

RESIZING IMAGES FOR PROJECTION ON THE CLUB PROJECTOR

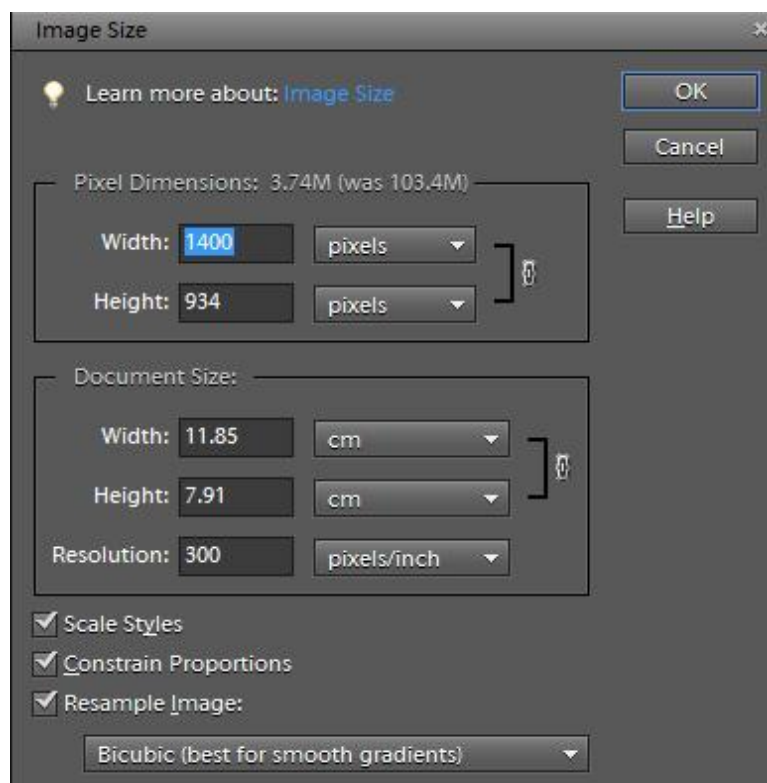
The club's digital projector has a resolution of 1400x1050 pixels, and digital images will project at their best if they match the projector pixel for pixel.

At any other size, the image will have to be interpolated by the computer in a non-predictable way, and could result in the image appearing less than sharp.

There are several methods for resizing images, depending on the application. First, save your original image with a new name.

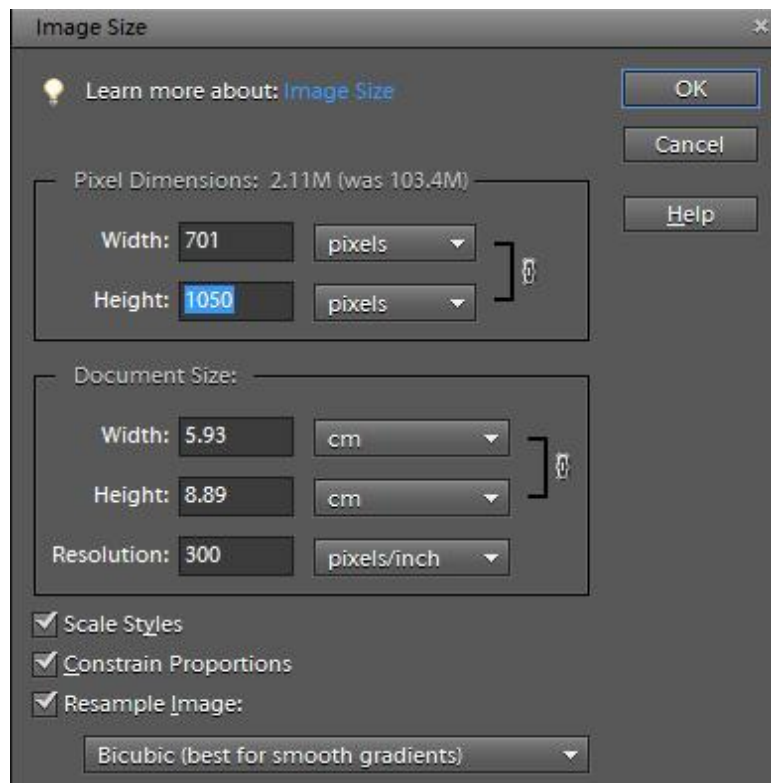
In Photoshop Elements:

Go to *Image>Resize>Image Size*. This brings up the following dialog box (for a landscape image):

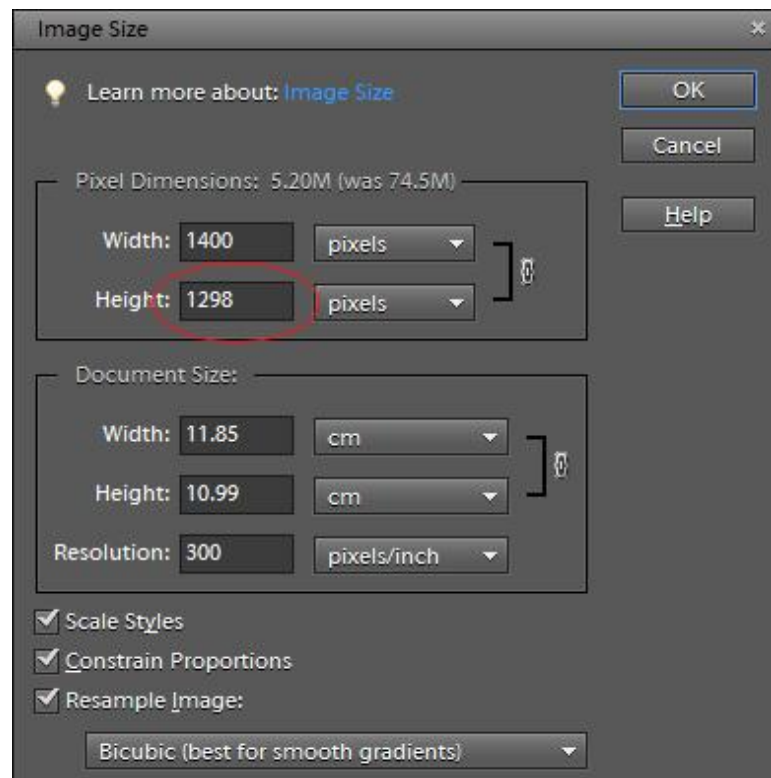


Check *Constrain Proportions* and *Resample Image*, as shown, and select *Bicubic* from the drop-down box. Select *pixels* in the drop-down box. Enter 1400 as shown in the *Width* box. Ensure that the number shown in the *Height* box is less than 1050 and click OK. (Note: *Scale Styles* only applies if you have applied a style, such as a drop shadow or a bevel, for example. Normally, it has no effect, and can be either checked or unchecked.)

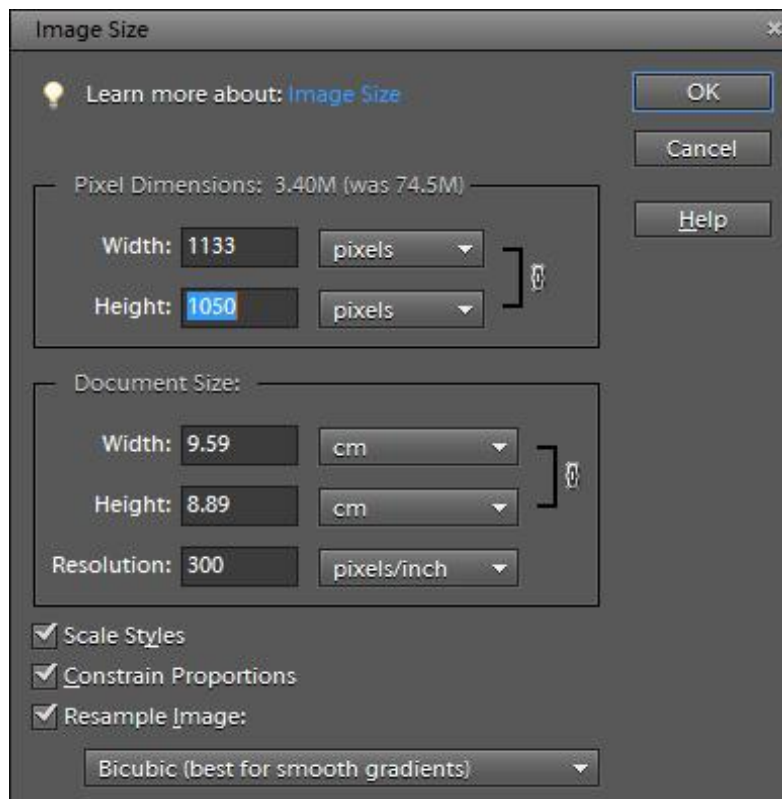
For a portrait image, the dialog box may look like this, and 1050 should be entered in the *Height* box:



If 1400 is entered in the *Width* box and the number shown in the *Height* box is greater than 1050, as shown in the following screenshot:



then enter 1050 into the *Height* box, as shown in the following screenshot, and click OK.

