Glossary

A

Absorption

The relative amount of ink absorbed by paper during printing.

Accredited Standards Committee (ASC)

comprises government and industry members from North America who draft standards for submission to the American National Standards Institutes (ANSI).

Additive Color System

A color system in which wavelengths of light mix to form other colors. A mix of the three primary colors, Red, Green, Blue, produces white.

Advertising Production Club (APC)

Based in New York, the club was founded in 1931, with an objective to explore technologies and profile new practices and procedures in print production of ads.

Aliasing

The pixilated or stair-step appearance of slanted or curved lines on low-resolution, computergenerated images. Also called jaggies. Jagged edges on computer-generated elements are less visible when output on a high-resolution output device.

Alkaline Paper

A stable, acid-free paper used for products that must resist deterioration and preserve their images for as long as possible. Archival photographs, high-quality books and fine art prints are made on alkaline paper.

Alley

Space between columns of type on a page.

Alpha Channel

An eight-bit channel reserved by some image-processing applications for mashing, transparency or additional color information.

American Association of Advertising Agencies (AAAA)

Founded in 1917, is the national trade association that represents the advertising business in the United States and offers its members services, expertise and information regarding the advertising business.

American Business Media (ABM)

Formerly American Business Press. Established in 1907, it is the industry association for business-to-business information providers.

American National Standards Institute (ANSI)

Pronounced an-see. ANSI is a nonprofit organization that provides administrative support to standards development activities within the United States. It is the sole U.S. member body to the International Organization for Standardization (ISO) and is the organization through which all official U.S. input to the ISO takes place.

It has four basic functions: (1) facilitate U.S. standardization policy developments; (2) accredit national standards

developers; (3) promote U.S. standards interests globally; and, (4) provide information and training on standardization.

Analog Proofing

A process or method to simulate printing using either on-press proofing presses and production presses, or off-press proofing devices. This process requires the image to be sent from the creation computer and subsequently reproduced on an interim media such as film or plate, prior to reaching the proofing media.

Apparent Dot Area (ADA)

The dot or tone percentage amount of a printed tint as measured on a densitometer utilizing the Murray-Davies equation.

Artwork

Images, including type and photos, prepared for printing.

Authoring Application

"See Native Application definition"

Author's Alterations (AAs)

Corrections made in proofs that are not caused by a prepress service provider or printer error.

Automatic Picture Replacement (APR)

A process that facilitates the creation of totally electronic files with high-resolution art and photos in place. A low-res version of the image is used as the electronic FPO during the design process, and the images are "swapped out" for the high res versions during the RIPing process.

B

Basis Weight

Weight in pounds of a ream (500 sheets) of paper cut to the basic size for its grade.

Bind

To fasten sheets or signatures and adhere covers with glue, wire, thread or by other means.

Binder

An adhesive component of paper designed to hold the paper together.

Binder's Board

Very stiff paper used to make bound book covers.

Bit

Abbreviation for binary digit. The smallest unit of information in a binary system, a bit is the fundamental unit of information used in computers. A bit element is a 1 signaling on or a 0 signaling off in a data string. Most computers work with eight-bit strings called bytes.

Bitmap

A computerized image made up of dots or pixels. While satisfactory for pixel-based screen displays, bitmap images give a jagged appearance on paper or film. For high-quality print output, bitmap images must be translated to raster images.

Black Plate Change

Changes made to text or line work on the black plate in process printing.

Blanket

A fabric-reinforced sheet of rubber used on offset presses to transfer the impression from the plate onto the paper.

Blanket Cylinder

Cylinder of a press on which the blanket is mounted.

Bleed

Live matter, such as illustrations, photographs, graphics and text, which extend beyond the edge or edges of a trimmed

page so that when the page is trimmed the live matter extends to the edge, leaving no white space.

Blind Folio

Page numbers that are not printed on the page.

Blueline

A blue-toned positive photo print produced from film negatives which is prepared as a proof to check content, such as text and placement of graphic elements.

Body Copy

The main text of a story or article.

Brightness

Also called value. (1) One of the three attributes of color, the other two being hue and saturation. Brightness describes differences in the amount of light reflected from or transmitted through an image regardless of its hue and saturation. It refers to the amount of light (paper white) apparent in an area. (2) When speaking about paper, brightness is the light reflectance or brilliance of the paper at a specific wavelength, often perceived as whiteness. Generally, the higher the brightness rating, the better quality the paper.

Bulk

Thickness of paper, expressed in thousandths of an inch or pages per inch (ppi).

Burn

In lithography, to expose a blueline proof or printing plate with light.

Burst Perfect Bind

To bind by forcing glue into notches in spines of signatures and then adhering a paper cover.

Butt

To join without overlapping or space between.

C

C1S

Paper coated on one side.

C2S

Paper coated on two sides.

Calendar

To make paper smooth and glossy by passing it between rollers during manufacturing.

Caliper

Thickness of paper, expressed in thousandths of an inch.

Caption

Supplementary line or lines of copy above or below a picture or illustration.

Carload

Usually 40,000 pounds of paper.

Cast Coated

Coated paper with a surface similar to that of a glossy photograph.

Card Stock

Also called cover stock. A stiff paper often used for postcards, catalog covers and other items that require rigidity. Card stock is usually described by point sizes that give the thickness of the sheet in thousandths of inches. For example, 10-

ptcard is 0.010-inch thick. Card stock can also be described by poundweights based on the weight of 500 sheets measuring 20 inches x 26inches each.

Case Binding

Casebound, or cased-in, books are typically hard bound books. The book covers, called "cases," consist of rigid or flexible boards that are covered on the outside and on the edges with cloth, leather or other material.

Character Generation

The process of using master font information to create type images as a series of dots or lines on a computer or typesetter. The type images can be sent either to a screen for display or to an image setter for final output.

Characters Per Inch (cpi)

The number of characters that fit within a linear inch in a particular font.

Chrome

Alternate term for a transparency.

CMYK (Cyan, Magenta, Yellow, Black)

The subtractive primary colors used in printing. When all of the colors are subtracted out of the process one is left with white. Conversely, when all of the primaries are added together one gets a form of black.

CIE

Abbreviation for Commission International de l' Eclairage, or International Commission on Illumination. CIE established several visual color models that have become the basis for all colorimetric measurements.

CIP4

The International Cooperation for the Integration of Process in Prepress, Press and Post press, better known as CIP4, is a consortium of vendors in the prepress, press and post-press industries formed with the goal to find ways to make their products work together better. This group has developed the Print Production 4 Format, or PPF, a uniform, vendor-independent file format intended to move the industry closer to computerintegrated print production.

