



Cranbury digital Camera Club

Uploading Images for CdCC Competitions

There are two considerations for uploading images for CdCC competitions. The first is correctly sizing and saving images on your hard drive, and the second is uploading images from your computer to the club's web site.

SIZING AND SAVING IMAGES

Projection Competition Requirements¹

In order for all competitors to have an equal advantage and considering the software the club has selected to use for displaying and scoring images during the competition, it is necessary to require all images be scaled to

768 pixels along the longest edge

All images must be saved using

sRGB Color Space

All images must be saved in a

JPEG formatted file with a .jpg extension

How to Scale and Save Images on Your Hard Drive

Similar methods are used by all software programs, but the exact method depends upon which software you use. Examples of Corel's PaintShop Pro, Adobe's Elements, IrfanView and Adobe's Photoshop CS3 are shown on the next several pages.

In general, the first step is to process the image in the same size as was downloaded from your camera onto your hard drive. A key point to remember is the quality of an image that is increased in size is never as good as the image before resizing. This is because the software has to interpolate or guess the color values between the original pixels. Therefore, it is recommended that you do processing with as many pixels as came from the camera. It is acceptable to crop an original camera image before further processing as long as the number of pixels along the longest edge is not less than 768 for the CdCC competitions².

It is your decision how to process the images prior to resizing. Do whatever you believe gives the best appearing image for the specific competition.

Most cameras default to sRGB color space automatically, so their images need no color space conversion. However, if you have adjusted your camera for Adobe RGB or some other color space, you will need to convert them to sRGB in order to get the most accurate colors from the projector. Similarly, if you shoot raw images, and you have rendered them as Adobe RGB jpegs, convert those to sRGB.

After processing, you will need to set the image size, color space and JPEG quality and then save the results as a separate file. Normally, you should choose the "Save As" option from a menu choice. The naming convention is your choice. Do not do a plain "Save" if doing so overwrites the original image. If you do that, the original image will be lost forever without the possibility of reprocessing the original or resizing for another purpose such as printing. Here is an example

Original saved in **My Pictures\04-19-2010\Mad Dog.jpg**

¹ Prior to the September 2009 competition, members were required to also set the number of pixels per inch to 96. This is no longer necessary.

Processed and resized saved in **My Pictures\04-19-2010\CdCC Pet Competition\Mad Dog.jpg**

Notice that this individual created a sub-folder named **CdCC Pet Competition** where the processed images were saved.

COREL PAINTSHOP PRO SOFTWARE

PaintShop Pro Resizing

To resize an image, from the menu select Image/Resize and the dialog as shown in Figure 1 appears.

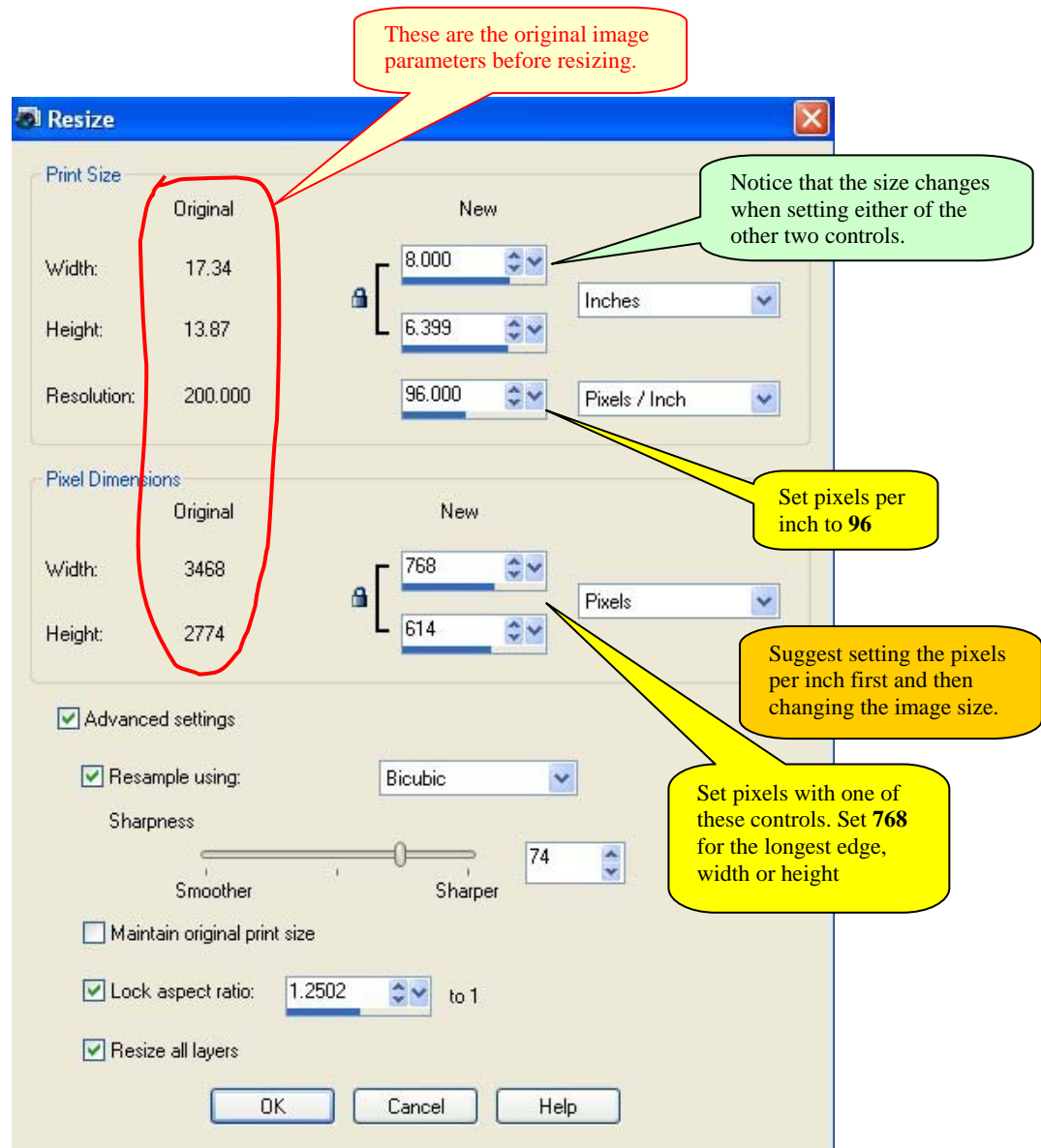


Figure 1, Corel PaintShop Pro Resize Dialog

Note: It is permissible to perform additional processing, including sharpening, on the resized images if you believe the results yield a better image. The decision is up to you.

