Gimp: Speedy

Smile big and show your colours as **Michael J Hammel** guides you through quick colour fixes for your photos.

Last month I talked about the colour management tools supported in *Gimp*. Colour management is all about matching colours from input devices like cameras and scanners to output devices like monitors and printers. Colour adjustment, on the other hand, is a very different subject. The colour adjustments I'm talking about this month are very specific to editing your images in *Gimp*: blue instead of red, green instead of yellow. If Red Hat were to be bought by Novell, all those Fedoras would need to be changed to green, right? *Gimp* makes these kinds of colour edits a quick and painless process. But while they're easy to perform, they take practice to get just right.

Each colour correction is made up of three important steps. The first is to make a proper selection. This may be as simple as a rectangular outline or as complex as the union of multiple selections. Once the selection is created the next step is to feather it – this will cause your colour adjustments to blend seamlessly into their surroundings. Feathering is not optional when editing photographs. Without feathering, you simply won't be satisfied with the results.

The last step is the most important: choosing the right colour tool. There are no cut and dried rules for which tool will produce the best results. In some cases desaturating the selection will be required, while in other cases you're better off just applying a colour change directly to the coloured selection.

Part 1 Costume change

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*.

Imagine you sell T-shirts to college students. You need to find which colours the students prefer. Should you buy different coloured shirts and show them around? Maybe, but before you start pulling from your not-yet-earned profits how about doing some market research for a lot less money using *Gimp*?

Start with a photo of the type of shirts you plan to sell. This stock photo might just be for the ladies' version of the shirt but it will do as an example. We start, as always, with a good selection.

Because this shirt has a high colour contrast with the rest of the photo it is a good candidate for use with the Foreground Selection tool. However, the thin straps and shadowed areas on the left-hand side make require some fine-tuning. Once again, I'll clean the selection up with the Quick Mask tool. The Foreground Selection tool uses a multi-step process to make its selection. After choosing the tool from the toolbox, the first step is to drag a rough outline around the item to be selected. This is just like outlining it with the Free Select (aka Lasso) tool. Once this has been done, the unselected area is tinted blue.

To fine-tune the initial rough selection a paint stroke is dragged through the untinted region and over just the shirt. The purpose of this paint stroke is to tell the Foreground Selection tool about the colours to keep in the selection. Multiple paint strokes improve on

❯ **If you photograph your own models, put them in front of a solid-coloured background that doesn't match their clothing.**

❯ **Last month** We got technical with colour management for printing.

colour fixes
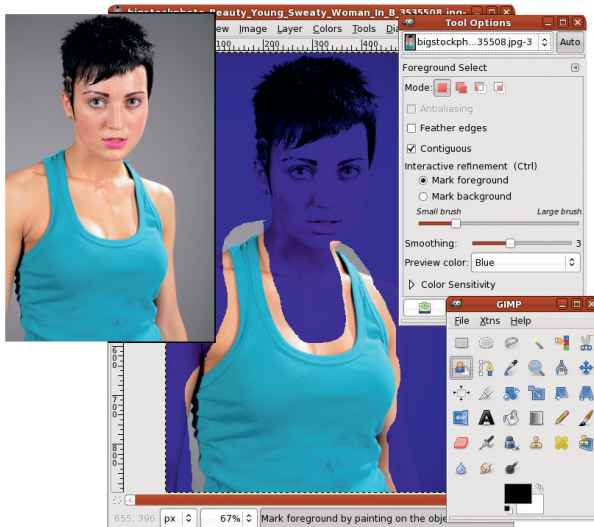
❯ **The colour of the tint used by Foreground Select can be changed in the Tool Options dialog. You should make these changes before you make your initial freehand selection.**

the selection. You can adjust the size of the brush (which is shown in the canvas as a circular outline) used for these paint strokes using the Tool Options dialog.

