Glossary of Printing

Acetate

A transparent sheet placed over originals or artwork, allowing the designer to write instructions and\or indicate a second color for placement.

Acid-free Paper

Papermade 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.

Acid Resist

An acid-proof protective coating applied to metal plates prior to etching.

Additive Color

Color produced by light falling onto a surface, as compared to subtractive color. The additive primary colors are red, green and blue.

A4 Paper

ISO paper size 210 x 297mm used for Letterhead.

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.

Airbrush

Pen-shaped tool that sprays a fine mist of ink or paint to retouch photos and create continuous-tone illustrations.

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.

Anodized Plate

An offset printing plate having a treated surface in order to reduce wear for extended use.

Anti-offset Powder

Fine powder lightly sprayed over the printed surface of coated paper as sheets leave a press. Also called dust, offset powder, powder and spray powder.

Antique Paper

Roughest finish offered on offset paper.

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.

Author's Alterations (AA's)

At the proofing stage, changes that the client requests to be made concerning original art provided. AA's are considered an additional cost to the client usually.

Back Up

(1) To print on the second side of a sheet already printed on one side. (2) To adjust an image on one side of a sheet so that it aligns back-to-back with an image on the other side.

Base Art

Copy pasted up on the mounting board of a mechanical, as compared to overlay art. Also called base mechanical.

Base Negative

Negative made by photographing base art.

Basic Size

The standard size of sheets of paper used to calculate basis weight in the United States and Canada.

Basis Weight

In the United States and Canada, the weight, in pounds, of a ream (500 sheets) of paper cut to the basic size. Also called ream weight and substance weight (sub weight). In countries using ISO paper sizes, the weight, in grams, of one square meter of paper. Also called grammage and ream weight.

Bind

Usually in the book arena, but not exclusively, the joining of leafs 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.

Blank

Category of paperboard ranging in thickness from 15 to 48 points.

Blanket

Rubber-coated pad, mounted on a cylinder of an offset press, that receives the inked image from the plate and transfers it to the surface to be printed.

Bleed

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

Blind Folio

A page number not printed on the page. (In the book arena, a blank page traditionally does not print a page number.)

Blind Image

Image debossed, embossed or stamped, but not printed with ink or foil.

Blocking

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

Blow-Up

An enlargement, usually used with raphic images or photographs

Blueline

Prepress photographic proof made from stripped negatives where all colors show as blue images on white paper. Because 'blueline' is a generic term for proofs made from a variety of materials having identical purposes and similar appearances, it may also be called a blackprint, blue, blueprint, brownline, brownprint, diazo, dyeline, ozalid, position proof, silverprint, Dylux and VanDyke.

Blurb

A description or commentary of an author or book content positioned on the book jacket.

Board Paper

General term for paper over 110# index, 80# cover or 200 gsm that is commonly used for products such as file folders, displays and post cards. Also called paperboard.

Body

The main text of work not including the headlines.

Boiler Plate

Blocks of repetitive type used and copied over and over again.

Bond paper

Category of paper commonly used for writing, printing and photocopying. Also called business paper, communication paper, correspondence paper and writing paper.

Book Block

Folded signatures gathered, sewn and trimmed, but not yet covered.

Book Paper

Category of paper suitable for books, magazines, catalogs, advertising and general printing needs. Book paper is divided into uncoated paper (also called offset paper), coated paper (also called art paper, enamel paper, gloss paper and slick paper) and text paper.

Border

The decorative design or rule surrounding matter on a page.

Bounce

(1) a repeating registration problem in the printing stage of production. (2) Customer unhappy with the results of a printing project and refuses to accept the project.

Bristol Paper

General term referring to paper 6 points or thicker with basis weight between 90# and 200# (200-500 gsm). Used for products such as index cards, file folders and displays.

Broadside

The term used to indicate work printed on one of a large sheet of paper.

Bromide

A photographic print created on bromide paper.

Broken Carton

Carton of paper from which some of the sheets have been sold. Also called less carton.

Bronzing

The effect produced by dusting wet ink after printing and using a metallic powder.

Build a Color

To overlap two or more screen tints to create a new color. Such an overlap is called a build, color build, stacked screen build or tint build.

Bulk

Thickness of paper relative to its basic weight.

Bullet

A dot or similar marking to emphasize text.

Burst Perfect Bind

To bind by forcing glue into notches along the spines of gathered signatures before affixing a paper cover. Also called burst bind, notch bind and slotted bind.

Butt Register

Register where ink colors meet precisely without overlapping or allowing space between, as compared to lap register. Also called butt fit and kiss register.

Buy Out

To subcontract for a service that is closely related to the business of the organization. Also called farm out. Work that is bought out or farmed out is sometimes called outwork or referred to as being out of house.

C1S and C2S

Abbreviations for coated one side and coated two sides.

Calender

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

Caliper

(1) Thickness of paper or other substrate expressed in thousandths of an inch (mils or points), pages per inch (ppi), thousandths of a millimeter (microns) or pages per centimeter (ppc). (2) Device on a sheetfed press that detects double sheets or on a binding machine that detects missing signatures or inserts.

Camera-ready Copy

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.

Camera Service

Business using a process camera to make photostats, halftones, plates and other elements for printing. Also called prep service and trade camera service.

Carbonless Paper

Paper coated with chemicals that enable transfer of images from one sheet to another with pressure from writing or typing.

Carload

Selling unit of paper that may weigh anywhere from 20,000 to 100,000 pounds (9,090 to 45, 454 kilos), depending on which mill or merchant uses the term. Abbreviated CL.

Carton

Selling unit of paper weighing approximately 150 pounds (60 kilos). A carton can contain anywhere from 500 to 5,000 sheets, depending on the size of sheets and their basis weight.

Case

Covers and spine that, as a unit, enclose the pages of a casebound book.

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 bind, edition bind, hard bind and hard cover.

Cast-coated Paper

High gloss, coated paper made by pressing the paper against a polished, hot, metal drum while the coating is still wet.

Catalog Paper

Coated paper rated #4 or #5 with basis weight from 35# to 50# (50 to 75 gsm) commonly used for catalogs and magazines.

