How to prepare Projected Digital Images (PDI's)

I have been asked to show folk how to do this many times. At the time it all looks so simple and straightforward. Two weeks later folk have forgotten and therefore this short tutorial is offered as an aide memoire.

Introduction

Modern digital cameras produce large images, in pixel dimensions the D300 produces images at 4352 x 2868. If you want to submit such an image to a PDI competition or make an Audio Visual you will have to make each smaller. At Bangor and North Down Camera Club we use 1400 x 1050 for PDI. In the past many folk liked to use 1024 x 768 for Audio Visuals, however more and more are now going for the larger 1400 x 1050. So, how is it done? There are three stages, preparing your image, resizing for pixel dimensions and re resizing for file size. It is these last two steps that tend to get folk confused. It is my experience, from talking to folk who have difficulty in getting their head around this, that they try to do both at the same time and get lost. Therefore; I suggest a simple 3 step approach.

Step One: Preparation

Newcomers to photography:
You will have probably taken your image as a jpg. If you don't have your camera set to take the max size at max quality – then you should. Otherwise you will not get the best from your jpegs. Adjust and edit your image and always save at the max setting in your software. Re-opening and saving and reopening again and saving - will slowly but surely - decrease the quality of your image.

More advanced members:
I recommend that you should take your images in raw format and use quality tools like Capture NX, Lightroom, Adobe Camera Raw, Photoshop, etc., to make global and selective adjustments. When saving from raw, I recommend saving to 16bit tiff.
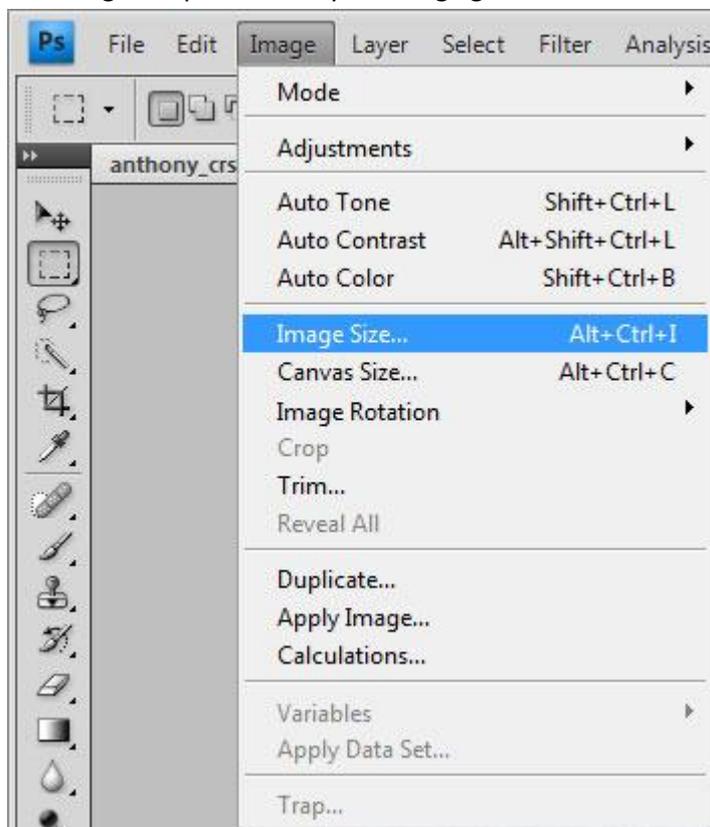
Step Two: Re sizing for pixel size

I am using PS CS4, in the following screen shots, but the approach is the same for earlier versions of PS and many other editing programs.

