» Gimp Open source image-editing software you can get your teeth into

Gimp: Leopard

A Leopard-based desktop starts with professionally styled icons. This month **Michael J Hammel** shows how Gimp makes icon design a breeze.

> ❯ **Here's what we're aiming for: a series of icons created in *Gimp*, displayed on my desktop in *SimDock*.**

Our expert

Michael J Hammel is a contributor to the *Gimp* project and the author of three books on the subject, including his latest, *The Artist's Guide to Gimp Effects*.

Over the past year of tutorials we've worked on rather large-scale projects (by large I mean in the sense of canvas size). If you've been following along, you'll have learned how to create a universe, destroy a city and create your own iPod advert. Each of these projects was suited to small prints, with processes that could easily scale up. By this time, it should be clear that *Gimp* is an excellent graphic design tool for print projects.

But print projects are only a small sample of what *Gimp* can do. This multipurpose toolbox is suited to many design projects – working with digital photographs, for example. I've not touched often on photography simply because I'm not much of a photographer – I don't even own a digital camera – but despite my shortcomings, *Gimp* is heavily used in image processing fields and supports multiple RAW file formats (through the *ufraw* plugin). This is useful to photographers because RAW image files are of a significantly better quality than the JPEGs your digital camera typically produces. Being able to work with RAW, then, means a better end product.

At the other end of the image spectrum are desktop graphics – specifically icons. An icon is a small image used to represent a program, file, device or data accessible by a user. Icons can clutter the desktop, but utilities such as the *Avant Window Navigator* and *SimDock* enable you to organise your program icons in a Mac-like dock. These docks are like KDE or Gnome panels but with a 3D appearance. *SimDock*, in particular, is designed to look just like the dock in Mac OS X.

Docks are essentially icon managers that handle resizing automatically. *SimDock*, for example, initially displays icons scaled to a very small size and then zooms them to a larger size as you mouse over them. Users can specify the zoom amount in the settings, and by using a large zoom factor, larger icons can be used.

Which is where *Gimp* comes in. The use of large icons makes it much easier to create the images they're based on, because the *Gimp* project can work with a larger canvas. It's very different to, and easier than, working with Gnome panel launchers, for example, where all displayed icons are the same size and usually no larger than about 32 pixels wide by 32 pixels tall. *SimDock* enables the icon to be created at a much larger size, and will handle scaling automatically.

This month we'll visit the icon world as I walk you through the design of icons suitable for use with *SimDock* and other desktop docks. The tutorial is intended for use with *Gimp 2.6* and can be performed even by beginner users of *Gimp* – only basic knowledge of the software is required, such as using layers and understanding the default layout of the toolbox. No outside stock images are required. Advanced users can complete this tutorial in less than an hour, but beginners will take a little longer.

Project resources

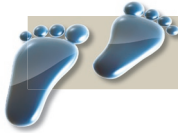This tutorial is based on Richard Carpenter's excellent 'Carbon Style Icon' tutorial for *Photoshop* from HV-Designs.
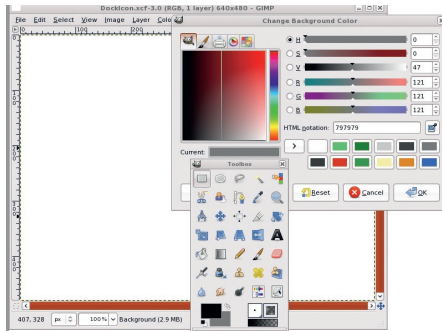» **http://hv-designs.co.uk/2009/02/10/carbon-style-icon**.
» *SimDock:* **http://simdock.sourceforge.net**.
» *Avant Window Navigator:* **https://launchpad.net/awn**.

