Sun City Summerlin Computer Club Seminar

Image Editing With GIMP



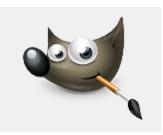
Tom Burt 12-28-2023

Where to Find the Materials

• Sun City Summer Computer Club Website:

- <u>http://www.scscc.club/smnr</u>
- Direct Hyperlink
 - <u>http://www.scscc.club/smnr/ImageEditingWithGIMP.pdf</u>

Seminar Agenda



- Introduction
- Getting and Installing GIMP
- The GIMP Main Window
- The GIMP Tool Palette
- Basic Image Editing Actions
- The GIMP Color Window
- The GIMP Menu Bar
- Using GIMP Layers
- Using GIMP Special Tools
- Four Image Projects
- Saving in Various Formats
- Printing

Introduction

- **GIMP = GNU Image Manipulation Program**
- GIMP is a FREE "open source" image editor.
 - Versions for Windows, MacOS, Linux, Unix, Android
- Has many nice features.



- Can be as simple as MS Paint or almost as complex as Photoshop.
- This seminar will focus on most useful features for "mere mortals".
- Ask questions as we go.
- We'll work on several interesting photo projects.

Getting and Installing GIMP

- Make a new data folder named: GIMP.
- Go to the GIMP Website's Download page:
 - <u>http://www.gimp.org/downloads/</u>
 - Choose your OS platform (GNU/Linus, macOS, Windows).
- Click the "Download Directly" button.
 - In the File > Save dialog that appears, browse to your GIMP folder and click Save.
- The file will download as a gimp-<xxx>-setup.exe file in your GIMP folder.
- In your file explorer, navigate to the GIMP folder.
- Finally, double-click the gimp-<xxx>-setup.exe file to run the setup.
- Online documentation (You will need it!)
 - <u>https://docs.gimp.org/en/</u>
 - Transparency: <u>https://www.youtube.com/watch?v=AC5vdKuwTp0</u>
 - Intro: <u>https://www.youtube.com/watch?v=LX-S1CX1HUI</u>

The GIMP Main Window

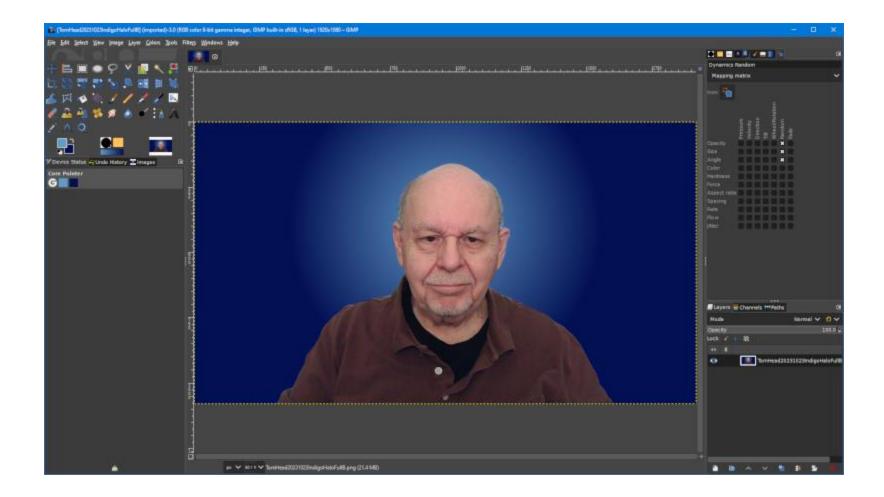
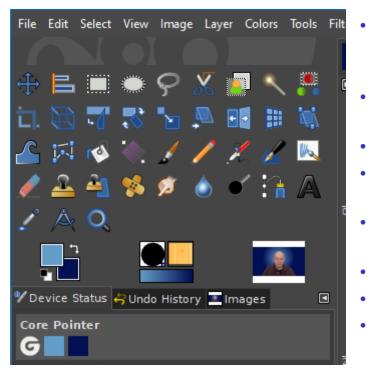


