

ILLUSTRATION & IMAGE EDITING

Gimp 3D package design



Need a package design? Michael J Hammel uses the Perspective tool to go from concept to prototype.

**LAST
TIME**

We tried out selection techniques with the new SIOX-based Foreground Selection tool. If you missed the issue, call 0870 8374773 or +44 1858 438795 for overseas orders.



If you've read *LXF74*, you've no doubt built your own Linux distro by now, and have turned your mind to working out how to get it on the shelves of computer stores across the world. But how to persuade the stores to sell it? A prototype of your boxed distro in beautiful 3D – crafted with open source *Gimp*, no less – should do it.

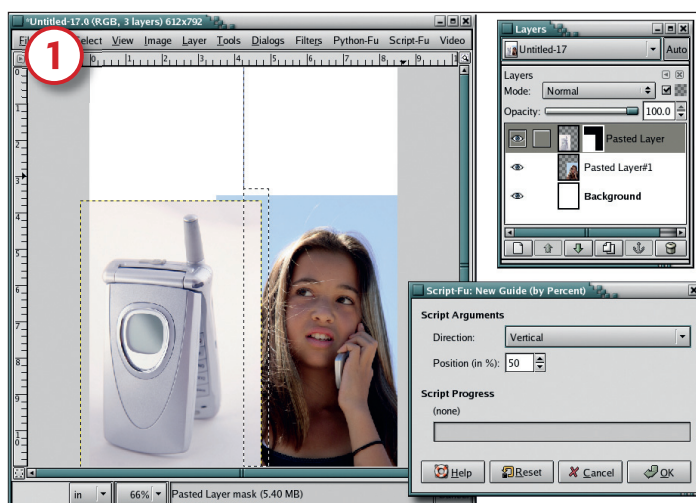
There are many ways to simulate three dimensions using *Gimp*. The most common method is to use drop shadows. The shadow suggests lighting, which adds depth to the image. But drop shadows only simulate three dimensions by placing one plane above another. They don't add depth to the plane itself.

Fortunately, adding light isn't the only trick available. Another option is the use of perspective. With the *Gimp*'s Perspective tool in the *Gimp* Toolbox you can change the viewing direction on an object so that it can be viewed head-on or as if the object had been rotated away from you at an angle.

Perspective changes are the key to prototyping 3D package designs with *Gimp*. In this tutorial I'll demonstrate the creation of a three-dimensional box. We'll be making it for a mobile

phone rather than a new distro (mainly because MichaelJHammelCoolLinux wouldn't fit on the side of the box). I'll show you how to take an ordinary set of images, arrange them for the front and sides of a box, align the sides and angle the box away from the viewer. As with most projects, the bulk of the work will be in choosing the best stock imagery for the box. The perspective are just tricks to bring the imagery to life.

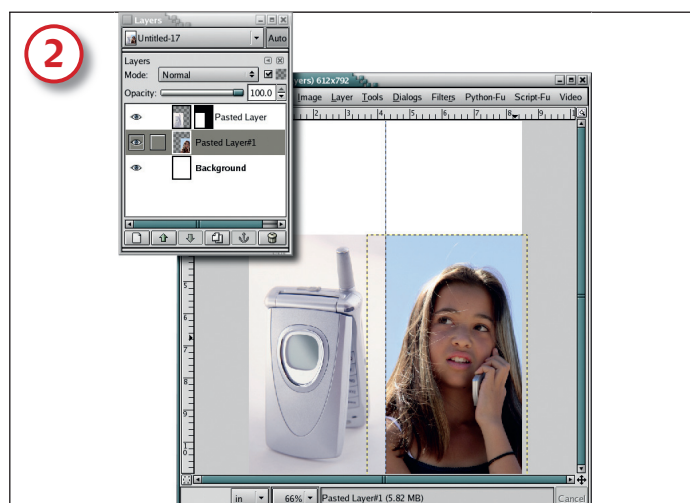
I'll be covering only the prototyping phase of the 3D packaging design with this tutorial, so the end result will only produce an image at web resolution (72dpi). *Gimp* can also be used to create the actual print package once proper layout requirements are identified. I won't go into detail on how to do that in this tutorial, but the key to print design is to form the layout first – sides, top/bottom, front/back – as one large layout. This can be done with Guides and an outline for each piece traced on a transparent layer to make it easier to see where each piece of artwork should go. But don't forget to start your print designs at the right resolution – the default resolution of 72dpi is only suitable for display on computer screens!



