HINTS, TIPS & GUIDANCE

The following information is aimed to guide you in setting up your work so that it is 'print-ready' in a single file pdf format for Document Services but will also enable you for future reference when using commercial printers.

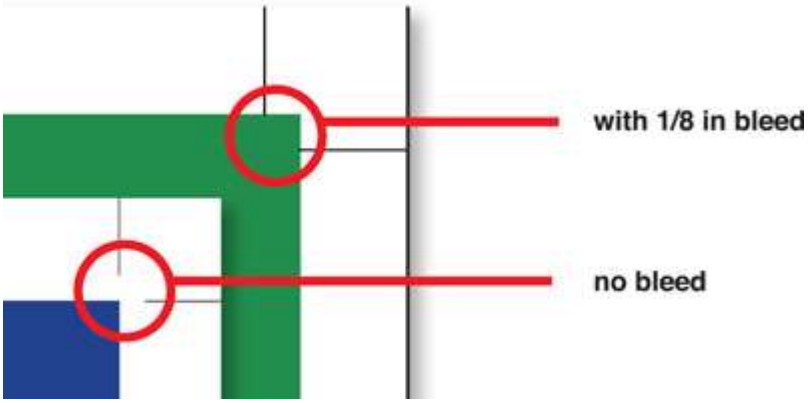
PDF's

A pdf file is a complete file with all the necessary information 'built in' or 'embedded' to enable the printer to produce the job as required without having to have special fonts & /or images on their pc.
(http://www.adobe.com/enterprise/accessibility/pdfs/acro6_pg_ue.pdf)
A word document relies on links to complete the file which are unlikely to be available on any pc other than the one the document was created on.

CROPS & BLEED

Crop Marks - A Definition:

Crossed lines placed at the corners of an image or a page to indicate where to trim it, are known as **crop marks**. Crop Marks may be drawn on manually or automatically applied with some desktop publishing software programs.
Crop marks are typically used when printing to a larger sheet of paper than the final trim size of the document, especially when doing bleeds. They indicate where to cut the paper. Similar to crop marks, centre marks indicate the centre of a spread and usually mean that is where the page is to be folded.



Bleed – A Definition:

Intentionally running off the edges

When any image or element on a page touches the edge of the page, extending beyond the trim edge, leaving no margin it is said to **bleed**. It may bleed or extend off one or more sides. Photos, rules, clip art, and decorative text elements can bleed off the page.
Elements that bleed off the page can sometimes add to the cost of printing if the printer must use a larger size of paper to accommodate the **bleed allowance**. To reduce costs, if possible redesign to eliminate the bleed or reduce the page size enough to fit the work on a smaller parent sheet of paper.

A bleed is usually an intentional design element; however, sometimes an unintentional bleed can occur when the page is trimmed too much. This can happen with margins that are not wide enough.

To allow for deviations in cutting the paper to finished size an element that bleeds off the page is typically extended about 1/8" or 3mm beyond the trim lines. The amount of **bleed allowance** may vary depending on the method of printing and the press used.

Designing Booklets for printing:

If you are considering printing a brochure or booklet with multiple pages, then you may be required to supply your artwork in printers' pairs. An easy way to explain this is to make a paper mock-up or your booklet which will help identify the pages which need to sit next to each other once the document has been printed and stapled together.

But bear in mind they must consist of the 4 page sets, anything less than 4 and they won't be able to be stitched (stapled) together or you will end up with blank pages at the end of your booklet.

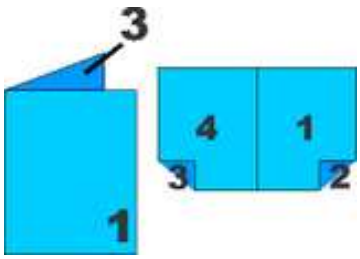
Difference between printer's pairs and reader's spreads on booklets

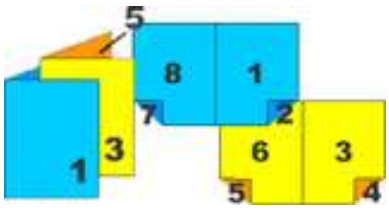
Page 1, Page 2, Page 3, Page 4 ... that's the order in which we read a book or newsletter, this is called reader spread. However that is not necessarily the order that it is printed.

Pages in a booklet are printed out of order. We will now take a look at some simple examples that demonstrate imposition or printer spreads/pairs -- the process of printing multiple pages on a piece of paper in such a way that when folded (and perhaps cut) they end up in proper 1, 2, 3, 4 order for readers.

