



GLOSSARY OF TERMS

ACCORDION FOLD

A binding term for two or more parallel folds that open like an accordion. Brochures and maps often use accordion folds.

ACETATE

A high quality, transparent sheet of plastic commonly used plastic commonly used as a layer in multi-layer artwork or composition. Acetate is also used for overhead transparency printing.

ADDITIVE PRIMARIES

Red, green, and blue light, which produces white light when combined. Compare with subtractive primaries.

A SIZES

Series of trimmed sizes in the ISO international paper size range.

ADHESIVE BINDING

Style of binding where the leaves of a book are held in position at the spine by glue or synthetic adhesive. Also called 'limp', 'perfect' or 'thermoplastic' binding.

AIR BRUSH

An instrument which uses compressed air to blow a current of air over an ink reservoir. The air atomises the ink and ejects it at the image. It is used by artists to obtain graduated effects artwork.

ALKALINE PAPER

A stable, acid free paper used for products that must resist deterioration and preserve their images for as long as possible. Archival photographs, high-quality books, and fine art prints are made on alkaline paper.

ANAP-COLOUR

Colour matching system commonly used in the production of newspaper and magazine applications.

ANTIQUÉ

A rough uncalendered paper being light in weight with bulk. Normally used for book printing.

ANTI SET-OFF SPRAY

A powder which is sprayed over the printed sheets during the printing process which keeps the sheets separated and reduces set-off.

ADB

(Apple Desktop Buss) connects keyboard, mouse and other devices.

APPLE TALK

A network (cables linking computers and printer together) that allows the transfer of data between machines.

ART

Paper which has received a coating of china clay. The coating may be matt or gloss.

ARTIFACT

A visible indication (defect) in an image, caused by limitations in the reproduction process (hardware or software).

AUTHOR'S CORRECTIONS

Corrections to proofs, made by the author, that alter the original copy. The costs of making such alterations are usually charged in contrast to the printers' errors or house corrections.

AUTOMATIC IMAGE REPLACEMENT

A process by which high-resolution image files are automatically substituted for low-resolution placeholders at output time.

ASCII

American Standard Code For Information Interchange. A standard format for representing digital information in 8-Bit chunks.

B SIZES

Series of trimmed sizes in the ISO international paper size range.

BACKING-UP

Printing the reverse side of a sheet of paper, to which one side has previously been printed.

BANK

A lightweight or typewriting paper, white or tinted, made in a range of weights from 45gsm to 60 gsm.

BANDING

A visible stair-stepping of shades in a gradient.

BINDER'S CREEP

The tendency of pages toward the middle of a signature or of a saddle-stitched book to creep outward.

BINDING

The method of holding together the signatures of a book.
The process of binding.

BIT

The smallest unit of information in a computer (Binary Digit).

BIT DEPTH

Unit of measure relating to a device's ability to allocate more than one colour to a pixel or screen dot. In practice, the number of colours a device can display or input (in the case of scanners).

BITMAP

Image composed of individually-referenced dots. All continuous-tone images (paintings, photographs) are measured, manipulated and stored in this way.

BITMAPPED

An image formed of a rectangular grid of Pixels.

BLANKET/BLANKET CYLINDER

The blanket is a fabric coated with a rubber or synthetic coating which is wrapped around the blanket cylinder. The print image is transferred on this blanket from the printing plate to the paper.

BLEED

The allowance on a drawing or printing plate which extends the plate beyond the trimmed or finished size to ensure a clean cut-off. Usually 3mm.

BLEEDING

A colour value from one pixel unintentionally appearing in adjacent pixels.

BLEED ALLOWANCE

The amount by which a bleed colour or image must extend beyond the specified trim in order to allow for variances in cutting and folding.

BLOCK

A half tone, line or duplicate printing plate.

BLUELINE PROOF

A one-colour proof generally used to check imposed film.

BOND

A writing or typewriting paper, similar to bank paper, but heavier, and usually supplied in 60 gsm and over.

BROADSHEET

Any sheet in its basic size - not folded or cut.

BUCKLE FOLD

Fold formed when the front edge of a moving sheet of paper is stopped by a plate, allowing it to buckle at a predetermined point.

BYTE

A unit of measure equal to eight bits of digital information (2³). The standard unit measure of file size. See also megabyte, kilobyte, and gigabyte.

C SIZES

Series of trimmed sizes in the ISO international paper size range.

CAD

Computer-aided design.

CALENDAR

A roller or series of rollers used in the finishing operation of paper manufacture. The pressure exerted contributes to the finish and smoothness of the paper.

CALIBRATION

A method of adjusting scanners, video monitors and output devices to a defined standard so that each represents colours accurately and predictably.

CALIBRATION BARS

On a negative, proof or printed piece, a strip of tones used to check printing quality.

CALLIPER

The thickness of a material.

CAMERA-READY ART

Any artwork or type that is ready to be prepared for printing.

CAPS

Abbreviation for 'capital letters'.

CARTRIDGE

A tough, opaque paper of a cream shade and often with a rough surface.

CASE BINDING

The binding of printed books, which may include leather cloth or other covering materials. The finished book is usually stiff as opposed to limp see 'adhesive binding'.

CHANNEL

A single layer of information in an electronic graphics file. In a CMYK file, channels may represent the information for each of the printing plates.

CHIPBOARD

A cheap board made from mechanical wood and waste materials. It is used unlined for case binding, rigid boxes, backs of pads, showcards etc. and with a white lining paper for cartons and display material.

CMYK

An abbreviation for cyan, magenta, yellow, and black, the four colours used in process-colour printing.

COARSE SCREEN

A half-tone screen used in preparing illustrations for newsprint and other less demanding work.

COATED

Paper which has received a coating on one or both sides. Art papers and board are coated. Other coated papers include cast-coated or high gloss paper; brush coated;chromo papers etc.

COLLATE

To put sections or pagination of the sections of a book in the correct sequence so that they are in the correct sequence for binding .

