Resizing Images
for
Competition Entry

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These notes have been produced as a guide to resizing digital images for entry into National or International exhibitions that specify maximum pixel dimensions and a maximum file size.

These notes assume that you want to produce an image that fits the following size requirements:

Maximum pixels dimensions 1920 x 1200

Maximum file size 2MB.

These are the size limits for many International exhibitions but you will find that other exhibitions specify different pixel dimensions - such as 1920x 1080 or 1400x1050. The procedures described here can be adapted to produce images of any maximum pixel dimensions.

The notes describe how to resize images in several popular image editors. If you are using an editor that is not described here, the basic principles will be the same but the specific steps in the process will vary.

Some Basic Principles

When an exhibition specifies that images can have maximum pixel dimensions of 1920 x1200 this means that the image must be no more than 1920 pixels wide and no more than 1200 pixels high *when the image is viewed in its correct orientation,* as in this example:
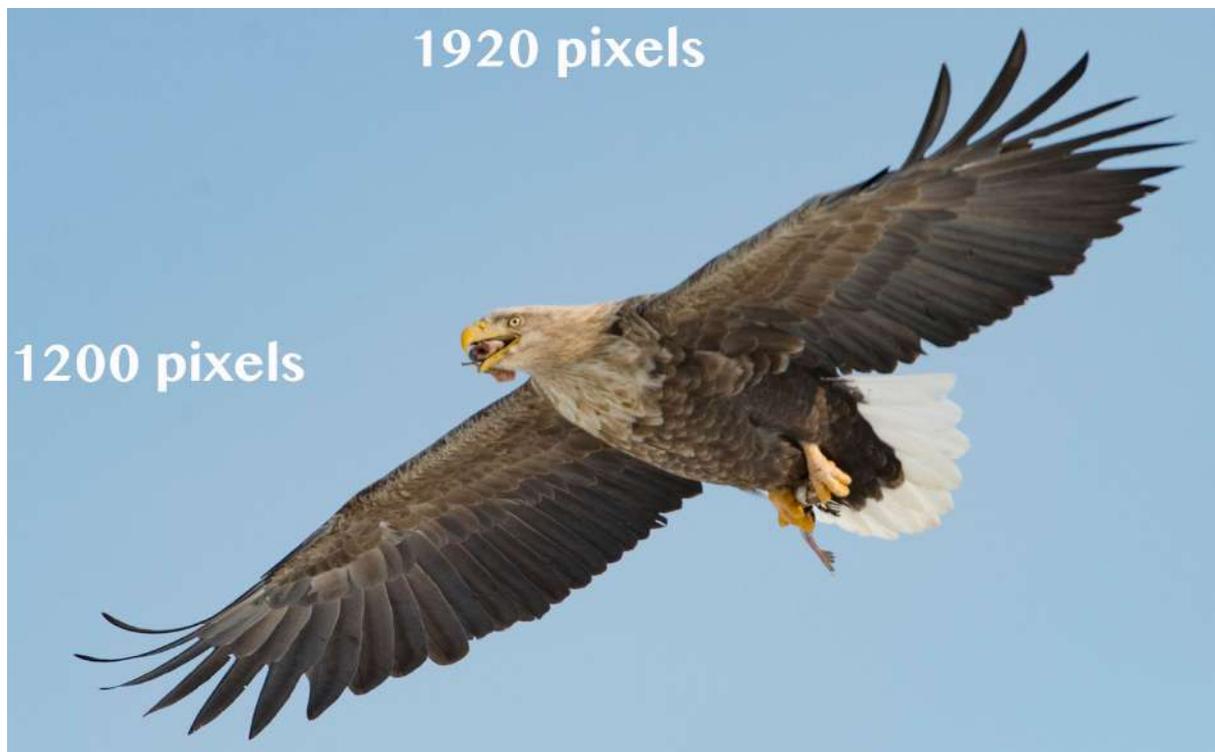
The image you submit to the competition may be smaller than this, but you should always try to have at least one of the dimensions at its maximum. If both dimensions are smaller than the maximums that are allowed you will be at a

disadvantage when your image is judged because it will appear smaller than other images when projected or viewed on a monitor.

It is important to note that your images do NOT have to be exactly 1920x1200 pixels. If you have an image that has an aspect ratio of anything other than 16:10 and you force it to be 1920x1200 pixels without cropping it, it will become distorted.

W*hen resizing your image you should aim for one of the following:*

    a)   an image that is 1920 x 1200 pixels, or

    b)   an image that is 1920 pixels wide but less than 1200 pixels high, or

    c)   an image that is 1200 pixels high and less than 1920 pixels wide.

Therefore:

- If your image is in landscape format it can be no more than 1920 pixels high and no more than 1200 pixels high.

- If your image is in portrait format it can be no more than 1200 pixels high - so naturally it will be less than 1920 pixels wide.

