



LITTLE CMYK BOOK



Step 1: The choice is yours

C3imaging has the ideal solution to your short run printing needs. Using the latest digital technology, there is no need for conventional films and printing plates, your image is transferred directly onto paper. The results are virtually indistinguishable from offset litho quality printing, but the advantage is that every single print can easily be personalised. As our minimum quantity is one, imagine the opportunities for direct mailings and customised invitations!

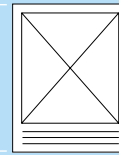
C3imaging use a range of options to achieve high quality, high speed solutions to your exact requirements. Whether you need cost effective short runs, exceptionally vivid colours, or simply need your reports in record time, C3imaging has the answer

This Little CMYK Book will equip you with the skills to develop perfect solutions to your printing requirements. Follow our 7 steps to digital printing and you can achieve perfect results every time.

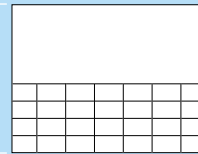
Should you still require any assistance or wish to discuss a future project, don't hesitate to contact one of our team on freephone **0800 168 0875**.

We use **XEROX DOCUCOLOR 2045** technology, contact us for samples.

A3 Posters



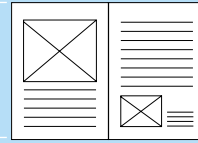
Calendars



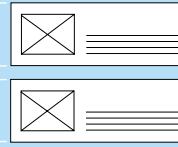
Menus



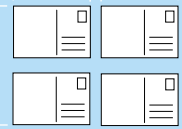
Brochures and Magazines



Leaflets



Greeting Cards, Postcards, Invitations



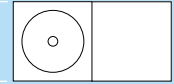
Stickers



Overhead Transparencies



CD covers



Business Cards



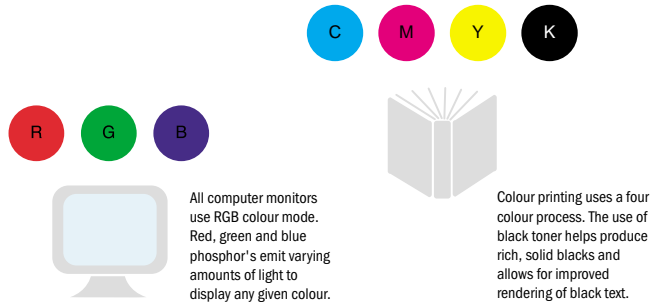


Step 2: Colouring your ideas

Quality begins from your original

When using images in your document you need to consider some of the following points in order to achieve the best results. Whether your original is a transparency, photographic print or a digital file, the image characteristics you begin with will have a major impact on the end results. As an image goes through the production process, it is displayed in many different ways: as digital information in the scanned image file, as pixels of red, green and blue (RGB) light on your monitor, and finally as dots of cyan, magenta, yellow and black (CMYK) toner on paper.

During each stage of the process, the colours of the original are transformed to meet the needs of different technologies and output media.

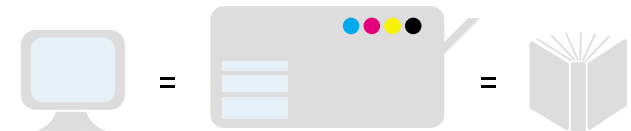


Colour Management

Compensating for all variables in the way colour is perceived by different technologies through trial and error is expensive and time consuming. Colour Management Systems (CMS) help solve many mismatch issues between input and output devices by defining standards or profiles for different devices. At C3imaging we use a colour management system in order to ensure every step of the printing process is calibrated and you receive the best possible results.

Pantone colours

The colour management system we use allows us to accurately reproduce Pantone colours. Wherever possible specify Pantone colours in your document e.g Pantone 192 and not CMYK-breakdowns - C:0 M:76 Y:38 K:0. Contact us for a printout of a sample Pantone chart.



To achieve consistent results from monitor to final output ensure your own monitor is calibrated regularly.



