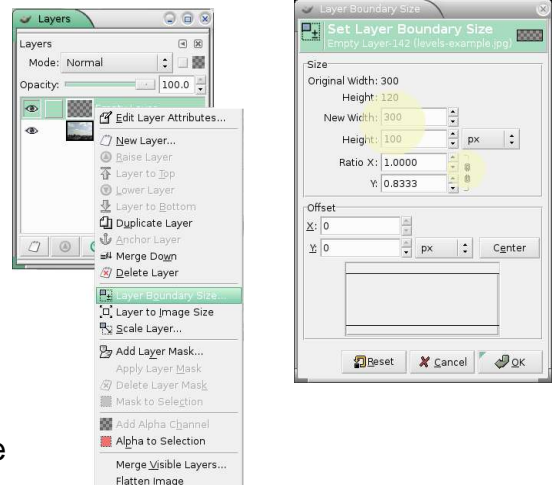


Using Layers


Please leave the [levels-example.jpg](#) photograph from the last section open. In this example we will add a caption to our photograph. To do this we will create a new layer, which functions as an overlay placed over our photo.

Creating a New Layer

Use the **Dialogs - Layers** menu item (or the shortcut key *ctrl-L*) to access the layers dialog. You will see the single, background, layer of the current image you are editing. Click the new layer button  to create a new layer. Next, **right click on the new layer**, in the **Layers** dialog, and select **Layer Boundary Size...** from the menu. Our layer should have a **new width** of **300**, and a **new height** of **100**. Don't forget to click the  button, to unlink the sizes from being constrained to the image size ratio.

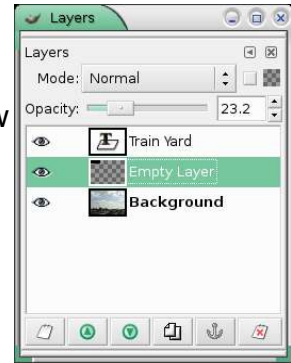


Filling and Adjusting Layer Opacity

Make sure that the new layer is selected in the **Layers** dialog, or you will fill over the photograph instead of just the caption area. We will now fill in the background for the caption box. First, select the color you would like to use for the background. Then select the whole layer area by pressing **ctrl-a**, and fill using the paint bucket tool . Now, use the **Opacity** slider in the **Layers** dialog, to adjust the layer so that it is subtly accented from the photograph.

Adding Caption Text to the Photo

Before you add any text, select the color you would like to use for the text as the foreground color. Use the text tool **T** to add text to the new layer. Click on the location you would like to add text, using the text cursor. You will then be prompted to enter the text and choose a font. Enter the caption "Train Yard" for this picture.



Once you have clicked **ok** in the text tool dialog, you will notice that there is a new layer called **Train Yard**. This new layer contains the next that you've entered. You can go back and edit this text at any time, or adjust the size and font characteristics in the tool options for the text tool.

Moving the Caption

You can now use the move tool **+** to move the caption layer to the best position within the photograph.

Using Selections

Selections are used in the Gimp to define areas of an image where an effect will take place. Selections are a very powerful feature, and provide the basis for most graphic design related functions in the Gimp.

Please leave the [levels-example.jpg](#) photograph from the last section open, we will use it in these examples.




Selecting Areas in an Image

There are six different select tools available in the Gimp. With most of these tools, these mouse and keyboard combos can be used to select complex shapes...



- Holding **shift when clicking** with a select tool will **add** to the current selection.
- Holding **shift while dragging** to make a selection will select an area of **equal height and width**.
- Holding **control when clicking** to make a selection will **subtract** from the current selection.
- Holding **control while dragging** to make a selection will select an area **centered around the selection starting point**.

Using the Paint Tools With Selections

Once you have selected an area, switch to the paint bucket tool , and click to fill the image. Notice that only the selection is filled with the current color. Try using the pencil  and paintbrush  tools to see how they are affected by selections.

Applying a Filter to Selected Areas

Select an area of the photograph on which you would like to try out some special effects. Then select the **Filters - Artistic - Cubism...** menu item.

The Gimp provides a huge number of filters and effects, the best way to get to know what all of them do is through experimentation. Also, most of the **Tools - Color Tools** menu operations are affected by selections in a similar way as filters.

References

The GIMP Homepage <http://gimp.org>

The main site for the GIMP project. Check here for the most recent GIMP package and plug-in downloads, as well as documentation and tutorials.