- If your image is square it can be no more than 1200 x 1200 pixels.

It does not matter what size image you start with, you can always resize it to fit within the 1920x1200 pixel limits. However, you should remember these points:

a)   1920 x 1200 is an aspect ration of 16:10 (same as 8:5) and this is not the same as the aspect ratio of the files saved by most digital cameras. It is the aspect ratio of many computer displays and data projectors.

b)   If you start with an image that is a different aspect ratio (perhaps 4:3) and you want to make your image exactly 1920 x1200 pixels without distorting it, you will have to crop the image to the 16:10 aspect ratio. This should be done before you resize the image.

c)   If you start with an image that is a different aspect ratio (perhaps 4:3) and you do not want to crop it, you will have to choose to either make the width 1920 pixels and the height something less than 1200 pixels, or make the height 1200 pixels and the width something less than 1920 pixels.

Some of the other maximum pixel dimensions that exhibitions specify, such as 1920x1080 are also unlikely to be the same as the aspect ratio of your original files.

When you are cropping images before resizing them, first try a crop that is the aspect ratio of required final dimensions (such as 16:10). However, if this crop does not suit the image content it is generally best to crop to suit the content rather than force yourself to crop to the aspect ratio of the maximum allowed pixel dimensions.

To check that you understand these basic principles, review the examples on the following pages. These are all images prepared for exhibitions that specified maximum pixel dimensions of 1920x1200.

This is 1920 x 1080 pixels - this is acceptable even though the vertical dimension is less that the allowed maximum of 1200 pixels.

This image is 1750 x 1200 pixels - this is acceptable even though the horizontal dimension is less than the allowed maximum of 1920 pixels.
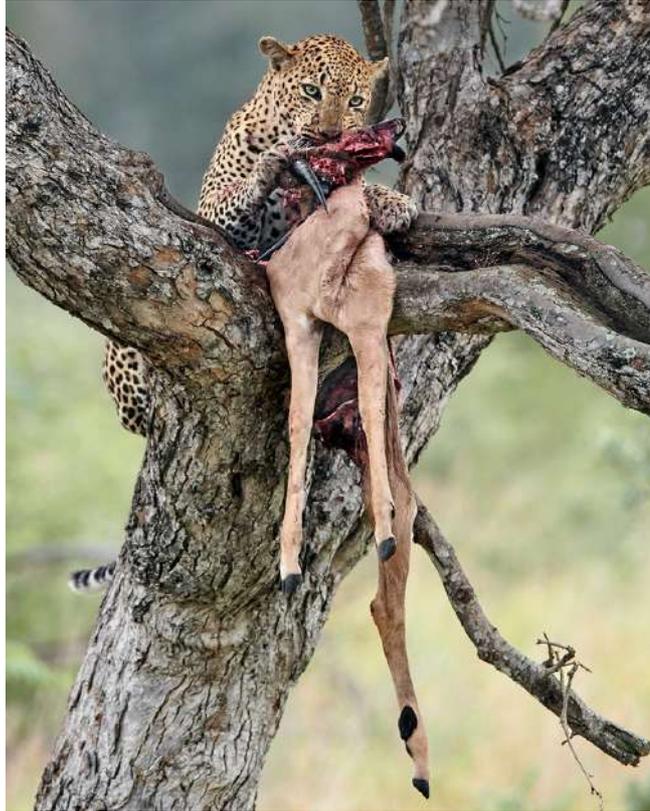
This image is 950 x 1200 pixels - this is acceptable even though the horizontal dimension is less than the allowed maximum of 1920 pixels.


This image is 1200 x 1200 pixels - this is acceptable even though the horizontal dimension is less than the allowed maximum of 1920 pixels.