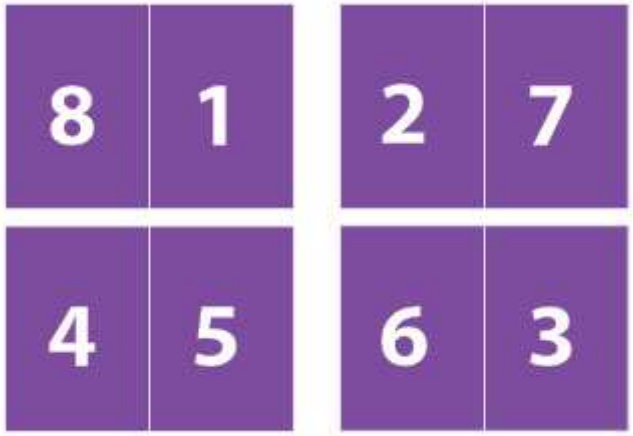
In the first example, a simple 4 panel insert/booklet. Add 4 more pages to that booklet and your page numbering changes as shown in the second illustration.

When setting up booklet artwork, it is important that the pages are set up in printer spreads. The pdf proof we send for approvals is also laid out in printer spread as well.
We will strongly recommend that your designer put together a mock-up of the booklet, to confirm the page order and plan placement of images.

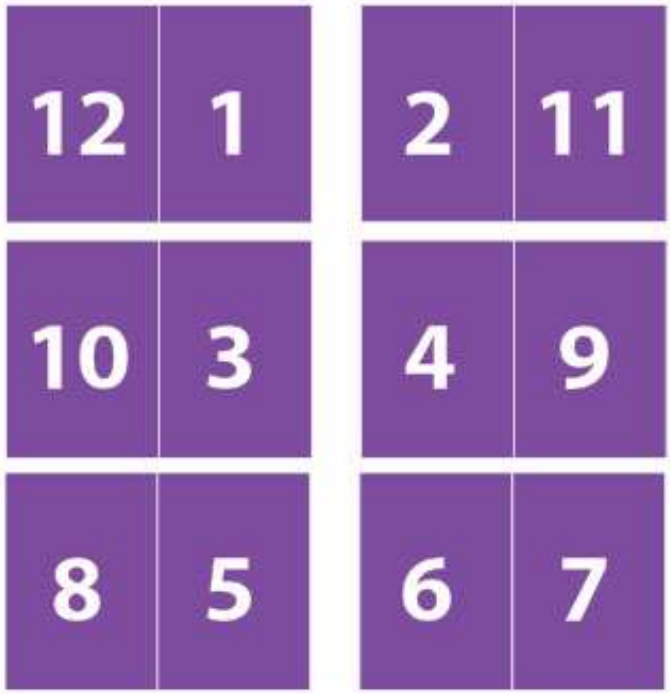




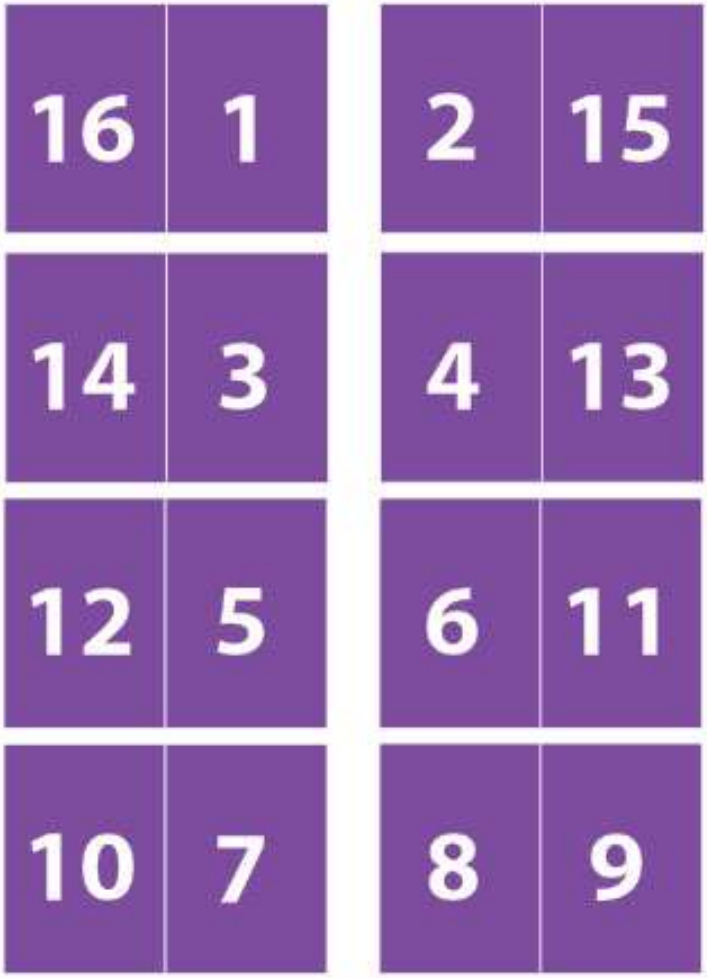
Here are some more visuals to help explain an 8page, 12 page and a 16 page document.