PaintShop Pro Color Space

To set the color space, choose the menu option File/Color Working Space. The dialog in Figure 2 appears.

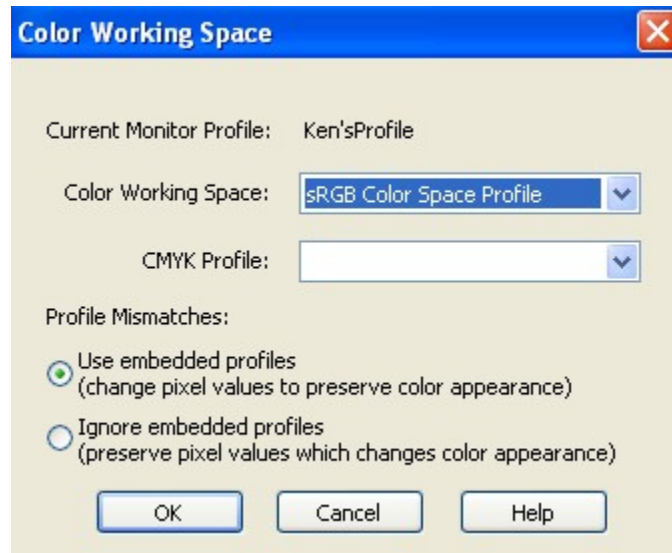


Figure 2, PaintShop Pro Color Space Dialog

Select the sRGB Color Space Profile and check the Use embedded profiles radio button.

PaintShop Pro Compression Setting

Saving a file in JPEG format in PaintShop Pro requires the user to select menu option File/Export/JPEG Optimizer as shown in Figure 3.

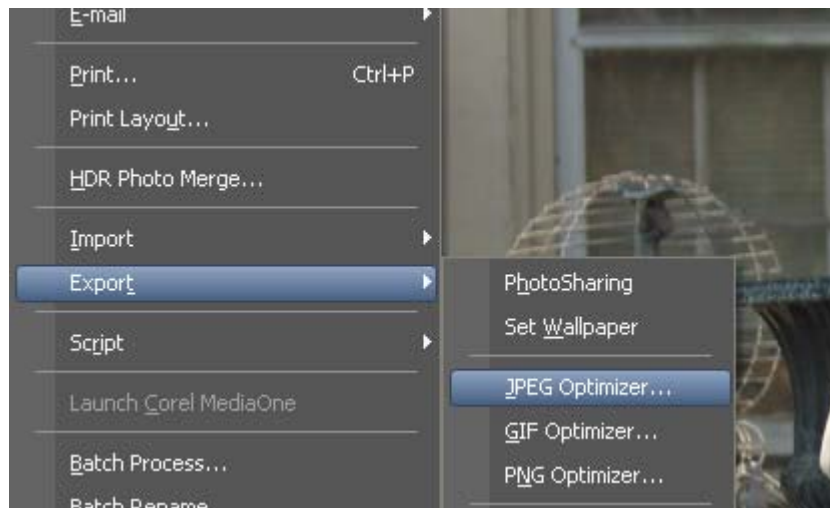


Figure 3, Selecting PaintShop Pro's Export Menu

Selecting this option brings up the optimizer dialog shown on the next page.

The JPEG optimizer is where you set the JPEG quality. PaintShop Pro sets the compression ratio, which is a method for reducing file sizes. The problem is that more compression and smaller file sizes result in reduced image quality because some of the image information is lost during the compression process.