Resizing Images in Photoshop CC

These notes assume you have an image open in Photoshop CC 2018 and that you have already cropped it to a ratio of 16:10 (or whatever aspect ratio you need). The screen shots are from the Mac version of Photoshop, your screen may look a little different if you are using a different version of Photoshop.
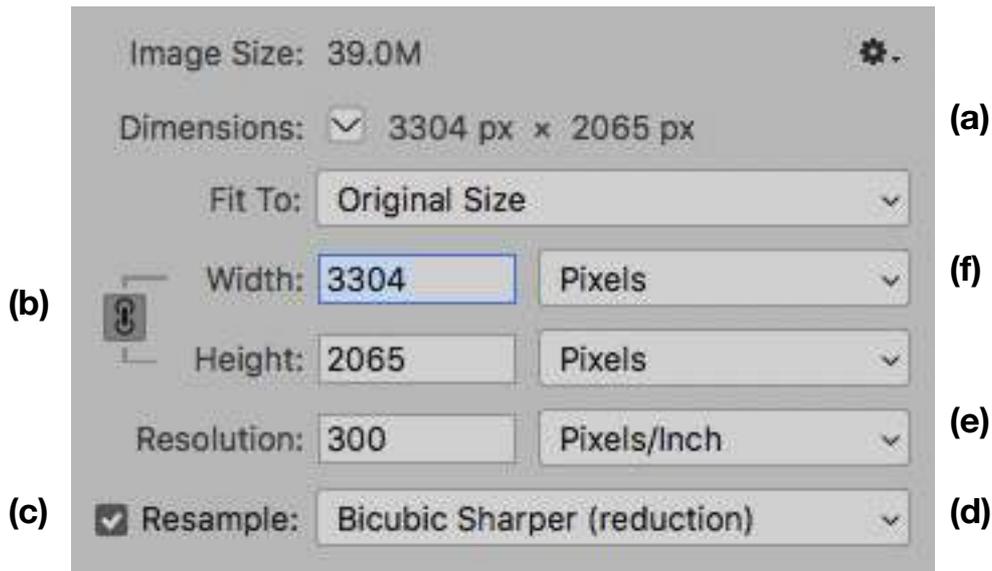
To resize the image, select **Image>Image Size** from the menu:
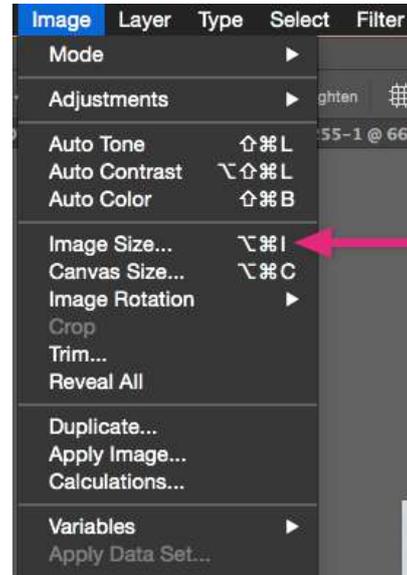
This will open the resizing window, which in **Phototshop CC 2018 on a Mac** looks like this:
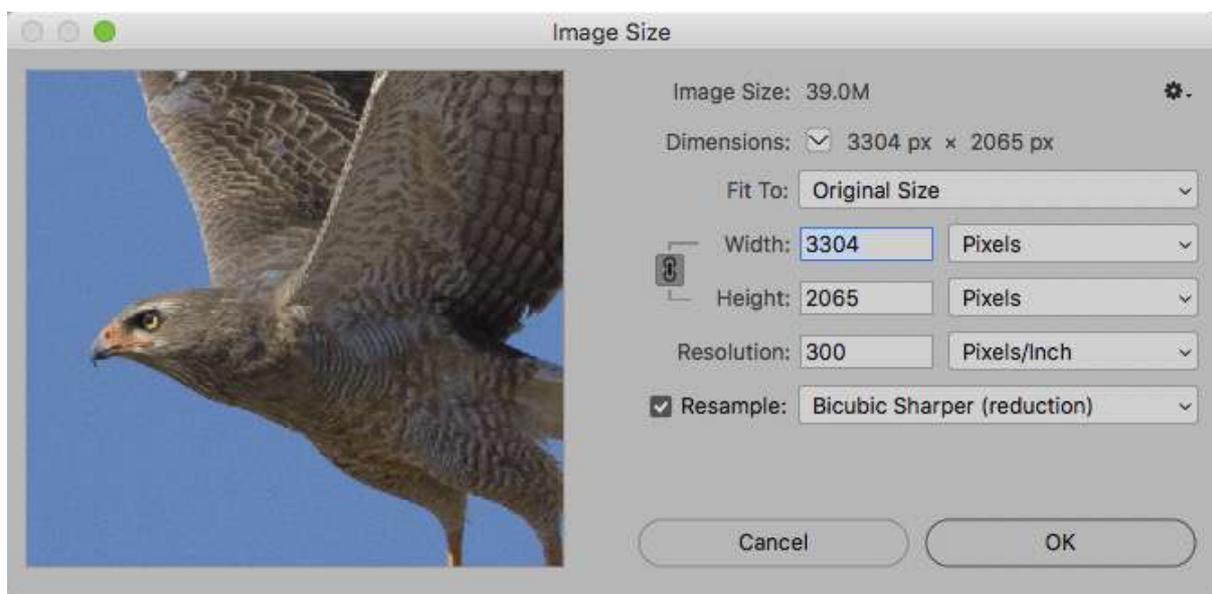
In this Image Size dialogue box you should note the following:

a) Near the top of the box the pixel dimensions in this example are shown as 3304 x 2065. These are the pixel dimensions of the image before you resize it and these figures are repeated in the Width and Height boxes.

