

## GLOSSARY OF PRINTING TERMS

**Accordion Fold** Two or more parallel folds the open and close like an accordion.

**ASCII** Acronym for the American Standard Code for Information Interchange, a standard code used to help transfer files between different software applications or hardware devices.

**Aqueous Coating** Aqueous is a fast-drying, water-based, protective coating which is applied in-line on presses to achieve a variety of finishes at a more economical price than varnish.

**Bleed** An image or printed color that runs to the edge of the paper. Since a press cannot print ink right up to the edge of a sheet, the image is printed on an oversized sheet and then trimmed to size. Bleeding increases the amount of paper needed, which may increase the production cost to the job.

**Blueline** A printer's proof consisting of specially treated paper printed in blue that is used in checking for any errors.

**Burn** Exposing photo-sensitive material to light, as in, burning a plate in offset printing.

**Caliper** Thickness of paper, usually expressed in thousandths of an inch (mils).

**Camera Ready Copy** A term referring to a stage in printing when the document copy or art work is ready to be photographed to make plates for the press.

**Choke or Choking** When artwork is printed with several interacting spot, gaps or color shifts may appear between objects. Choking closes this gap by overlapping a dark color over the boundary of a lighter color.

**Chromalin** A color proofing system developed by DuPont using various colors of chalk.

**CMYK** Printers use **CMYK** – representing the colors, cyan, magenta, yellow and black inks, when printing 4-color process work. These are called subtractive colors, as combining them all gives the color black. Subtracting one or more of these colors will yield any other color. When combined in various percentages, these four inks will create an entire spectrum of colors, including those used in color photographs.

**Coated Paper** Paper with a layer of coating (usually a clay base) applied to one (C1S) or both (C2S) sides, such as gloss, dull and matte finish. Due to decreased dot gain, coated papers provide sharper images and are used frequently in 4-color process print work as well as black and white halftones.

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

**Color Key** An older printers proof that consists of four sheets of colored acetate that represents the color separation process for a particular job.

**Color Separation** The separation of color artwork or transparencies on to a separate sheet of film or plate for each color.

**Color Transparency** A full color transparent positive image, also called a slide or chrome.

**Composit Image** A photograph or other image that is created by using a combination of multiple color separated images onto a single sheet.

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

**Copyright** An exclusive right that has been granted by law to a particular creative product or verbiage.

**Copywriter** Someone who writes copy for advertisements or other promotional material.

**Computer to Plate (CTP)** The process of making plates directly from computer files. The image is burned onto the plate using laser light. No film is necessary

**Crash Printing** Letterpress printing on carbonless forms so the image prints simultaneously on all sheets in the set.

**Cropping** To reduce in size, remove unwanted elements.

**Desktop Publishing** The use of a computer to create documents and artwork that can be printed. Specialized software is used to add copy and graphics to the document, which is then output to a printer or typesetting equipment.

**Die-Cutting** The use of a sharp, formed piece of metal to cut out specific shapes or images in a piece of paper.

**Digital** Data processed using the numbers 0 and 1 through on/off pulses.

**Digital Camera** A type of camera that stores the photographed image electronically rather than on film. The images are downloaded into a computer where they can be manipulated in a manner similar to a scanner.

**Digital Printing** The new printing technology which permits the linking of printing presses to computers. Benefits include, faster turnaround times, lowered production costs, and the ability to personalize documents. It is frequently used for on-demand or short run color printing.

**Dot Gain** The spread of ink on paper, causing the dots which make up the image to print larger than they were on the film or plate. The images may become distorted, appearing darker with less clarity.

**Dots Per Inch (DPI)** A measure of computer screen and printer resolution that is referred to as the number of dots that a device can print or display per inch. The more dots per inch, the sharper the image.

**Duotone** A two color halftone of the same image created by using two screens, two plates and two different colors.

**Dummy** Representation of the finished piece, marked with color breaks and folds, made with the paper selected for the job.