Chain Dot

(1) Alternate term for elliptical dot, so called because midtone dots touch at two points, so look like links in a chain.(2) Generic term for any midtone dots whose corners touch.

Chain Lines

(1) Widely spaced lines in laid paper. (2) Blemishes on printed images caused by tracking.

Chalking

Deterioration of a printed image caused by ink that absorbs into paper too fast or has long exposure to sun, and wind making printed images look dusty. Also called crocking.

Check Copy

(1) Production copy of a publication verified by the customer as printed, finished and bound correctly. (2) One set of gathered book signatures approved by the customer as ready for binding.

Choke

Technique of slightly reducing the size of an image to create a hairline trap or to outline. Also called shrink and skinny.

Chrome

Strength of a color as compared to how close it seems to neutral gray. Also called depth, intensity, purity and saturation.

Close Up

A mark used to indicate closing space between characters or words. Usually used in proofing stages.

CMYK

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

Coarse Screen

Halftone screen with ruling of 65, 85 or 100 lines per inch (26, 34 or 40 lines centimeter).

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.

Collate

To organize printed matter in a specific order as requested.

Collating Marks

Mostly in the book arena, specific marks on the back of signatures indicating exact position in the collating stage.

Color Balance

Refers to amounts of process colors that simulate the colors of the original scene or photograph.

Color Blanks

Press sheets printed with photos or illustrations, but without type. Also called shells.

Color Break

In multicolor printing, the point, line or space at which one ink color stops and another begins. Also called break for color.

Color Cast

Unwanted color affecting an entire image or portion of an image.

Color Control Bar

Strip of small blocks of color on a proof or press sheet to help evaluate features such as density and dot gain. Also called color bar, color guide and standard offset color bar.

Color Correct

To adjust the relationship among the process colors to achieve desirable colors.

Color Curves

Instructions in computer software that allow users to change or correct colors. Also called HLS and HVS tables.

Color Electronic Prepress System

Computer, scanner, printer and other hardware and software designed for image assembly, color correction, retouching and output onto proofing materials, film or printing plates. Abbreviated CEPS.

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 Key

Brand name for an overlay color proof. Sometimes used as a generic term for any overlay color proof.

Color Model

Way of categorizing and describing the infinite array of colors found in nature.

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 Sequence

Order in which inks are printed. Also called laydown sequence and rotation.

Color Shift

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

Color Transparency

Film (transparent) used as art to perform color separations.

Comb Bind

To bind by inserting the teeth of a flexible plastic comb through holes punched along the edge of a stack of paper. Also called plastic bind and GBC bind (a brand name).

Commercial Printer

Printer producing a wide range of products such as announcements, brochures, posters, booklets, stationery, business forms, books and magazines. Also called job printer because each job is different.

Complementary Flat(s)

The second or additional flat(s) used when making composite film or for two or more burns on one printing plate.

Composite Art

Mechanical on which copy for reproduction in all colors appears on only one surface, not separated onto overlays. Composite art has a tissue overlay with instructions that indicate color breaks.

Composite Film

Film made by combining images from two or more pieces of working film onto one film for making one plate.

Composite Proof

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

Composition

(1) In typography, the assembly of typographic elements, such as words and paragraphs, into pages ready for printing. (2) In graphic design, the arrangement of type, graphics and other elements on the page.

Comprehensive Dummy

Simulation of a printed piece complete with type, graphics and colors. Also called color comprehensive and comp.

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. Also called cure, mature and season.

Contact Platemaker

Device with lights, timing mechanism and vacuum frame used to make contact prints, duplicate film, proofs and plates. Also called platemaker and vacuum frame.

Continuous-tone Copy

All photographs and those illustrations having a range of shades not made up of dots, as compared to line copy or halftones. Abbreviated contone.

Contrast

The degree of tones in an image ranging from highlight to shadow.

Converter

Business that makes products such as boxes, bags, envelopes and displays.

Copyboard

Surface or frame on a process camera that holds copy in position to be photographed.

Cover

Thick paper that protects a publication and advertises its title. Parts of covers are often described as follows: Cover 1=outside front; Cover 2=inside front; Cover 3=inside back, Cover 4=outside back.

Coverage

Extent to which ink covers the surface of a substrate. Ink coverage is usually expressed as light, medium or heavy.

Cover Paper

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

Crash

Coarse cloth embedded in the glue along the spine of a book to increase strength of binding. Also called gauze, mull and scrim.

Creep

Phenomenon of middle pages of a folded signature extending slightly beyond outside pages. Also called feathering, outpush, push out and thrust. See also Shingling.

Crop Marks

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

Crossover

Type or art that continues from one page of a book or magazine across the gutter to the opposite page. Also called bridge, gutter bleed and gutter jump.

Cure

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

Customer Service Representative

Employee of a printer, service bureau, separator or other business who coordinates projects and keeps customers informed. Abbreviated CSR.

Cutoff

Circumference of the impression cylinder of a web press, therefore also the length of the printed sheet that the press cuts from the roll of paper.

Cut Sizes

Paper sizes used with office machines and small presses.

Cutting Machine

A machine that cuts stacks of paper to desired sizes. The machine can also be used in scoring or creasing.

Cutting Die

Usually a custom ordered item to trim specific and unusual sized printing projects.

CWT

Abbreviation for hundredweight using the Roman numeral C=100.

Cyan

One of the four process colors. Also known as process blue.

Data Compression

Technique of reducing the amount of storage required to hold a digital file to reduce the disk space the file requires and allow it to be processed or transmitted more quickly.

Deboss

To press an image into paper so it lies below the surface. Also called tool.

Deckle Edge

Edge of paper left ragged as it comes from the papermaking machine instead of being cleanly cut. Also called feather edge.

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

- (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.

Density Range

Difference between the darkest and lightest areas of copy. Also called contrast ratio, copy range and tonal range.

Desktop Publishing

Technique of using a personal 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.

Device Independent Colors

Hules identified by wavelength or by their place in systems such as developed by CIE. 'Device independent' means a color can be described and specified without regard to whether it is reproduced using ink, projected light, photographic chemistry or any other method.

Die

Device for cutting, scoring, stamping, embossing and debossing.

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 ink-jet.

Diffusion Transfer

Chemical process of reproducing line copy and making halftone positives ready for paste-up.

