

Print made *easy* fact sheet

Tips and hints to make print as easy as it should be

artwork preparation

This sheet provides information on setting up digital files for printing. Following these guidelines as you prepare a job for printing should make for a smooth transition from your desktop to the printing press: ...too easy!

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Setting up files for successful delivery and output

Images, fonts and colours: the 3 trouble areas.

When we receive files for output, there are a few issues to be aware of regardless of the file type or platform (Mac or PC). Please read the following information and if you are not sure about your images, fonts or colours, then contact us and we'll help you.

1. Images

Digital images are made up of pixels, which need to be converted to dots of ink if they are to be printed on paper. When there are lots of these pixels per square centimetre or inch, the picture is clearer and the file size is larger. For optimum results with offset printing, halftone images should be scanned at 300 pixels per inch (300ppi). This is considered "high resolution". Line drawings or images should be 1200ppi.

When we view images on a computer screen (for example, pictures on a website), these are "low resolution", only 72 pixels per inch (72ppi).

If we use these images for offset printing, they will be blurry or pixelated. The effect is enhanced if the original image is enlarged; alternatively the effect is less if the image is significantly reduced.

If you don't have a quality scanner it is best to have artwork professionally scanned at 300ppi.

Logos can come in many different digital formats. It is important that your source is a good quality logo file for printed material. Logo files should be supplied as small vector files, and can be readily emailed. Some common file formats are Illustrator EPS files, Windows Metafiles or Corel Draw files.

Avoid using any images and logos from web pages in your artwork files. Using web pictures will result in a blurry, unprofessional looking piece. No printer or digital print process can reproduce web images well without significant work and therefore, cost.

If you are using digital image files, make sure you send them to us with your layout file. Image files may be in many different formats. Some of the common ones are TIF, EPS, GIF, JPG, PIC and BMP. If you are using any of these image file formats, please read section 2 of this Fact Sheet: Colours.



300 dpi image, enlarged 20%



72 dpi image, enlarged 20%

2. Colour

Colour palette selection can be an issue when outputting jobs. Understanding colour palettes is important if jobs are to be produced successfully. Because different media manipulate light in various ways, there are different models used to describe colour. The 2 main models are CMYK and RGB.

CMYK

Printers use 4 coloured inks to produce a full-colour job. These inks are (C)yan (blue), (M)agenta (pinkish-red), (Y)ellow and Blac(K). These colours in combination create all the tones and hues necessary to reproduce photographic quality images. It's a process a bit like finger painting – mixing primary colours to create other colours. CMYK is designed to work on a white surface. The amount (dot size) of each of the colours used in the image, determines the final colour. We perceive different colours because different inks reflect and absorb light differently.

RGB

When we see colours on our computer screen, or TV, they are commonly created with 3 colours. These are (R)ed, (G)reen and (B)lue. You can combine the three wave-lengths of light – red, green and blue – to simulate the ranges of colours found in nature. If you combine 100% of red, green, and blue, you perceive the colour as white. If none of these colours are present, you perceive black. Websites and other screen graphics are created with these three colours, and scanners often work in this way too.

Special Colours

Sometimes jobs require a special or spot colour, because the budget limits the printing to 1 or 2-colour or the combination of CMYK inks does not create the desired effect. This can be the case with bright colours, fluorescents and metallics, or when a corporate logo needs to be reproduced in accurate colours.

These colours can be printed using inks from the Pantone Matching System (PMS). This is a collection of standardised colours for printer inks. Designers and printers use PMS swatch books as a common reference to compare and specify colours. Think of these like being the paint swatches at the hardware store.

Other colour palettes

When websites are created, the images may contain an indexed colour palette. This is a method of creating an image using the fewest number of available colours therefore making smaller image file sizes. In the case of websites, file size is very important. The smaller the file, the faster it will zap over the internet and download to the viewer's computer. Images made up from an indexed colour palette are not suitable for professional offset printing results without substantial correction.

Why you need to know all this

When a printer prepares your files for output, you need to be aware that your RGB files will be converted to CMYK, or PMS colour, and that they will look different than on your computer screen.

We also output your files at much higher resolution than your bubble jet, or laser printer. This is why using hi-res images is important.

If you are not sure about the images and colours in your digital files, then let us know when you send us your artwork and we'll check them for you. We can convert colours and manipulate images, but it's important that you are aware of the limitations of the original files you supply before your job hits the press!

It is good practice to always print colour separations on your laser printer. If your 2 colour job produces 9 separations, or if your full colour job only has pictures on the Black (or K) plate, something is wrong. We can usually fix separation problems, however it is better if you check it first.

 PMS 333 printed as a spot colour with special ink

 PMS 333 as an RGB screen colour

 PMS 333 4 colour process CMYK

3. Fonts

Fonts are digital files which tell the computer how a character should look when it appears on the screen and when it is printed. Every computer comes with a range of fonts, but new fonts are easily added and are readily available on the internet, CD-Roms or through a type foundry. There are thousands of fonts in existence and new ones are created every day.

There are two main types of fonts, True Type fonts and Postscript fonts. True Type fonts are the basic font type. They exist as a simple set of instructions to describe a particular typeface at a particular size. There are many limitations when using True Type fonts, such as scaling and flexibility. True Type fonts, especially obscure ones, can often cause problems with offset printing. If you are using non-standard fonts, try to choose or

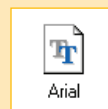
buy Postscript versions of the font. Postscript fonts are a lot more suitable for offset printing – Blueprint prefers Postscript fonts.

If you are using a PC with the Windows operating system, you can check whether a font is True Type or Postscript by looking in your fonts folder. True Type fonts have the suffix TTF. Postscript fonts usually have either the suffix PFM or PFB.

It is important that you send your fonts with your digital files to us. Make copies of the fonts you have used and put them in a folder named 'fonts'. If you are using fonts on a Macintosh you will often find screen font files and printer font files in the font folder. You should include both types of font files when sending your digital artwork.



PC fonts folder and TT font file



Mac screen font folder and Postscript font file



Now, you know about images, fonts and colour palettes, you should be ready to send us your files. Please call us if you have any more questions, we're more than happy to help.

Before you send us your next job, please take a minute to look at the Artwork Checklist below. If you've done these things then everything should be...*too easy!*

Artwork checklist

- Are you sending all images and fonts with the original file?
- Are the images high-res and in spot or CMYK format?
- Have you printed separations of your job, to ensure that you haven't inadvertently left images as RGB, or included extra colours?
- Have you kept your artwork as individual pages?
Please let us do the imposing, or stepping where necessary.
- Have you avoided manually drawn trim marks?
Please set your page size to the size of the finished job.
- Have you checked your screen colours against a PMS swatch, to make sure they will print as you require? Remember, colours print differently as spot or CMYK.
- Have you added bleed where necessary?
- Are you sending us a hardcopy or PDF to check the file against?