

Resizing Images for Digital Projection in Competitions

When entering projected digital images (PDIs) into competitions, please note the requested size which will match the projector being used to show the images on a screen. Our club projector displays 1600 pixels horizontally and 1200 pixels vertically, so for images to show properly on the screen your photos can't be larger than this. This doesn't mean, however, that all images have to be exactly 1600 x 1200 pixels, only that this is the *maximum* size allowed.

In practice, images are usually resized to the maximum pixel *height* and the width will usually automatically reduce to under the maximum.

So for a portrait orientated image, reduce the vertical height of your picture to 1200 pixels and the width will then automatically reduce (ie scale) itself to keep your image in the correct proportions. In the case of a portrait image, the width will always scale to be under the 1600 pixel maximum because the height of a portrait photo is larger than its width. The image shown in the example opposite is 1200 pixels high x 850 pixels wide.



If an image is square, reduce the vertical height to 1200 pixels, and again the width will automatically scale to keep the image in proportion. The width will reduce to 1200 pixels the same as the height, as the sides of a square are all the same size.

If an image is landscape orientated, reduce the vertical height to 1200 pixels then check that the width does not exceed 1600 pixels. If it does, reduce the width to 1600 pixels, even if that makes the vertical height less than 1200 pixels. Here are 2 examples:



1200 pixels high x 1450 pixels wide



1600 pixels wide x 1150 pixels high

There are many image manipulation programs around which you can use to resize your photos. Amongst the most popular are Adobe Photoshop Elements, Adobe Photoshop and Adobe Lightroom.

Resizing in Adobe Photoshop Elements

- Open your picture.
- Choose **Image** from the top menu. Then choose **Resize/image size**. The 'Image Size' dialogue box should now pop up.
- In the Pixel Dimensions box, type in 1200 pixels as your height. The width will automatically resize - check it is not larger than 1600 pixels. If it is, type in 1600 pixels in the width box and the height will automatically resize.
- Enter at least 300 pixels/inch in the Resolution box.
- Make sure the Scale Styles, Constrain Proportions and Resample Image boxes are all checked.
- Make sure Bicubic (best for smooth gradients) is set in the drop down menu at the bottom of the dialogue box.
- Click OK and you're done!
- The image will shrink alarmingly on the screen - don't panic, it can be enlarged by double clicking the hand tool in the tool box on the left of the screen, or by choosing **View** from the menu then **Fit in Screen**.

IMPORTANT! Save this resized image as a COPY by going to File/Save as - do not save the original file in this smaller size!

Resizing in Adobe Photoshop CC

- Open your picture.
- Choose **Image** from the top menu, then **Image size**. The image size dialogue box should now pop up.
- Make sure Original Size is shown in the **Fit To** box.
- Type in 1200 pixels in the height box. The width will automatically resize - check it is not larger than 1600 pixels. If it is, type in 1600 pixels in the width box and the height will automatically resize.
- Enter at least 300 pixels/inch in the Resolution box.
- Make sure there is a check against the **Resampling box** and it is set to Automatic.
- Click OK and you're done!
- The image will shrink alarmingly on the screen - don't panic, it can be enlarged by double clicking the hand tool in the tool box on the left of the screen, or by choosing **View** from the menu then **Fit in Screen**.

IMPORTANT! Save this resized image as a COPY by going to File/Save as - do not save the original file in this smaller size!

Resizing in Adobe Lightroom Classic CC

Resizing is part of the 'Export' process.

- Find your image in the Library module. Click on 'Export' at the bottom left. Or if you are in the Develop module, click File/Export. A pop-up window appears with lots of options. Scroll down to image sizing.
- Make sure the box is checked next to **Resize to Fit** is checked and the drop down menu shows width & height.
- Type in 1200 pixels in the height box and 1600 in the width box. When it saves it will resize correctly depending whether the image is portrait or landscape.
- Click **Export** and you're done!

Notes on colour space

'Colour space' is the range of colours available to your camera and is made up of Reds, Blues and Greens - all other colours are made up of a combination of these 3 colours. You may see lots of debate online about whether to use Adobe RGB or sRGB and my advice, for what it's worth, is to always use sRGB for camera club images regardless what you might read. Here are my reasons:

- It is the easiest option. No conversion to another colour space is ever needed.
- It is the safest option - you know that the colour in your images will appear correct whether they are printed, projected or viewed on a computer, tablet or phone.
- Most monitors can only show sRGB, so the higher range of tones in Adobe RGB can't even be seen.
- If you send your images to a lab to be printed, they will ask for your images in sRGB colour space.
- Camera Club projectors, and monitors, use sRGB. You know your image colours will appear as you intend in competitions.
- Web browsers all use sRGB. If you upload an image in an Adobe RGB colour space the colours may look 'wrong' online.

So, how to check that you are editing and saving your images in sRGB colour space.

Adobe Photoshop Elements

- Choose **Edit**, then **Colour Settings**.
- Choices in Elements are limited, but if you choose **Always Optimize Colors For Computer Screens** this will enable the sRGB colour space.

Adobe Photoshop CC

- Choose **Edit** from the top Menu, then **Colour Settings**. The colour settings dialogue box will pop up.
- In Working Spaces, make sure RGB states sRGB ICE61966-2.1

- Under Colour Management Policies, make sure **Conserve embedded profiles** is enabled in all the boxes.

Adobe Lightroom CC

Lightroom works differently. You don't choose the Color Space that you want Lightroom to use when your photos are edited. Lightroom uses a very large Color Space called ProPhoto RGB (it's even larger than Adobe RGB). You cannot change it. Instead, you choose the Color Space when you export your photos from Lightroom.

- In the Export dialogue box, under **File Settings** make sure Color Space is set to sRGB.

Note

The advice on colour space is for Camera Club competitions only. If you think your images may be used commercially in the future, or offered for sale, you should always opt for the highest resolution files possible. This includes editing as a 16bit RAW file using Pro Photo RGB colour space, which can be exported as sRGB for use in competitions.

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March 2020