COLOUR CAST

An unwanted dominant colour present in the original image or in its reproduction.

COLOUR SEPARATIONS

The process of separating the colours of a picture by coloured filters. This may be done with a camera or electronic scanning.

COLOUR CONTROL BAR

A coloured strip in various densities located on the back edge of the sheet, which enables printers and platemakers to check print quality and density.

COLOUR CONTROL STRIP

An image included on a press sheet to indicate printing conditions.

COLOUR CORRECTION

The process of adjusting an image to compensate for scanner deficiencies or for the characteristics of the output device.

COLOUR GAMUT

The range of colours that can be reproduced using a certain process. For example, the colour gamut of an RGB monitor is much broader than that of CMYK inks on paper.

COLOUR MANAGEMENT SYSTEM (CMS)

A software system used to ensure colour consistency among different input and output devices so that printed results match originals.

COLOUR PICKER

A utility for specifying colours on the monitor.

COLOUR PROOF

A representation of what the final printed composition will look like. The resolution and quality of different types of colour proofs can vary greatly.

COLOUR SEPARATION

The division of an image into four separate colours for printing. Each colour is represented on a piece of film as lines of dots at specific angles. When overlaid, the dots on each level form tiny rosette patterns that simulate shades of colour when seen at a distance.

COLOUR SUPPLEMENTATION

Four colour printing but with one of the standard CMYK inks replaced with a Pantone/Special colour - say yellow for instance to enable establishments to match corporate colours exactly without the cost of a fifth working.

COMBINATION LINE & HALFTONE WORK

Line and tone (eg words and pictures) together on one printing plate.

CONCERTINA FOLD

Paper folded in consecutive opposite directions.

CONTRACT PROOF

A proof supplied to a printer to document the colour results expected on press.

CONTINUOUS STATIONERY

A web of paper with sprockets down the side. This is often fan folded and perforated after printing so that the finished sheets can be personalised on a sprocket fed laser printer.

CONVERTIBLE PERFECTOR

A press which can print (perfect) either a single colour on both sides or two colours one side.

COPY

Any material furnished by the customer (typescript, photographs, drawings etc.) to be used in the production of printed matter.

CREASE

To mechanically press a rule into a heavy paper or board to facilitate accurate folding without cracking.

CRISTALRASTER

A stochastic or frequency modulation screening technology available on PostScript RIPs from Agfa.

CROMALIN

A full colour image created by a photographic process from the four colour separations, which gives printer and client an accurate comparison against the printed work.

CROP MARKS

Lines that indicate the boundary of camera ready artwork. These marks are used to trim the page to its desired size after printing.

CROSSOVER

A colour or image that crosses the gutter of a spread in a finished book.

CROSS FOLDS

Two folds at right angles to each other.

CT

(Continuous Tone) A file format used for exchanging high-level scan information.

CTP

(Computer to Plate) Digital information sent directly to printing plate from the computer via a RIP as opposed to computer to film.

CUSTOM COLOUR

An ink colour that is premixed to match a specified hue. Custom colours are generally used to reproduce colours that are not possible to match using the four-colour process, as spot colours in two or three colour jobs, or as additional colours in duotones and tritones. Some vendors of custom colour systems include Pantone, TruMatch, FocolTone, and Toyo.

CUT OFF

The maximum size of an image produced by a web press. The dimension is determined by the circumference of the printing cylinder.

CUT OUT

An irregularly shaped illustration or silhouette.

CYLINDER PRESS

A press on which the type forme is flat but the printing action is made against a revolving cylinder.

DIE CUT

A shaped cut, such as the window in an envelope.

DIGITAL COLOUR PROOF

A colour proof created from a digital file rather than from film separations.

DIGITAL PRINTING

Any printing method - from desktop laser printers to digital offset presses - in which the image is created from a digital file.

DCS

(Desktop Colour Separation) A PostScript image file format for separated files. A DCS file includes five parts: one for each of the process colours plus a PICT preview that represents the image on the computer screen. The separated files are automatically substituted at print time.

DENSITOMETER

A device sensitive to the amount of light transmitted or reflected by paper or film. It is used to check the accuracy, quality, and consistency of output.

DENSITY

The degree of opacity of a photographic image on paper or film.

DEVICE PROFILE

A file, used with a colour management system, that describes the colour characteristics of a properly calibrated input or output device.

DISK

Storage medium: floppy (800K or 1.44Mb), hard (20Mb to 2Gb), removable (44Mb to 200Mb) or optical (up to 650Mb).

DISPLAY MATTER

Type boldly displayed as on title pages and headings, as distinct from solid text or body matter.

DISPLAY SIZES

Sizes of type usually larger than 14 point and for display matter.

DISTRIBUTING ROLLERS

The rollers on a printing machine which transfer the ink evenly from a duct to the plate.

DOT GAIN

The amount by which a halftone dot grows between the film, the plate, and the press sheet. An inevitable part of the printing process.

DPI

(Dots Per Inch) A measure of the output resolution produced by printers, imagesetters or monitors.

DRIVER

A piece of software that tells the Mac how to communicate with, or operate another piece of hardware, most commonly a printer or scanner. System folders contain a printer driver, if they do not then you cannot print.

DRUM IMAGESETTER

An imagesetter in which the film or paper medium is wrapped around a circular drum during exposure.

DRUM SCANNER

A scanner in which the original is wrapped around a circular drum during the scanning process.

DOCTOR BLADE

In photogravure, the knife blade in contact with the printing cylinder which removes excess ink from the non-image areas before printing.

DOUBLE COATED

A better quality coated paper which has two coatings on each side.

DRAWN-ON COVER

A lightweight cover board which is attached to the sewn book by gluing at the spine.

DUCT

The ink reservoir on the press which supplies the inking rollers.

DUMMY

An unprinted sample of a proposed job made-up with the actual materials and cut to the correct size to show bulk, style of binding, etc.

