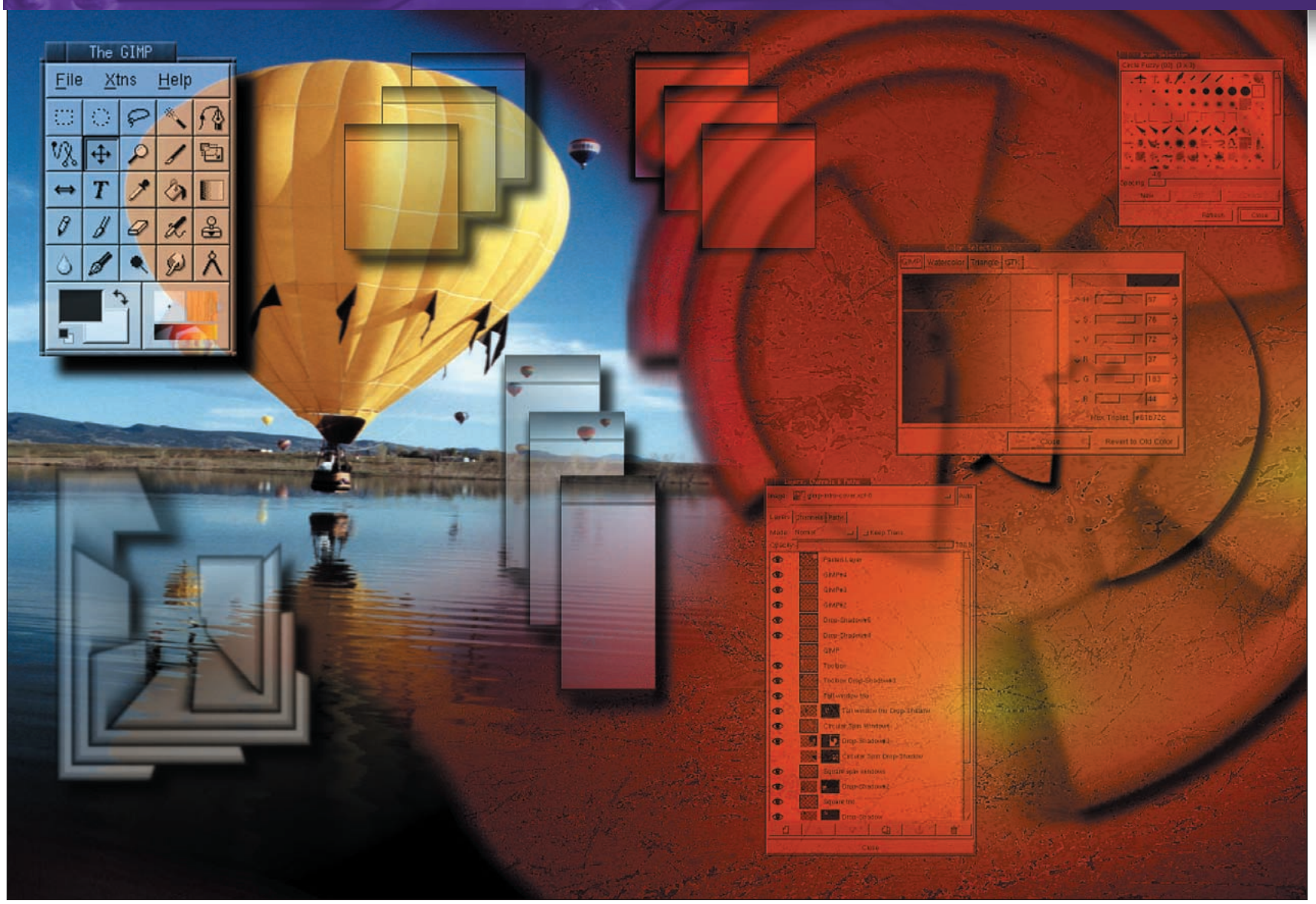


IMAGE EDITING

Integrating text

PART 7 An image may be worth a thousand words, but often they still require the addition of text. You'll need to be focused if you expect to be able to edit GIMP text after you've created it, says Michael J Hammel.

