

# GIMP: Green Is My Pepper



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# About—1/2

- **GNU Image Manipulation Program**
  - <https://www.gimp.org/>
- **Raster image** composing and editing
  - Pixel-based formats; JPEG, PNG, WebP...
- Started in 1995
- First release as GIMP v1.0 in 1998



# About—2/2

- Part of the GNOME project
- Free software, of course
- **GPLv3+**
  - **Copyleft**, i.e. all changes have to provide source code, and be GPL-licensed, for GPLv3 or any future version.



# Adobe Creative Suite—1/2

- For a long time, GIMP was GNU/Linux's only answer to **Adobe Photoshop**, and the rest of the **Adobe Creative Suite**.
- It didn't benefit from that comparison.
  - Especially with its unconventional interface.
- Designers told “it's a free Photoshop” end up disappointed.



# Adobe Creative Suite—2/2

- That was never really a fair comparison.
- The Creative Suite has had to be *all things to all people*.
  - Even just Photoshop arguably does *too much*.
- GIMP just **does what it does**, and **does it well**.
  - That might ring a bell or two, maybe...?



# Complements



Perhaps you wanted **Krita** instead?

- Drawing, painting, original art



Or **darktable**?

- Photo editing



Or **Blender**?

- 3D modelling



Or maybe **Inkscape**?

- Vector art



# Basics—1/2

- I'll try to give you an idea of the structure and workflow of a GIMP project.
- We'll assume you're just looking for something a little more sophisticated than [Tux Paint](#).
- We'll focus on **non-destructive editing**: we'll avoid throwing any image data away.
  - Don't repeat work!
  - Your time is expensive. Disk space is cheap.



# Basics—2/2

## **Selections**

- Cut, copy, paste, shapes, add, subtract, invert...

## **Layers**

- Screenshots, open as layer, resize, mask, group, text, opacity...

## **Paths**

- From selection, from text, stroke with tool...

## **Filters**

- Brightness, contrast, levels, blur, noise...





# Disclaimer

- This talk is a little different.
- “Dammit, Jim, I’m a systems administrator, not a graphic designer!”
- I don’t use GIMP in a very sophisticated way.
  - Nor for sophisticated reasons...
- If you know a better way to do something, call me out and tell me how!



# Getting help

- I know we're all used to software documentation being so bad that we sometimes don't even bother.
- But the [GIMP documentation](#) is *good*!
  - Most things are explained pretty well, including more general graphics formats and concepts.
  - Sometimes you really will need it.
  - You can't really intuit your way around.

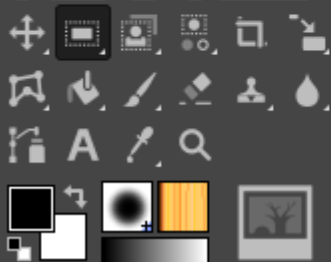


# Interface—Layout—1/4

- First things first: let's **fix the interface**.
  - I'll get a bit more opinionated here.
- If you used GIMP before v2.10, you might remember the infamous **multiple-window mode**...



Toolbox - Tool Options



Tool Options

Rectangle Select

Mode:

Antialiasing

Feather edges

Rounded corners

Expand from center

Fixed Aspect ratio

1:1

Layers

Layers Patterns Paths

Mode Normal

Opacity 100.0

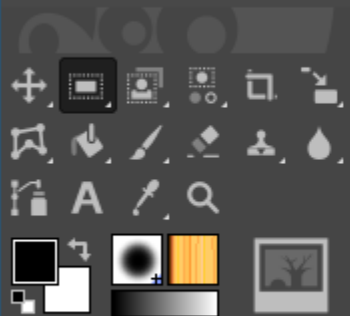
Lock:



# Interface—Layout—3/4

- One *does* get used to this after a while.
  - It's flexible, and works well on lower resolutions.
  - It's particularly useful with **tiling window managers**.
- But in response to user demand, v2.8 introduced **single-window mode**. It was an immediate hit.
- In v2.10, it became the **default**.
- You'll probably prefer it.





Tool Options

Rectangle Select

Mode: [Icons]

- Antialiasing
- Feather edges
- Rounded corners
- Expand from center
- Fixed Aspect ratio

1:1 [Icons]

Position: px

1917 -7



When enabled, GIMP is in a si...