The first stroke should use the default brush size. Start in the upper-left strap and draw around the neckline, up into the other strap, down the right-hand side of the shirt across the bottom, up the left-hand side (just touching the shadow area, then across the middle of the shirt). Because of the uniform colour tones in the shirt this process creates a very accurate selection except for the left-hand area of the shirt. Hit the Enter key to finalise the selection.

Switch to Quick Mask mode, zoom in and use a small brush on the problem areas. Remember that painting with black removes from the selection, while painting with white adds to it. You can paint with other colours as well, but they just produce areas that are partially selected, much the same way that the edges of a selection are partially selected when you feather the selection. However, you seldom use anything other than black or white when working with Quick Mask.
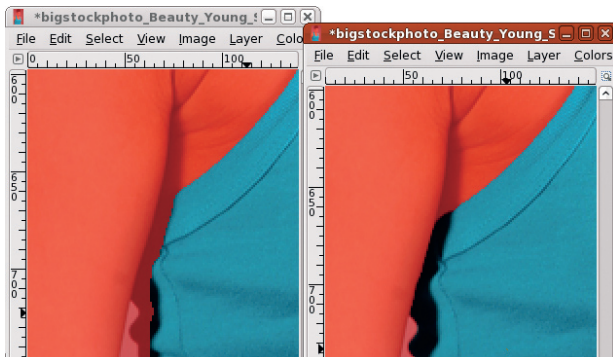
❯ **You may need to select trickier areas by hand.**
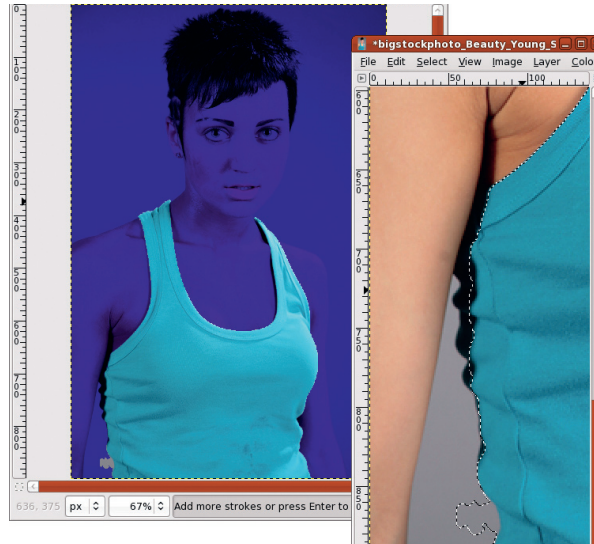
After fixing the selection in Quick Mask mode, return to the selection by clicking on the Quick Mask button again. Finally, feather the selection by five pixels. You're now ready to apply some colour changes.

To recolour the shirt, first remove all colour content using Colours > Desaturate. Choose the Lightness option (though any of the three available options would suffice). To put the colour of your choice back in, choose the Colourise dialog (Colours > Colourise) and adjust the Hue level first. Fine-tuning of the colour occurs with the Saturation and Lightness options. **»**

Part 2 Blue-eyed girl
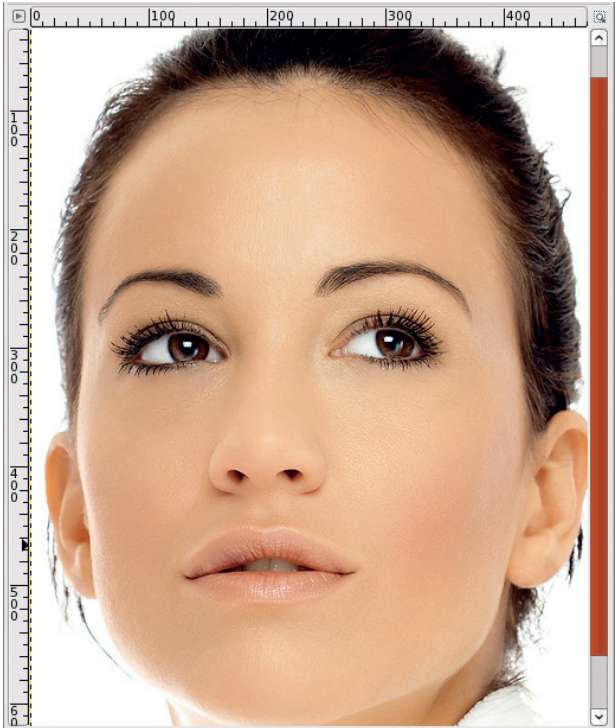
> Why are we changing her eye colour? Because we can!

