

# P4DN

## Upload **File** & **Artwork** Guidelines

everything you  
need to know (and read)  
before sending  
us files

**P4DN**  
Version **1.2**

# FORMATS WE ACCEPT

We are happy to accept any of the following file formats.

## High Res PDF **or** JPEG or TIFF

However delivery of data by PDF is the most reliable way for you and us to produce a high quality product. However, not all PDF's are suitable for printing purposes. Therefore you need to take the settings into consideration. The safest program for creating PDF files is Acrobat Distiller. But there are a lot more programs which support the direct creation of PDF files.

### Creating PDF's directly from the layout programs

If you generate PDF's directly through the layout program, you should use PDF/X-Standard. Always pay attention here to the compatibility of PDF 1.3 and PDF/X3-Standard. (In older versions of the program only PDF/Axle-Standard is included, which can also be used.) PDF/X was developed in order to make the exchange of data between professional pre-stage companies easier. In this PDF-Standard only the data relevant to printing is integrated.

### Creating PDF's through Acrobat Distiller

#### Conditions for creating a PDF with a Mac:

- Print driver Apple LaserWriter from Version 8.4 or Adobe PS from Version 8.6, Adobe Acrobat from Version 4.05a, and Adobe Distiller

#### Conditions for creating a PDF with a PC:

- Print driver PostScript with PPD Distiller or Normalizes Adobe Acrobat from Version 4.05a, Acrobat Distiller. The settings differ from program to program, although there are general aspects which have to be taken into account:
  - Create a PostScript file, by selecting the PostScript print driver and print everything "in the file".
  - Ensure you specify the border section (3mm) and the trim marks.
  - At the very least use PostScript Level 2 (better PostScript Level 3).
  - Attach all fonts to the PostScript file.
  - Always create a "Composite file", convert spot colours to CMYK
  - Use Acrobat Distiller to create a PDF file from the PostScript file.
  - You can also select compatibility PDF 1.3 in the default Distiller settings for PDF/X-1a (from Acrobat Distiller 4.05) or for PDF/X3 (from Acrobat Distiller 6).

### Creating a JPEG or TIFF ready for print

- Firstly, check that the data is created to the correct size (including edge trim!), in the correct colour mode and with adequate resolution.
- Save the file under "Save As". In the new window select the desired name and file type "JPEG" or "TIFF". In some programs these formats are not offered in the "Save As" menu. In such cases use the function "Export".
- Following this, depending on the program, windows open consecutively. Check here that the information regarding size, colour mode and resolution are correct. Make sure you set the quality to maximum.
- After saving, the file is now ready to print as JPEG or TIFF and can be uploaded.

If you have any queries please contact us for more information. Or maybe you just want to use our file check service...see page 4

# IMAGE RESOLUTION

- The images should be at least 300 dpi.
- The images should have the correct resolution right from the start. Increasing the resolution retrospectively does not provide an improvement of quality.
- In order to keep the amount of data as low as possible crop the images to the size of the section which is to be used.

# FONTS AND LINES

- The fonts should be integrated in the document or converted into curves.
- Only use preset fonts and not fonts generated by programs. This could lead to a false image when it comes to creating the printed product.
- The font size should not go below 6 points.
- Lines should have a thickness of at least 0.25 mm (no hairlines).

# TIDY YOUR FILES

- The data must be sent whole, i.e. with all logos and pictures which are to be incorporated.
- Remove all unnecessary elements (images, vectors, fonts) from the document, as well as those which do not lie in the print area. Vector data always provides a better quality than pixel images and should be preferred forward in the composition.

# FILE CHECK SERVICE

We would like you to be satisfied with your print product all around. Since correct data is the pre-requirement for a perfect print, we offer a professional data check (with costs) from our colleagues in the pre-press division.

This includes checking of your data for the following problem areas:

- Correct format and edge trim
- Adequate resolution of the print data
- Correct creation of the data in the CMYK colour spectrum
- Integration of the used fonts
- Checking hairlines and transparency
- Combination of potential existing layers

If you would like us to check your file, please enquire for information regarding costs.