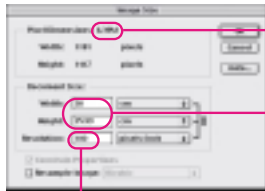
Step 3: Resolution and File Size

The facts about image resolution

Choosing the right image resolution is key to getting the most out of your picture. It is important to remember that an image can only be printed at the resolution available on the Docucolor 2045 which is 600 dots per inch (dpi). Image resolution should ideally be set at **200 dpi** at actual size/physical size; the size an image will be printed. Resolution higher than 600 dpi should not be set. This will increase RIP (Raster Image Processor) and print time without increasing the image quality.

Adjusting Image Size

The image below shows the correct way of adjusting file size and resolution in Photoshop (Image Size palette under File). Always consider the final physical size you intend to use an image and work to this. Keep a backup file of original high resolution scans or images you use as reducing file size is not reversible.



File size in Mega Bytes (Mb) or Kilo Bytes (K)

Shows the physical size of the document. You can decrease the size of the image proportionally. This will decrease the file size in Mb. Remember you can not reverse this action once you have re-saved the document.

Document resolution (dpi). Should be set at pixels/inch.

Scanning

Understanding resolution and file size is particularly important when using scanned files. Use the table below to calculate ideal file sizes for your images. Remember to convert all colour scans to CMYK before adjusting their size.

C3imaging offers a full range of scanning services, using our CreoScitex A3+ scanner and EverSmart Pro software. We can accept transparencies, negatives and reflective artwork from 35mm to A3+. A full range of image manipulation and colour correction is available from our design department.

Size in mm	150dpi	200dpi	300dpi	400dpi	600dpi
A8 (53 x 74)	535k	950k	2.09Mb	3.71Mb	8.35Mb
A7 (74 x 105)	1.03Mb	1.84Mb	4.13Mb	7.35Mb	16.6Mb
A6 (105 x 148)	2.07Mb	3.68Mb	8.27Mb	14.7Mb	33.1Mb
A5 (148 x 210)	4.13Mb	7.35Mb	16.5Mb	29.4Mb	66.2Mb
A4 (210 x 297)	8.3Mb	14.80Mb	33.2Mb	59.0Mb	132.8Mb
A3 (297 x 420)	16.6Mb	29.7Mb	66.4Mb	118.0Mb	265.6Mb
Calculated in CMYK, for greyscale divide by 4					



Step 4: Artworking

Cropping and Bleed

Correctly artworking your document is an essential part of achieving the best results. Setting bleed may seem obvious, but it needs to be considered early on in your design rather than adding it at the end. You need to include an extra 3-5 mm on images if they bleed directly off a page to avoid a white border on your artwork when trimmed. Remember to include this 3-5 mm in images before cropping them in Photoshop. Bleed is particularly important on multiple page documents where minor movements inherent in the printing process can produce slight variations.

When you are only using part of an image in your layout ensure it has been cropped correctly before importing it into the final design. This will reduce your file size and in turn, our RIP and print time. Vital for meeting deadlines!



cut here



Print area

The more you know about how the DocuColor prints, the easier it will be for you to set up your files for optimum printing. The same parameters are used in offset printing as in DocuColor printing as shown below.

Paper Size

279 x 432 mm (11" x 17")

A3 297 x 420 mm (11.7" x 16.5")

305 x 457 mm (12" x 18")

SRA3 320 x 450 mm (12.6" x 17.7")

Image Area

275 x 427 mm (10.83" x 16.81")

292 x 414 mm (11.50" x 16.30")

300 x 452 mm (11.81" x 17.80")

316 x 446 mm (12.44" x 17.56")