DUOTONE

Two colour half-tone made from monochrome original, the second colour being used as a tint.

DYE SUBLIMATION PRINTER

A type of digital colour printer that creates continuous-tone, glossy images by heating CMYK dyes until they turn to gas (sublimate).

DYLUX PROOF

(or Blue Proof) - An inexpensive proofing method used at the platemaking stage as a final check.

DYNAMIC RANGE

The range of tones from light to dark that is captured in an electronic file.

ELECTRONIC ENGRAVING

The mechanical removal of the non-image areas by a stylus controlled by a light-sensitive cell scanning an original photograph or drawing.

EMBOSSING

The process of obtaining a raised image on paper or board. This is usually achieved by producing a male and female block and passing the paper between the two surfaces under pressure. Where there is no printed image, the process is called 'blind embossing'.

EMULSION

The coating of light-sensitive material on a piece of film.

EMULSION DOWN

This specifies a readable film image with the emulsion side facing away from the viewer. The printer usually decides whether emulsion should be up or down.

ENDPAPERS

Lining sheets used at each end of a book, used to fasten the end sections to a case bound cover.

EPS

(Encapsulated PostScript) A file format used to transfer PostScript image information from one program to another. The file includes PostScript code plus a low-resolution (PICT) representation of the image.

FAN FOLD

A fold giving the same effect as a fan - a left hand fold followed by a right hand fold and then repeated. Also known as a Concertina Fold.

FILTER

In process engraving, the coloured gelatin or glass placed in front of the camera lens to separate colour.

FILTERS

Processing effects used to manipulate photographic images to control colour or contrast or to add special effects.

FINISHING

A general term describing the processes, (such as scoring, folding, die-cutting, and embossing) that printed work goes through between the press and shipping.

FLATBED SCANNER

A scanner in which the original is placed on top of a glass plate, past which a light source and a CCD sampling device is passed. Recent advances in technology have dramatically increased flatbed scan quality.

FLEXOGRAPHY

A letterpress type printing process which uses a rubber or plastic plate.

FOCALTONE

A colour matching system which consists of 763 achievable CMYK colours. Focaltone helps avoid prepress trapping and registration problems by showing the overprints that make up the colours.

FOLDING DUMMY

A folded sheet supplied by the printer to demonstrate imposition requirements.

FOLIO

The page number.

FONT

A typeface.

FONTS

In electronic publishing, the data files that supply the graphic information used to create a certain type style on the screen and for output.

FOREEDGE

The edge of a book furthest from the spine.

FORME

Type and printing material locked up in a metal chase ready for printing or duplicate moulding.

FOUR-COLOUR (MACHINE)

A printing machine which prints one side of a sheet in four colours as it passes through.

FOUR-COLOUR PROCESS

Colour printing by means of the three primary colours - yellow, magenta, cyan plus black superimposed; the colours having been separated by electronic scanning or photographically using colour filters.

FOUR-COLOUR PROCESS INKS

Inks used for four-colour process printing, ie yellow, magenta, cyan and black.

FREQUENCY MODULATED SCREENING

See Stochastic screening.

GSM (or g/m²)

Abbreviation of grams per square metre. A method of indicating or measuring the substance of a sheet of paper on the basis of weight in grams per square metre.

GAMMA

The relationship between the tone values in an image file to the tone values produced by an output device.

GAMMA CORRECTION

Compressing or expanding the ranges of dark or light shades in an image.

GAMMA CURVE

A representation of gamma used in many image processing applications, in which input tonal values are represented on the x-axis and output values are represented on the y-axis.

GAMUT ALARM

A feature of some image processing software using colour management systems which warns the user when an image's colours cannot be reproduced on a specified output device.

GATEFOLD

A fold which turns in on itself from both edges to the centre.

GATHERING

To place in their correct order the sections to make up a book or leaves of a multipart set.

GCR

(Gray Component Replacement) A technique for reducing the amount of cyan, magenta and yellow in an image and replacing them with an appropriate amount of black. See also UCR.

GIF

(Graphics Interchange Format) An electronic image format widely used for electronically published images. Pronounced jiff.

GIGABYTE

(Gb) A unit of measure equal to 1024 megabytes (Mb) of data.

GRADATION

A smooth transition between shades.

GRAIN

The extent to which an overall granulated pattern appears in a photograph, due to chemical and physical characteristics of the film, paper, or development process.

GREYSCALE

The perceptible degrees of black below 100% coverage, usually 256 different shades. Grayscale monitors display distinct gray tones and one-bit black and white, and usually offer sharper images than colour screens.

GRAINING

In lithography, the mechanical roughening of the surface of a litho plate to retain water. In printing the treatment of paper or board to give a linen, leather or other texture to the surface.

GRAVURE

Full name Rotogravure, a printing process which uses a metal plate etched with a negative image in the form of diamond shaped cells.

GRIP

The area at the front edge of the sheet which must be left unprinted to allow the machine to pull the sheet through.

HALF SHEET WORK

(see work and turn).

HALF-TONE

A method used in printing to create the effect of continuous tones by varying the size or density of dots. See also lpi and screen angles.

HALFTONE SCREEN

A pattern of dots of different sizes used to simulate a continuous tone photograph, either in colour or black and white.

HARD DOT

A dot in a halftone screen that has smooth, crisp edges.

HEXACHROME PRINTING

Six colour printing using enhanced cyan, magenta, yellow and black inks with the addition of green and orange giving very vibrant results and the ability to match 90% of Pantone colours.

HEXWRENCH

Photoshop plug-in used in the production of producing images with six colour separations.

HiFi COLOUR PRINTING

Is standard colour printing with the addition of one or two additional colours as part of a colour halftone e.g. to enhance an image - say a gold or silver in a jewellery brochure.

HIGHLIGHT

The whitest part of a half-tone when printed.

HIGHLIGHTS

The lightest part of an image, usually white and nearly white portions.

HICKEY

In printing, a spot on the press sheet caused by dirt on the substrate or press blanket.

