

DIRECT FROM DISK GUIDE

EVERYTHING YOU NEED TO KNOW
(AND READ) BEFORE SENDING
FILES TO US



FAST FULL COLOR PRINT

WE WANT YOUR GRAPHIC FILES TO PRINT PERFECTLY



We want the same thing that you want. We want your graphic files to print with no fuss and look like you meant them to. We'll be honest with you – of the small number of jobs that don't print as expected, the overwhelming majority are supplied to us on disk.

Even if you're a seasoned professional and are used to supplying files for print, read this guide anyway – **our process may be different than what you are used to.**

It's a bit complicated setting up a file for print, and if you've not done it before there's a lot you need to know. If you read this guide before you start designing, your file should print like a breeze. Please call us before you start work on anything big or complicated — it'll save tears later.

Our designers usually join us after three or four years of study with a Degree in Graphic Design or similar experience. From there, it usually takes around 3 months with us to acquire the print process knowledge and understanding to correctly create graphic files for print.

With that in mind, think about whether you need our Hand Holding service (see page 03). There's absolutely nothing to be ashamed of – we check files for loads of designers every day.

Whatever you decide, please read this guide in full – it's the best way to ensure that you don't suffer any unnecessary delays and heartache.

HAPPY DESIGNING!

HAND HOLDING SERVICE

Our Hand Holding service is a comprehensive series of final checks to ensure that your file complies with all of our production requirements. We thoroughly recommend you let us do this, especially on your first order, or if someone else is creating the graphic file for you. However, our Hand Holding service isn't a critique of your design skills. We won't be checking your spelling or grammar and we won't be questioning whether your design will work on an aesthetic level. (We can if you want – just ask for a price).

we will do this:

- check your document for technical errors – please allow 24 hours for this



if we find errors, we will do this:

- notify you of incorrect items
- at your instruction, correct errors for you (we'll let you know the charges), or return your file
- provide you with a proof
- once errors are corrected, verify your file will print correctly*



if everything is fine, we will do this:

- go straight to print
- provide you with a proof for reference only — **no changes can be made** (see page 6)



if we find errors, we won't do this:

- go to print until you sign-off on the proof



if everything is fine, we won't do this:

- wait for you to sign a proof



We've divided our product range into three groups, depending on how long it typically takes to check a file (more complicated files may take more time). Locate the item you have designed and ask us for the price for complete peace of mind.



BRONZE
HAND HOLDING

Business Cards
Letterheads
Notepads
Stickers



SILVER
HAND HOLDING

Bookmarks | Greeting Cards
Invitations | Laser Mailers
Laser Price Lists | Flyers
Posters | Report Covers
Showcards | Table Tent Cards
Wobblers



GOLD
HAND HOLDING

Booklets (per 8 pages)
Envelopes | Pocket Folders
Folder Inserts | Menu Covers
Brochures

*There may be some issues we cannot check for that are beyond our control, such as corrupt TIFFs/fonts

ARE YOU A DISK RISKER?



Once you're used to our ways and you've built up a clean track record of supplying files correctly, we'll let you become a **Disk Risker** – if you want to. If you choose to be a Disk Risker, please sign an "I'm a Disk Risker" form and send it to us with your file. We'll also need a hard copy – preferably in color, and a mock-up if your design is more complicated (see page 15).



we will do this:

- Check that the page size is correct
- Check that no images are missing
- Check that no fonts are missing
- Go to print if these items are OK
- Notify you if they are not
- Wait for your new file



we won't do this:

- Check anything else
- Provide you with a proof
- Refund, or reprint the file, if it fails to print as expected as a result of not following all of the advice of this guide



We would much rather you took advantage of our Hand Holding service — we'd hate for your job to fail because you've missed some of our instructions (see page 3)

A BIT ABOUT COLOR



CYAN

+



MAGENTA

+



YELLOW

+



BLACK

=



PROCESS COLOR (CMYK)

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

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

Conversions from RGB to CMYK are best done in packages like Photoshop 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 colors may look washed out.

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

If you don't convert spot colors 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 colors that you need to convert. This is also a good way of checking knock-out/overprinting settings.

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

GETTING THE BEST OF CMYK

You'll get best reproduction from colors 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.

