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## Glossary of Printing Terms

### A

**Acid-free Paper:** Paper made from pulp containing little or no acid so it resists deterioration from age. Also called alkaline paper, archival paper, neutral pH paper, permanent paper and thesis paper.

**Against the Grain:** At right angles to the grain direction of the paper being used, as compared to with the grain. Also called across the grain and cross grain. See also Grain Direction.

**Alteration:** Any change made by the customer after copy or artwork has been given to the service bureau, separator or printer. The change could be in copy, specifications or both. Also called AA, author alteration and customer alteration.

**Aqueous Coating:** Coating in a water base and applied like ink by a printing press to protect and enhance the printing underneath.

**Artwork:** All original copy, including type, photos and illustrations, intended for printing. Also called art.

### B

**Back Up:** To print on the second side of a sheet already printed on one side.

**Bind:** Usually in the book arena, but not

exclusively, the joining of leaves or signatures together with either wire, glue or other means.

**Bindery:** Usually a department within a printing company responsible for collating, folding and trimming various printing projects.

**Bleed:** Printing that extends to the edge of a sheet or page after trimming.

### C

**C1S and C2S:** Abbreviations for coated one side and coated two sides.

**Camera-ready Mechanicals:** photographs and art fully prepared for reproduction according to the technical requirements of the printing process being used. Also called finished art and reproduction copy.

**CMYK:** Abbreviation for cyan, magenta, yellow and key (black), the four process colors.

**Coated Paper:** Paper with a coating of clay and other substances that improves reflectivity and ink holdout. Mills produce coated paper in the four major categories cast, gloss, dull and matte.

**Color Correct:** To adjust the relationship among the process colors to achieve desirable colors.

**Color Gamut:** The entire range of hues possible to reproduce using a specific device, such as a computer screen, or

system, such as four-color process printing.

**Color Separation:** (1) Technique of using a camera, scanner or computer to divide continuous-tone color images into four halftone negatives. (2) The product resulting from color separating and subsequent four-color process printing. Also called separation.

**Color Shift:** Change in image color resulting from changes in register, ink densities or dot gain during four-color process printing.

**Composite Proof:** Proof of color separations in position with graphics and type. Also called final proof, imposition proof and stripping proof.

**Cover Paper:** Category of thick paper used for products such as posters, menus, folders and covers of paperback books.

**Crop Marks:** Lines near the edges of an image indicating portions to be reproduced. Also called cut marks and tic marks.

**Cure:** To dry inks, varnishes or other coatings after printing to ensure good adhesion and prevent setoff.

## D

**Density:** (1) Regarding ink, the relative thickness of a layer of printed ink. (2) Regarding color, the relative ability of a color to absorb light reflected from it or block light passing through it. (3) Regarding paper, the relative tightness or looseness of fibers.

**Desktop Publishing:** Technique of using a computer to design images and pages, and assemble type and graphics, then using a laser printer or imagesetter to output the assembled pages onto paper, film or printing plate. Abbreviated DTP.

**Die Cut:** To cut irregular shapes in paper or paperboard using a die.

**Digital Proofing:** Page proofs produced through electronic memory transferred onto paper via laser or inkjet.

**Dot Gain:** Phenomenon of halftone dots printing larger on paper than they are on films or plates, reducing detail and lowering contrast. Also called dot growth, dot spread and press gain.

**Dot Size:** Relative size of halftone dots as compared to dots of the screen ruling being used. There is no unit of measurement to express dot size. Dots are too large, too small or correct only in comparison to what the viewer finds attractive.

**Dots-per-inch:** Measure of resolution of input devices such as scanners, display devices such as monitors, and output devices such as laser printers, imagesetters and monitors. Abbreviated DPI.

**DPI:** Considered as "dots per square inch," a measure of output resolution in relationship to printers, imagesetters and monitors.

