Bristol Business Centre

DOCUMENT SETUP GUIDE

CONTENTS

SIZE GUIDE

SIZES AND RESOLUTIONS

The table below is based on printing a document at 300dpi *(dots per inch)* which will print at high quality.

Size	Size in MM *(without bleed)*	Size in Pixels at 300dpi *(without bleed)*	Size in MM *(with bleed)*	Size in Pixels at 300dpi *(with bleed)*
Business Card	85 x 55	1004 x 650	91 x 61	1075 x 720
DL / Comp Slip	99 x 210	2480 x 1169	105 x 216	2551 x 1240
A6	148 x 105	1748 x 1240	154 x 111	1819 x 1311
A5	210 x 148	2480 x 1748	216 x 154	2551 x 1819
A4	297 x 210	3508 x 2480	303 x 216	3579 x 2251
A3	420 x 297	4961 x 3508	426 x 303	5031 x 3579
A2	594 x 420	7016 x 4961	600 x 426	7087 x 5031
A1	841 x 594	9933 x 7016	847 x 600	10004 x 7087
A0	1189 x 841	14043 x 9933	1195 x 847	14114 x 10004

Please note this is not a technical explanation and hence is not fully accurate in technical terms, we are aware of this but have created this to simplify an otherwise very complex topic.

WHAT IS THE PROBLEM?

Most pictures on a screen are made up from small dots of colour. Each picture is made up by a certain number of dots or pixels. Quite simply the higher the number of pixels the higher quality the picture and the larger it can be displayed or printed without distorting. If a picture is enlarged beyond a certain point it will begin to distort and appear blurry *(pixelated)*.

BUT MY PICTURE/LOGO LOOKS FINE ON SCREEN?

A screen displays at 72dpi *(dots per inch)* where commercial presses print to 300dpi *(Different type of dpi compared to consumer printers!)*. To see how a press would print your logo or picture, zoom in to 400%, or display the image four times as large as you would like it to appear when printed. This will give you an idea of how it would look when printed.

EXAMPLE

There are three examples below, each is at a different resolution. At 100% zoom all the logos should look clear, however when you zoom in you should see the differences.

Logo 1 - JPEG at 72dpi   Logo 2 - JPEG at 300dpi   Logo 3 - Vectored File Type

- Logo 1 is very distorted and if printed this would be very obvious.
- Logo 2 does not distort at 400% and would print well, however if made any larger would also distort.
- Logo 3 is a vectored logo, meaning it is made up from a mathematical formula as opposed to dots. Because of this it will never distort regardless of zoom.

TIP - *If a picture displays clearly on a screen at 4 times the intended printed size it should print clearly.*

OK, I UNDERSTAND THE PROBLEM, WHAT'S THE SOLUTION?

1. **REPLACE** - The best solution is to replace the offending logo/picture with one that is a higher resolution or vectored. If your looking for better resolution files good places to check are; your web designer, any old proofs from printers and electronic versions of corporate documents that have been professionally produced. Logos should ideally be in an .ai illustrator file or .eps format.

2. **RESIZE** - You can sometimes get away by making a picture or logo smaller which can reduce pixilation *(however this isn't ideal)*. Use the four times rule of thumb to check.

3. **REBUILD** - This is by far the most complex and expensive option, pictures unfortunately cannot normally be rebuilt. With logos it is often possible to rebuild, however it is notoriously expensive as it requires a lot of design time. If this is your only option we will be happy to provide a quote.

4. **RISK IT / REGRET IT** - We can print your artwork as it is however you will accept all responsibility for the print quality. Obviously we would not recommend this.

This guide details the differences between RGB and CMYK colour gamuts, explaining why CMYK should be used for commercially printed documents and showing how to check colour settings in various popular software packages.

Please note: When an order is placed we do not check the documents colour set up and will automatically convert all colours to CMYK, in certain cases this can cause noticeable colour variation.

1. Colour Gamut Differences - CMYK v RGB
2. Converting RGB files and re-balancing colour
3. Creating Files In CMYK
   a. Adobe Photoshop
   b. Adobe InDesign
   c. Adobe Illustrator
   d. Microsoft Publisher
4. DOs and DON'Ts - Checking Your Files before sending

1. COLOUR GAMUT DIFFERENCES

With RGB colours the graphics are made up from Red, Green and Blue, with CMYK the colours are made up from Cyan, Magenta, Yellow and Black.

