

Photoshop – A Few Thoughts About Sizing PDI & Print

Resizing for PDI Competitions

Do I hear groans 😊😊. Don't worry, it will only take a minute, but I am hoping I can show you one or two tricks that may save you time.

Bulk Resizing in Photoshop CS

You can do your resizing folder at a time in PhotoShop. 'Not a lot of people know that' to paraphrase Sir Michael.

- File menu drop down.
- Select Scripts (yes, Scripts!..)
- Select Image Processor...
- In paragraph 1, select the second radio button and tap 'Select Folder'
- Go to paragraph 2 and select the radio button – and don't worry it will create a sub-directory called JPEG.
- Go to paragraph 3 and select; Save as JPEG, Resize to fit, Quality 10 and the size. I'm using 1600 px wide x 1200 px high which is our standard for PDIs, and finally
- Tick - Convert the profile to sRGB – it probably already is, but just in case.
- No need to select Actions or Copyright info. You can leave the ICC profile if you want to keep the EXIF data.
- Then Click RUN on the top right

Job done. It will have even padded with black the images that were less than frame width!

Handy Resizing Using the Crop Tool

Most people resize using the Image/Resize tool and that is good practice and very controllable, however if all you want to do is reduce an image from big to smaller and optionally change the dpi resolution, the crop tool does an excellent and quick job.

- Select the crop tool.
- Select the first open box with a drop-down and choose W x H x Resolution
- Moving along to the right enter 1600 px
- Move again to the right and enter 1200 px
- And yet again right, (ensure that the following box is showing dp/in and not dp/cm) and enter 72.
- Now at the left hand end of that row, next to the 'crop' symbol is a drop-down arrow, select this.
- Choose the icon that looks like a square with one corner turned up and click to select, it should say 'Create new tool preset'
- You have now set up a crop tool this size in perpetuity, or even longer!
- Try it. Load an image.

- Now ensure that the selected colours are showing black as the background colour. [pressing D will reset the black/white default]
- The crop box may fit the image precisely in which case the ratio is the same. Or.
- It may sit inside the image, in which case, enlarge it evenly by expanding the bottom right corner followed by the top left. See how the unused space fills with black!
- If that looks right, select the 'tick' and that's it.

That will of course be there to use in future, when you won't have to mess about setting it up or filling the black padding, it's now automatic!

Risizing for Print

Possibly one of the most confusing aspects of dealing with digital imagery is resolution-specifically, what it really is and how changing it affects an image.

We need to understand the relationship between resolution and pixels, and what it means. We'll discuss the difference between 'upsampling' - a rather evil practice of increasing the resolution and thereby the number of pixels, in order to make the image larger than it originally was and changing the resolution of an image without changing pixel data. First, let's look briefly at resolution in general.

What is resolution?

Simply put, image resolution is the number of dots displayed per unit of printed length in an image. It's a measurement **used for printing** and it's usually stated in dots per inch or dpi.

The way resolution affects an image is thus: For a given number of dots in the width or height of an image, the higher the resolution, the closer the printer packs those dots together in order to make a beautifully smooth and sharp print. The closer the dots are packed together, the smaller the image will be physically when printed (and I'll point that out again later). Of course conversely, the lower the resolution, the more loosely those dots are packed and the larger the image can be physically-though it loses definition and the print will look extremely undesirable and, well, chunky.

Because our monitors can only display a certain amount of information that our eyeballs/brains can process, resolution matters only to printing devices. That's right, it doesn't mean diddly squat until that image is headed for a printer because only a printer can do anything with the resolution measurement. Your monitor just doesn't care: a 72-dpi image will look exactly the same as a 3000 dpi image.

So how much resolution do you need to make a gorgeous print? It depends on the printer. While the current crop of consumer-level inkjets does a fine job at 225-250 dpi, a professional service bureau may require 300+. If it's your own printer, run a few tests. If someone else is printing it for you, ask them what dpi they need.