style icons

Step by step: Create an icon

1 Set the colours
Open a new, 640x480 image window (File > ew). Reset the Foreground and Background colours by typing D in the image window. Click on the Background Colour Swatch in the Toolbox to open the Change Background Colour dialog. Next, set the R, G and B values to 121, 121, and 121 respectively. Close the colour dialog. The black and grey colours will then be used as the background gradient for the finished icon.
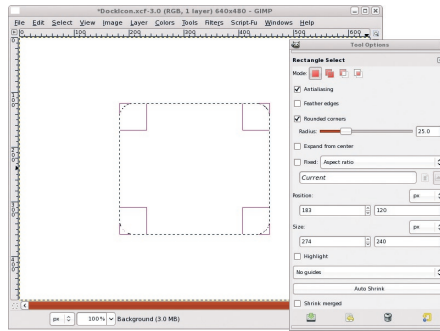
2 Rectangular selection
Add a transparent layer (Layer > New) and name it 'Icon Background'. Choose the Rectangle selection tool from the Toolbox. In the Tool Options dialog, click on the Rounded Rectangle and set its Radius to 25. Draw an initial selection in the image window. In the Tool Options dialog set the Size to 274x240 and the Position to 183x120. This is the size of the icon, plus some transparent padding.
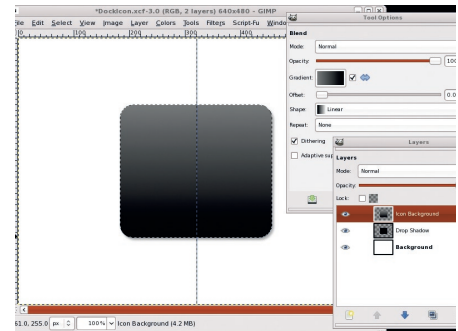
3 Gradient fill
Drag a guide from the left to the middle of the image. Choose the Blend Fill tool and set the Mode to Normal, Opacity to 100%, Gradient to 'FG to BG' with Reverse checked, and the Shape to Linear. Drag from the top of the selection to the bottom, along the guide. Now clear the selection (Select > None) and add a Drop Shadow (Filters > Light and Shadow > Drop Shadow) offset by 3 pixels and blurred by 5 pixels.
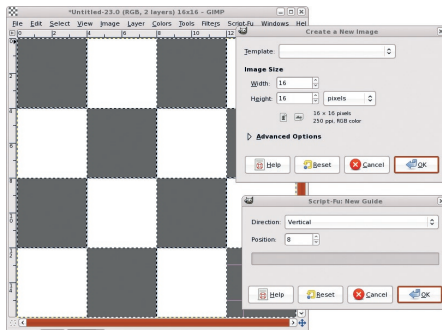
4 Create check pattern
Open a new image window scaled to 16x16 pixels. In the window that opens, hit the + key 10 times to zoom in. Add vertical guides (Image > Guides > New Guide) at 4, 8 and 12 pixels and horizontal guides at 4, 8 and 12 pixels. This divides the window into 12 blocks. Set the Foreground colour R, G, B to 103, 103, and 103 respectively. Use the Rectangle selection tool to outline blocks, and then fill alternating blocks with the foreground colour.
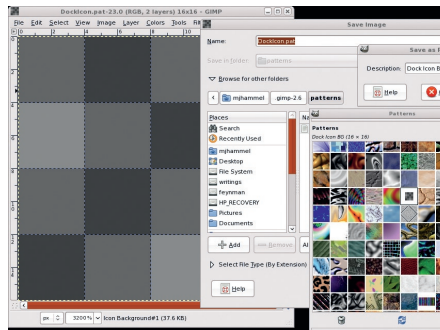
5 Finish the check pattern
Change the Foreground RGB to 67, 67, and 67 respectively, then select and fill blocks 1/2, 1/4, 2/3, 3/2, 3/4, and 4/1. Change the Foreground RGB to 141, 141, and 141 respectively and fill in blocks 2/1 and 4/3. Save this file as **DockIcon. pat** in your **$HOME/.gimp-2.6/patterns directory**, then open the Patterns dialog (Windows > Dockable Dialogs > Patterns) and then click on the Refresh button to add the new pattern to the list of patterns. When you've finished, close the **DockIcon.pat** window.
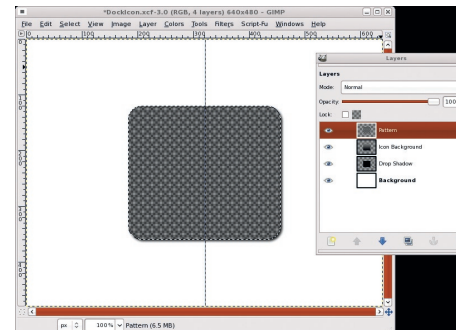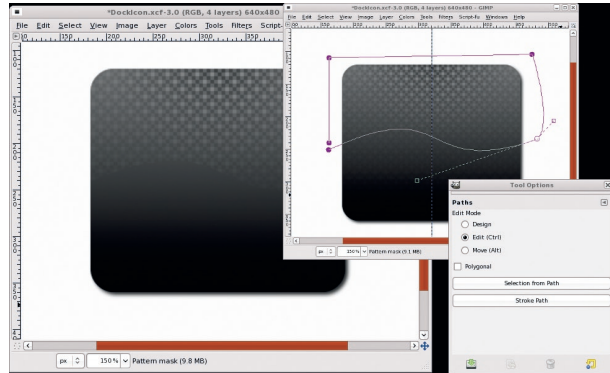
6 Add the pattern
Add a transparent layer to the icon image window and name it Pattern. Click on the Icon Background layer in the Layers dialog and create a selection of the icon (Layer > Transparency > Alpha to Selection). Click on the Pattern layer to make it active. In the Patterns dialog (Windows > Dockable Dialogs > Patterns), drag the 'Dock Icon BG' pattern into the image window to fill the selection with the new pattern. Your icon should now have a checkered background. **»**