If possible, choose from the colors on our complementary color chart. Apart from printing your job for real, these colors will give you the closest approximation to how your finished job will look, although some variation may occur.

Try to **avoid large areas of the same color** too – that's where color variation becomes most noticeable. It's 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

As part of our Hand Holding service we will supply you with a color proof. This is not color accurate and is produced on a color laser printer. The proof acts as a guide as to how the finished print will look, and should only be used to check that text hasn't re-flowed and no items are missing.

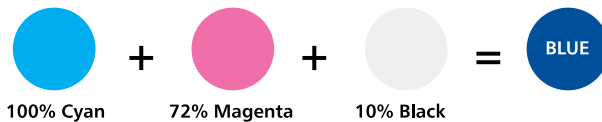
Our proofs cannot be relied upon to spot items such as objects set to overprint, hairlines and JPEGs/RGB/Duotone images (which may proof in color, but print in black and white).

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

AVOIDING OFF-SET

'Off-set' 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 cutting or simply while the paper is stacked. Off-set is caused by the fact that the ink is still wet, and is most prevalent on uncoated stocks like letterheads. Our process adds an extra gloss or silk coating to all jobs printed on coated paper. This reduces the likelihood of off-set occurring, but you should still be careful with which colors you choose, and in most cases you will be fine if you limit your choices to the colors on our color chart.

Let's just remind ourselves of how process color is created. As an example, a mid blue color 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 182% (100% + 72% + 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 off-set. Our **recommended ink coverage limit is 225%**. This means that, wherever possible, the colors 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 08.

You can use colors 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 colors. Use the eyedropper tool in Photoshop to check the darkest area of your image.

Please don't use colors above 300% – 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 300%, your job may even begin to adversely affect other jobs printed at the same time. If this is the case, we may be forced to quarantine your job at the print stage. Please ask for advice if you are unsure.

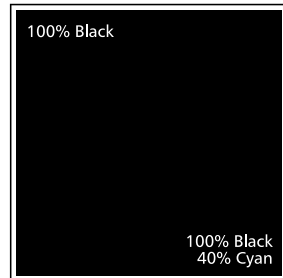
You may be surprised to learn that you can perform 'under color removal' to minimize the amount of ink being put onto the page, but keeping the color the same. You can find in-depth discussions on this subject at www.adobe.com/support/

GETTING THE MOST FROM BLACK

Black is black! Isn't it? 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 color black**, made from 100% black ink. This is ideal for small areas less than 1 sq. in., such as text or logos, because too much ink coverage on small areas may result in sheets sticking together.

On areas of over 1 square inch in size, **single color 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 color disguises any inconsistencies. However, **rich black** should never be used on small text as any tiny deviation 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 (see page 07).

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 color' black text as long as the total ink coverage is less than 300%. You'd be wrong! Black text should never have more than 140% ink coverage. "Four color black" text is virtually impossible to print, will look blurred and may cause sheets to stick together.

Also be aware that black within a photograph as a background may have a different CMYK make-up to other parts of your design. This will be noticeable when printed, even if not on screen. Placing a photograph with a black background over a black area in Quark, for example, may reveal a difference between the two shades of black when printed. To overcome this, take a sample of the black that the background is required to match in an application such as Photoshop (use the color picker tool). Then simply mix the matched color in, say, Quark – paying careful attention to the overall ink coverage.



WORKING WITH PHOTOGRAPHS

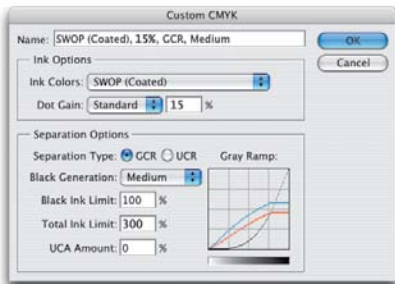
If you are scanning **photographs** yourself, **save them as** either **EPS** or **TIFF** files as this will preserve the color and clarity of your images. If you are scanning a previously printed item, such as a magazine photo, you will need to 'de-screen' the image, blurring it slightly to avoid a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

GIF or **JPEG** formats compress the image and actually discard information, causing color 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 300 dpi at the size you are going to use them.** There's no point scanning a postage stamp at 300 dpi and then blowing it up to a 8.5" x 11" size – use your scanning software to help you calculate the output resolution. Conversely, scanning photographs at more than 300 dpi 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.



