LANE COVE CREATIVE PHOTOGRAPHY

RESIZING DIGITAL IMAGES FOR PROJECTION

Here are a few quick outlines for correctly resizing images for use on digital projectors:

First check the projector resolution - Lane Cove's current projector is a High Definition (1080P or HD) **1920 x 1080 pixel projector.**

For best results your images need to be resized to the projector resolution to provide the sharpest image quality. If your image is kept at the original resolution (something like 6016 x 4016 for a Nikon 24 Mp camera) when the image is projected, the pixels are combined to the fit the projector resolution and some details will be lost.

By downsizing from the original file size and adjusting for projection you can maintain most of the quality of the original. Because the image is at a lower resolution it will never be as good as it appears on your screen, or as a high-quality print**. Note: the projection file is approximately 8 – 8.5% of the original image size !!!**

Here are the steps required for the three most common software packages used:

All images submitted for Evaluation nights and other projection sessions should be renamed with your name and a number, e.g. john_smith_01, and a description if you want to include one.

Your image name should look something like the below:

john_smith_01_man and dog	first entry
john_smith_02_bird on a stick	second entry, and so forth.

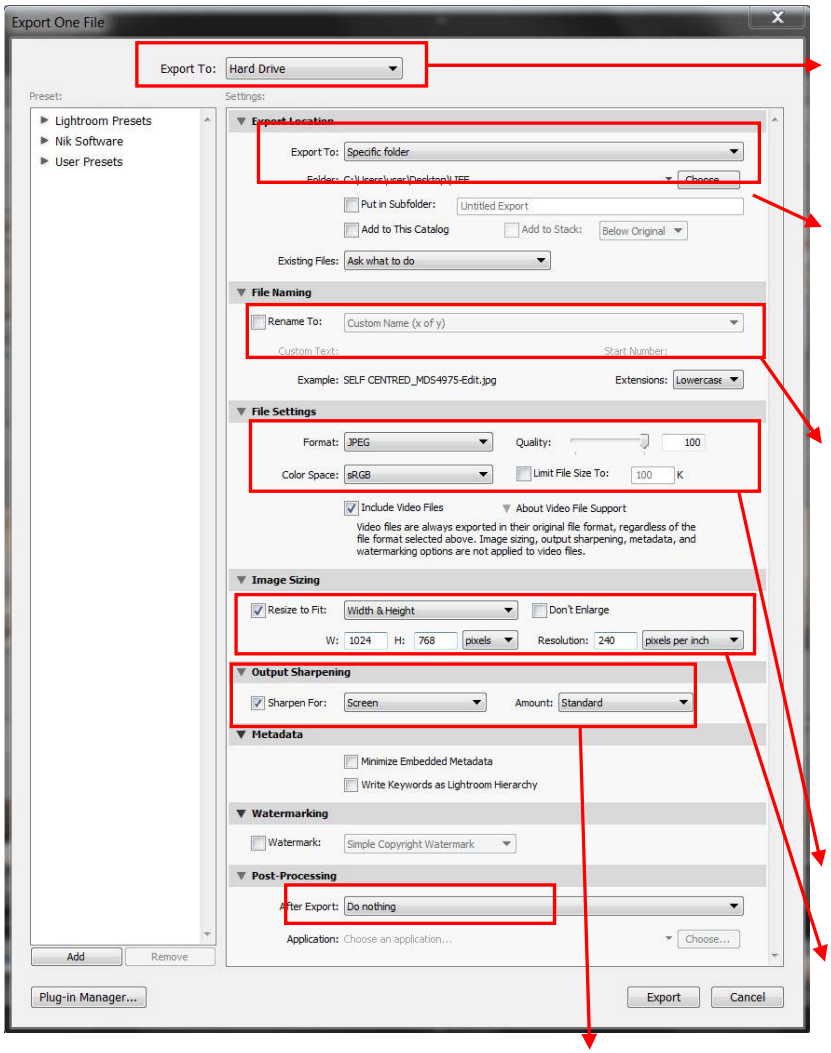
EXPORTING FROM LIGHTROOM – THIS IS THE SIMPLEST AND MOST EFFECTIVE WAY

Exporting images from Lightroom is considerably simpler than any other method and can be automated, if desired. To create a JPEG version for projection we need to ***Export*** the image file.