1. Open your image in PS. If it is a 16bit tiff change it to 8 bit, if it is a jpeg – don't worry – jpgs are 8 bit, so you can ignore this bit.
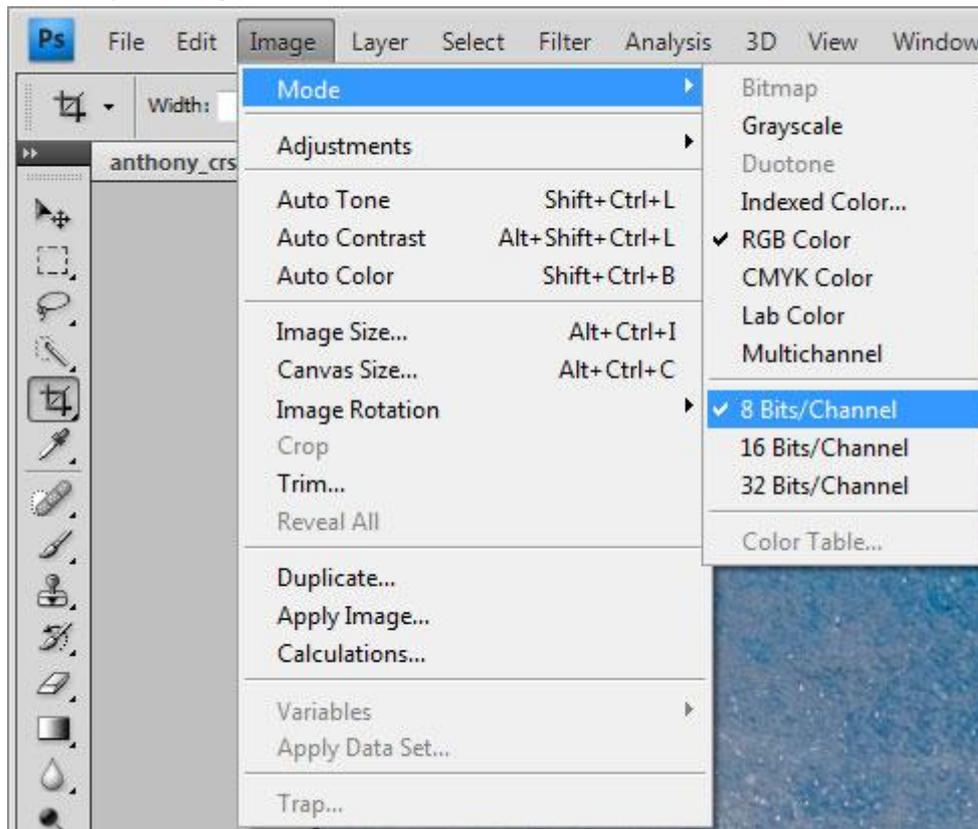
2. To change the pixel size of your image go to the menu bar and click on 'Image'.

