

Glossary of Graphic Communications terms

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A4 - ISO paper size 210mm x 297mm used for letterhead.

Actinic Light - Light that exposes a coating or emulsion.

Achromatic - Having no color or hue.

Acrobat files - Preparing cross-platform Acrobat PDF files of customer-supplied materials as alternative or value-added sales opportunity.

Additive Color Theory - The mixture of red, green and blue light, the primary colors of light, to produce white light.

Against the Grain - At right angles to the direction of the grain of the paper.

Airbrush - A function of a color imaging system to add or remove printing ink of any value in a designated picture area.

Aliasing - A "staircase" or jagged effect that occurs when display resolution is too coarse to minimize the broken or crooked appearance of certain electronic design elements. Aliasing is more visually pronounced in diagonal lines, curves and circles.

Alpha Test - Conducted internally by the manufacturer, it takes a new product through a protocol of testing procedures to verify product functionality and capability.

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 or customer alteration.

Amberlith - The orange or red acetate material that artists cut into elements or shapes to put on areas of keylines indicating where halftones, tints, etc., are to be positioned. Also called rubylith.

Anilox - This inking system is commonly used in flexographic presses. An elastomer-covered fountain roller runs in the ink pan and is adjustable against a contacting, engraved metering roll. Ink is flooded into the engraved cells of the metering roll, excess is doctored off by the wiping or squeezing action of the fountain roll or a doctor blade, and that which remains beneath the surface of the metering roll is transferred to the printing plates.

Analog - A mechanism in which data is represented by continuously variable physical quantities such as voltage or density.

Anti-offset Powder - Finely powdered starch sprayed on the printed surface of coated paper as sheets leave the press to prevent wet ink from transferring from the top of one sheet to the bottom of the next sheet.

Aqueous Coating - Water based coating applied like ink by a printing press to protect and enhance the printed surface.

Archival Storage - Copies of digital information stored on magnetic tape, floppy disks, optical disk, CD-ROM or other medium used to ensure against loss in case the original materials are deleted or damaged.

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

Ascender - The part of a lower case letter which rises above the main body, as in "b" or "d".

ASCII - Acronym for American Standard Code for Information Interchange, the international standard codes that are used by most computers to symbolize letters, numbers, punctuation and certain special commands.

Asynchronous Communication - Also known as serial communication. A way for one computer to send data to another without requiring precisely synchronized data pulses.

Automatic Picture Replacement (APR) - Scitex's implementation of the process in which a low resolution image is automatically replaced by the high resolution version of the image.

Automatic plate changing - Presses equipped with automatic plate changing capability.

Back Up - In printing; to print the second side of a sheet already printed on one side. In computers; to make a copy of your work on a separate disk in case something happens to the original.

Basic Size - 25" x 38" for book papers, 20" x 26" for cover papers, 22" x 28" or 22" x 35" for bristols, 25" x 30" for index.

Basis Weight - Weight in pounds of a ream (500 sheets) of paper cut to a given standard size for that grade; example: 500 sheets of 17" x 22" 20 lb. bond paper weighs 20 pounds. In countries using ISO paper sizes the weight, in grams, of one square meter of paper.

Baud - A measure of the rate by which data are transmitted; expressed in bits per second, one baud equals one bit per second.

Bearers - The flat surfaces or rings at the ends of press cylinders that come in contact with each other during printing and serve as a basis for determining packing thickness.

Beta Test - The second stage test version of a newly developed piece of hardware and/or software which is distributed free to a limited sampling of users so that they can subject it to daily use and report any problems to the manufacturer before release to the public.

Bezier Curves - Curved lines, defined by anchor points, used in software for drawing and type rendering.

Binder's Creep - The slight but cumulative extension of the edges of each inserted spread or signature beyond the edges of the one that encloses it in a saddle-stitch bind.

Binding - The fastening of the assembled sheets or signatures along one edge of a publication.

Bitmap - A series of individual dots or pixels that define graphics. Each dot or pixel in the image is recorded as either on or off.

Blanket - In offset printing, a rubber-surfaced fabric that is clamped around a cylinder. The image is transferred from the plate to the blanket, and from there, transferred to the paper.

Bleed - Printed image which extends beyond the trim edge of the sheet or page.

Blind Image - Image that is debossed, embossed or stamped, but not printed with ink or foil.

Blocking - Sticking together of printed sheets causing damage when the surfaces are separated.

Blueline - Prepress photographic proof made from stripped negatives where all colors show as shades of a single color on white paper. Also called brownline, silverprint, Dylux®.

Bond Paper - A grade of writing or printing paper where strength, durability and performance are essential requirements; used for letterheads, business forms, etc. The basic size is 17" x 22".

Book Paper - A general term for coated and uncoated paper. The basic size is 25" x 38".

Bottling - The process of skewing pages to compensate for paper thickness as it is folded. Primarily used on signatures designed for large web or large sheetfed presses.

Break for Color - In artwork and composition, to separate the parts to be printed in different colors.

Brightness - In paper, the reflectance or brilliance of the paper.

Bristol - Type of board paper used for post cards, business cards and other heavy-use products.

Bronzing - Printing with a sizing ink and then applying bronze powder while still wet to produce a metallic luster.

Bump - Ink applied from a fifth or higher plate in four-color process printing, usually to strengthen a specific color; also referred to as a touchplate.

Burn - Exposure of a plate to light through a negative to create an image for printing.

Burnish - The term used to describe the rubbing down and securing of copy to a keyline.

Burnthrough - Condition existing when enough light penetrates a masking sheet to expose the film or plate beneath the sheet. Masking sheeting should prevent light from penetrating to the film, but accumulated exposures—as in step-and-repeat exposures—sometimes sensitize the film, causing burnthrough.

Bus - The main "data pathway" inside a computer, enabling the CPU to communicate with other devices, such as the video monitor or the disk drive(s).

Butt Register - Register where ink colors meet precisely without overlapping or allowing space between. Also called butt fit and kiss register.

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CAD/CAM - Acronym for computer-assisted design/computer-assisted manufacturing, the catch-all category for the use of computers in the design and engineering processes.

Calender - To make the surface of paper smooth by pressing it between rollers during manufacturing.

Caliper - The thickness of paper, usually expressed in thousandths of an inch (mils). Also, a device on a sheetfed press that detects double sheets or on a binding machine that detects missing signatures or inserts.

Camera Ready - Copy and/or artwork which is ready for the graphic arts camera.

Case Bind - To bind using glue to hold signatures to a case made of binder board covered with fabric, plastic or leather. Also called cloth edition, hard bind or hard cover.

Cast Coated Paper - Paper dried under pressure against a heated, polished cylinder to produce a high-gloss enamel finish.

CCD (charged coupled device) - An array of light-sensitive solid-state measuring devices that react electronically to exposure of light. It is the technology used most often in desktop scanners.

CD-E - Compact disk-erasable.

CD-G (compact disk-graphics) - An audio CD with graphics.

CD-I (compact disk-interactive) - A computer system that allows users to interact with the program by responding to prompts generated by the software.

