GIMP Practical (v2.0)

Introduction

In this practical we will work through some of the relevant basic features of GIMP, useful for bitmap image editing.

Software

This practical is based on GIMP and the instructions were based on v 2.8.10 (although they should be very similar on other versions).

- GIMP (www.gimp.org)

Data

All of the input data used in this practical can be downloaded from the Babraham Bioinformatics web site (http://www.bioinformatics.babraham.ac.uk/training.html).

Licence

Exercise 1 –Brightness/Contrast and Cropping an Image

We are going to start by creating a standard page layout and importing an image so that we can optimise brightness and contrast levels.

Open GIMP and import the TIFF file called 'Western_blot.tif' from the Data/GIMP practical folder using:

```
File > Open
```

Alter the view so that the image is zoomed to 50% of its original size.

Save the image as a working XCF file so we have a backup of the raw image before we start editing:

```
File > Save As
```

Now we are going to check the brightness and contrast levels of the image. Edit the brightness and contrast manually using the sliders, then reset the brightness and contrast and edit them using colour levels.

Straighten the western blot image as you see appropriate.

Crop the western blot image to an appropriate size and export the final image as a TIFF file using:

```
File > Export As
```

Exercise 2 –Adding and assigning a colour to Alpha Channels

In the Data/GIMP practical folder there is a file called 'bioinformatics_logo_square.png', it is an image of the Babraham Bioinformatics logo.

Import this image into GIMP and add an alpha channel. Edit the alpha channel settings so that the white background is transparent.

Export this image in an appropriate format to maintain the transparency.

Exercise 3 –Pseudo-colour Overlays

In the Data/GIMP practical folder there is a folder called 'FISH image practical'. This folder contains grayscale images for red, green and blue channels.

Import all three images, making sure that they are RGB colour mode, and then reduce each image to the appropriate colour using levels.

Once all images are the correct colour, combine images into a single image and ensure that the underlying layers are visible.

Export the overlay image in an appropriate format onto the desktop.