Cleat Bind

Alternate term for side stitched.

Coarse Screen

Screen with ruling of less than 120 lines per inch.

Coated Paper

Paper with a coating of clay, white pigments and a binder, that improves ink holdout.

Coatings

A term applied to the mineral and chemical substances used to cover the surface of paper to provide improved affinity for printing inks, a reduction of the lateral spread of printed images, higher opacity, good ink hold out, and higher brightness than an uncoated sheet. Coatings are generally composed of adhesives and pigments, with miscellaneous additives included for special sheet properties.

Colorant

A pigment or dye that is the color portion of ink, toner, proofing films or paper.

Color Bar

Strip of color printed near the edge of a press sheet or off-press proof to help evaluate ink density.

Color Cast

An unwanted dominant color present in the original image or in its reproduction. Color cast usually results from lighting variance during photography or improper processing or proofing conditions.

Color Break

In multicolor printing, the point or line at which one ink color stops and another begins.

Color Correct

Retouching or enhancing color in a color separation. .

Color Electronic Prepress System (CEPS)

A high-quality, proprietary computer-based system that may include equipment for page make-up, scanning color separations, displaying color, and making color corrections. This is to be contrasted with PC-based color scanning and manipulation systems often referred to as desktop publishing systems (DTP).

Color Gamut

The range of colors that can be formed by all combinations of a given set of light sources or colorants of a color reproduction system. The normal human eye can perceive a wide gamut of colors, colors within the full range of the visible spectrum, including detail in very bright light and deep shadows.

Transparencies and monitors, which display color using transmitted light, can hold some of that color range, or gamut. Due to such limitations as reflected light, ink impurities, and paper absorption, a conventionally printed image is limited to a much smaller range of colors.

Color Management System (CMS)

A color management system is a collection of software tools designed to reconcile the different color capabilities of scanners, monitors, printers, image setters, and printing presses to ensure consistent color throughout the print production process. Ideally, this means that the colors displayed on your monitor in your proof accurately represent the colors of the final output. It also means that different applications, monitors, and operating systems will display colors consistently.

Color Process

Alternate term for four-color, cyan, magenta, yellow and black, printing.

Color Proof

Used as a versatile feedback and process control mechanism in preparing color content for printing. The proof is used to confirm the color produced by the prepress production group prior to shipment of films, or digital data, to the reproduction group. The final color proof made by the prepress production group, and approved by its customer, is the reproduction group's contract as to the expected performance of the printed page and this final color proof is also sometimes referred to as the contract proof.

Color Separation

The photographic or electronic means of separating color artwork into cyan, magenta, yellow and black components.

Color Transform

A mathematical equation used to transform digital color from one color space to another; as in moving data from the RGB color space to the CMYK color space.

Committee for Graphic Arts Technologies Standards (CGATS)

The accredited standards development committee under ANSI responsible for graphic arts industry standards. It is charged with the overall coordination of graphic arts standards activities and the development of graphic arts standards where no applicable standards developer is available.

Complementary Colors

Colors that lie opposite each other on the color circle. Here, any given color reflects exactly those wavelengths that the color directly opposite of it on the color wheel absorbs. A color will give a greater degree of color contrast to its complementary color than to any other color.

Composite Proof

Proof of color separations in position with graphics and type.

Comprehensive Dummy

A complete simulation of a printed piece.

Computer-to-Plate (CTP)

A variety of technical mechanisms used to expose printing plates from prepared digital data, avoiding the intermediary step of producing film.

Computer-to-Press Cylinder (CTPC)

A variety of technical mechanisms used to engrave gravure press cylinders from prepared digital data.

Concept Creation

Focuses on the initial stages of the creative process and encompasses thumbnail and roughs as part of the design stage.

Contact Sheet

Alternate term for proof sheet.

CT or Continuous Tone

An image in which the subject has continuous shades of color or grey without being broken up by dots. Continuous tone images cannot be reproduced in that form for printing but must be screened to translate the image into dots.

Continuous Tone Proof

This is a proof that does not contain halftone dots. It is produced as either a view file (i.e., the amount of data used to display an image on a monitor) or fine file (i.e., the amount of data required to achieve satisfactory results in print) resolutions.

Contract Proof

A proof that when approved by the print buyer, constitutes a contractual obligation with the printer to purchase the printed materials that match the proof.

Contrast

Range of gradations in tones between lightest white and darkest black in continuous tone copy or the abrupt change between light and dark in line copy. Quantified as the difference between the highlight and deepest shadow density readings as measured by a densitometer.

Copy

All written material. For a graphic designer or printer, everything that will be printed, including illustrations, photographs graphics and text.

Copy Block

Shown as an area on the dummy (i.e., rough layout) as the amount of space to be occupied by type.

Copyright

Ownership of creative work by the writer, photographer or artist.

Corner Marks

Lines on a mechanical, negative, plate or press sheet showing the corners of a page or finished piece.

Cotton Content Paper

Paper made from cotton fibers rather than wood.

Creep

In saddle-stitched documents, a stair-step condition caused by multiple overlaid signatures. The inside pages creep away from the spine and push out on the opposite edge. Creep is a concern when using thick paper or too many pages.

Crop

To eliminate portions of an illustration or photograph so the remainder is clearer or able to fit the layout.

Crop Marks

Markings that show where a page, photograph, illustration or transparency is to be trimmed.

Crossover

Image that goes across the gutter to the opposite page.

Cutoff

The circumference of the impression cylinder of a web press; also the length of the sheet the press will cut from the roll of paper.

Cut Stock

Term for paper 11x17" or smaller.

CWT

Abbreviation for 100 pounds.

Cyan

A process color-process blue.

D

Data Blocks

The maximum size of continuous data that can be recorded as a single block. The larger the data block, consistent with the total data size, the more efficient (i.e., less over head) the transfer and storage of the data.

Data Compression

The translation of a computer file into a format that uses less disk space. Compressed files must be decompressed to be used. (See also lossless compression and lossy compression).

Data Transfer Rate

Generally defined in units of kilobytes per second (KBS) or Megabytes per second (MBS). Care should be used as sometimes the "B" means bytes and sometimes bits-which is a difference of a factor of eight. The data transfer rate is the sustained rate at which data can be written or read either by any given device itself or the rate at which data is transferred between various systems and devices.