CD-ROM - Acronym for compact disk read-only memory, a storage media for information, such as application software, that can be read but not altered or written to.

Centimeter - Metric measurement of length. 2.54 centimeters = 1 inch.

CEPS - Color Electronic Prepress System.

Chalking - Refers to improper drying of ink. Pigments dust off because ink has been absorbed too rapidly into the paper.

Character Set - Describes the character symbols that a system can recognize. The character set is defined by the system software and the font library.

Choke - A slight size reduction of an opening into which an image will print.

Chroma - The attribute of color that specifies its amount of saturation or strength.

Chrome - A slang term meaning the color transparency used as the original copy.

CIE - International Committee on Illumination. A standards institute most well known in the graphic arts for its work in color space definition.

Cloning - A function on a CEPS used to duplicate a pixel or many pixels in another area of a picture. It can be used to add or remove detail. Some manufacturers call this function "pixel swapping".

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

Coated Paper - Paper with a coating of clay or other substances that improves reflectivity and ink holdout.

Collate - In binding, the gathering of sheets or signatures.

Color Balance - Maintaining the ratio of cyan, magenta and yellow ink to produce a picture with the desired color and without an unwanted color cast or color bias.

Color Bars - The color strip on proofs that is used as a guide for the printer in determining the amount and density of ink needed.

Color Cast - Discoloration of an entire image or portion of an image caused by an overabundance of one color.

Color Correction - The deliberate adjustment of one or more colors to achieve a desired result. With inks, process colors are not pure colors; each is contaminated with the other two colors and has a hue error that requires compensation in the separation images.

Color electronic prepress systems (high-end) - Dedicated computer work stations and systems designed exclusively for highest-quality color manipulation and preparation.

Color electronic prepress systems (desktop) - Computer systems using microcomputers and software for high-quality color manipulation and preparation.

Color Key™ - 3M's negative overlay proofing films which visually simulate process printing inks.

Color management systems--Electronic characterization, calibration and control systems that help to assure color consistency and accuracy throughout the print production process from scanning through previewing on screen and proofing to reproduction on press.

Color Proof - A visual impression of the expected final reproduction produced on a substrate with inks, pigments or dyes. 3M Match Print™, DuPont Cromacheck® and Kodak Double Check® are examples of color proofing systems.

Color Reference - A set of process inks printed on standard paper and used for color control.

Color Scanner - An electronic piece of equipment that utilizes a laser or other high intensity light to make color separation negatives from either reflective prints or transparencies.

Color Separations - The four-color negatives or positives which are the result of changing full color photos or art into the four process colors (yellow, magenta, cyan and black) by the use of filters.

Color Sequence - The order in which the four-color process inks are printed on the plate.

Colorimeter - An instrument for measuring color the way the eye sees it.

Comb Bind - To bind by inserting the teeth of a flexible plastic comb through holes punched along the edge of a stack of paper.

Communications Protocol - The preliminary signals and settings (handshake) that must be shared by two computers before data can be exchanged between them, usually via a modem. A typical communications protocol will establish the speed of the data flow in bps, error-correction methods that will be used (if any) and data compression systems (if any).

Composite Art - Mechanical on which copy for reproduction in all colors appears on only one surface, not separated into overlays. A tissue overlay is used to indicate color breaks.

Composite File - A PostScript file that represents color pages containing picture elements specified in terms of RGB (red, green and blue) color space as opposed to black and white "gray level" pages which represent separations.

Composite Proofs - Single test sheet showing position and color of all elements as stripped up.

Comprehensive - A detailed dummy or sketch of a design, intended to give a clear sense of how the finished piece should look.

Computer-to-plate (C2P) - Describes a system in which the use of desktop publishing software, electronic prepress workstations and platesetters allows the imaging of metal plates for any format of press without the use of film, stripping or traditional platemaking. This process results in lower costs while shortening the amount of time needed to get a job on the press. Sometimes also called C2P to distinguish it from CTP, or computer-to-press.

Computer to plate (metal) - Producing metal plates directly from digital files without producing a set of film negatives.

Computer to plate (polyester) - Producing polyester plates directly from digital files without producing a set of film negatives.

Computer-to-press (CTP) - Describes a printing system that includes desktop publishing software, electronic prepress workstations and a new type of press which is capable of rapidly changing the images it is printing without the use of removable plates. Sometimes called CTP, to distinguish it from C2P, or computer-to-plate.

Condensed Type - Type whose width has been reduced without affecting its height.

Condition - To keep paper in the pressroom for a few hours or days before printing so that its moisture level and temperature equal that in the pressroom.

Contact Print - A photographic print made from a negative or positive in contact with a sensitized paper, film or printing plate.

Continuous Tones - Commonly identified as the film for the four colors of a separation before it is broken into dots.

Continuous-tone digital proofing - Producing a proof with reliable color but no halftone pattern (photorealistic) directly from a digital file, usually by inkjet or dye sublimation process, without producing a set of film negatives.

Contrast - The amount of difference between the lightest and the darkest areas in a photo or artwork.

Control Character - In an alphanumeric code, it alters the meaning of the codes that follow it until another control character is used. Usually this signifies what follows should be regarded as a command rather than data.

Conventional Dot - A halftone dot with the classic square format: middle tone dots are square, while the extremely small black dots or white openings are round.

Copy - Original job material (paste-ups, film, photos and other graphics) furnished for the print job.

Coverage - The amount of ink on a page or sheet, usually given in percentages.

CPU - Central Processing Unit; in a modern microcomputer, it is generally a single silicon chip which acts as the "brain" of the computer by performing fundamental arithmetic operations and moving bytes of data inside the computer's memory.

Crash - Coarse cloth embedded in the glue along the spine of a book to increase strength of binding.

Creep - The shifting position of the page in a saddle-stitched bind. Creep moves the inside pages or signatures away from the spine.

CREF - Computer-ready electronic files.

Cromacheck® - DuPont's negative overlay color proof.

Cromalin® - DuPont's one piece proofing system in both positive and negative forms.

Crop - To eliminate portions of copy or a photograph.

Crop Marks - Symbols placed in the margin outside the image area that indicate to the printer and bindery the area to be printed and/or trimmed from the image.

Cross Direction - In paper, the direction across the grain. Paper is weaker and more sensitive to humidity in its cross direction.

Crossover - A reproduction that extends across two facing pages in a book or magazine and crosses over the binding.

CTP - Computer-to-plate.

Cure - To dry inks, varnishes or other coatings after printing to ensure good adhesion and prevent set-off.

Curl - The distortion of paper due to differences in structure or coatings from one side to the other or from absorption of moisture on the press.

Customer-supplied files on disk - Receiving desktop published files from customers on disk for output.

Customer-supplied files via telephone - Receiving desktop published files from customers over the telephone computer to computer via modem for output.

Customer-supplied files via Internet - Receiving desktop published files from customer via Internet.

Cutoff - Circumference of the impression cylinder of a web press, therefore, the length of the printed sheet on roll to sheet presses or the length of the repeat pattern on roll to roll presses.

Cyan - One of the three subtractive primary colors used in process printing. It is commonly known as process blue.