Conversion Factors

1 inch = 2.54 centimetres

12 inches = 1 foot

1 foot = 30.48 centimetres

1 meter = 3 foot 3 inches approx

1 yard = 91.43 centimetres



Cut Card Dimensions

Business Card 55 x 85 mm

Official Postcard 89 x 140 mm

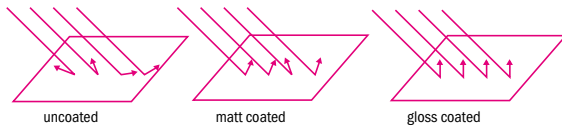
Extra Large Postcard 105 x 149 mm



STEP 5: Paper Particulars

Uncoated, matt or gloss

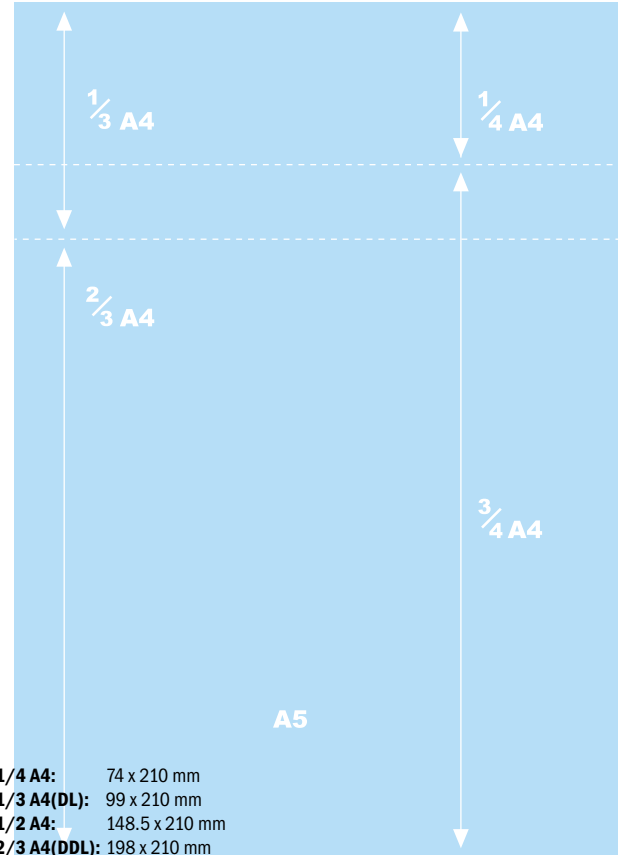
It is very important that you consider the paper stock you'll be printing on. The smoothness of a paper's finish affects how much light the paper can reflect back to our eyes.



Uncoated papers have an uneven surface that scatters light in random directions, carrying information unseen away from your eyes. Such papers do not hold detail well and make colours look grey. Matte-coated (silk) papers are smoother and do a better job of reflecting light, but gloss-coated papers are smoothest of all and reflect light most perfectly. Gloss paper show finer detail and saturated colours.

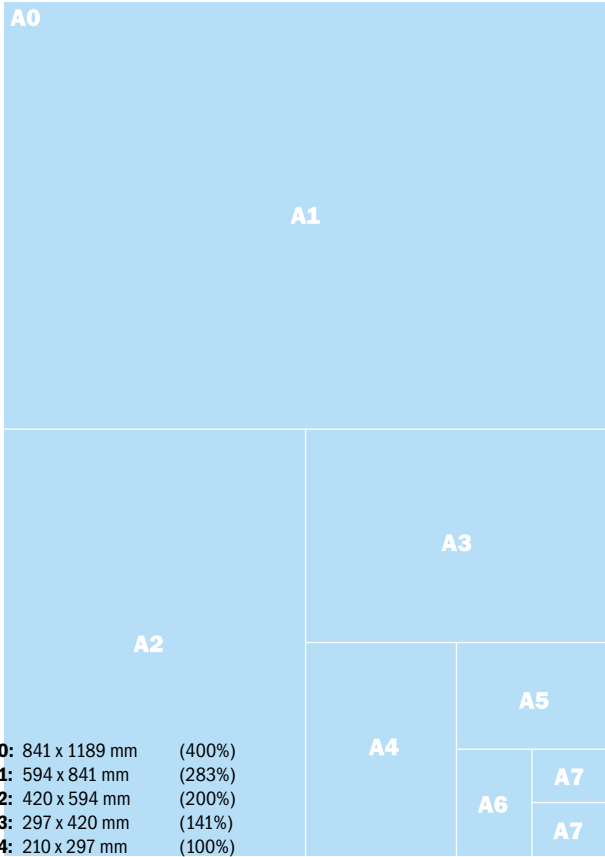
Paper weight/thickness

One major limiting factor for most digital printers is paper thickness. Paper that is either too thin or too thick usually jams. Ask **C3imaging** for advise and for standard paperweights.