**Emboss** The creation of a raised (embossed) image by pressing a shape into a sheet of paper using a metal or plastic die.

**Emulsion** The chemically treated side of photographic film.

**Engraved Printing** A printing process using recessed plates. Ink sits in the recessed wells of the plate, when the pressure is applied, raised letters and images appear on the front of the page.

**EPS (Encapsulated PostScript)** A computer graphics file format developed by Adobe Systems that usually contains object-oriented files.

**File Transfer Program (FTP)** Computer software that permits the exchange of information between computers.

**Foil Stamping** The application of foil to paper. May also be combined with embossing for some added interest.

**Font** All of the characters and associated spacing on one size of one typeface.

**Four (4) Color Process** A method of printing that uses the dots of cyan, magenta, yellow and black to recreate the continuous tones and variety of colors in a color image.

**GIF** A graphic file format commonly used by computer bulletin boards, not appropriate for printing.

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

**Graphic Design** The use of graphic elements and text to communicate an idea or concept

**Graphic Designer** The person who develops the graphic design.

**Gutter** The space between columns of type where pages meet at the binding edge.

**HalfTone** The method by which photographs and other images are printed by using cells of dots to simulate the tones between light and dark. A printing press is not able to change the tone of the ink, therefore dots of color are used to trick the eye into seeing a continuous tone image. To accomplish this, the photo is shot through a mesh screen or filter that breaks the image into tiny dots. The closer the lines of the screen, the smaller the dots and the more dots per inch, leading to a sharper image.

**Hexachrome** A color separation process developed by Pantone which uses 6 instead of 4 basic process colors.

**Illustrator** Someone who develops original artwork for use in commercial applications.

**Imagemsetter** A high resolution device that will print directly to plate or plate ready film.

**Imposition** The process of arranging the pages of copy and images so that when the sheets are printed and folded for binding, the pages will be in the proper order.

**JPEG** A computer graphics file format that is not typically used in printing due to its low resolution.

**Kern** The adjustment of the spacing between letters in order to make them more visually pleasing and balanced on the sheet.

**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 a 8 point type, 10 point, etc. Each point equals approximately 1/72th of an inch.

**Lupe** A magnifying lens used by printers to examine the details of the printed materials. Use of a lupe permits an individual to see the individual color halftone dots used in the process of color printing.

**Makeready** All the activities required to set up the press for a pressrun, including running test sheets of paper.

**Moire** A blurry pattern created by printing several repetitive dot patterns on top of each other. In 4-color process printing, this pattern is created when the halftone screen of each color is not aligned.

**Negatives (Negs)** A film negative version of an image area, obtained either by shooting the mechanical page with a process camera, or by running film through an imagesetting system.

**Object-oriented graphics** Used for line drawings, logos and other images that require smooth edges. Made up of mathematically defined curves and line segments called vectors. Beneficial in printing due to the ability to be enlarged without loss of detail.

**Offset Printing** An indirect printing process where ink is transferred to the paper by a rubber blanket that carries an impression from the printing plate, rather than directly from the plate itself. This is the most common method of commercial printing at this time.

**Opaque (Opacity)** Relates to the show through of the printed image from the opposite side of the sheet or the sheet beneath it. Paper thickness and the use of mineral fillers affect it.

**OCR (Optical Character Recognition)** Software that translates images of letters into the computer with a scanner into characters that can be manipulated as text but not as images.

**Paste-Up or Production Artist** The person who produces camera ready or plate ready artwork.

**Perfect Binding** A binding process whereby single sheets are stacked together, the binding edge is ground to create a rough surface, and adhesive is applied, a cover is then wrapped around the pages.

**Photo CD** The system developed by Kodak for storing the images obtained through a digital camera onto a compact disc.

**Photocopy** The reproduction process that uses a light sensitive printing element, toner, and heat to fuse the toner to the paper to produce the copy.