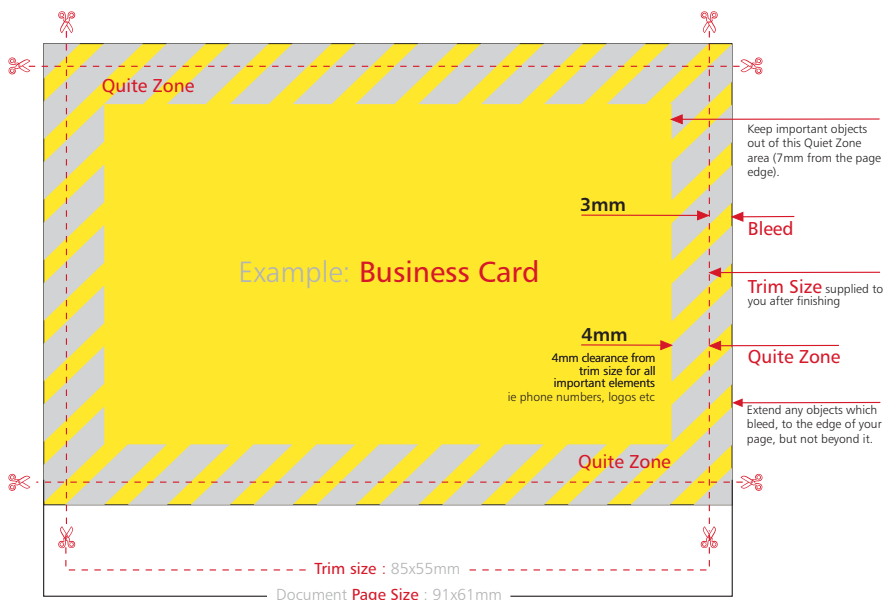
Once you have finished positioning your layout data the document needs to be saved in a printable format. See page 2 for required formats.

Pay particular attention to the fact that Microsoft programs (WORD, PowerPoint, etc.) do not generate printable data. Please use the following data formats: PDF, JPEG, and TIFF

# SETTING YOUR PAGE SIZE

It's very important that you set your page size correctly. If you don't, parts of your design may be chopped off, look off-centre, or have areas of undesired white space. Here's what to do:

1. Locate the product size you're interested in on page 13.
2. Make a note of the Page Size. This is the size you should set your page on your document.
3. Now look at the Trim Size. You'll see that this is 6mm smaller on both dimensions. This difference is known as the 'bleed' - 3mm on all four sides - that's where our guillotines will approximately make their cuts. The bleed allows for any small variations in this cutting.
4. To remind yourself where the cuts will be made, add some guidelines 3mm from each edge on your document.
5. See the example below. For a business card, you'd set your page size as 91x61mm. We'll trim down to approximately 85x55mm.
6. It's good practice to leave a 'Quiet Zone' of 4mm from the trim edge (that's 7mm from the page edge). This will make your job look more professional and it won't look like any objects are about to fall off the edge.
7. No objects must extend beyond the page size - use the 'paste inside' or 'power clip' tool.
8. Finally, best not to put any important objects, such as text or logos, closer than 4mm from the trim edge, or from any fold or crease (see below).



# A BIT ABOUT COLOUR

Cyan



+

Magenta



+

Yellow



+

Black



=

Process CMYK



Your computer, scanner, digital camera and monitor create images using combinations of just three colours: Red, Green and Blue (RGB).

Printing presses use four different colours to print these images -Cyan (light blue), Magenta (pinkish red), Yellow and Black (or CMYK - also known as Process Colour). At some stage of production, RGB images must be converted to CMYK.

Conversions from RGB to CMYK are best done in packages like Photoshop or Photopaint and you should do this before sending your file to us. If you don't perform the conversion yourself, when we print your file, our process will apply a standard profile RGB to CMYK conversion meaning that colours may look washed out.

Traditional printers often use Pantone® Spot colours when printing work. Spot colours are mixed like paint and printed one at a time. As we use Process Colour, all Pantone® Spot colours must be converted to their CMYK equivalent before your file is sent to us. Specifying conversion to process colours at the print stage will not meet with our requirements.

If you don't convert spot colours to process, then an extra separation printing plate may be produced when we process your job. This means objects may not appear on your printed job and may result in you incurring unnecessary costs.

You can check your document by printing 'separations' on your desktop printer - see the help file that came with your application for more details. If anything other than a cyan, magenta, yellow and black separation prints, then you've got unwanted colours that you need to convert. This is also a good way of checking knockout/overprinting settings.

Some RGB and Spot colours do not have a direct CMYK equivalent - the technical term for this is "out of gamut". If you have chosen a colour that is out of gamut, your software will choose the closest equivalent CMYK colour, which may be very different from the colour you intended. This is something that everyone has to put up with, so for best results, stick with CMYK colours.