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Dampening System - The mechanism on a press for transferring fountain solution to the plate.

Data Shift - In process color printing, it describes a shift in one of the channels of data that comprise the image file and could cause inconsistent color in some areas in the image.

DDES - Direct Digital Data Exchange Standards. A set of established formats, protocols and values allowing one vendor's equipment to exchange data with another vendor's equipment.

Deboss - To press an image into paper so it lies below the surface.

Deckel Edge - The untrimmed feathery edges of paper formed where the pulp flows against the wire of a paper making machine.

Dedicated Device - A piece of hardware that is permanently assigned to one task. The task, however, can be changed by reprogramming or by the introduction of different software.

Default - Software setting that returns specifications to a relative "home base" in the absence of other instruction from the operator. Depending on the software, new default settings can be made for one or more functions.

Densitometer - Instrument used to measure density. Reflection densitometers measure light reflected from paper and other surfaces. Transmission densitometers measure light transmitted through film and other materials.

Density - The amount an object absorbs or reflects light is called "density level." High-density objects absorb or stop light; low-density objects reflect or transmit light.

Descender - The part of a lower case letter which extends below the main body, as in "p".

Desensitizer - Chemical agent used to make non-image areas of a printing plate repellent to ink.

Desktop black and white scanners - Used to make black and white negatives or positives of images or line art.

Desktop color scanners (CCD) - Less-expensive, usually flatbed devices using charge-coupled devices (CCDs) to bring color prints or negatives into a computer for manipulation, separation or printing.

Desktop color scanners (PMT) - Drum-type devices using photomultiplier tubes (PMTs) to bring color prints or negatives into a computer for manipulation, separation or printing.

Desktop Color Separation Files - A set of Encapsulated PostScript files (EPS) that provides color separation information. The DCS set includes one master file and four separation files.

Desktop Publishing - Using a personal computer to compose pages of type and graphics and output the finished work to a laser printer or imagesetter onto paper, film or printing plate.

Desktop publishing stripping - Electronic assembly of all elements in final imposition for direct output as composite negative or plate.

Detail Enhancement - The technique of exaggerating picture image edges with unsharp masking or peaking, so the observer can easily see the detail of the original in the final reproduction.

Device Driver - A miniature program that acts like a translator, converting the output from one device into data that another device can understand.

Die - Device for cutting, scoring, stamping, embossing or debossing.

Die Stamping - Printing from lettering or other designs engraved into copper or steel. Also called the intaglio process, it is used for the production of letterheads, business cards, etc.

Diecutting - Using sharp steel rules to cut special shapes from printed sheets. Diecutting can be done on either flatbed or rotary presses.

Digital - Information that relies solely on Arabic numerals for expression. In computers, all information is processed in binary numerics (0 and 1) through on/off electrical impulses. Computer programs are written in alphanumeric code (all keys on a keyboard) and are translated by programs or devices into binary code that can be read by the CPU of the computer.

Digital graphic design services - Staffing to provide desktop publishing design or page makeup services to customers.

Digital photography - Direct electronic capture of an image within a camera without using film and processing.

Digital Plates - High speed or spark discharge plates that can be exposed by digital data from a prepress system.

Digital Printing - Printing by plateless imaging systems that are imaged by digital data from prepress systems.

Digital Soft Proof - A color video monitor display of a picture file, data file or text file.

Digitally store photo libraries - Storage of customers' electronic production files for possible future use (akin to storing customer negatives).

Dimensional Stability - Ability of a film to hold size throughout its cycle of use. Polyester-based films are more dimensionally stable than acetate bases; glass is more stable than polyester.

Direct Digital Color Proof (DDCP) - A proof made directly from the stored data file onto a substrate using a peripheral device such as a photographic exposure, dot matrix printer or ink jet printer without producing intermediate films.

Direct Screen - The method of color separating which adds dots at the same time the transparency is being photographically separated into the four colors.

Direct-to-plate - Often used as a synonym for computer-to-plate but less desirable to use because the acronym DTP can be confused with desktop publishing, which is also known as DTP (see computer-to-plate).

Dither - To fill the gap between two pixels with another pixel having an average value of the two to minimize the difference or add detail to smooth the result.

Dot - The individual element of a halftone.

Dot Area - The size of the dot is indicated by the percentage of the area it occupies from zero to one hundred percent.

Dot Etching - Applying chemicals by hand to either negatives for increasing dot size which adds color; or, to positives for decreasing dot size which subtracts color.

Dot Gain - The increase in the printing dot size from the halftone film to the printed substrate resulting in darker tones.

Double Black Duotones - Image created from two halftones, one for highlights and the other for midtones and shadows. Both plates are inked with black for the most contrast.

Double Burn - Utilizing two or more negatives to expose an image on a plate or positive print.

Drawdown - Sample of inks specified for a job applied to the substrate specified for a job.

Drier - A substance added to ink to hasten drying.

Drop Out - The technique that can give a mediocre photo greater contrast by photographically removing some dots to create highlights that show the actual white of the paper.

Drum - The common name for the photoconductive cylinders used on scanners and plotters.

Dummy - A layout showing the size, shape, form and general style of a piece of printing.

Duotone - Two films are made by changing the screen angle for each and one plate is made for each film. A duotone is printed in two colors but both plates can be used for the same color ink for maximum contrast. When using black ink this is called a "double black".

Duplex Paper - Paper with a different color or finish on each side.

Dylux® - DuPont's light-sensitive proof in blue or black.

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Electronic Data Interchange (EDI) - Industry-standard computer database and communication systems for intra- or inter-company exchange of information such as inventories, orders and invoices.

Electronic Dot Generation - Method of producing halftones electronically on scanners and prepress systems.

Electronic file storage - Storage of customers' electronic production files for possible future use (akin to storing customer negatives).

Electronic Mail or E-Mail - A message service that uses telecommunications and electronics to deliver soft or hard copy information.

Electronic prepress training for customers - Either formal presentation classes or informal one-on-one telephone help to customers using new digital technologies.

Electronic printing, black or spot color - Technology that reproduces pages in black or black plus spot (highlight) colors directly from a computer file without negatives, plates, etc., typically using electrostatic or electrophotographic processes.

Electronic printing, full color - Technology that reproduces pages in process colors directly from a computer file without negatives, plates, etc., typically using electrostatic or electrophotographic processes.

Electronic Publishing - A configuration of hardware and software used for digital page composition. The term includes desktop publishing and high-end systems.

Electrophotography - Image transfer system used in copiers to produce images using electrostatic forces.

Elliptical Dot - An elongated or oval halftone dot used to minimize the midtone jump in dot gain at the point where dots are large enough to connect.

Em - A measure of space exactly as high and wide as the point size of the typeface being used.

Em Dash - A dash, one em long, used to separate parenthetical phrases within a sentence.

Emboss - To press an image into paper so it lies above the surface.

Emulsion - The light-sensitive coating on photographic film, plates or stencils.

En - A measure of space equal to one-half of an em space in the same point size and typeface.

En Dash - A dash, one en long, used to indicate range as in "see pages 4–5."

Enamel - A term applied to a coated paper or to a coating material on a paper.

