

### **A-Z Glossary of Printing Terms**

This document is intended as a guide only.

© 2007 Leopard Print Ltd.

This document is for the technically minded or for the brave. It is intended to provide confirmation of technical detail for those who need it or simply general knowledge for those who are curious. Always remember that we are here to help you and if there is anything that you need to know but do not fully understand please give us a call, we are always pleased to help you.

**Achromatic printing:** colour printing using 2 colours plus black, rather than 3. Related to the UCR (under colour removal) method.

**Acrobat Distiller:** computer software package used to create PDF files from postscript files.

**Acrobat:** computer software package used to edit PDF files.

**Acrobat Reader:** computer software package used to view PDF files.

**Adobe Photoshop:** image manipulation program, much used in pre-press.

**Applications:** computer software packages used to create digital files that are used in the printing process. Desktop publishing packages include Quark Xpress, Adobe InDesign, Ventura, 3B2. Illustration packages include Adobe Illustrator, Freehand, CorelDraw.

**APR: Automatic Picture Replacement.** A document contains low-resolution images until it is time to be RIPed, when the RIP replaces the image with a high resolution. This is to avoid excessively large document files clogging up the speed of operation when they are being worked on.

**Art paper:** smooth surfaced paper with a coating of china clay.

**Artwork:** copy or typesetting, ready for reproduction, before the film stage.

**ASCII: American Standard Code for Information Interchange.** A computer code that covers all standard characters used in print, as well as control commands for printers and other peripherals.

**Author's corrections:** corrections made on proofs by the author or agent thereof, that are modifications to the original material.

**Back up:** (a) To print on the reverse side of a printed sheet. (b) To secure data, the data is saved from the computer on to another media, such as a writeable CD, or writeable DLT.

**Backslant:** opposite to italic.

**Banding:** (a) defect in the output of a graduated tint. (b) strip of paper which is wrapped around a magazine which can carry either advertising or copy.

**Barn door:** this is a printed product with a page with two flaps which opens like a barn door.

**BIN:** compressed binary file for the Macintosh computer system.

**Bit:** Binary information transfer. A bit is one binary digit, 0 or 1. This is the smallest unit of information used by a computer. A group of 8 bits is a byte.

**Bitmap:** image made up of pixels (bits). The colour of each pixel is indicated by a table of values, hence 'map'. A bitmapped image is one considered to have jagged edges.

**Blanket cylinder:** holds a multiply fabric carcass laminated with rubber adhesive and finally coated on the top face with several layers of rubber which form the hard accurate surface which transfers the inked image from printing plate to paper.

**Bull's Eye:** an imperfection in the printing process, created by a speck of dust preventing contact between the paper and the printing surface.

**Byte:** see Bit.

**Cache:** area of high-speed performance in the memory of the computer. This area tends to hold the more frequently used files, thus speeding up the navigation around the computer.

**Calibration:** using a fixed measurement to ensure accurate performance in a machine or process.

**Camera-ready artwork:** sometimes known as CRA, this is artwork that is ready to be photographed.

**CCD:** Charge Coupled Device. A device that registers changes in light, using diodes located at the back of the device.

**CD:** Compact Disc. This binary-coded storage medium is read by laser. CDs can be read-only, such as music CDs or software discs, or they can also be reusable as storage discs.

**CMYK:** Cyan, Magenta, Yellow, Black. These are the subtractive primary colours used in four colour printing.

**Colour control bar:** similar to the calibration bars, this is a strip on the margin of the printed sheet used to verify printing quality.

**Compression:** to decrease the size of a computer file, programs can be run that remove unnecessary information and, in so doing, reduce the overall size of the file.

**Continuous Tone:** (Contone) an image with vast range of tones and colours that creates high quality reproduction.

**Cover-mount:** an object that is glued to the cover of a magazine: quite often it is an inducement for readers to purchase the magazine.

**Crease:** an indent is made on the sheet before folding so as to avoid cracking.

**CTP:** Computer To Plate. Technology that enables digital files to be sent directly from the imposition program to a platesetter - thus bypassing the need to output film.

**Cut:** when folding larger sections, a cut is made to avoid stretching at the back of the section.

**Desktop Colour Separated:** an extension to the EPS system which enables CMYK separations to be saved and read by other computer programs than the one that created it.

**Densitometer:** machine used to monitor the density of colour on printed material.

**Density control bar:** found on the side of proofs and printed material, these calibration bars are a strip of tones used to ensure printing quality and consistency. On film, the strips are calibration bars, and on paper they are colour control bars.

**Die-cut:** unusual and bespoke shapes can be cut into paper using a specially shaped die.

**Digital:** digital Information is made up of bits, thereby enabling the data to be reused or reprocessed on an endless basis.

**Digital Proof:** this is a proof that is created from the electronic document to check colour and layout.

**Digital workflow:** multi-layer manufacturing process leading to the printing of a product or the posting of information to a web site. It is digital workflow that lies at the heart of the system, which connects devices in the production cycle to produce reliable and repeatable results.

**Direct Imaging:** emerging technology where the imaging of the plate takes place after the plates are installed on the printing machine. Best for printing runs of about 5000.

