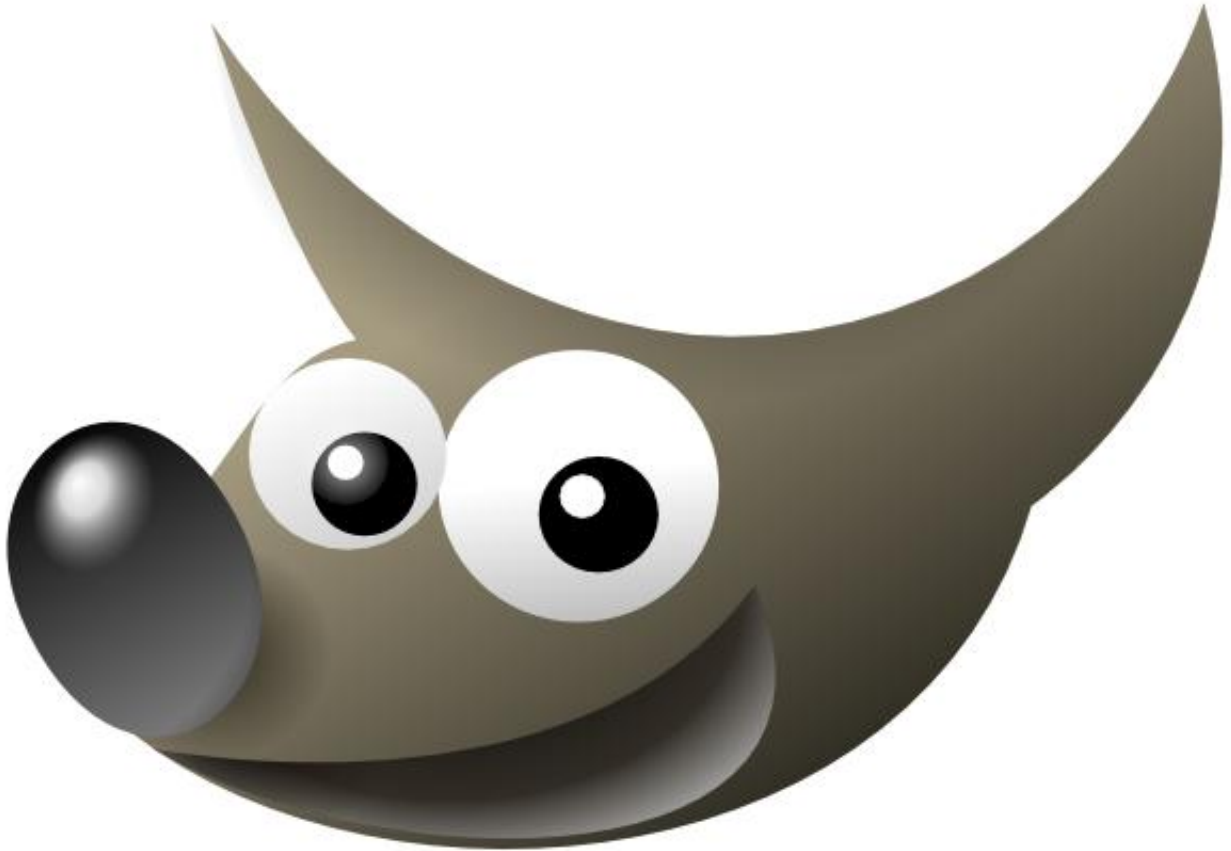
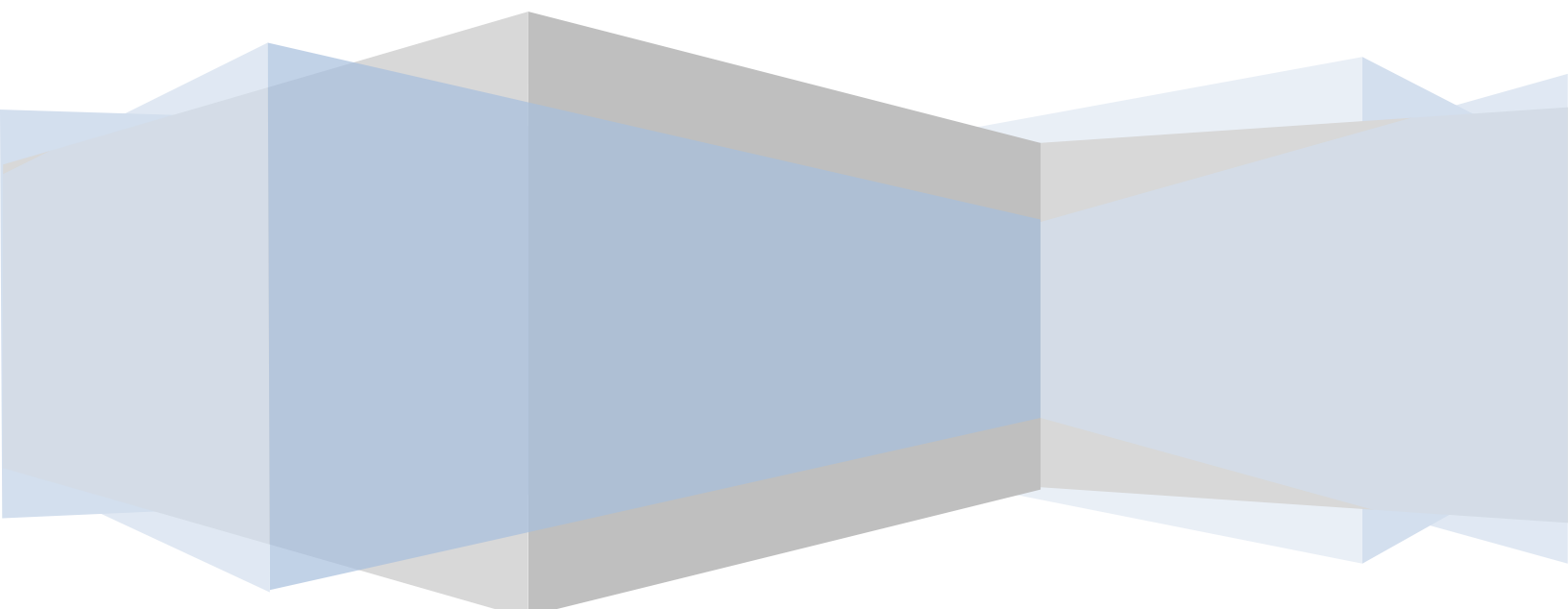


