

Activity 2 - Photo correction

Photoshop is a powerful program for manipulating images. In this activity we will look at some of the changes we can make to improve photographs.

In the exercises that follow we will use a range of different tools. As we use each note that the options bar will change relative to the chosen tool.

1. Often a photo will have detail we do not want to include, or we might like to focus the viewer's attention on just part of it. To do this we can crop (cut) away the parts not required.

Open the image *clown.jpg*.

Say we wanted to show just the clown's face.

Click once on the *Crop* tool and then click and drag in the picture to draw a rectangle around the clown's head. This rectangle is called a *marquee*.



The area outside of the marquee will be dimmed.

Use the handles around the marquee to adjust it to show the parts of the image you want.



When ready press *Enter* (or *Commit* on the options bar), and the unwanted portions are discarded.

If there is a mistake you can *Edit > Undo* (*Ctrl+Z*) or use the history panel to go back.

2. When you wish to send an image by email or display it on a web page it is best if the file size is not too large. We will now see how to reduce the size of a file.

- a Open the image *rolls royce.jpg*.

This is a high resolution image. To see this choose the *Zoom* tool and then from the options bar click on the *Actual Pixels* button. The image more than fills the screen because it is 4048 x 3040 pixels.

You can also zoom right in on part of the car to see the high level of detail available.

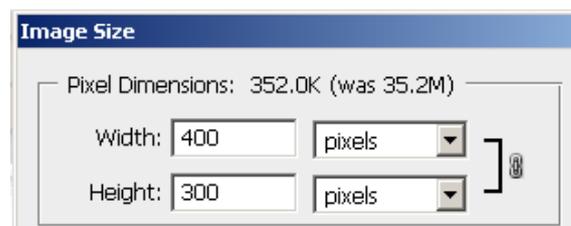
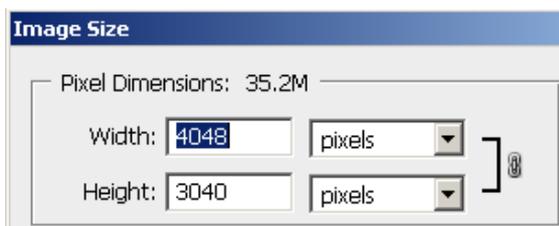
As it is, this image takes up nearly 2.3Mb of disc space. While this is good quality to print from, it is too large for routine downloading.



- b From the menu choose *Image > Image Size*.

In the dialogue that appears change the width to 400 pixels. The height will automatically adjust if the *Constrain Proportions* option is left ticked.

Constrain Proportions



- c The image will be resized. When saved to disc it will now take up just 77Kb, however much of the resolution has been lost.

Try zooming in on part of the image again. Compare it to the original resolution and see how *pixellated* it now is.

Although the image is suitable for downloading or for displaying on screen, it has lost the level of detail it originally had.



- 3. Sometimes a photo is taken with the camera on its side. It can be useful to turn the image the right way up.

- a Open the image *ifc.jpg*.

The photograph was taken with the camera sideways to fit more of the IFC Building in.

- b Choose *Image > Image Rotation > 90° CCW*.

This will turn the photo 90° counter clock wise (i.e. anticlockwise).

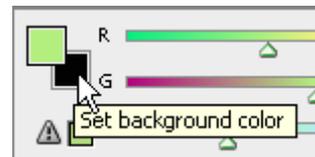
- c There is also the option to rotate an image a set number of degrees.

Open *saturn.jpg*.

Use *Image > Image Rotation > Arbitrary* to rotate the image 10° anticlockwise (CCW).

Note: where the image has turned will fill with the background colour. For this particular image it would be better to have a background colour of black before rotating.

Undo the rotation (*Ctrl+Z*), double click on the background colour well on either the tools or color panel, and select black. When ready rotate the image once more.



- 4. Retouching and repairing are useful tools to remove unwanted areas in photos or to correct minor errors.

- a Open the image *refuel.jpg*.

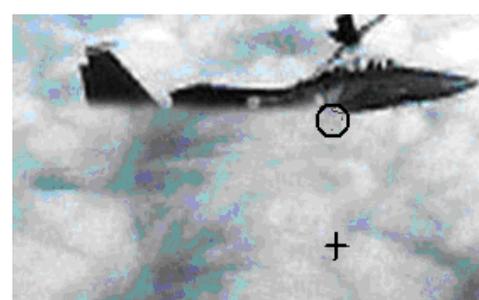
Say we wish to remove the lower fighter from the image.



One way we can do this is to use the clouds to “paint” over the fighter.

- b Choose the *Clone Stamp* tool  by clicking on it once on the tools panel.

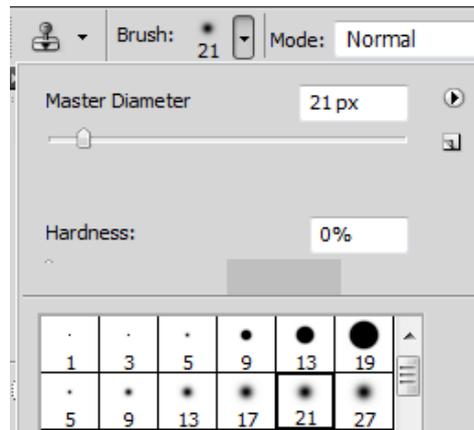
Hold down the *Alt* key and click once in the area below the plane. This will select the point we are to copy from.