**Dull Finish:** Flat (not glossy) finish on coated paper; slightly smoother than matte. Also called suede finish, velour

finish and velvet finish.

**Dummy:** Simulation of the final product. Also called mockup.

## E

**Emboss:** To press an image into paper so it lies above the surface. Also called cameo and tool.

**Encapsulated PostScript file (EPS):** Computer file containing both images and PostScript commands.

## F

**Finish:** (1) Surface characteristics of paper. (2) General term for trimming, folding, binding and all other post-press operations.

**Finished Size:** Size of product after production is completed, as compared to flat size. Also called trimmed size.

**Flat Size:** Size of product after printing and trimming, but before folding, as compared to finished size.

**Flood:** To print a sheet completely with an ink or varnish. flooding with ink is also called painting the sheet.

**Fold Marks:** With printed matter, markings indicating where a fold is to occur, usually located at the top edges.

**Font:** A quantity of Sorts composing a complete character set of a single size and style of a particular typeface.

**Form:** Each side of a signature.

**Four-color Process Printing:** Tech-

nique of printing that uses black, magenta, cyan and yellow to simulate full-color images. Also called color process printing, full color printing and process printing.

## G

**Gang:** To reproduce two or more different printed products simultaneously on one sheet of paper during one press run. Also called combination run.

**Gate Fold:** A sheet that folds where both sides fold toward the gutter in overlapping layers.

**Gloss:** Consider the light reflecting on various objects in the printing industry (e.g., paper, ink, laminates, UV coating, varnish).

**Grain Direction:** Predominant direction in which fibers in paper become aligned during manufacturing. Also called machine direction.

**Graphic Design:** Arrangement of type and visual elements along with specifications for paper, ink colors and printing processes that, when combined, convey a visual message.

**Graphics:** Visual elements that supplement type to make printed messages more clear or interesting.

**Gray Scale:** Strip of gray values ranging from white to black. Used by process camera and scanner operators to calibrate exposure times for film and plates. Also called step wedge.

**Gripper Edge:** Edge of a sheet held by grippers on a sheetfed press, thus going

first through the press. Also called feeding edge and leading edge.

**Gutter:** In the book arena, the inside margins toward the back or the binding edges.

## H

**Halftone:** (1) To photograph or scan a continuous tone image to convert the image into halftone dots. (2) A photograph or continuous-tone illustration that has been halftoned and appears on film, paper, printing plate or the final printed product.

**Halftone Screen:** Piece of film or glass containing a grid of lines that breaks light into dots. Also called contact screen and screen.

**Hue:** A specific color name such as yellow or green.

## I

**Image Area:** The actual area on the printed matter that is not restricted to ink coverage,

**Imposition:** Arrangement of pages on mechanicals or flats so they will appear in proper sequence after press sheets are folded and bound.

**Impression:** (1) Referring to an ink color, one impression equals one press sheet passing once through a printing unit. (2) Referring to speed of a press, one impression equals one press sheet passing once through the press.

## J

## K

## L

**Layout:** A sample of the original providing (showing) position of printed work (direction, instructions) needed and desired.

**Letter fold:** Two folds creating three panels that allow a sheet of letterhead to fit a business envelope. Also called barrel fold and wrap around fold.

**Lithography:** Method of printing using plates whose image areas attract ink and whose non-image areas repel ink. Nonimage areas may be coated with water to repel the oily ink or may have a surface, such as silicon, that repels ink.

**Live Area:** Area on a mechanical within which images will print. Also called safe area.

## M

**Makeready:** (1) All activities required to prepare a press or other machine to function for a specific printing or bindery job, as compared to production run. Also called setup. (2) Paper used in the makeready process at any stage in production. Makeready paper is part of waste or spoilage.

**Margin:** Imprinted space around the edge of the printed material.

**Mark-Up:** Instructions written usually on a "dummy."

**Matte Finish:** Flat (not glossy) finish on photographic paper or coated printing paper.

**Midtones:** In a photograph or illustration, tones created by dots between 30 percent and 70 percent of coverage, as compared to highlights and shadows.