Let's face it – Linux has not been, until relatively recently, well known for its font support. Scaled and blocky bitmapped fonts left users with sore eyes and archaic designs. Even so, Linux's problems only partly affected text management under *The GIMP*. The app has supported antialiased fonts for quite some time, for example. Yet the general lack of support under Linux for TrueType fonts has left *GIMP* in the lurch as well – both Linux and *GIMP* rely on the underlying X Window System to provide that support. In recent times the release of FreeType and updates to the X Font Server have added a world of fonts to both Linux and *GIMP* and the next release of *GIMP* promises to do even more. Until then, however, we need to make the tools available do the most they can.

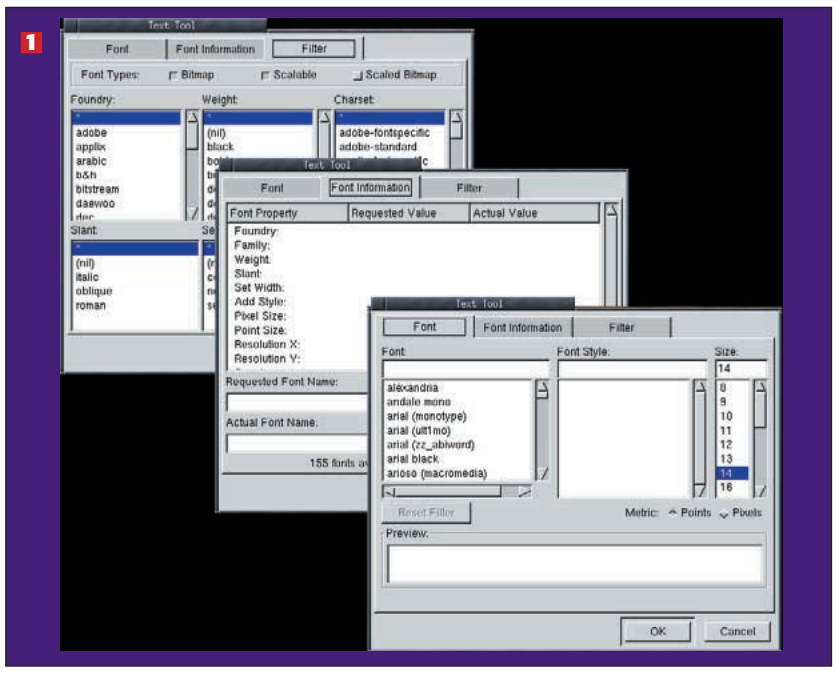
GIMP1.2 provides multiple tools for adding text to images. The default Text Tool, found in the *GIMP* Toolbox with the letter **T** as its icon, provides basic font selection features. Unfortunately its font filtering is based on the fairly cryptic XLFD (X Logical Font Description) standards – known only to the most addicted Unix developers. A better font interface is provided by Dynamic Text, an alternative tool available as an option in the Text Tool's Tool Options dialog (double click on the Text Tool icon to open this dialog) as well as from the Canvas menu option Filters > Render > Dynamic Text.

A third option for generating text is the new FreeType plugin. Though not currently distributed in any stock *GIMP* distribution, it is available from the *GIMP* Registry (**http://registry.gimp.org/index.jsp**) . The next release of *GIMP* (due out soon, we hope) will add FreeType as a standard tool and take Text management to places users have been dreaming of for years. For now, once you have FreeType installed, look for it under the Filters > Render > FreeType menu option.

