GIMP (GNU Image Manipulation Program) MANUAL

Selection Tools

| Icon	Tool Name	Function
	Select Rectangle	Selects a rectangular area, drawn from upper left (or lower right) corner.
	Select Ellipse	Selects an elliptical area, drawn as though inside a box starting at upper left (or lower right) corner.
	Select Hand-drawn area (lasso tool)	Draws a line (as with the pencil tool) as long as the mouse button is held down. When the mouse button is released, Gimp draws a straight line back to the point of origin and selects everything inside the hand-drawn shape.
	Select Contiguous Region (magic wand)	Selects everything of the same color connected to the point clicked (very useful for selecting odd shapes). The 'Threshold' at which point Gimp decides to include or exclude ambiguous points can be adjusted using tool options.

Size Tools

Icon	Tool Name	Function
	Move selection	Click and drag to move a selected area (or the whole image, if no part is selected).
	Zoom	Zoom doesn't actually change the image, but instead changes the way it appears on the screen. The default function is "zoom in;" to zoom out, use the zoom tool options.
	Crop image	This tool 'crops' the outside of the image (like one would do with a physical photograph). Use the crop tool to select a region of the image (as you might with the Rectangular Selection tool) and click the 'crop' button. **Any part of the image outside the selected area will be deleted.**
	Rotate, Scale, Shear, Perspective	This tool allows you to alter your image (or the selected region of your image) in one of four ways: • Rotate - click once to bring up the rotation handles, then click and drag the handles to rotate your selection. • Scale - click once to bring up the scaling grid, then click and drag the handles to change the size of your selection. • Shear - click once to bring up the shearing grid, then click and drag the handles to change the angle of the selection. • Perspective - click once to bring up the perspective grid, then click and drag from anywhere to change the perpective of your selection. When you've made the adjustments to the image as you see fit, click the button for the function on the tool options window to finalize the change.
	Flip	Flips the selected region horizontally. To flip vertically, use the tool options
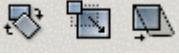
These tools give you enormous flexibility over the way your image looks. Above are a few examples of an image altered by the tools.

Original   Rotate   Scale   Shear   Perspective

Content Tools

Icon	Tool Name	Function
T	Add Text	Allows you to add text to your image. The text is added as a drawn image, and can't be edited later.
	Capture color (dropper tool)	Allows you to select a color from the screen to use as the color for your document.
	Fill area (paintcan tool)	Using the Fill tool, you can click on an area to have it filled in with the selected color. You can also use one of the Selection tools to select a region of your image, then use the fill tool to fill it.
	Fill with a Gradient	A Gradient is a computer generated blend from one color to another. Gimp allows you to use tool options to alter the way the fill looks. To use a gradient fill, click where you'd like one point of the gradient to start, then drag the mouse to the end of the gradient. You'll probably need to try it a few times to get the feel for it.
	Pencil tool	The pencil tool allows you to draw a line using the selected brush head as the "tip" of your pencil. You can use the tool options to adjust the way it works.
	Brush tool	The Brush tool allows you to draw a line using the selected brush head as the tip of your brush. The brush tool differs from the pencil tool in the way it renders the drawn line. You can use the tool options to adjust the way it works.

Gradient Fills

Most of these tools are pretty straightforward. The example above shows a few of the different gradient fills, just to give you an idea of how they look.

Spiral   Linear   Shapeburst   Conical   Square
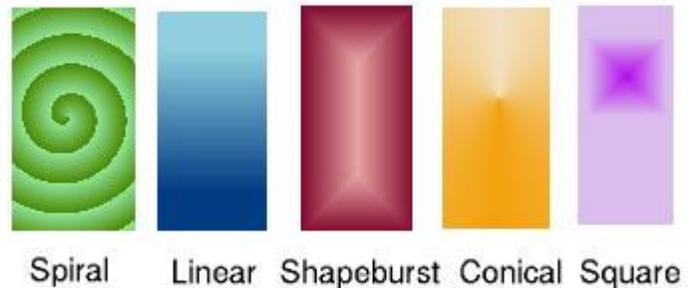
GIMP (GNU Image Manipulation Program) MANUAL