3. This will bring up a box that will allow you to change the pixel size, either by width or height. If your image is landscape then you want to set the width to 1400. If you image is vertical, or portrait, then you want to set the height to 1050. (Note: if you want to produce images for a 1024 x 768 AV rather than 1400 x 1050 AV the you will want to use 1024 for width and 768 for height.)
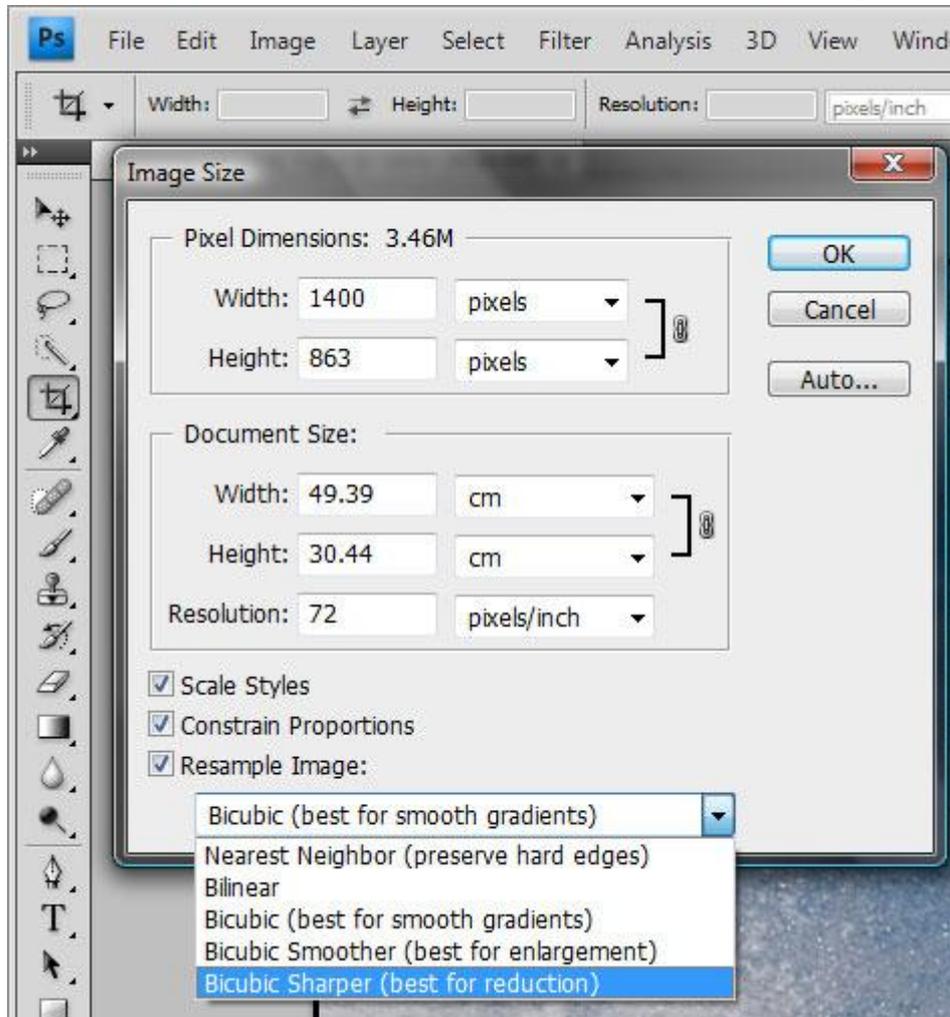

4. Note that as you are (probably) reducing the pixel size of the image you should use the drop down menu at the bottom of the box, and select 'Bucubic Sharper'.

5. Don't worry about the 'Resolution' settings as we will discuss this later.

6. After you have resized the pixel size the image may look small on your screen. Press Ctrl AND 0 (zero) and the image will appear to fit your screen.

