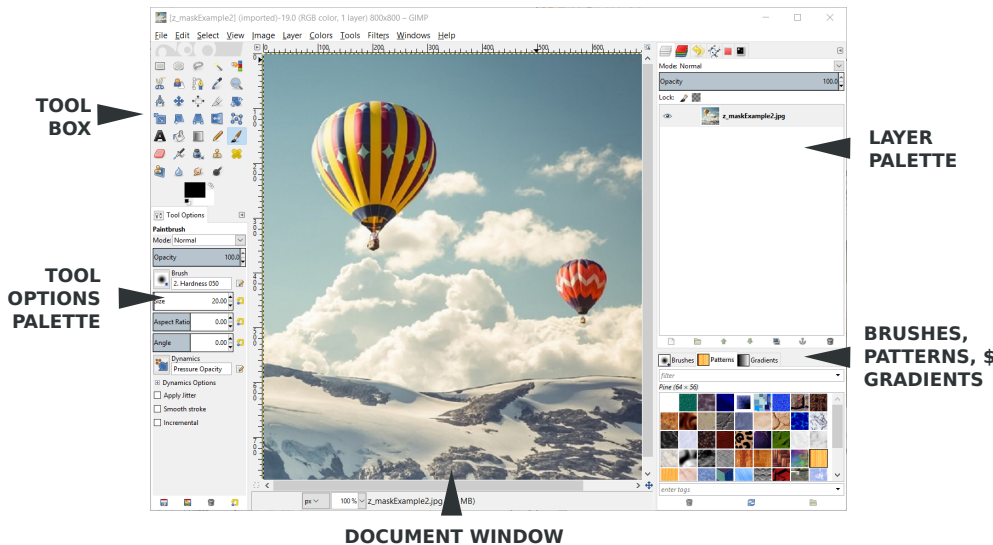


Digital Imaging with GIMP

Instructions based on GNU Image Manipulation Program version 2.8
GIMP can be downloaded for free for any computer system from www.gimp.org



GOALS FOR THE DAY:

- Become familiar with the GIMP interface, windows, and tools
- Learn how to change the brightness, contrast, and color of an image
- Learn how to tune layer opacity, making layers partially transparent
- Work with alpha channels and masking to make digital collages

KEY TERMS:

resolution - a measure of the quality of a digital image. The more pixels an image has, the higher-quality the image will appear when you zoom out from the grid.

opacity - how transparent / see-through vs. how opaque an image is.

mask - a mask is a shape or form that you apply to an image to allow you to hide some parts of the image, and show others

Move Tool (**M**)



Click and hold to move a layer around

Text Tool (**T**)



Allows you to create and modify text as a separate layer

Crop Tool
(**Shift + C**)



Drag and Resize image as needed, then hit Enter. Parameters can be set in *tool options* box

Bucket Fill Tool
(**Shift + B**)



Fills an area of the image with Foreground Color

Paint Tools

Paintbrush **P**
Pencil Tool **N**
Airbrush **A**



Different tools used for painting pixels or masks. Change brushes in the *tool options* box

Selection Tools

Rectangle **R**
Ellipse **E**
Free Select **F**



Use for complicated selections. You can adjust the parameters in the *tool options* box while it's selected

PART 1

ZOOM & PAN

To begin, you must first open an image file. When working with images, it is important to understand the quality or *resolution* of an image.

MORE PIXELS

LESS PIXELS



- Go to **File>Open** and navigate to your image
- At the top of the window you will see the **pixel count**
- Zoom and Pan using **Ctrl + the middle mouse wheel**
- Go to **File>Close View** when you are done



ZOOM

► If you simply need to resize an image, you can go to **Image>Scale Image**

PART 2

COMMON IMAGE ADJUSTMENTS

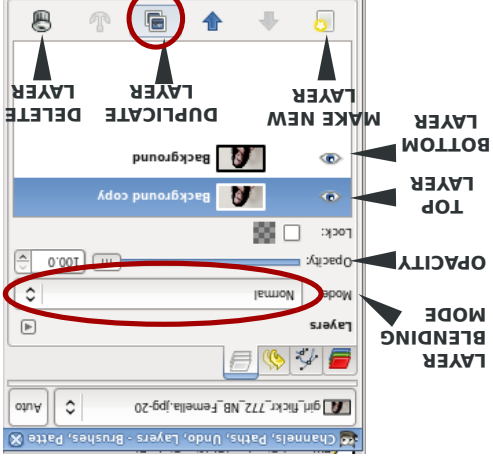
Maybe an image is too dark, the color is weird, or it is rotated the wrong way. Maybe you want to flip it around or crop it to something smaller!