b) There is a "link" symbol connecting the words "Width" and "Height". This tells you that Photoshop will change both the width and height of the image if you type a new value in *either* one of those boxes. This means that the aspect ratio will not change as you resize the image. **This is very important**. If you click on this link symbol it will disappear and you must NOT do that or the resizing will distort your image. [In earlier versions of Photoshop you had to tick a box called "Constrain Proportions" so that the aspect ratio would not change.]

c) You need to tick the Resample box so that you can select 'Pixels' in the boxes to the right of the Width and Height. If you do not tick this box the 'Pixels" option will be greyed out.

d) In the Resample box you can select from a number of options - the "Bicubic Sharper" option is generally the best when you are reducing the pixel size of your image.

e) When preparing digital images (rather than prints) you can ignore the "Resolution" setting. This will make no difference at all to the way you image appears on screen or when projected. It will also make no difference to the file size when you save the image.

f) Now all you need to do is type the required pixel dimension in the box for *either* Width or Height. The other dimension will change automatically. Check that both dimensions are within the allowed maximum (Width 1920 or less and Height 1200 or less in this example) and click on the OK button at the bottom of the Image Size dialogue box.

Note that opposite "Fit To" in the Image Size dialogue box above it says "Original Size". You can ignore this. As soon as you type "1920" into the Width box (**or** 1200 into the Height box) the "Fit To" message will change to "Custom". Just make sure that the dimensions are shown in "Pixels", not cm or inches or something else.

A tip for saving time:

The settings you created with the instructions above can be saved as a preset. This is easy to do. Before you save the resized image, click on the arrow beside the word "Custom" and from the dropdown menu select "Save Preset".

Next time you want to resize an image to 1920x1200 pixels you can select this preset instead of typing in the width or height. It will prevent you from making mistakes such as resizing to 1200x1920 instead of the correct 1920x1200.

SAVING IMAGES FOR COMPETITIONS

After you have resized your image to the correct pixel dimensions you need to save the file in a format that is ready for uploading to a competition. In Photoshop this involves the following steps:

a) convert the image to the sRGB colour space if it is not already in that colour space

b) convert the image to 8-bit if you have been editing it as a 16-bit file.

c) save the image as a JPEG file with an appropriate file name

d) make sure the saved file is less than 2MB (file size)

e) save the file in a location that you have set aside for your competition files.

The first step, converting to the sRGB colour space must be done BEFORE you attempt to save the file.

From the Photoshop menu select **Edit>Convert to Profile**.

Make sure you select "Convert to profile" and *not* "Assign Profile".

If you are wondering why you need to do this, the answer is fairly simple. Regardless of whether the competition you are entering will display the images on a computer monitor or through a digital projector the files need to be in the sRGB colour space to display your colours accurately. The files from your camera may or may not be in the sRGB colour space. Also, if you are saving RAW files in your camera, the RAW conversion process in Adobe Camera RAW or Lightroom or whatever RAW converter you are using may be set to produce files in a different colour space.

When you select "Convert to Profile" from the Photoshop menu it will open a window similar to this:
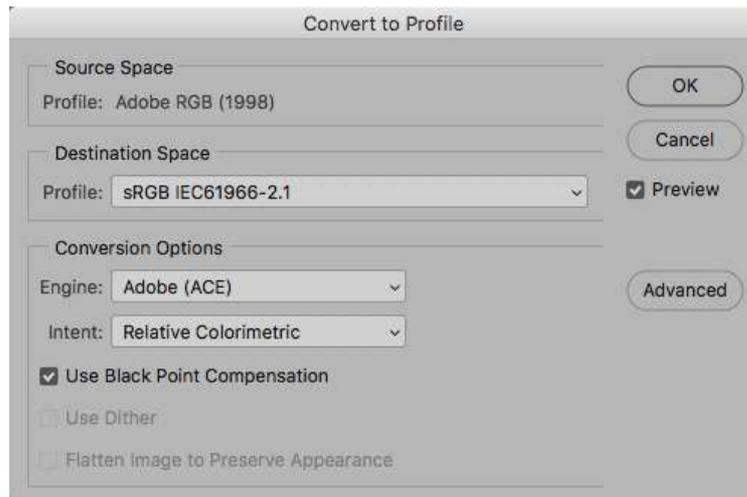
In the Source Space it shows the current profile (Adobe RGB in this example). If this already shows sRGB you can click "Cancel". Otherwise go to the Destination Space section and, if it does not already show sRGB then click on the small arrow and select sRGB from the dropdown list. (Note: it will probably show sRGB IEC61966-2.1 and that is what you want.)

The Conversion Options should be the same as those shown above; if not, select those options from the dropdown lists. Then press OK.

The file is now ready to save.