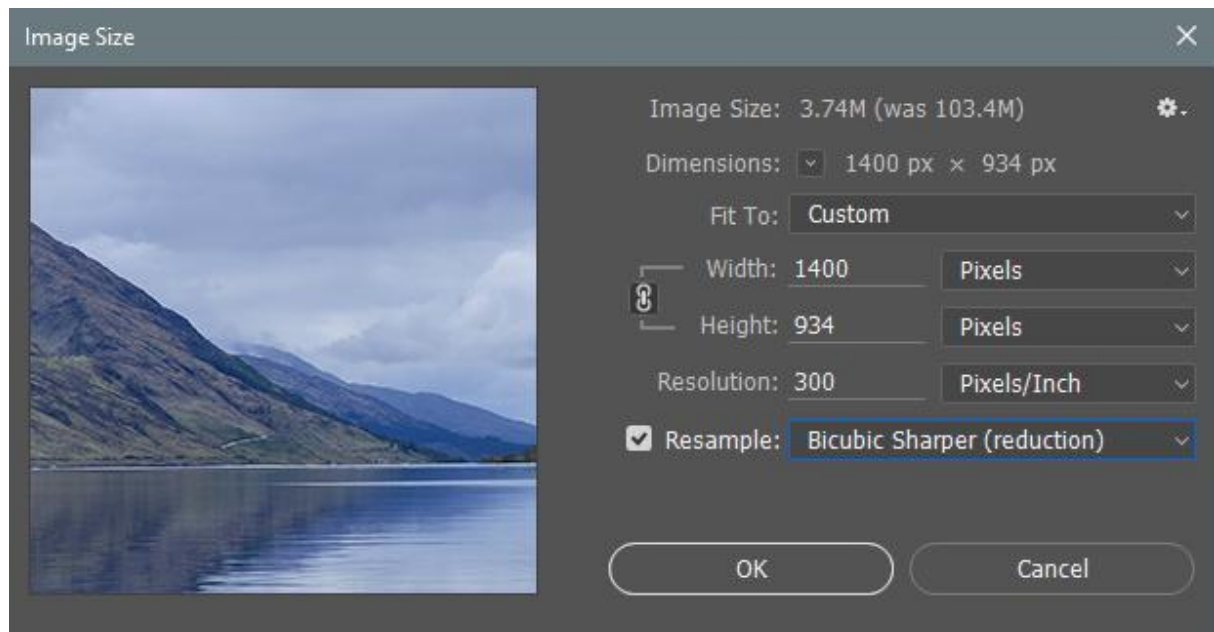


In Photoshop CC:

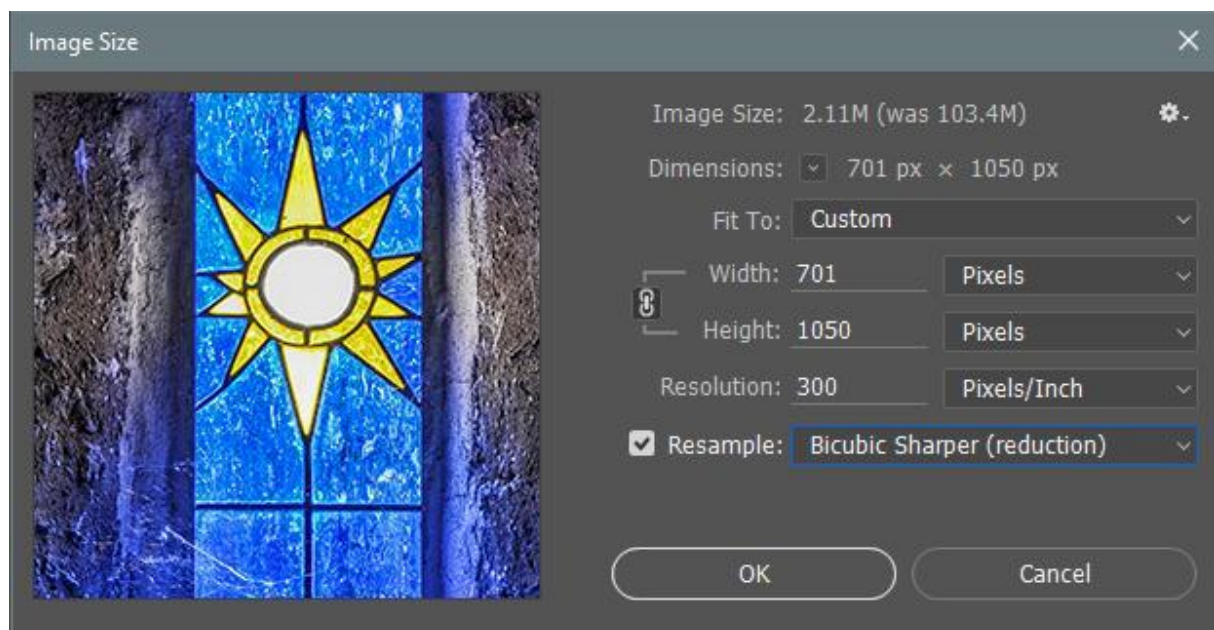
Go to *Image>Image Size*; the following dialog box opens.

Check the *Resample* box as shown, and select *Bicubic Sharper* from the drop-down box.

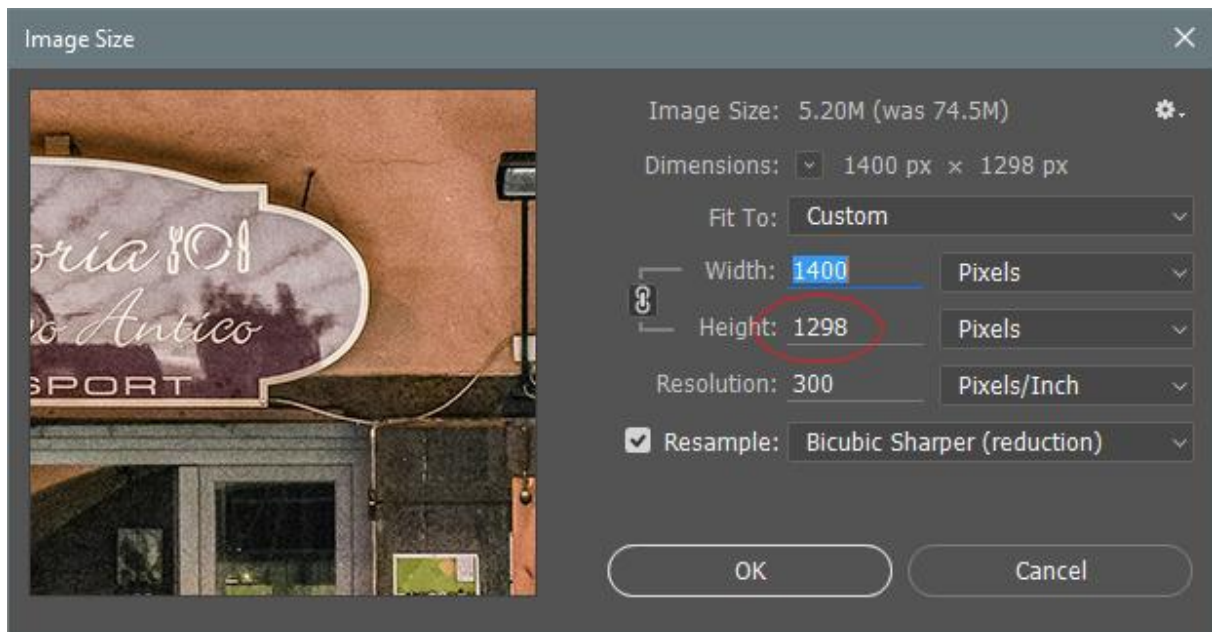
Enter 1400 in the *Width* box. The *Height* box will automatically change to keep the image proportions. Make sure that the number shown in the *Height* box is smaller than 1050. Click OK and save the image with a different filename, if you wish to keep the original.