Advanced Tools

Icon	Tool Name	Function
	Erase	Erases the clicked-on area of the image. Uses the selected brush head as the eraser "tip."
	Airbrush	Airbrush allows you to simulate the application of an airbrush paint gun. The Tool options allow you to adjust rate and pressure of flow.
	Clone a region of the image	You can use this tool to copy one part of an image onto another part. To select the part of the image to copy from, control-click on the part of the image to use. Let go of the control key. Then click on another part of the image. The clone tool will take a space the size and shape of the brush tip and copy it from the first place to the second. (This is a handy way to remove an object in the foreground of an image.)
	Blur or Sharpen	The blur tool uses *anti-aliasing* to "blur" the area under the mouse. The more you drag the mouse over an area, the less distinct the lines in the area become. Sharpen, on the other hand, makes lines more distinct.
	Draw in Ink	The mouse acts like an inkwell pen, drawing in a smooth line. To alter the size, intensity, and "angle" of the pen, use the tool options
	Dodge or Burn	The Dodge/Burn tool is used for highlighting pieces of your image. The dodge tool makes the areas it passes over turn slightly lighter, while the burn tool makes the areas slightly more dark. You can adjust the areas affected by the tool with tool options
	Smudge	The smudge tool allows you to "smudge" your image, to make it bleed into the areas around it. You can adjust the rate and opacity with tool options
	Measure angles and distances	Using the mouse, you can measure angles and lines in your image. Gimp displays relevant details about your measurements along the text space at the bottom of your image.
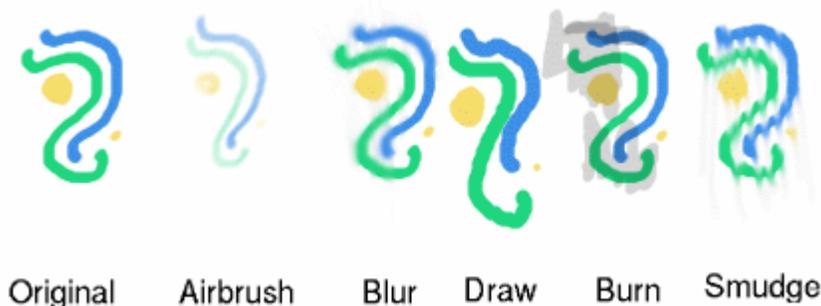
Original Airbrush Blur Draw Burn Smudge

These tools give you enormous flexibility over the way your image looks. Above are a few examples of an image altered by the tools.

GIMP (GNU Image Manipulation Program) MANUAL

Tool Options

Most of Gimp's tools can be adjusted. You can adjust the density of a brush stroke, the pressure of the airbrush, the tolerance of the contiguous selection tool, and so on. To allow you to make these adjustments, Gimp offers the *Tool Options* part of the main window, which shows the possibilities for each tool. *The Tool Options window is a generic window that controls which ever tool you have selected.*

To display the Tool Options, simply click on the palette icon for the tool you want to adjust. When you do, the Tool Options will display beneath the main palette area. Shown on the main palette are the tool options for the brush tool.

It is beyond the scope of these help pages to go into detail about each adjustment you can make to each tool. It should suffice to say that Gimp has *numerous* settings with which you can do the most detailed image manipulations.
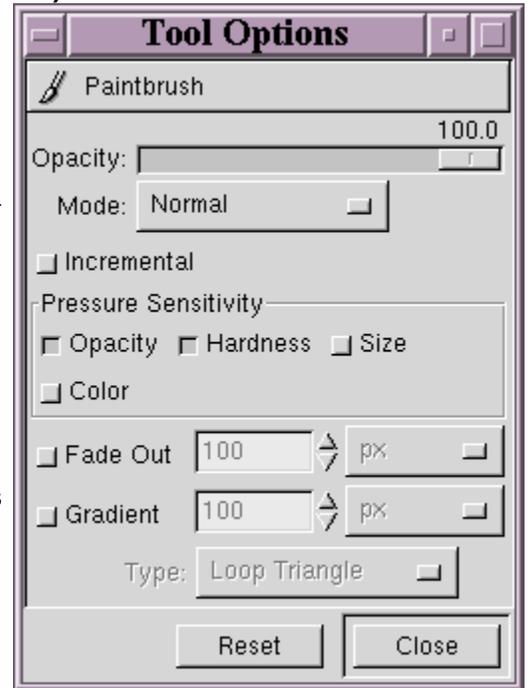
Size

There are three different ways to resize an image with Gimp. Below are details about the three methods, and examples of what they do.