From the main menu, select **File>Save As** and navigate to the folder/directory in which you want to save the image. This opens a dialogue window that will look like this (on a Mcc) and a bit different on a Windows computer:
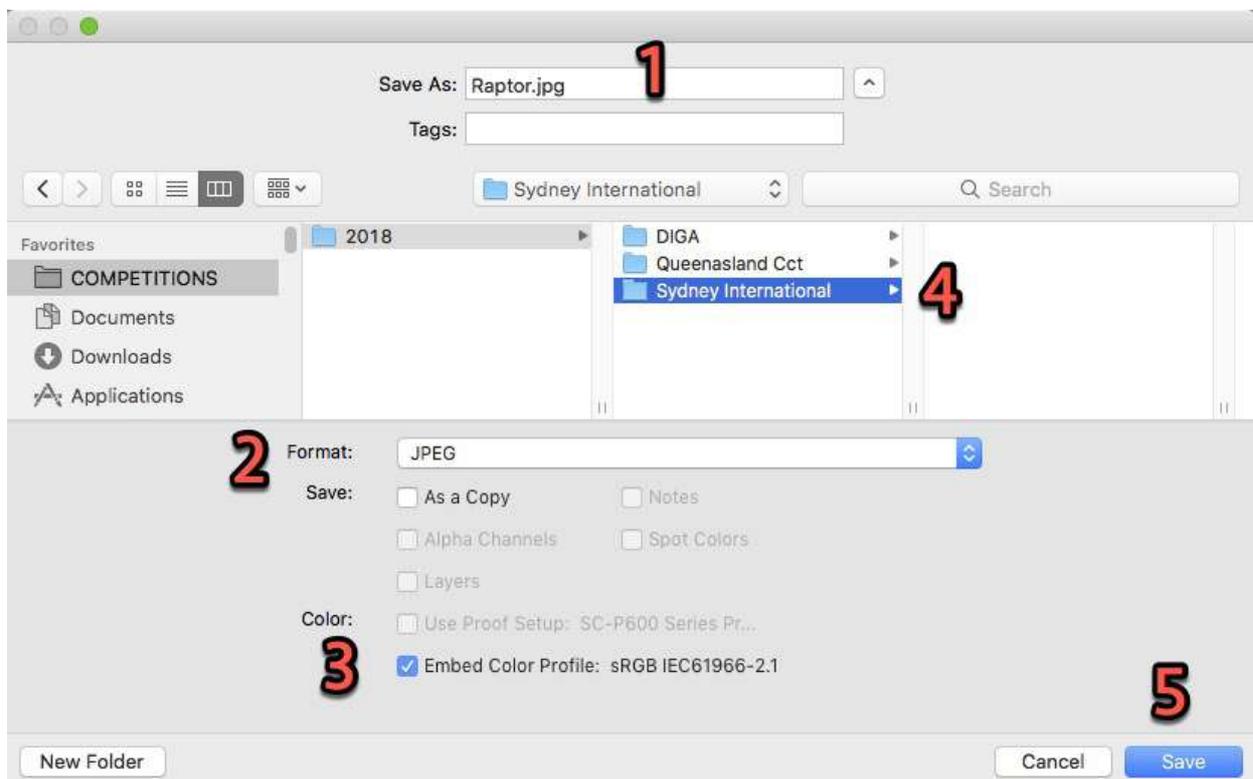
You need to do five things:

1. Type the name of the file (same as your image title) in the box next to "Save As".
2. Select JPEG from the "Format" drop down list.
3. Make sure there is a tick in the "Embed Colour Profile" check box.
4. Make sure you have navigated to the folder where you want to save the file.
5. Click on "Save".

This will bring up a "JPEG Options" dialogue box similar to the following:
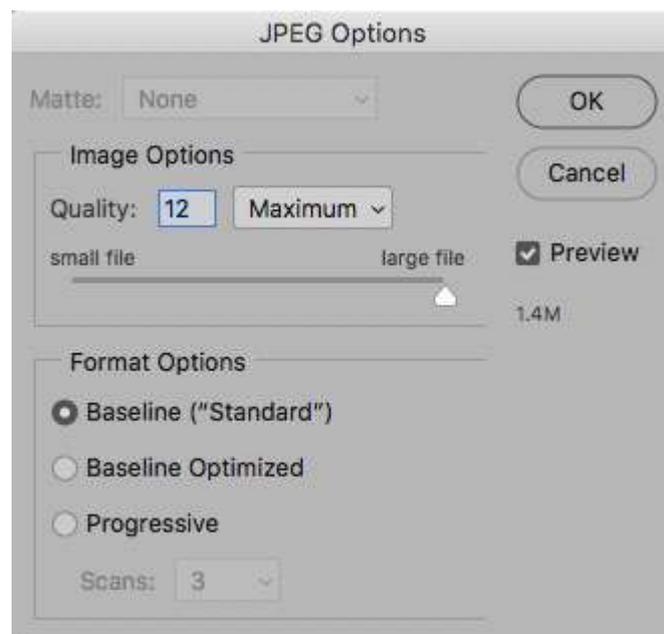
If the tick in the "Preview" box then the approximate size of the saved file will be shown - 1.4MB in this example.