HLS

A colour model based on three coordinates: hue, lightness (or luminance) and saturation.

HSV

A colour model based on three coordinates: hue, saturation and value.

HUE

A colours wavelength of light in its purest state (without the addition of white or black).

HOUSE CORRECTIONS

Corrections to proofs, other than those made by the author.

ICCISS

Software used in the production of Hexachrome separations for six colour printing.

ICON

Within the Finder, small on-screen picture representing an application, file or volume.

IMAGE-PROCESSING

Photo-retouching.

IMAGESETTING

Upper high-resolution printing with resolutions from 1200dpi upwards.

IMAGESETTER

A PostScript device used to expose digital information at high resolution onto film, paper, or plate substrate.

IMITATION ART

A printing paper heavily loaded with china clay and highly finished, but cheaper than art paper.

IMPACT PRINT

A personalisation method using a print head and ink ribbon, similar to an old fashioned typewriter. Now largely superseded by ink jet and laser.

IMPOSITION

The process of arranging the film for the pages of a book into the correct order for platemaking.

IMPOSE

To plan film of pages etc. into the correct position prior to litho platemaking.

IMPOSITION SCHEMES

Plans for the arrangement of the pages of a book so that they will follow in correct sequence when folded.

IMPOSITION LAYOUT

A list or marked-up sheet showing the order that pages should be imposed on each film flat for a job.

IMPRESSION

The pressure of the plates and type in contact with the paper at the moment of printing.

INDENTED

A line of type set over to the right of the normal margin used for quotations or sub-headings.

INK COVERAGE

The total percentage of inks at a certain point on a printed piece. Ink coverage that is too heavy may impede proper ink trapping and drying. UCR or GCR may be used to reduce ink coverage in four-colour printing.

INK JET PRINTER

A digital printing method that creates black and white or colour images by spraying microscopic dots of ink on the page. Quality can range from fairly low to extremely high, depending on the process and device used.

INSERTS

Extra printed pages inserted into printed pieces.

INKJET/BUBBLEJET

Modern printer technology that works by spraying tiny particles of ink.

INTERFACE

The way an application presents itself on screen and is used; or hardware connection.

INTERPOLATION

Some camera and scanner CCDs capture lower optical resolutions and use interpolation to calculate new pixel locations - they take an average from say pixel A and pixel B and insert a pixel C, this can be detrimental to the final quality and clarity of an image.

INK JET PRINTING

A printing process that uses a jet of ink droplets deflected on to the paper to form images. Mostly used for personalisation, where it is quicker and cheaper than laser, although not such high quality.

INLINE FINISHING

Where the product is made continuously from web, through the printing press and finishing line in one operation.

INSERT

Paper or card inserted between the leaves of a book or brochure and not secured in any way.

INSETTING

The insertion of one printed section inside another prior to binding.

INTAGLIO

Any printing process from a recessed image.

INTERLAY

A patch up sheet between the plates and the mount to increase printing pressure in the darker tones and also relieve the pressures in the highlights.

INTERLEAVING

The placing of sheets of paper between printed sheets as they come from the machine to prevent set-off.

INTERNATIONAL PAPER SIZES

These are based on a rectangle whose sides are in the ratio of 1 to the square root of 2. AO is trimmed and measures 841 x 1189mm, RAO is untrimmed and measures 860 x 1220mm and SRAO (for work which bleeds) measures 900 x 1280mm.

INTERTYPE

A mechanical typesetter which casts the characters in one line as a complete slug.

JUSTIFICATION

The even and equal spacing of words to a predetermined measure.

JPEG

(Joint Photographics Experts Group) Refers to a set of standards developed by this group for compressing digitised images.

KEY LINES

Lines on drawings to indicate to the process worker areas for tint-laying, painting up, etc.

KILOBYTE

(K, KB) 1024 bytes of digital information. Abbreviated and referred to as K.

KNIFE FOLD

A fold created by a blunt straight edge plunging down into the middle of a flat sheet.

KNOCKOUT

A shape or object printed by eliminating (knocking out) all background colours. Contrast to overprinting.

KNOCKING UP

To make the edge of a pile of paper straight and regular or flush.

LACQUER

A pigment-less varnish applied on or off press to give a gloss finish to the work. Often dried or cured by infra-red or ultra-violet radiation.

LAI

A fine quality paper in which the smooth wove surface is replaced by a series of translucent lines about 1 mm apart crossed at 90 degrees by lines 25mm apart. These are created by a wire roller, called a Dandy Roll, on the papermaking machine.

LAMINATING

The application of transparent plastic film, usually with a high gloss finish, to the surface of a printed sheet to enhance its appearance and to protect the surface of the paper or board.

LAMINATE PROOF

An off-press proofing method in which the film separations are exposed in contact with CMYK film, which is laminated in register onto a backing substrate to simulate the printing process.

LAN

(Local Area Network) A group of connected computers in a relatively small area that share access to printers and other peripheral devices.

LANDSCAPE

Oblong leaf, folded printed sheet, or book, having its long sides at head and foot. The opposite is called 'portrait'.

LASER

Highest-quality non-impact printer technology.

LASER PRINTING

A type of digital print in which toner is heat-fused onto plain paper.

LASER PROOF

A proof created on a desktop laser printer.

LAY

The position of print on a sheet of paper. Lays (front and side) - the guides to which paper is fed before being printed or folded. Lay edges - the edges of a sheet which are laid against the front and side lays.

LAY-FLAT BINDING

A binding method that uses a two-part spine so the bound book lays flat when open.

LEAF

Single sheet of paper on which can be printed two pages.

LED

(Light Emitting Diode) sensor.

Sometimes referred to as photodiode sensors, LEDs use a solid-state semiconductor as a light-sensitive cell. Like CCDs, LED scanners are very durable since they use no filaments, tubes or gas to convert light into electrical charges and generate very little heat.

LETTERPRESS

The original printing process where a raised image is used to transfer ink to the paper by direct contact under pressure.