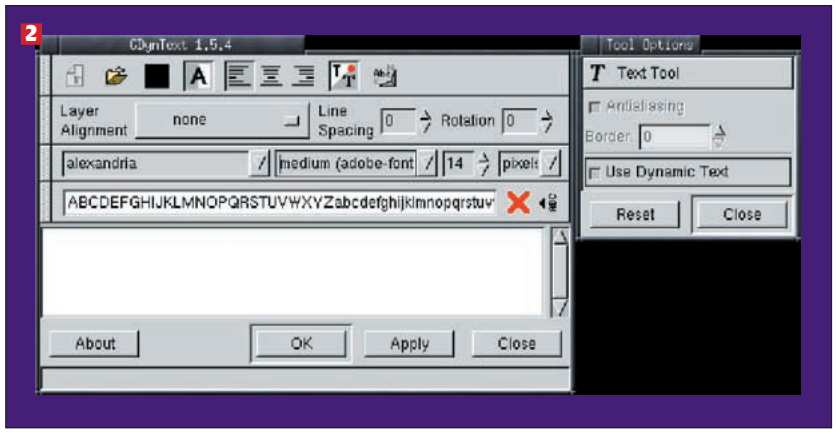
In these tutorials we'll look at the services provided by the various Text management tools in the current version of *The GIMP*, version 1.2.5, along with the multitude of text plugins that extend those services.

Text Tool vs Dynamic Text

Long-lived applications often have features with little usefulness to current users. This is the case with the default Text Tool in *The GIMP*. While it served its purpose in the early years, it has long since been superseded by the Dynamic Text tool.



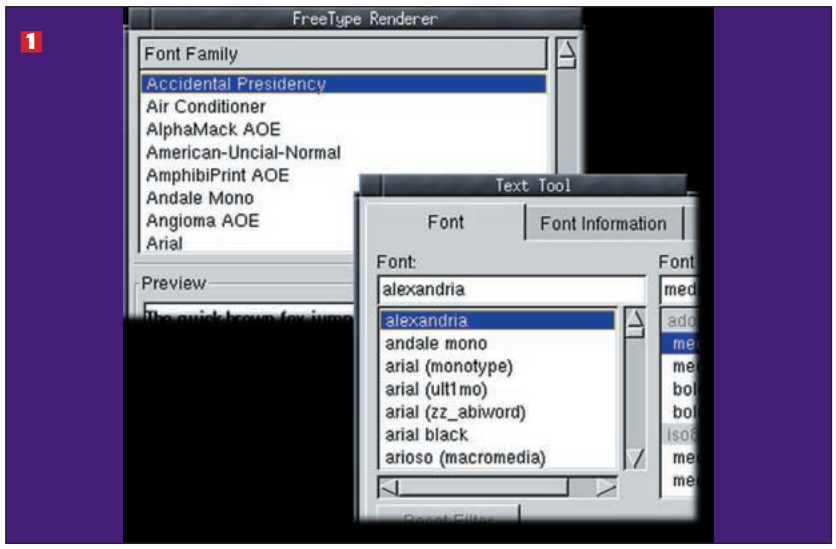
1 When you choose the Text Tool from the ToolBox and click in a Canvas window, the default Text Tool dialog will be displayed. This dialog has three pages, as shown in this image. The first page allows selection of a font based on a common name and offers a space to enter a single line of text. When you click on the 'OK' button, the text is rendered in the Canvas window as a new layer. The drawbacks to this default dialog are that you can only enter a single line of text and, once applied, you can't edit that text in the new layer. To make changes to the text, you have to use the Text Tool again and render text to a new layer, deleting the old one manually. On the other hand, if you have thousands of fonts installed, from many different font foundries, you can search for a particular font much more quickly using this dialog than either the Dynamic Text or FreeType dialogs. Only text scaling is offered here – no other text characteristics, such as shear, character spacing or rotation, are available. If you need these features you need to look into the Dynamic Text of FreeType tools.



2 The Dynamic Text dialog is much more artist-friendly. To get this dialog you must first click on the Dynamic Text button in the Text Tool's Tool Options dialog, then click on your image to get the Dynamic Text dialog. The text input area (the white box at the bottom of the dialog) allows for multiple lines of text. Font selection here is by common name only which means there is one long list of font names. That can be cumbersome if you have a large number of fonts installed. Other features of this version of the Text Tool include text alignment for multi-line text, antialiasing of text when rendered into a new layer, text color setting, and rotation, line spacing and new layer alignment. The rotation option is in degrees but is not shown in the preview. Most important of all, this is the only text tool in *GIMP* that allows you to edit your text *after* you've rendered it to a new layer. Just make sure the text layer is active in the Layers dialog and then click on the image to open the Dynamic Text dialog. Changes to the text are applied when you click the Apply or OK buttons.