Digital Dot

Dot created by a computer and printed out by a laser printer or imagesetter. Digital dots are uniform in size, as compared to halftone dots that vary in size.

Direct Digital Color Proof

Color proof made by a laser, ink jet printer or other computer-controlled device without needing to make separation films first. Abbreviated DDCP.

Dog Ear

A letter fold at the side of one of the creases, an indentation occurs.

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. Also called dot pitch.

Double Black Duotone

Duotone printed from two halftones, one shot for highlights and the other shot for midtones and shadows.

Double Bump

To print a single image twice so it has two layers of ink.

Double Burn

To expose film or a plate twice to different negatives and thus create a composite image.

Double Density

A method of recording electronically (disk, CD, floppy) using a modified frequency to allow more data storage.

Double Dot Halftone

Halftone double burned onto one plate from two halftones, one shot for shadows, the second shot for midtones and highlights.

Doubling

Printing defect appearing as blurring or shadowing of the image. Doubling may be caused by problems with paper, cylinder alignment, blanket pressures or dirty cylinders.

DPI

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

Drawdown

Sample of inks specified for a job applied to the substrate specified for a job. Also called pulldown.

Drill

In the printing arena, to drill a whole in a printed matter.

Dropout

Halftone dots or fine lines eliminated from highlights by overexposure during camera work.

Dropout Halftone

Halftone in which contrast has been increased by eliminating dots from highlights.

Dry Back

Phenomenon of printed ink colors becoming less dense as the ink dries.

Dry Offset

Using metal plates in the printing process, which are etched to .15mm (.0006 in) creating a right reading plate, printed on the offset blanket transferring to paper without the use of water.

Dry Trap

To print over dry ink, as compared to wet trap.

Dual-purpose Bond Paper

Bond paper suitable for printing by either lithography (offset) or xerography (photocopy). Abbreviated DP bond paper.

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.

Duotone

Black-and-white photograph reproduced using two halftone negatives, each shot to emphasize different tonal values in the original.

Duplex Paper

Thick paper made by pasting highlights together two thinner sheets, usually of different colors. Also called double-faced paper and two-tone paper.

Duplicator

Offset press made for quick printing.

Dylux

Brand name for photographic paper used to make blue line proofs. Often used as alternate term for blueline.

Electronic Front End (Electronic Composition)

General term referring to a prepress system based on computers.

Electronic Image Assembly

Assembly of a composite image from portions of other images and/or other page elements using a computer.

Electronic Mechanical

Mechanical exclusively in electronic files.

Electronic Publishing

- (1) Publishing by printing with device, such as a photocopy machine or ink jet printer, driven by a computer that can change the image instantly from one copy to the next.
- (2) Publishing via output on fax, computer bulletin board or other electronic medium, as compared to output on paper.

Emboss

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

Emulsion

Casting of light-sensitive chemicals on papers, films, printing plates and stencils.

Emulsion Down/Emulsion Up

Film whose emulsion side faces down (away from the viewer) or up (toward the viewer) when ready to make a plate or stencil. Abbreviated ED, EU. Also called E up/down and face down/face up.

Encapsulated PostScript file

Computer file containing both images and PostScript commands. Abbreviated EPS file.

End Sheet

Sheet that attaches the inside pages of a case bound book to its cover. Also called pastedown or end papers.

English Finish

Smooth finish on uncoated book paper; smoother than eggshell, rougher than smooth.

Engraving

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

EP

Abbreviation for envelope.

EPS

Encapsulated Post Script, a known file format usually used to transfer post script information from one program to another.

Equivalent Paper

Paper that is not the brand specified, but looks, prints and may cost the same. . Also called comparable stock.

Estimate

Price that states what a job will probably cost. Also called bid, quotation and tender.

Estimator

The individual performing or creating the "estimate."

Etch

To use chemicals to carve an image into metal, glass or film.

Face

Edge of a bound publication opposite the spine. Also called foredge. Also, an abbreviation for typeface referring to a family of a general style.

Fake Duotone

Halftone in one ink color printed over screen tint of a second ink color. Also called dummy duotone, dougraph, duplex halftone, false duotone, flat tint halftone and halftone with screen.

Fast Color Inks

Inks with colors that retain their density and resist fading as the product is used and washed.

Feeding Unit

Component of a printing press that moves paper into the register unit.

Felt Finish

Soft woven pattern in text paper.

Felt Side

Side of the paper that was not in contact with the Fourdrinier wire during papermaking, as compared to wire side.

Fifth Color

Ink color used in addition to the four needed by four-color process.

Film Gauge

Thickness of film. The most common gauge for graphic arts film is 0.004 inch (0.1 mm).

Film Laminate

Thin sheet of plastic bonded to a printed product for protection or increased gloss.

Fine Papers

Papers made specifically for writing or commercial printing, as compared to coarse papers and industrial papers. Also called cultural papers and graphic papers.

Fine Screen

Screen with ruling of 150 lines per inch (80 lines per centimeter) or more.

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.

Fit

Refers to ability of film to be registered during stripping and assembly. Good fit means that all images register to other film for the same job.

Fixed Costs

Costs that remain the same regardless of how many pieces are printed. Copyrighting, photography and design are fixed costs.

Flat Color

- (1) Any color created by printing only one ink, as compared to a color created by printing four-color process. Also called block color and spot color.
- (2) color that seems weak or lifeless.

Flat Plan (Flats)

Diagram of the flats for a publication showing imposition and indicating colors.

Flat Size

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

Flexography

Method of printing on a web press using rubber or plastic plates with raised images. Also called aniline printing because flexographic inks originally used aniline dyes. Abbreviated flexo.

Flood

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

Flush Cover

Cover trimmed to the same size as inside pages, as compared to overhang cover. Also called cut flush

Flyleaf

Leaf, at the front and back of a casebound book that is the one side of the end paper not glued to the case.

Fogging Back

Used in making type more legible by lowering density of an image, while allowing the image to show through.

Foil Emboss

To foil stamp and emboss an image. Also called heat stamp.

Foil Stamp

Method of printing that releases foil from its backing when stamped with the heated die. Also called block print, hot foil stamp and stamp.

Folder

A bindery machine dedicated to folding printed materials.