Image Editing With GIMP

GIMP Tool Palette Pane



- In GIMP 2.10.36, the tools can be grouped into related sets. You can configure these groupings via Edit > Preferences > Toolbox
- You can also choose the lcon theme via Edit > Preferences > Icon Theme
- Hover over each tool to get a tool-tip name ٠
- The various tools let you select or act on areas ٠ of the image or current layer.
- The tools that paint or edit pixels interact • closely with the color window.
- You can access all tools via the Tools menu. •
 - Many tools have keyboard shortcuts.
 - Now we'll run through a demo of the most commonly used tools ...

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Example Project 1 – Outdoor Retouch (1)

- Outdoor wedding photo on a golf course
- Much visual clutter in background
- Subject not emphasized
- Sky was light grey





Image Editing With GIMP

Example Project 1 – Outdoor Retouch (2)

- Rotate or straighten as needed.
- Crop the photo
 - Use the crop tool to select, then press Enter to crop image.
- Eliminate "undesired" elements
 - Use the paint brush, pencil and clone stamp tool to get rid of people, poles, power lines, cars, etc. Created background trees.
- Adjust brightness, contrast and light / dark levels, hue / saturation
 - Use Colors menu as needed.
- Use the Filters menu to fix red-eye, if needed.
- Rescale the photo (as appropriate).
- Export the final result to a .png image file and print or publish.

Saving / Exporting in Various Image Formats

- Click the File menu.
 - A list of action choices will appear in the menu.
- Click "Export As".
 - This will open a classic "Save As" dialog.
 - You can choose the file name, folder and file type.
 - "Flattened" file types include: .BMP, .PNG, .GIF, .JPG, .TIFF and .TGA
- When you have the Export settings defined, click the "Export" button.
 - GIMP will display a second dialog that is dependent on the file type, asking for more specifics. Choose the desired settings and then click OK.
- Saving the Project
 - You can also Save the file as a .XCF (GIMP project) file, which retains all the separate layers and actions. Use this if you are saving in the middle of working on a complex image project.

GIMP Color Pane

💐 Change Foreground Color	×
4 8 0 0 8	0100 0255 LCh HSV
	• <u>R</u> 27.0 ↓ G 37.7 ↓ B 55.9 ↓
	L 40.2 C 29.2 h 270.5
Current:	HTML <u>n</u> otation: 45608f
Old: <u>H</u> elp <u>R</u> ese	

- Reworked in V 2.10.36
- You can set a primary and a secondary color.
- You can work in RGB, LCH or HSV.
- You will often set the color by using the eyedropper tool.
- You can enter HTML (web) color names.
- You can save a palette of frequently used colors
- Let's demo the color window.

Exploring the GIMP Menu Bar

File Edit Select View Image Layer Colors Tools Filters Windows Help

- The photo editing capability of GIMP is in the menu bar.
 - Very plain, Windows 95-style no toolbar.
- The Image menu provides cropping, resizing and rotation.
- The Colors menu provides brightness/contrast, hue / saturation, black / white, levels and other adjustments.
- The Filters menu provides a rich array of special effects, plus some common actions like red-eye removal.
- Let's explore some of the menu bar actions.

Using GIMP Special Tools

File Edit Select View Image Layer Colors Tools Filters Windows Help

• All GIMP tools can be reached from the Tools menu

- Scale Tool
- Shear Tool
- Perspective Tool
- Ink Calligraphy Tool
- Healing Brush
- Clone Tool

Example Project 2 – Restore an Old Photo (1)

 Original photo was faded, had some cracks, spots and loss of detail. Also was small. Paper matting was in bad shape.