- Recently Closed Docks >
- Dockable Dialogs >
- Toolbox Ctrl+B

---

- Hide Docks Tab
- Show Tabs
- Tabs Position >
- Single-Window Mode

When enabled, GIMP is in a single-window mode.  
*Press F1 for more help*

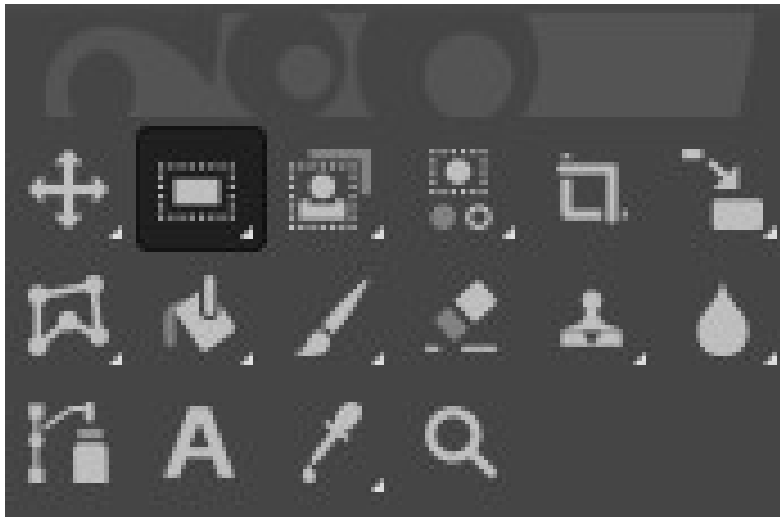


# Interface—Toolbox—1/4

- By default, on my system, the toolbox icons are in **dark mode**, and use a **flat color**.
  - I don't like either. Fix them like so:
  - **Edit → Preferences → Interface:**
    - **Theme:** set to **System** (if you're using a light theme)
    - **Icon Theme:** set to **Color**



# Interface—Toolbox—2/4





# Interface—Toolbox—3/4

- The **tool groups** feature merges tool buttons into groups that expand when you click them.
- I don't find this useful, so I just turn them off:
  - **Edit → Preferences → Interface → Toolbox**
    - Uncheck **Use tool groups**



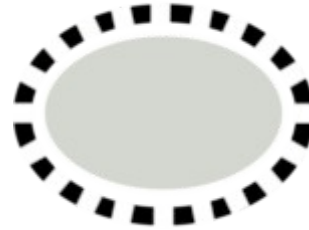
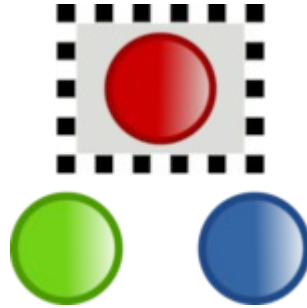
# Interface—Toolbox—4/4



# Demo—1/4

## Selections

- Rectangular
  - Keep aspect ratio
- Elliptical
- Free-form
- By color
- By region
- Cut, copy, paste
- Add, subtract, invert



