

Merthyr Tydfil Camera Club Projected Digital Images

Guidance Notes

How to enter images in electronic format in the projected digital image (PDI) competitions.

The Basic Requirements

- The image dimensions must be no more than 1600 by 1200 pixels as per WPF rules.
- The images must be in JPEG (.jpg) format.

Apart from complying with the general competition rules, that's it.

How to Prepare Images

It should be very straightforward to resize an image to fit within the 1600 by 1200 limit and save it as a JPEG using almost any image editing software.

The Basic Steps

Regardless of what software you are using you must do the following: -

1. Open your chosen image in your favourite editor.
2. Prepare it exactly as you would if you were going to print it, i.e., crop it, clone out bits, fix the brightness and contrast, sharpen it etc. etc. Save that version for later use in the normal way.
3. Choose the image resizing tool or menu option.
4. Select the option to keep the image proportions when resizing.
5. Set the resizing options to use dimensions in pixels.
6. Set the required height to 1200 pixels and allow the width to be set in proportion. If the width comes out at over 1600 pixels set the width to 1600 pixels and allow the height to be set in proportion.
7. Choose the 'save as' option to save a new version of your image and choose a location to keep the copy. Select the highest available JPEG quality option.

To Explain in More Detail

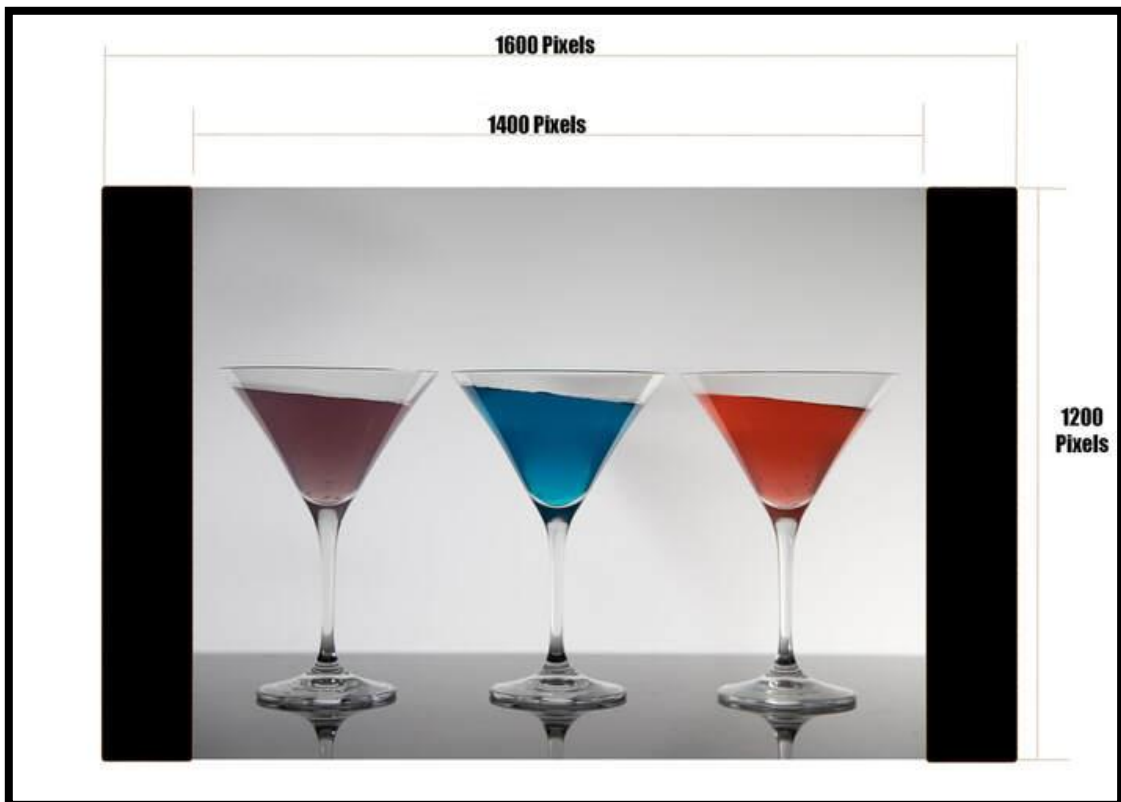
Dimensions

1600 by 1200 pixels is the maximum height and width of the image. It can be smaller in one or both dimensions, but it may not be larger in either one. This is the same as the 20" by 16" size rule for prints, except that digital images are measured in pixels.