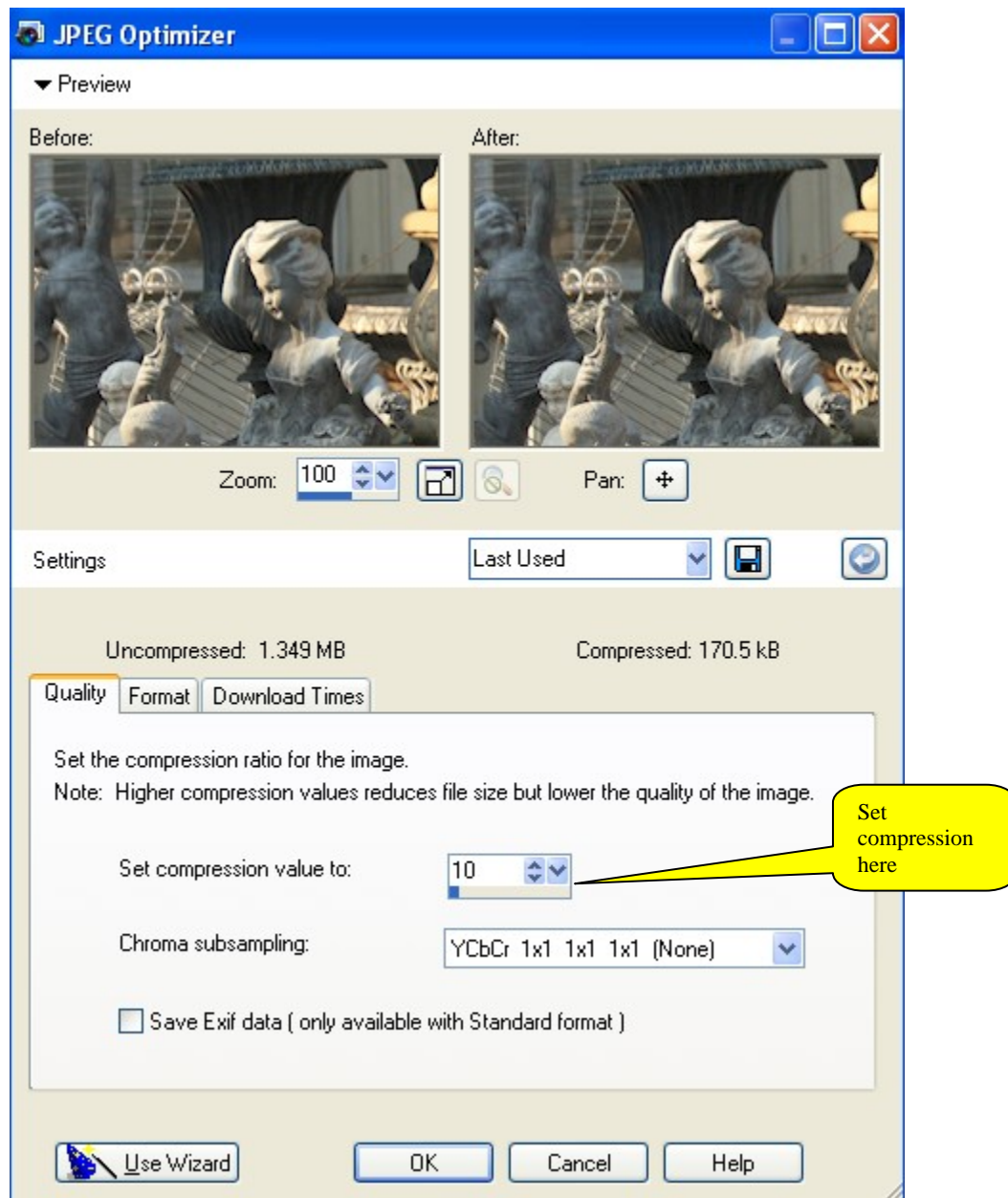


Figure 4, PaintShop Pro JPEG Quality Optimizer

PaintShop Pro uses compression values while other programs define quality settings. It is believed that a PaintShop Pro compression setting of 10 is approximately equivalent to a quality setting of 90% in other programs; however, without further study, this premise is unproven.

The results of saving the same file with different JPEG compressions are shown in Table 1. It shows that increasing the compression decreases the file size. What it does not show is the image degradation. It is nearly impossible for a human to tell the difference between images saved at a 10 instead of 1. However, setting the compression value to 20 and above is noticeable.

Table 1, PaintShop Pro File Sizes

JPEG Compression	File Size
10	130,021
20	84,091
30	53,442
40	36,591

It is recommended to set the compression to a value of 10. The image perceived by a human is not affected (and hence the judge’s score), and the amount of disk storage for CdCC is reduced.

ADOBE ELEMENTS SOFTWARE

Content and images provided by CdCC member Hans Kernast

Adobe Elements Resizing

To resize an image, from the menu select Image/Resize Image and the dialog as shown in Figure 5 appears.

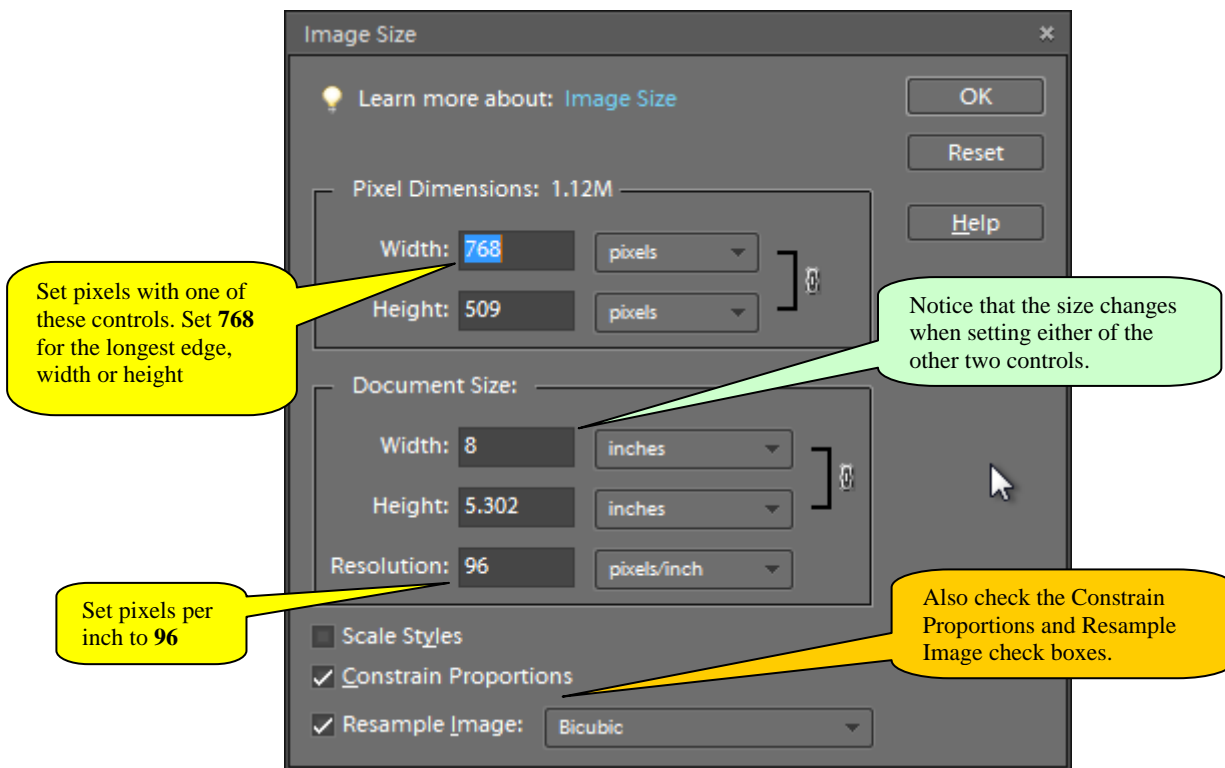


Figure 5, Elements Resizing dialog

Note: It is permissible to perform additional processing, including sharpening, on the resized images if you believe the results yield a better image. The decision is up to you.