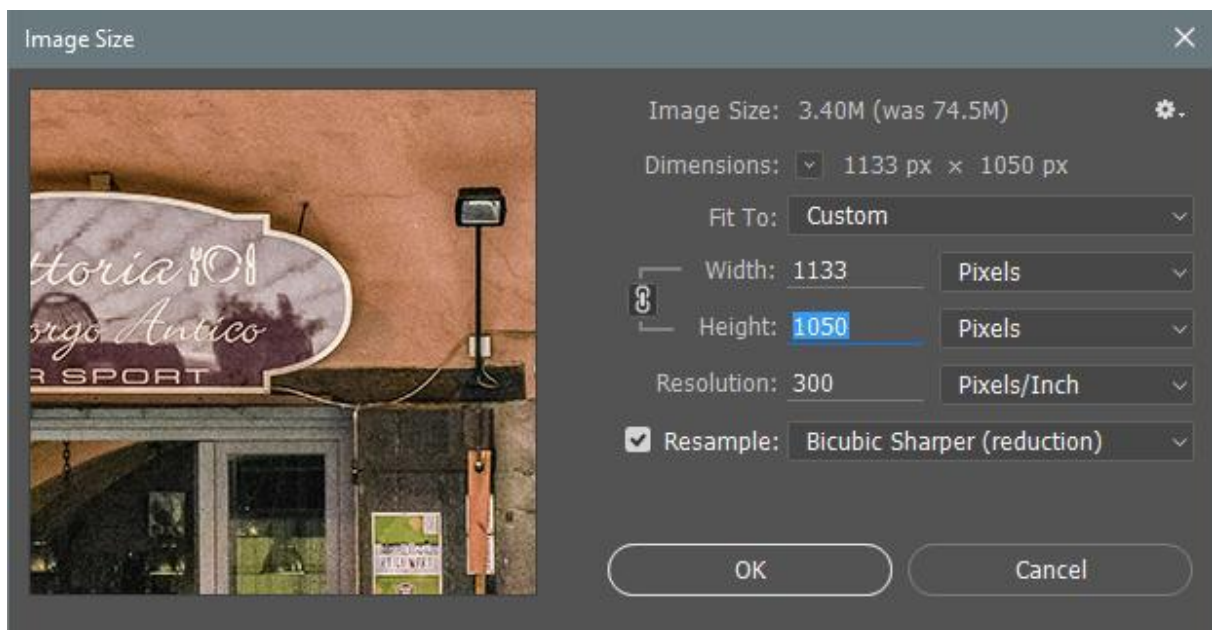
For a portrait image, enter 1050 in the *Height* box:



If the number shown in the *Height* box is larger than 1050, as shown in the following screenshot,

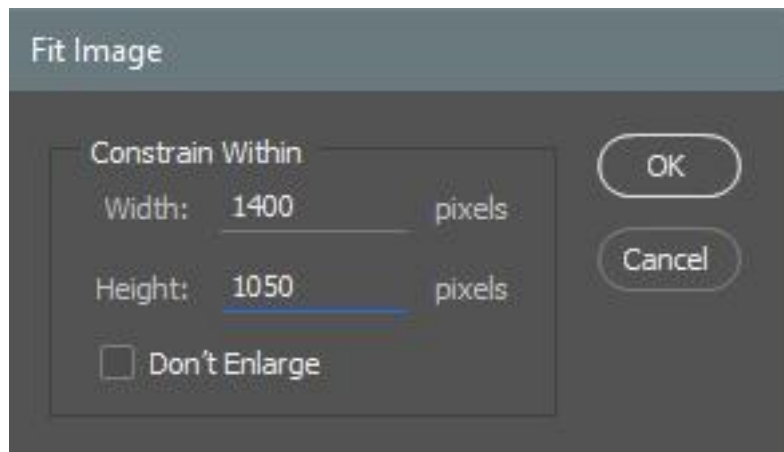


then enter 1050 into the *Height* box, as shown below, and the *Width* box will automatically change to keep the image proportions:



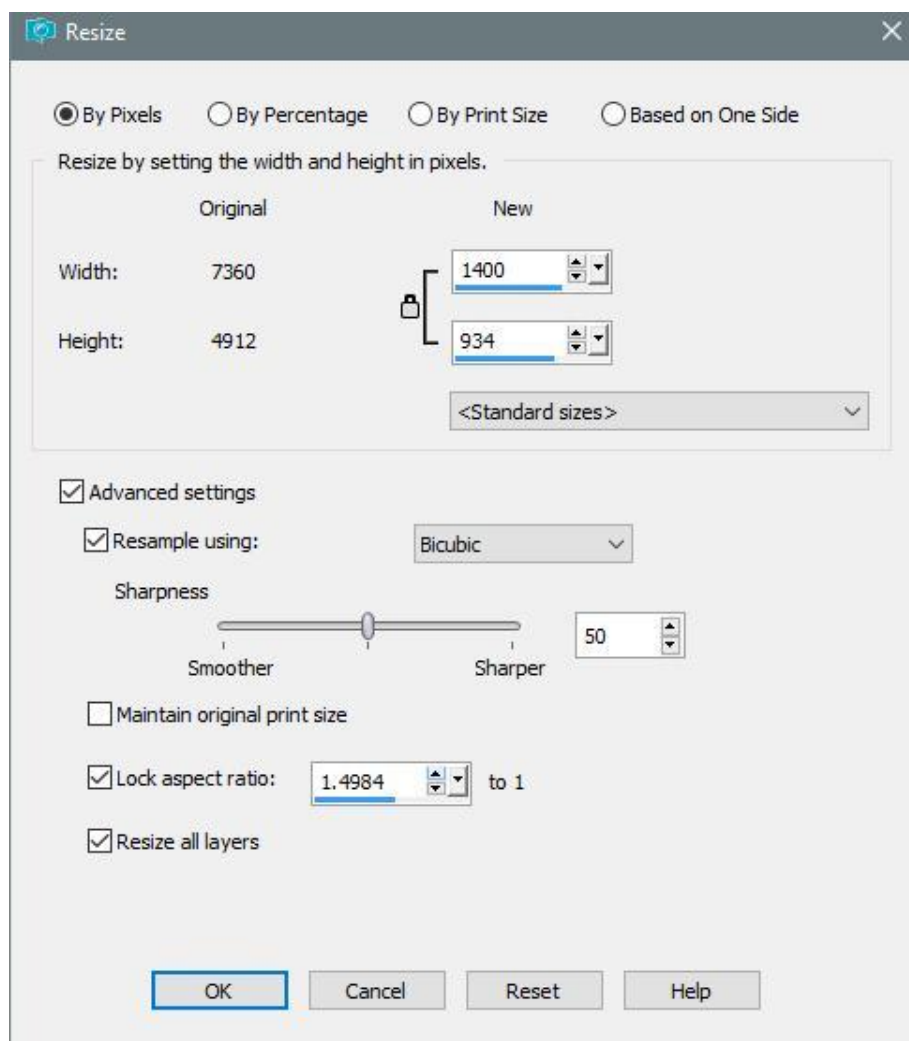
An easier method in Photoshop:

Go to *File>Automate>Fit Image*. This brings up the following dialog box asking for the maximum pixel dimensions within which the image is to be constrained. Enter 1400 for *Width* and 1050 for *Height*, as shown, click OK and the image will automatically be resized to within these limits.