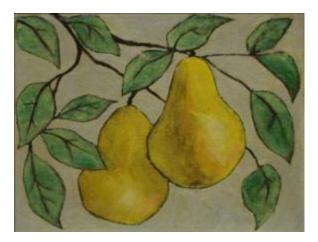
Example Project 2 – Restore an Old Photo (2)

- Rotate or Straighten as needed.
- Crop as needed using crop tool.
 - May need to fill in corners after rotation.
- Also adjust the overall contrast of the image.
 - Try the desaturate (black & white) adjustment.
 - Adjust contrast & brightness.
 - Experiment with the Levels tool.
- Then repair blemishes (spots, cracks)
 - Caution easy to overdo it.
 - Use the clone tool or healing brush tool.
 - Use the pencil & paintbrush for very fine detail.
- May be possible to resize larger if small.
 - Works OK up to about a 30% enlargement.

Example Project 3 – Straightening a Photo (1)

- Working with a photo of an oil painting.
- Suffers from perspective distortion and skew.
- Also, slightly over-exposed (was taken with flash).





Example Project 3 – Straightening a Photo (2)

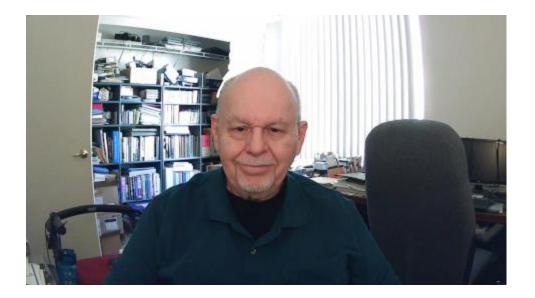
- Rotate as needed to get the top edge horizontal.
- Correct Skew distortion using Perspective Crop tool.
 - Drag each corner to stretch or compress, then press Enter to crop.
- Crop again if needed using the Crop tool.
- Adjust the overall contrast of the image.
 - Adjust contrast & brightness.
 - Experiment with the Levels tool.
- Repair any blemishes (spots, cracks).
 - Caution easy to overdo it.
 - Use the clone tool or healing brush tool.
 - Use the pencil & paintbrush.
- Add a border ... Filters > Décor > Add Border.
- Export to a .png image file.



- A GIMP "image" is comprised of one or more layers, stacked vertically. The image you see is the composite of viewing through all the layers, top to bottom.
- The background layer is usually the base image, sometimes a background pattern or image.
- Each layer applies its modifications to the layers below it.
- You can reorder the layers to change how they affect the composite image.
- You can also merge or flatten layers when you have the desired effects.
- Let's look at some simple layer actions.

Example Project 4 – Portrait Retouch (1)

- Original image shot against a cluttered background.
- Spherical distortion present due to wide-angle web-cam lens.
- Reworked to composite with a different background.





Example Project 4 – Portrait Retouch (2)

- Take an existing portrait (head shot) and re-do the background color.
 - Crop the image to roughly the final size and shape.
 - Retouch the subject using the Clone Stamp and Heal tools and the Dodge tool. May also try the Noise Reduction tool.
 - Also adjust the overall contrast, brightness & saturation of the image.
 - Export the image as a .png
 - Remove background using Adobe Express. <u>http://adobeexpress.com</u>
 - Open the saved Adobe Express image (has a transparent background).
 - Use the GIMP Eraser tool to clean up any small glitches left from Adobe.
 - Add a new layer and move it to the bottom. Hide the foreground layer.
 - Set foreground and background colors.
 - Select the new background layer.
 - Put a color, gradient or other image on the background layer.
 - Unhide the foreground layer to see the combined effect.
 - Make any final adjustments.
 - Export the finished result to a .png file.

Printing GIMP Images

- Click File > Print to get to the Print dialog.
- You can select the printer, paper size, quality and copy count.
- You can also specify a variety of settings for how the image will be rendered to the printed page.
- When you've made your selections, just click the "Print" button.



Final Questions and Answers

Image Editing With GIMP