7. The image is now the correct pixel size.

Step Three: resizing for file size and type

1. Your image is now the right pixel size for your PDI competition, or your Audio Visual project. Now you need to make sure it complies with the file size requirements. At Bangor and North Down Camera Club we allow up to 1400 wide and 1050 tall. However; to allow for members to email me their submissions I have set a limit on the file size and file type. Images must be less 1MB and in jpeg format (or file type).
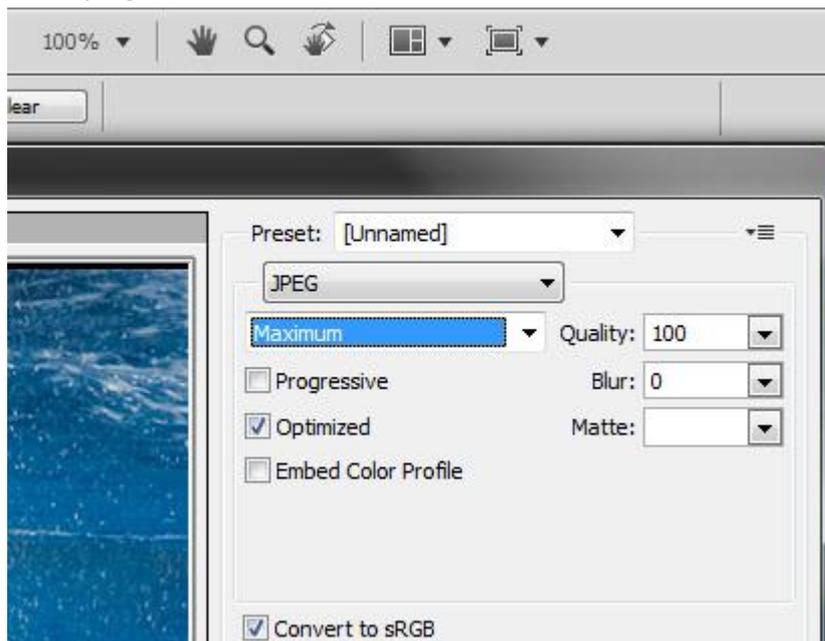
2. Resizing for PDI competitions, where the file size limit is 1MB. Go to 'File' on the menu bar, and from the drop down menu select 'Save for Web and Devices'.
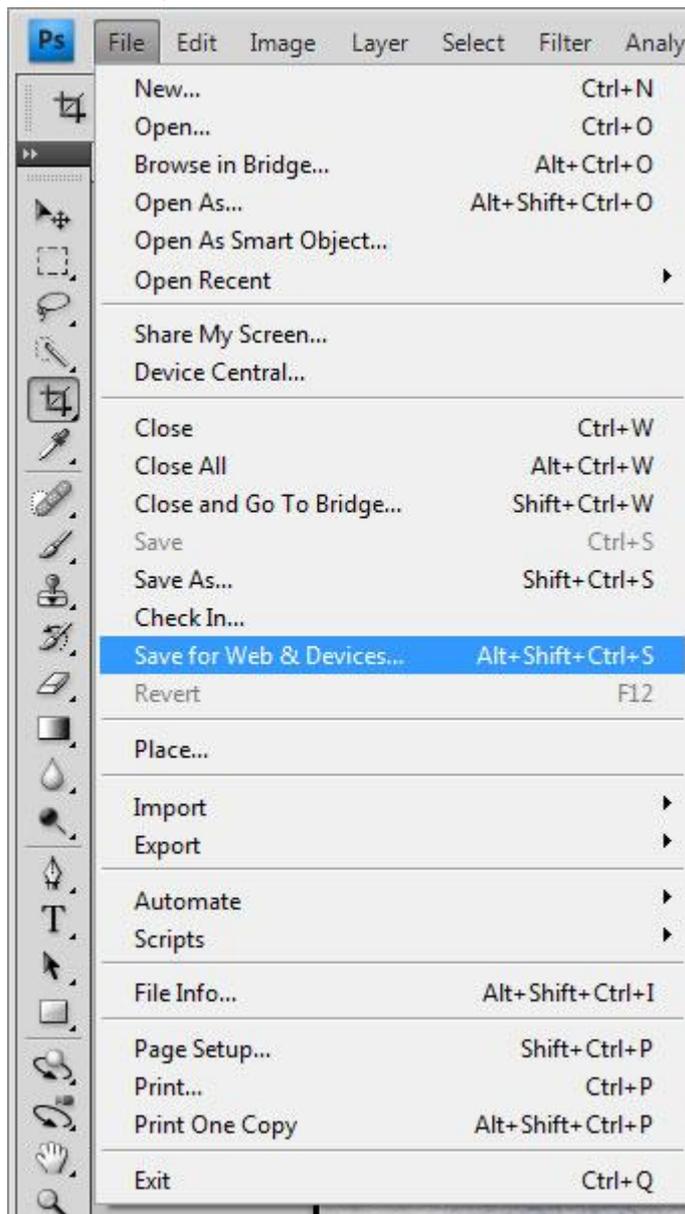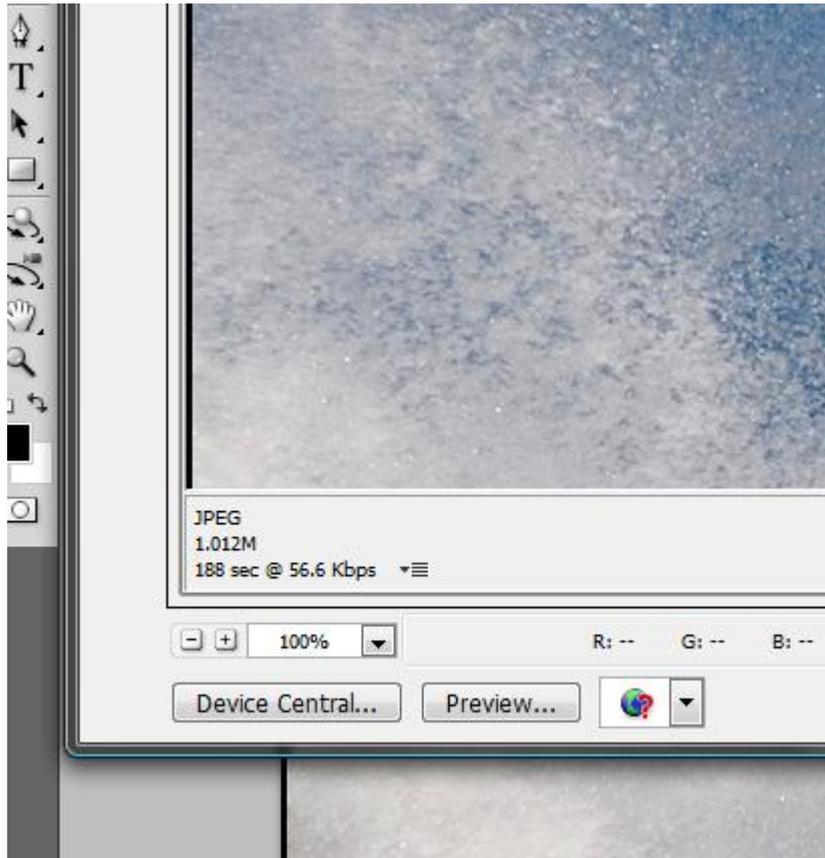
3. The box that will open will look like this:
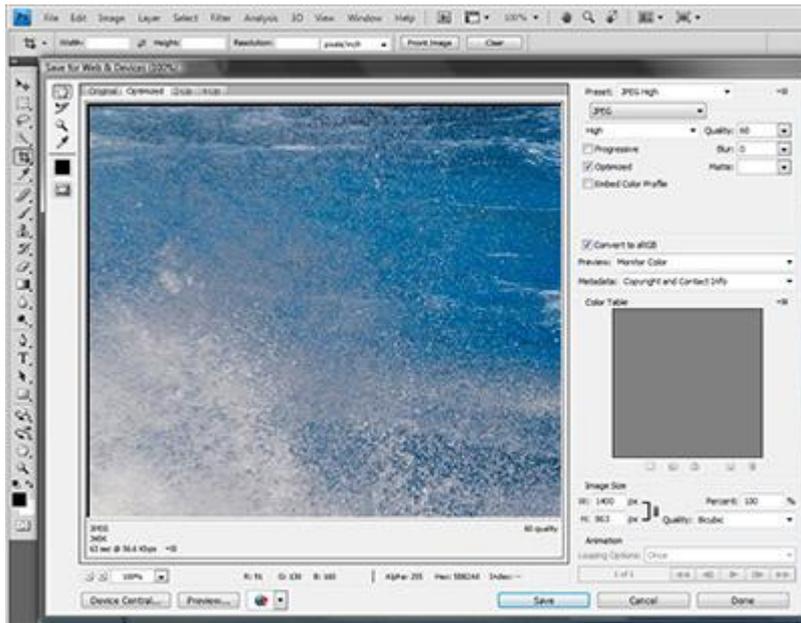
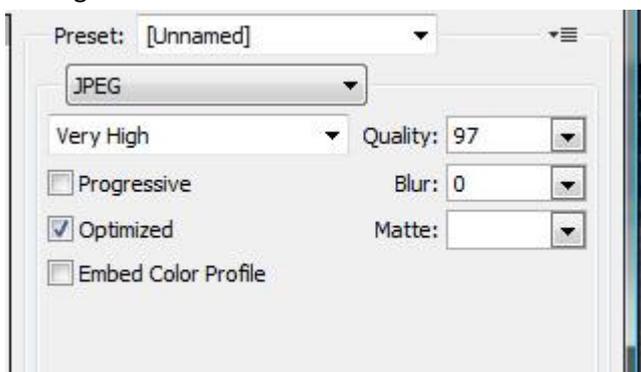
The top right will look like this

