

## SAVING DIGITAL IMAGE FILES FOR COMPETITIONS

Follow the instructions below in Photoshop to save digital image files you wish to enter into digital image competitions.

The aim is to reduce the file size to below 500 kilobytes while keeping the highest possible image quality, and meeting other requirements for resolution and colour.

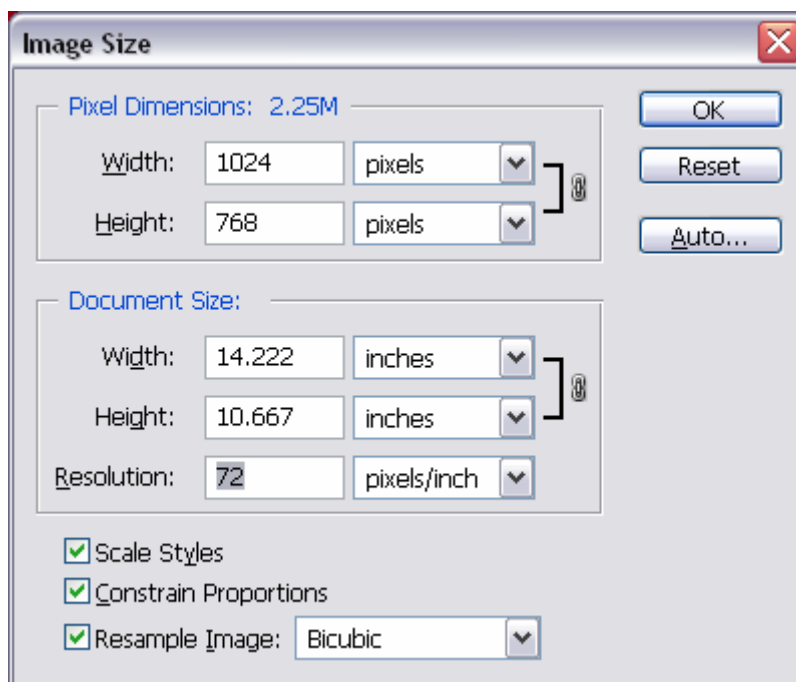
Keeping the file size down saves *your* email time and *other people's* disk space when sending the images. The 500K file size limit appears to be the most common competition standard currently used around Australia. This could change in future.

The images resulting from this method are quite OK for viewing on a computer monitor or with a digital projector. *They will not be good enough for printing however.* For printing you will need many more pixels - it's best to use the same number of pixels as the original image from your camera or scan.

It's also useful if you want to email images to friends and relatives.

These instructions have been written for full Photoshop CS, if you use Photoshop Elements, or a later version of Photoshop, there will be some differences, however the procedure is basically the same.

1. Open your original image in Photoshop.
2. Save a copy of the image with a different name - you don't want to lose your original.
3. Set the "resolution" of the image to 72 pixels per inch:
  - In the top menu, go to Image -> Image Size...  
(*Image -> Resize -> Image size in Photoshop Elements*)
  - In the Dialogue Box that appears go to the Document Size area, and change the number in the Resolution window to 72. (Make sure that the window to the right of it says pixels/inch not pixels/cm.)



4. Now we need to change the size of the image so that it is no more than 1024 pixels wide, and no more than 768 pixels high.
  - While still in the Image Size dialogue box, ensure that the "Constrain Proportions" check box is ticked.
  - Now set the width and height units to pixels, and adjust the width and height as follows:
    - The width must be no more than 1024 pixels.
    - The height must be no more than 768 pixels.

As you change the width, Photoshop will automatically change the height in proportion, and vice versa.

If the image was cropped at a 4:3 width to height ratio, it can be changed to exactly 1024 x 768, and it will completely fill the screen.

If it is not exactly 4:3, the numbers will be different - if you set the width of a wide "landscape" image to 1024, the height will be less than 768. Similarly, if you set a "portrait" image to a height of 768, the width will be less than 1024.

- Once the image size is set, click the OK button.
5. We now sharpen the image, because some of the sharpness will have been lost in the re-sizing:
    - In the top menu go to Filter -> Sharpen -> Unsharp Mask...
    - Set both "Radius" and "Threshold" to 1.0
    - Adjust the "Amount" Slider upward to increase sharpness to taste - somewhere between 50 and 100 % is usually enough.
    - Click the Preview check box on and off to see the effect on your image.
    - Click the OK button.

