

GIMP Tutorial

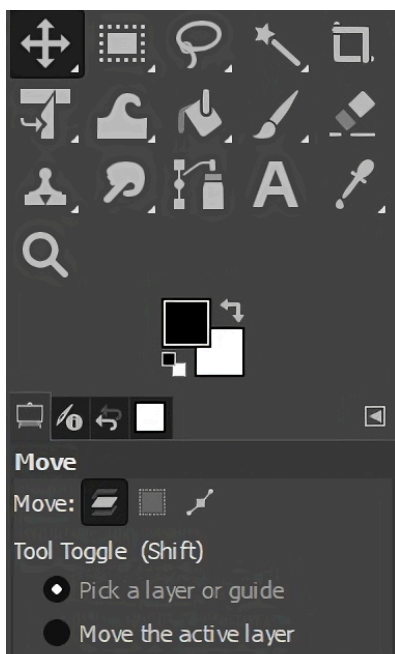
GIMP (GNU Image Manipulation Program) is a powerful, free image editing software. This crash course will guide you through the basics. Let's dive in!

How to Create a New Document in GIMP

- ❖ Open **GIMP**.
- ❖ Go to File > New to open the New Image dialog box.
- ❖ **Set Dimensions:** Choose the width and height for your document. You can use units like pixels, inches, or centimeters.
- ❖ **Advanced Options:** Click on this to set the resolution (300 pixels-per-inch for print, 72 pixels-per-inch for web) and background color.
- ❖ Click OK, and your new document will open in the Image Window.

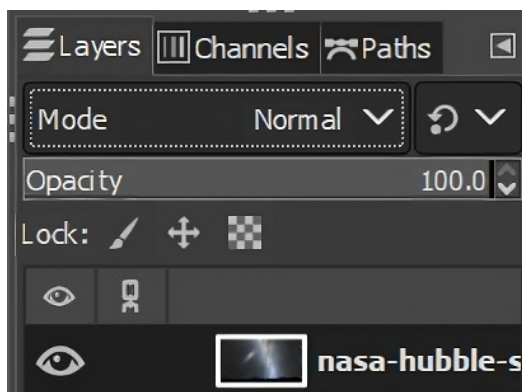
Navigating the GIMP Interface

- ❖ **Toolbox:** This is where you find your basic tools like brushes, pencils, and selection tools. In the area below the toolbox you can customize settings for the selected tool.



❖ **Layers, Channels, Paths Dialog:** On the right side, this panel helps you manage different aspects of your image.

- **Layers** are separate parts of your image that can be moved and edited independently. They stack on top of each other, like sheets of paper.
- **Channels** store color information about your image. For example, an RGB image has separate channels for red, green, and blue. Channels can also include alpha channels, which control the transparency of your image.
- **Paths** are vector-based outlines that you can use to create precise selections, shapes, or strokes. They are composed of points and lines and can be edited at any time.



Opening Images in GIMP

- ❖ [Download this image for practice.](#)
- ❖ Back in GIMP, go to File > Open and navigate to the location of your downloaded image and select it.
- ❖ When importing your image, a dialog box will pop up with some information and a couple of questions. You don't have to worry about it, but in case you're curious, here's what it all means:
 - **The image (filename).jpg has an embedded color profile.** The "color profile" describes how colors are represented in the image.

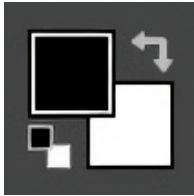
- **Convert the Image to the Built-in sRGB Color Profile?** This option converts the image to GIMP's default sRGB color profile. This will help maintain color consistency if you're working with multiple images.
 - **Rendering Intent:** This defines how colors are converted from the embedded profile to GIMP's sRGB profile. "Relative Colorimetric" preserves the colors that are within the target color space and clips the colors that are out of gamut (the valid color range) to the nearest valid color; this is the option you want to select.
 - **Black Point Compensation:** This adjusts the darkest point of the image to match the black point of the output device, which allows for more detailed shadows.
 - Feel free to check the **"Don't ask me again"** box, and click **"Convert"**.
- ❖ You can also open an image in GIMP by dragging an image from your file explorer directly into the GIMP window.



Basic Tools

Pencil and Brush Tools

- ❖ Click on the pencil icon in the toolbox or press N.
- ❖ Change the pencil color by clicking this button.



- ❖ I'd recommend a lighter color that will stand out against the background. Click and drag on your canvas to draw on the image with the pencil. Scribble around and get a feel for how it works.
- ❖ Use the tool options below the toolbox to adjust opacity, brush size, etc. and experiment to see how these options affect the pencil.
- ❖ Click on the brush icon or press P. You can adjust the size, shape, and opacity in the tool options just like the pencil. Click and drag to paint on your canvas and see how it works compared to the pencil.