Fold Marks

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

Foldout

Gatefold sheet bound into a publication, often used for a map or chart. Also called gatefold and pullout.

Folio (page number)

The actual page number in a publication.

Form

Each side of a signature. Also spelled forme.

Format

Size, style, shape, layout or organization of a layout or printed product.

Form bond

Lightweight bond, easy to perforate, made for business forms. Also called register bond.

Form Roller(s)

Roller(s) that come in contact with the printing plate, bringing it ink or water.

For Position Only

Refers to inexpensive copies of photos or art used on mechanical to indicate placement and scaling, but not intended for reproduction. Abbreviated FPO.

Forwarding

In the case book arena, the binding process which involves folding, rounding, backing, headbanding and reinforcing.

Fountain

Trough or container, on a printing press, that holds fluids such as ink, varnish or water. Also called duct.

Fountain Solution

Mixture of water and chemicals that dampens a printing plate to prevent ink from adhering to the nonimage area. Also called dampener solution.

Four-color Process Printing

Technique 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.

Free Sheet

Paper made from cooked wood fibers mixed with chemicals and washed free of impurities, as compared to groundwood paper. Also called woodfree paper.

French Fold

A printed sheet, printed one side only, folded with two right angle folds to form a four page uncut section.

Full-range Halftone

Halftone ranging from 0 percent coverage in its highlights to 100 percent coverage in its shadows.

Full-scale Black

Black separation made to have dots throughout the entire tonal range of the image, as compared to half-scale black and skeleton black. Also called full-range black.

Galley Proof

Proof of type from any Source, whether metal type or photo type. Also called checker and slip proof.

Gang

(1) To halftone or separate more than one image in only one exposure. (2) 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.

Gathered

Signatures assembled next to each other in the proper sequence for binding, as compared to nested. Also called stacked

Ghost Halftone

Normal halftone whose density has been reduced to produce a very faint image.

Ghosting

- (1) Phenomenon of a faint image appearing on a printed sheet where it was not intended to appear. Chemical ghosting refers to the transfer of the faint image from the front of one sheet to the back of another sheet. Mechanical ghosting refers to the faint image appearing as a repeat of an image on the same side of the sheet.
- (2) Phenomenon of printed image appearing too light because of ink starvation.

Gilding

Mostly in the book arena, gold leafing the edges of a book.

Gloss

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

Gloss Ink

Ink used and printed on coated stock (mostly litho and letterpress) such as the ink will dry without penetration.

Grade

General term used to distinguish between or among printing papers, but whose specific meaning depends on context.

Grade can refer to the category, class, rating, finish or brand of paper.

Graduated Screen Tint

Screen tint that changes densities gradually and smoothly, not in distinct steps. Also called degrade, gradient, ramped screen and vignette.

Grain Direction

Predominant direction in which fibers in paper become aligned during manufacturing. Also called machine direction.

Grain Long Paper

Paper whose fibers run parallel to the long dimension of the sheet. Also called long grain paper and narrow web paper.

Grain Short Paper

Paper whose fibers run parallel to the short dimension of the sheet. Also called short grain paper and wide web paper.

Grammage

Basis weight of paper in grams per square meter (gsm).

Graphic Arts

The crafts, industries and professions related to designing and printing on paper and other substrates.

Graphic Arts Film

Film whose emulsion yields high contrast images suitable for reproduction by a printing press, as compared to continuoustone film. Also called litho film and repro film.

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.

Gravure

Method of printing using metal cylinders etched with millions of tiny wells that hold ink.

Gray Balance

Printed cyan, magenta and yellow halftone dots that accurately, reproduce a neutral gray image.

Gray Component Replacement

Technique of replacing gray tones in the yellow, cyan and magenta films, made while color separating, with black ink. Abbreviated GCR. Also called achromatic color removal.

Gray Levels

Number of distinct gray tones that can be reproduced by a computer.

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.

Grind Edge

Alternate term for binding edge when referring to perfect bound products.

Grindoff

Approximately 1/8 inch (3 mm) along the spine that is ground off gathered signatures before perfect binding.

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.

Groundwood Paper

Newsprint and other inexpensive paper made from pulp created when wood chips are ground mechanically rather than refined chemically.

GSM

The unit of measurement for paper weight (grams per square meter).

Gutter

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

Hairline (Rule)

Subjective term referring to very small space, thin line or close register. The meaning depends on who is using the term and in what circumstances.

Half-scale Black

Black separation made to have dots only in the shadows and midtones, as compared to full-scale black and skeleton black.

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.

Halo Effect

Faint shadow sometimes surrounding halftone dots printed. Also called halation. The halo itself is also called a fringe.

Hard Dots

Halftone dots with no halos or soft edges, as compared to soft dots.

Hard Mechanical

Mechanical consisting of paper and/or acetate and made using paste-up techniques, as compared to electronic mechanical.

Head(er)

At the top of a page, the margin.

Head-to-tail

Imposition with heads (tops) of pages facing tails (bottoms) of other pages.

Heat-set Web

Web press equipped with an oven to dry ink, thus able to print coated paper.

Hickey

Spot or imperfection in printing, most visible in areas of heavy ink coverage, caused by dirt on the plate or blanket. Also called bulls eye and fish eye.

High-fidelity Color

Color reproduced using six, eight or twelve separations, as compared to four-color process.

High-key Photo

Photo whose most important details appear in the highlights.

Highlights

Lightest portions of a photograph or halftone, as compared to midtones and shadows.

Hinged Cover

Perfect bound cover scored 1/8 inch (3mm) from the spine so it folds at the hinge instead of, along the edge of the spine.

HLS

Abbreviation for hue, lightness, saturation, one of the colorcontrol options often found in software, for design and page assembly. Also called HVS.

Hot Spot

Printing defect caused when a piece of dirt or an air bubble caused incomplete draw-down 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 variety of printing jobs. Also called floor sheet.

Hue

A specific color such as yellow or green.

Image Area

The actual area on the printed matter that is not restricted to ink coverage,

Imagesetter

Laser output device using photosensitive paper or film.

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.

Impression Cylinder

Cylinder, on a press, that pushes paper against the plate or blanket, thus forming the image. Also called impression roller.