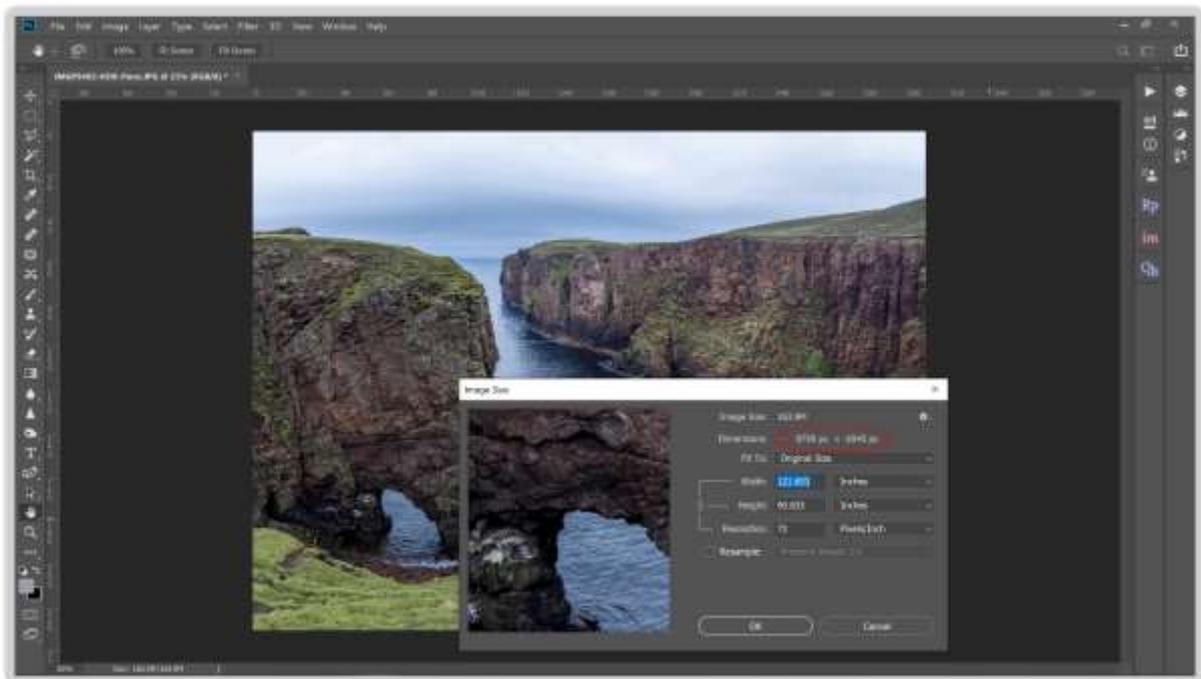
But why should I care?

Because any file-the same file-can be measured at 72, 300, or 3000 dpi, its pixel

dimensions are what matters most, not its resolution. You're going to encounter 72 dpi files that need to be printed, and because you'll need to resize that image, you need to understand how to change one without changing the other.

From digital camera to the big screen

For example, let's take a photo from a high-quality digital camera (a Pentax K-1 to be exact). I popped open the photo in Photoshop and took a peek at its Image Size dialog to find that it was 8759×6540 pixels, but only 72 ppi. Does this mean your photo is of low-quality and unsuitable for print? Not at all. Read on.



There are several important things to note in this screenshot:

- At the top of the pop-up window, you can see that the image is indeed large - it's 163.9MB
- Note again the pixel dimensions shown in the upper portion of the Image Size dialog: it's 8759×6540. Remember these numbers for a few seconds.
- Note also the honking big physical dimensions of this image. If I were to try printing the thing at its current resolution, it'd be more than 10 feet by 7 feet ...FEET!

Next I want to increase the resolution of the image without messing with the number of pixels. Here's how:

- In Adobe Photoshop, choose Image>Image Size. [On my PC I can hold down 'Alt-Gr' to the right of the spacebar instead.]
- At the bottom of the dialog, *uncheck* Resample Image. This all-powerful option locks the number of pixels contained in the image, thereby locking the integrity of the image. Enter 300 into the Resolution field and look what happens:



The image is now 300 ppi and the physical size has decreased to about 29 inches × 22 inches. The physical dimensions (or print dimensions) of the image changed but the pixel information didn't. There are exactly the same number of pixels as before: 8759×6540; they're just packed more tightly together. Furthermore, notice how the file size didn't change at all? It's still 163.9 MB, as evidenced in the document window and in the Image Size dialog (another clue that the pixel data didn't change). It hasn't changed the quality (pixels) at all, it's just changed the measurement (dpi – in effect the resolution), which only affects the printed image.

I accept that does feel confusing, because the onscreen image didn't change a bit. The truth is only revealed by the Image Size dialog.

The thing to remember is that as long as you *uncheck* the Resample Image box, you can tweak the resolution 'til the cows come home and you won't alter the image quality at all. Ever.

If you leave the Resample Image box checked, you'll be practicing that 'dark magic' called *upsampling*, wherein you're adding pixels (data) to the image that weren't originally there.

The (dark) art of upsampling

Upsizing is usually a very bad idea; unless, of course, you're in a real pickle or you're going for that chunky look in your design.

That being said, there is a technique for squeezing pixels into an image without losing too much quality.

The trick is :-

- Pop open the Image Size dialog, leave Resample Image checked and choose Preserve Details 2.0 (or if you don't have that option Bicubic Smoother) from the pop-up menu to its right.
- Change the document dimension pop-ups to Percent and enter anywhere from 105-110%, then click OK.
- Do this as many times as necessary until you get the desired pixel dimensions. This will indeed add pixels to the image with surprisingly little quality loss, and at super large sizes, no noticeable quality loss at all.
- With such power comes the need for great restraint, however, so do resist the urge to increase more than 5-10% at a time.

Another alternative is to download software specific to this task. Google it ...there are several down there.