Photoshop 7 screenshot

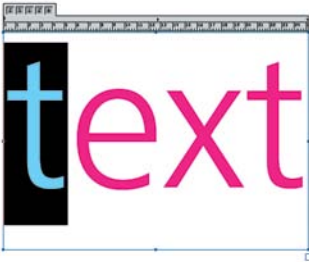
When converting photographs from RGB to CMYK, refer to the settings on the left (from Photoshop CS4). In the 'Photoshop' menu choose 'color settings...'. From the window that appears, choose 'custom CMYK' from the list in the 'CMYK' section of 'working spaces'.

Scan black and white line art (i.e. a logo), at 1200 dpi 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 color 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 color, 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 grayscale.

WORKING WITH TEXT



When working with small text, it's best not to use colors which contain more than one ink. All printing presses have a tiny variation in the positioning of the different color printing plates. It's fine to use colored 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 colored 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.

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 license agreement, you should remove the fonts from your system while we are processing your jobs.

If you are going "cross-platform," i.e. 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 re-flow 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 2540 dpi.

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.

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 300 dpi laser printer, but will disappear on our 2540 dpi plate-setter. Use 0.25pt instead.
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 color, 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 colors – always convert to CMYK.
Borders	Avoid a pronounced border (especially on Business Cards), since even a 1/64" movement when cutting will be noticeable.

SETTING YOUR PAGE SIZE

Adobe InDesign is our design application of choice. We've created design templates for the vast majority of our products in InDesign CS3 format, and above.

If you prefer we can supply you with an InDesign CS3 or CS4 template to make things easier. If you're using another application, we can supply you with the correct dimensions.

Before you start designing any job with folds, creases, cut-outs, scratch panels or perforations, CALL US. These items need to be positioned precisely and we don't want to have to reject your file if it isn't right. This includes Folding Business Cards, Mini Brochures, Cut-out Cards, Greeting Cards, Showcards with an added crease and many others.

Example: Business Card

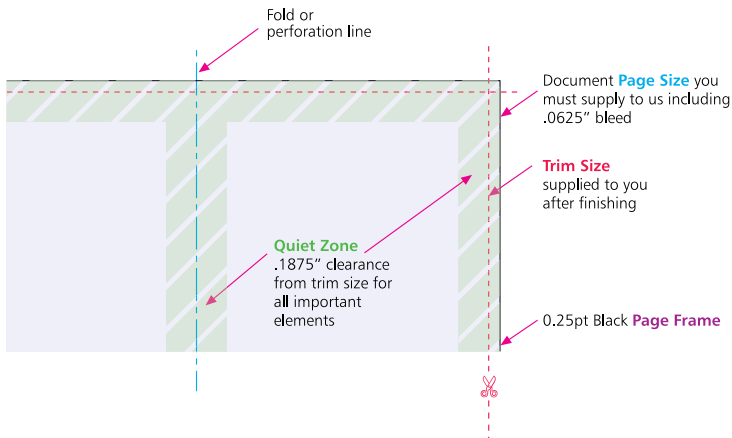


Extend any objects which bleed, to the edge of your page, but not beyond it.

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-center, or have areas of undesired white space. Here's what to do:

1. Locate the product size you're interested in on page 14.
2. Make a note of the **Page Size**. This is the size you should set your page on your document.
3. Add a black (100K) **Page Frame** (0.25 pt) to your document.
4. Now look at the **Trim Size**. You'll see that this is .125" smaller on both dimensions. This difference is known as the 'bleed' – .0625" on all four sides – that's where our automated cutters will approximately make their cuts. The bleed allows for any small variations in this cutting.
5. To remind yourself where the cuts will be made, add some guidelines .0625" in from each edge on your document.
6. See the example opposite. For a business card, you'd set your page size as 3.625" x 2.125". We'll trim down to approximately 3.5" x 2".
7. It's good practice to leave a '**Quiet Zone**' of .1875" from the trim edge (that's .25" 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.
8. No objects must extend beyond the page size.
9. Finally, it's best not to put any important objects, such as text or logos, closer than .1875" from the trim edge, or from any fold or crease (see diagram below).