End Sheet - Sheet that attaches the inside pages of a case bound book to its cover.

Engraving - Printing method using a plate, also called a die, with an image cut into its surface.

Enhanced multi-color ("high-fidelity") printing - Full-color printing using six, seven or more "process" colors instead of the traditional four.

EPS - Encapsulated PostScript. A way of storing visual data so that it can be exchanged between programs or different computer systems.

Estimate - A statement of what a print job will probably cost based on specified quantities, materials and labor.

Etch - To use chemicals to carve an image into plates and film or an acid solution used to desensitize the non-printing areas of the plate.

Ethernet - A local area network (LAN) hardware standard capable of linking up to 1024 nodes.

Environmental friendly processes - Reduced-chemical, silver-and VOC-free processes for preparation of printed materials.

Exabyte - An 8-millimeter, two gigabyte tape drive providing substantial data storage and archiving on a small cartridge. It is more cost effective than standard magnetic tapes, as fewer Exabyte tapes are required to store information.

Expansion Bus - The main "data pathway" inside a computer, usually fitted with slots which will accept circuit cards to expand and enhance the capabilities of the computer.

Exposure - The quantity of light that is allowed to act on a photographic material. The product of the intensity and the duration of the light acting on the emulsions.

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Face - Edge of a bound publication opposite the spine.

Fanout - Distortion of paper on the press due to waviness in the paper caused by absorption of moisture at the edges of the paper, particularly across the grain.

Feeder - The part of the press that separates the sheets of paper and feeds them into position for printing.

Felt Side - The smoother side of the paper.

Fifth Color - Non-process or premixed ink color used in addition to the four process colors.

File Fragmentation - The condition in which, as a consequence of enlarging files and saving them on a crowded disk, that disk no longer contains contiguous blocks of free space to hold them; it saves them in fragmented parts on separate parts of the disk and ultimately slows down read-write access time.

File Server - A powerful microcomputer containing programs and data which may be accessed by other microcomputers that are linked with it via a network.

Fill-up - Occurs when ink fills the area between the halftone dots or plugs of the type.

Fine Paper - Paper made specifically for writing or commercial printing, as opposed to coarse paper and industrial paper.

Fingerprint - To test a printing press to determine its exact printing characteristics, such as its dot gain, ink density and trapping, for the purpose of customizing color separations for those printing conditions.

Finish - General term for trimming, folding, binding and all other post-press operations. Also refers to the surface characteristics of paper.

Flat - The assembled composite of negatives or positives ready for platemaking. Also, a term used to describe a photograph that is lacking in contrast.

Flat Colors - Colors and tints that are not formulated from standard process colors. Also, color that seems weak or lifeless.

Flexography - A printing process that uses a raised surface of flexible rubber or photopolymer printing plate mounted on a rotary drum and thin, fast-drying inks to print on almost any roll stock.

Flop - Reversing a transparency or negative so that what was on the right side is now on the left.

Floppy Disk - A thin, flexible plastic disk which has been coated with iron oxide and is capable of storing computer data as a magnetic pattern. Floppy disks are a convenient way of giving data or swapping information for use on another computer.

Flush Cover - A cover trimmed to the same size as the inside text pages.

Fly Leaf - The half of the end sheets not glued to the front and back covers of a case bound book.

Flying Paster - An automatic pasting device that splices a new roll of paper onto an expiring roll without stopping the web press.

Foil Stamp - To press a heated die onto a sheet of foil, releasing the foil from its backing and adhering it to a substrate.

Folio - In typesetting, the typeset page number. Right hand pages contain the odd number folios.

Font - A complete set of type characters in one typeface and type size.

Foot - The bottom of a page or book.

Foot Margin (also tail margin) - The distance between the bottom edge of the body of type (text) on a page and the bottom edge of the trimmed page.

For Position Only (FPO) - Refers to inferior quality copies of photos or art used on mechanicals to indicate placement and scaling, but not intended for reproduction.

Form - Each side of a signature.

Form Roller - A roller which comes in contact with the printing plate, bringing it water or ink.

Fountain Solution - A mixture of water and chemicals that dampens a printing plate to prevent ink from adhering to the non-image areas.

Four-color Process - Use of cyan, magenta, yellow and black to create a full color image.

Free Sheet - Paper made from cooked wood fibers mixed with chemicals and washed free of impurities.

Frequency - The lines per inch (lpi) in a halftone screen.

Frequency-modulated Screening - See stochastic screening.

Front End System - The computer hardware on which application software used to prepare pages of type and graphics is run.

Full-scale Black - A black printer separation that prints dots in every part of the picture, from the highlight to the shadow.

Full size color scanners (PMT) - "Traditional" large format, drum type "high end" scanners to bring color prints or negatives into a computer for manipulation, separation or printing.

Fuzz - Fibers projecting from the surface of a sheet of paper.

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Galley Proof - A printout of text used for proofreading before final page assembly.

Gapless Press - A web press with special blanket cylinders that, with each rotation, allow more printing per square inch. This larger print space plus a shorter cutoff point can save a significant amount of paper on large runs.

Gang - To halftone or separate more than one image in only one exposure. Also to print two or more finished products on the same sheet during one press run.

Gather - To assemble folded signatures in proper sequence.

Gear Streaks - Parallel streaks appearing across the printed sheet at the same interval as the gear teeth on the cylinder.

Ghosting - Phenomenon on a faint image on a printed sheet where it was not intended to appear.

Goldenrod Paper - Specially coated masking paper in yellow or orange used by strippers to assemble and position negatives for exposure on plates.

Gradation - The relationship of the tonal values of an image to its intermediate films and reproduction as well as magnetic or optical representation. It may also refer to the tonal values within the picture.

Grain - The direction in which most fibers are aligned.

Grammage - The metric basis weight of paper. Weight is expressed in grams per square meter.

Gravure - The process of printing from cylinders that contain cells that hold the ink for transfer to the substrate. In gravure color printing, each succeeding color is printed on a dry color, rather than one still wet as in letterpress and offset lithography.

Gray Balance - The proper amount of cyan, magenta and yellow printing to produce a gray scale with no apparent dominant hue.

Gray Component Replacement (GCR) - A color separation process that uses the black printer for the neutral gray portion of any color. Instead of mixing cyan, magenta and yellow to produce those grays, they are replaced with black ink. GCR deepens the shadows in an image that lacks depth. GCR completely replaces the grays with process black, unlike UCR which reduces process colors in the neutral grays and adds black.

Gray Stabilization - Ability to maintain neutral gray balance during a color reproduction. The use of GCR helps to stabilize neutrals.

Grindoff - The approximately 1/8 inch (3mm) that is removed along the spine of gathered signatures before perfect binding.

Gripper Edge - The leading edge of a sheet which is held by the grippers.

Gripper Margin - The unprintable area of the paper where it is gripped as it passes through a printing press. Usually measures a half inch or less.

Grippers - Metal fingers that clamp onto the paper and control its flow as it passes through the press.

Gutter - The inside margin of a bound page.

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Hairline Register - Register within plus or minus one-half row of dots.

