

IT'S ABOUT THE PIXELS!!!

It has been said before: 'Pixels are the building blocks of digital images'. We need an understanding of them, and how to manage them in many different ways.

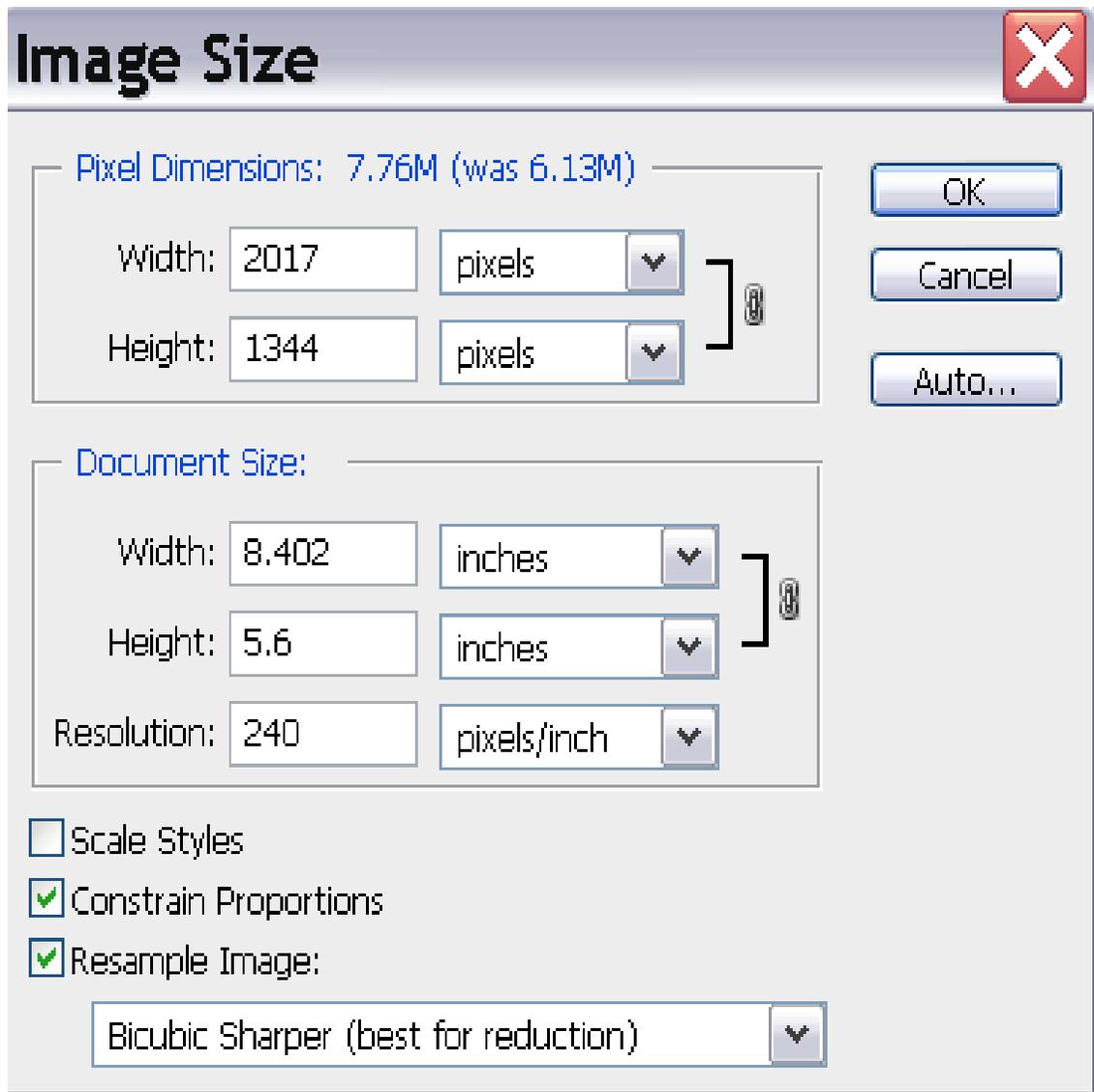
Initially it can seem confusing. We hear pixels talked about as: how many megapixels our cameras capture, how many pixels in our images, pixel dimensions for our digital entries, pixels per inch for our prints, and so on.