Elements Color Space

You must set the color space in Adobe Elements during the file saving operation. First, select the File/Save As option from the menu and the dialog shown in Figure 6 appears.

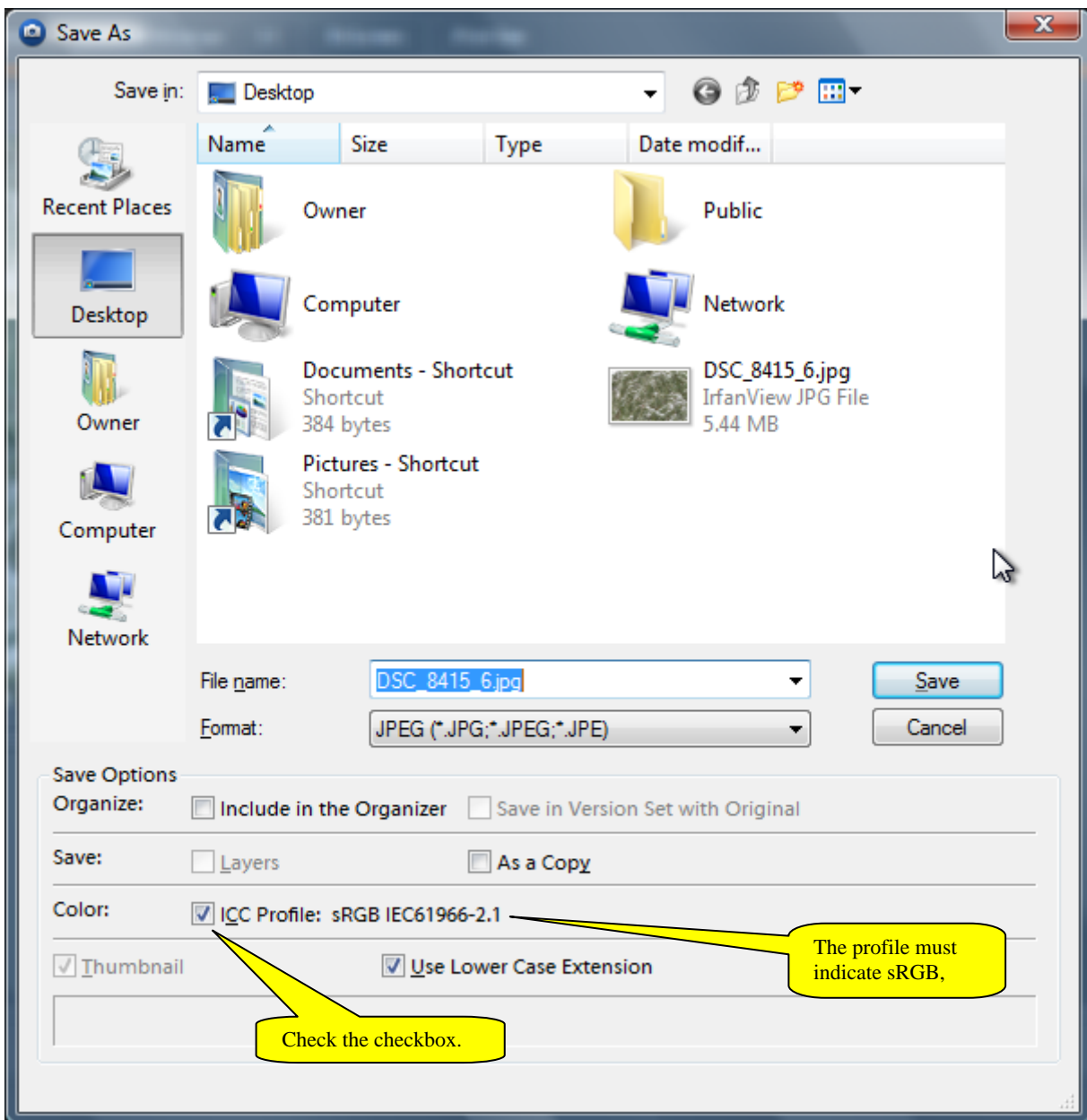


Figure 6, Elements File/Save As Dialog Showing Color Space

Check the checkbox in the Color section. The profile must indicate sRGB. If it does not, then cancel the file save operation and follow the instructions below for converting to sRGB color profile. After the conversion, return to this dialog to confirm the settings.

If it is necessary to convert the color profile, click on menu item Image/Convert Color Profile/Apply sRGB Profile as shown in Figure 7.