» **If you missed last issue** Call 0870 837 4773 or +44 1858 438795.
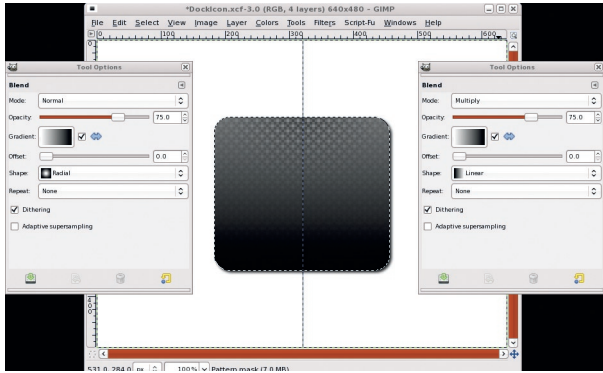
7 Mask the pattern
Add a White Layer Mask to the Pattern layer. Type D in the image window, choose the Blend tool, then set the Opacity to 75% and the Shape to Radial. Drag from the top of the icon to the middle. Switch the Shape to Linear and the Mode to Multiply, then drag from the middle of the icon to the bottom and again from the top to the middle of the icon.


8 Another mask
Apply the layer mask, clear the selection, then add another White Layer Mask to the Pattern layer. Use the Paths tool from the Toolbox and place anchors to make a rectangle around the upper half of the icon, then move the anchor handles to create a wave effect along the bottom edge of the path. Now invert the selection and fill it with black.
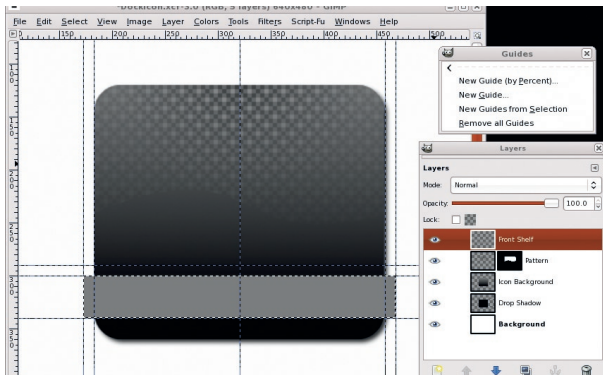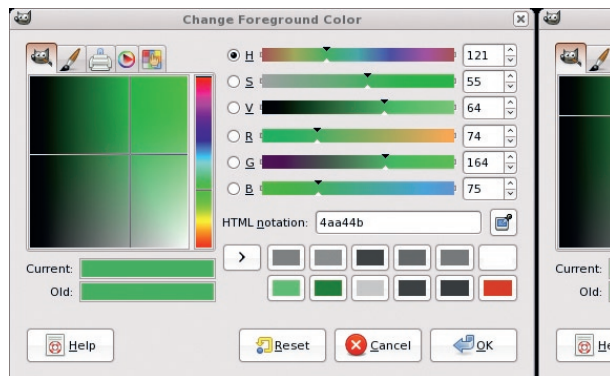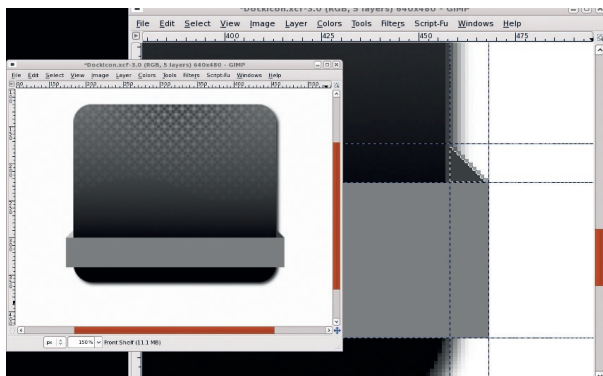