First, when we present an image on a monitor or television screen, we need to talk about just pixels. Monitors and screens have different proportions, depending on whether they are wide screen or standard, and they have different pixel numbers depending on their physical size and individual resolution quality.

Take an 8-1/2 x 11 inch piece of paper and hold it sideways. That is approximately your standard monitor proportions. Each standard shaped monitor will have different pixel dimensions based on its size and screen resolution (a quality factor), but the ratio of height to width is similar. 800 x 600 pixels is the same proportions as 1792 x 1344 pixels, but not the same number of pixels will be displayed to the viewer.

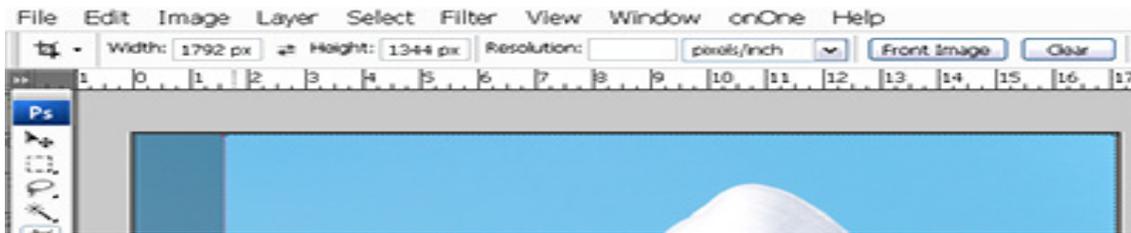
Step 1. When I choose an image for my own desktop, I resize it in Photoshop to the 1792

dimension,(provided I have at least 1344 pixels in the image height). If there are not 1344 pixels for the height, I use the height as my first dimension and the image will be wider than I need. That is not a problem at this point.



Step 2. Once resized, I select the crop tool. In the menu bar, I enter 1792 px in the width and 1344 px in the height. There are no numbers entered in the

pixels per inch box as I am only asking for pixels. Next, I drag my crop tool over my image. If it is too wide, I need to decide which edge to crop off the pixels. Conversely, if the image is too tall, I decide if the pixels come off the top, bottom or if some come off both. Voila, my image will fit perfectly onto my screen as a desktop image.



This has been cropped with the crop tool as above.

This is leading me to another real world application of resizing our images to get over to London Drugs to display on their new screens in the camera department. The size needed is 1920 x 1080 pixels. Our cameras sensors do not record an image at these proportions. First resize your image to the 1920 pixel width and then crop it to the height they need(that being 1080 pixels). To resize, in Photoshop or Photoshop Elements, go to: Image>Size. When you are resizing for a monitor or television, you only need to enter pixel values in the top box. As you will have constrain proportions checked at the bottom of your dialog, you can only

change one of the dimensions. This keeps your image looking as you took it.

Do not worry about the excess pixels during the resizing process. You will crop them as outlined above. Again, take that 8-1/2 inch x 11 inch sheet of paper and fold up just a bit over 2 inches. Now you see the approximate shape of these new monitors. Imagine folding up the paper as the same as what you are doing when you crop off pixels on your image. They have to go!!!

Not all requests are for such exact measurements. For example, COPS as well as CAPA ask only that the longest pixel dimension of an image is 768 pixels. This gives you the creative opportunity to display your image at whatever other dimension under 768 pixels you wish. You might find a square format using 768 pixels x 768 pixels works, or a panorama that has a very narrow other dimension (For example 768 x 200 pixels). 768 pixels is your limit!!

With printing we talk about image resolution that will get us a fine print. We talk now in terms of pixels per inch. Printing is another pixel matter that we'll discuss later.

Here's to happy pixels and no pixelating!

Prepared by:
Lynda Miller for
Central Okanagan Photographic Society
November 2007