Align the images

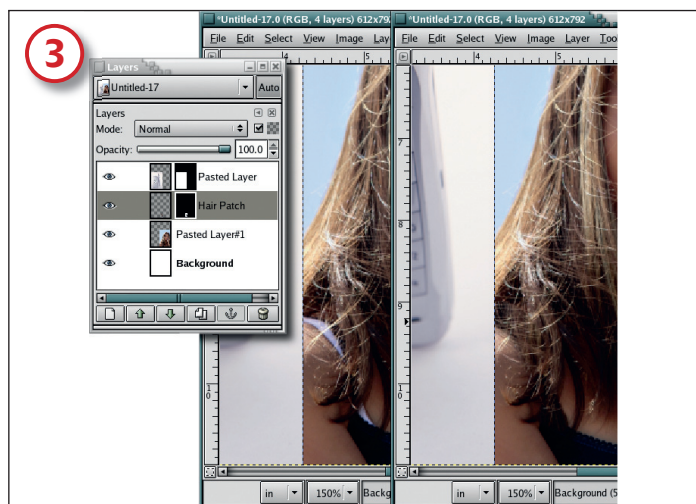
Pick your product images: I bought these two from BigStockPhoto.com. Open a new canvas window using the US Letter template, but change the resolution to 72dpi. Scale each image to fit about half the width of the new canvas. Copy the stock images into the canvas as new layers, aligning (manually or using Layers > Align Visible Layers) the phone to the left and the girl to the right.

Now click on the background layer in the Layers dialog to make it active, and add a vertical guide at 50% (Image > Guides > New Guide By Percent). Click on the phone layer, add a white layer mask, then use the selection tool to create a rectangular selection to the right of the guide covering the phone layer's height, as shown.



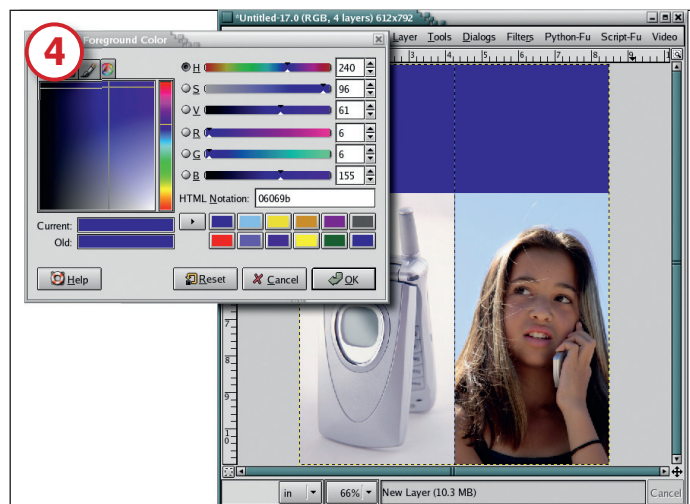
Centre the images

Type 'D' in the canvas to reset the foreground and background colours to black and white respectively. Drag the foreground colour (black) into the selection. This will cut out a section of the mobile phone layer. The goal was to leave equal amount of white space on either side of the phone while centring it on its half of the page. The girl's image is then centred on the other half of the page.



Tidy up

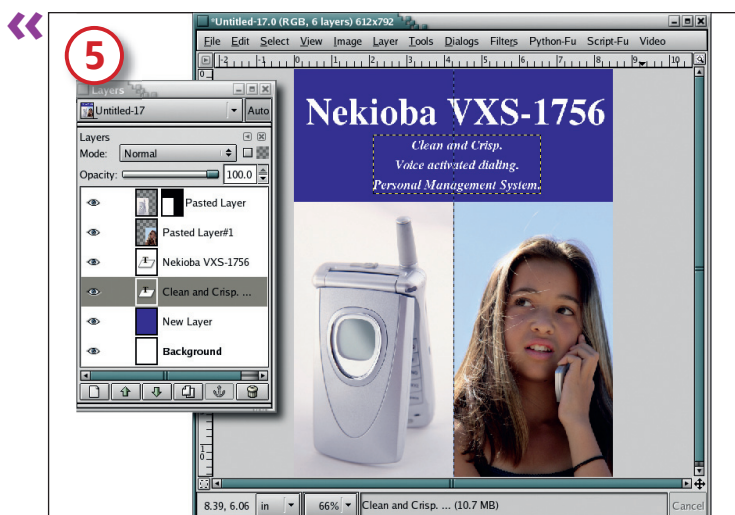
The white bra strap on the girl distracts from the image. We could colour it, but a simpler solution is to clone some of her hair and place it over the strap. Click on the girl's layer to make it active then, zooming in on the image, use the Free Select tool to grab a large part of her hair. Feather the selection by 3 pixels, then copy and paste it as a new layer. Move the new layer down in the stack to just above the girl's layer and position it so it covers the strap. Add a layer mask then paint black over the patch with the Spray Paint tool to meld it into the original image. Finally, do Layer > Merge Down with the girl's original layer.