Scale image

Scaling refers to the process by which and image is enlarged or reduced by a given parameter. To scale an image, click the *arrow menu* in the upper left corner of the Gimp image window and select the *Image* menu. Then click "Scale Image..." to open the Scale Image Dialog window.

You can choose whether to change your image by pixels or percentage, and whether to keep the ratio the same (by clicking on the chain to the right of the ratio entries). Below are some examples of scaling operations.
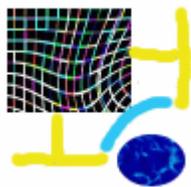
Original Image
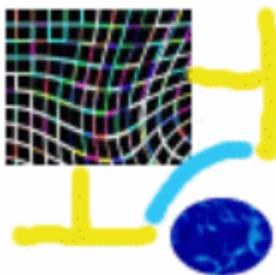
Scaled to 150% ratio locked

Scaled to 50% ratio unlocked

GIMP (GNU Image Manipulation Program) MANUAL

Crop image

To crop an image means to cut out the unwanted parts of the image. The crop tool allows you to select a rectangular area of the image and cut the rest away. An example is below.

Original Image

Image Cropped

Adjust Canvas

The Adjust canvas feature is the least useful feature for changing the image size, but there are times that you might want to use it. In essence, it allows you to add more space to your image without distorting the images you already have.

Original Image
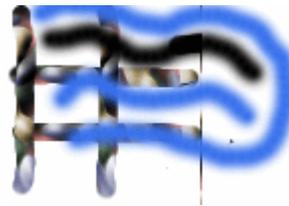
More Canvas

Note: **Unless you are using layers to manage your document, you will probably find this option pretty useless. If you're only using one layer, you won't be able to draw on the new area that you've created without scaling your image to fit the new area.**

Layers

An image made using layers

Layers are one of the most useful features available with Gimp. Layers make your image infinitely manipulable. They do so by separating elements of your image into separate sheets, each of which can be altered and stacked on top of one another. This way, when you select part of the image to move, you aren't moving the entire image, just the part that's on that layer.

GIMP (GNU Image Manipulation Program) MANUAL

Starting layers mode

To use layers with Gimp, click the arrow menu in the upper left corner of the Gimp image window and choose the "Layers" menu. From there, select "Layers, Channels, and Paths" to open the Layers Dialog box (shown at right). The layers window represents each layer as though it were a separate sheet of celluloid, each piled on top of the next.

Adding new layers

To add a new layer, click the paper icon in the lower left of the Layers window. A New Layer dialog will open, giving you size, shape, and opacity options.

Editing with layers

To alter the way layers display, you can adjust the following:

- Opacity -- you can adjust opacity for each layer with the slide bar at the top of the layers window.
- Visibility -- you can also choose whether or not to display each layer by clicking the eyeball (it will toggle on or off).
- Selected Layer -- you can select a layer by clicking on its name. The layer will turn blue in the Layers window when it is selected. To add content to a layer you must first select it.
- Change layer order -- you can adjust layer order by clicking-and-draging a layer to a new position above or below another layer.

GIMP (GNU Image Manipulation Program) MANUAL

Animation

Animated GIFs are one of the more ubiquitous graphics formats on the web today. Gimp makes making animated GIFs quite easy. If you have two images that you want to combine into an animated GIF, you may want to use gifsicle, which makes animated GIFs with a single command.