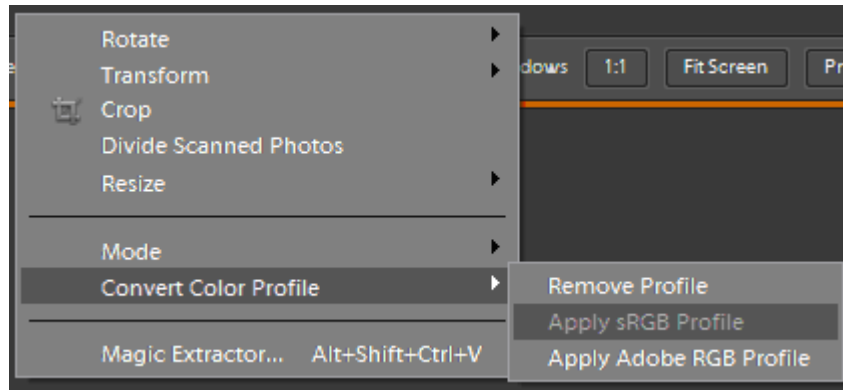


Figure 7, Elements Conversion to sRGB Color Profile

After performing the conversion, return to File/Save As dialog as shown in Figure 6 and perform the steps previously described.

Elements Quality Setting

Adobe Elements uses a quality setting to specify the amount of compression and the quality of the image. Adobe sets the quality during the saving process. The user first selects the menu File/Save As option. Next, the user must enter a file name and choose the JPEG format option. When the user clicks Save, the dialog shown in Figure 8 appears.

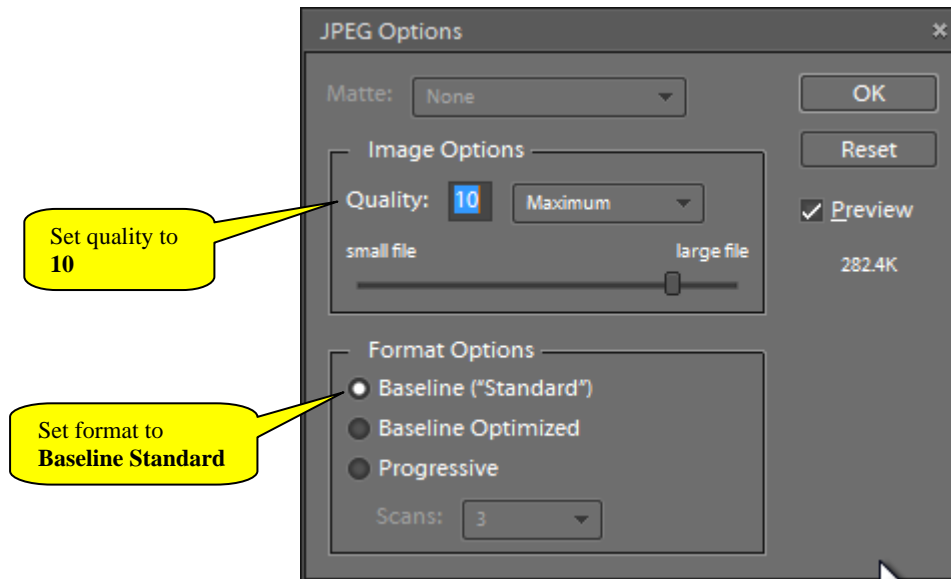


Figure 8, Elements JPEG Quality Dialog

Elements uses a quality scale of 1 to 12 with 12 being the highest quality, least amount of compression and largest file size. When the quality is set to 10, it is virtually impossible to tell the difference from a file saved with a 12. Setting to 10 will be imperceptible and therefore not affect the judge's score, but it will save disk storage space for CdCC.

Alternately, the user can select Quality Maximum and Baseline Optimized combinations.

IRFANVIEW SOFTWARE

IrfanView Resizing

To resize an image, from the menu select Image/Resize-Resample and the dialog as shown in Figure 9 appears.