Eraser Tool

- ❖ Click on the eraser icon or press Shift + E.
- ❖ Set the size and shape of the eraser in the tool options.
- ❖ Click and drag to erase parts of your image.

Fill Tool (Bucket Fill)

- ❖ Click on the bucket icon or press Shift + B.
- ❖ Choose fill type (foreground color, pattern) and threshold in the tool options.
- ❖ Click on the area you want to fill.

Selection Tools

Keep in mind that most of these tools are not GIMP-specific; you can find them in Krita, Photoshop, and many other programs.

- ❖ **Rectangle Select:** Lets you draw a box-shaped portion of your image.
- ❖ **Ellipse Select:** Lets you draw a circular portion of your image. Right-click the rectangle select tool to get this option.
- ❖ **Free Select:** Lets you draw a freehand selection.
- ❖ **Scissors Select:** Attempts to intelligently detect the edges of an object. Click to place points along the edges of the object you want to select, and the tool will create a path between these points that follows the contours of the object.
- ❖ **Foreground Select:** Lets you select objects by roughly outlining them and then refining the selection by painting over the foreground you want to keep. This is useful for separating objects from the background. Try it out to see what I mean.
- ❖ **Fuzzy Select:** Lets you select a contiguous region based on color. Meaning, if you select a yellow flower petal it will try to select the entire flower petal, as long as it's the same color. Practice on the example image and get a feel for how it works.
- ❖ **Select by Color:** Attempts to intelligently detect the edges of an object. Click to place points along the edges of the object you want to select, and the tool will create a path between these points that follows the contours of the object.
- ❖ **Move Selections:** Click and drag to move selected areas.

Image Manipulation Basics

Resizing

- ❖ Image > Scale Image: Opens the Scale Image dialog.
- ❖ Set New Dimensions: Enter new width and height.

- ❖ Click Scale: Resizes the image.

Cropping

- ❖ Select the Crop Tool: Click on the crop icon or press Shift + C.
- ❖ Draw a Rectangle: Click and drag to draw a rectangle around the area you want to keep.
- ❖ Press Enter: Crops the image to the selected area.

Rotating

- ❖ Image > Transform > Rotate: Choose to rotate by 90, 180, or 270 degrees.
- ❖ Tool Options: For custom rotation, select the Rotate Tool (press Shift + R), adjust the angle, and click Rotate.

Saving and Exporting Files

Saving Files

- ❖ File > Save As: Opens the Save Image dialog.
- ❖ Choose Location and Name: Go to where you want to save and name your file.
- ❖ Select Format: Make sure to save as .xcf (GIMP's native format) to preserve layers and editing capabilities.
- ❖ Click Save: Your file is saved.

The .xcf format is GIMP's native file format and will preserve all the details of your project, such as layers, channels, and paths. This will let you make edits in the future. Be aware that it's not a regular image file, so it can only be opened using GIMP.

Exporting Files

- ❖ File > Export As: Opens the Export Image dialog.

- ❖ Choose Location and Name: Navigate to where you want to save the image and provide a name.
- ❖ Select Format: Choose an image format from the dropdown menu.
 - **.jpg**: Best for photographs and images with gradients. It uses lossy compression, which greatly reduces file size but also image quality. Recommended for web pages.
 - **.png**: Best for images requiring transparency or images with text and sharp edges. It uses lossless compression, preserving image quality but resulting in larger file sizes.
- ❖ Adjust Export Options: Depending on the format chosen, you might have additional options like quality settings for .jpg or compression level for .png. Adjust these settings as needed.
- ❖ Click Export: Your image is exported in the chosen format.

By exporting your .xcf file to a .jpg or .png, you create an actual standalone image file that can be viewed and used outside of GIMP. Remember that once it's been exported, the image will not retain GIMP-specific elements like layers, so keep your .xcf file if you plan to make more edits later.

Assign and Utilize Keyboard Shortcuts

Assigning Shortcuts

- ❖ Edit > Preferences: Opens the Preferences dialog.
- ❖ Interface > Configure Keyboard Shortcuts: Opens the Keyboard Shortcuts dialog.
- ❖ Find the Action: Use the search bar to find the action you want to assign a shortcut to.
- ❖ Assign Shortcut: Click on the action, press the desired key combination, and click Assign.

Utilizing Shortcuts

- ❖ Save Time: Use shortcuts like Ctrl + S to save, Ctrl + Z to undo, and Ctrl + C to copy.
- ❖ Learn Common Shortcuts: Familiarize yourself with common shortcuts to speed up your workflow.