DCS

The Desktop Color Separation (DCS) image file format, which contains both a low resolution preview (one file) and the information necessary for a separation of the image (four files, CMYK), is a picture format definition for electronic color separations. Two types of programs use the DCS format: DCS producers and DCS consumers. DCS producers are applications that produce color separations from color images. DCS consumers are desktop publishing and page layout applications capable of driving an output device. Many applications that create color separations have a record keeping function that maintains a connection 6 between the document being create and the high-resolution files used for printing. A DCS producer application provides information to a DCS consumer (such as a page layout program) in a "main" file about the location of high-resolution separation files. When the document is color separated, a DCS consumer application will locate and use the high-resolution files.

DCS2

The low-resolution preview and the information necessary for a separation of the image are combined into one file (see DCS). It also has the ability to specify additional plate colors. DCS 2.0 can point to spot color plates in addition to the standard cyan, magenta, yellow and black.

Debossing

Indented letters or designs on paper or other material. Uninked dies or blocks produce the effect. Any colors to be used are applied first by regular printing methods.

Deckle Edge

Feathered edge on specially made sheets of text and cover paper.

Densitometer

An instrument that measures the lightness or darkness of an image. A reflection densitometer measures the light reflected by an area that has been darkened by ink or by photographic processing. A transmission densitometer measures light transmitted through an area of film. In printing, a reflection densitometer is used to measure and control the density of color inks on the paper.

Density

Relative darkness of copy, ink on paper or emulsion on film, as measured by a densitometer.

Density Range

Expression of contrast between darkest and lightest areas of copy.

Desktop Publishing (DTP)

The process of creating fully composed pages using a personal computer and off-the-shelf software, usually with an output device such as a laser printer.

Die

Sharp metal rule used for die cutting or block of metal used for embossing or foil stamping.

Die Cutting

Cutting irregular shapes in paper using metal rules.

Digital Ad Lab (DAL)

A digital advertising users group representing ad agencies, publishers, suppliers, printers, and manufacturers formed to promote and facilitate the adoption of 100%digital ad workflows. The core mission of the group is to provide an open forum for the exchange of ideas, issues and resolutions to enable the full adoption of digital ads.

Digital Data Exchange Standards (DDES)

A body of accredited standards developed for the graphic arts industry by the ANSI accredited Image Technology committee (i.e., ANSI IT8), the ANSI CGATS committee, and the ISO accredited graphics technology committee (i.e., ISO TC130).DDES provides standardized exchange formats, standard device interfaces, and standard digital color process control tools for the digital information developed and used in design, production and reproduction for both graphic arts and intermedia.

Digital Distribution of Advertising for Publications (DDAP)

DDAP is a leading graphic arts industry group charged with promoting "Universal Exchange of Advertising through Open Process Integration and Accredited Standards". With the focus on digital delivery of advertising, this group advocates the use of accredited file formats in digital workflows and supports our members' transition to digital ads through the development of educational tools and seminars and consultation to build solid business practices.

Digital Press

An output device capable of outputting graphic arts quality material (i.e., integrated text, graphics and well controlled, repeatable, process color images) directly from digital data. Fundamental to this class of devices is that some flexibility also exists in the area of binding and finishing the printed material.

Digital Proofing

A proofing process to simulate printing using inkjet, thermal transfer, electrostatic or other digitally based systems including soft proofing directly from color monitors. This process requires that the image be sent from the creation computer to be reproduced directly on the proofing media.

Direct Digital Color Proof (DDCP)

Prepress color proofs that are imaged directly from digital data without involving the intermediate steps of film and contact exposure.

(See also Color Proof)

Dot Gain or Spread

Dots printing larger on paper than they are on negative or plate. This is also referred to as Tone Value Increase, or TVI.

Drop Out

To eliminate halftone dots or fine lines due to overexposure during platemaking. The lost copy is said to have "dropped out."

DPI, or Dots Per Inch

A measure of resolution usually applied to scanners and output devices.

Duotone

A halftone image created by overprinting two different halftone screens of the same image with different colors and tonal ranges. Duotones are commonly printed using black ink and a colored ink and sometimes with two black inks (also called a double-hit, or double-bumped black) to increase the detail and saturation of the black part of an image. They can also be created from two different spot colors.

Duplex Paper

Paper with a different color or finish on each side.

Dynamic Range

The range of tones from lightest to darkest a scanner can see and resolve.

E

Electronic Data Interchange (EDI)

The transfer of business data between different companies using networks, such as the Internet. ANSI has approved a set of EDI standards known as X12.

Electronic Mechanicals

Digital page layout files created on the desktop.

Embossing

Raised letters or designs on paper or other material. The effect is produced by uninked dies or blocks. Any colors to be used are applied first by regular printing methods.

Emulsion

Coating of chemicals on papers, film and printing plates that, prior to development, is sensitive to light.

Enamel Paper

Alternate term for coated paper with gloss finish.

Equivalent Weight

The term used to denote the respective weights of the same paper of two different sheet sizes.

Error Correction Circuits (ECC)

These are algorithms that have built in techniques to check the validity of the transmission of the data. The simplest is the parity error check, where, say 7 bits are transmitted and the eighth bit (of a byte) reflects whether the sum of the 7 data bits is odd or even. If after receipt, these two do not agree, then the data is transmitted. ECC is applied to improve the bit error rate (BER). These techniques, in one form or another, are in use on almost all memory devices and data transmission systems.

F

File Format

A set of instructions that describe how to store, access, or transmit digital information. Being able to match the format of data created in one program to what can be received by another is the basis for file compatibility.

Fine File

A high-resolution file that is ultimately used to image final halftone films plates or the ultimate output itself. The fine file is generally calculated after all corrections are made to the view file. As a general rule, the view file contains roughly one-third to one-fourth of the total amount of data found in a fine file. Fine files for the print medium can range from about 32 Mbytes up into the GigaByte range for one file.

Fine Screen

Screen with ruling of more than 150 lines per inch.

Finish

Surface characteristic of paper.

Finishing

Term used for all bindery operations.

Flexography

Method of printing on a web press, using rubber plates with raised images.

Fluorescence

The ability of a substance, such as paper or ink, to absorb ultraviolet light waves and reflect them as visible light.

Flush Cover

Cover that is trimmed to the same size as inside pages.

Fold Marks

Markings at the top edge of a page showing where folds should be.

Folio

A page number.

Font

The complete assortment of upper case and lower case characters, punctuation and numerals of one typeface.

Form

One side of a press sheet. When folded, the form is called a signature.

Fountain

Reservoir for ink or water on a press.

Four-Color Process

Technique of printing that uses the four process colors of ink to simulate color photographs or illustrations.

Furnish

The mixture of fibers, water, dyes, and chemicals that become paper during the papermaking process as approximately 95% of the water is removed. Also called slurry and stock.