Imprint

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

Ink Balance

Relationship of the densities and dot gains of process inks to each other and to a standard density of neutral gray

Ink Fountain

Reservoir, on a printing press, that holds ink.

Ink Holdout

Characteristic of paper that prevents it from absorbing ink, thus allowing ink to dry on the surface of the paper. Also called holdout.

Ink Jet Printing

Method of printing by spraying droplets of ink through computer-controlled nozzles. Also called jet printing.

Inner Form

Form (side of the press sheet) whose images all appear inside the folded signature, as compared to outer form.

In-Plant Printer

Department of an agency, business or association that does printing for a parent organization. Also called captive printer and in-house printer.

Inserts

Within a publication, an additional item positioned into the publication loose (not bound in).

Intaglio Printing

Printing method whose image carriers are surfaces with two levels, having inked areas lower than noninked areas. Gravure and engraving are the most common forms of intaglio. Also called recess printing.

Integral Proof

Color proof of separations shown on one piece of proofing paper, as compared to an overlay proof. Also called composition proof, laminate proof, plastic proof and single-sheet proof.

Interleaves

Printed pages loosely inserted in a publication.

ISBN

A number assigned to a published work and usually found either on the title page or the back of the title page.

Considered an International Standard Book Number.

Job Lot Paper

Paper that didn't meet specifications when produced, has been discontinued, or for other reasons is no longer considered first quality.

Job Number

A number assigned to a specific printing project in a printing company for use in tracking and historical record keeping.

Job Ticket

Form used by service bureaus, separators and printers to specify production schedule of a job and the materials it needs. Also called docket, production order and work order.

Jogger

A vibration machine with a slopping platform to even-up stacks of printed materials.

K

Abbreviation for black in four-color process printing. Hence the 'K' in CMYK.

Key

- (1) The screw that controls ink flow from the ink fountain of a printing press.
- (2) To relate loose pieces of copy to their positions on a layout or mechanical using a system of numbers or letters.
- (3) Alternate term for the color black, as in 'key plate.'

Keylines

Lines on a mechanical or negative showing the exact size, shape and location of photographs or other graphic elements. Also called holding lines.

Key Negative or Plate

Negative or plate that prints the most detail, thus whose image guides the register of images from other plates. Also called key printer.

Kiss Die Cut

To die cut the top layer, but not the backing layer, of self-adhesive paper. Also called face cut.

Kiss Impression

Lightest possible impression that will transfer ink to a Substrate.

Kraft Paper

Strong paper used for wrapping and to make grocery bags and large envelopes.

Laid Finish

Finish on bond or text paper on which grids of parallel lines simulate the surface of handmade paper. Laid lines are close together and run against the grain; chain lines are farther apart and run with the grain.

Laminate

A thin transparent plastic sheet (coating) applied to usually a thick stock (covers, post cards, etc.) providing protection against liquid and heavy use, and usually accents existing color, providing a glossy (or lens) effect.

Landscape

Artist style in which width is greater than height. (Portrait is opposite.)

Lap Register

Register where ink colors overlap slightly, as compared to butt register.

Laser Bond

Bond paper made especially smooth and dry to run well through laser printers.

Laser-imprintable Ink

Ink that will not fade or blister as the paper on which it is printed is used in a laser printer.

Lay Flat Bind

Method of perfect binding that allows a publication to lie fully open. (Also known as Lay Flat Perfect Binding.)

Lav Edge

The edge of a sheet of paper feeding into a press.

Layout

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

Leading

Amount of space between lines of type.

Leaf

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

Ledger Paper

Strong, smooth bond paper used for keeping business records. Also called record paper.

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.

Letter Paper

In North America, 8 1/2' x 11' sheets. In Europe, A4 sheets.

Legend

Directions about a specific matter (illustrations) and how to use. In regard to maps and tables, an explanation of signs (symbols) used.

Letterpress

Method of printing from raised surfaces, either metal type or plates whose surfaces have been etched away from image areas. Also called block printing.

Lightweight Paper

Book paper with basis weight less than 40# (60 gsm).

Lignin

Substance in trees that holds cellulose fibers together. Free sheet has most lignin removed; groundwood paper contains lignin.

Line Copy

Any high-contrast image, including type, as compared to continuous-tone copy. Also called line art and line work.

Line Negative

Negative made from line copy.

Linen Finish

Embossed finish on text paper that simulates the pattern of linen cloth.

Lithography

Method of printing using plates whose image areas attract ink and whose nonimage 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.

Logo (Logotype)

A company, partnership or corporate creation (design) that denotes a unique entity. A possible combination of letters and art work to create a "sole" entity symbol of that specific unit.

Looseleaf

Binding method allowing insertion and removal of pages in a publication (e.g., trim-4-drill-3).

Loose Proof

Proof of a halftone or color separation that is not assembled with other elements from a page, as compared to composite proof. Also called first proof, random proof, scatter proof and show-color proof.

Loupe

Lens built into a small stand. Used to inspect copy, film, proofs, plates and printing. Also called glass and linen tester.

Low Key Photo

Photo whose most important details appear in the shadows.

Machine Glazed (MG)

Paper holding a high-gloss finish only on one side.

Magenta

One of the four process colors.

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.

Making Order

Order for paper that a mill makes to the customer's specifications, as compared to a mill order or stock order.

Male Die

Die that applies pressure during embossing or debossing. Also called force card.

Manuscript (MS)

An author's original form of work (hand written, typed or on disk) submitted for publication.

Margin

Imprinted space around the edge of the printed material.

Mark-Up

Instructions written usually on a "dummy."

Mask

To prevent light from reaching part of an image, therefore isolating the remaining part. Also called knock out.

Master

Paper or plastic plate used on a duplicating press.

Match Print

A form of a four-color-process proofing system.

Matte Finish

Flat (not glossy) finish on photographic paper or coated printing paper.

Mechanical

Camera-ready assembly of type, graphic and other copy complete with instructions to the printer. A hard mechanical consists of paper and/or acetate, is made using paste-up techniques, and may also be called an artboard, board or paste-up. A soft mechanical, also called an electronic mechanical, exists as a file of type and other images assembled using a computer.