**Mock Up:** A reproduction of the original printed matter and possibly containing instructions or direction.

**Moire:** Undesirable pattern resulting when halftones and screen tints are made with improperly aligned screens, or when a pattern in a photo, such as a plaid, interfaces with a halftone dot pattern.

## N

## O

**Offset Printing:** Printing technique that transfers ink from a plate to a blanket to paper instead of directly from plate to paper.

**Opacity:** (1) Characteristic of paper or other substrate that prevents printing on one side from showing through the other side. (2) Characteristic of ink that prevents the substrate from showing through.

**Overprint:** To print one image over a previously printed image, such as printing type over a screen tint. Also called surprint.

**Over Run:** Additional printed matter beyond order. Overage policy varies in the printing industry.

## P

**Parallel Fold:** Method of folding. Two parallel folds to a sheet will produce 6

panels.

**Perforating:** Taking place on a press or a binder machine, creating a line of small dotted wholes for the purpose of tearing-off a part of a printed matter (usually straight lines, vertical or horizontal).

**Pixel:** Short for picture element, a dot made by a computer, scanner or other digital device.

**Plate:** Piece of paper, metal, plastic or rubber carrying an image to be reproduced using a printing press.

**Platemaker:** In commercial lithography, a machine with a vacuum frame used to expose plates through film.

**PMS:** Reference to Pantone Matching System. The correct trade name of the colors in the Pantone Matching System is Pantone colors, not PMS Colors.

**Point:** (1) Regarding paper, a unit of thickness equating 1/1000 inch. (2) Regarding type, a unit of measure equaling 1/12 pica and .013875 inch (.351mm).

**Prepress:** Camera work, color separations, stripping, platemaking and other prepress functions performed by the printer, separator or a service bureau prior to printing. Also called preparation.

**Press Check:** Event at which makeready sheets from the press are examined before authorizing full production to begin.

**Press Proof:** Proof made on press using the plates, ink and paper specified for the job. Also called strike off and trial

proof.

**Press Time:** (1) Amount of time that one printing job spends on press, including time required for makeready. (2) Time of day at which a printing job goes on press.

**Printer Spreads:** Mechanicals made so they are imposed for printing, as compared to reader spreads.

**Printing:** Any process that transfers to paper or another substrate an image from an original such as a film negative or positive, electronic memory, stencil, die or plate.

**Printing Plate:** Surface carrying an image to be printed. Quick printing uses paper or plastic plates; letterpress, engraving and commercial lithography use metal plates; flexography uses rubber or soft plastic plates. Gravure printing uses a cylinder. The screen printing is also called a plate.

**Process Color (Inks):** The colors used for four-color process printing: yellow, magenta, cyan and black.

**Production Run:** Press run intended to manufacture products as specified, as compared to makeready.

**Proof:** Test sheet made to reveal errors or flaws, predict results on press and record how a printing job is intended to appear when finished.

**Q**

**R**

**Raster Image Processor (RIP):** Device

that translates page description commands into bitmapped information for an output device such as a laser printer or imagesetter.

**Reader Spread:** Mechanicals made in two page spreads as readers would see the pages, as compared to printer spread.

**Recycled Paper:** New paper made entirely or in part from old paper.

**Register:** To place printing properly with regard to the edges of paper and other printing on the same sheet. Such printing is said to be in register.

**Register Marks:** Cross-hair lines on mechanicals and film that help keep flats, plates, and printing in register. Also called crossmarks and position marks.

**Resolution:** Sharpness of an image on film, paper, computer screen, disc, tape or other medium.

**Reverse:** Type, graphic or illustration reproduced by printing ink around its outline, thus allowing the underlying color or paper to show through and form the image. The image 'reverses out' of the ink color. Also called knockout and liftout.