Halftone - An image composed of tiny dots whose variations in size create the illusion of variations in tone. Traditionally, a halftone screen was used to convert a continuous tone image into a halftone; such screening is currently done electronically.

Halftone-based digital proofing - Producing a proof with reliable color and halftone pattern directly from a digital file, usually by electronic process, without producing a set of film negatives.

Hard Copy - A printed paper copy of output in readable form. It is also a transparency film or photograph of an image displayed on the monitor.

Hard Dots - Second generation dots or laser-generated dots that have hard edges without any fringe.

Hard Proof - A color proof made on a substrate from production films or on a substrate directly from the stored pixel data. The latter is usually referred to as a digital hard proof, and a video proof as a digital soft proof.

Head - The top of a page or book.

Heatset - Web printing process whereby non-absorbent paper goes through the press and the ink is dried by heat.

Hickey - Spot on a printed sheet usually due to dust, lint or bits of paper.

Highlight - The lightest area of a photograph that has the smallest or fewest dots when made into a halftone.

HLS/HSV - Abbreviations for hue, lightness and saturation and hue saturation and value. These are different names for the same color-control options found in most desktop software.

Holdout - A property of coated paper with low ink absorption which allows ink to set on the surface with high gloss. Too much holdout can cause ink to rub off or mark the next sheet.

Hot Spot - Printing defect caused when a piece of dirt or an air bubble caused incomplete drawdown during contact platemaking, leaving an area of weak ink coverage or visible dot gain.

House Sheet - Paper kept in stock by a printer and suitable for a wide variety of printing jobs.

Hue - The attribute of color that designates its dominant wave length and distinguishes it from other colors.

I

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Image - The digitized representation of a graphic element (photograph, painting, film) bitmapped in computer memory for display on a video monitor for output in paper or film form.

Image to Plate on Press - Technology that images one or more plates in position on press for color reproduction.

Imagesetter - A high-resolution laser output device that writes data on photosensitive paper or film. The data is processed by a RIP and can record halftones and line images as well as type.

Imposition - Laying out pages in a press form so that when the pages are printed and folded they will be in proper order.

Impression - One sheet passing once through the press.

Imprinting - To print new copy on a previously printed sheet, such as imprinting an employee's name on business cards.

In-line - Components of a system arranged in a logical production sequence and in such a way that materials are automatically fed to the next component. An example would be a coating tower on a press to apply the lacquer or UV coating on the same pass as the color.

Indirect Screen - The process of first separating a photo or artwork into the four process colors by creating continuous tones. The dots are then added using an additional process.

Ink Balance - Relationship of the densities and dot gain of process inks to each other and to a standard density of neutral gray.

Ink Jet - A method of printing images using jets that squirt minuscule drops of ink onto a variety of surfaces.

Inplant - A department or division of a company that does printing only for that company.

Insert - A printed piece prepared for insertion into a publication or another printed piece.

Intaglio - Method of printing in which the image is etched below the non-printing surface. Gravure and engraving are the most common forms.

Intensity - The measurement of color from dull to brilliant.

ISO - International Standards Organization.

J

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Job Ticket - Form used by service bureaus, separators and printers to specify the production schedule of a job and the materials needed.

Jog - To align the edges of a pile of paper by hitting or shaking against a flat surface.

K

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K - Abbreviation for black in four-color process printing.

Kelvin - A unit of measure used to describe the color temperature of a light source, such as the 5000K standard viewing conditions.

Key Plate - Negative or plate that prints the most detail (usually black) and to which other plates are aligned.

Keyline - A guide to a printing job. All the key elements such as type or illustrations are pasted down (usually with

wax) to indicate size and position on artwork board or poster board.

Kilobyte - K, Kb or KB. A unit of measuring digital information which equals 1024 bytes.

Kiss Cut - To die cut the top layer but not the backing of self-adhesive paper.

Kiss Impression - Lightest possible impression that will transfer ink to a substrate.

Knock Out - To clear an area of absolutely every printing dot; or to outline an image and drop out all dots surrounding it.

Kraft Paper - Strong brown paper made with unbleached wood pulp and used for grocery bags, envelopes and wrapping paper.

L

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Lacquer - A clear resin/solvent coating, usually glossy, applied to a printed sheet for protection or appearance.

Laminate - To bond a plastic film by heat and pressure to a printed sheet for protection and appearance.

Lap Register - Register where ink colors overlap slightly.

Large-format imagesetter - In-house equipment to output computer files, typically full impositions, to strippable films 23" x 35" or larger.

Layout - A drawing that gives the general appearance of the finished piece and usually indicates the relationship between illustrations and copy.

Leading - (ledd-ing) The linespace, or white space, between lines of copy measured in points.

Leaf - One sheet of paper in a publication. Each side of a leaf is one page.

Letterpress - A method of printing where the wrong-reading raised surface of a printing plate is inked and impressed directly onto the paper. There are four types of letterpress presses; platen, flatbed cylinder, rotary and belt.

Line Copy - High contrast images or type without shading which do not require halftone screening.

Lithography - Method of printing using plates whose image areas attract ink and whose non-image areas repel ink. The images are first printed onto a rubber blanket and then offset to paper.

Live Matter - The vital parts or elements of a printed piece which must not be trimmed off.

Loupe - Lens built into a small stand. Used to inspect copy, film, proofs, plates and printing.

M

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M - The abbreviation for magenta in the four-color process. Also the abbreviation for "one thousand".

Magenta - One of the three subtractive primary colors of process printing. It is commonly called "process red".

Makegood - The rerun of an ad or printed piece by a publisher or printer because of their error.

Makeready - The process of setting up and adjusting a printing press for a particular ink, paper and set of printing conditions prior to a press run. Also, the paper used during these adjustments.

Margin - The blank space around the image area of a page, also referred to as a gutter.

Mask - An opaque overlay placed over any part of a photo or separation negative that should not be exposed to light.

Master - To etch pits (tracks) into the Glass Master (acts like a negative) from which a CD-ROM "stamper" is made.

Mastering/pressing CD-ROMs - Preparation of compact disc read-only memory (CD-ROM) discs from customer-supplied materials as alternative or value-added sales opportunity.

Matchprint™ - 3M's negative or positive single sheet proofing system which simulates SWOP specifications.

Mechanical - Complete pages, with text, line art and crop marks in position, ready to be photographed or output to film.

Megabyte - Mb or MB. A unit of measure for digital data which is 1024 kilobytes or 1,048,576 bytes.

Metameric Colors - Colors that can change their perceived hue depending on the different lighting conditions.

Metric System - A decimal system adopted by most countries for solid, liquid and distance measurements.

Midtone - The tonal values of an image that fall midway between the highlight and shadow dots.

Modeling - The apparent detail in a picture indicating that the objects are three dimensional; having surface texture or relief such as the ripple on an orange peel or the texture of a woven fabric.

Moire - Objectionable patterns that appear at regular frequencies when two or more screen patterns are placed over one another. May be caused by misalignment, incorrect screen angles, slipping or slurring.

Mottle - Spotty or speckled printing.