Mechanical Bind

To bind using a comb, coil, ring binder, post or any other technique not requiring gluing, sewing or stitching.

Mechanical Separation

Color breaks made on the mechanical using a separate overlay for each color to be printed.

Mechanical Tint

Lines or patterns formed with dots creating artwork for reproduction.

Metallic Ink

Ink containing powdered metal or pigments that simulate metal.

Metallic Paper

Paper coated with a thin film of plastic or pigment whose color and gloss simulate metal.

Midtones

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

Mil 1/1000 Inch

The thickness of plastic films as printing substrates are expressed in mils.

Misting

Phenomenon of droplets of ink being thrown off the roller train. Also called flying ink.

Mock Up

A reproduction of the original printed matter and possibly containing instructions or direction.

Modem

Mostly used over phone lines, a device that converts electronic stored information from point a. to point b.

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.

Monarch

Paper size (7' x 10') and envelope shape often used for personal stationery.

Mottle

Spotty, uneven ink absorption. Also called sinkage. A mottled image may be called mealy.

Mull

A specific type of glue used for books binding and personal pads needing strength.

Multicolor Printing

Printing in more than one ink color (but not four-color process). Also called polychrome printing.

M Weight

Weight of 1,000 sheets of paper in any specific size.

Natural Color

Very light brown color of paper. May also be called antique, cream, ivory, off-white or mellow white.

Nested

Signatures assembled inside one another in the proper sequence for binding, as compared to gathered. Also called inset.

Neutral Gray

Gray with no hue or cast.

News Print

Paper used in printing newspapers. Considered low quality and "a short life use."

Newton Ring

Flaw in a photograph or halftone that looks like a drop of oil or water.

Nipping

In the book binding process, a stage where air is expelled from it's contents at the sewing stage.

Nonheatset Web

Web press without a drying oven, thus not able to print on coated paper. Also called cold-set web and open web.

Nonimpact Printing

Printing using lasers, ions, ink jets or heat to transfer images to paper.

Nonreproducing Blue

Light blue that does not record on graphic arts film, therefore may be used to preprint layout grids and write instructions on mechanicals. Also called blue pencil, drop-out blue, fade-out blue and nonrepro blue.

Novelty Printing

Printing on products such as coasters, pencils, balloons, golf balls and ashtrays, known as advertising specialties or premiums.

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.

Onion Skin

A specific lightweight type (kind) of paper usually used in the past for air mail. Seldom used today (in the typewriter era).

Opaque

- (1) Not transparent.
- (2) To cover flaws in negative with tape or opaquing paint. Also called block out and spot.

Open Prepress Interface

Hardware and software that link desktop publishing systems with color electronic prepress systems.

Outer form

Form (side of a press sheet) containing images for the first and last pages of the folded signature (its outside pages) as compared to inner form.

Outline Halftone

Halftone in which background has been removed or replaced to isolate or silhouette the main image. Also called knockout halftone and silhouette halftone.

Overlay

Layer of material taped to a mechanical, photo or proof. Acetate overlays are used to separate colors by having some type or art on them instead of on the mounting board. Tissue overlays are used to carry instructions about the underlying copy and to protect the base art.

Overlay Proof

Color proof consisting of polyester sheets laid on top of each other with their image in register, as compared to integral proof. Each sheet represents the image to be printed in one color. Also called celluloid proof and layered proof.

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. Advance questions avoid blind knowledge.

Page

One side of a leaf in a publication.

Page Count

Total number of pages that a publication has. Also called extent.

Page Proof

Proof of type and graphics as they will look on the finished page complete with elements such as headings, rules and folios.

Pagination

In the book arena, the numbering of pages.

Painted Sheet

Sheet printed with ink edge to edge, as compared to spot color. The painted sheet refers to the final product, not the press sheet, and means that 100 percent coverage results from bleeds off all four sides.

Panel

One page of a brochure, such as one panel of a rack brochure. One panel is on one side of the paper. A letter-folded sheet has six panels, not three.

Paper Plate

A printing plate made of strong and durable paper in the short run offset arena (cost effective with short runs).

Parallel Fold

Method of folding. Two parallel folds to a sheet will produce 6 panels.

Parent Sheet

Any sheet larger than 11' x 17' or A3.

Pasteboard

Chipboard with another paper pasted to it.

Paste-up

To paste copy to mounting boards and, if necessary, to overlays so it is assembled into a camera-ready mechanical. The mechanical produced is often called a paste-up.

PE

Proofreader mark meaning printer error and showing a mistake by a typesetter, prepress service or printer as compared to an error by the customer.

Perfect Bind

To bind sheets that have been ground at the spine and are held to the cover by glue. Also called adhesive bind, cut-back bind, glue bind, paper bind, patent bind, perfecting bind, soft bind and soft cover. See also Burst Perfect Bind.

Perfecting Press

Press capable of printing both sides of the paper during a single pass. Also called duplex press and perfector.

Perf Marks

On a "dummy" marking where the perforation is to occur.

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).

Pica

A unit of measure in the printing industry. A pica is approximately 0.166 in. There are 12 points to a pica.

Photoengraving

Engraving done using photochemistry.

Photomechanical Transfer

Brand name for a diffusion transfer process used to make positive paper prints of line copy and halftones. Often used as alternate term for photostat. Abbreviated PMT.

Photostat

Brand name for a diffusion transfer process used to make positive paper prints of line copy and halftones. Often used as alternate term for PMT.

Picking

Phenomenon of ink pulling bits of coating or fiber away from the surface of paper as it travels through the press, thus leaving unprinted spots in the image area.

Pickup Art

Artwork, used in a previous job, to be incorporated in a current job.

Pinholing

Small holes (unwanted) in printed areas because of a variety of reasons.

Pin Register

Technique of registering separations, flats and printing plates by using small holes, all of equal diameter, at the edges of both flats and plates.

Pixel

Short for picture element, a dot made by a computer, scanner or other digital device. Also called pel.

Planographic Printing

Printing method whose image carriers are level surfaces with inked areas separated from noninked areas by chemical means. Planographic printing includes lithography, offset lithography and spirit duplicating.

Plate

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

Platemaker

(1) In quick printing, a process camera that makes plates automatically from mechanicals. (2) In commercial lithography, a machine with a vacuum frame used to expose plates through film.