# GETTING THE BEST FROM CMYK

You'll get best reproduction from colours that are made up from one or two inks (i.e. magenta and cyan etc).

When using lighter shades, avoid tints that contain less than 10% of either Cyan, Magenta, Yellow or Black, as they usually print much lighter than they appear on screen and you may be disappointed with the outcome. For best results, use tints containing 10% to 30% where possible.

Try to avoid large areas of the same colour too - that's where colour variation becomes most noticeable. Best to use textures or images instead. And vignettes, or gradient fills are best avoided - they have a tendency to show 'banding' and look unprofessional.

## A NOTE ABOUT PROOFING

Anything printed on a standard inkjet or laser printer will not be colour accurate. These proofs act as a guides as to how the finished print will look, and should only be used to check that text hasn't reflowed and no items are missing.

These proofs cannot be relied upon to spot items such as objects set to overprint, hairlines and JPEGs / RGB / Duotone images (which may proof in colour, but print in black and white).

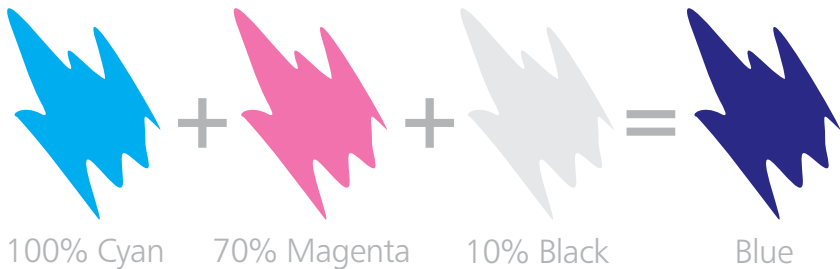
If you need a more accurate proof, ask for details.



# AVOIDING SET-OFF

'Set-off' is the marking of the underside of a sheet caused by the transfer of ink from the sheet on which it lays. It can occur when pressure is applied during guillotining or simply while the paper is stacked. Set-off is caused by the fact that the ink is still wet, and is most prevalent on uncoated stocks like letterheads.

Let's just remind ourselves of how process colour is created. As an example, a mid blue colour consists of 100% cyan ink, 72% magenta ink and 10% black ink. If we add these percentages together, we can work out that mid-blue has a total ink coverage of 180% (100% + 70% + 10%). The maximum ink coverage that is possible is 400% (which is of course 100%C, 100%M, 100%Y and 100%K).



We have some guidelines to help avoid set-off. Our recommended ink coverage limit is 225%. This means that, wherever possible, the colours you use should contain less than a total of 225% when you add together cyan, magenta, yellow and black. When it comes to black ink, there are other considerations - see page 05.

You can use colours made up from more than 225%, but less than 275% in smaller areas (such as headline text or logos), but you'll run into problems if you were to use large areas. Treat with caution, and if possible use lighter colours. Use the eyedropper tool in Photoshop to check the darkest area of your image.

Please don't use colours above 275% - you're putting a lot of ink on to the page, and our quick turnaround may mean that your job doesn't have time to dry before it is cut. At ink levels above 275%, your job may even begin to adversely affect other jobs printed at the same time. Please ask for advice if you are unsure.

You may be surprised to learn that you can perform 'under colour removal' to minimise the amount of ink being put onto the page, but keeping the colour the same. You can find in-depth discussions on these subject at [www.adobe.com/support/](http://www.adobe.com/support/)

# GETTING THE BEST FROM BLACK

It may surprise you to learn that there's more to black than meets the eye...