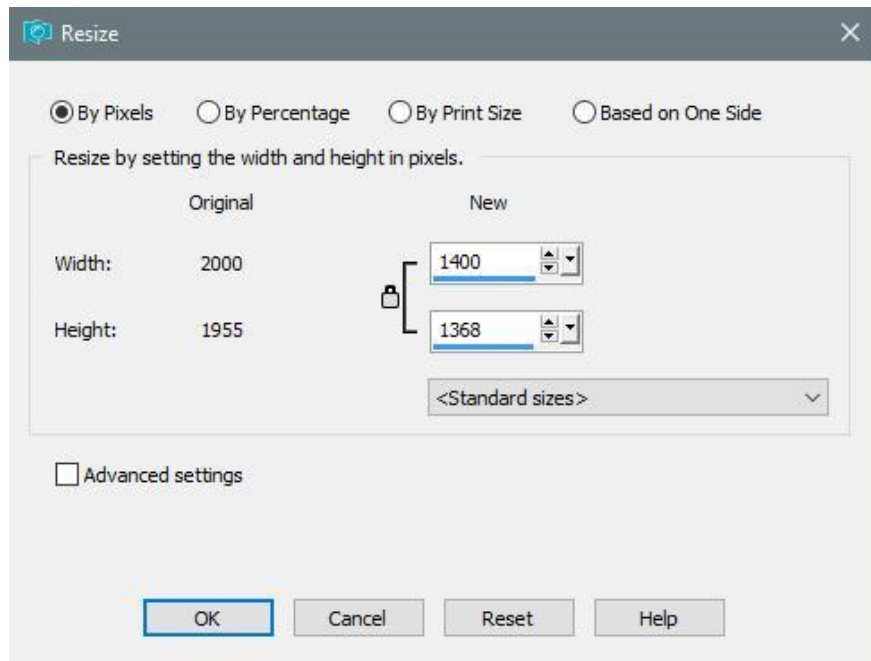
In Paint Shop Pro:

Go to *Image>Resize*. The following dialog box opens:

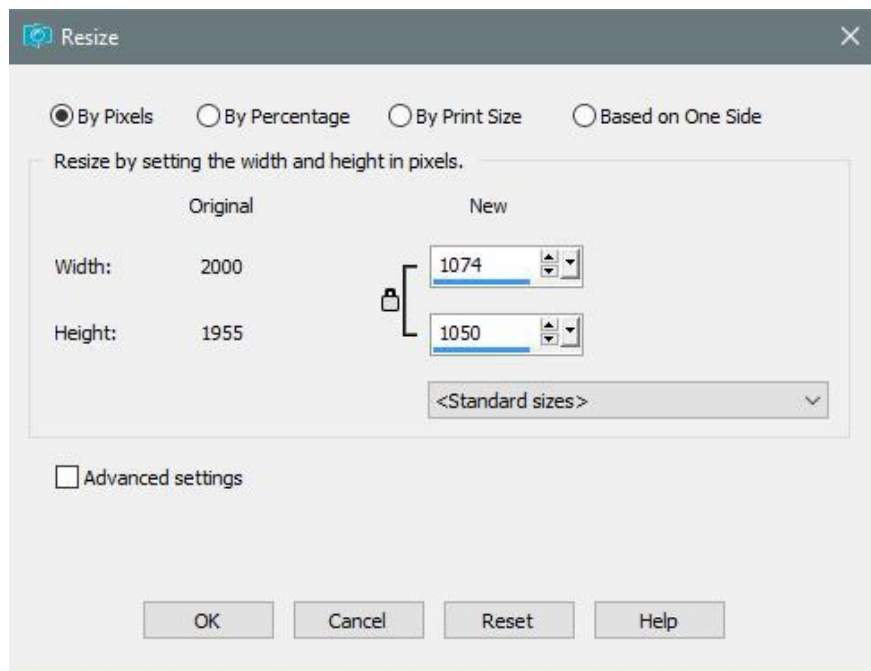


Check the *Pixels* button at the top. Here, the *Advanced settings* box has been checked, which opens the lower dialog box. Ensure that the *Resample* and *Lock aspect ratio* boxes are checked, and select *Bicubic* in the drop-down menu box. For a landscape image, enter 1400 in the *New Width* box and hit *OK*.

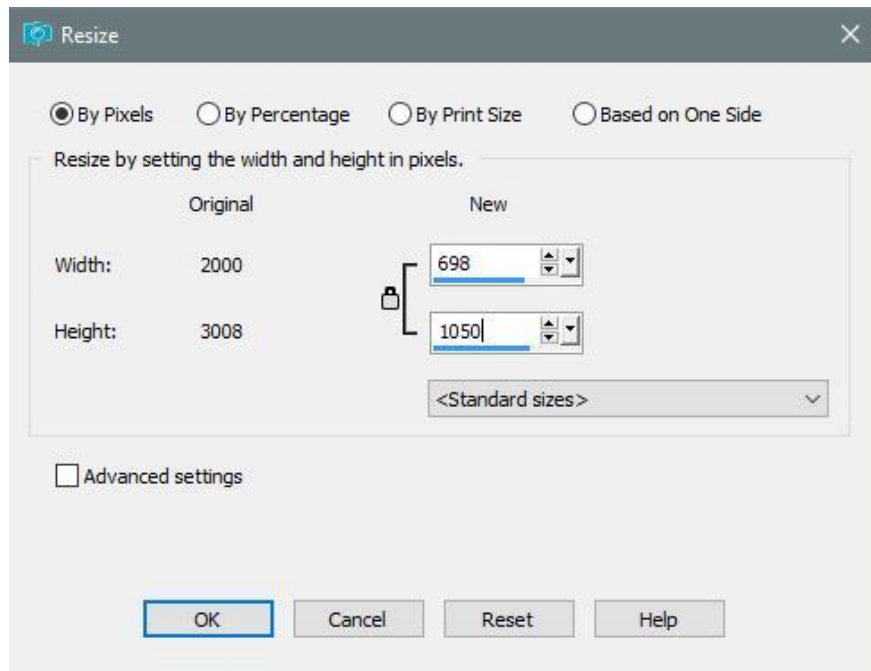
If the *Height* box shows a number greater than 1050, as shown in the following screenshot:



then enter 1050 in the *Height* box, as shown in the following screenshot:



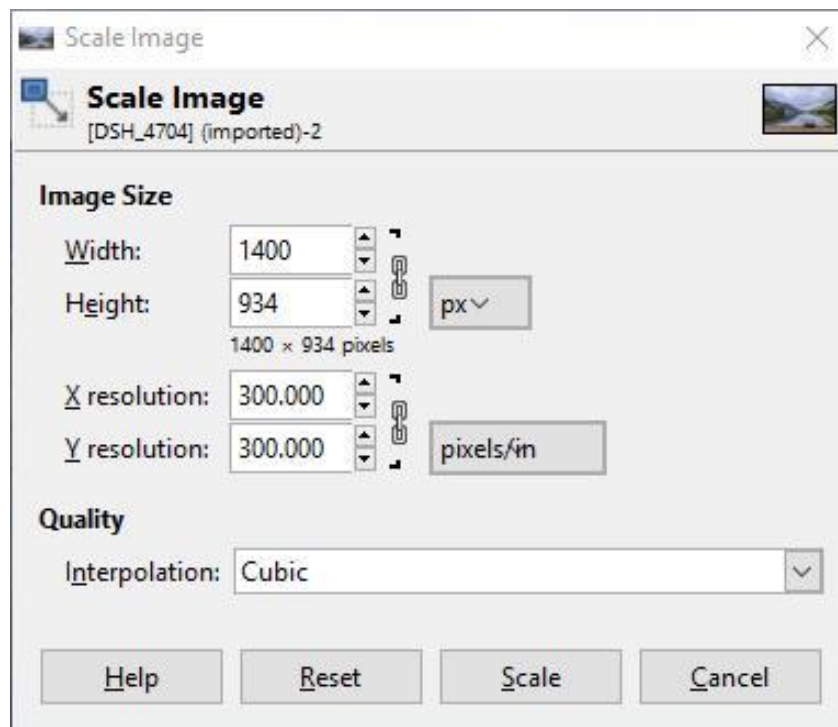
Similarly, for a portrait image, enter 1050 in the *New Height* box:



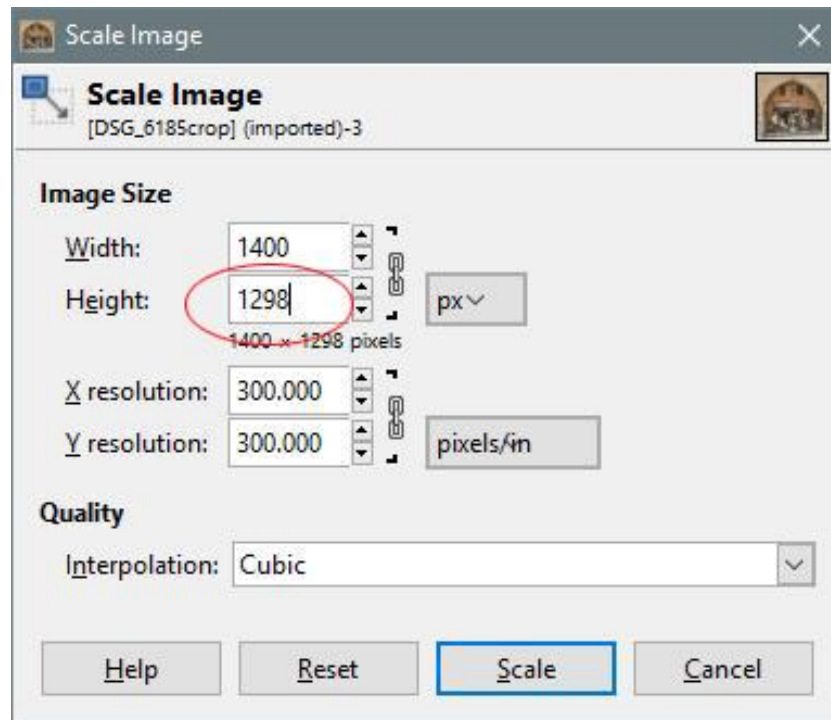
The *Width* box will automatically change to maintain the image proportions. Click OK and save the resized image with a different filename, if you wish to keep the original.

In Gimp:

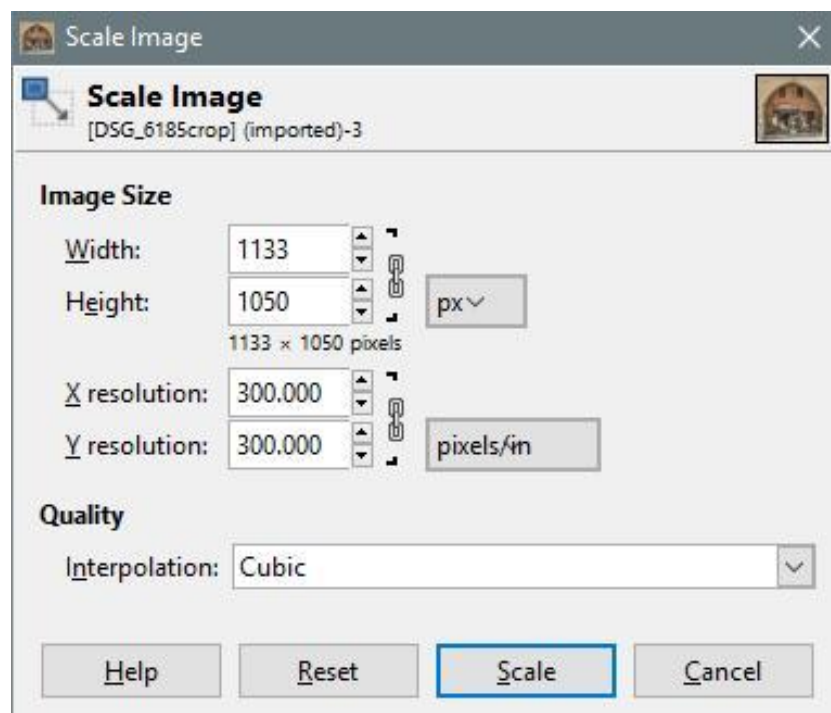
Go to Image>Scale Image. The following dialog box will open:



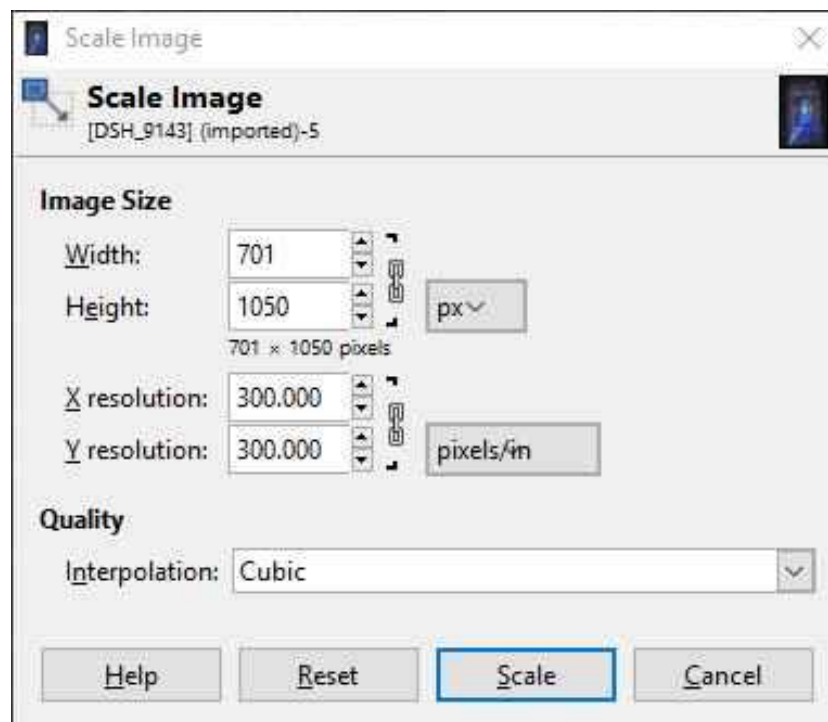
Set units to pixels (px) and *Interpolation* to *Cubic*. For landscape images, enter 1400 in the *Width* box and click on the *Height* box. The *Height* box will automatically scale to maintain image proportions. If the number in the *Height* box is larger than 1050, as shown below:



click on the *Reset* button and enter 1050 in the *Height* box, as shown below and click on the chain link. Click on *Scale* to perform the operation.

