

# A a

## Actual Size

The size of an image when it was scanned.  
Addressable Resolution – The maximum resolution of any device.

## Aliasing

The visual stepping of edges that occurs in an image when the resolution is too low. Also may be referred to as 'jaggies'.

## Application

A software program that performs specific functions.

## Archive File

A single file, containing many files, often in compressed form, eg a .zip file format.

## Aspect Ratio

The ratio of width to height. Used to define the applicability of an image to fit a page.

# B b

## Banding

Patterns on print caused by insufficient colour or grey-scale within the output device's processor.

## Bindery operations

The process of cutting, creasing, folding, trimming, collating, stitching, tabbing, wrapping, etc. after print has been placed upon paper.

## Binding

The process of attaching sheets of paper to one another to form a book or booklet.

## Bitmap

A computerised image made up of dots or pixels.

## Bleed

Extension of an image or background beyond the trim edge of the paper. It is not possible to print all the way to the edge of the paper sheet. To achieve this effect it is necessary to print a larger area than is required and then trim the paper down. Typically a designer would allow an extra 3mm of bleed to colour and image areas to allow for a little leeway when trimming.

## BMP File

A windows bitmap file that defines an image as a pattern of dots.

## Brightness

The ability of a paper to reflect light. Brightness of paper is expressed as a percentage that is obtained by comparing the paper to be tested with a sample paper, called a 'calibration sample'.



## Calibration

Optimising settings for a printer to known specifications in order to achieve accurate and consistent reproduction of the final print.

## Capture

Acquiring information, such as an image, with a scanner or digital device.

## Clipping

The grouping of all tones or colours above or below a certain value into one composite tone.

## CLUT

Colour Look Up Table. A correspondence chart for converting colours from one device to another, such as RGB to CMYK.

## CMYK

Cyan, Magenta, Yellow and Black. These are the four colours in the four colour process. Subtracting one or more of these colours will yield any other colour. When combined in various percentages, these four inks will create an entire spectrum of colours, including those used in colour photographs.

## Coated paper

Paper that has a layer of coating applied to one or both sides. Coated papers provide sharper images and are used frequently in four-colour process work, as well as in black and white halftones. Coatings are normally defined as hard glossy, semi-glossy or matte surfaces.

## Colour Attribute

A three dimensional characteristic of the appearance of the object. One dimension usually defines the lightness; the other two define the chromaticity.

## Colour Bar

A series of ink patches printed on a press sheet that may include solids of CMYK colours.

## Colour Calibration

The process of simulating the colours or original shade by using colour management software.

## Colour Matching

A colour sample book is used to match colours with standard inks used by most printers. The printer will then prepare separate printing plates for each colour. The colours are chosen from those provided by a colour matching system, such as Pantone. Use of a colour matching system permits consistency of the colour over time and among different jobs.

## Colour Proof

A colour sample that attempts to represent the final printed image that will result when a piece is printed.

## Colour Saturation

The sum of the amounts of ink in a given area of a particular image.

## Colour Separation

The process of separating a colour image into the four CMYK colours, producing a set of four films or files.

## Composite image

An image that is created by a combination of several images on a single sheet.

## Copy

The words (text) that are used in printed material.

## Crop

To remove part of an image by creating a frame around the desired portion. Everything outside the frame is then deleted, leaving only the 'cropped' image.

## Crop marks

Lines positioned outside the corners of the sheet showing where you want the job to be trimmed or folded.

The image shows two large, bold, red letters: a capital 'D' on the left and a lowercase 'd' on the right. They are rendered in a simple, sans-serif font.

## Density

The degree of opacity of an image.

## Desktop Publishing

The use of a computer to create documents that can be printed. Specialised software is used to add copy (i.e. text) and graphics to the document, which is then sent to a printer or typesetting equipment.

## DIB File Format

Device independent bitmap format.

## Die-cutting

The use of a sharp, formed piece of metal to cut out specific shapes in a piece of paper.

## Digital Halftone

The process of obtaining various tones by breaking up the image into a graduated series of dots. The dots repeat in a regular pattern, creating the illusion of continuous tone. The digital printing process is controlled by the size and shapes of dots.