LETTER SPACING

The fine spacing between characters in a word of caps to give optical balance or improve legibility.

LINEAR or SCANNING ARRAY

A linear array, used in most desktop scanners and some digital cameras, contains a single row of pixels that are moved (scanned) in thousands of incremental steps by a small electric motor as light is recorded. The arrangement allows for higher resolution recordings using fewer pixels.

LINE GLUEING

A continuous strip of glue applied from a narrow nozzle.

LINEN FINISH

A finish impressed on paper to make the surface resemble linen, usually produced by passing the web between engraved cylinders. Other patterns can be given to paper by embossing, eg coral, eggshell etc.

LINOTYPE

A mechanical typesetter which casts characters in one line as a slug.

LITHOGRAPHIC PRINTING

A process in which the printing and non printing areas are on the same plane, and the paper makes contact with the whole surface. The printing part is treated to receive and transmit ink to the paper, the non printing surface is treated to attract water, thus rejecting ink from the ink roller.

LOADING

Clay or mineral fillers used in the finishing of a paper to produce an opaque smooth sheet.

LONG GRAIN

Paper fibres tend to align themselves in the Machine Direction. Long grain follows the long edge of the sheet.

LOWER CASE

Small letters of the alphabet as distinct from capitals (Caps).

LPI

(Lines Per Inch) A measure of the frequency of a halftone screen (usually ranging from 55-200). Originally, halftones were made by placing an etched glass plate over an image and exposing it to produce dots. LPI refers to the frequency of the horizontal and vertical lines.

LUT

(Look-Up Table) The table of available colours a computer uses to approximate a colour that falls outside of its range.

MACHINE DIRECTION

The length of the paper web and the direction in which the cellulose fibres tend to lie due to the motion of the papermaking machine. The sheet is stronger in the machine direction.

MACHINE COATED

Paper coated on the papermaking machine.

MACHINE OR MILL FINISHED

Finished on the machine, but not supercalendered.

MACHINE OR MILL GLAZED

Term used for a large range of papers which are characteristically rough on one side, highly glazed on another - such as poster papers.

MAKE-READY

The operations involved in preparing a printing machine to run.

MAKE-UP

The assembly of type and plates into pages.

MASK

The inactive area of a bitmapped image that will not respond to the changes.

MATT ART

An art paper with a flat as opposed to a gloss finish.

MEASURE

Width of type area in 12pt ems (picas).

MECHANICAL PAPER

Any paper containing a proportion of mechanical wood pulp, sometimes specified as 'part mechanical'.

MECHANICAL WOOD PULP

Produced by grinding wood mechanically; used in cheap papers, such as newsprint, and combined with larger proportions of chemical wood pulp for better qualities.

MEGABYTE

(MB) A unit of measure of stored data corresponding to 1,024 kilobytes, or 1,048,576 bytes of digital information.

MONOCHROME

An original in one colour only.

MIDTONES

The colours or gray tones in an image that lie between the brightest and darkest shades (highlights and shadows). Tonal values that are midway between highlight and shadow (a 50% black, or level 128 in 24-bit colour).

MODEM

A device that translates digital information into signals that can be sent over phone lines.

MOIRÉ

An undesirable artifact produced in printing when halftone screen patterns become visible. Often caused by misaligned screens. Moiré can often be avoided by changing screen angles or using stochastic screening.

MONITOR CALIBRATION

The process of correcting the colour rendition settings of a monitor to match selected colours of printed output.

MONOCHROME

A black and white display with no gray tones.

MOTTLING

Uneven ink coverage in solid areas of a press sheet. Usually caused by improper ink and water balance.

MOTHERBOARD

The main circuit board of your Mac, which is also its brain - holding central processing unit and all other necessary circuits; the computer proper.

NATIVE FILE FORMAT

Native file formats are created by software vendors to provide faster, more efficient processing or access to special, proprietary tools and features.

NEWTON'S RINGS

Irregularly shaped patterns, similar to oil on the surface of water, that appear in a colour separation. They are caused by the varying amounts of air between the canning cylinder and transparency surfaces as they come into contact. The light refracts into a rainbow pattern as it passes from the cylinder through the air pockets to the transparency. This is avoided by applying a coat of oil (to make airless contact) or a thin mist of powder (to prevent any contact) between the two surfaces.

NuBus

Type of fast internal interface.

OFFPRESS PROOF

A prepress proof that simulates the printing process, not on a printing press.

OFFSET LITHOGRAPHY

The most common method of printing, in which the image is transferred from a reverse-reading plate to a positive-reading blanket, and from there to the substrate.

OFFLINE FINISHING

Any finishing process which takes place separately from the printing process.

OFFSET PRINTING

The lithographic method of printing by which the ink is first transferred (or offset) from the plate to a blanket and then transferred to the paper or board.

OPTICAL CHARACTER RECOGNITION

(OCR) Method of scanning type and intelligently recognising it as text.

OPTICAL

Type of storage technology based on lasers.

OPTICAL RESOLUTION

The number of pixels per inch (ppi) in a scanned image that can be created by direct samples. In some scanners, an effective resolution greater than the optical resolution is produced by creating extra pixels through interpolation.

OPTION KEY

As command key. Sometimes marked 'alt'.

ORIGINAL

Artwork or photography used to create reproductions that eventually will be printed.

OUTPUT

Processed optical or electronic data transferred to another device such as a secondary storage unit, a laser printer, an electronic manipulation station, or an analog or digital proofing device.

OVERLAY

In printing, a mechanical or hand cut sheet used on the machine cylinder to reduce or increase local pressure at the point of printing contact. In studio or process work, a flat over the original drawing indicating areas for tints etc or giving special instructions to the process worker.

OVERLAY PROOF

An off-press proofing method in which the film separations are exposed in contact with CMYK film, which is taped in register onto a backing substrate.

OVERPRINTING

Printing over areas already printed. Contrast to knockout.