N

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Negative - The film image of a completed page from which plates will be burned. The light and dark parts of the image are tonally reversed from the original copy.

Neutral Gray - Any level of gray from white to black with no apparent color cast or hue.

Non-heatset - Web printing process whereby porous paper goes through the press and the ink dries naturally.

Non-reproducible Colors - Certain colors in nature and photography cannot be reproduced using process inks. An example of non-reproducible color is a very dark, deep, rich, wine red.

O

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Oblong - A booklet or catalog bound along the shorter dimension.

Off-press Proof - A color proof that is similar in appearance to the finished printed product but is made without the aid of a printing press.

Offset Printing - Usually refers to offset lithography. The image prints by transferring ink from a flat plate or cylinder to a rubber blanket that deposits the ink onto the substrate instead of directly from plate to paper.

One-up - Having only one image of each item (see two-up).

Opacity - Characteristic of paper or other substrate that prevents print on one side from showing through to the other side. Also, the characteristic of ink that prevents the substrate from showing through.

Opaque - To paint out the portions of a negative that are not wanted on the plate.

Optical Centering - Positioning material a little above center when it is desired to make it appear centered with respect to top and bottom.

Optical Gain - An effect caused by printing on a rough-surfaced paper in which halftone dots appear larger than actual size, resulting in image degradation.

Orthochromatic - A term applied to photographic materials that are sensitive to green, blue and ultraviolet light.

Outline Halftone - A photo reproduction in which the background around the primary subject has been removed.

Overlay - A tissue over the base keyline for writing corrections and instructions such as indicating color breaks.

Overlay Proof - Color proof which simulates the appearance of the printed piece. It consists of sheets of film dyed or pigmented with the color and image of each plate to be used in the print run. The film is stacked so it is in register and in the order the inks will be printed.

Overprint - To print over an area that has previously been printed.

Overrun - Copies printed and/or bound in excess of the specified quantity.

P

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Packing - Paper used to underlay the image or impression cylinder in letterpress or the plate or blanket in lithography to get the proper squeeze and pressure for printing.

Page - One side of a leaf in a publication.

Page Makeup - The assembly of all elements to make up a page.

Pagination - Numbering pages in order. Also, the process of performing page makeup on a computer.

Palette - The collection of colors or shades available or used in a project, graphic system or program.

Panchromatic - Film that is sensitive to all colors of light.

Panel - One page of a brochure on one side of the paper. A letter folded sheet has six panels.

Parallel Fold - A folding succession in which all folds are made parallel with each other.

Paste-up - Placing graphics and text in a mechanical either manually or electronically.

Perfect Binding - Signatures that are folded and collated on top of one another, as opposed to saddle-stitch binding in which the signatures are folded inside one another.

Perfecting Press - Press that prints on both sides of the paper during a single pass.

Photostat - Brand name for a diffusion transfer process used to make positive paper prints of line copy and halftones.

Phototypesetting - Setting type directly on film or photosensitive paper for reproduction.

Pica - Unit of measure commonly used in typesetting and design. A pica is one-sixth of an inch.

Picking - The lifting of the paper surface during printing, leaving unprinted spots in image areas. This occurs when the pulling force (tack) of the ink is greater than the surface strength of the paper.

Pickup Art - Artwork from a previous job incorporated into a current job.

Pigment - The fine, solid particles used to give color, transparency or opacity to ink.

Piling - The building up or caking of ink on rollers, plates or blankets which will not transfer readily.

Pinholes - Tiny areas that are not covered by ink.

Pixel - Abbreviation for picture element. The separate elements of a bitmapped image on a video monitor.

Pixel Swapping - A CEPS technique to exchange pixels from one area of a picture for pixels in another area. Example: a window may be removed from a brick building if one area of the brick wall is placed in that area of the picture. Using this technique, blemishes can be removed and objects can be added to the reproduction.

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

PMS - Acronym for Pantone Matching System, a set of preprinted color patches used to choose and communicate color so exact matches can be obtained.

Point - Unit of measurement commonly used to specify type sizes. There are 12 points in a pica and 72 points in an inch.

Porosity - The property of paper that allows the permeation of air, an important factor in ink penetration.

Position Proof - A color proof that is made to verify that all the elements of the reproduction (text, graphics and pictures) are in the correct position and are in register with each other.

Positive - A reproduction which is exactly like the original.

Post Bind - To bind using a screw and post inserted through a hole in a pile of loose sheets.

Pre-flight - Procedures used by a printing company to make sure that a customer's digital files are correctly prepared for production.

Pre-flight customer files - To preliminarily evaluate customer supplied electronic files for completeness, compatibility, and composition.

Pre-master - To format a data file into the ISO 9660 format (which is the International Standard for CD-ROM), before the mastering process. The data file is then provided to the party responsible for the mastering process (see master).

Prepress - Camera work, color separating, stripping, platemaking and other functions performed by the printer, separator or service bureau prior to the actual printing.

Prepress Proof - Any color proof made using ink jet, toner, dyes or overlays.

Press Check - When a customer is at the printing press as the press begins to print his or her job, in order to approve the job as it is printed. A press check can last a few minutes or several days, depending on the size of the job.

Press Proof - A proof made on press using the ink and paper specified for the job.

Press Run - The actual running of the press to print the job following makeready. Also, the number of copies of a publication printed.

Price Break - Quantity at which unit cost of paper or printing drops.

Primary Colors - The colorants of a system used to reproduce the colors for the entire reproduction. Cyan, magenta and yellow are subtractive primary colors while red, green and blue are additive primary colors.

Printer's Spread - Two facing pages in the order they will be printed, e.g. pages 1 and 4 and also 2 and 3 will be keylined together for a four-page brochure.

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

Process Camera (also called graphic arts camera) - A camera used to photograph line or halftone copy or to produce color separation negatives for printing on another production process.

Process Colors - The three colors (cyan, magenta and yellow) plus black that are used in full-color printing.

Process Color Separation - A consequence of the offset lithographic process. In order to print full-color images, it is necessary to prepare four separate files for each of the process colors (cyan, magenta, yellow and black). When the colors are overprinted, they combine to render a wide range of color. CMYK produces the widest range of color with the fewest inks when printing.

Process Inks - The ink colors of cyan, magenta and yellow used to print color reproductions.

Production automation - Use of a centralized computer to monitor costing, workflow, job status, pressroom efficiency, billing, etc.

Progressive Proof - A set of proofs made with ink on paper from the actual plates to show the sequence of printing and the result after each additional color is applied. Also called progs.

Proportion Scale - Round device used to calculate percentage that an original image must be reduced or enlarged to yield a specific reproduction size.

Q

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Quadratone - A halftone image created by overprinting four different halftone screens of the same image with different tonal values.

Quads - Refers to the four separated films; cyan, magenta, yellow and black.

Quartertone - Those dot percentages that are near the 25 percent printing dot size.

Quarto - Sheet folded twice, making pages one-fourth the size of the original sheet. A quarto makes an 8-page signature.

Quotation - Price offered by a printer to produce a specific job.

R

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Ragged - Type that is not justified on the right or left side.