Release the *Alt* key and move the mouse onto the fighter. Click and drag across the plane. As you do this the cloud under the fighter (indicated by a +) will be “painted” across the plane.

- c Remove the second fighter in the same way.

Note: you can set the brush size on the options bar (click on the drop down arrow next to *Brush*). For example you can use a smaller brush size for more detailed work.



- d The *Clone Stamp* tool can also be used between two different images or layers to “paint” from one to the other. Try this. (Use *Float All in Windows* from the *Arrange Documents* button on the applications bar.)

- 5. a Open the image *village.jpg*.

This photo has a date/time stamp in the lower right corner. It would be good to remove this.

- b Click and hold on the *Spot Healing Brush* tool, and change to the *Patch* tool.



Use this tool to drag right around the date.

A dotted ellipse called a *marquee* will show the area selected.



When ready click once inside the marquee and then drag it up. The new area under the marquee is copied into the original position. When ready release the mouse and the date will be covered with nearby detail.

Click once anywhere else in the picture to release the marquee.

- c Open the image *ferry.jpg* and remove the date/time stamp.

Note: PhotoShop also has a *Healing Brush* and a *Spot Healing Brush* tool that work in similar ways. See *Help* for details on how to use these.

- 6. “Red eye” in a photograph is usually as a result of using a camera flash at night. In low light the subject’s iris is wide open and the flash is reflected back from the retina at the back of the eye. Photoshop can be used to remove redevye from a photo.

- a Open the image *redeye.jpg*.

Zoom in on the eyes and then choose the *Red Eye* tool (hidden under the *Spot Healing Brush* tool).



Place the mouse cursor in the centre of the red and click once. Repeat for the other eye.



7. To conclude retouching and repairing you might also like to experiment with the following tools.



- *Blur* – softens hard edges and reduces detail in an image; the more you paint over an area with the tool, the softer it becomes
- *Sharpen* – increases contrast along edges
- *Smudge* – picks up colour where the stroke begins and pushes it in the direction you drag; for example by smudging the trailing edges of a car you can give it the illusion of motion



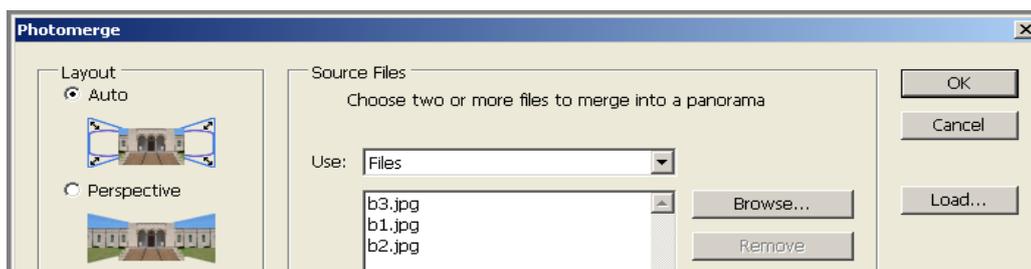
- *Dodge* – lighten an area of an image
- *Burn* – darken an area
- *Sponge* – changes the colour saturation of an area; increases or decreases contrast in greyscale images.

When experimenting with these tools note the possibilities available for each on the options bar.

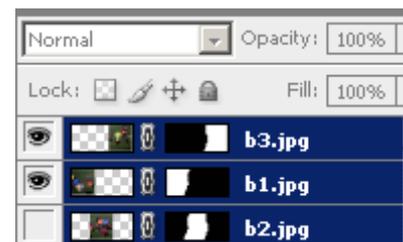
8. At times a scene is too wide to fit into a single camera shot. The following three photos were taken of the same scene and overlap. In this case they can be merged into one picture.



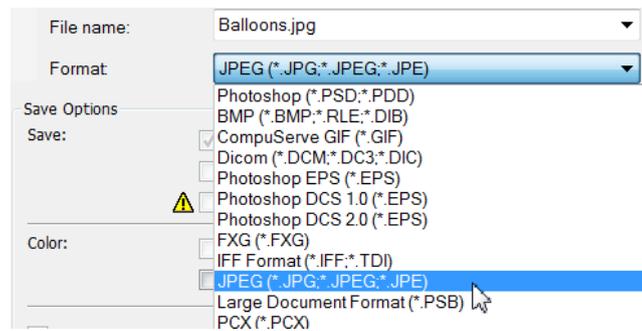
- a From the menu choose *File > Automate > Photomerge*.
- b In the dialogue that appears leave *Layout* set to *Auto*, and then use the *Browse* button to select the three files *b1.jpg*, *b2.jpg* and *b3.jpg*.



- c When ready click *OK* and the three images will be merged into one.
- d In the layers panel at lower right try unclicking one of the visibility (eye) icons to see how the merge has been accomplished.
- e If necessary you can use the *Crop* tool to eliminate any slight differences along the top and lower edges of the merged image.
- f Save the merged image. Photoshop will save it in its native *psd* format. This format can be read by other Adobe products and will retain the merged layer information.



To save the merged image as a jpg or other format, use *File > Save As* and chose the format required.



If you wish the three layers could also have been merged into one. To do this *Shift*+click on each in the layers panel, right click, and then choose *Merge Layers* from the context menu.

Note: above we used the *Auto* layout but there are other layouts that could be used for dramatic effect; try these; *Interactive* allows you control of the final placement of the merged images.