OVER-RUN

Type matter which does not fit the design and requires a reduction in the number of words, or reduction in word or letter spacing.

OVERS

The quantity produced of a printed job above that which was ordered. A percentage of overs can usually be charged by the printers.

OZALID

A mono copying process involving ammonia, which produces an image in dark bluish purple on a light background. The original 'blueprints' were produced by Ozalid. Cheaper for checking plate layout than Cromalin.

PANTONE COLOUR MATCHING SYSTEM

A proprietary system that supplies colour swatches for designers and matching inks for printers, used to define and print specific colours. The industry standard for non-process colour.

PART MECHANICAL PAPERS

Paper made from a combination of chemical and mechanical wood pulp often having a creamy appearance.

PASTE-UP

Artwork pasted up as copy for photographic reproduction.

PATTERN GLUE

A glue laid down by a plate, so that the glue follows a given shape or is kept clear of certain areas.

PATTERN PERFORATING

A perforation in other than a simple straight line. Often produced in a similar way to a die cut, except no paper is removed.

PERFECT BINDING

A binding method where the binding edge of a book or magazine is ground down and coated with a fast drying glue. Then a flexible cover is attached, creating a squared-off backbone.

PERFECTING

Printing both sides of a sheet on one pass through the machine, or printing the second side of a sheet;- backing-up.

PERFORATING AT PRESS

To perforate a job on the printing machine by means of a perforating rule.

PERFORATION

A line of cuts or punches which allows paper to be torn off easily - for instance, to remove a reply card.

PHOTO CD

A method created by Kodak for scanning and storing photographic images on CD-ROM.

PHOTON

The smallest 'particle of light'.

PHOTOTYPESETTING

The setting of typesetting by means of a photographic process, as opposed to hot metal typesetting. There are 12 points to a pica and approximately 6 picas to an inch.

PICA

(4.23mm) Name of the standard unit of measurement in the point system, the correct term is 12pt (4.23mm).

PICT/PICT2

A common format for defining bitmapped or object-oriented images on the Macintosh. The more recent format (PICT2) supports 24-bit colour.

PICT PREVIEW

The PICT component of DCS and EPS files, used to represent the image on screen during page layout.

PIGMENT

Particles that absorb and reflect light and appear coloured to our eyes. The substance that gives ink its colour.

PIXEL

(Picture Element) The smallest distinct unit of a bitmapped image displayed on a screen.

PLATE

The metal (usually aluminium), plastic or paper plate carries the printing image on a litho press. This is brought into contact with the ink which is transferred by means of a blanket cylinder to the paper or board.

PLATE CYLINDER

The cylindrical surface on a rotary printing press which carries the plate.

PLOUGH FOLD

A fold created along the web by a blade similar to a plough

PMS

(Pantone Matching System) A commonly used system for identifying specific ink colours.

POINT

A typographic standard measure based on the pica (4.23mm) to which other measurements are related. In measuring type, 1 point is 1/12 of a pica or 1/72 of an inch. In other words, there are 12 points to a pica and 72 points to an inch.

PORTABLE DOCUMENT FORMAT

Formats that allow any document to be saved, opened and viewed without the original application used to create the file. One example is Adobe Acrobat.

POSTSCRIPT

A software language created by Adobe Systems for describing graphic information. It has become a standard in electronic publishing at all levels. The key feature of PostScript is device independence, allowing different output devices from different manufacturers to print the same file in more or less the same way.

PPI

(Pixels Per Inch) A measure of the resolution of scanned images. The finer the optics of the scanner, the higher the scan resolution.

PRE-SENSITISED PLATE

A printing plate with a light sensitive coating, which on exposure to a light source, through negative or positive film retains an image.

PREPRESS

A collective term for the steps taken to prepare original artwork for printing. More and more, these steps are being carried out by computerised systems.

PRESS PROOF

A proof run on a press, using the printing inks and substrate for the actual job.

PRIMARY COLOURS

In printing, yellow, magenta and cyan. In light red, green and blue.

PROCESS COLOURS

The four colours (cyan, magenta, yellow and black) that are combined to print a wide range of colours. When blended, these reproduce only a small portion of all the colours found in nature, but they can reproduce the widest range with the fewest inks when printing. See also CMYK.

PROCESS PLATES

A set of printing plates made in half-tone to produce a wide range of colours and shades. Usually three or four colour process, yellow, magenta, cyan and black.

PROGRESSIVE PROOFS

A set of proofs showing each colour individually and in register. These proofs act as a guide for the printer and his customer.

PROOF

A reasonably accurate sample of how a finished piece is intended to look. Proofs can be in black and white or colour.

QUADTONE

A grayscale image printed with four colours to achieve greater tonal range or to create a special effect.

QUARTERTONE

Tonal values midway between the highlight and midtone points (a 25% black, or level 64 in 24-bit colour).

QUICKDRAW GX

Major extension of QuickDraw, allowing new printing and imaging techniques; optional user installation; requires high RAM overhead.

RAM

(random access memory) The memory a computer uses to store the information it is using at any given moment. The information in RAM is lost when the power is turned off.

RASTERIZATION

The conversion of image data into a pattern of dots by an imagesetter for the production of negative or positive film or paper.

RASTER IMAGE PROCESSOR

Software that translates electronic file data into an array of dots (a bitmap) that can be output via an imagesetter marking engine. Abbreviated RIP.

REGISTER MARKS

Marks placed on the artwork to assist the planners and machine minders to print the image in the correct position.

REGISTRATION MARKS

Small cross-hairs on film used in the alignment of negatives.

REGISTRATION

The alignment of different films or printing plates to produce one printed image.

REFLECTIVE DENSITOMETER

Instrument used to measure the amount of light reflected by an image on paper.

REMOVABLE CARTRIDGE DRIVE

A device for storing electronic files in which the information is electronically encoded on a magnetic disk that can be removed for transport or storage.