**Photo Illustration** An image produced by the use of one or more photographs.

**Pica** A unit of measure equal to 12 points or  $1/6^{\text{th}}$  of an inch.

**Pixel** Short for picture element. These are the dots that form the picture on a monitor. The smaller the pixel, the more detailed the picture.

**Pixel Depth** The amount of data used to describe the colored dots on a computer monitor.

**Plate-Ready Film** The final photographic film that is used to make printing plates.

**PMS Pantone Matching System** A color matching system created by Pantone.

**Point** Equivalent to 1/72th of an inch, points are the units of measurement of type.

**PrePress** The process performed on a print order prior to its going to the press to be printed. Such as, typesetting, layout, scanning, etc.

**Printing** The process of applying ink to paper or other object in order to reproduce words or images.

**Printing Plate** A thin metal object which 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 or laser for direct to plate systems. The surface of the plate is treated so that only the printing image is receptive to the ink which transfers to the printed material.

**Proof** A method of checking errors prior to printing an order. Normally the last prepress operation, a press proof is used by the press operator to ensure the correctness of the finished product during the production of the order.

**Process Color** One of the four colors (cyan, magenta, yellow and black) that is used in producing full color images such as photographs.

**Raster Image Processor (RIP)** Hardware and software which translates data into a series of dots for output to film or plates.

**Register** To position printing in proper relation to the edges of the paper and other printed images on the same sheet.

**Register Marks** Cross-hair lines or circles on mechanicals, negatives, and plates that guide the strippers and press operators.

**Registration** Putting two or more images together so that they are exactly aligned, and the resulting image is well defined.

**Reverse out Knock out** Type or other image defined by printing the background rather than the image itself, allowing the underlying color of paper or previously printed ink to show in the shape of the image.

**Resolution** The number of picture elements (pixels) per unit of linear measurement (normally an inch) on a computer monitor, or the number of dots per inch (dpi) in printed form.

**RGB** (Red, Green and Blue) are called additive colors because added together they may create all colors. Typically, RGB is used for slide presentations, computer software and games, and anything that is viewed on a video monitor.

**Saddle Stitch** The binding of sheets of paper to form a book by use of staples or stitching through the spine.

**Sans Serif** Literally, without serif(s), which are the extra projections from the main stroke of letters found in some type faces.

**Score** To mechanically crease or press channel into paper along a line so it will fold more easily.

**Script** A kind of type face that mimics handwriting.

**Self Cover** Publication made entirely from the same paper so that the cover is printed on the same paper simultaneously with inside pages

**Serif** An extra projection from the main stroke of letters in certain type faces.

**Service Bureau** An organization that provides specialized graphics services to printers. Service Bureaus often provide color separations, color keys, etc.

**Sheet-fed Presses** A printing press that prints single sheets of paper, as opposed to a web press.

**Signature** A press sheet folded into a series of pages to be bound.

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

**Spread** When a publication is printed with several interacting spot colors, gaps or color shifts may appear between objects. A spread closes the gap by overlapping a light foreground object to a dark background.

**Stripping** Assembling negatives in flats in preparation for making printing plates, this can now be done electronically.

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

**Thermography** A finishing technique applied after printing that raises the ink and gives the effect of engraved printing.

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

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

**Trapping** The deliberate overlap of adjacent colors to minimize the effects of mis-registration of printed materials.

**UV Coating** Liquid laminate bonded and cured to the sheet with ultraviolet light.

**UP** Printing two-up or three-up means printing the identical image two or three times on one sheet of paper in one impression.

**Varnish** A coating added on top of paper to serve as protection, add a finish, or add a tinge of color. Varnishes are very effective in adding emphasis or eye-appeal to printed material. A flood varnish is applied to the entire page; a spot varnish is applied only to a selected area and requires a printing plate to apply.

**Washup** The process of cleaning the ink off a press after a press run.

**Watermark** Distinctive design created in paper fibers during paper manufacture.

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