9 Front shelf
Add a transparent layer at the top of the Layer stack called Front Shelf. Add vertical guides at 173, 183, 458 and 468, and horizontal guides at 290, 300 and 340, then draw a rectangular selection from the guides intersecting at 173/300 to the intersection of 468/340. Set the Foreground colour to a medium grey.
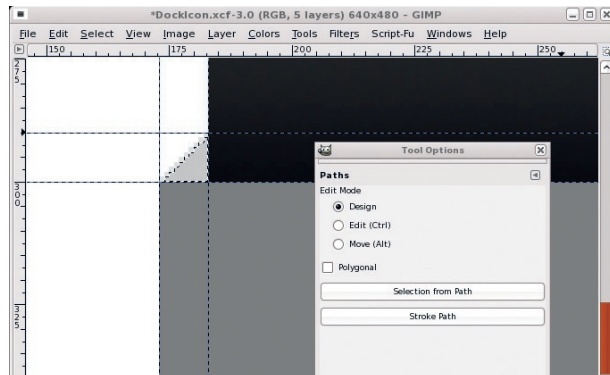
10 Left shelf
Zoom in to the left of the shelf. Choose the Paths tool and set Edit mode to Design. Select the guides at 173/300, 183/290 and 183/300 and click Selection From Path in Tool Options. Set the foreground colour to a lighter grey, with R, G and B values of 203. Drag the foreground colour into the selection.


11 Right shelf
Slide the image window to the right to view the right edge of the front shelf. Use the Paths tool and click on the guides intersecting at 458/290, 468/300 and 458/300. Click on the Selection from Path button in the Tool Options dialog. Set the foreground colour to a dark grey, drag the colour into the selection, then clear the selection.


12 Application colours
Reset the foreground and background colours, then click on the foreground colour swatch and set the RGB values to 74, 164, and 75 respectively. Now change the background colour to RGB values of 28, 130 and 29 respectively. Close the colour dialog. The green shades will be used as the gradient for the application icon.