# Demo—2/4

## Layers

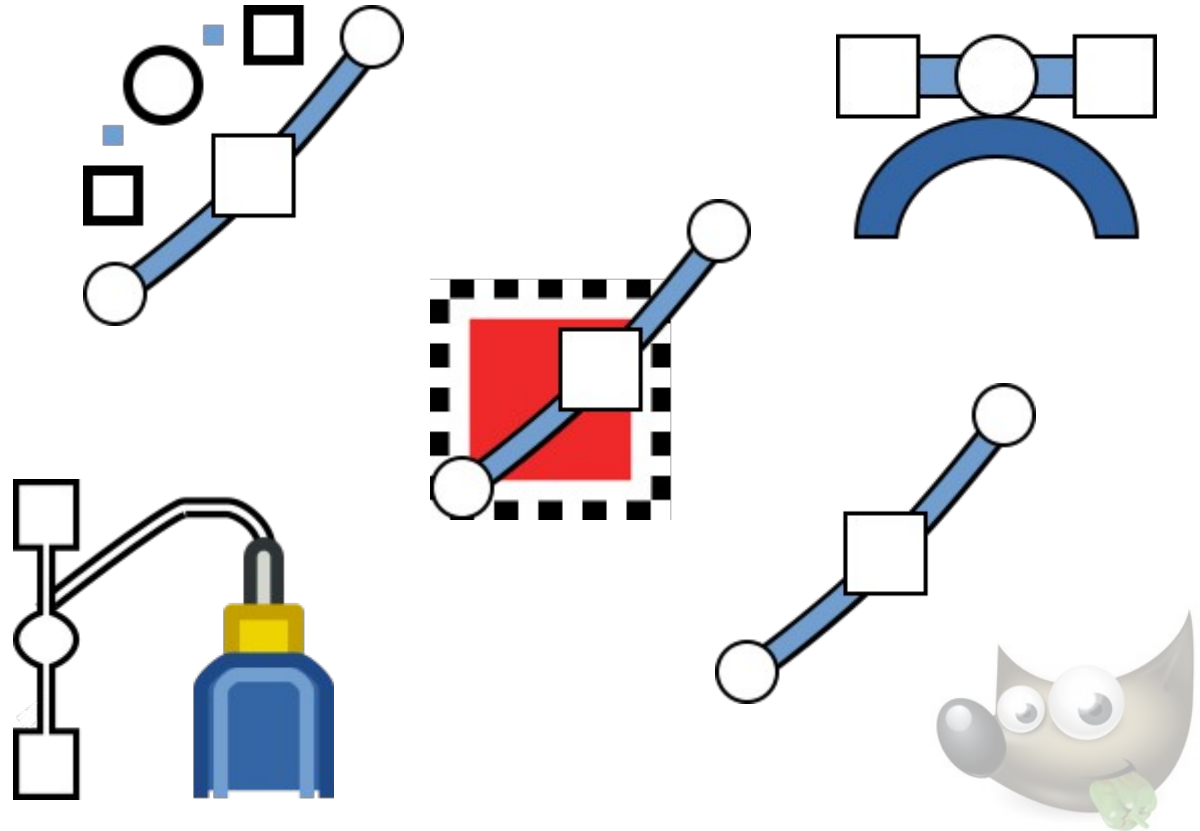
- Importing
- Masks
- Grouping
- Text layers
- Opacity
- Operations



# Demo—3/4

## Paths

- Drawing
- Curving
- From text
- Fill
- Stroke
  - With line
  - With brush



# Demo—4/4

## Filters

- Brightness
- Contrast
- Desaturate
- Levels
- Colorize
- Blur

*Many others...*



# Script-Fu (Advanced)

Write a little Scheme (Lisp) to script operations!

```
(define (script-fu-convert-xcf-to-png xcf png)
  (let* (
    (image (car (gimp-file-load RUN-NONINTERACTIVE xcf xcf)))
    (drawable (car (gimp-image-merge-visible-layers image CLIP-TO-IMAGE)))
  )
    (file-png-save RUN-NONINTERACTIVE image drawable png png
      1 9 0 0 0 0 )
  )
)

(script-fu-register
  "script-fu-convert-xcf-to-png"
  "<Toolbox>/Xtns/Script-Fu/export-xcf-to-png"
  "Export XCF to PNG"
  "Tom Ryder"
  "Lol!"
  "2022-06-22"
  ""
  SF-FILENAME "XCF" "in.xcf"
  SF-FILENAME "PNG" "out.png"
)
```



# Tom's Tips—1/4

- Work in **high resolution**, at least a few thousand pixels.
  - Needs more RAM—but hey, it's the future now.
  - Work zoomed-out most of the time.
- Use **lossless formats**.
  - Native XCF (best), RGB PNG, or lossless WebP.
  - Export to JPEG only as the very last step, if at all.
- Numeric fields often evaluate **expressions**.
  - e.g. You can scale a layer to “ $1920/4$ ” pixels wide.





# Tom's Tips—2/4

- Use more **layers**. It's never enough!
  - *Label* them.
  - *Group* them.
  - Operate on groups where that makes sense.
- Edit **non-destructively**.
  - If you can't, keep the prior state in another hidden layer, or another file.
  - This only feels silly until the first time it saves you *hours* of work.
  - Use masks rather than cutting out portions of layers.
  - Note that layer groups can have their own masks.



# Tom's Tips—3/4

- Use snap-to **guides** (Image → Guides)
  - If you ever catch yourself counting pixels, you probably need a new guide.
- Use **presets**
  - When you pick colors and other parameters for a filter, save them as a preset for repeating



# Tom's Tips—4/4

- Use (or create!) **keyboard shortcuts** (Edit → Keyboard Shortcuts)
  - Ctrl+Z/Ctrl+Y to undo/repeat.
  - Ctrl+F to repeat the last filter.
- Look for the tools' **keyboard modifiers**.
  - Ctrl, Shift, and Alt change the behavior of many tools.



# Questions?

- [GIMP project website](#)
- [GIMP v2.10 English docs](#)
- [G'MIC macro language](#) (more filters)
- [GIMP-ML](#) (AI tools)

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