## Direct to Print

Printing devices that allow for the elimination of film separations from the printing process. These systems utilise a computer controlled system employing lasers to write digital data to a plate that is already mounted on the press.

## Digital printing

New printing technology that permits the linking of printing presses to computers. Benefits include faster turnaround times - and is very good for on-demand printing, lowered production costs on small to medium production runs (i.e. 1 copy to 2000 copies), and the ability to personalise documents - that is, each document in your production run can be different from every other document. This is very good for personalised brochures, newsletters, etc.

## Dithering

A graphics display or printing process that uses a combination of dots or textures to simulate an original image on an output device.

## Dots per Inch (DPI)

DPI stands for dots per inch. The more dots per inch, the higher quality your image will be. Do not go higher than 300-400 dpi, as more dpi also means bigger files and longer transfer time. Also, stay away from under 300 dpi. Images found online are commonly viewed at 72 dpi, and they should not be used for four-colour digital printing (they are meant to be seen on computer screens only). For optimum results, make sure your image is at 300 dpi resolution.

## Drag and Drop

Terminology used to describe an option in graphical user interfaces where tasks can be accomplished by simply moving an icon to a specified area.

## Drop Shadow

The shadowing effect on letters to simulate light being cast at an angle.

## DTP

Acronym for Desktop Publishing, including typesetting, image handling and pages composition.

## Dummy

A preliminary layout showing the position of illustrations and text as they are to appear in the final reproduction. A set of blank pages made up in advance to show the size, shape, form and general style of a piece of printing.

## Duotone colour

Reproduction from a monochrome original, such as a black and white photograph. Two halftones with different screen angles are made from the same original and printed in register with two colours.



## EPS (Encapsulated PostScript)

A graphic file format which can be either raster or vector. EPS converts graphics and text into a code which printers can read. EPS files hold both low resolution view files and high resolution PostScript image descriptions.

## Encryption

The process of scrambling a signal or digital file so that special hardware or software is needed for a receiver to reconstitute the image.



## Feathering

A technique in many image-editing programs that allows for the softening of the edge around a selection.

## File transfer protocol (FTP)

The File Transfer Protocol, or FTP, allows computers to speak to each other. FTP is used to make files available for transfer over the Internet. Anyone with access to the Internet can use FTP. In some cases you may need network access and/or username and password information. The primary benefit of FTP, as opposed to email is the size/speed at which files can be sent and received.

## Finish

The surface property of a material determined by its surface contour and gloss.

## Flat Colour

A technique of imaging graphics from regions of solid colour with no gradations at all.

## Flat or Matte Finish

A very low sheen finish, with very little reflective quality. Ideal for viewing images from various angles without light detracting from the image. Used extensively for retail and exhibition displays.

## Foil

Involves wax or resin based colourant on rolls that travel over heated print heads and are placed on a substrate by combinations of heat and pressure by the printer. Also a very thin metal sheet of allows, used mainly as an overlay, veneer or cutout appliqué.

## Fonts

Also known as typefaces are the style of the letters in your text. There are hundreds of different fonts, and graphic designers choose them with great care to convey their messages. All Macs and PCs come with a range of different fonts built-in, but designers usually work with a much greater range. Fonts can be bought on CDs or downloaded from the Internet.

## Four-colour (4 colour) process

A system of printing an illustration or design reproducing all colours in the original by printing dots of CMYK colours.



## GIF

This file format is mainly used for Web pictures, images and graphics. It makes a very small file, however, it is not very accurate. GIF is not acceptable for quality reproduction in printing.

## Gloss

A shiny coating on paper. Gloss coatings allow very little ink to be absorbed by the paper. This results in the printed material having excellent colour definition and contrast.

## Gradation

The transition between colours or shades. Gradation occurs by mixing percentages of dominant and secondary colour and then altering those colours to bring about a change.

## Grain direction

The fibers in paper align themselves in the direction in which the paper flows on the paper making machine. Grain direction is often important if the paper has to be folded after it is printed. Folding across the grain can result in cracking.

## Graphic

An item to be printed that is not copy (text); includes photographs, images and illustrations.

## GSM (grams per square meter)

This is a measure of the weight of paper. It is obtained by weighing a square meter of paper. Usually, the higher the gsm number, the thicker or more rigid is the stock. Although a coated paper of a given gsm will usually be thinner than an uncoated paper of the same weight.