8pp - 8 Printed Pages



12pp - 12 Printed Pages



16pp - 16 Printed Pages

RGB V's CMYK - what to use when.

As a designer, it is essential to know when to use CMYK: cyan, magenta, yellow, and black (In the printing press days when plates were being used the black plate was typically call the "key" plate because it carried the important key information relating to the artistic detail.), and when to use RGB: red, green, blue colours on projects. A good rule of thumb is anything dealing with the web should always be in RGB and printed material should be in CMYK. But very few designers and clients know why this is the standard.
Here's why…

Back in the printing press days, to achieve colour, each ink (cyan, magenta, yellow, and black) had its own plate. First the printer would lay down one colour, wait for it to dry, lay down another colour, wait for it to dry and so on. Printing presses still work on that same theory to this day with the exception that offset printers can use a "spot" colour which can be added to achieve a specific colour swatch (usually a Pantone colour). As the printing age has progressed, the digital printer has come a long way, allowing print in RGB as well. But the standard still stays the same – use CMYK on all printing needs, as the colour will appear differently if printed in RGB.

On the other end, computer monitors give off coloured light known as RGB (CMYK is coloured ink.). This is because monitors are limited on the colour spectrum range that they can produce due to the cathode ray tubes. Computer monitors have a larger colour gamut than printing that can be achieved, which is why a computer can display a million more colours than what can be achieved with printing. Printing deals with absorption and reflection of wavelengths of which we perceive as colour (CMYK). Printing also has its own limited colour gamut. A lot of times customers will note that something looked different on screen than it does on paper and it is because of the different limited colour ranges that computer monitors and printing allows.

If your monitor is not pantone calibrated, you will not achieve the same colour on the printed page as is shown on the screen.

To go into further depth, RGB colours are also known as "additive colour" because to begin with, there are no colours and the colours are being added together to achieve further colours or until the outcome is white (look at the colour chart image directly below, the inside colour is white because it is all the colours added together). This is because our eyes receive no reflected light and they perceive the colour to be black. However, when you add portions of red + green + blue the outcome is the CMYK colours as shown below.

RGB colours are additive

While in return, subtract cyan – magenta – yellow – black and you will get the RGB colours. CMYK colours are subtractive for this very reason that it starts with all colours and when colours are subtracted the outcome is black (see below colour swatch, the inside colour is white). This is because the colours absorb the light.