Gimp



User Manual

Gimp 2.6 User Manual



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Preface

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Chapter 1. Introduction

1.1 Welcome to GIMP

GIMP is a multi-platform photo manipulation tool. GIMP is an acronym for GNU Image Manipulation Program. The GIMP is suitable for a variety of image manipulation tasks, including photo retouching, image composition, and image construction.

GIMP has many capabilities. It can be used as a simple paint program, an expert quality photo retouching program, an online batch processing system, a mass production image renderer, an image format converter, etc.

GIMP is expandable and extensible. It is designed to be augmented with plug-ins and extensions to do just about anything. The advanced scripting interface allows everything from the simplest task to the most complex image manipulation procedures to be easily scripted.

One of The GIMP's strengths is its free availability from many sources for many operating systems. Most GNU/Linux distributions include The GIMP as a standard application. The GIMP is also available for other operating systems such as Microsoft Windows™ or Apple's Mac OS X™(Darwin). The GIMP is a Free Software application covered by the General Public License ([GPL](#) license). The GPL provides users with the freedom to access and alter the source code that makes up computer programs.

1.1.1 Authors

The first version of the GIMP was written by Peter Mattis and Spencer Kimball. Many other developers have contributed more recently, and thousands have provided support and testing. GIMP releases are currently being orchestrated by Sven Neumann and Mitch Natterer and the other members of the GIMP-Team.

1.1.2 The GIMP Help system

The GIMP Documentation Team and other users have provided you with the information necessary to understand how to use GIMP. The User Manual is an important part of this help. The current version is on the web site of the Documentation Team in HTML format. The HTML version is also available as context sensitive help (if you installed it) while using GIMP by pressing the **F1** key. Help on specific menu items can be accessed by pressing the **F1** key while the mouse pointer is focused on the menu item. Read on to begin your GIMP journey.