CMYK COLOURS
are subtractive meaning the starting canvas is white and colours are added to block out parts of the spectrum
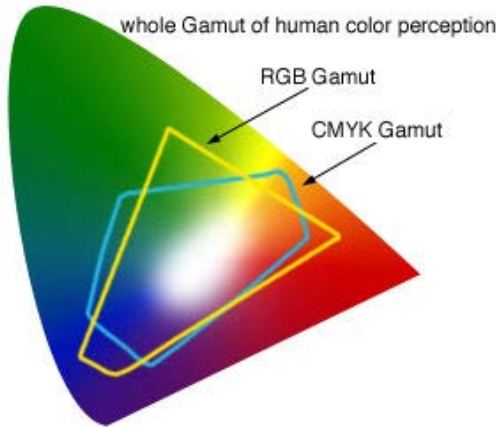

RGB COLOURS
are additive meaning that the starting point is a black canvas *(i.e. a computer screen)* and colours are added to create the final image.

WHY PRINT FILES NEED TO BE CMYK

The RGB colour spectrum is much larger than the CMYK spectrum. i.e. there are colours that can be created in RGB that are not available CMYK. This problem is most apparent with very bright colours such as a fluorescent orange or green.

Commercial presses print onto white paper using CMYK colours, in order to get the best results files should be prepared with this in mind. Below shows examples of files submitted in RGB colour that have been automatically converted into CMYK before printing.

TIP - *Converting files to CMYK before submitting them to print will avoid any surprises with colour when the final product is produced.*

2. CONVERTING RGB FILES TO CMYK AND RE-BALANCING COLOUR

Using software such as photoshop it is possible to re-adjust the colour balance after converting to CMYK to more closely match the intended colour output. If using RGB elements to begin with then it is worth converting them into CMYK and re-balancing the colours during the design process.

RGB - Original image to be used. *(Notice the vibrancy of the blues)*

CMYK - Colours are converted straight to CMYK

CMYK - Colour levels are adjusted to match in photoshop.

3. CREATING FILES IN CMYK

When designing any file it is important to set up and design the document in CMYK colour. This will save any problems in trying to adjust colours afterwards which can be very difficult if not impossible. However not all software is able to create files in CMYK colour mode. For example Microsoft Word and Powerpoint are only able to create documents in RGB which must be converted before prinitng. If you send us a native Word or Powerpoint files we will convert them into a CMYK pdf.

Software shown in guide
a. Adobe Photoshop
b. Adobe InDesign
c. Adobe Illustrator
d. Microsoft Publisher

OTHER SOFTWARE

The software shown above currently represents the most commonly used desktop publishing software for creating print files however documents can be created in many other packages. If using other software, some key settings to use are; Colour mode CMYK *(sometimes called process colours)*. Colour profile: Fogra 39 *(ISO 12647-2:2004)*. Where possible export as a PDF/x-1a:2001.

A. ADOBE PHOTOSHOP

Colour settings in photoshop are determined when the document is created, the screen below shows the correct colour settings. You can also check colour settings when a document is open by clicking on Image > Mode and selecting CMYK Colour.
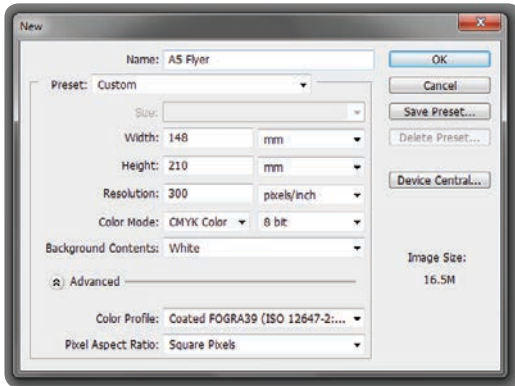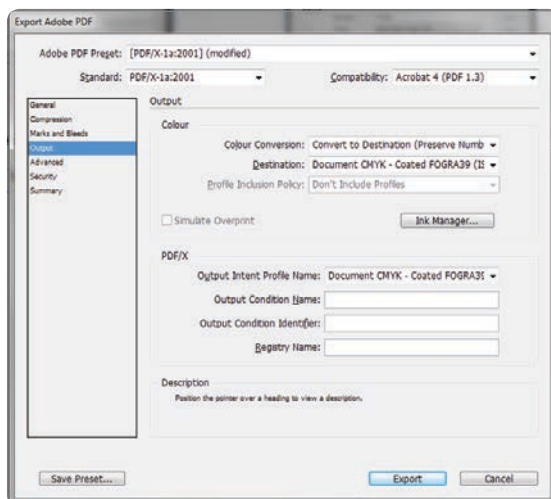
When creating a new document select CMYK Colour in the Colour Mode box.
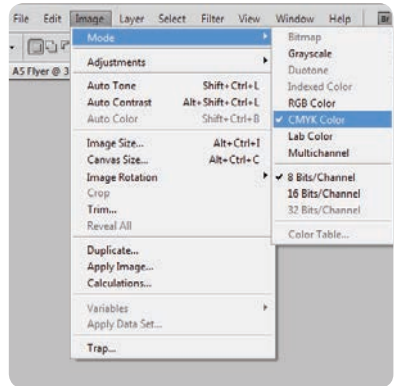
Checking when document is open
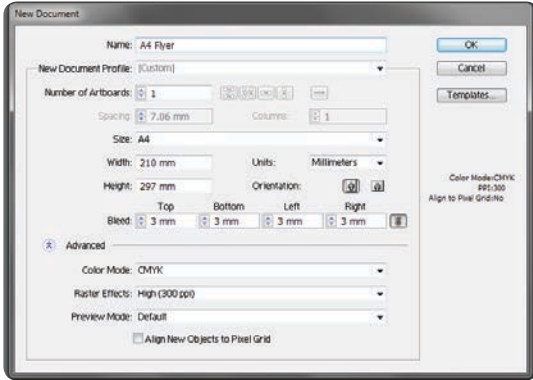
B. ADOBE INDESIGN