**RGB:** Abbreviation for red, green, blue, the additive color primaries.

**Rule:** Line used as a graphic element to separate or organize copy.

**S**

**Saddle Stitch:** To bind by stapling

sheets together where they fold at the spine, as compared to side stitch. Also called pamphlet stitch, saddle wire and stitch bind.

**Scanner:** Electronic device used to scan an image.

**Score:** To compress paper along a straight line so it folds more easily and accurately. Also called crease.

**Screen Density:** Refers to the percentage of ink coverage that a screen tint allows to print. Also called screen percentage.

**Self Cover:** Usually in the book arena, a publication not having a cover stock. A publication only using text stock throughout.

**Self Mailer:** A printed item independent of an envelope. A printed item capable of travel in the mailing arena independently.

**Separations:** Usually in the four-color process arena, separate film holding images of one specific color per piece of film. Black, Cyan, Magenta and Yellow. Can also separate specific PMS colors through film.

**Sheetfed Press:** Press that prints sheets of paper, as compared to a web press.

**Side stitch:** To bind by stapling through sheets along, one edge, as compared to saddle stitch. Also called cleat stitch and side wire.

**Signature:** Printed sheet folded at least once, possibly many times, to become

part of a book, magazine or other publication.

**Solid:** Any area of the sheet receiving 100 percent ink coverage, as compared to a screen tint.

**Soy-based Inks:** Inks using vegetable oils instead of petroleum products as pigment vehicles, thus are easier on the environment.

**Spine:** Back or binding edge of a publication.

**Spot Color or Varnish:** One ink or varnish applied to portions of a sheet, as compared to flood or painted sheet.

**Spread:** (1) Two pages that face each other and are designed as one visual or production unit. (2) Technique of slightly enlarging the size of an image to accomplish a hairline trap with another image. Also called fatty.

**Subtractive Color:** Color produced by light reflected from a surface, as compared to additive color. Subtractive color includes hues in color photos and colors created by inks on paper.

**Surprint:** Taking an already printed matter and re-printing again on the same.

**SWOP:** Abbreviation for specifications for web offset publications, specifications recommended for web printing of publications.

## T

**Tabloid:** 11x17 paper dimensions.

**Tagged Image File Format (TIFF):**

Computer file format used to store images from scanners and video devices. Abbreviated TIFF.

**Target Ink Densities:** Densities of the four process inks as recommended for various printing processes and grades of paper. See also Total Area Coverage.

**Tint:** Screening or adding white to a solid color for results of lightening that specific color.

**Total Area Coverage:** Total of the dot percentages of the process colors in the final film. Abbreviated TAC. Also called density of tone, maximum density, shadow saturation, total dot density and total ink coverage.

**Trap:** To print one ink over another or to print a coating, such as varnish, over an ink. The first liquid traps the second liquid. See also Dry Traps and Wet Traps.

**Trim Size:** The size of the printed material in its finished stage (e.g., the finished trim size is 5 1/2 x 8 1/2).

**Typeface:** In Typography, the artistic representation or interpretation of characters; it is the way the type looks.

**Typography:** the art and technique of arranging type in order to make language visible.

## U

**Uncoated Paper:** Paper that has not been coated with clay. Also called offset paper.

**Undercolor Removal:** Technique of

making color separations such that the amount of cyan, magenta and yellow ink is reduced in midtone and shadow areas while the amount of black is increased. Abbreviated UCR.

**Up:** Term to indicate multiple copies of one image printed in one impression on a single sheet. "Two up" or "three up" means printing the identical piece twice or three times on each sheet.

**UV Coating:** Liquid applied to a printed sheet, then bonded and cured with ultraviolet light.

## V

**Varnish:** Liquid applied as a coating for protection and appearance.

## W

**Watermark:** Translucent logo in paper created during manufacturing by slight embossing from a dandy roll while paper is still approximately 90 percent water.

## X

## Y

## Z

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