G

Gamma

(1) In photography, the degree of contrast in an image. Film types are listed, as creating certain gamma ranges appropriate to different uses. (2) In electronic color correction, the difference in the status of the color curve. The color curve represents highlight to shadow values between current values and corrected values.

GCR or Gray Component Replacement

Also called achromatic color replacement (ACR), integrated color removal (ICR), and polychromatic color removal (PCR). Removing the achromatic (also called contaminantor graying) component of cyan, magenta, and yellow when they all combine and replacing it with black to provide the necessary density to meet TAC requirements. Gray component replacement is distinct from under color removal, which reduces process colors in only dark, neutral areas and adds black. GCR 8 separation is done with specialized software on electronic scanners.

Ghost

A faint, unwanted image on a printed sheet that is a result of the printing system itself. A ghost usually appears as a lighter image printed as a repeat of an image and is caused by the layout of the press form and inability of the press's inking system to compensate for a large change in ink coverage.

Ghost Halftone

Halftone that has been screened to produce a very faint image.

Gigabyte: (10G9)(GB)

1,000 (thousand) megabytes or 1,000,000,000 Bytes (See Megabyte).

Gloss

A shiny coating on paper. Gloss is the relative amount of incident light reflected from a surface. Gloss coatings allow very little ink absorption, thus providing excellent color definition and contrast.

Grade

One of seven major categories of paper: bond, uncoated book, coated book, text, cover, board and specialty.

Grain

In photography, the speckled appearance in prints or transparencies produced by clusters of silver particles in photographic emulsions. Frequently considered undesirable and apparent when an original is enlarged too much, grain can also be emphasized for special, softening effects. (2) In paper making, the direction in which most wood pulp fibers lie within the sheet due to the direction of flow as the paper is made. Folding paper against the grain breaks more wood pulp fibers than folding with the grain, resulting in an uneven, less precise fold.

Graphic Arts

The crafts, industries and professions related to designing and printing messages and producing print communication.

Graphic Arts Technical Foundation (GATF)

Chartered with developing leading-edge practices for printing and publishing, GATF consolidated with the Printing Industries of America, and its 30 local affiliates to provide the industry with a single source for technical and management solutions.

Graphics Primitives

Graphics primitives are generally mathematical instructions used to create boxes, circles, bar charts, pie charts, etc. on a computer. Graphic Primitives are comprised of vector data.

Gravure

Method of printing using etched metal cylinders, usually on a web press.

Grayness

A function of the unwanted absorption of wavelengths of light by process color inks. The portion of a process ink that makes it deviate from a pure saturated hue. To calculate percent grayness of a process ink using a densitometer, multiply 100 times L the lowest of its densities to red, green and blue wavelengths of light then divide that number by H (the highest of its densities to red, green and blue wavelengths of light).

Groundwood Paper

Newsprint and other inexpensive papers made from pulp created by grinding wood mechanically.

Gutter

Space between columns of type where pages meet at the binding.

H

Halftone

a binary approximation of a continuous-tone image that enables the press to reproduce it using ink spots arranged in patterns.

Halftone Dots

Dots that, by their varying sizes, create the illusion of shading or a continuous-tone image.

Hard Dot

A halftone dot that has a hard, crisp edge without the fringe seen with the soft dot. The halftone dot also has a fairly uniform density over its entire surface.

Heat-set Web

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

Helium-neon laser

The most common form of gas laser that emits between a fraction of a milliwatt and tens of milliwatts at a wavelength of 632.8 nanometers (nm.). Helium-neon (HeNe) lasers can expose redsensitive films.

Helium-Cadmium (HeCd) laser

is a metal vapor laser in which the active medium is an ionized metal vapor (cadmium) mixed with an inert gas (helium). Helium-cadmium lasers can expose blue-sensitive films.

Hickey

A speck or imperfection in printing, most visible in areas of heavy ink coverage, caused by dirt on the plate or blanket. This prevents ink from being applied in the area, resulting in a characteristic donutshaped effect.

High Contrast

Few or no tonal gradations between dark and light areas.

Highlights

The lightest areas in a photograph or halftone.

HTML (HyperText Markup Language)

Computer language used to describe the contents of documents on the Internet.

Hue

One of the three attributes of color, the other two being saturation and brightness. Hue is determined by the color's dominant wavelength within the visible spectrum.

Hue Error

Characterizes colorants used as process colors. Expressed as a percentage, hue error indicates the deviation from a theoretically pure process hue. It does not indicate any error or problem with the process inks. To calculate hue error using a densitometer, multiply 100 times the difference between M and L (the middle and lowest of its densities to red, green and blue wave lengths of light) then divide that number by the difference between H and L(the highest and lowest of its densities to red, green and blue wave lengths of light).

I

IDEAlliance (formerly GCA)

A global membership organization whose mission is to support adoption of globally recognized standards for information definition and exchange, develop and encourage efficiencies in the processes of information and image management and promoting understanding of the processes by publishing educational materials.

Image Area

Portion of a mechanical or plate that will print.

Image Assembly

Combining individual elements of a page, such as editorial content and partial page advertising, into one complete page unit.

Imagesetter

A general term used for devices that generate graphic arts films or paper from electronic data sources.

Image Technology Standards Board (ITSB)

The standing organization within ANSI with planning and coordination responsibility for imagetechnology standards.

Imposition

Arrangements of pages on flats so they will appear in proper sequence after press sheets are folded and bound.

Impression

The result of one cycle of a plate cylinder on a printing press.

Indicia

Postal permit information printed on objects to be mailed and accepted by USPS in lieu of stamps.

Information Systems Standards Board (ISSB)

The standing organization within ANSI with planning and coordination responsibility for information systems standards.

Ink Fountain

Reservoir on a printing press that holds ink.

Ink Jet

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

Inserts

Additional pages included in the binding of a printed piece, often on different paper stock and/or with different print values.

Interleaves

Extra blank pages inserted loosely into printed pieces.

International Color Consortium (ICC)

A group of eight industry vendors working in consortium for the purpose of creating, promoting and encouraging the standardization and evolution of an open, vendorneutral, cross-platform color management system. architecture and components. Through the development of the ICC profile specification, color data created on one device may be translated into another device's native color space. The adoption of this format by operating system vendors allows end users to transparently move profiles and images with embedded profiles between different operating systems and be confident that their image will retain its color fidelity.

International Federation of Publishers Press (FIPP)

An organization in Europe responsible for creating specifications for magazine color proofing and printing.

International Prepress Association (IPA)

The International Prepress Association is a trade association consisting of graphic communications companies and their suppliers.

International Organization for Standards (ISO)

A worldwide federation of national standards bodies from over 100 countries whose mission is to promote the development of standardization and to facilitate the international exchange of goods and services. The ISO Technical Committee responsible for the graphic arts is TC 130.