If the file size is larger than the maximum specified by the exhibition you can reduce the file size by moving the slider or by typing a number less that 12 in the Quality box or by using the down arrow key on your keyboard.

When the size is less than the maximum permitted, click on OK and the file will be saved.
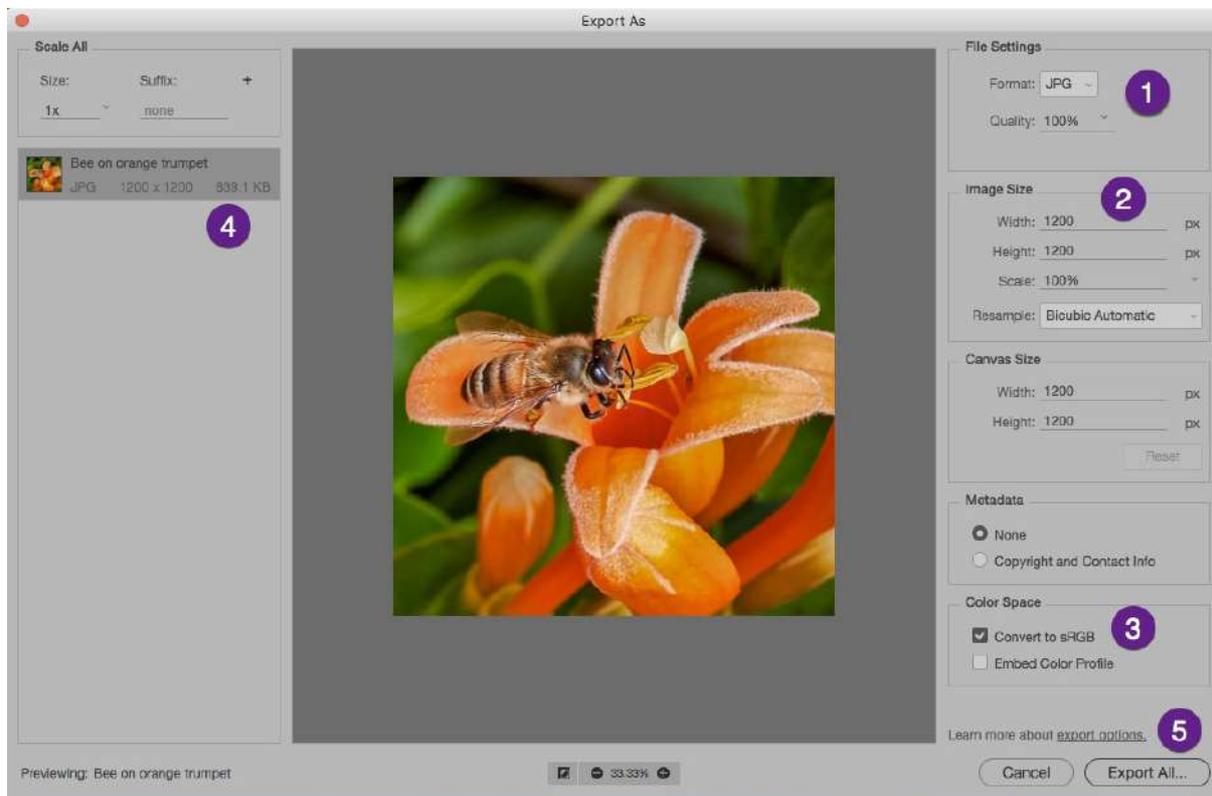
On a Windows computer, the dialogues that appears when you are saving the image will be different, but the principle is the same. You need to check that the file size is less than the maximum that is permitted and, if necessary, you have to reduce the quality of the JPEG file to fit within that limit.

After you have saved your files, always check that the pixel dimensions and file size are within the specified maximum limits before you try to upload the images to an exhibition.

An Alternative Way to Resize and Save Files in Photoshop

Some people prefer to use the Export function for resizing and saving files in Photoshop. Here are the steps to follow after you have finished editing your image:

From the menu select File>Export>Export As. This wall open the Export dialogue window:

(1) Select JPG as the Format.
(2) Type the required Width or Height (the aspect ration will not change).
(3) Tick the 'Convert to sRGB' box.
(4) Check the file size. If it is greater that the maximum allowed (2 MB in the examples I have been using) go back to the top right hand corner of the dialogue box and reduce the "Quality" until the size is below the maximum allowed.
(5) Click on the 'Export As' button. This will allow you to give the file an appropriate name and navigate to where you want to save the file.

Resizing Images in Lightroom CC

These notes assume you have an image open in Lightroom CC and that you have cropped it to the required aspect ration (16:10) in this example.