Choose the box colour

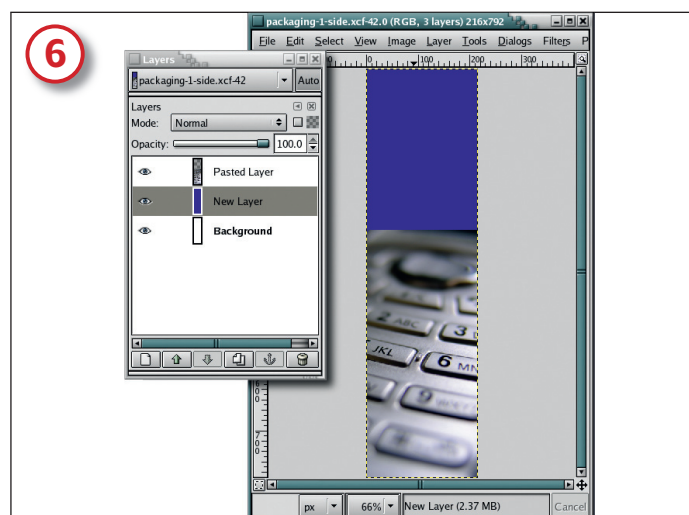
Now click on the white background layer, then click on the Foreground Color box in the Toolbox to open the Change Foreground Color dialog. Type '06069b' in the HTML field, and click the OK button to apply the change. Drag the Foreground Color box into the new layer. This adds a blue strap across the top of the image. The blue is an HTML hexadecimal colour: in the 06069b code, 06 is for red, 06 for green and 9b for blue. In this system, 0 is the weakest saturation and F the strongest. To find out more and to pick your own colour, visit www.htmlhelpcentral.com/hexcolors.php.





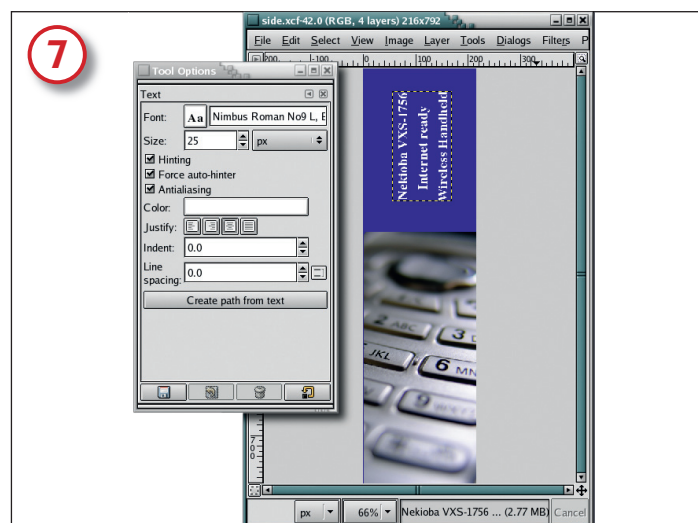
Add your sales blurb

Click on the Text tool in the dialog. Type 'D' and 'X' in the canvas to reset and swap the foreground and background colours. Choose an appropriate font and size – I've used Nimbus Roman No9 L, Bold set to 72 points for the title here. Click in the canvas to open the Text Editor Window and type the product name – "Nekioba VXS-1756", flashy, huh? – before centring the text layer manually with the Move tool. Add another text layer with smaller type and some descriptive text for your product. Save this image as **front.xcf**, then flatten it (Image > Flatten Image).