Step 1: From the ***Library module*** select the image file you want to use. Next, go to ***File>Export,*** or select the ***Export*** button at the bottom of the left-hand panel. This opens the Export menu.

Using this method Lightroom handles all of the hard work, all you have to do is set this up once and save the settings, then each time you want to export another file you simply select it and click on Export, then click on the Preset you will make.

THE LIGHTROOM EXPORT MENU:



Working down from the top you first select the export type - choose "***Hard Drive***"

Next under ***Export Location*** choose the folder you are going to place the image into, or create one if necessary.

Under ***File Naming*** you put in your name and a number and image title. (you can batch rename using your entrant number and Lightroom will number each image for you). If you are exporting one image at a time you can put in the full file name.

Under ***File Settings*** choose the file format (**JPEG**)and colour space (**sRGB**)

Under ***Image Sizing*** choose width and height (1920 x 1080). Resolution here is also irrelevant.

Under ***Output Sharpening*** choose "***Screen***" and choose "***Standard***" - this is usually adequate.

You can leave the ***Metadata*** box empty and don't select ***Watermarking*** as this will apply a text name to the bottom of your image. (provided you have set this up).

In the box, ***Post Processing*** choose "***Do nothing***" next to After Export (alternatively, choose "Show in explorer" to check the image/s are exported as expected).

Finally, add these settings as a **user preset** for future use - then all you need to do is change the file name and it's one click to repeat for the next time.

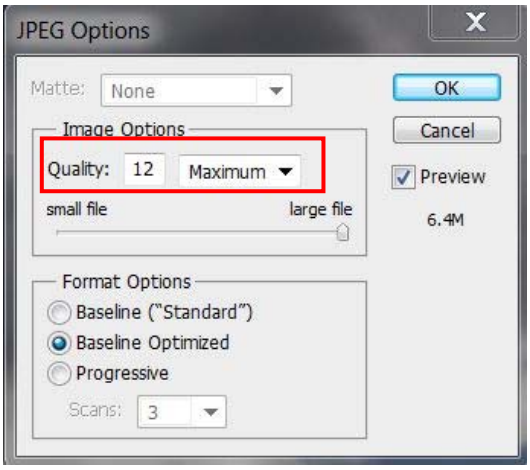
Click on Export when done and you're finished. Once complete, go to the folder you exported to and copy the images to a USB stick, or Email to the club contact.

Simple.

RESIZE IN PHOTOSHOP – NOTE: THIS IS NOT THE PREFERRED METHOD – SEE LIGHTROOM

Step 1: Open your selected file (probably a Photoshop layered file or a TIFF file). I suggest you create a directory on your computer for the projection images, that way they will not get mixed up with your full resolution files.

Save your original file with a new name, using your name prefix and your title. Go to ***File>Save As***, then navigate to your chosen directory. Write the file name in the **File Name** box, then in the Format box, click on the downward facing arrow and choose "**JPEG**" as the format. Then click "**Save**"

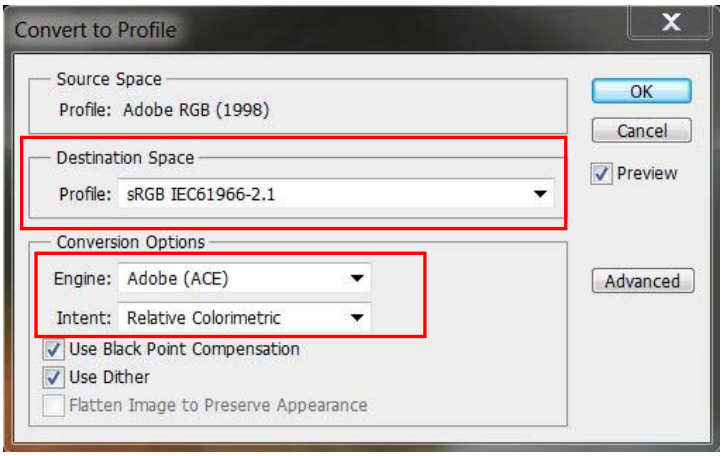


Choose the highest quality setting to minimise the JPEG compression used (12 as shown).

Click OK and save the image once only.

Step 2: Convert your image colour space to **sRGB** for projection. Do this by going to: ***Edit>Convert to Profile*** and choose the destination space as ***sRGB***, see below.