1.1.3 Features and Capabilities

The following list is a short overview of some of the features and capabilities which GIMP offers you:

- A full suite of painting tools including brushes, a pencil, an airbrush, cloning, etc.
- Tile-based memory management, so image size is limited only by available disk space
- Sub-pixel sampling for all paint tools for high-quality anti-aliasing
- Full Alpha channel support for working with transparency
- Layers and channels
- A procedural database for calling internal GIMP functions from external programs, such as Script-Fu
- Advanced scripting capabilities
- Multiple undo/redo (limited only by disk space)
- Transformation tools including rotate, scale, shear and flip
- Support for a wide range of file formats, including GIF, JPEG, PNG, XPM, TIFF, TGA, MPEG, PS, PDF, PCX, BMP and many others
- Selection tools, including rectangle, ellipse, free, fuzzy, bezier and intelligent scissors
- Plug-ins that allow for the easy addition of new file formats and new effect filters.

1.2 What's New in GIMP 2.6?

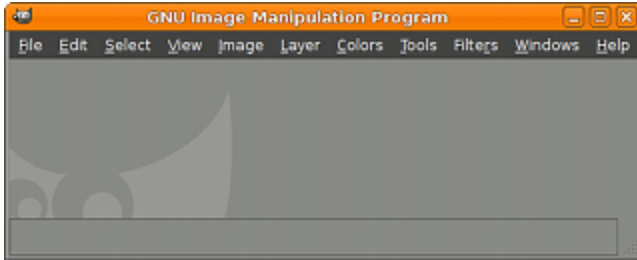
GIMP 2.6 is an important release from a development point of view. It features changes to the user interface addressing some often received complaints, and a tentative integration of GEGL, the graph based image processing library that will eventually bring high bit-depth and non-destructive editing to GIMP.

User Interface

Toolbox Menubar removed

The toolbox menubar has been removed and merged with the image window menubar. To be able to do this a window called the empty image window has been introduced. It hosts the menubar and keeps the application instance alive when no images are opened. It also acts as a drag and drop target. When opening the first image the empty image window is transformed into a normal image window, and when closing the last image, that window becomes the empty image window.

Figure 1.1. New Look of the image window in GIMP 2.6



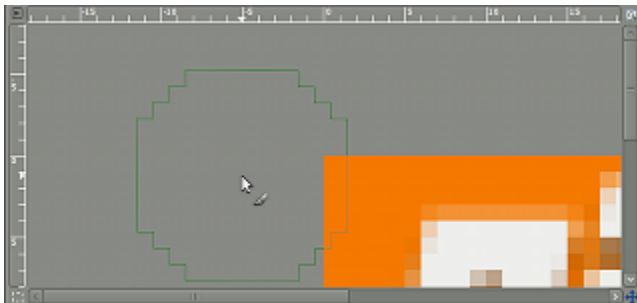
Toolbox and docks are utility windows

With the empty image window acting as a natural main window, the default window hints for the Toolbox and Docks have been changed to Utility window. This enables window managers to do a much better job of managing the GIMP windows, including omitting the Toolbox and Docks from the taskbar and ensuring that the Toolbox and Docks always are above image windows.

Ability to scroll beyond image border

It is now possible to pan beyond the image border, making image window navigation much less constrained. It is no longer a problem to use the edge of a brush on the edge of an image while being zoomed in, and one can adapt the canvas to any utility windows covering parts of the image window.

Figure 1.2. Scrolling beyond border



Minor changes

- Renamed Dialogs menu to Windows.
- Keep a list of recently closed Docks and allow reopening them.
- Make opening images in already running GIMP instances work better on Windows.
- You can now enter the image zoom ratio directly in the status bar.
- Added support for using online help instead of a locally installed GIMP Help package.

- Make it possible to lock tabs in docks to prevent accidental moving.

Tools, Filters and Plug-ins

Improved Free Select Tool

The freehand select tool has been enhanced to support polygonal selections. It also allows mixing free hand segments with polygonal segments, editing of existing segments, applying angle-constraints to segments, and of course the normal selection tool operations like add and subtract. Altogether this ends up making the Free Select Tool a very versatile, powerful and easy-to-use selection tool.

Figure 1.3. Polygonal Selection



Brush Dynamics

Brush dynamics let you map different brush parameters, commonly at least size and opacity, to one or more of three input dynamics: pressure, velocity and random. Velocity and random are usable with a mouse. The Ink tool, that supported velocity before, has been overhauled and now handles velocity-dependent painting much better.