## Gutter

The inside space between pages, that is, the inside margin toward the binding edge of a book or booklet.



## Halftone

The process of reproducing a continuous tone image as a series of various sized dots within a fixed grid that can be reproduced with ink. The finer the dot grid the higher perceived visual quality of the reproduction.

## Halo

A bright line tracing the edge of an image. This is usually due to excessive digital processing to sharpen or compress an image.



## Imagesetter

A laser output device to image bitmap data onto separation film or paper. Arranging the pages of copy so that when the sheets are printed and folded for binding the pages will be in the proper order (e.g. your newspaper will have page 1 and page 80 on the one side of a sheet of paper, and pages 2 and 79 on the other side of that same sheet).



## JPEG

A file format used for good quality photographic reproduction on the Web. JPEG graphics are capable of reproducing a full range of colour while still remaining small enough for Web use.



## Kerning

Adjusting inter-character spacing of letter to make them more aesthetically pleasing.



## Laminate

To apply film to a surface using heat and/or pressure.

## Large Format

Printing on sheets larger than A3 (297mm x 420mm) or on rolls from 914mm wide.

### Layouts

Documents describing the precise layout of a print or prints on a sheet of paper. The layout indicates both the exact size of the prints and the amount of white space around each print.

## Leading

The space between lines of type, measured from the baseline of one line to the baseline of the next. The quantity is measured in points, such as 6-point type, 8-point, etc. Each point equals approximately 1/72 of an inch.

# M m

## Make Ready

On printing presses, all operation prior to running; such as mounting plates, adjusting the in-feed, edge guide, putting ink on the fountain, adjusting the impression, setting up the die cutting, color machine, etc. All preparatory operations preceding production.

## Mask

The blocking out of a portion of the printing plate during the exposure process.

## Matte

A coated paper finish that isn't shiny like a gloss, but still keeps much of the ink from being absorbed by the paper and provides an excellent image.

# N n

## Native Files

The original computer files, in their original application form.

## Nested

Signatures assembled inside one another in the proper sequence for binding, as compared to gathered.

# O o

## Object-oriented graphics or vector graphics

Used for line drawings, logos, and other images that require smooth edges. Made up of mathematically defined curves and line segments called vectors. It is beneficial in printing, due to ability to be enlarged without loss of detail.

## Offset printing

A common printing process that makes prints by transferring ink to a rotating 'blanket' that contacts the paper. Most common in commercial printing.

## Opacity

The quality of being impenetrable by liquids or light. With printing paper it is the ability to keep photographs and print from showing through to the other side.

## Overprinting

Printing one ink or tint build over another, most commonly for trapping purposes.

# Pp

## Page Layout

The process and software that prepares artwork, text and other elements to be collected and prepared for printing within a specific area.

## PDF

An electronic document format that allows the distribution of digital files across any platform that can display a document, as originally designed and formatted, without having the software application or fonts on the viewing computer.

## Perfect binding

A binding process whereby single sheets are stacked together, one edge (the binding edge) is then ground to create a rough surface, and adhesive is applied to that now-roughened edge. A cover is then wrapped around the pages to form a booklet, book or folder. Many books on your bookshelf are bound in this manner.

## Plotter

A peripheral unit that, through computer control, transfers and represents data.

## PMS (Pantone Matching System)

This is a system of colour formulae where we can reproduce over 1,000 different shades and colours by accurately mixing several 'standard' inks. We can print any colour listed in the Pantone Matching System so that you will get the exact colour you want.

## Postscript

A page description language for medium- to high-resolution printing devices. Since Postscript images are made up of mathematical calculations, they can be resized and still maintain their quality unlike bitmap images.

## Pre-flight

A process of checking a job for possible problems before the job is sent for final output. Used to find problems such as missing fonts, postscript errors and colour problems.

## Prepress

The processes performed on a printing job prior to its going to the press to be printed.

## Printing plate

A thin object (plate) made of either metal or paper that is light sensitive and causes an image to be transferred to paper while on a printing press. The image is burned onto the plate by the use of high intensity light. The surface of the plate is treated or configured so that only the printing image is receptive to the ink that transfers to the printed object.