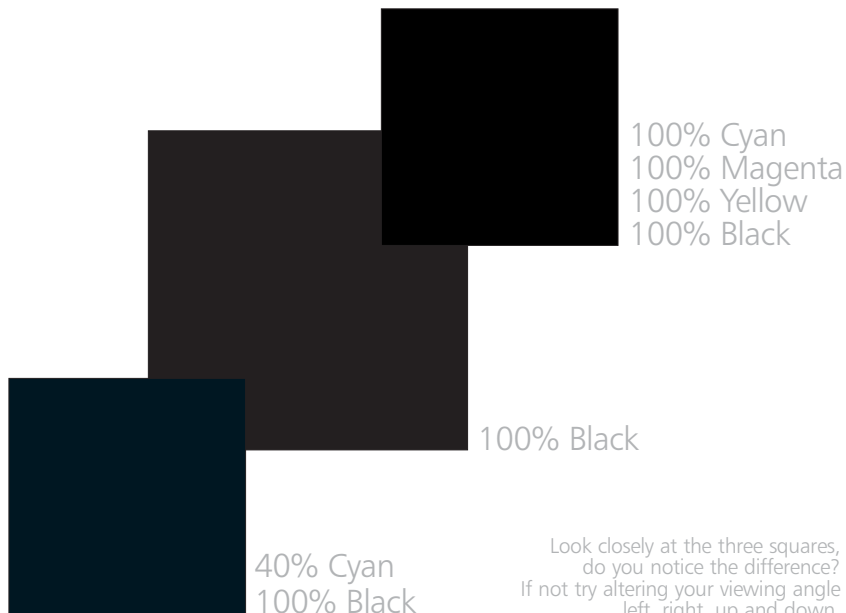
To get the best from our process, black can be produced in two ways. The first method is single colour black, made from 100% black ink. This is ideal for small areas less than 25mm<sup>2</sup> such as text or logos, since too much ink coverage on small areas may result in sheets sticking together.

On areas of over 25mm<sup>2</sup> in size, single colour black can appear washed out and uneven. This is because the rollers on printing presses roll the ink off over a large area. The alternative is rich black, which consists of 100% black and 40% cyan. A rich black should be used on larger areas to ensure an even, dark coverage, as the second ink colour disguises any inconsistencies. However, rich black should never be used on small text as any tiny deviance in registration will lead to a blurred effect.

Be aware that the higher the percentage ink coverage, the longer the drying time required. This is particularly true of uncoated stocks such as letterheads.

Black will inevitably appear duller on uncoated stock because of the absorbency of the paper. This absorbency also means that any fine detail reversed out of black may disappear. We do not recommend less than 8pt text, for example, on uncoated stock.

You may think that it would be okay to have 'three or four colour' black text as long as the total ink coverage is less than 275%. You'd be wrong! Black text should never have more than 140% ink coverage. "Four colour black" text is virtually impossible to print, will look blurred and may cause sheets to stick together.



# WORKING WITH PHOTOGRAPHS

If you are scanning photographs yourself, save them as either EPS or TIFF files as this will preserve the colour and clarity of your images. If you are scanning a previously printed item, such as a magazine photo, you will need to 'de-screen' the image, blurring it slightly to avoid a moire effect (see your scanning software manual for more details).

GIF or JPEG formats compress the image and actually discard information, causing colour shifts and blurriness. Don't use either of these file formats - they may actually print in black and white and you won't like the results.

When you are scanning, consider the final size your image will be used at. Always scan photographs at 300dpi at the size you are going to use them. There's no point scanning a postage stamp at 300dpi and then blowing it up to a A4 size - use your scanning software to help you calculate the output resolution. Conversely, scanning photographs at more than 300dpi will have little or no effect on the actual printed quality and will unnecessarily increase file size and processing time.

Don't enlarge or reduce your scanned images in your drawing/vector software (such as Illustrator) - it's always best to use an image-editing application such as Photoshop for this task.

When converting photographs from RGB to CMYK, refer to the settings on the left (from Photoshop 7). In the 'Photoshop' menu choose 'colour settings...'. From the window that appears, choose 'custom CMYK' from the list in the 'CMYK' section of 'working spaces'.

Scan black and white line art (i.e. a logo), at 1200dpi for best results. Any lower, and the logo may look blurry. Pay careful attention to the CMYK makeup of any 'black' in your logo. The automatically-created Photoshop black, for example, provides 250% ink coverage (see pages 07 and 08). You may need to adjust the colour settings in your application to get a black that is made from 100% black ink.

Make sure that any alpha channels are removed and all layers are flattened before finally saving your image. You shouldn't compress your image either, or it will cause problems. So LZW, JPEG and ASCII encoding are all no-nos. And don't use DCS files, LAB colour, Duo-tones or Tri-tones either - convert them all to CMYK. Images to be used on the black & white reverse of a job should be saved as greyscale.

# WORKING WITH TEXT

When working with small text, it's best not to use colours which contain more than one ink. All printing presses have a tiny variation in the positioning of the different colour printing plates. It's fine to use coloured text in headlines or type above, say, 12 point, but below that the blurring will be noticeable and won't look too hot. The same thing happens when you knock white text out of a coloured background made from more than one ink.