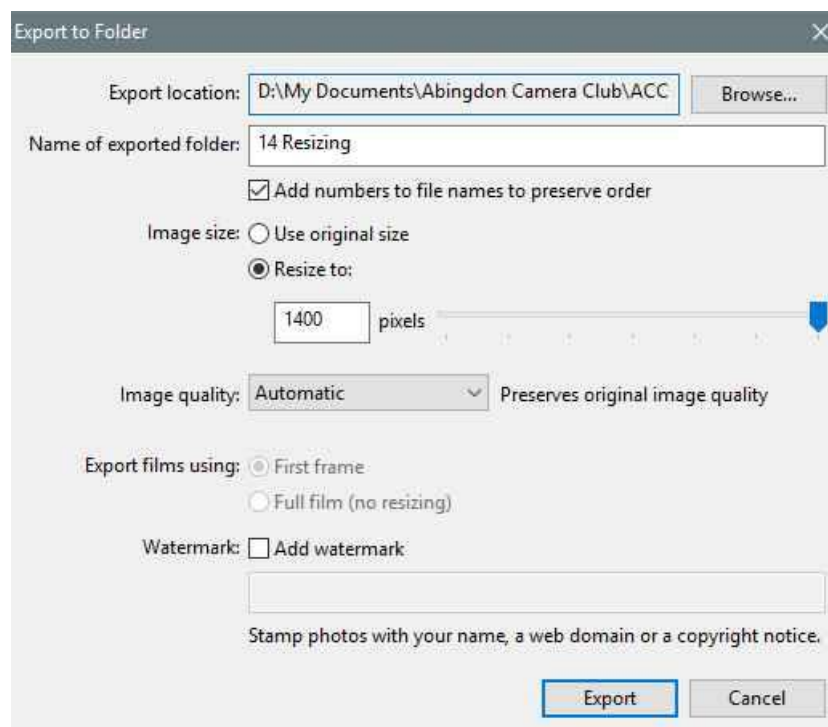


For a portrait image, enter 1050 into the *Height* box:



In Picasa:

Use the *Export Picture to Folder* option, either from the *File* menu or the icon at the bottom of the screen. The following dialog box opens:

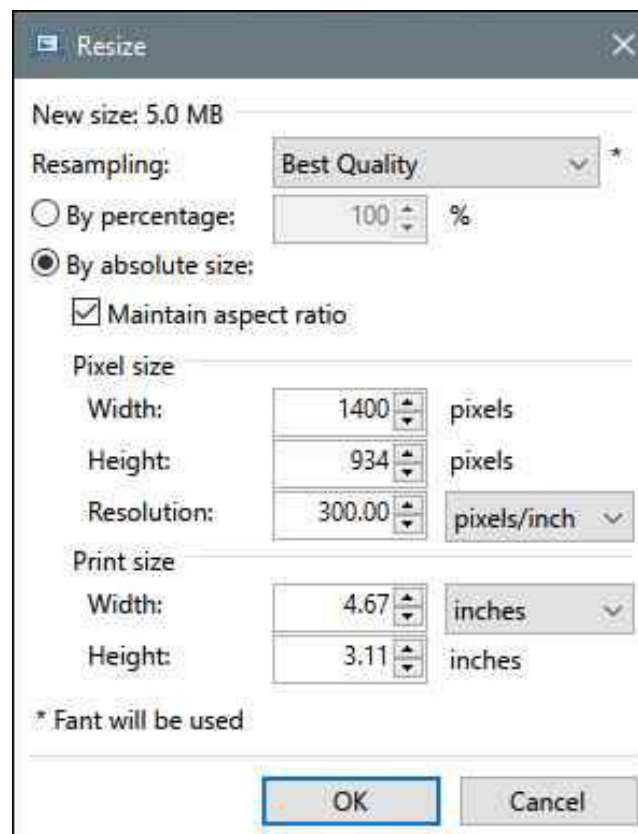


First, in *Export Location*, navigate to the folder where you want to save the resized image. If it is the same folder as the original image, Picasa will create a new subfolder for the resized image (with the same name). You can also check the *Add numbers to file name* box, to ensure no confusion arises.

In the *Image size* section, click on *Resize to:* and enter 1400 for a landscape image or 1050 for a portrait image, and click *Export*.

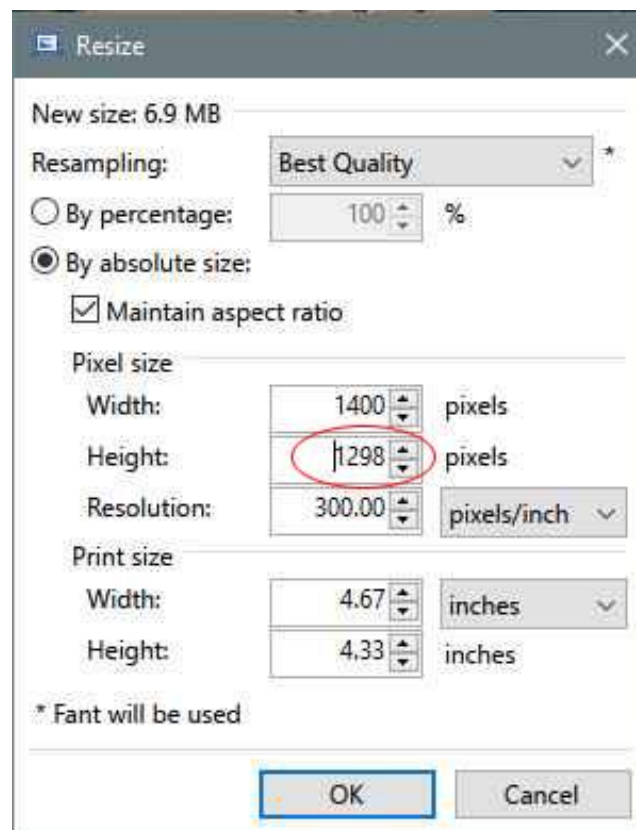
In Paint.net

For a landscape image, go to *Image>Resize* and the following dialog box opens:

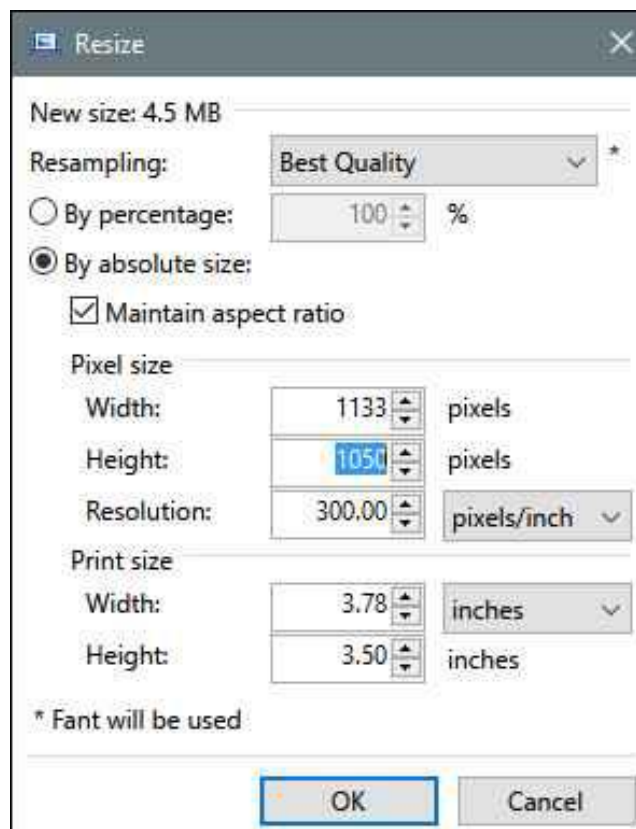


Set *Resampling* to *Best Quality*, check *By absolute size* and *Maintain aspect ratio*, and enter 1400 in the *Pixel size Width* box. Click *OK*.