## Process colour

One of the four colours (cyan, magenta, yellow, and black) that are used in producing full-colour images.

## Proof

A method of checking for errors prior to printing a job. Normally, the proof is the last prepress operation and it consists of either a hard copy of the job to be printed or a computer-generated imaged of the job to be printed. A press-proof is used by printing-press operators to ensure the correctness of the finished product during the production of an order.

# Rr

## Raster Image Processor (RIP)

The process of interpreting a page description language, such as Postscript, to a raster format at the resolution, and in the format, required for a printer or image-setter. May also refer to the hardware and/or software used in the process of ripping a file.

## Registration

In printing, the fitting of two or more colours or images in alignment with each other. Hairline register is the fitting of two or more colours in exact alignment with each other.

## Registration marks

Marks outside the printing area that help us make sure colours are lined up or 'registered' together.

## Resolution

The degree of image sharpness that can be reproduced by a piece of equipment. Resolution is measured in dots per inch (dpi). Most laser printers image at 600 dpi.

## RGB red, green and blue

These are the primary colours that make white light. For printing, secondary colours (cyan, magenta and yellow) are used to simulate the colours required. Black (K) is added to help CMY (cyan, magenta and yellow) reproduce rich blacks and shadows. When preparing colour files for output, please ensure that all placed graphics and colours are separated for four-colour CMYK and not RGB.

## RTF (Rich Text Format.)

A format that accepts both text and images, and retains text formatting and page layout.

# Ss

## Saddle stitching

A binding method where multiple folded sheets are stapled at the centre (the spine). Booklets, magazines, catalogues, newsletters and manuals are some of the projects that get saddle-stitched.

## Score (or crease)

To press a channel into paper to facilitate folding and prevent cracking. Scoring is particularly important with digital printing, which cracks more easily than traditional ink-based printing.

## Separation

The process printers use to break down a colour image into its components of cyan, magenta, yellow, and black for the purposes of printing. An image that has been processed this way is also known as a separation/

## Sheet-fed press

A press that prints single sheets of paper, as opposed to a web press. Our presses are sheet-fed digital presses.

## Soft Proof

Viewing a digital image with a monitor instead of generating a hard copy proof.

## Spot colour

A single colour ink or varnish applied to printed material. Primarily used when process colours are not appropriate. The effective use of spot colour can add heightened interest to printed materials without incurring the cost of process colours.

## Spread

A trapping relationship between a foreground element, and a background colour or element.

## Stock Photos

An already existing picture that can be purchased for use instead of having a photograph specifically made.

## Style sheet

Instructions for the layout of a document, such as the typefaces to be used, point size of headers, placement of footers, etc., in order to maintain consistency throughout the document.



## Texturing

Impressing a pattern into the surface of a film

## TIFF

A graphics file that is commonly used in printing for photographs and illustrations needing high resolution.

## Tiling

The process of breaking down an image or page into sections for editing or printing purposes.

## Tint

A lightened spot or process colour created by printing smaller halftone dots of the base colour. This is also referred to as screening the colour.

## Transform

A colour-space exchange from one system (RGB to CMYK) to another, or changing from one hue base to another.

## Trapping

The deliberate overlap of adjacent colours to minimise the effects of mis-registration of printed materials.



## Uncoated paper

Paper that has not had a final coating applied for smoothness. Uncoated paper is absorbent and soft in appearance.

## Unsharp Mask

A sharpening process that first blurs the edges then subtracts the image from the blurred areas to yield an image of enhanced sharpness.



## Varnish

A coating added on top of paper to serve as protection, add a finish, or add a tinge of colour. Varnishes are very effective in adding emphasis or eye-appeal to printed material.

## Vector

A term given to a mathematically calculated graphic drawing, specified as a

colour, start and end point, and applied to line segments, type and tints

## Vignette

A transition from one colour or intensity to another.



## Watermark

A design, or symbol impressed in paper while it is being formed on the wet end of the paper making machine. When the paper is held up to the light, the watermark appears as a lighter area than the rest of the paper.

## Web press

A high-run, fast speed printing press that uses rolls of paper rather than individual sheets.

**WYSIWYG** (What You See Is What You Get)

A monitor configured to represent the images displayed in a manner consistent with the desired printed result.