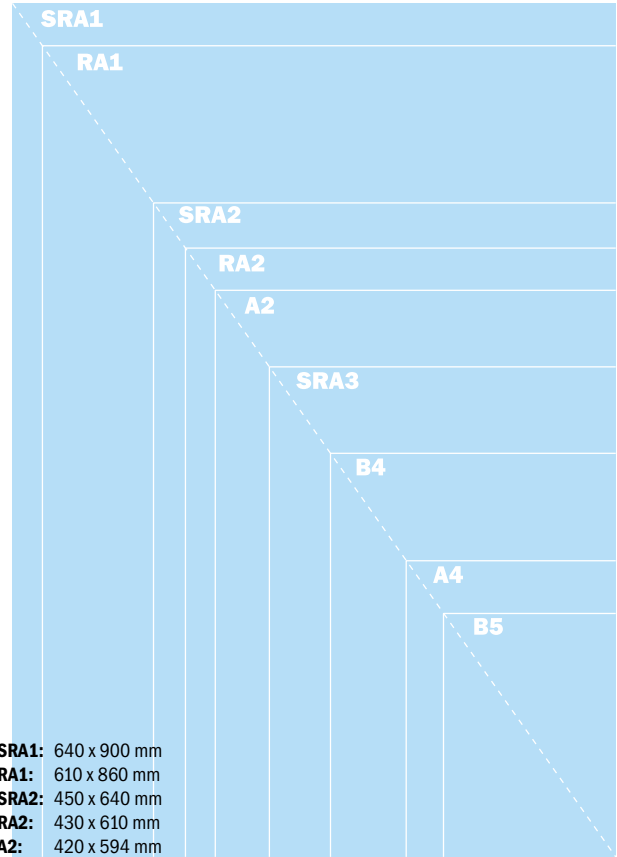
- 1/4 A4:** 74 x 210 mm
- 1/3 A4(DL):** 99 x 210 mm
- 1/2 A4:** 148.5 x 210 mm
- 2/3 A4(DDL):** 198 x 210 mm
- 3/4 A4:** 223 x 279 mm
- A4 x 11:** 297 x 279 mm
- A4 x 14:** 297 x 356 mm





- A0:** 841 x 1189 mm (400%)
- A1:** 594 x 841 mm (283%)
- A2:** 420 x 594 mm (200%)
- A3:** 297 x 420 mm (141%)
- A4:** 210 x 297 mm (100%)
- A5:** 148.5 x 210 mm (71%)
- A6:** 105 x 148.5 mm (50%)
- A7:** 74.5 x 105 mm (35%)

Numbers in brackets represent % of A4 to nearest 1%



- SRA1:** 640 x 900 mm
- RA1:** 610 x 860 mm
- SRA2:** 450 x 640 mm
- RA2:** 430 x 610 mm
- A2:** 420 x 594 mm
- SRA3:** 350 x 420 mm
- B4:** 250 x 353 mm
- B5:** 176 x 250 mm





STEP 6: File Formats - sending us your work

Hints and Tips

- When working in Photoshop stay with one file type e.g TIFF, EPS. You can lose information every time you convert files and re-save them as a different types.
- Work either in RGB or CMYK but make sure you convert all your files to CMYK before delivering them to print.
- If you are working in Photoshop be sure to flatten images. This reduces file size, saving you disk space and us print time.
- Avoid using JPEG files. If you have to use them, ensure they are used at 100% in Quark. Do not reduce or enlarge images using the Quark measurement bar. This will result in pixillation.
- A smart way to compress whole documents without losing any information is to use a Stuffit type Program. Ideal for sending files via ISDN.

Do not forget to include all elements required to print each job. It is very important that you identify clearly types and brands of fonts used. And remember to include all the necessary files, fonts & associated images (including fonts and placed images used within eps files)

Use a program like FLIGHTCHECK in order to flag up any possible problems you may have. If this is not available be sure to use the 'collect for output' option in Quark.