**Distributing rollers:** rollers on a printing machine that move the ink from the ducts to the plate.

**Dithering:** a technique of simulating colours from adjacent pixels to compensate for a limited colour range.

**Domain name:** Internet address, such as [www.leopardprintltd.co.uk](http://www.leopardprintltd.co.uk)

**Dot gain:** a halftone dot will become larger in the transition from film to print -this has to be planned for in the reproduction process.

DTP: Desktop Publishing. Computer based typesetting and page layout systems, introduced in the three final decades of the last century, which revolutionised printing and publishing.

DPI: Dots Per Inch. This measurement indicates the quality of the resolution. The higher the number (i.e. 12000) the greater the resolution. Sometimes called Pixels per inch.

Dummy: an example of a proposed publication, usually made out of the paper specified.

Duotone: a 2-colour halftone produced from two halftone images of the same original.

Epro: Royal Mail's new electronic docketing system on the Internet, accessible by customers, which will replace postal docket books.

EPS: Encapsulated Postscript File. A file that contains postscript information that can be transferred between different computer programs.

Finishing: all the operations carried out after the actual printing.

First and Third: this is where a printed sheet has material on pages 1 and 3 when folded.

Flatplan: a diagram showing the total number of pages in a magazine and the position of advertising and text material and the start & end-point of sections.

Flush: in the binding process, when the covers and sections are trimmed at the same time.

Font: a typeface family.

Fugitive colour: an ink that is defective.

GCR: Gray Component Replacement. A method of reducing the amount of ink used, which involves decreasing the level of black.

GIF: Graphical Interchange Format. A graphics file used on the internet.

Gatefold: this is a printed product with a page with two flaps, one of which tucks under the other one.

Greyscale: a greyscale monitor can display grey pixels between black and white but not colour.

Ghosting: this is where an image can appear faintly on a printed page, due to depressions on the blanket from the previous page.

Gloss Paper: paper with a shiny finish.

Gripper: device that holds the sheet while it is on the printing machine.

GSM/gm2: Grams per square metre. This is the measurement of the weight of paper.

Half-sheet work: this is either work-and-turn or work-and-tumble, and it involves printing two identical copies on one sheet. The sheet is then cut in half and each new sheet has the entire imposition printed on it.

Hard copy: when a document is electronically held on a computer, a hard copy can be printed out.

Hexachrome: a standard yet enhanced colour system limited to improvements in the green and orange colour areas.

Hot Metal: typesetting method in which the type is cast from molten metal. Superseded by computer typesetting.

HTML: Hypertext Mark-up Language. This is the most common computer coding of the Internet.

HQX: a compressed file on the Macintosh computer system.

Image Colour Enhancement: a means of going beyond four-colour process printing, permitting a wider range of effects and colours to be printed. For example, a metallic silver becomes part of the image not just a spot colour.

Imagesetter: the machine that converts the digital file into film.

Imposition: the arrangement of the pages so that they will be in correct sequence when the printed sheet is folded.

Inkjet: a dot matrix paper which projects electrically charged droplets of ink on to paper.

Insert: this is something that is placed between pages of a magazine, generally a piece of paper or card.

Interleaving: (slip-sheeting) when sheets of paper are placed between the printed sheets as they come off the printer to avoid set-off.

Internet: electronic communications network that connects computers.

ISDN: Integrated Services Digital Network. A communications systems used to transmit large amounts of data at relatively high speeds.

Jaz: removable computer disk, with storage capability for large amounts of data.

JPEG: Joint Photographic Export Group. Lossy compression file format, also widely used on the internet.

Kerning: adjusting the horizontal spacing between letters.

Kettle-stitch: this is the stitch on the top and bottom of the spine that connects the two strands of stitching together.

Knocking up: to straighten the edges of a handful of paper flush.

Knockout: because printing inks are not completely opaque, printing one ink over another will create a third colour. To avoid this, a knockout, or unprinted area, in the shape of the foreground object is left in the colour plates that make up the background. The danger is that a gap may appear between the foreground object and its background if misregistration occurs during printing.

Laminating: a gloss or matt surface coating applied after the printing process.

Laser: extensively used in imagesetters and laser printers.

Lay: where the print is located on a sheet of paper.

Leading: space between lines of text.

Letterpress printing: this is a printing method using a protruded printing surface which is in contact with both paper and ink.

Lithographic printing: this is a printing method using a flush printing and non-printing surface which is in contact with paper. The non-printing areas are treated to attract water which prevents ink from attaching.

Lossy compression: when a file compression system reduces the size of a file and is not capable of restoring it to precisely what it was before, then it is considered to be lossy (i.e. loses data!).

LPI: Lines per inch. The LPI is an indicator of the quality of the resolution.

Make-up: this is the bringing together of everything that will be on a page, from text to graphics through to page numbers.

Matt Paper: paper that has a flat finish.

Mechanical paper: paper that contains mechanical wood pulp

Mega-znungillization: intriguing and rare symmetrical paper spoilage. It is not known why or how this occurs, and therefore it can be considered as the 'crop circles' of printing.