Be careful if you are putting text over a photographic background. You'll make the text very hard to read. To overcome this, take the photograph into an image-editing package and 'bleach' or lighten the image. You will have to lighten the image quite a bit more than you may think is necessary - always think to yourself "is it more important to see the image, or read the text?" If the text is more important, it may be best not to put it over the photograph at all.

Some Freehand text effects are known to cause problems, so don't use underline, shadow, strikethrough and any item from "text effects" menu. Also, Quark 'P', 'B' and 'I' styles aren't reliable. Please don't use Mac System Fonts either (such as "Times") as they do not contain printer information and will not print. (Use "Times New Roman" instead).

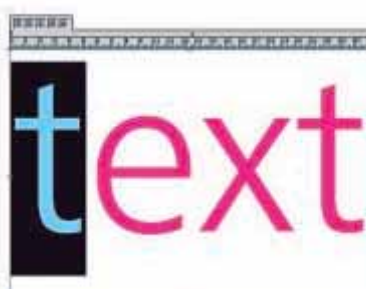
Include all fonts that you have used. Postscript fonts come in two parts - the screen font and the printer font. We need both, so please make sure you send both. True Type fonts only come in one part. To comply with the licence agreement, you should remove the fonts from your system whilst we are processing your jobs.

If you are going "cross-platform", ie. from PC to Mac, remember that fonts don't travel well. Check that we've got the same font and provide hard copies. We'll need you to check a proof carefully since even fonts from the same place can have slight differences resulting in reflow and words disappearing.

It's fine to convert headlines and large text to curves, paths or outlines (which means that you don't need to supply the fonts). Just watch your 'flatness' settings - set flatness to 1 and device resolution to 2400dpi.

We really advise against setting text in a bitmap application like Photoshop - the text will not be nearly as clear as if it were vector text from Illustrator or Freehand, say.

One final note: Don't use "Multiple Master/Metric" fonts as they are not compatible with our process. Such fonts have the letters MM in their title.



# THINGS TO AVOID

Today's graphics applications are incredibly sophisticated. So much so, that many contain features not compatible with the latest developments in printing technology. Through our extensive experience, we've prepared a list of features that we know don't work. So please, don't use any of the items listed below.

ITEM	WHY NOT?
Hairlines	Hairlines are 'device dependent'. This means that they print at different resolutions on different machines. They may print fine on your 300dpi laser printer, but will disappear on our 2500dpi plate-setter. Use 0.25pt instead.
Corel Texture Fills	These print erratically (or not at all). Best to select the object with the fill and choose 'Convert to Bitmap' from the 'Bitmaps' menu. Make sure you choose 300dpi and CMYK though, and don't make the background transparent.
Postscript Fills	These are erratic. They don't look good anyway, use something else.
Compression	You can happily use WinZIP or StuffIT to compress your files, but never compress images using LZW compression or JPEG encoding. Doing so will cause lots of problems and may result in your file not printing at all.
Quark Picture Boxes	A 'feature' of Quark Xpress is that if you don't fill a picture box with colour, the TIFF inside may print with a ragged edge. So, make sure your picture box is filled with 'white' rather than 'none'. Cut-out EPSs are OK.
Overprint	Be careful with overprint settings (especially in Quark). If you set objects to overprint, they will not 'knock-out' the background, and will look very different to what you see on screen or proof (see page 06). Black text is generally set as default to overprint. This is usually OK. Please refer to your application manual for more details.
OLE objects	Windows applications are happy to copy objects back and forth between themselves. Unfortunately, they don't print properly. Always convert OLE objects to bitmaps before sending your file. See 'Corel Texture Fills' above.
EPSs within EPSs	Not a good idea. Postscript errors are at their greatest when this is done. Certain Illustrator EPSs also cause problems in Quark.
Duotone/RGB images	These will either print in black and white, or with very washed out colours – always convert to CMYK.
Borders	Avoid a pronounced border (especially on Business Cards), since even a half millimetre movement when guillotined will be noticeable.

# COMMON SIZES

**A2** page: 426x600mm  
trim: 420x594mm

**A1** page: 597x844mm  
trim: 594x841mm

**A3** page: 303x426mm  
trim: 297x420mm

**A4** page: 216x304mm  
trim: 210x297mm

**A5** page: 154x216mm  
trim: 148x210mm

**A6** page: 111x154mm  
trim: 105x148mm

**A7** page: 80x111mm  
trim: 74x105mm

**Business Card**

page: 91x61mm  
trim: 85x55mm

**1/3rd A4**

page: 216x105mm  
trim: 210x99mm