With InDesign the colours are converted when the file is exported to pdf. Selecting pdf/x-1a:2001 preset will ensure that the document is CMYK.

When exporting select pdf/x-1a:2001 preset

C. ADOBE ILLUSTRATOR

In adobe illustrator the colour mode is set when the document is created. When saving as a pdf select pdf/x-1a:2001 from the drop down presets list.

When creating the document select CMYK in the Colour Mode box.
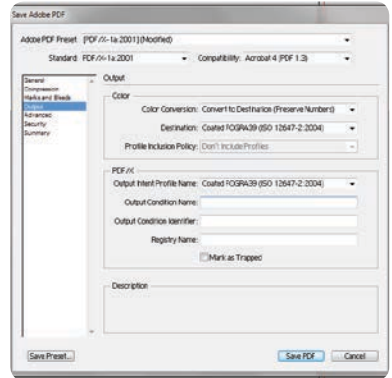
When saving the document as a pdf select pdf/x-1a2001 preset

D. MICROSOFT PUBLISHER

When the document is open click File > Info > Commercial Print Settings > Choose Colour Model. This will allow you to set the colour mode that you would like the document to be set up in. Select Process colours (CMYK).
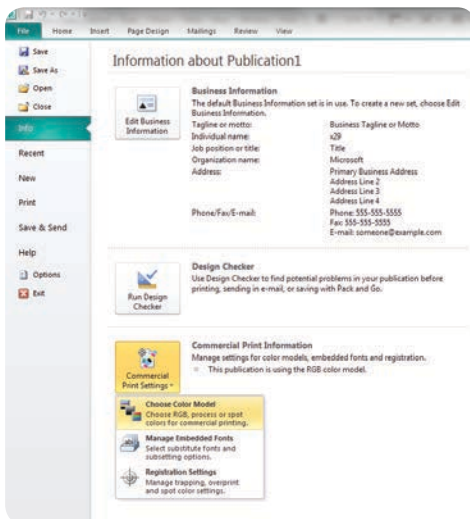
From the file menu select "choose colour model"

Select "Process colours (CMYK)"

4. DOS AND DON'TS - CHECKING YOUR FILES BEFORE SENDING

Finally, a couple of quick pointers to help you.

- DO check proofs on screen using a colour calibrated monitor *(if possible)*. Be aware that with uncalibrated screens colours will vary from monitor to monitor.
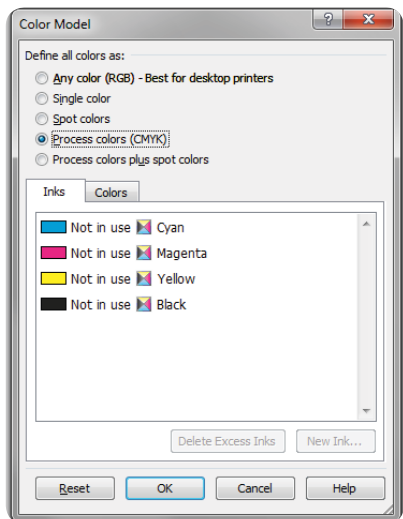- DO print samples using a commercial proof printer ensuring the target profile is set to Fogra 39.
- DO use the Adobe Acrobat Pro Output Preview tool to check how the file will look when output to Fogra 39.
- DO use printed CMYK colour swatches to check colours if you are unsure.
- DO ask for a printed sample if you are unsure of your document's colour setup. Samples are a great way of checking how your file will print. However this is not practical for litho printing due to costs .
- DON'T check colours against desktop printer samples as their profiles will generally try to emulate RGB colours as opposed to printing the true CMYK colours.