6. Next, it's necessary to ensure that the "Colour Profile" is set correctly to "sRGB".

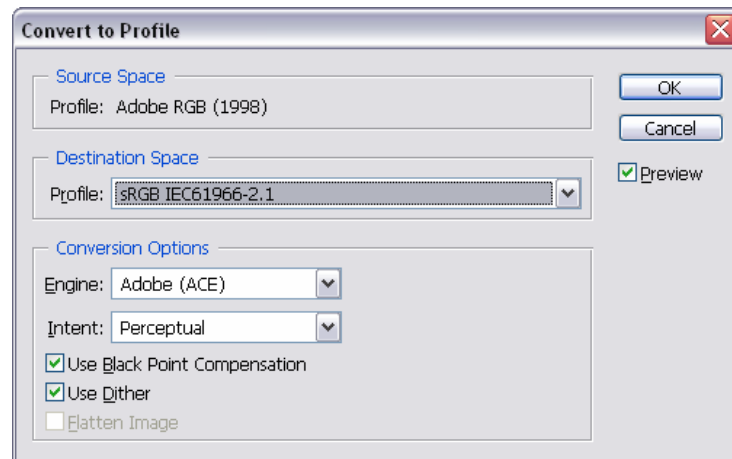
Don't worry too much about why this is needed or what it does, most rocket scientists struggle with Colour Profiles. If you really need to know more, there's a brief explanation in the box at the end of this step.

You may not be able to do this in Photoshop Elements, so if you're using Elements, ignore this step.

It shouldn't affect the way the image appears on screen to any noticeable extent.

- In the top menu, go to Image -> Mode -> Convert to Profile...

- In the dialogue box that appears, go to the Destination Space area, click on the Profile drop-down list and choose "sRGB IEC61966-2.1" from the list that appears:



Click OK, and the colour profile is now set.

#### ***More about colour space***

There is another commonly used colour space - Adobe RGB 1998 (aRGB). This is generally used for printing, but its colour gamut is too large to be handled by most computer displays and internet devices.

sRGB has a smaller colour gamut more suitable for computer displays.

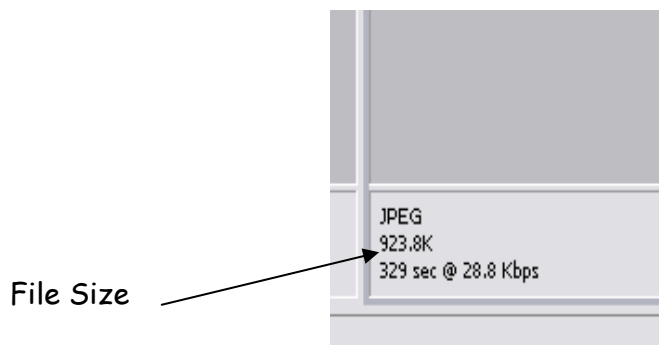
Many digital cameras mostly use sRGB by default anyway, so unless you've changed your camera's settings, it's fairly likely that the image will already be in this colour space.

#### 7. Now we use the "Save for Web" feature of Photoshop to reduce the file size:

- In the top menu go to File - > Save for Web... ("Save for Web and Devices" in later versions).
- Click on the "2-up" tab at the top left to show the before and after images. The original image is on the left, the compressed image is on the right.
- At the bottom left you can adjust the zoom percentage to "Fit on Screen" or to zoom right in up to 1600%.
- Click in the right image, then adjust the windows on the top right hand side of the screen to look like this:



- Below the right hand image, there will be a numeric display like this:



- The aim is to get the file size below 500K using the "Quality" slider at the top right.
  - Click on the > button beside the Quality window and move the slider that appears. Moving it left reduces the file size. Adjust until it's about 450-550K - it's hard to do fine adjustments with the slider.
  - To adjust more finely, click in the Quality window, and use the up and down arrows on the computer keyboard to adjust the quality one step at a time. The file size will change slightly just after you hit the up or down arrow. Use this to get below 500K. *Don't go over 500K - you will be disqualified as this gives you and unfair quality advantage.* (It's safest to set the file size at about 495K - the reported file size on computer systems tends to vary slightly.)
- It's now time to save your compressed image. Click the Save button at top right, and save your image to the appropriate folder using the dialogue box that appears. (Remember - don't overwrite your original file!).
- Note that any spaces in your original file name will be replaced with hyphens, and that the file extension will be .jpg.
- Save the file with a name in accordance with the requirements of the competition. If these aren't given, include your name, the photo's title and the section it's to be entered in. Be sure to leave the extension as .jpg.
- The image is now ready to send off so you can stake your claim on that prize.

After reading through this, the process may seem a bit daunting, but it's not that bad once you've run through it in Photoshop a couple of times.

If you're into Photoshop "Actions", you can set one up yourself to automate the process a bit. There is also an "Optimize to File Size" feature in the "Save for Web" feature if you look around in the controls on the right hand side (Adobe move it in every version, but it's there). This will do most things in Step 7 for you, but it's not as much fun.

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