Plate-ready Film

Stripped negatives or positives fully prepared for platemaking.

Pleasing Color

Color that the customer considers satisfactory even though it may not precisely match original samples, scenes or objects.

PMS

Obsolete reference to Pantone Matching System. The correct trade name of the colors in the Pantone Matching System is Pantone colors, not PMS Colors.

PMT

Abbreviation for photomechanical transfer.

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).

Portrait

An art design in which the height is greater than the width. (Opposite of Landscape.)

Position Stat

Photocopy or PMT of a photo or illustration made to size and affixed to a mechanical.

Positive Film

Film that prevents light from passing through images, as compared to negative film that allows light to pass through. Also called knockout film.

Post Bind

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

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.

Prepress Proof

Any color proof made using ink jet, toner, dyes or overlays, as compared to a press proof printed using ink. Also called dry proof and off-press proof.

Preprint

To print portions of sheets that will be used for later imprinting.

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.

Price Break

Quantity at which unit cost of paper or printing drops.

Printer Pairs

Usually in the book arena, consecutive pages as they appear on a flat or signature.

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.

Printing Unit

Assembly of fountain, rollers and cylinders that will print one ink color. Also called color station, deck, ink station, printer, station and tower.

Process Camera

Camera used to photograph mechanicals and other cameraready copy. Also called copy, camera and graphic arts camera. A small, simple process camera may be called a stat camera.

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.

Proofreader Marks

Standard symbols and abbreviations used to mark up manuscripts and proofs. Also called correction marks.

Proportion Scale

Round device used to calculate percent that an original image must by reduced or enlarged to yield a specific reproduction size. Also called percentage wheel, proportion dial, proportion wheel and scaling wheel.

Publishing Paper

Paper made in weights, colors and surfaces suited to books, magazines, catalogs and free-standing inserts.

Quality

Subjective term relating to expectations by the customer, printer and other professionals associated with a printing job and whether the job meets those expectations.

Quarto

(1) Sheet folded twice, making pages one-fourth the size of the original sheet. A quarto makes an 8-page signature. (2) Book made from quarto sheets, traditionally measuring about 9' x 12'.

Quick Printing

Printing using small sheetfed presses, called duplicators, using cut sizes of bond and offset paper.

Quotation

Price offered by a printer to produce a specific job.

Rag Paper

Stationery or other forms of stock having a strong percentage content of "cotton rags."

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.

Raster Image Processor

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.

Ream

500 sheets of paper.

Recycled Paper

New paper made entirely or in part from old paper.

Reflective Copy

Products, such as fabrics, illustrations and photographic prints, viewed by light reflected from them, as compared to transparent copy. Also called reflex copy.

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.

Relief Printing

Printing method whose image carriers are surfaces with two levels having inked areas higher than noninked areas. Relief printing includes block printing, flexography and letter press.

Repeatability

Ability of a device, such as an imagesetter, to produce film or plates that yield images in register.

Reprographics

General term for xerography, diazo and other methods of copying used by designers, engineers, architects or for general office use.

Resolution

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

Resolution Target

An image, such as the GATF Star Target, that permits evaluation of resolution on film, proofs or plates.

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.

Right Reading

Copy that reads correctly in the language in which it is written. Also describes a photo whose orientation looks like the original scene, as compared to a flopped image.

Rotary Press

Printing press which passes the substrate between two rotating cylinders when making an impression.

Round Back Bind

To casebind with a rounded (convex) spine, as compared to flat back bind.

Ruby Window

Mask on a mechanical, made with rubylith, that creates a window on film shot from the mechanical.

Rule

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

Ruleup

Map or drawing given by a printer to a stripper showing how a printing job must be imposed using a specific press and sheet size. Also called press layout, printer's layout and ruleout.

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.

Satin Finish

Alternate term for dull finish on coated paper.

Scale

To identify the percent by which photographs or art should be enlarged or reduced to achieve, the correct size for printing.

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 Angles

Angles at which screens intersect with the horizontal line of the press sheet. The common screen angles for separations are black 45 degree, magenta 75 degree, yellow 90 degree and cyan 105 degree.

Screen Density

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

Screen Printing

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

Screen Ruling

Number of rows or lines of dots per inch or centimeter in a screen for making a screen tint or halftone. Also called line count, ruling, screen frequency, screen size and screen value.

Screen Tint

Color created by dots instead of solid ink coverage. Also called Benday, fill pattern, screen tone, shading, tint and tone.

Selective Binding

Placing signatures or inserts in magazines or catalogs according to demographic or geographic guidelines.

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.

Separated Art

Art with elements that print in the base color on one surface and elements that print in other colors on other surfaces. Also called preseparated art.

Separations

Usually in the four-color process arena, separate film holding qimages of one specific color per piece of film. Black, Cyan,

Magenta and Yellow. Can also separate specific PMS colors through film.

Serigraphic Printing

Printing method whose image carriers are woven fabric, plastic or metal that allow ink to pass through some portions and block ink from passing through other portions. Serigraphic printing includes screen and mimeograph.

Service Bureau

Business using imagesetters to make high resolution printouts of files prepared on microcomputers. Also called output house and prep service.

Setoff

Undesirable transfer of wet ink from the top of one sheet to the underside of another as they lie in the delivery stack of a press. Also called offset.

Shade

Hue made darker by the addition of black, as compared to tint

Shadows

Darkest areas of a photograph or illustration, as compared to midtones and high-lights.

Sheetfed Press

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

Sheetwise

Technique of printing one side of a sheet with one set of plates, then the other side of the sheet with a set of different plates. Also called work and back.

Shingling

Allowance, made during paste-up or stripping, to compensate for creep. Creep is the problem; shingling is the solution. Also called stair stepping and progressive margins.

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.

Size

Compound mixed with paper or fabric to make it stiffer and less able to absorb moisture.

Slip Sheets

Separate sheets (stock) independent from the original run positioned between the "printed run" for a variety of reasons.

Soft Dots

Halftones dots with halos.

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.

Specially Printer

Printer whose equipment, supplies, work flow and marketing is targeted to a particular category of products.