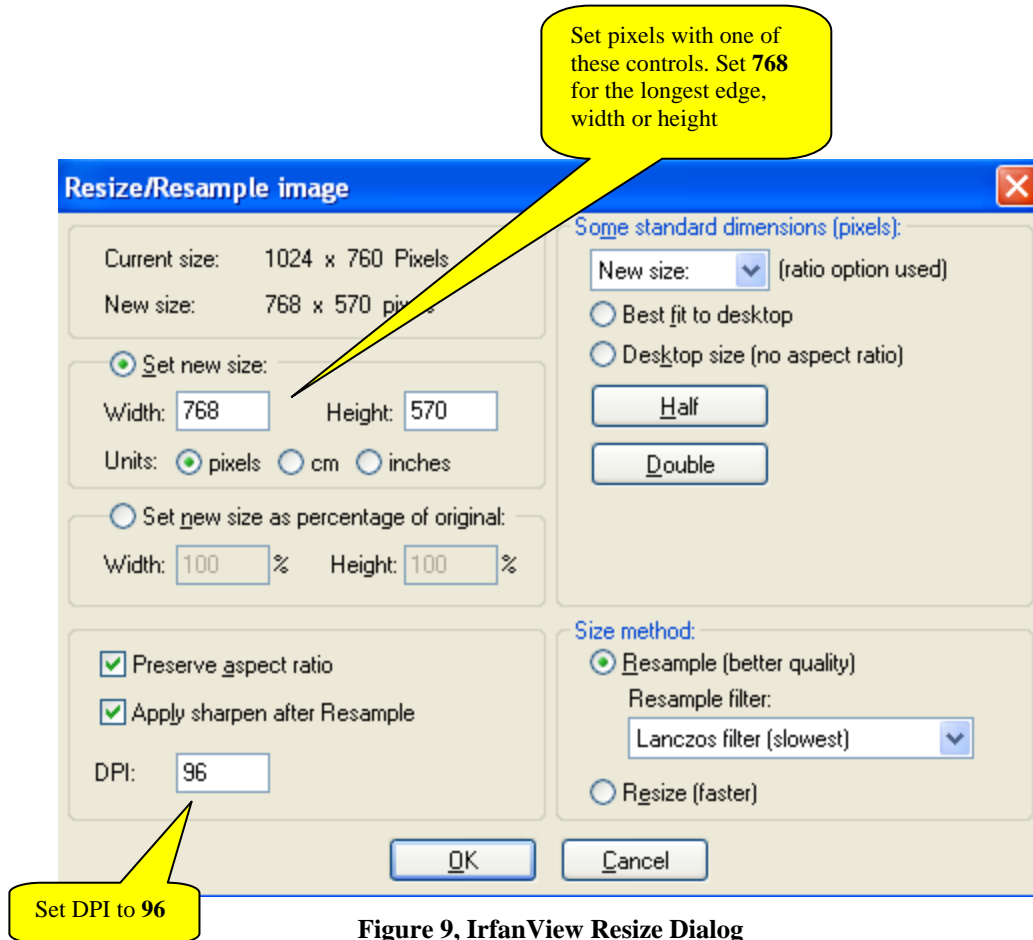


Figure 9, IrfanView Resize Dialog

Note: IrfanView uses the term DPI (dots per inch) instead of pixels per inch. DPI means the same thing.

Note: It is permissible to perform additional processing, including sharpening, on the resized images if you believe the results yield a better image. The decision is up to you.

IrfanView Color Space

IrfanView does not have a color space control. It always assumes sRGB.

IrfanView Quality Setting

IrfanView allows you to set the quality of the JPEG image when the file is saved. Chose File/Save As and two dialogs appear on screen. One is the standard Windows save dialog where the user selects the folder and file name. The second dialog is shown in Figure 10 and is where the quality is set. Remember to set the quality before actually saving the file.

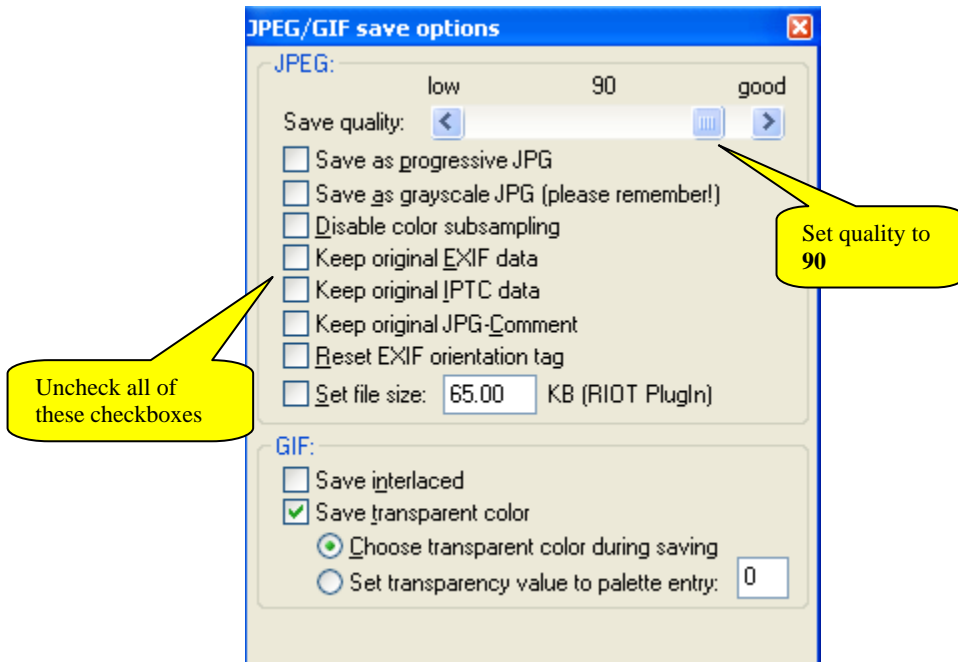


Figure 10, IrfanView Quality Setting Dialog

IrfanView scales quality as 0 to 100 with 100 being the highest quality. When the quality is set to 90, it is virtually impossible to tell the difference from a file saved with a 100. The difference in the image's appearance will be imperceptible and therefore not affect the judge's score, but it will save disk storage space for CdCC.

ADOBE PHOTOSHOP CS3 SOFTWARE

In brief, after processing your images, you must use the Image Processor to set the file type, color space and size. Next, set the resolution using the Image Size window, do a final sharpening and save the file. Details for performing these procedures follow.

CdCC member, Jerry Gerber, offers email assistance to other club members experiencing difficulties using the following procedures. Contact him at jerrygerber@cranburydigitalcameraclub.org

Setting Photoshop File Type, Image Size and Color Space

To set the file type, image size and color space, run the Image Processor. Select menu item Tools/Image Processor as shown in Figure 11.

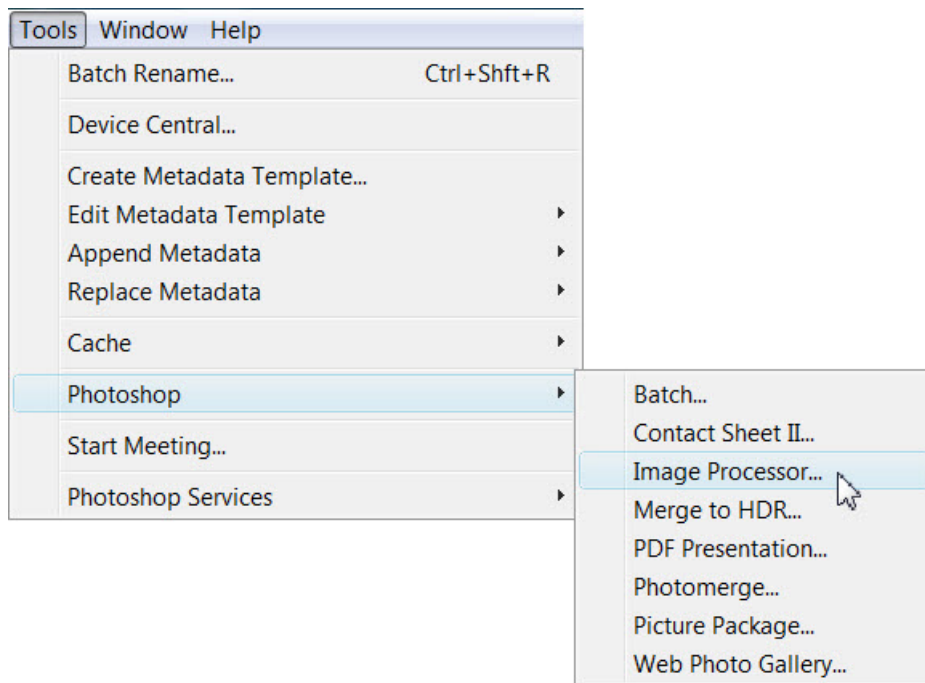


Figure 11, Selecting Adobe Photoshop Image Processor

That action opens the Image Processor window shown in Figure 12.