The projected image is made up of a rectangle of 1600 columns and 1200 rows of coloured dots (pixels) generated by the projector.



If your image is 1600 by 1200 pixels, it will fit exactly in this space. If it is narrower, say 1400 by 1200, then there will be black space to the sides of the image.



In the same way if your image is 1600 by 1000 there will be black space above or below the image.



This does not matter. Portrait and 'normal' landscape images will be 1200 pixels tall but much less wide and letterbox images will be 1600 pixels wide but less tall. However, they will be in proportion, i.e., the ratio of width to height will be correct. Unless your image is naturally the right proportion to fit 1600 by 1200 exactly it is unwise to stretch it in one or the other direction. Everything in your image would then seem either too wide or too tall.

Format

JPEG has been chosen because it is a common format that is easy for everyone to use. Most software can read and write this format. A high-quality JPEG image will be perfectly acceptable at the dimensions we will be using.

What about PPI and DPI?

These make no difference at all to projected images. DPI is Dots Per Inch and applies only to printers, which make a picture of so many inches dimensions using dots of ink. Projectors have no ink and the width in inches depends how far the projector is from the screen; your software has no effect on this. Pixels Per Inch is for scanners, which produce a scan of so many pixels for each inch of print or film scanned. This does not apply to projectors either. It might matter if you are producing an image for the competition by using a scanner. In that case you just need to scan at sufficient PPI to ensure you get at least enough pixels for the 1600 by 1200 limit.

What if my image is smaller in both dimensions?

If your image is less than the permitted maximum in both dimensions, it will be enlarged until one dimension reaches the limit. This will just reduce the quality of your image and so there seems to be no obvious reason to do it.

Don't JPEGs lose quality every time you copy them?

Not if you just copy them. There is only one problem if you open a JPEG to manipulate it, then save it again, and then open it again etc. etc. If you make one or ten or a hundred copies of any file (including JPEG) they will all, be identical.

What about colour space?

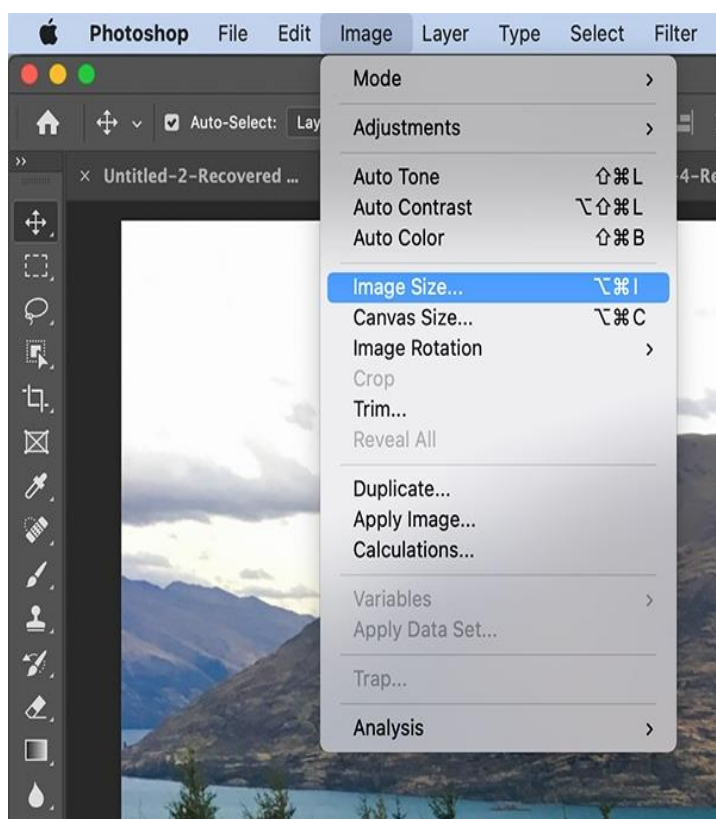
You can select either sRGB or Adobe RGB colour space; it will make very little difference. The projector's colour gamut is closest to sRGB, but any out of gamut tones will just be rendered as the closest available colour and the visual difference will be very small indeed.

What about brightness and contrast?