Specifications

Complete and precise written description of features of a printing job such as type size and leading, paper grade and quantity, printing or binding method. Abbreviated specs.

Spectrophotometer

Instrument used to measure the index of refraction of color.

Specular Highlight

Highlight area with no printable dots, thus no detail, as compared to a diffuse highlight. Also called catchlight and dropout highlight.

Spine

Back or binding edge of a publication

Spiral Bind

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

Split Fountain

Technique of putting ink colors next to each other in the same ink fountain and printing them off the same plate. Split fountains keep edges of colors distinct, as compared to rainbow fountains that blend edges.

Split Run

- (1) Different images, such as advertisements, printed in different editions of a publication.
- (2) Printing of a book that has some copies bound one way and other copies bound another way.

Spoilage

Paper that, due to mistakes or accidents, must be thrown away instead of delivered printed to the customer, as compared to waste.

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.

Standard Viewing Conditions

Background of 60 percent neutral gray and light that measures 5000 degrees Kelvin the color of daylight on a bright day. Also called lighting standards.

Stat

Short for photostat, therefore a general term for an inexpensive photographic print of line copy or halftone.

Statistical Process Control

Method used by printers to ensure quality and delivery times specified by customers. Abbreviated SPC.

Step and Repeat

Prepress technique of exposing an image in a precise, multiple pattern to create a flat or plate. Images are said to be stepped across the film or plate.

Stocking Paper

Popular sizes, weights and colors of papers available for prompt delivery from a merchant's warehouse.

Stock Order

Order for paper that a mill or merchant sends to a printer from inventory at a warehouse, as compared to a mill order.

String Score

Score created by pressing a string against paper, as compared to scoring using a metal edge.

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. Also called film assembly and image assembly.

Substance Weight

Alternate term for basis weight, usually referring to bond papers. Also called sub weight.

Stumping (Blocking)

In the book arena, hot die, foil or other means in creating an image on a case bound book.

Substrate

Any surface or material on which printing is done.

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.

Subtractive Primary Color

Yellow, magenta and cyan. In the graphic arts, these are known as process colors because, along with black, they are the inks colors used in color-process printing.

Supercalendered Paper

Paper calendered using alternating chrome and fiber rollers to produce a smooth, thin sheet. Abbreviated SC paper.

Surprint

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

Swash Book

A book in a variety of forms, indicating specific stock in specific colors in a specific thickness.

SWOP

Abbreviation for specifications for web offset publications, specifications recommended for web printing of publications.

Tabloid

Using a broadsheet as a measure, one half of a broadsheet.

Tag

Grade of dense, strong paper used for products such as badges and file folders.

Tagged Image File Format

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.

Template

Concerning a printing project's basic details in regard to its dimensions. A standard layout.

Text Paper

Designation for printing papers with textured surfaces such as laid or linen. Some mills also use 'text' to refer to any paper they consider top-of-the-line, whether or not its surface has a texture.

Thermography

Method of printing using colorless resin powder that takes on the color of underlying ink. Also called raised printing.

Thumbnails

Initial ideas jotted on virtually anything in regard to initial concept of a future project.

Tint

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

Tip In

Usually in the book arena, adding an additional page(s) beyond the normal process (separate insertion).

Tone Compression

Reduction in the tonal range from original scene to printed reproduction.

Total Area Coverage

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

Touch Plate

Plate that accents or prints a color that four-color process printing cannot reproduce well enough or at all. Also called kiss plate.

Trade Shop

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

Transparency

Positive photographic image on film allowing light to pass through. Also called chrome, color transparency and tranny. Often abbreviated TX.

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 $5 1\2 \times 8 1\2$).

Uncoated Paper

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

Undercolor Addition

Technique of making color separations that increases the amount of cyan, magenta or yellow ink in shadow areas. Abbreviated UCA.

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.

Universal Copyright Convention (UCC)

A system to protect unique work from reproducing without knowledge from the originator. To qualify, one must register their work and publish a (c) indicating registration.

Unsharp Masking

Technique of adjusting dot size to make a halftone or separation appear sharper (in better focus) than the original photo or the first proof. Also called edge enhancement and peaking.

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.

Value

The shade (darkness) or tint (lightness) of a color. Also called brightness, lightness, shade and tone.

Varnish

Liquid applied as a coating for protection and appearance.

Vellum Finish

Somewhat rough, toothy finish.

Velox

Brand name for high-contrast photographic paper.

Viewing Booth

Small area or room that is set up for proper viewing of transparencies, color separations or press sheets. Also called color booth. See also Standard Viewing Conditions.

Vignette

Decorative design or illustration fade to white.

Vignette Halftone

Halftone whose background gradually and smoothly fades away. Also called degrade.

Virgin Paper

Paper made exclusively of pulp from trees or cotton, as compared to recycled paper.

VOC

Abbreviation for volatile organic compounds, petroleum substances used as the vehicles for many printing inks.

Wash Up

To clean ink and fountain solutions from rollers, fountains, screens, and other press components.

Waste

Unusable paper or paper damage during normal makeready, printing or binding operations, as compared to spoilage.

Watermark

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

Web Break

Split of the paper as it travels through a web press, causing operators to rethread the press.

Web Gain

Unacceptable stretching of paper as it passes through the press.

Web Press

Press that prints from rolls of paper, usually cutting it into sheets after printing. Also called reel-fed press. Web presses come in many sizes, the most common being mini, half, three quarter (also called 8-pages) and full (also called 16-pages).

Wet Trap

To print ink or varnish over wet ink, as compared to dry trap.

Window

- (1) In a printed product, a die-cut hole revealing an image on the sheet behind it.
- (2) On a mechanical, an area that has been marked for placement of a piece of artwork.

Wire Side

Side of the paper that rests against The Fourdrinier wire during papermaking, as compared to felt side.

With the Grain

Parallel to the grain direction of the paper being used, as compared to against the grain. See also Grain Direction.

Woodfree Paper

Made with chemical pulp only. Paper usually classified as calendered or supercalendered.

Working Film

Intermediate film that will be copied to make final film after all corrections are made. Also called buildups.

Wove

Paper manufactured without visible wire marks, usually a fine textured paper.

Wrong Reading

An image that is backwards when compared to the original. Also called flopped and reverse reading.