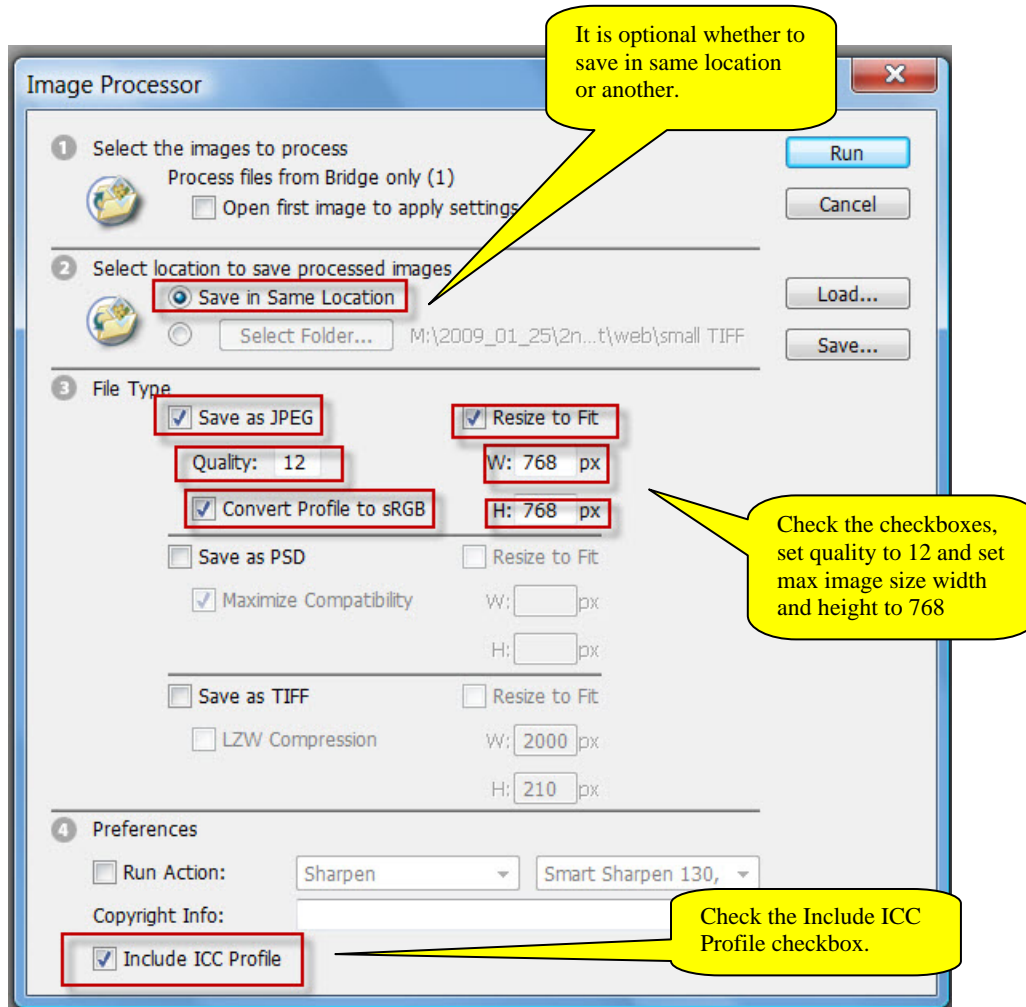


Figure 12, Adobe Photoshop Image Processor

In section 2 of this dialog, you have the option of saving your image in the same folder as the original image or another folder on your hard drive. If you choose Save in Same Location as shown in Figure 12, the Image Processor creates a subfolder named JPEG for your processed images; this is where you will find the final image to upload for the competition.

Note: Since the new files go into a separate folder, they will not overwrite your original files. Later, you may rename them for consistency with your file-naming conventions.

In section 3 of the dialog, check the checkbox to Save as JPEG file and the other two associated checkboxes to Resize to Fit and Convert Profile to sRGB. Set the Quality value to 12 and the maximum height and width to 768.

Note: In a later dialog, the quality is set to a lower level to reduce the file size for transmission over the Internet. For now, the quality level is set to 12 to prevent degradation of the image when saved multiple times.

Check the Include ICC Profile checkbox in section 4 of the dialog.

Lastly, click the Run button in the dialog's top right corner.

Setting Photoshop Image Resolution

Using menu item File/Open, browse for the JPEG file saved when the Image Processor was run, and open it. After the image opens, use menu option Image/Image Size and the dialog shown in Figure 13 opens.