International Telecommunications Union (ITU)

One of three major accredited international standards bodies.

ISO 12639

Prepress digital data exchange-Tag image file format for image technology (TIFF/IT) This International Standard specifies a media-independent means for prepress electronic data exchange. This International Standard defines image file formats for encoding color continuous tone picture images, color line art images, high-resolution continuous tone images, monochrome continuous tone images, binary picture images, and binary line art images.

ISSN

International Standard Serial Number assigned by the Library of Congress in Washington, DC to 10 magazines, newsletters and other serials requesting it.

IT8.8

Prepress digital data exchange-Tag image file format for image technology (TIFF/IT). This standard specifies a transport-independent means for transferring the standard data formats developed by ASC IT8. It was created to satisfy the need for a transport-independent method of encoding raster data in theIT8.1, IT8.2 and IT8.5 standards. It includes a transport-independent way to encode high-resolution continuous tone images, in addition to the color picture, color line art, monochrome picture, binary picture, and binary line art image formats in IT8.1, IT8.2 and IT8.5.

J

Jaggies

See aliasing.

K

Kelvin (K)

A thermometric scale used to measure light temperature. 0K is absolute zero (a hypothetical temperature representing the

complete absence of heat); water freezes at 273.15K, which is 0C or 32F. The most common use of Kelvin temperatures in the graphic arts is to describe lighting sources for viewing and analyzing color. The color of light sources is measured in Kelvin. A standard balanced light source (neutral in hue and with the brightness of middays unlight) measures 5000K.

Knockout

When type or line art is to be printed over a photograph or other variable color background, the best way to produce a consistent color is to first reverse the type or artwork out of the background and then drop in the desired color. This process is referred to as knocking out.

(See also reverse type).

L

Laser

Abbreviation for light amplification by stimulated emission of radiation. It is the amplification of only one frequency of light within the spectrum to create a directional, intense beam. The beam has a very narrow bandwidth capable of producing images through electronic impulses.

Laser Printing

Method of photocopying, using a laser beam to charge the drum.

Layout

Drawing of a design for a proposed printed piece showing position, color and size of copy.

Leading Edge

The edge of the paper that enters the press first. (Gripper edge.)

Letterpress

Method of printing from raised surfaces. The "Letterpress" is the name of the press used.

Light Table

Translucent glass surface lit from below, used by production artists and strippers.

Line Interleaved

Color data that is organized in the computer in a line-by-line fashion (i.e., a line of yellow, a line of magenta, a line of cyan, a line of black, etc.)

LW or Line Work

Artwork that, unlike a continuous-tone image, has no gradations of tone and therefore does not require screening for reproduction in print.

Lines Per Inch

The number of lines or rows of dots there are per inch in a screen and, therefore, in a screen tint, halftone or separation.

Lithography

Method of printing, using a chemically-coated plate whose image attracts ink and whose nonimage areas repel ink.

Loop Stitch

Type of binding method-saddle stitched with staples that are also loops that slip over rings of binders.

Loose Color

These are color images that are color separated and sent to the customer as individual elements. This term is also used to describe the images that have been separated but not yet stripped.

Lossless Compression

Data compression methods that rearrange or re-code data in a more compact fashion and lose no information when decompressed. Because all data are preserved, there is a distinct limit to the amount of compression that can be achieved (for example,3:1 or 5:1). (See also data compression and lossy compression).

Lossy Compression

Data compression methods (for example, JPEG) that selectively discard repetitive information to decrease file sizes. Depending on the amount of compression requested, the lost information may or may not be noticeable. At rates of 25:1, the results are easily seen.

(See also data compression and lossless compression).

Loupe

Alternate term for Graphic Arts magnifier.

LPI, or Lines Per Inch

See Image Capture section for description of dpi, lpi and ppi.

Live Area

Alternate term for Image Area.

M

Magazine Publishers of America (MPA)

The MPA is the industry association for consumer magazines.

Established in 1919, the MPA represents more than 200 US-based publishing companies with more then 1,200 titles; more than 75 international companies; and more than 90 associate members providing services to the industry.

Magenta

One of the four process colors; also known as Red.

Make-Ready

Also called set up. All work done on a printing press before running a job. Make-ready includes adjusting the plates, feeder, grippers, side guides; putting inks in the fountains; registering the plates; and, matching the printed result to the supplied proof (bringing it up to color). For short runs of a few thousand, the make-ready costs are a significant percentage of the total printing costs.

Matching Color

Printed color that is required to match something such as the original image, a product color, etc.

Matte Finish

Slightly dull finish on coated paper.

Maximum Latency Time

This is the maximum time for a computer memory unit to reach any new location on a disk from any previous location.

Mechanical

Assembly of type, graphics and other line copy, complete with instructions to the printer.

Medium Screen

Screen ruling of 133 or 150 lines per inch.

Megabyte: (10G6)(MB)

A megabyte is 1,000,000 bytes. A typical 8 x 10 inch process color image at 150 line screen contains 28,800,000bytes. Each byte represents one color of a pixel (e.g. picture element) and there are 7,200,000 discrete pixel locations in the data describing this image, with each pixel being described by four colors (one byte for each of CMYK). This number of pixels is generally four times the line screen, i.e.: Pixels = 4 (Line Screen) 2 (Area)=4(150)G2 (8 x 10)= 7,200,000 Data=(No. of Colors)xPixels=4x7,200,000 = 28,800,000 bytes.

Metallic Ink

Ink containing powdered metal that sparkles in the light.

Metamerism

The phenomenon that results when the color of two objects match under one lighting condition and not under another.

Micrometer

Instrument used to measure thickness of paper.

Middle Tones

Tones in a photograph one-half as dark as its shadow areas and represented by dots between 30% and 70% of full size.

Moiré

An undesirable optical pattern that happens when two or moiré grid patterns overlap, such as the halftone dots produced by an angled screen. A moiré may also occur when a pattern in the artwork, such as a herringbone weave or window blinds, interferes with a halftone dot pattern. Manipulating stochastic artwork when scanning or using stochastic screening may eliminate the moiré.

N

Nanometer

One-billionth of a meter. The wavelengths of electro magnetic energy, which includes visible light, is measured in nanometers.

Native Application or Authoring Application

A program, which runs on a particular brand and model of processor or in a particular operating system, Also, the file format in which an application normally saves its documents. The native format is generally readable only by that application (other programs can sometimes translate using filters).

Negative

Image on film or paper in which blacks in the original subject are white or clear and whites in the original are black or opaque.