In this document we will explain what "bleed" is and why it is required. It will also explain how to add bleed to a document that you have designed. The final part of this document shows eight examples of designs without a correct bleed area and instructions for how to correct them.

WHAT IS BLEED AND WHY IS IT REQUIRED?

When graphics continue to the edge of a sheet of paper bleed is required. This is because a commercial printing press cannot print to the edge of a sheet of paper. Instead multiple impressions are printed on much larger sheets of paper and then cut down to size. Because it is impossible to cut exactly to the edge of your design a little over print on each side is required. This overprint is called "bleed". Any document that is being professionally printed will require a bleed area and a safe zone. The diagram below shows a correctly lined up business card with 3mm of bleed and crop marks. The crop marks show the line that the guillotines must cut to. The bleed is the area outside of these marks.

CARD BEFORE CUTTING

Lanscape Gardener
Your Name
Job Title

Tel: 01573 537489
Mob: 01573 537489

you@youremail.com
www.yourweb.com

crop marks

CARD AFTER CUTTING

Lanscape Gardener
Your Name
Job Title

Tel: 01573 537489
Mob: 01573 537489

you@youremail.com
www.yourweb.com

bleed has been cut away and discarded
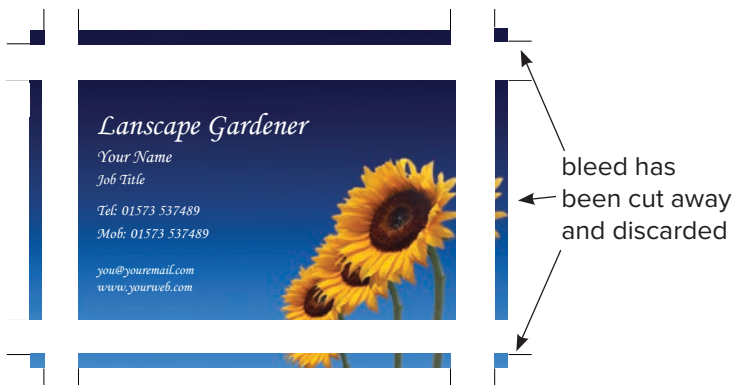
HOW MUCH BLEED DO I NEED?

The industry standard is to have 3mm of bleed on each edge and a 3mm safe zone inside. This means that the length of each side will be 6mm longer. The table provided contains the correct dimensions of documents lined up with a bleed area.

WHAT IS THE SAFE ZONE?

The safe zone is the 3mm inside of the cutting edge in which no text or important information should be placed. Any graphics in this area risk being clipped when cutting. Across the following pages we will show you examples of documents with suitable and unsuitable bleed and safe zones.

DIAGRAM SHOWING BLEED AND SAFE ZONE

In the diagram below you will see that the photograph extends to the edge of the bleed area and there is no text in the safe zone.

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

THE BEST ORGANIC TEA YOU'LL EVER TASTE

INCORRECT
TEXT BEYOND
THE SAFE ZONE

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

THE BEST ORGANIC TEA YOU'LL EVER TASTE

CORRECT
TEXT IS WITHIN
THE SAFE ZONE

EXAMPLES OF COMMON MISTAKES

This section shows common mistakes with setting up bleed as well as methods for correcting them.

1. NO BLEED AREA OR WHITE BLEED AREA

⚠️ The document has no bleed area. If printed then the document will have random white lines on edges as printing and cutting tolerances cannot be compensated for.

✅ Extend picture into the bleed area.

INCORRECT
ARTWORK WITH NO BLEED

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

THE BEST ORGANIC TEA YOU'LL EVER TASTE

CORRECT
EXTEND THE IMAGE TO THE EDGE OF BLEED LINE

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

THE BEST ORGANIC TEA YOU'LL EVER TASTE

2. TEXT IS IN THE BLEED AREA AND SAFE ZONE

⚠️ The document has a bleed area and safe zone however there is text inside the bleed area and safe zone. If cut then text outside safe zone is likely to be cut off.

✅ Move text inward by at least 6mm (3mm for bleed area + 3mm for safezone).

