## Resizing Images using Photoshop

Before images are sent to the club for projection they must be resized so that they are no wider than 1440 pixels and no taller than 1080 pixels. Fortunately Photoshop has a very helpful dialogue box for resizing electronic images and setting the print size and resolution. Note that for electronic projection all that matters are these pixel dimensions. Resolution and the consequent size of a print can be ignored when resizing for projection. The image resizing dialogue is obtained from the Image>Image size... menus.

## Photoshop CS6 and earlier and Elements



The dialogue box is divided into three. The top section shows the electronic image size (both the Pixel dimensions and the File size in KB or MB).

The middle section is the print size showing the print dimensions and the related resolution.
Notice that in both sections the dimensions are linked to each other. This is because Constrain proportions is ticked in the bottom section (Same as Fixed aspect ratio). Remove the tick and the linkage will break (not a good idea).
Keeping Constrain proportions ticked prevents the image being distorted if one of the dimensions is changed - the other changes automatically.

Resample image requires some explanation. This should be called Recalculate image.
If you change the resolution of an image but keep the print size constant, you are effectively changing the number of pixels making up the image. PS must either throw pixels away or artificially add pixels depending on whether you reduced or increased the resolution. This is called resampling the image.

If you remove the tick from Resample image you prevent PS from changing the image in this way. Immediately, you are unable to change the Pixel Dimensions of the image and in the Document Size section, resolution and print dimensions are linked together so that you can't change one without changing the others.

The smart and easy way to resize pictures for electronic projection is to follow this procedure:

1. Duplicate the image and resize the copy, thus preserving your original.
2. Make sure that Resample image is ticked
3. Leave the tick next to Constrain proportions
4. Type in a value for one of the Pixel dimensions (the other changes automatically)
5. Note the second linked value.
6. Make sure that the Width does not exceed 1440 pixels
7. Make sure that the height does not exceed 1080 pixels
8. Click OK

That is it. You are done.

Instead of duplicating the image you can Save the image with a new name if you don't want your original image reduced in size permanently.

NB Never discard pixels permanently unless you can't avoid it. Save your original image with ALL its pixels and digital data. You will regret it if you don't.

## Photoshop CC

The resizing dialogue in Photoshop CC has changed.


Constrain proportions has disappeared.
Dimensions: Sets whether to show the size in pixels, cm or other units.
Fit To: allows you to pick a size from a list of pre-sets. You can set up a custom size such as 1440X1080 that you might use regularly. Notice that this does not resize the image to these values, rather it fits the image within these limits - exactly what you want when resizing for projection.
The rest of the dialogue is the same as for CS and Elements.

## Lightroom

If you use Lightroom there is another option. Export the image (or group of images as a batch). You can pre-set the output size, the colour space (sRGB), the image format (jpeg), the destination folder and even apply some sharpening, all in one step.
If you export a group of files you will have to rename them later. When exporting a single image, however, you can apply the correct file name as required for submissions to the club.

You can elect to add the re-sized file to your Lightroom catalogue (or not) and your original image remains untouched.