FreeType

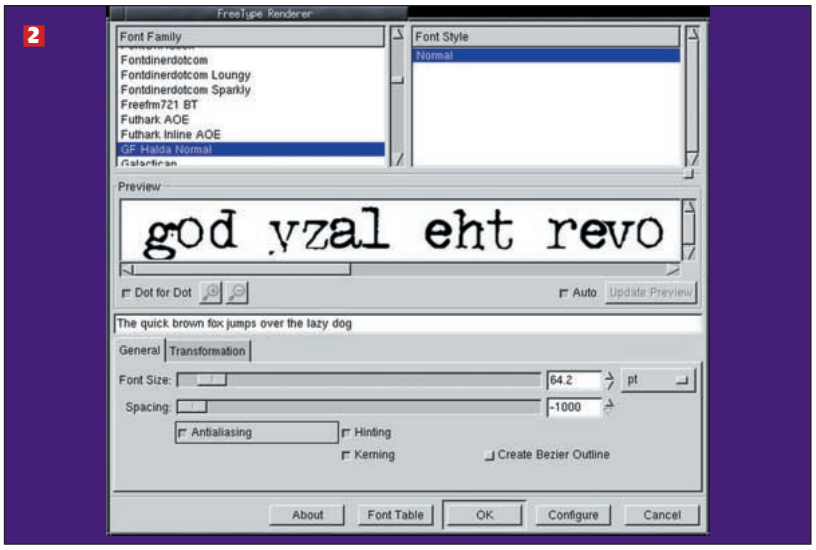
Type 1 fonts have traditionally be the only fonts available to Linux users. Recently, TrueType support became available and, if you're distribution of Linux includes that support, *GIMP* now can make use of fonts in that format. The default and Dynamic Text tools, however, can only render (*ie* draw) those fonts – they can't manipulate the format itself prior to rendering it. That means they don't provide things like shearing, character spacing, hinting (detailed information for rendering of font characters) or kerning (character-to-character spacing). To get access to these features you need to grab the FreeType plugin from the *GIMP* Registry.



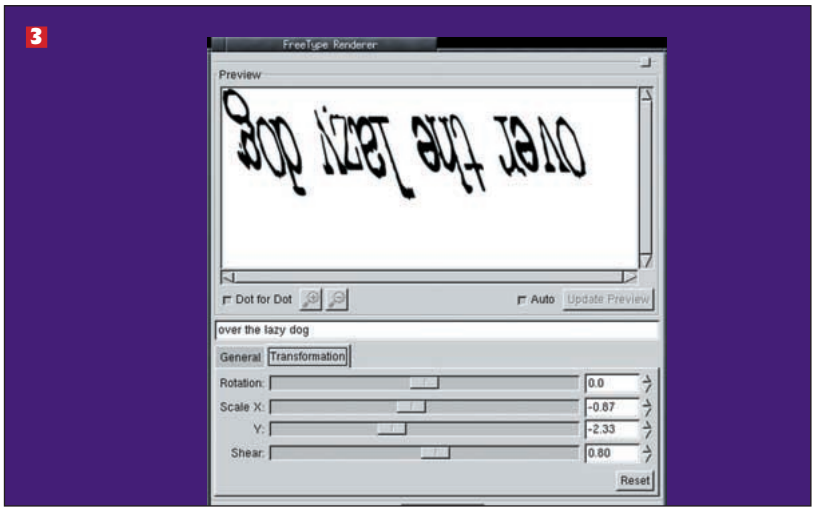
1 FreeType is available from the Filters > Render > FreeType menu option. Once the dialog is open, it searches for fonts it can manipulate, bypassing the normal font mechanisms used by the default and Dynamic Text tools. This means you may find different fonts listed by this text tool than you did in the other two. The image shows the first few fonts listed in both the FreeType dialog (upper left) and the default Text Tool dialog (lower right).