Negative Space

Alternate term for White Space.

Newton's Rings

Irregularly shaped patterns, similar to oil on the surface of water that appears in a color separation. They are caused by the varying amounts of air between the scanning cylinder and transparency surfaces as they come into contact. The light refracts into a rainbow pattern as it passes from the cylinder through the air pockets to the transparency. This is avoided by applying a coat of oil (to make airless contact) or a thin mist of powder (to prevent any contact) between the two surfaces.

Non-Image Area

Portion of a mechanical or plate that will not print.

NPES

The Association for Suppliers of Printing, Publishing and Converting Technologies.

O

Off-Press Proof

Commonly, a proof generated before the production presses run and before, or instead of a press proof.

Offset Printing

Method of lithographic printing that uses the repellant properties of oil and water to reproduce an image on a flat surface that contains both the image and non-printing areas. Lithographic plates are dampened with water that is repelled by the image area. Ink is then applied to the image area by ink rollers. An intermediate blanket cylinder picks up and transfers the ink image from the plate to the paper.

Open Web

Web press without a drying oven, thus, unable to print on coated paper.

OPI or Open Prepress Interface

The automatic replacement of low-resolution FPO images in page layouts by high-resolution scans, typically done at a prepress provider, or printer.

Output

Processed optical or electronic data transferred to another device such as a secondary storage unit, a laser printer, an electronic manipulation station, or an analog or digital proofing device.

P

Page Descriptor, and/or Document Descriptor

Description of all of the elements to be placed on the page, their respective position on the page, (XY coordinates), and the page's position within the document.

Pagination

Assembly of type with other line copy into page format.

PDF or Portable Document Format

A file format used to represent a document in a manner independent of the application software, hardware, and operating system used to create it.

PDF/X-1

A standard file format for the blind exchange of digital data. It was originally accredited by ANSI as PDF/X-1:1999 and then ISO as PDF/X-1:2001. The standard specifies methods for using PDF to disseminate object-based composite digital data that is complete and ready for final print production. CMYK and optional spot-color support are defined and all fonts must be embedded.

PDF/X-1a

A subset of PDF/X-1 that prohibits the embedding of OPI-referenced files.

Perfect Binding

A binding method where the binding edge of a book or magazine is ground down about 1/8 inch and coated with a fast-drying glue. Then, a flexible cover is attached, creating a squared-off backbone.

Perfecting Press

A press capable of printing both sides of the paper during a single pass.

Pica

A typographic measurement. There are 12 points to a pica and approximately 6 picas to an inch.

PICT

A common data format for graphics popular with illustration applications running on the Macintosh platform. PICT data can be created, displayed on the monitor, and printed.

Pixel

Abbreviation for picture element. The smallest unit that can be sensed, manipulated, or output by a digital system or displayed on a computer screen. More pixels per inch mean better resolution. Pixel Interleave-Color data within a computer that is organized in a pixel-by-pixel order (i.e., a pixel of yellow, a pixel of magenta, a pixel of cyan, a pixel of black, etc.)

Pleasing Color

Printed color that is more subjective in nature (e.g., flesh tones, sky, etc.) than matching color.

Plate

Reproduction of type and images on metal, plastic, rubber, or other material to form a printing surface.

Platesetter

A device used to expose metal plates (sometimes paper or plastic plates) directly from digital files. Some plate setters also produce proofs from the same file.

PMS Pantone Matching System

A check standard trademark for color reproductions and color reproduction materials owned by Pantone, Inc.

Point

(1) In measuring type, 1 point is 1/12 of a pica or 1/72 of an inch. Twelve points make up a pica and 72 points to an inch. (2) In measuring the thickness of heavy paper stock such as bristol board, a point is 1/1000 of an inch. Thus, 10-pt stock is 10/1000, or 0.010 inch.

Porosity

The open or closed characteristics of a paper's surface that allows air to pass through and ink to penetrate. Generally, coated papers have very closed surfaces, low porosity, and hold ink on the surface well. Some papers used for blow-in cards are porosity rated for bindery use.

Positive

Characteristic of an image on film or paper in which blacks in original subject are black or opaque and whites in the original are white or clear.

PostScript

A vector-based page description language that is resolution, platform and device independent.

It consists of a specific set of software commands and protocols that form images on output printers when translated through a raster image processor.

PPI or Pixels per Inch

Away of describing the resolution of a digital image. See Image Capture section for 13 description for dpi, lpi and ppi.

Prepress

A term used within the graphic arts industry that covers the steps between the creation of an idea and the placing of a printing plate on a printing press. The primary function of prepress is to accept the creative input (layout, text, images, symbols) and format these into imagery that can be used to manufacture printing plates that yield the desired print results. As such the work is highly device dependent (e.g., ultimately it goes on a printing press) and highly resolution dependent.

Press Gain

The growth of the printed halftone dot from its size on the film and printing plate to its actual size on printed paper-generally a 10 to 25 percent size gain at 50 percent dot size.

Press Run

The number of pieces printed.

Printing Plate

Surface carrying image to be printed.

Process Colors

The colors needed for four-color process printing: yellow, magenta, cyan and black.

Process Control

A method of monitoring, controlling and improving a process through statistical analysis.

The four basic steps of process control include measuring the process, eliminating variances to make the process consistent, monitoring the process and improving the process to its best target value.

Progressive Proof or Prog-Press proof showing each color of a job separately or several colors in combination.

Proof

Test sheet made to reveal errors or flaws predict results and record how a printing job is intended to appear.

R

Random Proof

Also called first submits, scatter or loose proofs. A press proof or off-press proof of unassembled images randomly placed on a page. Generally the first proof to be evaluated, a random proof can be used for preliminary color OKs and color correction.

Raster Image Processor (RIP)

The process of converting a vector based page description language, such as PostScript, to a raster format at the resolution and in the format required for a specific output device or image setter/platesetter. The RIP may also incorporate machine-specific instructions, and the RIP may occur either in the imaging device or in a separate computer system. Some RIPs support color separations and trapping, and can output to proofing prior to imaging.

Ream

500 sheets of paper.

Register

Also called registration. Two or more images positioned in predetermined alignment. Out of registration refers to an element reproducing slightly above or to the side of the matching one underneath it.

Register Marks

Marks outside the main image area on a layout that indicate how one color of a separation or plate should be placed in relation to the others in order that all colors are in register with each other.

Resolution (res)

The degree of image sharpness that can be reproduced by a piece of equipment.