COMMON SIZES see page 12 for full details

17" x 22" page: 17.125" x 22.125"
trim: 17" x 22"

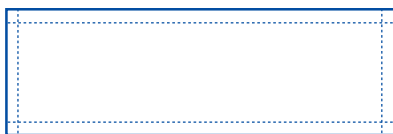
11" x 17" page: 11.125" x 17.125"
trim: 11" x 17"

8.5" x 11" page: 8.625" x 11.125"
trim: 8.5" x 11"

5.5" x 8.5" page: 5.625" x 8.625"
trim: 5.5" x 8.5"

4.25" x 5.5"

page: 4.375" x 5.625"
trim: 4.25" x 5.5"



Bookmark

page: 8.125" x 2.375"
trim: 8" x 2.25"

Business Card

page: 3.625" x 2.125"
trim: 3.5" x 2"



PROPER IMPOSITION

You'd be amazed at the number of great looking designs that we see which simply don't work on a functional level. Things like flyers that don't match up between back and front, or greeting cards where the inside is upside down.

Be sure to print out a copy of your document and make a mock-up before you send it to us. As well as your document looking good, consider the practicality of what it will be like when it has been printed, folded and cut down.

Simple things set incorrectly can ruin your document. The following items are famous for mishaps, so make sure your job works.

Perforation	Check that both sides have the perforation in the same place.
Landscape Greeting Card	Ensure that you flip the inside so that it's upside down.
Booklet	Check that all the pages are numbered in the right order. Save in one document as single pages — you don't need to paste them up, or supply 'printer's pairs' (printer spreads) — see page 16.
Brochures	Check that all the pages are in the correct places — the front panel is where you want the front panel to be, and so on — please ask for exact sizes.
Roll Fold Brochures	Check that you've allowed for the flap that folds in to be trimmed smaller, to prevent buckling. Ask for sizes.
Cut-out shape	Check that the reverse shape is a mirror image of the front shape.
Presentation Folder	Check that when the pockets are folded, they don't obliterate any text you want to be visible.

It is very important to supply us with a mockup. If you are using our Hand Holding service, we will be able to check that your document works the way you think it works. If you aren't using our Hand Holding service, please check your imposition very, very carefully – we can't be held responsible if you've not been thinking hard enough.

DESIGNING BOOKLETS

Before you start, are you sure you've got the skills to tackle a project of this size? **Designing a Booklet requires a lot more experience** than Business Cards or Flyers. We'd recommend you leave it to professionals.

If you're certain you want to design it yourself, read the whole guide and follow this additional advice. It's best to call us before you start work — it may save you some heartache later on.

DESIGN AS SINGLE PAGES

Create a separate page in your artwork for each page of your Booklet. You can supply a multi-page document or one page per document. You can't supply "printer's pairs" or spreads.

ADD A .125 BLEED TO EACH SIDE

Booklets need more bleed than other products. Look at the finished page size of the Booklet. Add .125" to all sides of your page — a total of .25" across each axis. You even need to add bleed to the edge which forms the spine. Our process chops this off and merges the spine together

ALLOW FOR CREEP

In a stapled Booklet the bulk of the paper causes the inner pages to extend (creep) further out than the outer pages when folded. When trimmed the inner pages are narrower than the outer pages. The amount of creep is dependant on the number of pages and paper thickness. The thicker the Booklet, the more you need to keep important objects away from the edges.

WATCH YOUR MARGINS

Normally, we recommend that you keep important objects at least .1875" from the 'trim' size. As a result of creep, we'd advise you to increase your margin to avoid anything being chopped off. When we design Booklets ourselves, we tend to leave at least .375" of 'quiet zone' or 'white space' on the trimmed edge. This means that creep isn't as noticeable and items won't be chopped off.

AVOID OBJECTS WHICH CROSS PAGES

It's unlikely that objects which cross pages will line up exactly. It's best to avoid them, or accept that there will be some vertical movement throughout your Booklet. Don't use borders, they'll look terrible. And avoid trying to match colors throughout the booklet.