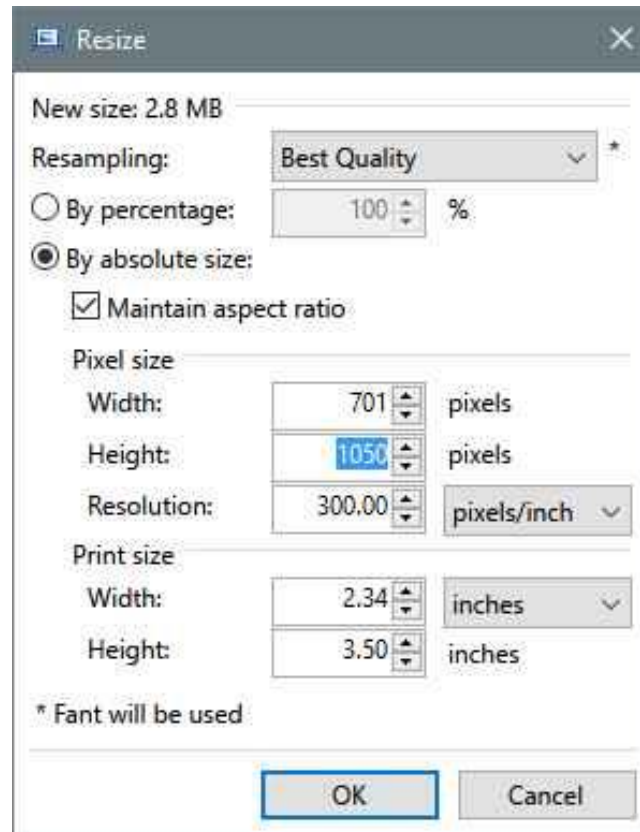
If the Height is larger than 1050, as shown below:



then enter 1050 into the *Height* box:



For a portrait image, enter 1050 in the *Pixel size Height* box:



Mac Specific Instructions:

Several of the programs listed above are also available for the Mac (e.g. Photoshop Elements and Photoshop CC). There may be some detailed differences in the appearance of windows (and keyboard short-cuts), but the procedures and options should be essentially the same. However, Apple also provides some Mac specific programs for handling photos, these are described below.

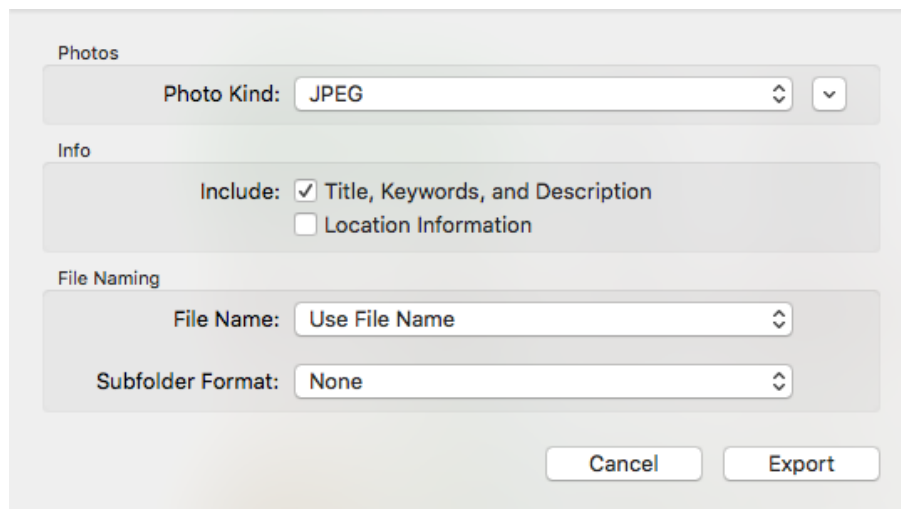
Photos (or iPhoto):

This is a photo management and editing program supplied with the most recent version of MacOS (since April 2015). Earlier versions of MacOS had a similar program called **iPhoto**, whilst there are quite a few differences between the programs resizing options are similar apart from the details of the option window – so this will be described separately below.

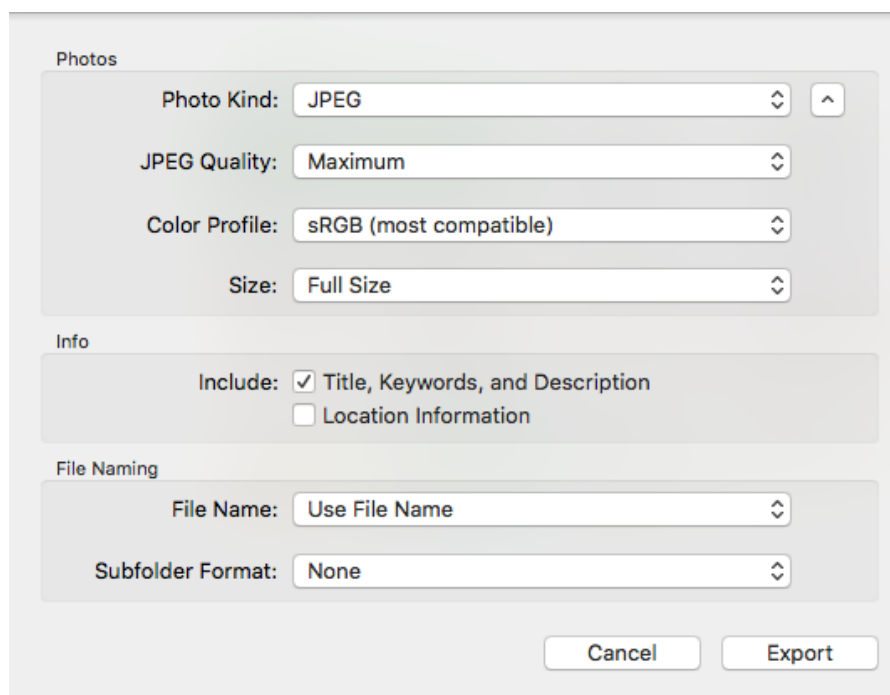
The philosophy of **Photos** is different to the other programs discussed so far – it has its own internal database of the images and when changes are made to an image it does not overwrite the original, but merely keeps a record of the changes and modifies how the image is displayed accordingly. One of the consequences of this philosophy is that there are no commands to changes the image size within **Photos**, except when the image is exported.

To export an image, including any changes you have made in **Photos**, first select the photo in the **Photos** window, then go to *File>Export>Export 1 Photo* (note if you choose *Export Original for 1 Photo* it will export the image without any of the changes made in **Photos**, but with the original image size and no option to change it! Generally only useful if you plan to use a different photo editing program)

A window will open with various options for the exported image. The first time you use the command it will probably not show all of the options and will look like:

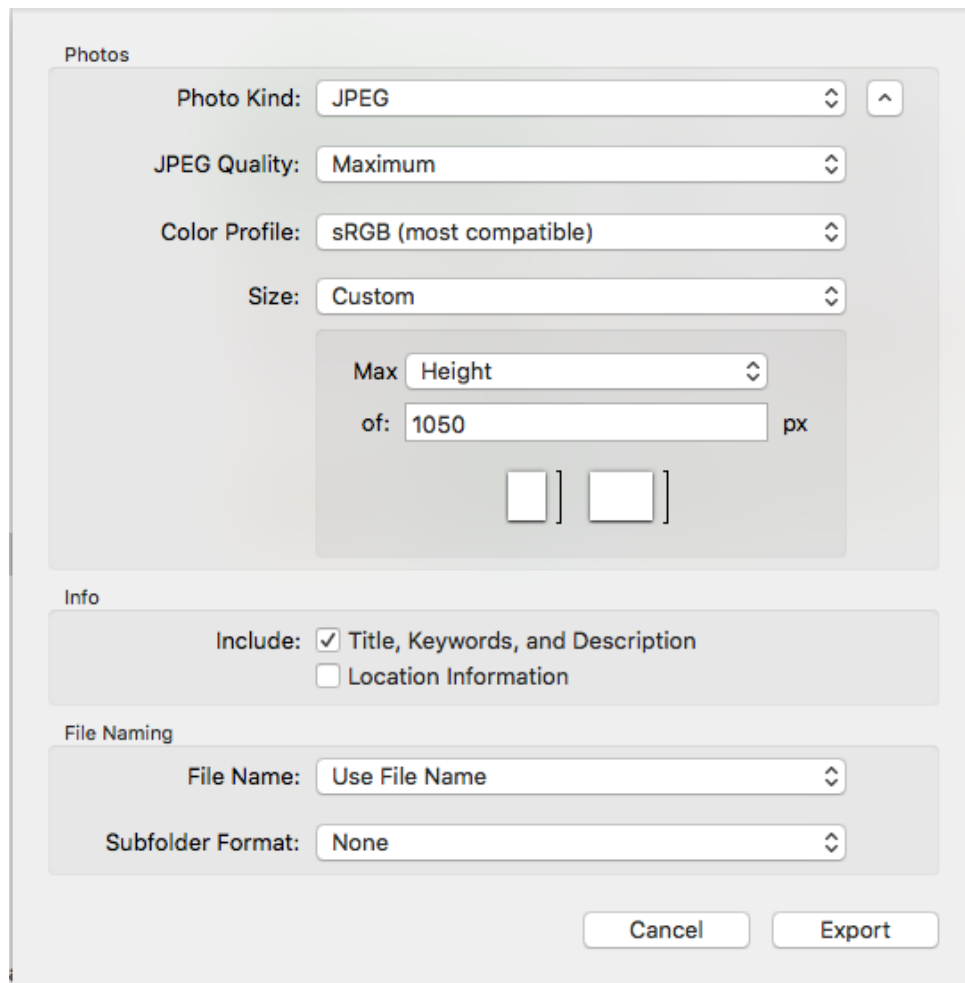


In this case simply click on the little box with a 'v' in the top right corner (next to the Photo Kind option box) and the window should change to something like:



The Photo Kind should be set to JPEG, the JPEG Quality to Maximum or High and the Size to Custom (there is also an option to change the colour profile used if you wish).