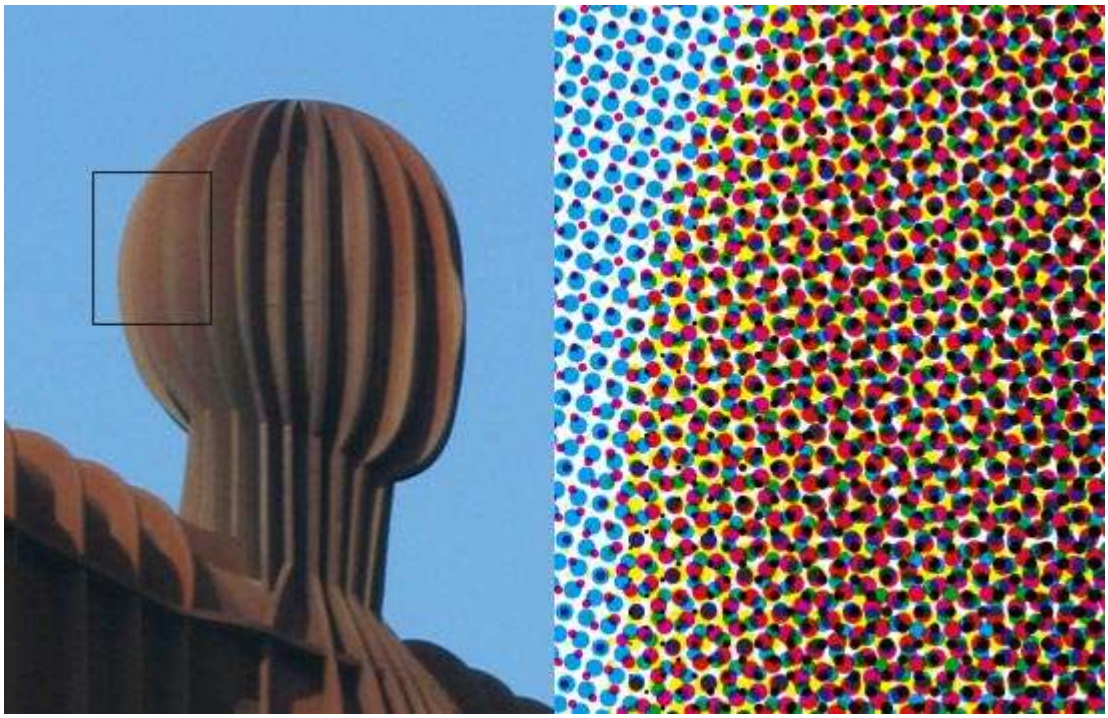
CMYK colours are subtractive

To further summarize what has been discussed, when it comes to deciding which colour group to use, first figure out what the output will be. If the output will be on a computer monitor then RGB is the way to go. If the piece will be printed, CMYK is usually the standard and the best option.

Process Colour Printing (CMYK)

Process colour printing, also known at four-color process printing, is a method that reproduces finished full-colour artwork and photographs. The three primary colours used are **c**yan, **m**agenta and **y**ellow. These inks are translucent and are used to simulate different colours, for example, green can be created using cyan and yellow. The "K" in CMYK is black or **k**ey tone. Black ink is used to create fine detail and strong shadows.

Artwork and photos are reproduced when the colours in the artwork are separated, then converted to dots (halftone). Process colours are reproduced by overlapping and printing halftones to simulate a large number of colours.



Spot Colour printing
if you need to match a particular colour, perhaps a logo colour, and have a limited budget, then spot colour is something to consider. Spot colours are printed with *premixed* inks on a printing press or screen printer. Each spot colour is reproduced using a single printing plate or screen.

To ensure that a printer uses the exact colour that the designer intends, the Pantone Matching System (PMS) is used. Each PMS number references a unique spot colour and these colours can be found on a swatch chart. By using this type of numbering system, people can convey the exact colours for a printed piece to each other without actually looking at the same samples.

It's important to remember that spot colours may not actually translate to matching process colours. Unlike process printing, which prints dots of colour, a spot colour is printed at 100% and has no dot pattern.

Binding:

There are various methods of binding but within Document Services we offer the following 3:

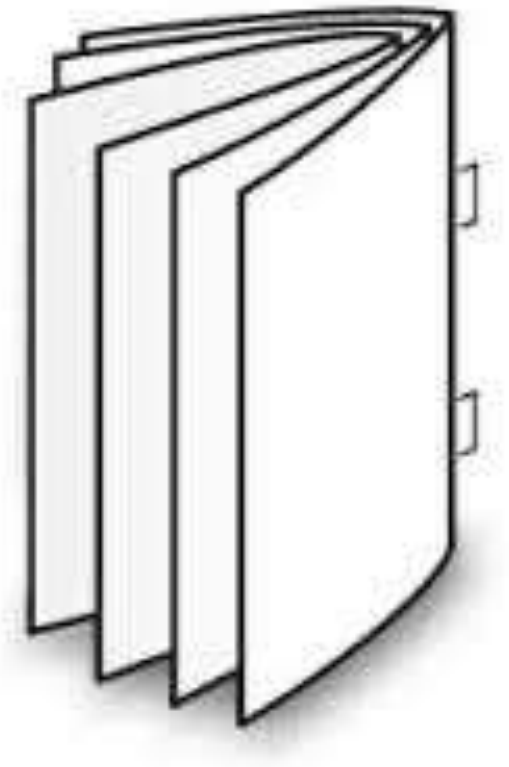
Comb Binding (up to A3 on the short edge) Up to 450 sheets of 80gsm.

This method of binding can be un-bound and re-bound with no damage to the job.

Wire Binding (up to A3 on the short edge) available up to 200 sheets of 100gsm / 220 sheets 80gsm.

This method of binding is permanent and cannot be re-bound without destroying the wire and occasionally the paper.

Saddle Stitching (up to an A4 booklet only) Maximum 25 sheets based on 100gsm stock.



Two wires (staples) stitch the pages together like a magazine. This cannot be re-bound without damage to the job.

Useful links

Adobe In-Design help page:

http://help.adobe.com/en_US/indesign/cs/using/WSa285fff53dea4f8617383751001ea8cb3f-7096a.html#WSa285fff53dea4f8617383751001ea8cb3f-7095a

Photoshop help page

https://helpx.adobe.com/photoshop/topics.html

Misc

http://colecandoo.wordpress.com/2011/10/06/printers-pairs-to-single-pages/

http://www.apsu.edu/sites/apsu.edu/files/academic-support-center/Microsoft_Publisher_Manual_of_Instructions.pdf

http://www.adobe.com/enterprise/accessibility/pdfs/acro6_pg_ue.pdf