

Photographing Your Work



Q I am a bit confused by the subject of digital image resolution for use in different advertising media and for different marketing purposes. Can you explain?

This is a big subject area but here goes! Essentially there are two main aspects involved. The first is image capture and the second is the presentation medium for image viewing.

We'll start with image capture, i.e. the digital camera. Image resolution depends initially on the camera used to capture the image. Basic amateur digital cameras now have typically 3 to 6 mega pixel capacity, while a professional digital camera could have up to 16 mega pixels. The higher the pixel number, the more information is captured about the subject when the shot is taken and the larger the file size. If you start with a large file size you can always make it smaller, but you should not do the opposite. For this reason it is always wise to get the largest file size image to work from, which is one of the advantages of professional photography.

The image taken is a digital file, the size of which will be expressed (in computer-speak) as kilobytes (Kb) or Megabytes (Mb), which the computer can read and manipulate using appropriate software (Photoshop etc). Re-sizing images can be done by changing either or both of two characteristics. Either by changing the physical size of an image (like the traditional way of talking about photographic prints in inches or centimetres e.g. 6" x 4") or the virtual size of an images (the resolution expressed in dots per inch or dpi). Changes can be made either with software, which comes with some cameras, or by using a more generally available product, for example Photoshop. The reason for resizing images is to best match the properties of the photograph with the medium it will be seen in, as both the size of the picture and its resolution can influence how successfully the image can be utilised for different marketing purposes. This brings us to the second part of the puzzle, the presentation medium.

There is a difference in how much detail (i.e. resolution) the print and the computer screen can handle. A physical print is capable of showing more resolution to the viewer (say 300 dpi), whilst computer screens can only show a maximum of about 72 to 96 dpi. In addition, a computer has to download the image to the viewer's screen and a large resolution image will be a large digital file taking more time to download, or even being blocked, if it is too big, something the print media need not worry about. Here is an example. For the front cover of the Craftsman *craft&design* Magazine an image the size of

21cm by 29.7cm would be correct. To view it on a computer monitor it only needs to be 72 dpi, as it is only capable of showing roughly this amount of resolution.

However, in order to print a high quality version for the front cover we would need to change the resolution to 300 dpi (keeping the same image size) to allow for the quality of the printing process. Upon viewing in either manner both of these images will look similar as they are suited to the medium being used.

Each file will show the difference, however in terms of file size, the 300 dpi file is much larger than the 72 dpi version (about 20Mb verses 1.5Mb for the lower resolution version). This is the reason why lower resolution files are the norm for emailing to people. In fact, you might want to reduce the smaller version more for a website as 1.5Mb is still quite large for downloading. The larger file size (higher resolution) must be used for all printing and submissions to magazines etc.

Try the following rules of thumb.

- For web or emailing to view only on a PC monitor use an image resolution of 72 dpi and an image size of up to 10 x 7 cm (this will keep the file size low, say 170 kilobytes).
- For printing, change the image resolution to 300dpi but ask the designer or publisher what size they need for publication.

Problems arise when small resolution files are blown up to a larger size, as they become fuzzy (called pixellation) or when low resolution files are used in printing (again with insufficient digital detail they become fuzzy). In summary then, avoid problems by matching the image file to the marketing purpose and if in doubt ask the magazine editor or your designer or photographer for advice.

Right: Same image, at 300 dpi and at 72dpi (far right)



Top quality photographs are a must for makers, really vital for top quality promotion. You're welcome to send us your questions about photographing your work and Dave Ward, professional craft photographer, will be pleased to give advice and top tips in this regular Q&A page. Email: editorial@craftanddesign.net