In LIghtroom, the two steps of resizing an image and saving it to a folder ready for uploading to an exhibition are both done during the EXPORT process. These are the steps:

1. Select the image in the Library module and either click on the Export button or go to the menu and select File>Export. This will open the Export dialogue window that looks like this:
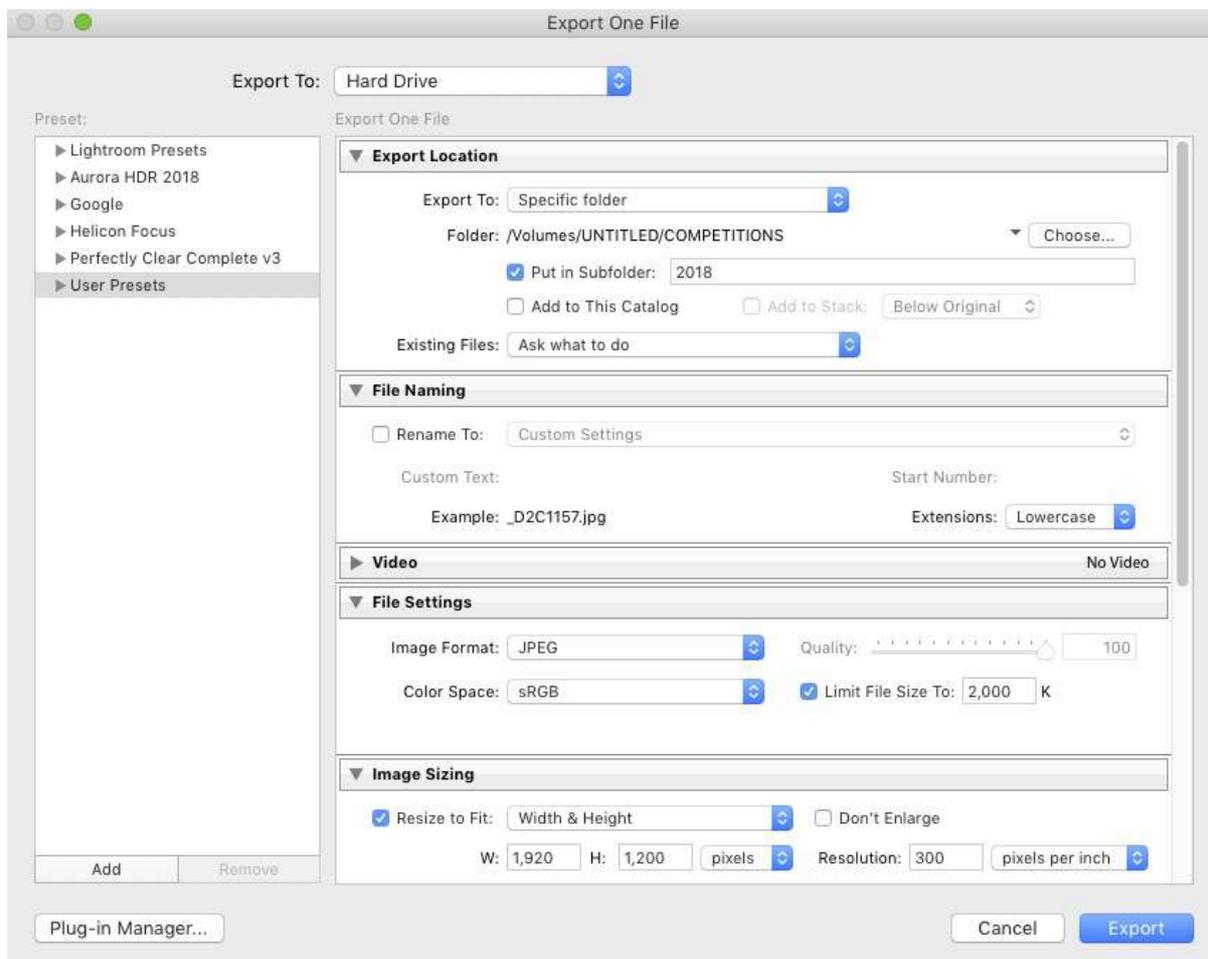
2. Select the Export Location - the folder where you want to save the image ready for uploading to the exhibition. To do this you need to select "Specific Folder" from the "Export to" drop down list and then click on the "Choose" button to navigate to the folder where you want to save the images.

3. Select "Ask what to do" from the "Existing files" drop down list so that you will be prompted to choose what to do if a file with the same name already exists in the Export Location.

4. In the "File Naming" section you have the option to rename the file as it is exported, or you can save it with the existing name.

5. In the "File Settings" section select "JPEG" as the File Format and select "sRGB" as the "Color Space".

6. Put a tick in the "Limit File Size To" box and type in the maximum file size that the exhibition permits (2,000 KB or 2MB in this example).

