

Images



Line Art

All line art should be scanned at the standard output resolution of our imaging hardware. This is 1270dpi (dots per inch) for litho printing and 600dpi for digital printing. If you cannot scan your line art at these resolutions please use the highest resolution available to you.

Photographs etc.

Conventional photographs and continuous tone images that are intended for printing in black only should be scanned or saved as greyscale. To ensure high quality reproduction of your photos use an image editing software package such as Adobe Photoshop to adjust the tonal range.

* For litho printing and digital colour printing the tonal range of your greyscale images should be from 3% in the highlight areas to 95% in the shadow areas.

* For digital monochrome printing the tonal range of your greyscale images should be from 5% in the highlight areas to 85% in the shadow areas.

Photographs and images that are intended for printing in full colour should be scanned or saved in CMYK format. If you can only scan colour photos in RGB format, you can also use Adobe Photoshop to convert your images to CMYK format.

From the third column in the table below you can determine the correct resolution for your greyscale and colour images according to the printing method used and the image colour format therefore required. The fourth column in the table shows the output line screen of the imaging device used for each printing method.

Printing Method	Image Colour Format	Image Resolution (ppi*)	Output Linescreen (lpi)
Lithographic Colour	CMYK	350	175
Digital Colour	CMYK	350	175
Lithographic B&W	Greyscale	300	150
Digital B&W	Greyscale	218	109

*equivalent to dpi



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Digital Photography

You may be a keen photographer with the latest in digital SLR camera technology or you may only have a basic 'point and shoot' digital compact camera, either way there are guidelines that need to be followed if you are considering supplying digital photographs for printing.

Most digital cameras use the JPEG file format for storing images and the resolution is likely to be only 72ppi (pixels per inch). This resolution may seem very low but it is likely that your camera will be capable of producing images with a very large 'document size'.

The term 'document size' in this context refers to the print size and should not be confused with file size.

To get a print-worthy result from images that have a resolution of 72ppi, a reduction to the finished 'document size' is required. To achieve the desired image quality for printing, greyscale images need to be reduced to 24% of their original document size and for colour images the reduction needed is 20.5%.

The table below shows the picture sizes and resolutions that can be achieved using our own digital camera.

Picture size choices available shown in pixels @ 72ppi	Picture size choices available translated to mm @ 72ppi	Picture sizes when reduced to 24% to achieve 300ppi	Picture sizes when reduced to 20.5% to achieve 350ppi
2048pxl x 1536pxl	722mm x 541mm	173mm x 140mm	148mm x 111mm
2048pxl (3:2)	722mm 480mm	173mm x 115mm	148mm x 98mm
1600pxl x 1200pxl	560mm x 420mm	135mm x 102mm	116mm x 87mm
1280pxl x 960pxl	451mm x 339mm	108mm x 81mm	93mm x 69mm
640pxl x 480pxl	226mm x 169mm	54mm x 40mm	46mm x 35mm



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Digital Photography cont.

As you can see from the table on the previous page, choosing a larger picture size before taking your pictures ensures that you achieve larger print quality images for your DTP software which in turn will allow you more flexibility when producing your page layout designs.

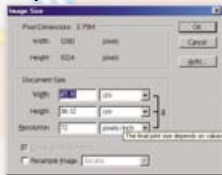
We would recommend that you use Photoshop to re-size any images prior to importing them into your DTP software, this will allow you to see exactly what the resulting document size will be once the size has been manipulated. In addition to this, using Photoshop will take the burden of re-sizing calculations away from the DTP software which is likely to make file handling and PostScript creation a bit easier.

These step-by-step images show how to carry out the document size manipulation:

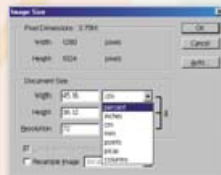
Step 1



Step 2



Step 3



Step 4



Please be aware that subsequent re-sizing of images within DTP software will further affect image resolution. If you increase the size of any bitmap image within the DTP software that you are using, the resolution of that image will consequently decrease.

When using a digital camera it is also very probable that the colour format of your photos will be RGB. For the purposes of printing, any RGB images must be changed to either greyscale or CMYK mode depending on the method of printing that you are utilising. This is another operation that we recommend you perform in Photoshop.

If you do use Photoshop or any other kind of image editing software to make changes to your photos you should then re-save them using one of the file formats that we recommend, TIFF or EPS. To continue saving your images using the JPEG format will result in a loss of quality.



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Points to Consider



We recommend that you supply your bitmap images either as TIFF files or as EPS files.



Please ensure that all of your images are the correct resolution for the printing method that is being used, refer to page 6.



When creating or using spot colours in graphics or images please ensure that the spot colour name is exactly the same as the corresponding spot colour name in your DTP application, failing to do so can cause separation problems. For example, in the Illustrator Pantone coated swatch library the suffix to the Pantone names is 'CVC' whereas in the Quark Pantone coated swatch library all the Pantone suffixes will be 'CV'. The simplest way to rectify this would be to change the Pantone name in Quark so that the suffix is 'CVC' to match the Illustrator Pantone suffix.



When using fonts in imported images or graphics please make sure that they are either embedded or converted to outlines.



Without careful consideration spot coloured greyscale images and multi-toned images can often be converted to CMYK when producing colour composite PostScript/PDF files. If you are aware that images of this type are used in your files please consult us. There are steps that you can take to avoid these causing a problem.



For full colour printing, images must be converted to CMYK before they are supplied to us.



Please be aware that enlarging any bitmap image within your DTP application will reduce the overall resolution of that image.



Every time that you save an image using the JPEG format, image quality will depreciate.



Please try not to use bitmap images for items that would be more suited to vector format, such as fonts.



We appreciate that you may not always be able to achieve the desired quality for bitmap images. If the files that you supply us for printing contain lesser quality images please bring this to our attention so that we do not unnecessarily delay your job.

