GNU Image Manipulation Program





Agenda

- GIMP overview
 - What is it?
 - Where can I run it?
 - How can I use it?
- File Conversion
- Basic Editing
 - Crop, resize, brightness/contrast, colors
- Intermediate Features
 - Sharpening, blurring, perspective, shear
- Advanced Functions
 - Layers, Transparency
- RAW Files



The GIMP Project

- Rich in features and very powerful
- Free as in speech and beer
 - No cost to download or use
 - You may make copies, distribute and contribute
- Cross-Platform
 - Linux, Mac, Windows
- Plug-in framework
 - Use or write "recipes" that act as filters
 - Ex: Old photo or oil painting look



GIMP as a File Conversion Tool



Supported Types Include:

- TIFF
- BMP
- JPEG
- GIF (including animated)
- EPS
- PNG
- PDF
- XCF (Native GIMP file)

Basic Flow

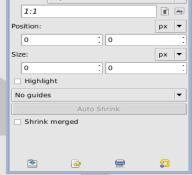
- Target What are we modifying?
 - Image, Layer, Selection
- Selection How will we pick it?
 - Box, Circle, Fuzzy, Freehand, Color
 - Options
- Action What are we going to do?
 - Lighten, darken, sharpen, ad infinitum

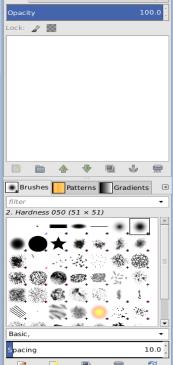




Menus and Tool Boxes

0000 **GNU Image Manipulation Program** <u>File Edit Select View Image Layer Colors Tools Filters FX-Foundry Python-Fu Windows Help</u> Layers - Brushes ⋖ Mode: Normal Opacity Lock: 🧳 🎆 ₽ŏ Tool Options ◂ Rectangle Select Mode: 📕 📠 🌅 🍞 ✓ Antialiasing Feather edges Rounded corners Expand from center ☐ Fixed: Aspect ratio 1:1 2 4 Brushes Patterns Gradients Position: px ▼ 0 ; 0





Commonly Used Features

- Crop
 - Remove clutter or distractions
- Curves
 - Correct exposure, adjust light balance
- Resize
 - Reduce image and file size for web pages
- Transform
 - Flip, rotate, invert



Commonly Used Features

- Red Eye Removal
- Clone
 - Duplicate an area to replace another
 - Great for fixing dust spots in sky, blemishes
- Color levels
 - Punch up colors on a gray day
 - Desaturate purple fringe
 - B&W conversion





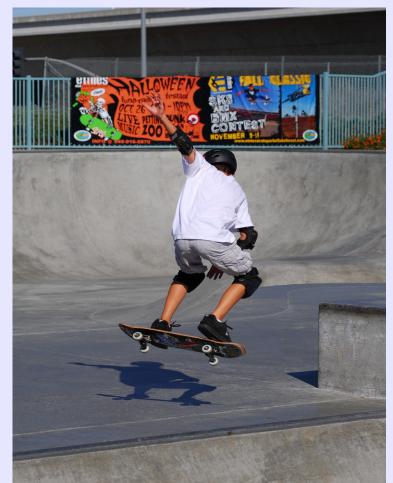
Cropping Example

Goal:

Catch my son doing a board grab

Conditions:

Good light Uncrowded Access



What's Wrong?

- Distracting poster
- Missing arm
- Subject's face hidden
- Concrete juts into frame

After Cropping



Sharpening & Curves

Goal:

Catch tern in flight

What's Wrong?

Grainy
Out of Focus
Distracting elements

Conditions:

Overcast Uncooperative subject

After Editing



- Crop
- Curves
- Sharpening
- Clone

Perspective Tool Before



Perspective Tool After



Perspective



Using RAW Files

- Right off the sensor
- No loss from conversion to JPEG
- Allows for more flexibility
 - Ex: Shadow detail, correcting under-exposed shots
 - White balance, noise reduction
- Requires conversion software
 - Either manufacturer or third party
- UFRaw
 - Available as GIMP plugin



UFRaw with GIMP



Using a Layer Mask



Layer Mask



Resources

https://wiki.gimp.org/wiki/Main_Page

http://docs.gimp.org

https://www.gimp.org/tutorials

Created with Slackware Linux, LibreOffice and GIMP

Questions?

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Live Demo