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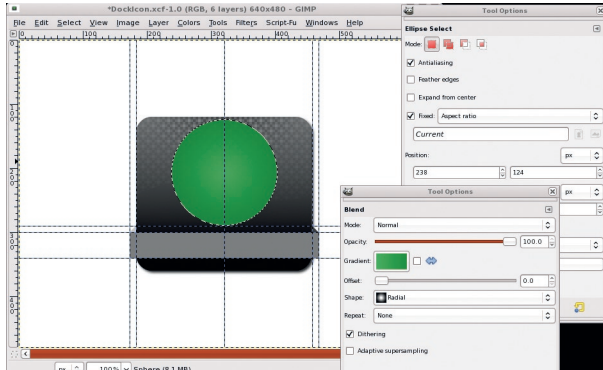
13 Application sphere
Add a transparent layer at the top of the layer stack and name it Sphere. Choose the Ellipse selection tool and create a circular selection in the image window, centered on the icon and above the shelf. Choose the Blend tool and set a Radial shape and an FG to BG gradient in the Tool Options. Drag from the centre to the edge of the selection.
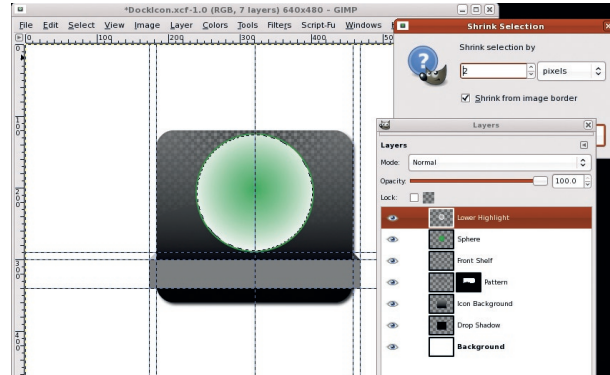
14 Lower highlight
Add a transparent layer at the top of the Layer stack and name it Lower Highlight. Shrink the selection by 2 pixels, then reset and invert the foreground and background colours. Use the Blend tool with a Radial shape and FG to Transparent gradient with Reverse button set and drag from the centre to the edge of the selection.
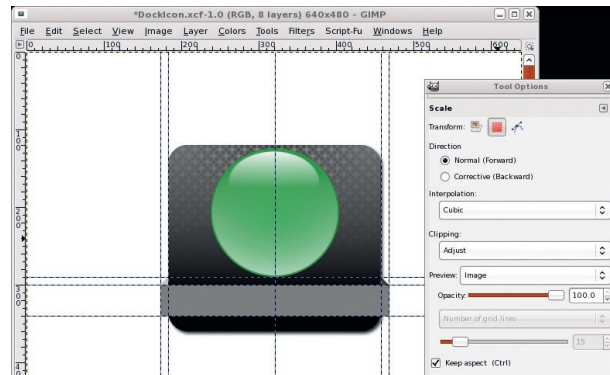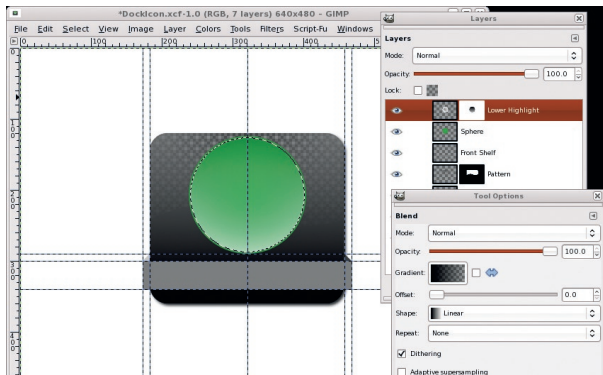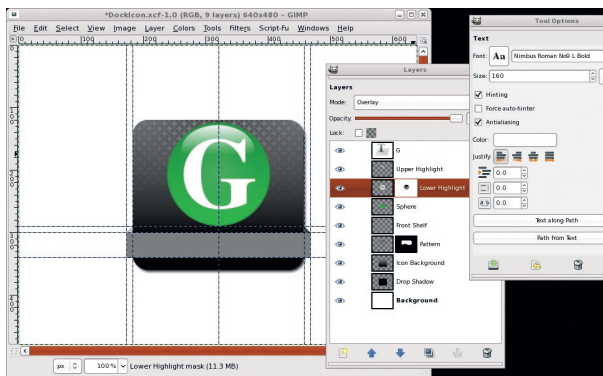
15 Lower highlight mask
Add a White Layer Mask to the Lower Highlight layer. Reset the Foreground and Background. Choose the Blend tool and set a Linear shape and FG to Transparent gradient. Drag in the image window from the top of the icon to the bottom. Add a transparent layer at the top of the layer stack and name it Upper Highlight.

16 Upper highlight
Choose the Scale tool and set the Transform to Selection. Drag in the image window to scale the selection to 1/2 its size and about 3/5 the width. Reset and invert the swatches in the Toolbox, then use the Blend tool with a Linear shape and FG to Transparent gradient and drag from the top of the selection to the middle.

17 Application ID
Choose the Text tool. Select a Font and set the Font size to 160 and the colour to White. Type an upper-case G (for *Gimp*) and centre it over the sphere with the Move tool. Change the Lower Highlight layer's mode to Overlay. In a smaller font and in white, type the word "Gimp" and position it over the shelf, then add a drop shadow.

18 Application name
Save this image as your source file for other icons. To save the icon itself, delete the white background layer and use the Crop tool to crop the image leaving just a small amount of transparent space around the icon. Save the image as **GimpIcon.png**. Use this file as the icon file when adding a Launcher to the *SimDock*.

» Next month In a fest of retro-futurism we're blending cubism with pixellation.