INCORRECT
TEXT OUTSIDE OF SAFE ZONE

THE BEST ORGANIC TEA YOU'LL EVER TASTE

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

CORRECT
TEXT HAS BEEN MOVED AWAY FROM EDGE TO ALLOW BLEED

THE BEST ORGANIC TEA YOU'LL EVER TASTE

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

3. TEXT IS IN THE SAFE ZONE

⚠️ The document has a bleed area and safe zone however there is text inside the safe zone. If printed then the text in the safe zone could be cut off or clipped.

✅ Move text inward by at least 3mm.

INCORRECT
TEXT OUTSIDE
THE SAFE ZONE

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

THE BEST ORGANIC TEA YOU'LL EVER TASTE

CORRECT
MOVE THE
TEXT AT LEAST
3MM IN FROM
THE CUTTING
LINE

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

THE BEST ORGANIC TEA YOU'LL EVER TASTE

4. THE BLEED AREA IS A DIFFERENT COLOUR TO THE EDGE OF THE DESIGN

⚠️ The document has a bleed area however it is not a continuation of the background design. Instead it is a grey border. If printed there are likely to be random grey lines on edges of the product.

✅ Make the bleed area a continuation of the background design.

INCORRECT
THE IMAGE DOES NOT CONTINUE INTO BLEED AREA

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

THE BEST ORGANIC TEA YOU'LL EVER TASTE

CORRECT
EXTEND THE IMAGE INTO THE BLEED AREA

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

THE BEST ORGANIC TEA YOU'LL EVER TASTE

5. OBJECT TOUCHING THE CUTTING LINE DOES NOT EXTENT TO THE EDGE OF THE BLEED

⚠️ The black box containing the text touches the cutting line but does not extend to the edge of the bleed area if run as is the could be random lines on the edge of the black box.

✅ Either extend the black box to the edge of the bleed area or move the edge of the black box to the edge of the safe zone.

INCORRECT
THE BLACK
CONTAINING
BOX DOES NOT
EXTEND TO
EDGE OF BLEED

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

THE BEST ORGANIC TEA
YOU'LL EVER TASTE

CORRECT
THE BLACK
CONTAINING
BOX HAS BEEN
EXTENDED TO
THE EDGE OF
BLEED LINE

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

THE BEST ORGANIC TEA
YOU'LL EVER TASTE

6. OBJECT IS HALFWAY BETWEEN THE CUTTING LINE AND THE SAFE ZONE LINE

⚠️ The black box containing the text touches is halfway between the cutting line and the safe zone line. If printed as is the black box may touch the edge on some flyers and not on others.

✅ Either extend the black box to the edge of the bleed area or move the edge of the black box to the edge of the safe zone.

INCORRECT
THE BLACK CONTAINING BOX DOES NOT EXTEND TO EDGE OF BLEED

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

THE BEST ORGANIC TEA
YOU'LL EVER TASTE

CORRECT
THE BLACK CONTAINING BOX HAS BEEN EXTENDED TO THE EDGE OF BLEED LINE

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

THE BEST ORGANIC TEA
YOU'LL EVER TASTE

7. NOT ENOUGH BLEED

⚠️ The design does not have enough bleed area. If cut as is there may be random white lines around the edges of the finished product.

✅ Extend the background image to fill the bleed area.

INCORRECT
THE IMAGE DOES NOT EXTEND TO THE EDGE OF BLEED LINE

THE BEST ORGANIC TEA YOU'LL EVER TASTE

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

CORRECT
THE IMAGE HAS BEEN EXTENDED TO THE EDGE OF BLEED LINE

THE BEST ORGANIC TEA YOU'LL EVER TASTE

EDGE OF BLEED
CUTTING LINE
SAFE ZONE

WHAT I AM UNABLE TO CORRECT MY DOCUMENT?

If you are unable to correct your document there are two options.

1. Print with a border - We would be able to print your document with a 5mm white border *(or any colour you prefer)*. We use 5mm to ensure even borders on each edge.

2. Have the design professionally re-built - a professional graphic designer would be able to create a new design for you with a correct bleed area and safe zone. We have an graphic design team who would be happy to help. Get in contact if you would like a quote:

Phone: 0117 973 9222
Email: info@bristolprintcentre.co.uk
Website: www.bristolprintcentre.co.uk

Bristol Business Centre

0117 973 9222

info@BristolBusinessCentre.co.uk
www.BristolBusinessCentre.co.uk

info@BristolPrintCentre.co.uk
www.BristolPrintCentre.co.uk

179 Whiteladies Road, Clifton, Bristol, BS8 2AG