>> This next example is similar to the first, in that I'll remove colour from a pair of lovely brown eyes before tinting them blue. The stock photo is small, so I'm zooming in on the eyes. Zooming in causes some pixellation, resulting in a slightly blocky appearance in these screenshots, but it doesn't make working on the image any more difficult.

Start with the Free Select tool and draw an outline around the left eye. I enable the Add mode in the Tool options, then draw a second outline around the right eye. This is then converted to a Quick Mask to clean up the outlines before converting it back to a selection, just as we did in the first example. The selection is then feathered by five pixels. Since we're changing the brown eyes to blue, reducing saturation won't be enough. In fact, we want to

> Experiment with the replacement eye colour until you find the one that works best.
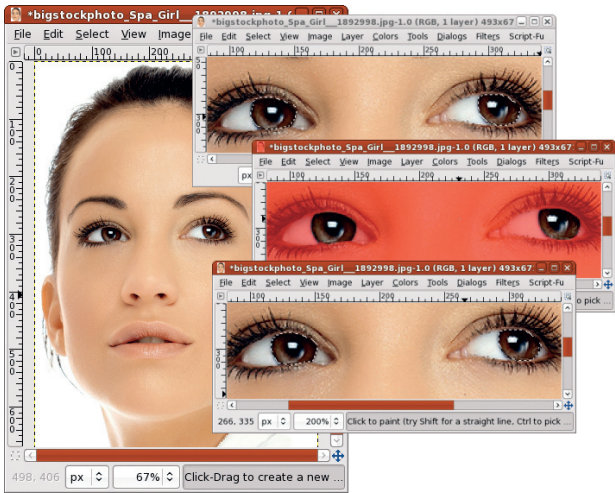
> Try going through this process but without feathering the selection – you'll see how artificial the effects are.

remove all saturation (all the colour) and replace it with blue. The first step is to desature the selection using the Desaturate dialog (Colours > Desaturate). I chose to desaturate using the Lightness setting, though for this image at least, there is no visual difference between the settings.

After desaturating, open the Foreground colour dialog by clicking on the Foreground colour box in the Toolbox and select an appropriate blue for the foreground colour. I set the HTML Notation field to 153664. To colour the eyes, choose the Bucket Fill tool from the Toolbox. In the Tool Options set the Mode to Dodge and the Affected Area to Fill Whole Selection, then click inside the canvas. The blue colour will be blended with the desaturated eyes. The feathering will let this colouring fade toward the edges so you don't get any abrupt colour loss.