Figure 1.4. Brush Dynamics

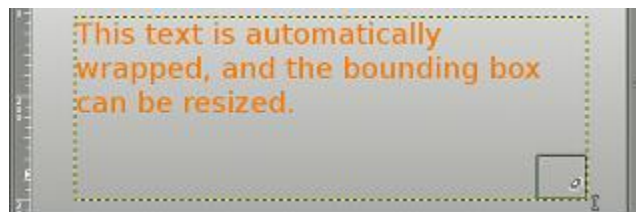


Brush dynamics have enabled a new feature in stroking paths. There is now a check box under the "paint tool" option, for emulating brush dynamics if you stroke using a paint tool. What this means is that when your stroke is being painted by GIMP, it tells the brush that its pressure and velocity are varying along the length of the stroke. Pressure starts with zero, ramps up to full pressure and then ramps down again to no pressure. Velocity starts from zero and ramps up to full speed by the end of the stroke.

Minor changes

- Added a bounding box for the Text Tool that supports automatic wrapping of text within that bounding box.

Figure 1.5. Text tool bounding box



- Move handles for rectangle based tools like Crop and Rectangle Select to the outside of the rectangle when the rectangle is narrow.

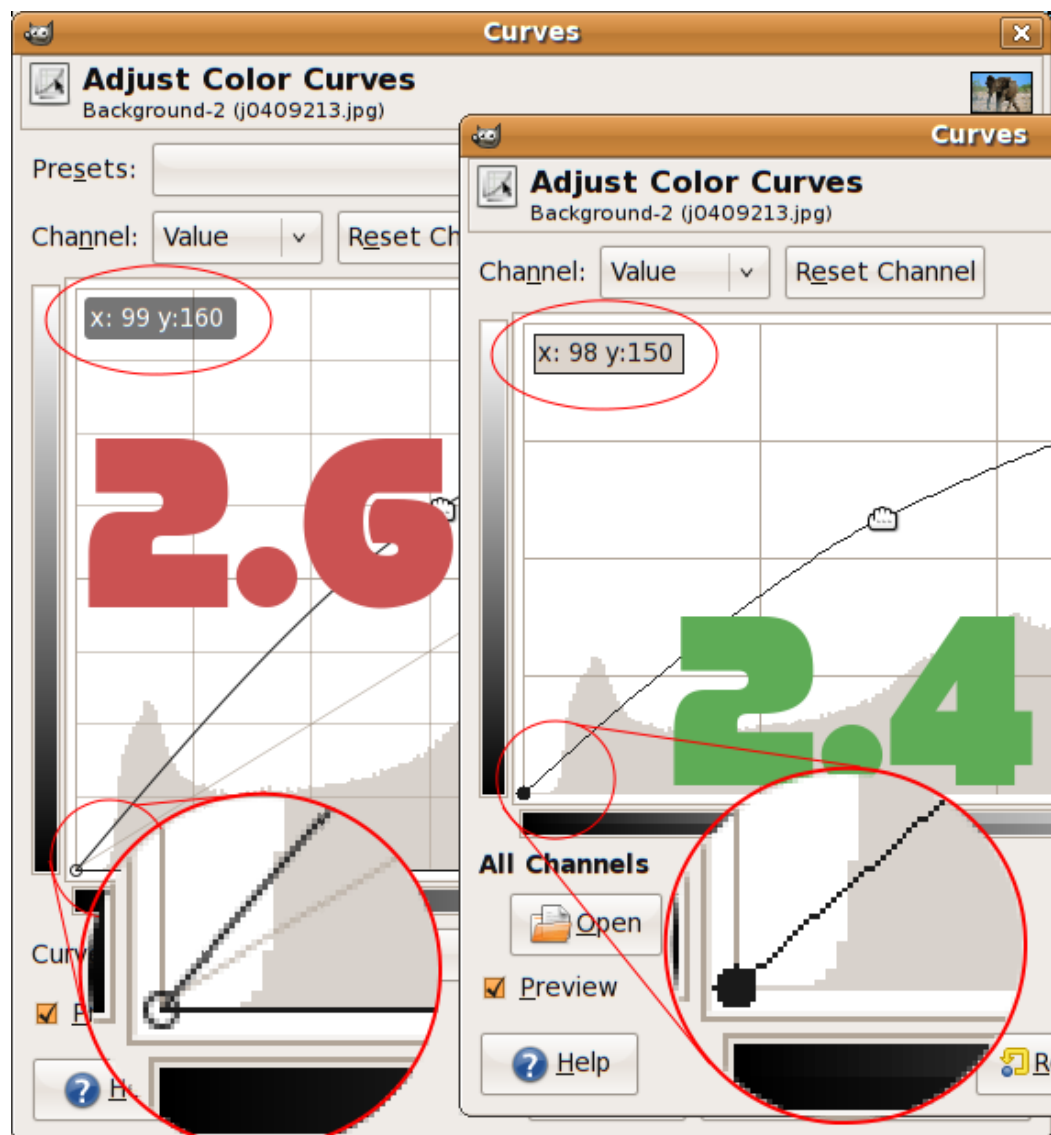
Figure 1.6. Rectangle handles



- Added motion constraints to the Move Tool.
- Improved event smoothing for paint tools.
- Mark the center of rectangles while they are moved, and snap the center to grid and rulers.
- Enable brush scaling for the Smudge tool.
- Added ability to save presets in all color tools for color adjustments you use frequently.
- Allow to transfer settings from *Brightness-Contrast* to *Levels*, and from *Levels* to *Curves*.
- Allow changing opacity on transform tool previews.
- The Screenshot plug-in has been given the ability to capture the mouse cursor (using Xfixes).

- Display aspect ratio of the Crop and Rectangle Select Tool rectangles in the status bar.
- Desaturate has been given an on-canvas preview.
- The Flame plug-in has been extended with 22 new variations.
- Data file folders like brush folders are searched recursively for files.
- Replaced the PSD import plug-in with a rewritten version that does what the old version did plus some other things, for example reading of ICC color profiles.
- Several displays use Cairo library.