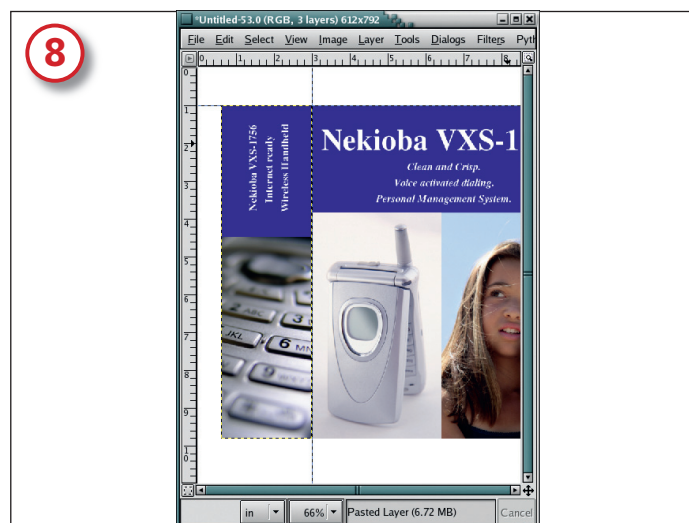
Create the sides

Our box needs sides, so open a new canvas, again using the US Letter template set to 72dpi. Scale this canvas down to 3 inches in width but leave the height at 11 inches. Click on the Foreground Color box in the Toolbox and select the previous blue used in the front image. Close the dialog, then drag the foreground colour into the new canvas. If you like, add another image to the bottom of the canvas for effect, as I've done here.



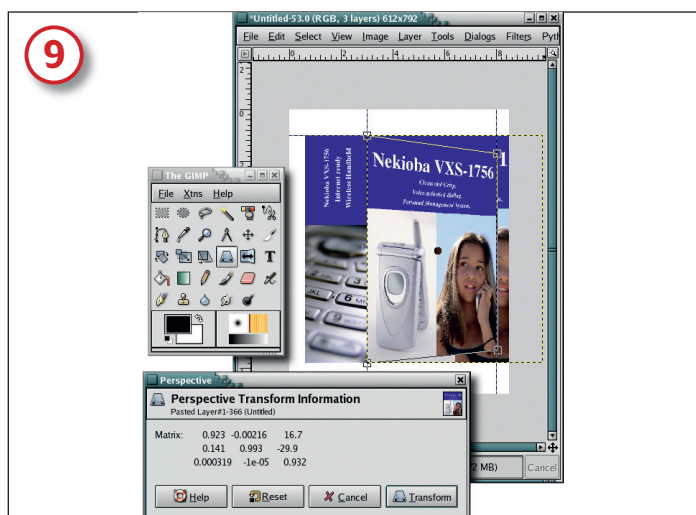
Finish the text

Type 'D' and 'X' to reset the foreground colour to white. Click on the Text tool in the toolbox. Again, pick your typeface: I've used Nimbus Roman No9 L, Bold set to 25 points in this example. Type in the same text as on the front image, or choose your own wording if you like. Rotate the text by 90 degrees anti-clockwise (Layer > Transform > Rotate 90 CCW). Use the Move tool to manually position the text in the blue area of the canvas. Save this image as **side.xcf**. Flatten it (Image > Flatten Image), then scale the image down to 80%.



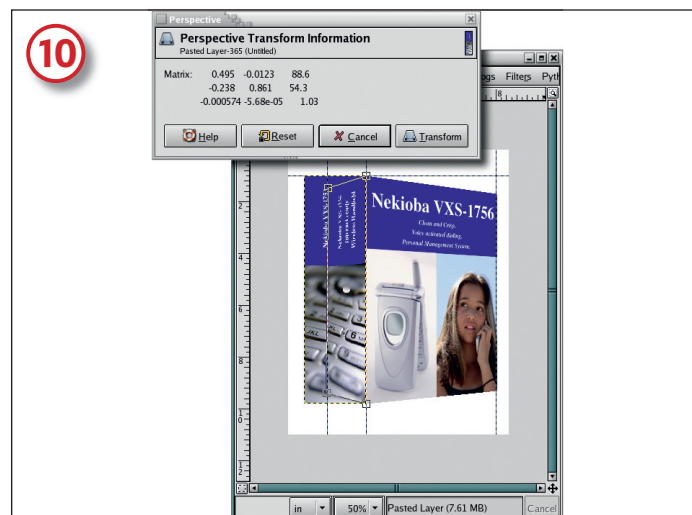
Bring the box together

Type 'D' in the Toolbox to reset the background colour to white, then open a new white canvas using the US Letter template. Copy and paste each of the front and side images into this new canvas as new layers (Layer > New). Now to fit them together: drag a vertical guide from the left ruler out to 3 inches, as shown, and a horizontal guide down from the top ruler out to 1 inch. Align the left and top sides of the front image to the intersection of the guides. Align the right and top sides of the side image to the intersection. If the front or side overlap the canvas, don't worry about it for now. Just zoom out (hit the '-' key) once to make working on the canvas easier.