REPROGRAPHICS

Known as Repro, the process of producing four colour separations from artwork so that plates can be made.

RESOLUTION

Resolution is a measure of the clarity, sharpness and fine detail that a camera, scanner or output device can record. Image resolution, sometimes called scan resolution, scan rate or sampling rate, defines the maximum size of reproductions. Input device resolutions are expressed as pixels per inch (ppi) values, but output device resolutions may be expressed as ppi, dots per inch (dpi), or lines per inch (lpi) values.

REVERSED TYPE

Type set in a reverse field, such as white type on a black background.

RGB

Red, Green and Blue. A colour model used for scanners, computer monitors, and other light-based media, based on red, green, and blue as the primary colours.

RIBBONING

The splitting off a strip of paper from the web, which is then brought back to join the original. Used to form separate pieces inside a one piece sealed outer.

RIP

(Raster Image Processor) Part of an output device that rasterizes information so that it may be imaged onto film or paper.

ROLL FOLD

A method of folding where the paper is wrapped around itself at each fold.

ROSETTE

The pattern created when all four colour halftone screens are placed at the traditional angles.

ROTARY PRINTING

Printing from curved plates.

SADDLE (WIRE) STITCHING

To stitch with wire through the back of folded work in order to produce a booklet.

SATURATION

Measure of how vivid a colour is.

SATURATION

The amount of gray in a colour. The higher the gray content, the lower the saturation.

SCANNER

An electronic device which scans across the surface of artwork or transparencies producing continuous tone or screened half-tone file in black and white, or more usually in separated colours.

SCANNING

A process by which original art is translated into digital information that can be manipulated and output via computer. See also flatbed scanner and drum scanner.

SCORE

To partially cut with a rule or wheel heavy paper or board to facilitate folding.

SCREEN PROCESS PRINTING

A method of printing, which forces the ink through a stencil supported by a fine mesh fabric or metal screen.

SCREEN ANGLES

The angles used to offset the different films in process colour separations. Proper screen angles are critical to minimise moiré patterns.

SCREEN FREQUENCY

The number of lines of dots per inch on a halftone.

SCREEN RULING

The number of lines of dots per inch on a traditional halftone screen.

SCSI

(Small computer systems interface) Method of attaching devices such as hard disks and scanners to the Mac.

SECTION

A folded sheet of paper which will make up part of a book or booklet. Books are usually printed in 4, 8, 16, 32 and 64 page sections.

SELF-COVER

A cover of the same material as the inside sheets.

SEPARATIONS

A set of films in which each piece contains the image information for one printing plate.

SET-OFF

The marking of a sheet by the transfer of ink from the sheet lying next to it, can be avoided by the use of anti set-off spray.

SHADOWS

The darkest (black and nearly black) colours or levels of gray in an image.

SHARPEN

The use of software to analyse and sharpen pixel values and alter the contrast and brightness levels of adjacent pixels to create a perception of increased sharpness.

SHEETWORK

Printing on one side of a sheet from one plate or set of plates and printing on reverse with another plate.

SHEET-FED PRESS

A printing press that used precut sheets of paper rather than a continuous roll.

SHORT GRAIN

The direction of the paper fibres along the short edge of the sheet.

SIDE STITCH

To secure sheets by wire stitching from front to back to the margin.

SIGNATURE

A folded section of a book to become part of a publication. Signatures always contain pages in increments of four, such as 4, 8, 12, 16, 24 or 32 pages.

SLUG

A complete line of type cast in one piece.

SLUR

An undesirable printing condition where the printed image is smeared. Slur can result from insufficient blanket pressure, slippage of a press or lack of ink tack.

SMALL OFFSET

Presses below A2 in size - usually A3 or A4.

SOFT DOT

A halftone dot that exhibits a fringe or halo when viewed through a loupe, often caused by low-resolution imagesetting. This interferes with density readings and distorts the appearance of gradations.

SOFT PROOF

The depiction of a digital image on a computer monitor for checking colours.

SPECIAL COLOURS

Any non-standard colour (for instance gold or silver) used on a 5 or 6 colour press in addition to the 4 process colours.

SPOILAGE

The cost of unprofitable materials and labour which cannot be charged to a specific customer.

SPOT GLUING

Applying a spot of glue to attach one piece of material lightly to another, so that it can easily be detached by the recipient.

SPOT COLOUR

Colour printed with a custom ink, rather than with a process colour combination.

SPOT VARNISH

A varnish applied only to parts of a page, usually to emphasise particular elements.

SPREADSHEET

Program with financial and numerical uses.

STABBING

To stitch gathered work with wire at the binding edge.

STAB STITCH

As for side stitch but using two wire staples, one from either side.

STATIC ARRAY

Hundreds of CCD pixels are organised in columns and rows in a static array. The number of pixels arrayed defines the true optical resolution of a CCD-based camera or scanner.

STEREO

A duplicate printing plate made in plastic, rubber or metal from a mould taken from an original plate or forme.

STITCH

To sew or staple together with thread or wire the sections of a book or booklet.

STOCHASTIC SCREENING

An alternative to conventional screening that separates an image into very fine, randomly placed microdots, rather than a grid of geometrically aligned halftone cells. A method of creating digital halftones in which photo-realistic images are created using uniformly sized dots distributed in various densities. Stochastic screening eliminates moiré patterns, allows greater detail reproduction and ink densities, and is an essential component of HiFi Colour printing. Also called frequency-modulated screening.

SUBSTRATE

The paper or other material onto which an image is printed.

SUBTRACTIVE PRIMARIES

The cyan, magenta, and yellow pigments used in printing to create different colours. Unlike the additive primaries, these produce darker colours when combined.

SULPHITE

A wood-free paper produced by processing wood chips in a solution of sulphurous acid and one of its base sales - calcium, sodium, magnesium or ammonia.

SUPERCALENDERED

Paper given a smooth glazed surface by passing through highly polished metal rollers under heavy pressure.