Figure 1.7. Comparing 2.6 display vs. 2.4



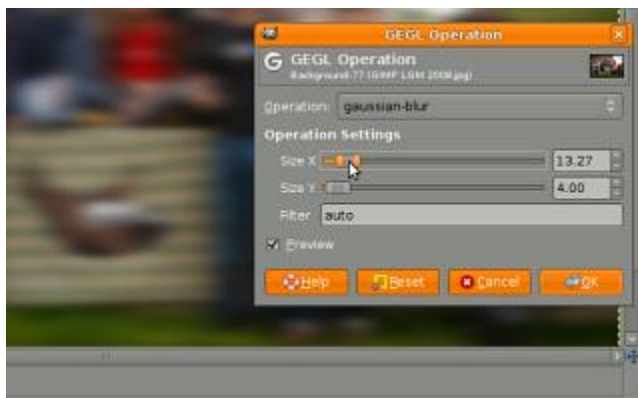
Under the Hood

GEGL

Important progress towards high bit-depth and non-destructive editing in GIMP has been made. Most color operations in GIMP are now ported to the powerful graph based image processing framework GEGL, meaning that the internal processing is being done in 32bit floating point linear light RGBA. By default the legacy 8bit code paths are still used, but a curious user can turn on the use of GEGL for the color operations with Colors / Use GEGL.

In addition to porting color operations to GEGL, an experimental GEGL Operation tool has been added, found in the Tools menu. It enables applying GEGL operations to an image and it gives on-canvas previews of the results. The screenshot below shows this for a Gaussian Blur.

Figure 1.8. GEGL operation



Minor Changes

Ported many widgets to use the 2D graphics library cairo for drawing. See this comparison for an example of how much better this looks.

Miscellaneous

Plug-in Development

There are new things for a plug-in developer to enjoy as well. For example, procedures can now give a detailed error description in case of an error, and the error can be propagated to the user.

GIMP 2.6 also further enhances its scripting abilities. In particular there is now a much richer API for the creation and manipulation of text layers. Here is a list of new symbols in GIMP 2.6: *[GIMP-NEWSYM26]*.

Backwards Compatibility

Some old scripts could not be used with GIMP-2.4. This has been improved and 2.6 should run 2.0 and 2.2 scripts.

Known Problems

- The Utility window hint is currently only known to work well in the Linux GNOME desktop environment and on Windows starting with GIMP 2.6.1.
- Using the Text Tool is currently not an optimal experience. Making it work better is a goal for GIMP 2.8.
- If you build GIMP yourself and don't have GVfs support on your platform you need to explicitly pass `--without-gvfs` to configure, otherwise opening remote files will not work properly.