Resolution is measured in dots per inch (dpi), or pixels per square millimeter. On high-end scanners, resolution is counted both vertically and horizontally; for example, res 12 is counted as 12 x 12 = 144 pixels per square millimeter. Desktop publishing equipment usually measures resolution in dots per inch; for example, a 300 dpi printer. The higher the resolution, the better the image detail appears and the larger the file becomes, requiring more computer memory and longer processing times.

Reversed Type

Type knocked out or reversed in a colored field, such as white type in a black background.

RGB (Red, Green, Blue)

The primary color set for additive color space. When one adds all of the primaries together one gets white.

Right Reading

Copy reading correctly (normally) from left to right.

Rosette

A regular circular pattern created by the halftone dots of process colors when reproduced in register and at the correct screen angles: K (black) at 45°, Cyan at 105°, Magenta at 75°, Yellow at 90°.

Rotogravure

Gravure printing using a web press.

S

Saddle Stitch

A binding method where signature is opened up and stapled at the center. Multiple signatures can be stacked on top of each other and stapled. Pamphlets, folders, leaflets and magazines (of a maximum thickness) that consist of folded signatures bound by staples through the centerfold are called saddle stitched.

Saturation

One of the three attributes of color, the other two being hue and brightness. Saturation is the 14 intensity of a hue at a given lightness. The closer a color is to neutral gray or white, the less saturated the color. The farther away it is, the more saturated it is. Thus, bright red is a saturated color and pink a less saturated color.

Scatter Proof

The use of large area proofing materials to proof many different images, loose or stripped, at one time.

Screen Density

Amount of ink, expressed as percent of coverage that a specific screen allows to print.

Screen Ruling

The number of rows or lines of dots per inch in screen for tint or halftone.

Self Cover

A publication format where the cover stock is the same weight as the text stock, as opposed to attaching a separate cover of heavier paper. Self covers are commonly used for booklets and similar small publications.

Sharpen

In detail enhancement, to electronically exaggerate the difference between tones or colors at their edges. During scanning, the function of unsharp masking can be adjusted to increase edge contrast and artificially enhance the detail overall. Certain color manipulation programs have special tools to selectively sharpen isolated areas of an image.

Sheetfed Press

Press that is fed one sheet at a time.

Shingling

Adjustment of inside margins, or gutters, made during page layout, file preparation or assembly to compensate for creep. Creep occurs when inner pages of a saddle stitched document creep away from the spine and push out on the opposite edge.

Side Stitch

A binding method where two or three staples are passed through the signatures, usually on the left side of the book.

Signature

Sheet of printed pages which, when folded, become part of a publication. Signatures always contain pages in increments of four, such as 4, 8, 12, 16, 24, or 32 pages.

Silhouette

Eliminating the background from behind an object in a photograph or piece of art.

Slur

An undesirable printing condition whereby the printed image is smeared. Slur can result from insufficient blanket pressure due to improper packing (offset), slippage of a press part during the printing stroke (screen-printing), mechanical problems on the press, or lack of ink tack. In offset printing, slur causes halftone dots to enlarge dramatically and affects color fidelity. Type can become blurred and difficult to read.

Print control targets containing microline slur bars can be placed at the edge of a form to spot and diagnose the problem. Slur is distinguished from a similar press problem called doubling, where the image is printed again next to the correct version instead of just smearing the ink.

Soft Proofing

An image displayed on a color video monitor that visually simulates the expected printed results from the same digital data.

SPACE or Specifications for Publisher/Agency Communications Exchange

An ANSI standard for the exchange of digital data relating to the business transactions that take place between advertiser and publisher, such as insertion orders and ad rates.

Specifications for Newsprint Advertising Production (SNAP)

A set of guidelines supported by the Coldset/Non-Heat set Web Section of the Web Printing Association (WPA)and the Newspaper Association of America (NAA) for consistent and predictable printing of advertising by non-heat set, offset presses, usually on newsprint and similar uncoated stocks. SNAP specifies color standards, film densities, screen rulings, reverses, surprinted type, proofing, color bars and proofing stock.

Specifications for Web Offset Publications (SWOP)

SWOP guidelines cover film densities, screen rulings, reverses, surprinted type, proofing, color bars, and proofing stock. The purpose of SWOP is to encourage uniform communication among those involved in the production workflow and to promote consistent quality color in web offset publications.

Stitch Bind

To bind with wire staples.

Stochastic Screening

An alternative to conventional screening that creates tonal gradations by placing same-size micro dots (typically 12 to 30 microns) in a computer-controlled, random order within a given area. The computer uses frequency modulation to vary the number and placement of same-sized dots. The random dot pattern eliminates many moiré problems and allows more than four-colors to represent the tones in an image.

Subcommittee

Under ISO and IEC, subcommittees are those organizations that are responsible for the development of international standards within a defined area. Under ANSI, subcommittees have responsibility to deal with special international issues which involve subjects of a wider scope than those 15 assigned to individual technical committees, task groups, or study groups.

Subtractive Color

Colors in which each element of a mixture subtracts another segment from the light absorbed. (e.g., in printing the principal colors are Cyan, Magenta and Yellow. Whereas with color monitors or CRTs the primary colors are Red, Green and Blue(additive). The mixing of inks, pigments, etc., are a subtractive color processes.

Substrate

A base upon which something is applied. This can include paper that is printed with ink, acetate that is coated with a photosensitive emulsion, and proofing material (paper-based or plastic) that is laminated with colorant. Because the graphic arts industry repeats an image at different stages of reproduction onto various materials (originals, proofs, final printed pieces), the use of the term substrate permits a discussion of the characteristics of those materials as an element in the perception of that image.

Surprint

To print over another image. In photography, two images are exposed on one piece of film creating a double exposure. In a layout for printing, an image (usually type) would be planned to print over another area of an image. For instance, a black headline could surprint a light area of an image instead of removing all color below the type (dropping out). That would eliminate the need to mechanically trap (create overlapping edges) the type to the image.(Also known as Overprint.)

T

Tabloid

The page size of a newspaper, approximately 11 3/4" wide and from 15" to 17" long, or about half the standard newspaper page size.

Tack

The stickiness of an ink. Tack is the relative measurement of the cohesion of an ink film, which is responsible for its resistance to splitting between two rapidly separating surfaces.

Technical Advisory Group (TAG)

A TAG is an ANSI-recognized group that has the primary responsibility for participation in the ISO Technical Committee or Subcommittee Work. It is the TAG's job to recruit delegations, supervise their work, and determine ANSI positions on proposed standards.

Tensile Strength

One of the tests for paper strength, which measures the number of pounds of pull per unit needed to break it.