Start by selecting the maximum setting and then look at the bottom left to see what file size the max setting produces.

JPEG
1.012M
188 sec @ 56.6 Kbps

100%

R: --   G: --   B: --

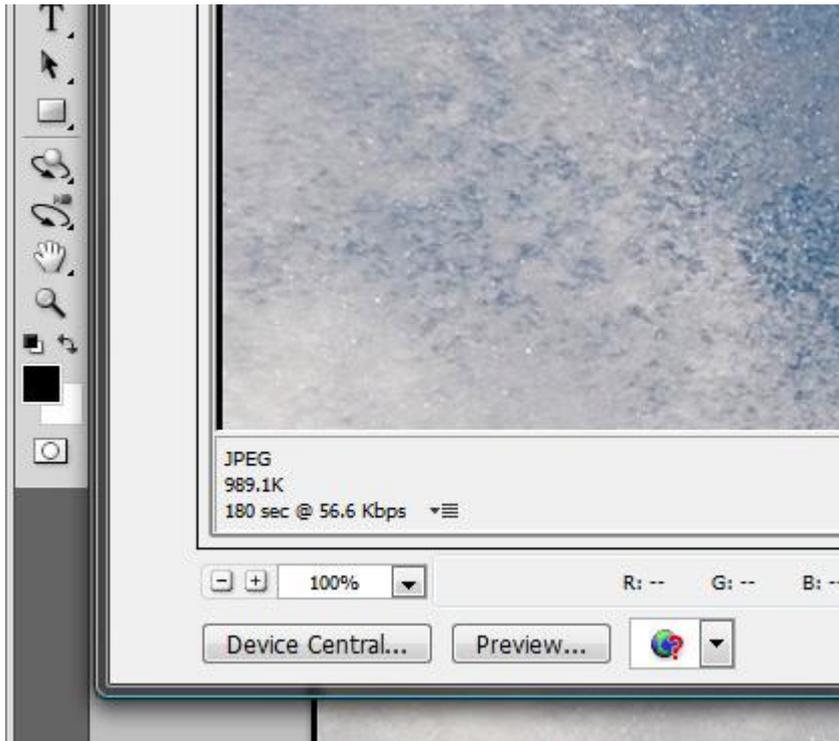Device Central...   Preview...

In this example you will see that the max setting has produced an image that will be 1.012M. (Which is clearly over 1MB). So you will have to change the quality setting from max to 'very high'. Which, when you check the file size, it is now 667k.

