



Resolution Guide.

Pixilation is a common problem with printing. It makes images look blocky, and often blurred. This guide will help you avoid mistakes in creating and submitting your artwork, so you can be sure of a great final result.

In This Guide

This guide covers a wide range of different document formats, and how to fix them; only one of these will suit your needs.

You'll discover:

- A basic explanation of resolution, and why you need a high resolution for printing
- How to check the resolution of a document
- How to create high resolution documents within the most common design software programs

Basic Explanation Of Resolution

While a document may look fine on your computer screen, that doesn't always mean it's ready for print. This is because a screen only displays images at 72 dots per inch (dpi), whereas printing requires 300dpi for sharpness and clarity. Dpi (also known as pixels per inch, or ppi) refers to the number of pixels in a square inch. The higher the dpi, the greater the resolution is and the sharper the printed image. Printing takes these dots and deposits ink according to the supplied graphic: so if there are fewer dots per inch, there will be less detail on an image.

You may encounter a different type of graphic called a vector image. These are made from equations, which means they will never distort regardless of the size they are required to print.

Example

As your computer screen only shows you images at 72dpi, it's pretty hard to illustrate the difference between 72dpi and 300dpi for images. However, we've tried to show you in the side-by-side comparison below. The left is an example of a lower resolution image, while the image on the right is set a 300dpi. The image on the left has required upscaling to match the required size, which means it has pixelated and looks 'blocky'.

You can't increase the resolution of an image just by making it bigger; in fact, this will make the end result even worse! The only way to fix it is to go back to the image in the original design software used for the artwork.

How To Check The Resolution Of A Document

It's really easy to check how a document is going to look when it's printed. Simply zoom your screen to 400%. That's it! This will give you the equivalent of a 300dpi image, so you'll be able to see which (if any) areas of your artwork are looking too fuzzy and require fixing.

To work out the size of the image you need for the right dpi, it's worth remembering that 300dpi is equivalent to 300 pixels per inch. Using this equation, you can compare your document size against your image size to make sure it's at the right resolution for print.

$$300 \times (\text{image size in inches}) = \text{pixels}$$