The choice of a Dodge blend mode for the Bucket Fill is completely through experimentation. This process is extremely simple, so repeated experiments with different shades of blue and different blend modes is fast and simple. Remember: for projects like this, Ctrl+Z (or Edit > Undo) is your friend.
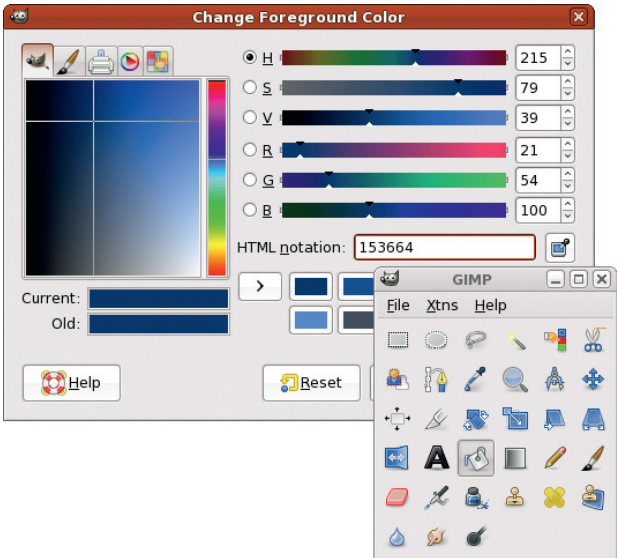
> The blend mode and colour used is very important. Review some photos from stock websites for the colour of eyes you need and sample the colour from those images.

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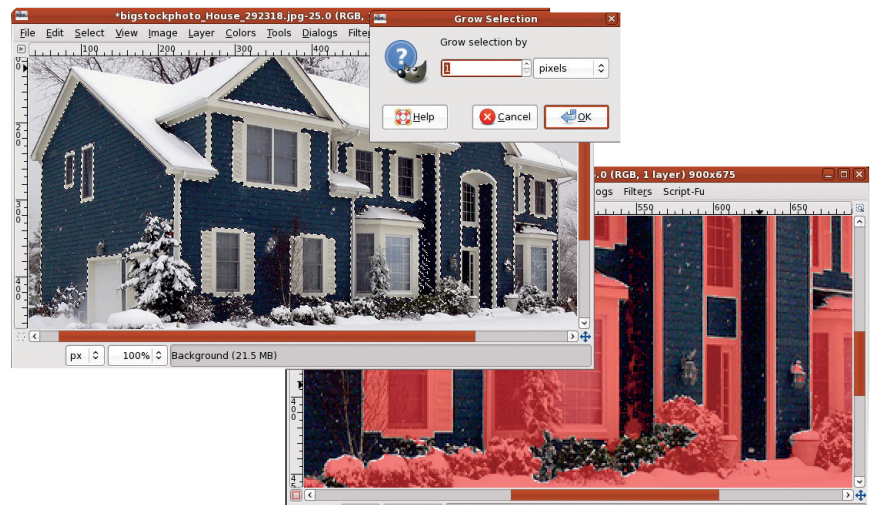
Part 3 Paint job
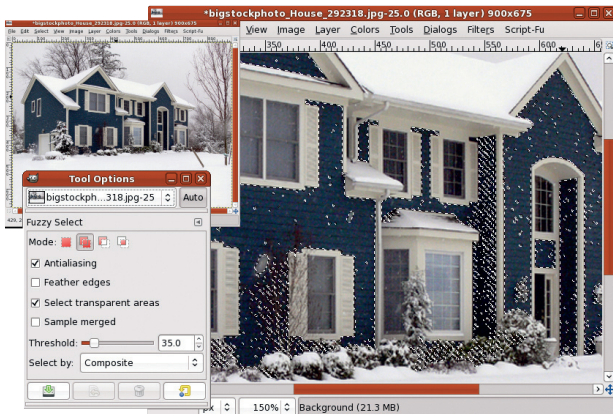
❯ Initial selections aren't complete – they leave many small gaps. But these well-fed selections are ready for a little growth.

❯ Growing the selection gets most of the walls but it also picks up some of the bushes – use Quick Mask for final adjustments.

Keeping with the commercial theme, let's now imagine you're a painter and you need to offer colour options to a home owner. Throwing swathes of paint on the home probably won't be an option they'll accept, so you choose to do it the *Gimp* way: select, feather, colour.

Because of the snow sticking to the side of the house and the bushes in front of it, the most suitable selection tool is the Fuzzy Select tool. For this image the Tool Options Threshold is set to 35 and the Add mode enabled. There are multiple blue walls to include, each of which is bounded by a solid white border, so click on each wall one at a time to add it to the selection.