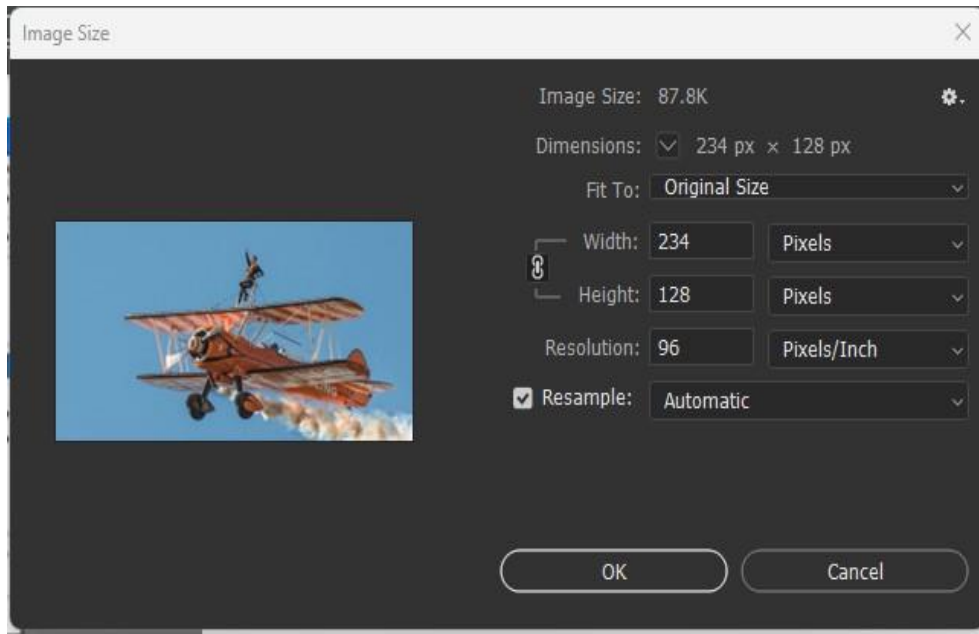
Everyone's computer screen at home will be a little different and so it probably won't exactly match the projected image. The projector will be set up to give a good result with most images. So, unless your home screen is set to something very extreme it is unlikely that the difference will be very much. Getting things set up perfectly could take a little time and patience.

Photoshop Users

To resize the image, select Image and then Image Size as shown.



The following options appear.



Type the new dimensions into the Width and Height boxes.

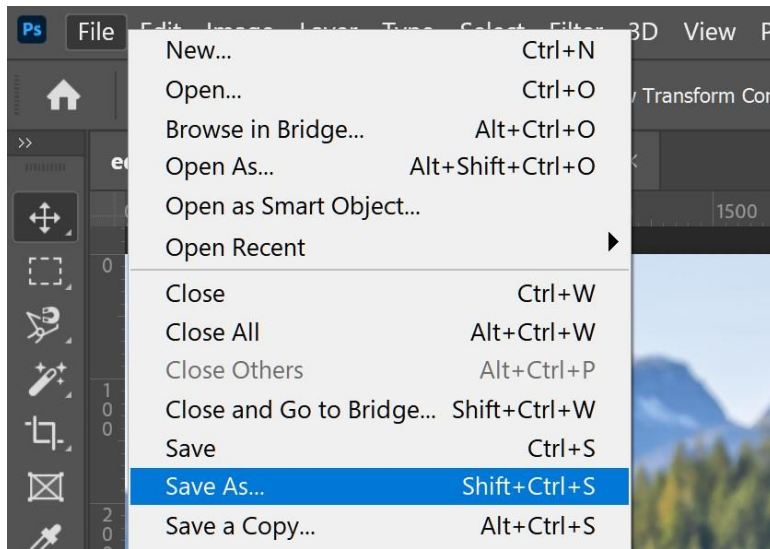
Unless you change the default settings, typing a new dimension for Width will automatically update the Height measurement to keep the proportions correct.

- If you want to specify both the height and the width without one changing the other, click the small link icon to the left of the Width and Height blanks to unlink the two measurements.
- If you don't want to specify the size in pixels, you can select **Percent** from the menus next to the Height and Width values. Then you can choose to grow or shrink the image size by a percentage of the original size. For example, if the width of the image is 1600 pixels wide, changing the Width value to 50% will decrease the width to 800 pixels. Changing it to 200% would increase the size to 3200 pixels.
- If the image has layers with applied styles, click the gear icon at the top-right corner of the Image Size window and select **Scale Styles** to scale the effects in the resized image.

Set Height to 1200 and select pixels from the list next to it. If Width changes to more than 1600 then set Width to 1600 instead.

When finished click OK and the picture will be resized.

Now save the image as a JPEG.



Use a high-quality setting and save it to your image folder.