SWOP

Abbreviation for the Specifications for Web Offset Publications, developed in the US as a standard for magazine production, and used to ensure consistency of colour printing.

SYQUEST DRIVE

A brand of removable cartridge drive of varying capacities which was widely used by service bureau etc., not so common lately.

SYSTEM PALETTE

The collection of 256 colours of the colour look-up table built into a computer's operating system, to be used for display on an 8-bit monitor.

TACK

The stickiness of an ink. Tack is the relative measurement of the cohesion of an ink film which is responsible for its resistance to splitting between two rapidly separating surfaces.

THREE-COLOUR PROCESS

Colour printing by means of three primary colours (yellow, magenta, cyan), superimposed; the colours having been separated by electronic scanning or photographically using colour filters. Four colour printing with the addition of black is more common.

TICK MARKS

Small marks printed at the edge of the image area to enable accurate trimming of the finished sheet.

TINT LAYING

Adding to the artwork or film one of the many patterns or mechanical tints now available.

TIFF

(Tagged image file format) A File format for exchanging bitmapped images between applications.

THERMAL DYE SUBLIMATION

Also called thermal dye diffusion transfer, or D2T2. Digital proofing technology that vapourises solid process pigments either a heated print head or a laser beam and floats them onto a special stock where they become solid again.

THERMAL WAX PRINTER

Similar to dye-sublimation printers, thermal wax devices transfer colours from RGB, CMY or CMYK ribbons containing waxes, which are warmed and fused onto paper.

THREE-QUARTERTONE

Tonal values midway between the midtone and shadow points (a 75% black, or level 192 in 24-bit colour).

TONE CURVE

A graphic representation of the relationship between input and output tonal ranges of an image when its contrast or lightness is being modified. Separate modification of RGB or CMYK tone curves changes the colour balance.

TONAL RANGE

The maximum range of tones that is visible in any original image or a reproduction. See density range and dynamic range.

TOUCH PLATE

An additional printing plate that adds a matched colour to a process colour image.

TOYO COLOUR MATCHING SYSTEM

A colour matching system that consists of more than 1000 colours based on the most common printing inks used in Japan.

TRANSPARENCY

A full colour photographic positive for viewing by transmitted light.

TRANSMISSIVE DENSITOMETER

Instrument used to measure the amount of light that passes through an image on film.

TRAPPING

The preparations of film separations so that adjoining colours overlap slightly to avoid gaps between colours in the case of slight misregistration on press. A Pre-press technique which allows for variations in registration during the press run by spreading or/and choking colours.

TRAPPING

The actions of wet ink printed on top of wet ink in process-colour printing.

TRIM

The finished size of a printed piece.

TRIM AREAS

The area or amount of paper removed by cutting to the tick marks.

TRITONE

A type of printing in which grayscales are reproduced using three ink colours, in order to achieve a greater tonal range or produce a special effect.

TRUMATCH COLOUR MATCHING SYSTEM

A colour matching system which provides predictable CMYK colour matching with more than 2000 achievable computer generated colours. Trumatch colours cover the visible spectrum of the CMYK gamut in even steps. The Trumatch colourfinder displays up to 40 tints and shades of each hue. TruMatch colours are organised according to hue, saturation and brightness.

TWIN-WIRE (paper)

Paper produced from two webs joined together while still wet.

TYPE HEIGHT

The distance from the foot of a type character to the printing surface. The Anglo-American standard being 23.317mm.

TWO-COLOUR MACHINE

A printing machine which prints one side of the sheet in two colours as it passed through the machine.

UCR

(Undercolour removal) The removal of CMY percentages that make up a gray element within darker colours and replacing them with an appropriate amount of black.

UNCOATED PAPER

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

UNDERLAY

Paper or card placed under the mounting base of a printing plate to bring the plate up to type height.

UPPER CASE

A name for capital letters (Caps).

VACUUM FRAME

A printing frame in which the negative is held in close contact with either a sheet of film, photographic paper or a coated plate during exposure.

VALUE

A measure of the lightness or darkness of a hue. The less white in a colour, the greater its value.

VARNISH

A transparent coating added to printed material to enhance colour or improve durability.

VARNISHING

To apply oil, synthetic, spirit, cellulose or water based varnish to printed matter.

VIGNETTE

A half-tone with the background gradually fading away and blending into the surface of the paper.

VISCOSITY

Thickness or thinness of a fluid as measured by its resistance to flow. Ink viscosity is adjusted to maintain a proper flow through the ink train of a press and on to the paper.

VISIBLE SPECTRUM

That portion of the electromagnetic spectrum to which the human eye is sensitive.

WEB

Paper is wound onto a roll or 'web' at the final process in the manufacturing of paper.

WEB OFFSET

Web or reel-fed offset litho printing, offset litho printing is where the web, or reel is driven directly into the printing machine. The process lends itself to longer print runs than sheet fed litho printing.

WEB PRESS

A printing press that uses paper in webs (rolls), rather than sheets. Web presses generally work at higher speeds than sheet-fed presses and may include in-line folding and other finishing equipment.

WOOD-FREE PAPER

Paper made from chemical wood pulp and containing no mechanical wood pulp. CHEMICAL WOOD PULP (Sulphite or sulphate) - pulp prepared from chipped wood which is treated with chemicals to remove non-cellulose material; used in better grades of wood pulp papers.

WORK AND TUMBLE

When a sheet is printed on one side and turned over on its shorter length and printed on the reverse by gripping on the other long edge.

WORK AND TURN

When a job is printed in its entirety on first one side then the other side of sheet by using the same gripper edge. The sheet would then be split to produce two (or more) of the same job from that sheet. The advantage of this kind of working is the saving in plate changes.

WRAP-AROUND PLATE

A thin, one-piece letterpress printing plate wrapped around the press cylinder. Similar in appearance to a litho plate.

WYSIWYG

Pronunciation WIZ-E-WIG, means What You See | What You Get, literally that you see on the screen what will be produced by the output device.