Making a simple animated GIF

1. **Open layers window**
   Animated GIFs are created using separate "frames" that play in order. The image used as our sample here is a simple two-frame image. To begin with, you need to open a new image in Gimp and open the layers window.
2. **Make extra layers**
   Each layer in the GIF will be a new frame in the image (the bottom-most layer will be the first layer, and so on up). For instance, this image consists of two frames, one with a purple background and yellow dot, the other with a white background and yellow dot.
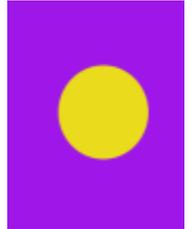
When you make new layers, be sure to choose a solid background, rather than a transparent one. Since animated GIFs display by piling the layers on top of one another, any transparent areas will show through to the layer underneath.

3. **Export your animation**
   Once you've made your layers, it's time to save your animation as a GIF. Choose the file menu and click "Save." The Save dialog will come up. Be sure to add the ".gif" extension to the filename you choose.

The Export window will open next. Be sure to select "Save as animation" as shown below.

When you click "Export," another dialog window will open (below).

Save as GIF

GIF Options

☐ Interlace

☑ GIF comment: Created with The GIMP

Animated GIF Options

☑ Loop forever

_Delay between frames where unspecified: 100 ⬍ milliseconds

Frame disposal where unspecified: I don't care ▼

🛟 Help   ✗ Cancel   OK
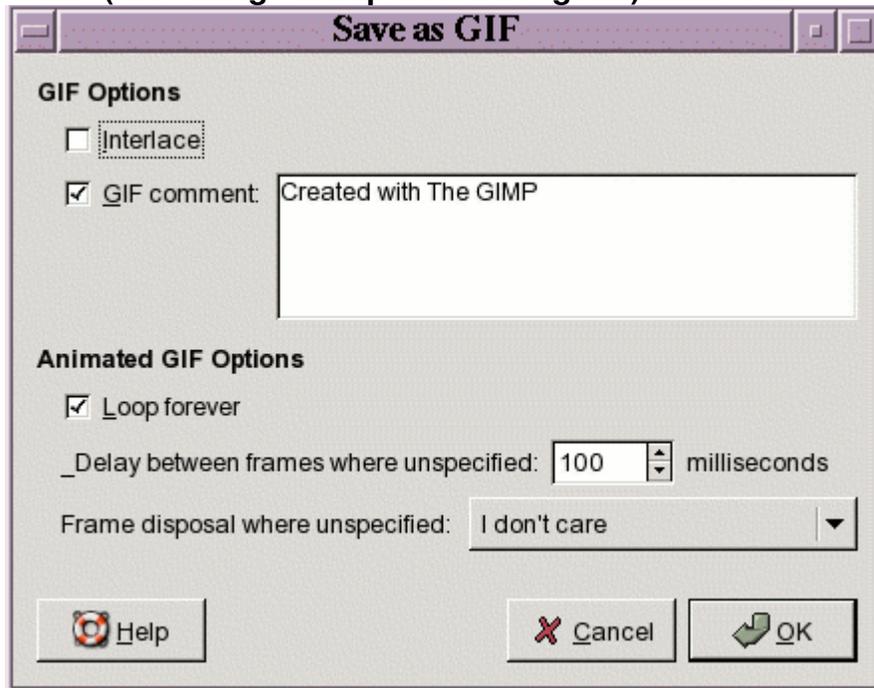
This dialog includes options for how long each frame should render, and whether or not you want the animation to loop or stop at the end. The number indicating frame length is in milliseconds (so 500 is 1/2 second). Fill in this information and click "OK."

Complex animations

Gimp also gives you the ability to make complex animations using many frames with variable frame lengths. To add more frames to your image, simply add more layers.

To change the length that each frame is rendered, you need to include the number of milliseconds in the name of the layer itself. To do so:

1. Double click on the layer name. The layer attributes dialog will open.
2. In the name space, include the number of milliseconds you want the frame to play. Make sure you include the number in parenthesis, followed by the letters "ms". See our example below.

👁 👤 Frame 3 (125ms)

3. Finally, export the image as discussed above.

To see how your animation looks before you export it, you can use the animation playback window. Open that window by clicking on the *arrow menu* in the upper left corner of your image, then choosing "Filters," "Animation," and finally "Animation playback." The Gimp Animation Playback Window will open.