Purpose: Terminology Relating to the Examination of Questioned Documents

This terminology standard includes terms that relate to the examination performed by forensic document examiners. The terms in this Terminology Section refer to typical copybook styles of writing and do not account for exceptional forms.

Responsibility:

Forensic Science Examiners assigned to the Questioned Documents Unit or performing casework in the Unit

Terminology:

absent character**,** *n*—a character or character combination which is present in one body of writing but is not present (for example, does not have a corresponding character) in another body of writing.
alignment, *n*—the adjustment of various mechanisms of a typewriter to ensure the even printing of the characters and their proper positioning relative to the baseline and to the other characters.
aliasing, *n*—see *pixilation*.
alignment defect, *n*—a deviation from the intended appearance or position of a character relative to another character. See impression defect, motion defect. Alignment defects are usually categorized as vertical misalignment (character too high or low relative to the baseline established by the other characters), horizontal misalignment (character too far to the left or right relative to other characters), and twisted or leaning (character leans to the left or to the right); because they are corrected in the alignment process, impression defects are considered as alignment defects.
alteration, n—a modification made to a document by physical, chemical or mechanical means including, but not limited to, obliterations, additions, over writings, or erasures.
apex, *n*—the uppermost point of a character.
ascender, *n*—a stroke that rises above the height of the body of the letter formation.
assisted hand signature, *n*—a signature executed by a writer while the writer's hand, arm, or writing instrument is steadied or stabilized by another.
awkward hand, *n*—see unaccustomed hand.
ball element, *n*—an element used in a single element typewriter in which the fully formed characters are located on the outer surface of a sphere-like device. Frequently called *golf-ball element*.
banding, *n*—uniform density variations or voids in a given color which appear in the direction that the printhead travels.
baseline, *n*—the ruled or imaginary line upon which writing or typewriting appears to rest.
bead defect, *n*—inked or un-inked impression or hole in the paper caused by a contaminant particle encased in plating material located on or adjacent to the printing area of the typeface on a metal coated element.

black write, *n*—process in electrostatic printing in which the photoconductive element is charged with a charge of the same sign as that of the toner. A light beam, used like a "stylus" is used to discharge only those areas that are to receive toner to form the image. In the development process, the charged background areas repel the like charged toner to the discharged areas on the photoconductor.
bleed, *n*—ink feathering of one color into an adjacent color over time.
blemish, *n*—a small extraneous spot found near inked regions of check-writer impressions that is characteristic of machines that use ribbons as their ink source.
bone folder, *n*—a piece of shaped bone or other material, such as plastic or Teflon, typically used by bookbinders to crease paper and to separate pieces of paper that are stuck together.
bridging, *v*—clumping of toner that causes a hollow area in the toner supply that prevents the free flow of toner to the dispenser auger.
carbon paper, *n*—a sheet composed of a supporting substrate on one or both sides of which is a coating containing a transferable (usually colored) material. The coating is of such nature that it will transfer in part or entirely to a copy sheet at the point of pressure contact.
character, *n*—any language symbol (for example, letter, numeral, punctuation mark, or other sign), other symbol or ornament.
character pitch, *n*—the number of characters that can be printed in a horizontal 1 in. (25.4 mm).
character spacing, *n*—the width allotted to each character in a fixed pitch (monospacing) typewriter or to the basic unit in a proportional spacing typewriter; usually expressed in millimeters or as a fraction of an inch. Synonym for horizontal escapement.
characteristic, *n*—a feature, quality, attribute, or property of writing.
check-writer, *n*—a device manually or electrically powered or computer generated, designed to ink, emboss, print, perforate, or shred a monetary value, along with other peripheral information, onto a document.
circularity, *n*—ratio of a single ink dot height divided by its width with 1.0 being a perfect circle.
coalescence, *n*—puddling or pooling of adjacent ink drops on the substrate before they can be dried or absorbed resulting in nonuniformity of color density.
cockle, *n—of paper*, a defective, puckered condition of a paper sheet as a result of non-uniform hygro-expansion which can be related to any non-uniformity in the sheet, including mass distribution and drying stresses.
coincidental peripheral printing, *n*—printing resulting from an impression of unintended printing areas, often on the periphery, of a stamp. This may be due to the manufacturing process or the stamping technique.
comparable, *n/adj*—pertaining to handwritten items that contain the same type(s) of writing and similar characters, words, and combinations. Contemporaneousness and writing instruments may also be factors.
connecting stroke, *n*—a line joining two adjacent characters.
continuous spray, *n*—ink jet technology where drops are generated at a regular unbroken rate. Images are then generated by deflections of the ink droplets after they are charged so they are either intercepted