Rag Paper - Paper containing a minimum of 25% rag or cotton fiber pulp.

Rainbow™ - 3M's digital, high resolution, thermal dye sublimation, desktop color proofing system.

Rainbow Fountain - Technique of putting ink colors next to each other in the same ink fountain and oscillating the ink rollers to make the colors merge where they touch, producing a rainbow effect.

Random Proof - A color proof consisting of many images ganged on one substrate and randomly positioned with no relation to the final page imposition. This is a cost-effective way to verify the

correctness of completed scans prior to further stripping and color correction work. Also called scatter proof.

Raster - To convert mathematical and digital information into a series of dots by an imagesetter or recorder as digital data that will be used for output.

RC Paper - The photosensitive resin-coated paper generally used to record the output of typesetters and imagesetters.

Reader's Spread - Keylines of two facing pages in correct numerical order, e.g., pages 2 and 3.

Ream - 500 sheets of printing paper. Stacks and skids of paper often include slips of paper (ream markers) marking the division of the stack into reams.

Recto Page - The right-hand or odd-numbered page of an open book or spread.

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

Reflection Copy - Any opaque color artwork submitted for reproduction such as photos, sketches or paintings.

Reflective Copy - Any painting, artwork or photograph (not transparencies) that reflects light off its surface.

Register - The fitting of two or more printing images on the same paper in exact alignment with each other.

Register Marks - Crosses or some other design that are pasted outside your keyline on the board. Everything done to the job through printing must have these marks to prevent the separations, film or plates from being misaligned or out of register.

Registration - The correct positioning of one color over another during the printing process.

Relief Printing - Printing method whose image carriers are surfaces with two levels having inked areas higher than non-inked areas. Types include block printing, flexography and letterpress.

Remote proofing - Digital transmission of a proof to a remote office or customer location for output and evaluation at the remote site.

Repeatability - The precision with which a device can position an image, usually measured in microns. For example, a capstan imagesetter has low repeatability compared with a drum imagesetter which is more accurate in its operation.

Replicate - In the manufacturing of a CD-ROM, to mold the actual disc by injecting molten polycarbonate into the mold cavity (stamper), then quickly cool the plastic to harden it, a process which takes less than 15 seconds. After replication of the disc, art is printed onto the non-data side of the disc via silk-screen or offset printing.

Reprint - An ad which is printed and then sent to a magazine for insertion. Also refers to a reprint of ads supplied by the publication before the publication is issued.

Resolution - Sharpness of an image. Also quantification of laser print quality using number of dots per inch.

Retouch - To correct flaws in an image or make design changes.

Reverse - Type, graphic or illustration produced 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 knock out or liftout.

RGB - Red, green and blue. The additive primaries which are used in video monitors.

Right-angle Fold - A folding succession in which each succeeding fold is made at right angles to the preceding one.

Right Reading - Copy that reads correctly in the language in which it is written. Also describes a photo whose orientation looks like the original image.

RIP - Abbreviation for raster image processing, a hardware and/or software system that translates page description command into bitmaps for output to a laser printer or imagesetter.

Rosette Pattern - The desirable minute circle of dots that is formed when two or more process color screens are overprinted at their appropriate angle, screen ruling and dot shape.

RRED - Right reading, emulsion side down.

Rub Proof - Ink that has reached its maximum dryness and does not mar with normal abrasion.

Rubylith - A red acetate masking film used in stripping to make an opening.

Rule - A straight line of any thickness or a line used as a graphic element to separate or organize copy.

Run Around - Type that is made to fit around a picture of art.

Run of Paper (ROP) - Printing full color in newspaper but using the same paper and press as the balance of the newspaper.

S

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Saddle-sewn - A form of binding that stitches thread through the gutter fold of a publication.

Saddle-stitched - A form of binding that uses staple-shaped wires through the gutter fold; also called saddle-wired.

Safelight - A lamp for use in the darkroom that gives light of a color that will not affect the photographic material within a reasonable time. Different photographic materials require different safelight filters.

Sans Serif Type - Any type style that does not have cross strokes on the ends of the letters.

Scale - Calculate the amount a photo is to be reduced or enlarged.

Scanner - Electronic device used to digitize an image.

Score - To compress paper along a straight line so it folds more easily and accurately.

Screen - Plastic sheets that have cross-hatched lines. These screens are placed between the camera and the original photo or continuous tones to break the image into dots to create a halftone image.

Screen Angles - Angles at which the halftone screens are placed with relation to one another to avoid undesirable moire pattern. The most common angles are black 45°, magenta 75°, yellow 90° and cyan 105°.

Screen Frequency - The number of rows (lines) and columns of dots per inch or centimeter of a halftone screen.

Screen Printing - Method of printing by using a squeegee to force ink through an assembly of mesh fabric and a stencil.

Screen Ruling - Sometimes confused with resolution, screen ruling is the number of printing dots per millimeter or per inch on the exposed film. The screen ruling is a critical factor in determining the resolution need. The finer the screen ruling, the higher the resolution needs to be, due to the amount of information required to generate the printing dots.

Screen Tint - A halftone screen pattern of all the same size dots that creates an even tone.

Secondary Colors - Colors created by combining two primary colorants of a color system. Example: red would be the secondary color produced with magenta and yellow. Also referred to as overprint colors.

Selective Binding - Placing signatures or inserts in magazines and catalogs according to demographic or geographic guidelines.

Self Cover - A cover made from the same paper as the inside text pages.

Serif Type - Any type style that has cross strokes on the ends of the letters.

Serigraphics Printing - Printing method whose image carriers are woven fabric, plastic or metal that allows ink to pass through some portions and blocks ink from passing through other portions. Types include screen and mimeograph.

Service Bureau - A business that provides manipulation and output of digital files, usually to a PostScript imagesetter.

Set-off - Ink from a printed sheet rubs off or marks the next sheet as it is being delivered. Also called offset.

Shadow - The darkest areas of an image or photograph; represented as the largest dots in a halftone.

Sharpen - Reducing the size in halftones or separations.

Sheetfed Press - A printing press that uses sheets of paper, rather than a continuous paper roll or web.

Sheetwise - To print one side of a sheet of paper with one form or plate, then turn the sheet over and print the other side with another form using the same gripper and side guide. This method is used for printing signatures.

Shingling - A technique used to compensate for creep. The gutter margin on a page is gradually narrowed from the outside pages to the middle pages of the signature.

Show-through - The undesirable condition in which the printing on the reverse side of a sheet can be seen through the sheet under normal lighting conditions.

Side Stitch - To bind by stapling through all sheets along one edge.

Signature - A group of pages brought together into proper sequential order and alignment after it has been folded.

Signature Proof - Kodak's proofing system, negative/positive, on most stocks.

Silhouette Halftone - A halftone with all of the background removed.

Silverprint - A proof that is made of the negative film to ensure that all elements are accurate and in correct position before the plate is made.

Sizing - Treatment of paper which gives it resistance to the penetration of liquids (particularly water) or vapors.

Skid (also pallet) - Wooden platform that supports piles of paper during shipping and storage. Skids usually accommodate from 2500 to 4000 pounds of paper.