Please ensure that all supplied images are Bitmap, Grayscale or CMYK mode.

TIFF - Tagged Image File Format

A lossless format for storing bitmapped images in compressed form. Continuous tone images are best supported by TIFF formats.

JPEG - Joint Photographic Experts Group

A lossy format for storing bitmapped images in compressed form. Jpeg loses data to reduce file size. The more compression you use the lower the quality.

EPS - Encapsulated Postscript

This format handles both bitmap and vector graphic. Both Adobe Photoshop and Illustrator use this format.

PDF - Portable Document Format

A file format created by Adobe that allows users to view and print documents independent of the applications used to create the files. **OUR COLOUR MANAGEMENT SOFTWARE DOES NOT SUPPORT PDF FILES. DO NOT SUPPLY PDFS FOR COLOUR CRITICAL WORK.**

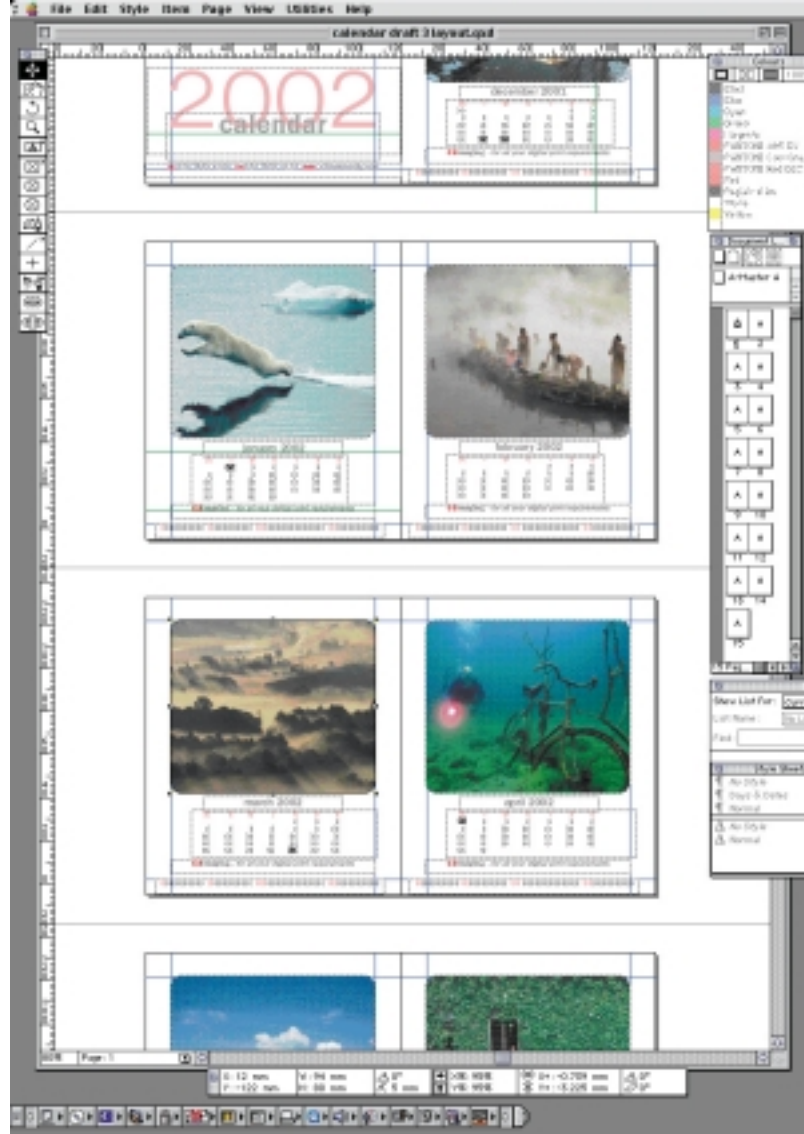
When your work reaches C3imaging, it should be accompanied by a colour proof indicating its scale (e.g 1/2 size proof), instructions that clearly define the job and specify any particulars before it is to be printed. If the job requires finishing (eg. collating, folding etc.) include a mock-up. For acceptable media see back page.



