

GOA COLLEGE OF ENGINEERING

“Bhausaheb Bandodkar Technical Education Complex”

Tutorial No: 2

1. What is GIMP?

GIMP (GNU Image Manipulation Program) is a free and open-source raster graphics editor used for image manipulation (retouching) and image editing, free-form drawing, transcoding between different image file formats, and more specialized tasks. It is not designed to be used for drawing.

2. List and explain uses of GIMP software.

GIMP can be used to process digital graphics and photographs. Typical uses include:

- Creating graphics and logos
- Resizing and cropping photos
- Changing colors
- Combining images using a layer paradigm
- Removing unwanted image features
- Converting between different image formats
- Creating simple animated images

3.Explain system requirements and configurations to run GIMP.

Configurations required to run GIMP are:

- Any system that is compatible with GNome 2, KDE 3.2, Windows 2000 or Mac OS X
- GIMP needs more primary memory space depending on the type and number of images
- Numbers of layers in an application is also a concern for GIMP
- Minimum of 128 MB RAM is required
- Free disk space of 20 GB is advisable

4. List and explain installation steps of GIMP.

To install GIMP on Windows, visit <https://www.gimp.org/downloads/>, and select the Microsoft Windows Platform. There are two download options available. Either we can download it via torrent or directly. After downloading the installer file, follow the below steps:

- Run the GIMP installer.
- Follow the required prompt.
- Finish the Installation.

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- Run the GIMP.

5. How is GIMP different from GNOME applications? Also list the similarities between them.

GIMP doesn't use the GNOME application framework. The only thing it has in common is GTK+. GIMP can optionally use gnome-vfs, allowing you to load and edit images from remote servers.

6. What does “wire_read:unexpected eof” mean in GIMP?

This error message “wire_read:Unexpected Eof” should say something like “the plug-in (or the main GIMP app) it was talking to has exited before returning any results, so it assumes that it has crashed.”

7. What is a colormap in GIMP? Can GIMP install its own colormap?

In an Indexed image, instead of being assigned a color directly (as happens in RGB and Grayscale images), colors are assigned to pixels by an indirect method, using a look-up table called a colormap. Yes, GIMP can install its own colormap either in the system-wide *gimprc* file or your personal *gimprc* file, uncomment the line that includes “install-colormap”.

8. What is Xserver in GIMP? Do we need an Xserver to run in batch mode for GIMP?

GIMP is an X application. It needs an X server for image processing, and for font manipulation. If you wish to run in batch mode, you can run with a special, frame-buffer-less X server called Xvfb, which doesn't require a graphics card or mess with your screen.

9. What is Script-fu in GIMP?

Script-fu is a powerful scripting language which permits extending the program's capabilities and simplifying repetitive tasks. This scripting language was based upon the Scheme programming language and implemented the SIOD interpreter written by George J. Carrette while he was a professor at Boston University in the late 80s. Script-Fu is the first GIMP scripting extension.

10. Explain GIMP's native graphics file format.

GIMP supports importing and exporting with a large number of different file formats, GIMP's native format XCF is designed to store all information GIMP can contain about an image; XCF is named after the eXperimental Computing Facility where GIMP was authored. Import and export capability can be extended to additional file formats by means of plug-ins. XCF file size has been extended to more than 4 GB since 2.9.6 and the new stable tree 2.10.x.

11. What is the use of the feather command in gimp?

The Feather command feathers the edges of the selection. This creates a smooth transition between the selection and its surroundings. You normally feather selection borders with the “Feather Edges” option of the selection tools, but you may feather them again with this command.

12. Explain workflow of Animstack in GIMP.

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AnimStack is a collection of tools to simplify creating animations in GIMP. It makes heavy use of Layer Groups, introduced in GIMP 2.8.

Following is the typical workflow of AnimStack:

- Create all frames for the animation.
- Add the required colors for foreground and background layers.
- Attach the frames with the appropriate AnimStack tags.
- Attaching is done by placing them in square brackets anywhere in the layer's name.
- The menu command is Filters- >Animation- >Process AnimStack Tags.