7. In the "Image Sizing" section put a tick next to "Resize to Fit" and from the drop down list select "Width and Height".

8. Type the maximum Width (1920 pixels in this example) and the maximum height (1200 pixels in this example). Lightroom will preserve the aspect ratio of your image if one of the dimensions of your image is less that the specified maximum.

9. It does not matter what number you put in the "Resolution" box - it will make no difference to how your image appears on screen.

10. Click on the "Export" button.

There are some other options in the Export dialogue box that I have not shown above. One is "Output Sharpening" - I prefer to turn this off and do whatever sharpening is necessary before I export the image. Another option is to include specify metadata (such as copyright information).

A tip for saving time:

The settings you created with the instructions above can be saved as a preset. This is easy to do. Before you export the file, click on the "Add" button at the bottom left of the dialogue box. This brings up a small window in which you can give your preset a name and nominate where it will be saved.

In this example I have called the preset "1920x1200 2M" to indicate the maximum pixel size and maximum file size that it will produce. I have also nominated to save it in my "User Presets" folder which you can see in the left hand column of the Export dialogue box on the previous page.


Next time you want to resize an image to fit within maximum values of 1920x1200 pixels you can select this preset instead of typing in all the information in the Export dialogue.

Resizing Images in Luminar

These notes assume you have an image open in Luminar and that you have edited it, saved a copy and cropped it to the required aspect ration (16:10 in this example).

In Luminar, the two steps of resizing an image and saving it to a folder ready for uploading to an exhibition are both done during the EXPORT process. Do NOT use the "Save" function at this point because this will save your file in the native Luminar format (not JPEG). These are the steps for exporting your file:

1. From the menu select File>Export:
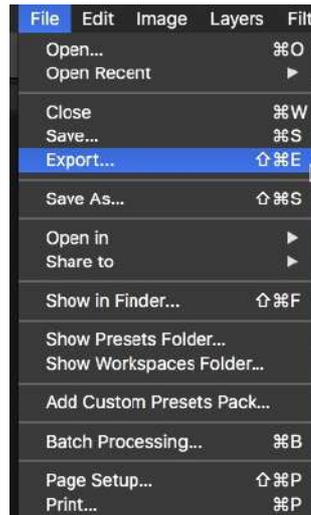
2. When the export dialogue appears:
   ★ Enter the file name
   ★ Select the destination where you want to save the file.
   ★ Select "Dimensions" in the "Resize" box.
   ★ Enter the maximum pixel sizes (1920 x 1200 in this example).
   ★ Select the "sRGB" colour space.
   ★ Select "JPEG" format.
   ★ Set the "Quality" to "High".
   ★ Click on "Save"
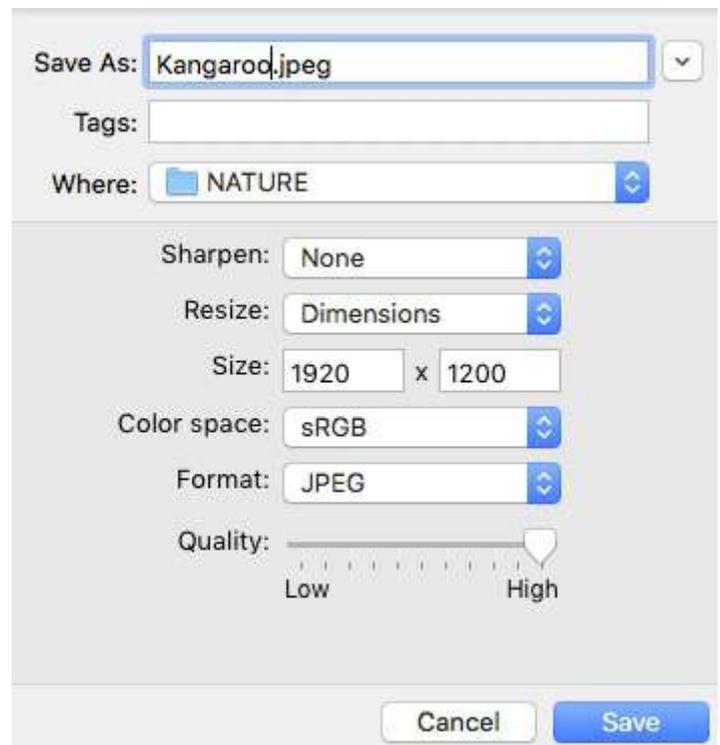
You will now have to check in a file browser to make sure that the file size is less than the maximum allowed by the exhibition (2MB for example) because Luminar

does not display this information and it does not allow you to set a limit on the size of the exported file. If the file size is too large, move the "Quality" slider a little to the left and export the file again. You will probably find that a small movement of the slider will make a large difference to the size of the file.

Please email me if you find any errors in these notes or if you want to suggest ways in which they could be improved.

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