- To change the color, go to **Color>** and choose **Hue-Saturation, Color Balance,** or **Colorize**
- To change the value, go to **Color>** and choose **Brightness-Contrast, Levels,** or **Curves**
- Use the **Rotate, Flip,** or **Crop** tools to make other adjustments
- To export, go to **File>Export As** and choose your preferred format (.jpg, .png, .gif, etc.)
- Saving a GIMP project file (.xcf) is very different than exporting the finished product that others can view!

PART 3

LAYERS & OPACITY

The power of digital imaging software lies in the ability to work with several images at once, often referred to as layers. If a layer has an *alpha channel*, parts of it can be transparent so that any layers underneath it can show through!



ERASER



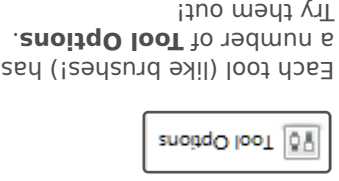
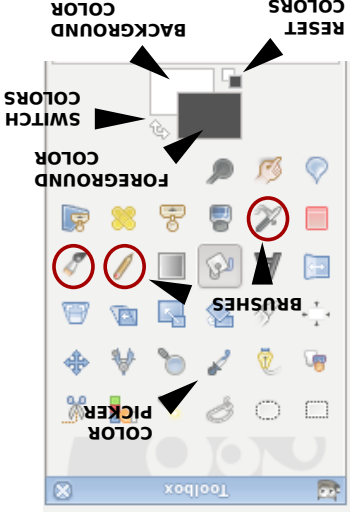
You can move layers up and down by clicking and dragging them

- Choose **File>Open as Layers** and choose one or more files to work with.
- Reduce the **Opacity** of the top layer to be able to see the layer below it
- Use the **Mode** pulldown menu to blend the top layer with the layer below it
- Right-click on a layer and choose **Add Alpha Channel** to be able to 'cut' away parts of it

PART 4

USING BRUSHES & SELECTING COLORS

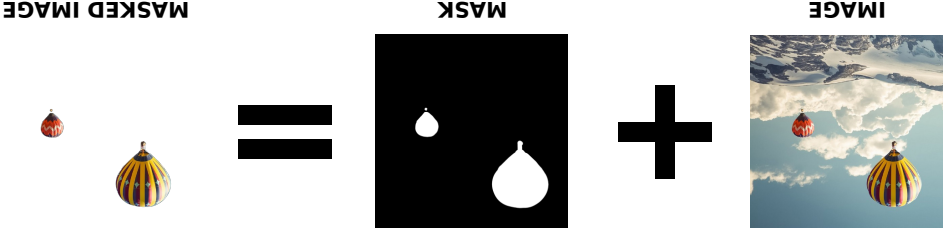
You may find that you want to draw on your project or use some tools to make very precise modifications. *Painting* pixels is as simple as *selecting your color* then *selecting your brush*.



- **Click inside** the FG or BG color to change each of them.
- Use the **color picker** to match a color to a specific pixel
- Use the **Pencil, Paintbrush,** or **Airbrush** to paint over pixels.
- **Reset** the FG/BG colors to black and white (default) by clicking on the smaller boxes in the corner
- Each tool (like brushes!) has a number of **Tool Options**. Try them out!

PART 5

ADDING AND PAINTING MASKS *Masking* is a powerful technique that is used in other digital imaging programs. Movies with special effects use a similar method called *compositing* (like CGI or greenscreen)! Masking uses opacity, paintbrushes, and multiple layers.



- **Right-click** a layer choose **Add Layer Mask**. Pick **white (full opacity)** Your layer now has **two parts**: the image and the mask.
- **Paint the mask** with Black or White pixels to change it. Press **'X'** to quickly switch back and forth between colors!
- **Right-click** the layer and check the part that says **Show Layer Mask** to see how it works. **Uncheck** the **Show Layer Mask** part to see the original layer again.

To move or change the layer and mask together, make sure the image (not the mask) is selected!