

KATETALLEN DESIGN

IMAGE SPECIFICATIONS FOR PRINT AND WEB

PRINTING IN HIGH RESOLUTION AND UNDERSTANDING DPI

D.P.I. is the measurement used within the printing and graphics design industry to determine how sharp an image is. Web graphics, online pictures, etc. are normally created at 72 dpi (dots per inch), this low resolution is great for the web because the images look excellent on a computer monitor and the file sizes are very small.

When designing graphics for printing purposes, your images should be 300 dpi or better. Essentially what this is doing is displaying more information (or dots) for every square inch of the image you are viewing. The more dots used, the sharper the image. Color printing will look blurry if a 72 dpi artwork is used, make sure you have your images at 300 dpi before you submit your files.

THE IMPORTANCE OF USING HIGH RESOLUTION (300 DPI) IMAGES FOR COMMERCIAL PRINTING

When designing digital files intended for commercial offset printing, it is essential that all of the photographs and images in your files are high resolution. If you have ever seen printed material that contains blurry or blocky images which often provides a bad presentation, it was likely caused by incorporating low resolution images. Ensuring a high quality printed job is as simple as making sure all photos and images in your digital files are all high resolution. The information below covers the specific differences between the two and how to avoid problems.

WHAT IS DPI AND HOW IT WILL AFFECT YOUR PRINTED JOB?

D.P.I. or “Dots per Inch” is the measurement used within the printing and graphics design industry to determine how sharp an image is. Web graphics and online photos are normally created at 72 dpi (dots per inch). This low resolution is great for the web because the images look excellent on a computer monitor and the file sizes are very small which helps web pages load faster. However, when designing graphics for commercial printing purposes, your images should be 300 dpi or better, here’s why.

Take a look at the example below. Essentially, the difference between 300 dpi and 72 dpi is found in the amount of pixel information (or dots) for every square inch of the image you are viewing. The more dots/pixels the image contains, the sharper the image will print. As a result, printing will look blurry if a 72 dpi image is used as compared to using a 300 dpi high res image.



300 DPI



72 DPI

HOW TO GET HIGH RESOLUTION IMAGES BY SCANNING PHOTOS OR FROM A DIGITAL CAMERA?

Scanning Images

Often, you will require custom images pertaining to your own business or industry and you may have physical photos you would like to first scan then import into your design program. This is a perfectly acceptable method of acquiring high resolution images, just be sure to scan your photos in high resolution to begin with. All scanning software allows you to specify the resolution of image you would like to scan. Selecting 300 dpi (or higher) as your scanning resolution will provide you with an excellent quality image for printing purposes.

Importing Images from a Digital Camera

Many graphic designers use images from a digital camera. There is really only one thing you need to know to ensure you are using a high resolution image. The only real difference between a high and low resolution image is the amount of pixels/dots (DPI) that are used to create the image. With this in mind, the high mega pixel camera you have taking the picture, the higher resolution the photos will be.

Most cameras that can take photos above 3 mega pixels should be more than adequate to provide you with high resolution images. Keep in mind that you must have your camera set to the highest possible resolution when capturing your images.

RE-SAMPLING AND INTERPOLATION – WHY RESIZING ISN'T THE ANSWER

It's important to understand why simply resizing a low resolution image will not produce a true high resolution image. When you resize and make a low resolution image larger to meet the commercial printing specifications of 300 dpi, all you are really doing is stretching the image. The technical term is called either re-sampling or interpolation. Since high resolution images are based upon the number of pixels an image contains, resizing will not create new pixels, information of your images and will only make each pixel larger by stretching it. The only way to ensure picture perfect high quality printing of your photos and images is to start with a high resolution image obtainable by the methods mentioned above.

VECTOR GRAPHICS – WHY IT IS IMPORTANT FOR PRINT PUBLICATIONS

What are vector graphics?

Instead of using pixels, vector graphics use a series of shapes, such as points, lines, and curves to represent images in computer graphics. These shapes are based upon mathematical equations and can be resized without losing image quality.

Vector graphics are typically used for line art (images created by shapes and lines with variation of grays or hues of color) such as clip art, charts, graphs, and logos.

Preferred vector graphic formats

For logos, charts, graphs, info graphics, etc. Kate Tallent Design will only use files that are in vector format to produce printed material. Vector files are typically created in two formats, EPS (Encapsulated PostScript) or AI (Adobe Illustrator). Client supplied EPS or AI files should be fully editable so any adjustments needed can be made on the designer's end. This includes making sure the fonts in any EPS or AI files are not converted to outlines so that they can be adjusted or edited as well.