Moiré pattern: this unwanted pattern develops in colour printing when halftones, to be found in at least two colours, merge. This can be corrected by offsetting screen angling.

Offset printing: the most common form of lithographic printing, where a blanket is used to transfer the ink to the printed area.

OPI: Open Prepress Interface. The low-resolution images in a document, placed there for layout, are replaced by high-resolution images at output.

Out work: while a job is being printed it may be necessary to send the job to another company for specialist work, i.e. lamination.

Overprint: to avoid problems with trapping, the background object is printed in its entirety, with a knockout for the foreground item, so the object colour sits on top of the background colour. This is desirable when the object colour is black, or when you wish to mix two colours to achieve a third colour.

Overs: surplus printed material above that ordered.

Pantone®: a proprietary system providing a method for the selection, reproduction, matching and control of colour.

PCF Paper: Process Chlorine Free paper. Similar to TCP, Totally Chlorine free paper, but it can contain post consumer fibre in the pulp which has traces of chlorine.

PDF: Portable Document Format. Platform independent file format for delivery of pages containing all elements such as fonts, graphics, etc.

Perfecting press: sheet fed press that prints on both sides of a sheet.

Perfect binding: method of book and journal binding using adhesive rather than thread to hold the leaves together.

PIR: Programmed Ink Reduction. A technique of applying UCR (see Under Colour Removal) to the ink density on paper, rather than to the dot percentage, so that the colours appear correct.

Posterisation: this is a form of gradation, where it is desirable to have bands of colour created marking out the changes in shade.

Postscript: a computer coding language that instructs output devices how to handle various elements of the document.

Prepress: all of the functions that are involved in preparing jobs from their reception, as artwork or digital document, prior to being printed.

Proof: a copy of a document for checking prior to printing.

Registration quirks: circles and lines that appear on the outside of the page area that ensure that the colour plates are properly lined up with each other during the printing process.

RGB: Red, Green, Blue. These colours make up an additive form of the four printing colours CMYK. RGB scans should always be converted to CMYK for correct output.

Right reading: film that is read from left to right.

RIP: Raster Image Processor. This is the technology that ensures that vector data is correctly processed by output devices.

Saddle-stitching: in binding, when the covers and sections are stitched with wire.

Screen angles: the dots making up each colour in the 4-colour film set are imaged at a different screen angle to avoid creating a moiré pattern. The angles usually used are 90° for yellow, 105° for cyan, 75° for magenta and 45° for black.

Scum: in litho printing, this is printing ink which can adhere to the non-image area of the plate.

SEA: this is a compressed file that is self-extracting, thus the user can open it without having the original compression software used.

Self-cover: when the cover is made of the same paper as the rest of the product.

Set-off: when ink from a printed sheet marks the underside of the sheet above it.

Show through: printing showing through from the other side of printing page, due to the low opacity of the paper.

Soft proofing: this is a proof that is not a hard copy, but quite simply the document on screen. Otherwise known as a screen proof.

Solid density: by measuring the amount of light absorbed by the ink, it is possible to deduce the thickness of the ink film in a constant ink layer.

Spot colour: spot colour is a colour that is printed from specially pre-mixed ink, usually identified by a Pantone number.

Strike through: marks on the back of a sheet caused by ink soaking through.

SyQuest: removable computer cartridge, capable of storing large amounts of data. Now a redundant technology.

TCP paper: Totally Chlorine Free paper.

TIFF: Tagged Image File Format. Images are saved in this format so that they can be exchanged between different computer applications. It is very commonly used in desktop publishing.

Trapping: when multicolour publications are printed on an offset press, slight misalignment of colour plates or shifting of paper can result in gaps between adjacent objects of colours. Trapping is the process of intentionally overlapping the adjacent colours to compensate for misregistration and prevent these gaps.

Trim size: the size of the magazine once the surplus edges of paper have been guillotined off.

UV Varnishing: a gloss or matt surface coating applied, either to the complete page or to a section of the page, after the printing process.

Under colour removal: a method of reducing the amount of ink used, by adjusting the levels of cyan, magenta and yellow whilst increasing the level of black.

VOC: Volatile Organic Compounds. This is pollution from the printing process.

Wam!net: a managed store and forward service for transfer of data using ISDN, fixed lines, and the internet.

Web presses: printing presses that use paper run off a reel.

Woodfree paper: paper that contains chemical wood pulp and no mechanical wood pulp.

Work-and-tumble: to work on both sides of the sheet gripping on both edges using a perfecting press. The paper is turned over automatically inside the press.

Work-and-turn: to print on the entire area of both sides of a sheet by using the same gripper edge. One side is printed, the paper is manually turned over and run through the press again.

XML: extensible Mark-up Language. Is a next step in the evolution of web data formats beyond HTML. XML is a set of rules for designing text formats for such data, in a way that produces files that are easy to generate and read. Much of on-line text delivery of journals uses XML.

Zip: a removable computer disk, with storage capability for large amounts of data. Also a PC based compression file.

This document is intended as a guide only.

© 2007 Leopard Print Ltd.