Slit - To cut printed sheets or webs into two or more sections by means of cutting wheels on a press or folder.

Slur - A smearing of ink that occurs in printing when there isn't enough pressure on the blanket.

Soft Dot - Halftone dot with a weak fringe density or halo surrounding a solid core.

Soft Proof - A proof that is viewed on a color-calibrated video monitor as opposed to a hard proof on paper.

Solid - Any area of the sheet receiving 100 percent ink coverage.

Specs - Complete and precise written description (or specifications) of features of a printing job such as type size and leading, paper grade and quantity, printing quality or binding method.

Spine - The back of a bound book connecting the two covers. Also called backbone.

Spiral Bind - To bind using a spiral of continuous wire or plastic looped through holes. Also called coil bind.

Split Run - Different images, such as advertisements, printed or bound in different editions of a publication. Also, two or more binding methods used on the same print run.

Spooler - A device by which a computer can store data and feed it gradually to an external device, such as a printer, which is operating more slowly than the computer.

Spot Color - Individual color or colors that are utilized to highlight illustrations or type. Spot color is frequently printed with non-process color inks, although process inks can be used.

Spot Varnish - Varnish applied only to certain portions of a sheet to highlight those areas.

Spread - Two facing pages. They can be a reader's spread or a printer's spread.

Square Halftone - A halftone that has four right-angle corners.

Standard Viewing Condition - An area surrounded by a neutral gray and illuminated by a light source of 5000K both for viewing transparencies and reflection prints. Large format transparencies should be surrounded by approximately 2-4 inches or 5-10 centimeters of white surround and should not be viewed with a dark surround.

Stat - Short for photostat, a photographic print of line copy or halftones.

Static Neutralizer - A device on a printing press designed to remove static from the paper and avoid ink set-off and trouble with feeding the paper.

Step-and-repeat - The procedure of exposing an image repeatedly in different places on the printing plate.

Stochastic Screening - A digital screening process that converts images into very small dots (14-40 microns) of equal size and variable spacing.

Strip - To assemble images on film for platemaking. Stripping involves correcting flaws in film, assembling pieces of film into flats and ensuring that film and flats register correctly.

Stripping - The process of manually creating composite films and fully imposed flats for platemaking. Most of this work is now done electronically, bypassing the traditional artisan.

Substrate - Any surface on which printing is done.

Supercalender - A finishing device consisting of alternate metal and resilient rollers used to produce a smooth, thin sheet of paper.

SWOP - Abbreviation for the revised Specifications for Web-Offset Publications; a set of specifications for color separation films and color proofing to insure the consistency of the printed color.

T

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Tack - The amount of stickiness in printing inks that makes them adhere to the substrate while minimizing dot gain. Too much tack can cause surface picking.

Tear Sheet - Actual ad removed from a publication and sent to the advertiser, often with the invoice.

Terabyte - Tb or TB. Equal to approximately one billion kilobytes and often used to measure optical disk storage capacity.

Text - The body matter of a page or book as distinguished from the heading and art.

Thermography - Method of printing using colorless resin powder that takes on the color of underlying ink.

TIFF - Tagged Image File Format. A graphics and page layout file format for desktop computers. Used as an intermediary file format for both color and black and white images. TIFF is used to transfer documents between different applications and computer platforms.

Tile - A method used when a page is too large to be output in its entirety by the output device. The page is divided into pieces that allow for overlap so that it can be reassembled as a whole.

Tint - A solid color reduced either by screening or by adding white ink. Also, a halftone of a specified dot

percentage, but less than 100%.

Tissue Overlay - A thin, translucent paper placed over artwork (mostly mechanicals) for protection and used to indicate color breaks and corrections.

Tonal Compression - The reduction of an original's tonal range to a tonal range achievable through the reproduction process.

Tonal Range - The difference between the brightest and the darkest tone in a photograph or offset lithographic print.

Tone - The character of a color, its quality or lightness.

Tooth - A characteristic of paper, a slightly rough finish, which permits it to take ink readily.

Trade Shop - Service bureau, printer or bindery working primarily for other graphic arts professionals, not for the general public.

Traditional Color Angles - The screen angles used most often in color separation, considered to be optimal for reducing moire patterns-yellow at 0°, cyan at 15°, black at 45° and magenta at 75°.

Transparency - Positive photographic image on film allowing light to pass through.

Transparent Ink - A printing ink which does not conceal the color beneath. Process inks are transparent so that they will blend to form other colors.

Trapping - A method of overlapping adjoining colors or inks that helps minimize the possibility of a fine white line appearing between two colors, caused by misregistration of color negatives. Also, the ability to print a wet ink film over previously printed ink.

Trim - To cut the excess paper from the edges of a publication after it has been printed and bound.

Trim Marks - Marks on the outside of a keyline to indicate where the piece is to be cut.

Two-up - Having two images of each item (see one-up).

U

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Uncoated Paper - Paper that has not been coated with clay.

Undercolor Addition (UCA) - A technique used to add cyan, magenta and yellow printing dots in dark neutral areas of the reproduction to give them more density.

Undercolor Removal (UCR) - The technique of reducing the cyan, magenta and yellow content in neutral areas of the reproduction and replacing them with black ink so the reproduction will appear normal but will use less ink.

Unit - One inking, plate and impression station on a press. A four-color press has four units.

Up - In printing, two-up, three-up, etc., refers to imposition of material to be printed on a larger size sheet to take advantage of full press capacity.

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

V

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Value - The degree in a color or gray that varies from light to dark.

Varnish - A thin, protective liquid coating applied to the printed sheet for protection or appearance.

Velox - This is the brand name for a screened print of a photo which is pasted on the keyline; thus showing exactly how it will look when printed.

Verso Page - The left-hand or even-numbered page of an open book or spread.

Vignette - An illustration in which the background fades gradually away until it blends into the unprinted paper.

Virgin Paper - Paper made exclusively of new pulp from trees or cotton. No recycled materials are included.

Waterless lithography sheetfed - Water-free offset lithographic capability on a sheetfed press that allows ultrafine reproduction and improved, almost continuous-looking halftones.

Waterless lithography web - Water-free offset lithographic capability on a web press that allows ultrafine reproduction and improved, almost continuous-looking, halftones.

Watermark - Translucent logo in paper created during manufacture by slight embossing while paper is still approximately 90 percent water

Web - A roll of paper used in web or rotary printing.

Web Press - A printing press that prints on paper from a continuous roll and outputs it onto another roll, as a folded signature or as cut sheets.

Work and Tumble - To print one side of a sheet of paper, then turn the sheet over from gripper to back using the same side guide and plate to print the second side.

Work and Turn - To print one side of a sheet of paper, then turn the sheet over from left to right and print the second side. The same gripper and plate are used for printing both sides.

WORM - Write once/read many. It refers to the permanent, unalterable nature of data in certain kinds of storage media.

Wrong Reading - An image that is backwards when compared to the original.

X,Y,Z

Yellow - One of the three subtractive primary colors used in process printing.

Zoom - An electronic function that increases or reduces the magnification of the image displayed on the video screen.