JPEG
677.4K
123 sec @ 56.6 Kbps

100%

R: --   G: --   B: --   Alph

Device Central...   Preview...
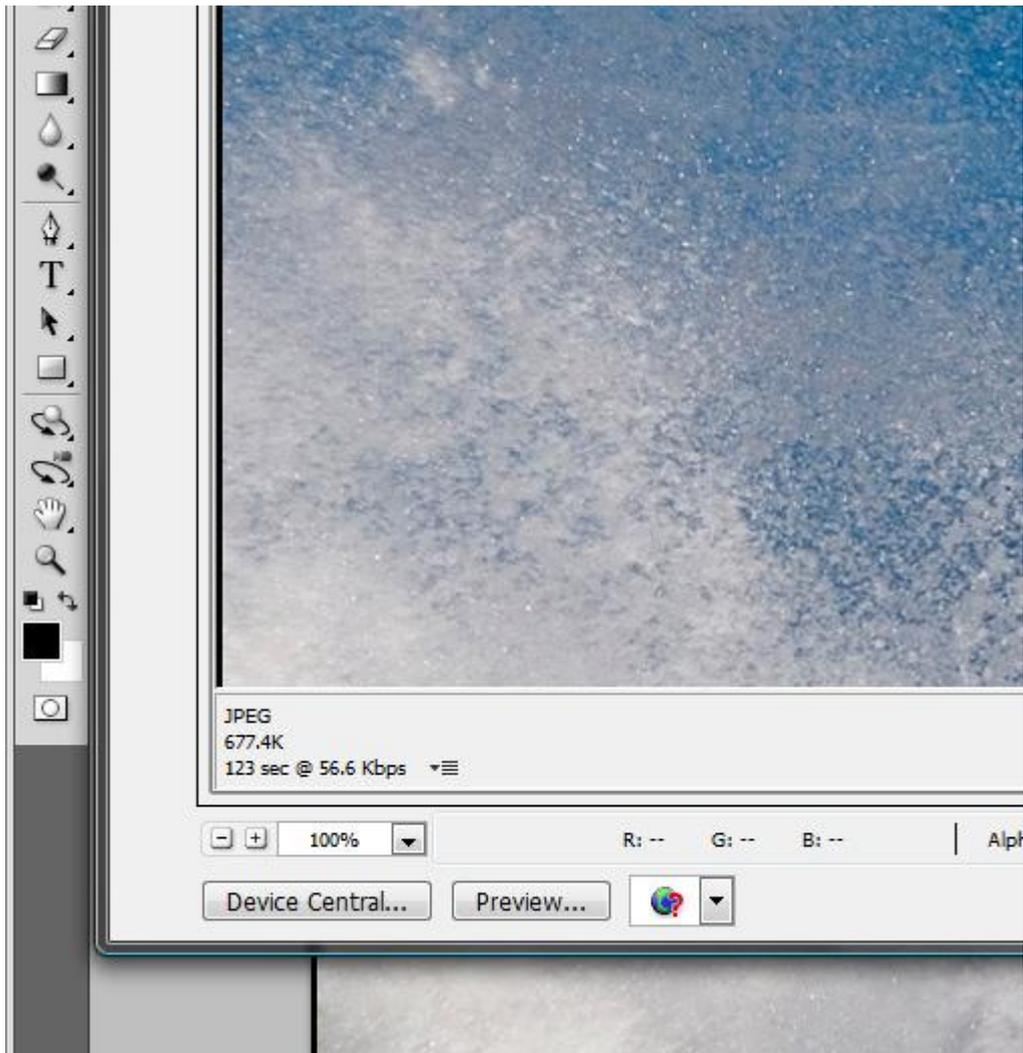
If you are allowed to have a file size up to, but less than 1MB, then you can tweak the quality settings to increase the file size form 677k. This how you do it. Go to the quality settings and instead of changing the drop down pre sets (high quality and maximum) look at the number of the quality setting. Max is 100, Very high is 80. In this image we can start from 80 and work up. Type in 85 and then click outside the box, then look down to the bottom left and check the file size. Keep increasing the quality number until you get to just under 1MB. In this case a quality setting of 97 results in a file size of 989K.

Preset: [Unnamed]

JPEG

Very High   Quality: 97

☐ Progressive   Blur: 0

☑ Optimized   Matte:

☐ Embed Color Profile

All done, you will have resized to pixel size and now resized to file size.

I hope that this short tutorial will help members of Bangor and North Down Camera Club prepare their images for PDI competitions and also help members prepare their images for Audio Visuals.

Mark Allen

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(In respect of Audio Visuals, you might be interested in these files. Photoshop actions for batch re sizing (do them all in one go) although they are set for 1024x768.)

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Tut on it all works
Word 97 http://www.markallenphotography.co.uk/actions.doc
same in zip http://www.markallenphotography.co.uk/actions.zip