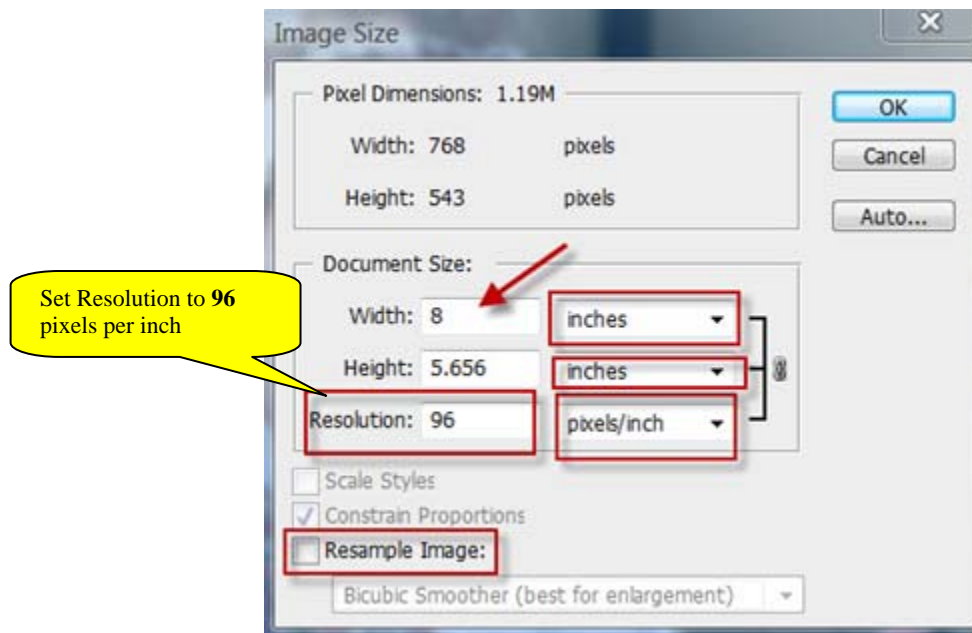


Figure 13, Adobe Photoshop Image Size Dialog

Set Resolution to 96 pixels per inch. After doing this, Adobe computes the size of a printed image for information if the user were to print the image. For CdCC projection competitions, the print size is irrelevant, but the 96 pixels per inch is significant.

When the parameters are set as shown, click the OK button.

Sharpen Image Suggestion

The reduced image may benefit from additional sharpening after running the Image Processor and setting the image resolution. Use the Adobe tool that is most comfortable for you. One possibility is the Smart Sharpen filter with Amount 125 and Radius .3 settings for images of this size.

Set Adobe Photoshop Quality and Perform Final Save

Select File/Save As from the menu and the JPEG Options dialog shown in Figure 14 appears.

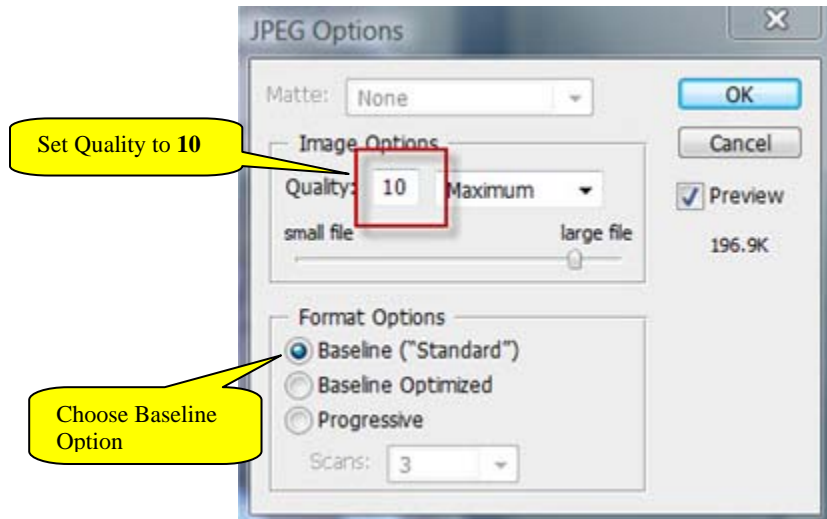


Figure 14, Adobe Photoshop JPEG Options Dialog

Set Quality to 10. When the quality is set to 10, it is virtually impossible to tell the difference from a file saved with a 12. The difference in the image's appearance will be imperceptible and therefore not affect the judge's score, but it will save disk storage space for CdCC.

UPLOADING TO CDCC WEB SITE

Temporarily Use Email

The mechanism for doing this is currently being worked out by the club officers. As a temporary measure, you are asked to email your images.

The club officers may not accept images if they are received after 8:00pm on the Sunday prior to the competition date.

This rule is necessary to allow the officers time to prepare for the competition. (The officers hope that the lead time can be reduced from three to two days in the future.)

Please do the following:

1. Create a single letter (preferred, but will accept two) for each contestant. Couples and families should send a separate letter for each family member who is competing.
2. In the body of the letter, please include.
 - Contestant's name (do not depend on the officers looking at the "From" field of your email)
 - Your Member Identification number. It is the 6-digit number on your name card. If you have forgotten what it is, please send an email to one of the following and copy the other two
 - o lindadeangelis@cranburydigitalcameraclub.org
 - o gregdeangelis@cranburydigitalcameraclub.org
 - o kencurtis@cranburydigitalcameraclub.org .
 - Your competition level, A, B, C or Y.
 - The title of each image. When sending two images, be sure to identify which title is associated with which file. The only characters permitted in the title are
 - o Letters
 - o Digits
 - o Space
 - o Shifted characters on the top row of keyboard keys except #
 - o Apostrophe
 - o Comma
 - o Question markAll other characters shall NOT be used - including a double quotation mark.
3. **Attach** the associated JPEG images. **Do NOT copy and paste** them into the body of the email. To attach an image file, your email program will ask you to select a file on your hard drive. Remember to attach both files if entering two images with the same email letter.
4. Address the email to Greg DeAngelis using gregdeangelis@cranburydigitalcameraclub.org
5. Click the Send button.

Processing of Uploaded Images

The files may be renamed for the club's convenience after they have been uploaded (or emailed). This only affects files stored on the web or stored on the computer used to project images during the competition. It will not in any way affect the naming of files on your computer.