STEP 7: Let us do the hard work

Designs on your ideas

C3imaging is always there to help. We have state-of-the-art technology, coupled with highly skilled personnel, meaning we can offer a first class service for all your digital print requirements. Our in house graphic designers are able to guide your project through from the initial idea stage to final print and finishing. They will ensure every step meets your expectations and our high standards. You are welcome to come in and visit our design department to discuss your needs.





Other services offered by C3imaging

Large Format

C3imaging group is at the vanguard of large scale digital imaging both conceptually and in production. All C3 divisions are equipped with experienced professionals utilising the latest technology, to ensure every project is produced correctly, on time and on budget. Large format imaging includes point-of-sale, posters, exhibition graphics, museum & gallery archival prints.

Extra Large Format

If you require maximum exposure at relatively low cost, C3imaging offers outstanding, highly visible and individually tailored extra large format graphics. Extra Large Format posters, billboards, Vehicle Livery & building wraps are one of the fastest growing segments in advertising. C3 provide a complete consultancy service including site surveys, design, artwork, printing & installation.

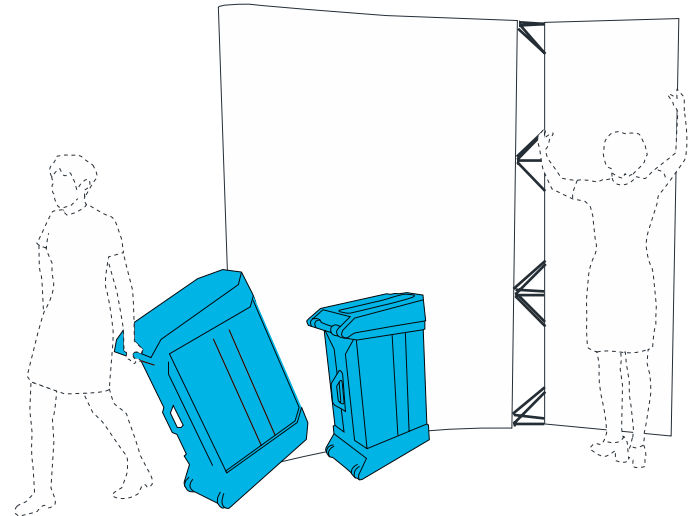
Exhibition Display Systems

C3imaging market the finest range of display and exhibition systems in the world. From the award winning modular Premier Pop Up systems to the beautiful range of Enara Bannerstands, C3 have a solution. To help every display user, C3 created www.bannerstands.co.uk, the UK's first dedicated bannerstands web site. Apart from a range of the world's finest bannerstands, the web site includes a section on exhibitions to help you make them a potent weapon in your armoury.

Mounting and Finishing

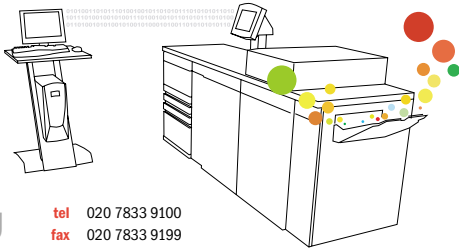
As well as producing superb quality images from your digital files, C3imaging recognises the need to protect and enhance the presentation your work. Function and durability are the key words in mounting and finishing so C3 offers a complete range of light weight, heavy duty or decorative mounting and picture framing.

Call us on 020 7833 9100 or visit our website www.c3londoncity.com for more information.



Have you remembered...

- to send all fonts and linked files used in your document (in Quark check **USAGE** for list of the fonts and images you have used)
- to convert all Illustrator and Freehand text to outlines - then you won't need to send us the fonts.
- to use only actual stylised type families (ie: Helvetica Bold), **do not** style your fonts using the attributes palette.
- to ensure the resolution of your image is at least 200 dpi, and imported at 100% in your layout program.
- to send a printout/proof of your document. And specify whether this is colour correct and to scale.
- media can be accepted on - CD, ZIP (100MB/250MB), Jazz Cartridges (1Gig/2Gig), Floppy Disks, Direct ISDN, Email (up to 3 MB)
- to memorise our phone number. We are always happy to help with any queries you may have.



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