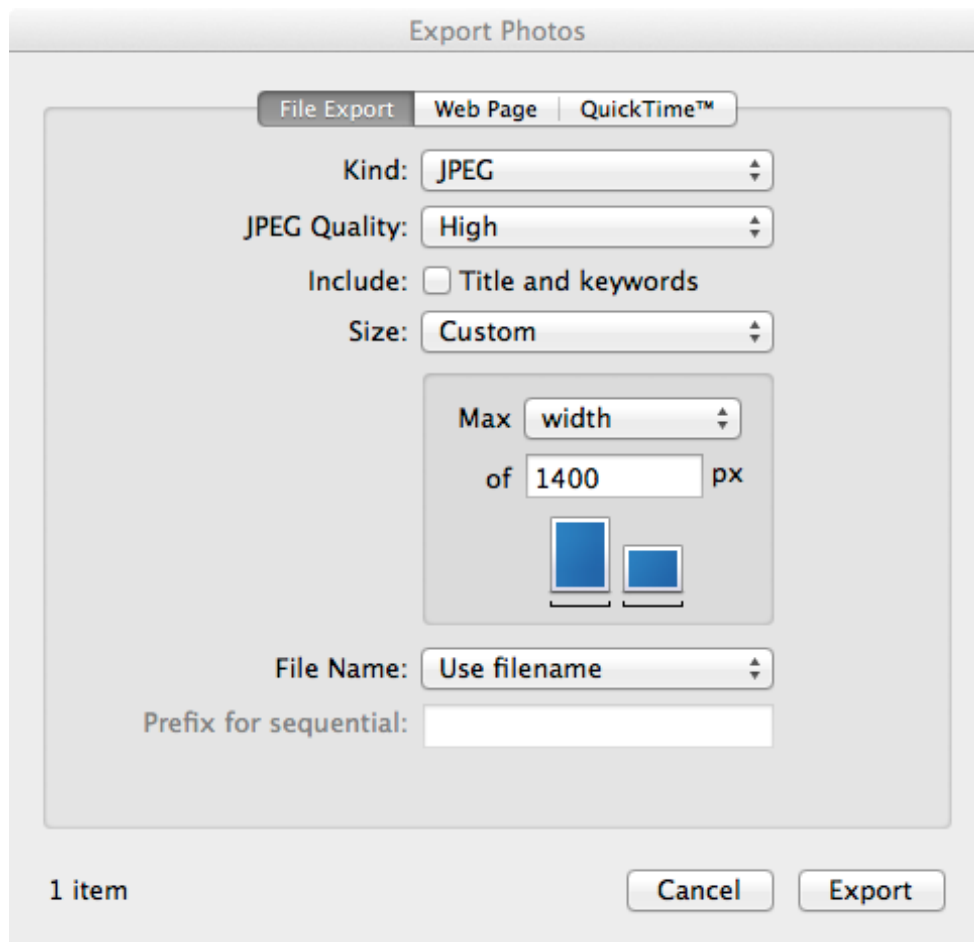
At this point the window should now look like:



You can now set either the Max Height or the Max width to a given number of pixels – so either choose Max Width of 1400 or Max height of 1050 as appropriate. (Note the resizing will not increase the size of the image, but will reduce it if the image is larger than the size specified.) Pixels are always resampled, but there are no options for the resampling algorithm to be used or to change the aspect ration of the image. Once you are happy with the settings click on the Export box and the Window will change to allow you to select where the exported image will be saved.

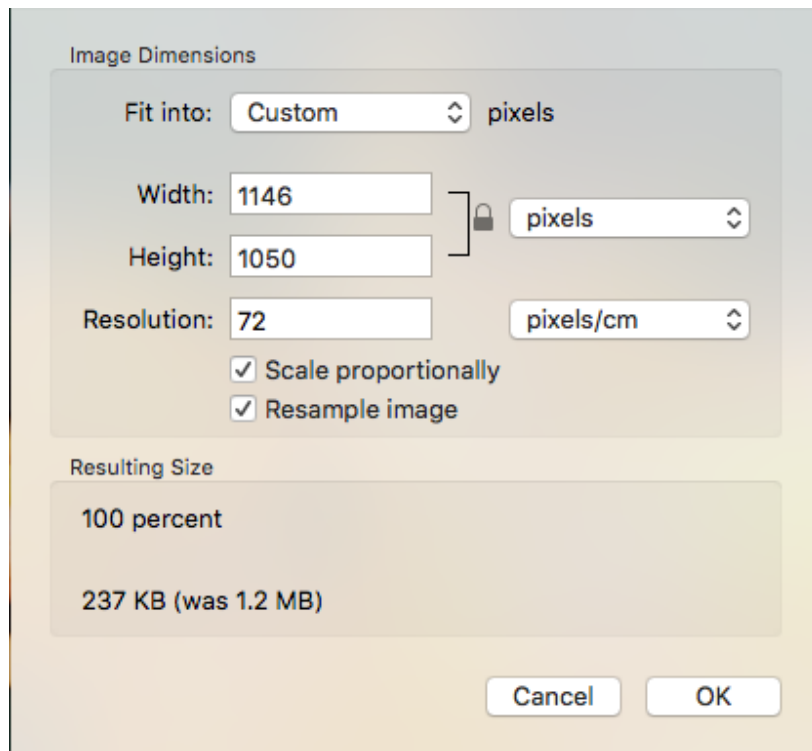
Note it is possible to export several photographs at the same time by simply selecting them at the same time prior to using the *export* command.

If you are using **iPhoto** images are exported using *File>Export*, and the option window that opens is somewhat different. First check that the File Export tab is selected, then set Kind to JPEG, JPEG Quality to High or Maximum, Size to Custom and either Width to 1400 or Height to 1050 as appropriate. (If you wish to export the original unedited image simply set Kind to Original.) The resulting window should then look something like:



Preview:

The **Preview** program is generally used to view various file types, including individual images, but it also includes tools to resize images. Open the JPEG file to be resized in **Preview** and go to *Tools>Adjust Size*, this will open a window with options to be used. For 'Fit into:' select Custom and make sure that the 'Scale proportionally' and 'Resample image' options are ticked then enter either the Width or the Height to be used. (The 'Resolution' is not relevant for projected images – it merely gives a scale parameter if the image is printed.). The window should now look something like:



Click OK and then the resized file can be saved used *File>Save*, note that this overwrites the original file. If you wish to keep the original then first use *File>Duplicate* and then *File>Save* .

Mail:

OK, this is not a photo-editing program but recent versions of Apple **Mail** can reduce the image size when you add them as an attachment! Presumably this is to avoid the uninitiated filling up mailboxes with unnecessarily large images, however, very frustrating when you have carefully resized your image. When an image is added as an attachment to an e-mail a status line appears just below the Subject line, giving the size of the e-mail to be sent and an option box labelled Image Size – this option should be set to Actual Size to ensure that the attachment sent has your intended image size.