« FreeType (continued)

2 Options in the FreeType dialog allow you to quickly change the size and spacing of characters, even (in some cases) reversing the direction of the text. Here, the text "over the lazy dog" is shown in reverse. Kerning, hinting and antialiasing can all be enabled or disabled from here, with changes displayed in the preview immediately. Once rendered into a new layer however, the text cannot be edited. The new layer will always be placed in the upper left corner of the Canvas even if that area is not visible in the window (zoom out to see the new layer if you need to).



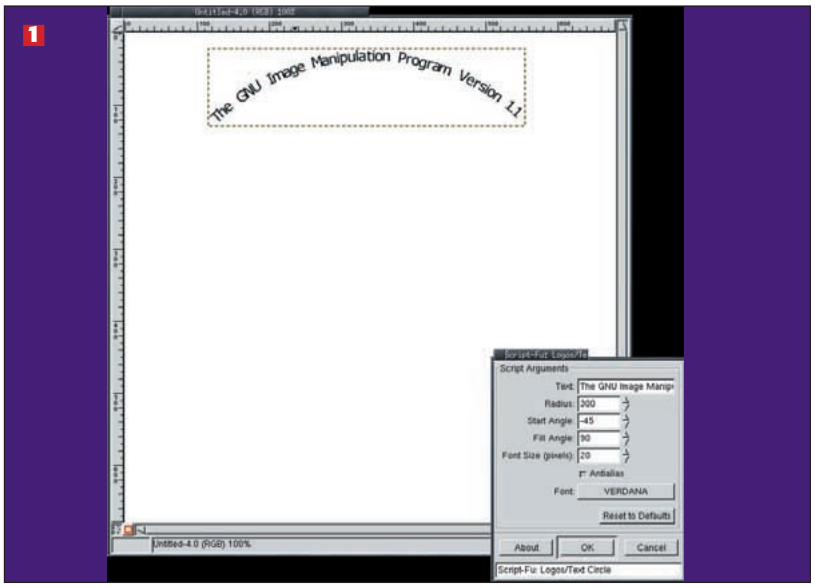
3 Text can be manipulated in multiple ways. In this example the text is reversed and flipped by scaling the X and Y directions to negative values. A little shear is also applied. All of this is done interactively so you don't have to wait for a new layer to be rendered and the content of your text can be changed. Unfortunately, with all this, there is no way to create multi-line text except to create each line as a new layer and position it manually.



Text along a curve

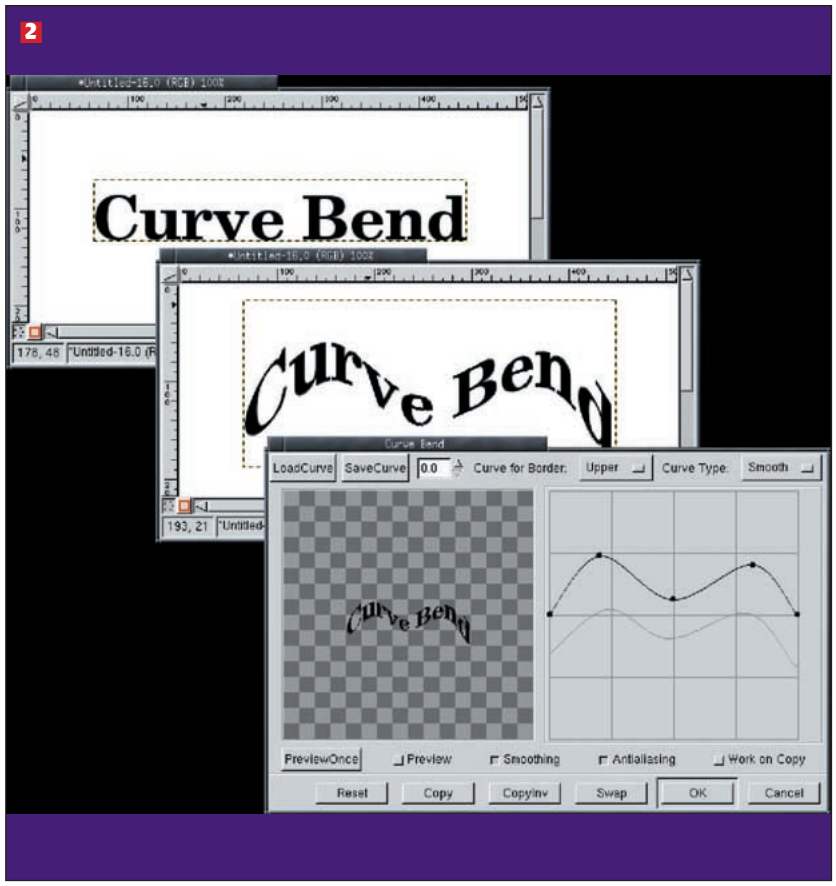
The three primary tools for managing text in *The GIMP* provide few text layout features. In order to manipulate the text layout you have to edit the text after its been rendered into a new layer. This is not the optimal solution since the pixels in the text are being changed instead of changing the position of the text, but with *The GIMP1.2* its the only choice. *The GIMP1.3* will offer features that allow real text layout to become possible.