Terabyte

1,000 (thousand) gigabytes or a 1,000,000 (million)megabytes (See Megabyte)

Text Stock

Paper stock used for the pages of reports, books, and other printing where the stiffness of card stock is not required. Text

stock is described by pound weight determined by the weight of 500 25"x 38" sheets. For example, 500 sheets of 80-lb. text stock cut 25"x 8" weigh 80 pounds (standard US text pound).

Thermal Dye Sublimation

Also called thermal dye diffusion transfer, or D2T2. A digital proofing technology that vaporizes solid process dyes with either a heated print head or a laser beam and transforms them onto a special stock where they become solid again.

Thermal Wax Transfer

Digital proofing technology that fuses process colored wax from a ribbon by heating it with pinpoint print heads and melting it onto a special stock.

Thermography

Method of printing using colorless resin powder and heat applied to wet ink yielding raised images.

TIFF/IT (Tagged Image File Format / Interchange Technology)

TIFF/IT is a standard file format for the exchange of data accredited by ANSI(American National Standards Institute and ISO (International Organization for Standards). It was designed to solve the problem of exchanging files that were built on dissimilar high-end prepress systems that converted PostScript into internal raster data prior to imaging them. A TIFF/IT consists of three files, four in some systems. A CT (continuous tone) 300ppi: a LW (line work) file 1200 to 2540 ppi, and a FLYT (Final Layout) file that contains information that permits other applications to position the CT raster data file of one resolution against/within the LW raster data file.

TIFF/IT-P1 (Tag Image File Format/Image Technology, Profile 1)

The current version of the TIFF/IT standard, ISO 12639. The P1 variant (Profile 1) restricts the images to CMYK or monotone data, thus eliminating the possibility of sending an ad in an RGB color space.

Tip in or, Tip on

To glue on edge of a sheet to another sheet or signature.

Tolerance

The acceptable range of error from a measured standard.

Tone Compression

Reduction of an original tonal range to a tonal range achievable through the reproduction process.

Tone Value Increase (Total Dot Gain)

The difference between tone value on the print and the 16 corresponding tone value on the separation film or in the electronic file.

Total Value Sum (TAC/Total Area Coverage)

The sum of the tone values on all four-color separation films or in the electronic file of the image. Tone Value Sum (TVS/TAC) is defined as the value obtained by summation of the percent dot areas for all four separations (yellow, magenta, cyan and black) in any single defined area of the image. (ISO12647-1 & CGATS.6-1995)

Touch Plate

An additional printing plate that adds a matched color to a process color image. (Also known as Bump Plate).

Tracks

These are parallel recording channels on a memory device (such as magnetic tape), and concentric recording channels on disk drives and high performance optical drives. Tracks are found spiral recording patterns on memories such as the CD-ROM.

Transpose

To exchanges the position of a letter, word, or line with another letter, word or line.

Trapping

(1) Image trapping is a technique in which abutting colors are slightly overlapped to minimize the effects of misregistration of the printing plates. (2) Ink trapping refers to the way various colors of ink on a press adhere to one another when wet compared to the way one layer of ink adheres to the paper.

Trim Marks

Lines on a mechanical, or plate, or press sheet showing where to cut edges off of paper or cut paper apart after printing.

Trim Size

Size of printed product after last trim is made.

Type font

A type font is a given size and orientation of a typeface. Type fonts are stored in several ways: Bit maps for each size, outline encoded or vectors (run length coded bit maps), etc. In some cases the type fonts are stored as masters (generally outlined) at 1 to 4 sizes over the size range to be printed. In these cases, it is the job of the RIP to create the required size and orientation of the type fonts from these masters.

Generally bit map (or run length coded) type is stored for each size the printer will use. Sizing and rotation (other than 90-degree increments) is difficult to do while maintaining quality on bit map type. The specific advantage of outline type is to be able to size and rotate while maintaining quality. The disadvantage is that outline type consumes more calculational time of the RIP. The advantage of bit map type is that it can be fine-tuned to the specific imager and requires very little of the RIP power to be placed on the page. The disadvantage of bit map type is that it requires large amounts of memory and, if stored on a host, requires significant bandwidth, or time, to transmit to the RIP (i.e., download).

U

Uncoated Paper

Paper that has not had a final coating applied for smoothness. Uncoated paper is absorbent and soft in appearance.

UCA or Undercolor Addition

Important in achieving optimum quality with GCR color separations. UCA refers to the addition of chromatic colors (yellow, magenta, cyan) in the neutral shadow areas of the image to ensure sufficient TAC for the reproduction of the dark shadow areas.

UCR or Under Color Removal

Reducing the cyan, magenta, and yellow inks independently within the darkest neutral shadow areas in an image reproduction to control TAC. The three colors are reduced so the shadows have better detail, trapping is improved, and reproduction is more consistent.

Unsharp Masking

A function of the scanner or image editing software that increases the overall contrast at the edges of density or color changes by exaggerating the differences to increase the detail of an image.

V

Varnish

A clear, liquid, resinous coating, either matte or glossy, that is applied to a printed product for protection and appearance.

Vectors

Vectors are mathematical descriptions of both images and the placement of images. Vector information requires the RIP to convert these instructions. Vectors if calculated to high enough resolution, maintain the capability of rotation and sizing over wide ranges.

Vellum Finish

Relatively rough finish on uncoated paper.

View File

A low-resolution continuous tone reduced file of the actual data used to form the final output page.

The view file is used primarily to drive the color display. Alternatively, the view file can be output to continuous tone material to provide a low-resolution proof at a quality slightly better than that found on the color display.

Vignette

Color manipulation effects in which all or a portion of an image fades gradually away until it blends 17 into the non-imaged area. Sometimes used to refer to a graduated background tone. Colors can be vignetted into each other.

Viscosity

Thickness or thinness of a fluid as measured by its resistance to flow. Ink viscosity is adjusted to maintain a proper flow through the ink train of a press and on to the paper.

Visible spectrum

The portion of the electromagnetic spectrum to which the human eye is sensitive; wavelengths of approximately 400 through 700 nanometers. Due to the characteristics of cone sensing (color reading mechanism of the retina), it is generally agreed that humans detect only red, green, and blue. All perceived colors are combinations of those sensitivities (hue) in relation to the strength of the transmitted or reflected light (brightness) and the intensity of the light hitting the retina (saturation). Ultraviolet wavelengths are shorter and infrared wavelengths are longer than the sensitivity range of the eye, and are invisible as a result.

W

Web

Roll of printing paper.

Web Press

Press that prints from a continuous roll of paper.

Wrong Reading

An image that appears backwards compared to the original.

X

XML (Extensible Mark-up Language)

A language for the web and a subset of SGML, intended to enable generic SGML to be served, received, and processed on the Web.