Choose ***Adobe (ACE)*** as the colour space conversion engine and choose either ***Perceptual or Relative Colorimetric*** as the conversion method.



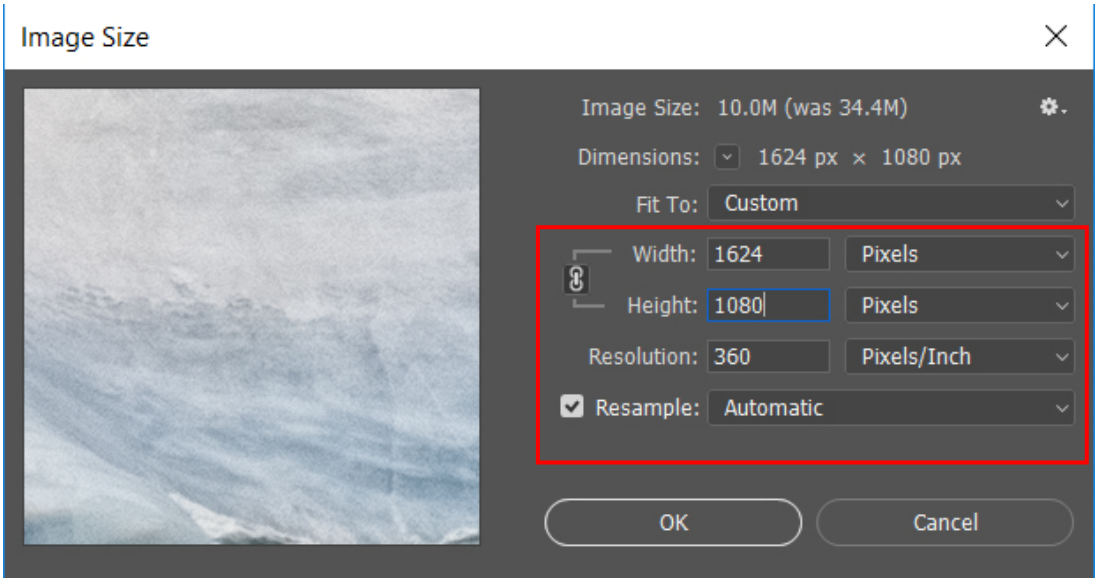
The two methods of conversion use slightly different methods to squeeze the larger colour range of Adobe RGB into the much smaller space of sRGB.

Note: **NEVER EVER use Assign Profile**. This will totally ruin your colours. Always use "***Convert To Profile".***

Step 3: Resize the image to the projector resolution. Go to ***Image>Image Size*** and select the following settings. Note if something other than "Pixel" is showing in the width and height boxes, click the drop down arrow and choose "Pixels":

<u>Landscape orientation images - set the width to 1920 pixels</u>. Note: you will need to select "***Resample Image***" and "***Constrain Proportions***" in the bottom boxes to enable access to the pixel dimensions box. The height of the image in pixels will be shown after you set the width. ***Make sure this is equal to or less than 1080 pixels***. If the height shows as more than 1080 pixels, enter this amount in the height and let the width be resized to suit.

Note: for images taken at a native ratio of 3:2, you will need to set the height at 1080 and let the width automatically re size to 1620 pixels. See illustration below:



<u>For portrait images, set the height to 1080 Pixels</u>, the width will be 720 pixels.

Important: Disregard the Document Size and Resolution boxes - these are of no relevance for projection and only relate to printing. Click OK when done.
Select ***Bicubic Sharper*** or ***Automatic*** as the resampling method.

Step 4: Your image will now be smaller on screen - use the magnifier tool to zoom in to 100% on screen (look for the magnification percentage at the bottom left hand corner of the image window). This will show you how the image will look when projected - 1 image pixel equals 1 projected pixel.

Your image will have lost some sharpness during the resampling process, so we will now apply sharpening. Go to ***Filter>Sharpen>Unsharp Mask*** and apply sharpening that looks good on screen when viewed at 100% Use a radius of 1 pixel and adjust the amount to taste without the sharpening looking overdone. Click OK when done to complete sharpening.

Step 5: Save the file.

You now have the image set at the best size and sharpness for projection. Copy to a USB stick or email to the club contact.