[The images are from Photoshop CC - other versions should be very similar]

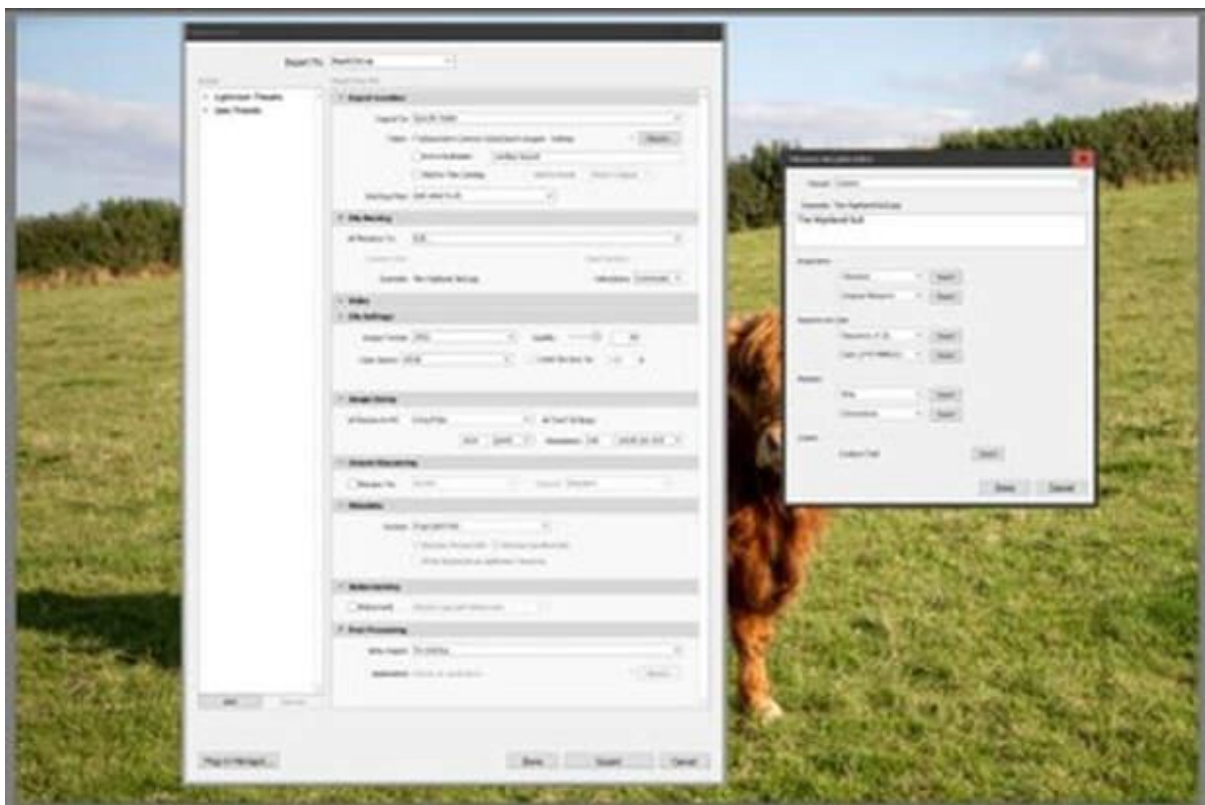
Lightroom Users



1. Select the image and make any adjustments.



2. Right click and select 'Export.'



3. In the Export dialogue: -

- Export Location: Click 'Choose' and browse to the folder location for the image.
- File Renaming: Check 'Rename To' Select 'Custom' from the dropdown and enter a title for the image in the box.
- File Settings: Image format – JPEG Quality – 80 or 90 is fine for projection.

- Image Sizing:
- Check 'Resize to Fit' and select 'Long Edge' (or as required by the aspect ratio) from the dropdown. Enter 1600 pixels to set the Long Edge dimension.

Affinity Photo Users

The Quick Way to Resize Images in Affinity Photo

1. Open the image you want to resize.
2. If you're working on a RAW file, it will open in Develop Persona. Before you can resize it, you need to click the "Develop" button. This converts it to an image and opens it in the Photo Persona. Image resizing is only available in Affinity Photo Persona.
3. In the Affinity "Photo Persona", click the Document menu and select the "Resize Document..." option. This displays the resize dialog.
4. In the resize dialog enter the new width or height of the image.
5. If the dialog has the lock aspect ratio set, you'll see the other image dimension updates automatically.
6. Click the Resize button and Affinity Photo resizes the image.