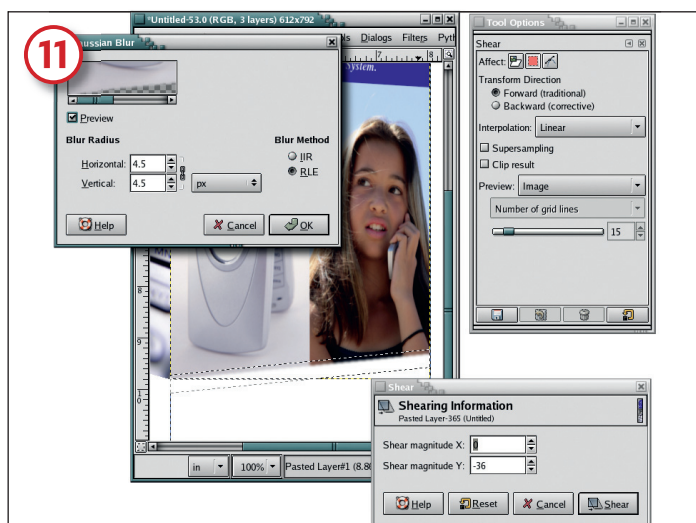
The Perspective tool

This is where the magic happens. Drag another vertical guide out to 8 inches. This will be where the right side of the box front will end up. Make sure the front image is active by clicking on its layer in the Layers dialog. Click on the Perspective tool in the Toolbox, then click on the canvas. Drag the right side control points for the image in to the guide at 8 inches and slightly toward the horizontal centre of the canvas, as shown here. Click on the Transform button in the Perspective Transform Information dialog to apply the changes.



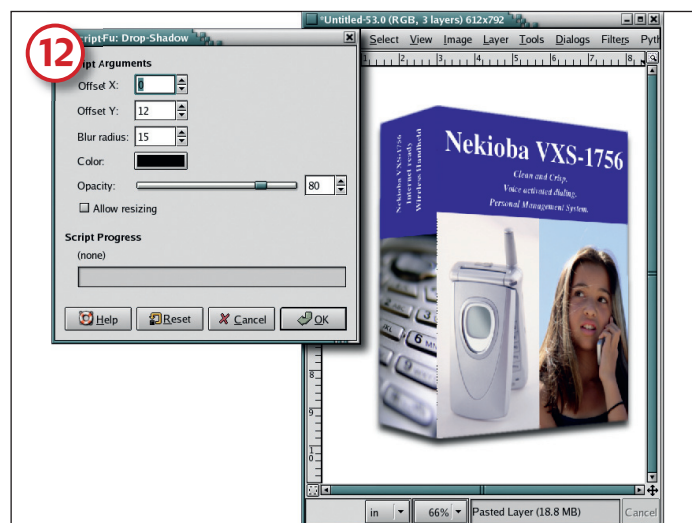
And again...

You've got a nicely foreshortened front to the box now; we'll do the same for the side. Drag a vertical guide from the left ruler out to 1.5 inches, for transforming the left edge of the side image. Click on the side layer in the Layers dialog to make it active. Click the Perspective Tool in the Toolbox to activate it again, then click on the canvas. Drag the left side control points in to the 1-inch vertical guide and in toward the horizontal centre of the canvas, as shown here.



Blur the edges

Click on the front layer in the Layers dialog (the Keep Transparency button should not be checked). To fix the jagged bottom edge of the front image, make a rectangular selection spanning the guides bounding the left and right sides of the layer. Click on the Shear tool and in the Options dialog set the Affect to Selection. Click in the canvas and drag the right side of the selection up until the top edge of the selection is parallel with the bottom edge of the front image. Press Shear in the Shearing Information dialog. Now use the Move tool to drag the selection up so it just overlaps the bottom edge of the front image. In the Gaussian Blur filter apply a 4.5 pixel RLE blur to the selection. Repeat this process for other edges.



Add a shadow

Remove all guides (Image > Guides > Remove All Guides). Click on the top layer and merge it with the next layer down – this will merge the side and front images into a single layer, leaving the merged layer separate from the background. Finally, add a drop shadow (Script-Fu > Shadow > Drop Shadow) that is offset 0 pixels in the X direction and 12 pixels in the Y direction (ie the shadow goes straight down). Now how cool is that? **LXF**

NEXT MONTH

We'll create a sci-fi movie-style poster designed as an advert for a high school parents' night.