1 The only real text-along-a-curve tool available actually shows up as a Logo script. The Text Circle script (Xtns > Script Fu > Logos > Text Circle) places the specified text along an arc of a circle with the specified radius. The Start Angle (in angles, counterclockwise) determines where the text will start and the Fill Angle determines how far along the arc the text should flow. You must specify a font to use since, by default, no font is selected. Some fonts won't work with this plugin, and since the letters are rendered one at a time and then rotated and translated to their appropriate position, the result may appear like smeared, overlapping lettering if your radius and angles are not large enough. In this example, the new image created by the Text Circle plugin is significantly larger than the actual text because the radius determines the size of the new canvas.



Text along a curve (continued)

2 An alternative to placing text along a curve is to shape text with curved boundaries. This can be accomplished with the Curve Bend plugin (Filters > Distorts > CurveBend). Use the upper and lower options to force the top and bottom edges of the text to follow curves. The result is that text appears to follow the curve. Note that using the upper and lower border options will cause your text to be fit between the two curves. This can cause text to be stretched or squashed. The end result is that you can loose some of the smoothness of the originally rendered text – a stairstep affect may appear, depending on the font used, after you've applied the curve. The trick here is to either use small curves, use a thin or rounded font or add some of the background colour to the text layer. Don't merge your background with the text or Curve Bend will apply the curve to the background as well and you'll end up with some transparent portions in your image. If you do that, add a new layer filled with the same colour as the background and drop it below your curved text. That will fill in the transparent areas. Finally, when working on text with Curve Bend, always leave the antialias and smoothing options enabled.



Logos

The GIMP and the Web both grew up at about the same time, so it's no surprise *GIMP* has been widely adopted for Web graphics design. One of the most common tasks for *GIMP* has been creating Web logos. Because it is so well suited to this sort of work, many scripts have been written to automate logo generation. Many of these scripts are included in the core *GIMP* distribution under the Xtns > Script Fu > Logos menu option in the Toolbox. More logo scripts can be found at the *GIMP* Registry or by searching the web.

1 The samples shown were created mostly from the default settings. All of the Script-FU logos have the same basic dialog layout: provide the text for the logo, select a font, select foreground and (at times) other colours or patterns, select shadow settings, and so forth. Most logo scripts will not have a default font chosen, so you need to be sure to at least choose a font, though most other defaults will normally suffice for experimentation. Some logo scripts will create a single image with no layers in it. Others will leave the layers in place so you can modify the logo manually after it is created. Often, dramatic changes can be made to the logo simply by changing the Layer Blend Mode for various layers in the generated logos image. Since these logos are written in the Script-FU language (which is a subset of the Scheme scripting language) you can copy the scripts from their home (usually /usr/share/gimp/1.2/scripts) into your $HOME/.gimp-1.2/scripts directory and edit them to create your own custom logos. Unfortunately, Script-FU is not the easiest scripting language to learn. Logos can also be written in Perl if you have the Perl extension included with your *GIMP* package. LXF