FORMATS WE ACCEPT

We are happy to accept any of the following file formats and disk types. Software changes incredibly frequently so it's best to **call us before you start work to check which versions we support**. If your application of media file isn't listed, please call us.

Please always send the native file from your application, **not an EPS or PDF file**, and make sure it is clearly labelled. To avoid confusion, it would be helpful if your disk contained only the relevant files you want printed.

APPLICATIONS

Macintosh

Quark
Photoshop (Supply PSD file)
Illustrator
InDesign

PC (Windows)

Photoshop (Supply PSD file)

MEDIA TYPES

Macintosh

CD-ROM
DVD-ROM
Email

PC (Windows)

CD-ROM
DVD-ROM
Email

WHAT TO DO NOW

We want your file to print the way you want it to print. And more than anything else, we want you to be happy with the work that we produce for you. So, if there's anything at all that you don't understand — give us a call (preferably before you start designing).

Chances are, if you've followed our advice (and remember, we've seen thousands of disks in our time — we know what works and what doesn't), then your file probably will print just fine. But for your peace of mind, even if you're a design superstar, **we'd recommend that you go for our Hand Holding service**. For a very low cost, we will check your file and help you achieve the results that you want to achieve — see page 03 for full details.

If someone else is creating the file, we strongly suggest you opt for our Hand Holding service. At the very least, make them responsible for placing the order, and paying for the print. That way, if their file turns out to be incorrect (as they sometimes do), you won't be stuck in the middle.

Happy designing, and remember, we're on your side!

CHECKLIST

Please use this checklist to be sure your file is supplied correctly

Page Size/Layout

- Product page size is correct [see page 12](#)
- Page includes correct bleed [see page 12](#)
- All important elements are at least .25" from the page edge (.375" for booklets) [see page 12](#)
- No object extends beyond the page edge [see page 12](#)
- A black page frame has been added (0.25pt, 100k., set to overprint) [see page 12](#)
- No pronounced borders are used [see page 11](#)

Format/Files

- Design is created in an application we accept [see page 17](#)
- Design is saved as the native file from the application [see page 17](#)
- Design is supplied on a media type we accept [see page 17](#)
- Only files required for this job are included and clearly labelled [see page 17](#)

Colors

- All colors are converted to CMYK, including any Pantone or Spot colors [see page 05](#)
- All tints don't contain less than 10% of either Cyan, Magenta, Yellow or Black [see page 06](#)
- All colors (including images) have a total ink coverage of less than 225% or 300% (small areas only) [see page 07](#)

Images

- All images are converted to CMYK, and saved as TIFF or EPS files [see page 09](#)
- Photos are scanned at 300 dpi at 100%, Line-art images are scanned at 1200 dpi at 100% [see page 09](#)
- TIFF and EPS files are saved without any image compression (JPEG, LZW, or ASCII encoded) [see page 09](#)
- Any alpha channels are removed and images flattened [see page 09](#)
- All linked/placed TIFF or EPS files are supplied [see page 09](#)
- Picture boxes in Quark Xpress have fill other than 'none' [see page 11](#)

Fonts

- All screen and printer fonts are supplied (including those used in EPSs) [see page 10](#)
- No Multiple Master, Metric or Mac System fonts are used [see page 10](#)

Imposition

- A mock-up or hard copy is supplied and the design works on a functional level [see page 15](#)
- All files are imposed within the document correctly [see page 15](#)

Other

- No hairlines/fine lines less than 0.25 are used [see page 11](#)
- No Corel texture or postscript fills have been used [see page 11](#)
- All OLE objects have been converted to bitmaps [see page 11](#)
- There are no EPS files within other EPSs [see page 11](#)
- Overprint items are set correctly [see page 11](#)
- All special instructions for designing Booklets have been followed [see page 16](#)

This is an example of a 20-page self-cover half-size booklet printed on 100# gloss text paper.

LOGON TO> WWW.PRINTING.COM TO FIND YOUR NEAREST OUTLET

CALL US FREE AT
877-858-8732
OR VISIT WWW.PRINTING.COM



INVESTOR IN PEOPLE

BPXKWRH/12-30-08/v1.0