Each wall selection is incomplete. There are small areas of unselected wall we need to include in the final selection. This is done by growing the selection a small amount. Open the Grow Selection dialog and set the amount to one pixel, which is sufficient for an image of this size. The selection still requires a few light touches with the Quick Mask to unselect some of the bushes in front of the house and add a few shadowed areas on the walls

that have not yet been included. The final selection is created using the Airbrush tool instead of the Paintbrush when fine-tuning the Quick Mask. This is so that the edges of the bushes and, most especially, the barely visible tree branches are blended smoothly with the colour changes. Remember that reflected light from the house will slightly colour these items, so soft-edged selections are required around them. Finally, the selection is feathered by five pixels. Growing the selection gets most of the walls but it also picks up some of the bushes, so for accuracy, Quick Mask must be used for final adjustments.

To colour the selection we can use any of the previous methods, but I found that using the Curves dialog provided the best results. To turn the house a dark red, move the Blue and Green curves down on the left-hand side while moving the Red curve up on the left and down on the right. It may be hard to see in this image, but snow was falling when the photo was taken and the falling snow remained white but tinted red where it passed in front of the house while the picture was snapped. **LXF**

Tutorial images
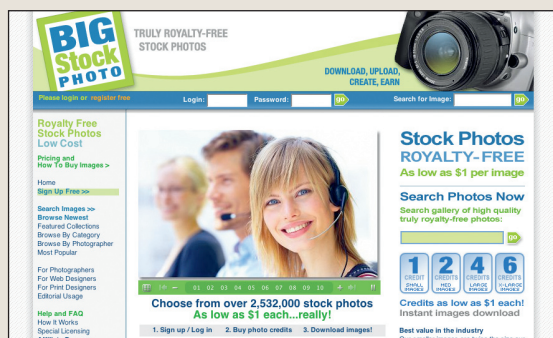
This month's stock imagery can be found on BigStockPhoto.com:

1 **Costume Change**
Beauty_Young_Sweaty_Woman_In_B_3535508
2 **Blue Eyed Girl** Spa_Girl___1892998
3 **Paint Job** House_292318
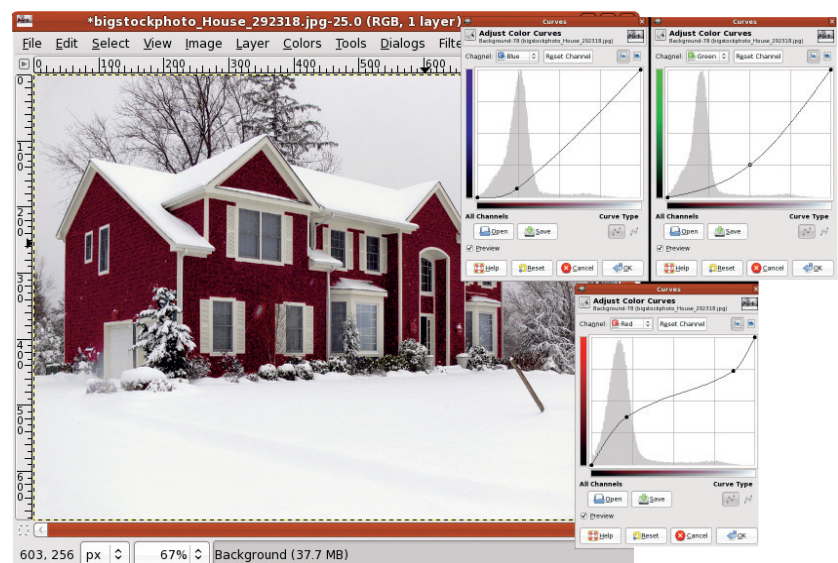
❯ The snow remains white as it falls, tinted only slightly as it passes in front of the house.

» **Next month** Paths, layers and blurs combine to make a wine bottle. Glug!