by a catcher and not permitted to impact the substrate or deflected to intercept the substrate at specific locations.
corona, *n*—device used to place a uniform electrical charge on the surface of a xerographic photoreceptor.
correctable ribbon, *n*—a ribbon that produces an image that is designed to be completely removed from the substrate by means of lift-off.
correction media, *n*—ribbons, tapes, and sheets designed to be struck by the typeface to cover-up or lift-off typed text.
cover-up, *n*—the obliteration of one or more images by means of an opaque material similar in color to the substrate.
cover-up correction, *n*—see overprint correction.
cracking, *n*—condition in which ink that has been absorbed into a substrate causes the coating to shrink to a state much smaller than the original coating dimension causing fractures in the image area.
cross stroke, *n*—a stroke that crosses another portion of the character and is not attached at either end. (For example, the horizontal stroke of the "t").
crossbar, *n*—a stroke that intersects other portions of the character at both ends.
crystallization, *n*—condition in which ink evaporates and forms crystals.
cursive, *n*—a type of writing in which the letters are joined and the writing instrument is not lifted after most strokes.
daisy wheel element (print wheel), *n*—an element used in a typewriter in which the fully formed characters are contained on the ends of finger-like projections radiating out from the center of a disk.
descender, *n*—a stroke that extends below the baseline of the body of the letter formation
dielectric printing process, *n*—nonimpact printing technique in which specially treated paper consisting of a conductive base layer coated with a nonconductive thermoplastic material is used to hold an electric charge usually applied directly by a set of electrode styli. The electric charge corresponds to the latent image of the original. Following the charging step, the paper is imaged by a toner system similar to that of electrostatic copying devices. This technique is sometimes called electrographic, and is currently used on general purpose non impact printers, plotting and facsimile devices.
digital image, n—an image that is stored in numerical form.
digital image processing, n—any activity that transforms a digital image.
direct contact, *n*—two sheets of paper, one on top of the other, with no intervening sheets.
distorted writing, *n*—writing that does not appear to be, but may be natural. This appearance can be due to either voluntary factors (for example, disguise, simulation) or involuntary factors (for example, physical condition of the writer, writing conditions).
drag stroke, *n*—a stroke resulting from incomplete lifting of the pen.
drop on demand (DOD), *n*—ink jet technology where drops are generated as needed to create an image.
dry seal, *n*—a non-inked mechanical device which embosses a design on paper.
dry toner, *n*—material in a dry developer system which when deposited on a substrate by the field of an electrostatic charge pattern, becomes the visible record.

dual-component development, *n*—mixture of dry toner and iron oxide developer that is used for developing electrostatic images in copiers.
electric typewriter, *n*—a typewriter in which an electromechanical device causes the type element to be activated when the keys are struck.
electronic typewriter, *n*—an electric typewriter in which the keyboard input is received by an electronic processor built into the typewriter. This unit then controls the print head and other features to produce the typing action.
electrophotographic printer, *n*—nonimpact printing technique that is similar to the technology used in a typical office copier, which forms a copy by attracting toner particles to a static charge on the surface of a photoconductor, then transferring the toner image to the surface of a sheet of paper. In the normal office copier, the charged image (latent image) of the original document is formed on the photoconductor simply through exposure of the photoconductor to reflected light from the document. In an electrophotographic printer, the image is formed by a light source (laser, LED, LCS, laser diode, or other controlled light source) that erases or discharges a static image charge on the photoconductor according to information being supplied through the input data stream. Each bit of data can be related to a character shape in the memory of the printing system, and in most cases characters are formed by a dot matrix method similar in concept to that of the matrix printer. Paper can be sheet or roll—fed or continuous form.
electrostatic detection device/apparatus (EDD) of (ESDA), n—an instrument that uses electrostatic charge as the mechanism to visualize paper fiber disturbances (for example, indentations, erasures, typewritten material/lift off).
element, *n*—the interchangeable typeface carrier of a single element typewriter. See ball element, daisy wheel element, thimble element.
embossment variation, *n*—non-uniformity of the dry seal impression on the paper stock. It can be caused by the manner of application or by defects in the dry seal.
erasure, n—the area where material has been removed from a document by chemical, abrasive, or other means.
fabric ribbon, *n*—an inked ribbon wherein the substrate is a woven cloth material, such as nylon, cotton, silk, etc.
family *(of type)*, *n*—a class of type designs sharing basic qualities of style and artistic expression that differentiate it from other similar designs.
feathering, *n*—ink spread over substrate causing fuzzy edges, spidery lines and poor print quality.
film, *n*—thin transparent plastic material that covers the item during an examination using an ESDA.
fixed pitch, *adj*—describes a character set in which all character cells are of equal width. (See proportional spacing.)
flashing, *n*—excess material from the molding process.
fluorescence, n—a process by which radiant flux of certain wavelengths is absorbed and reradiated non-thermally at other, usually longer, wavelengths.

fracture pattern, *n*—the spatial arrangement of each complementary edge formation created when a single object is separated into two or more fragments.
full-color copiers**,** *n—of* ***ink jet technology***, copiers that can reproduce color originals containing gradations of color. They have a minimum of three colored inks (cyan, magenta and yellow).
full-color copiers, *n*—copiers that can reproduce color originals containing gradations of color. Full-color copiers may have up to four individual color developing units containing four different color toners. These colors are frequently cyan, magenta, yellow, and black. The original is scanned by means of an analog system using a series of color filters or by means of a digital scanning process. The full-color copier may require up to four scans to read the original. The copier individually applies one or more color toners to a transfer drum/belt or photoconductor, or both, which is in turn deposited on the paper.
fuser roll, *n*—heated roller that contacts the paper and toner directly and is part of the fuser unit.
glitch, *n*—print defect that displaces the laser scan line so that it appears to start and stop late.
gripper bar, *n*—metal bars used in delivery systems to grasp individual sheets, directing them through the system in a toner device.
guided signature, *n*—a signature executed by a writer while a writer's hand arm, or writing instrument is influenced or controlled by another.
hand printing, *n*—a style of writing in which the letters are not joined and the writing instrument is lifted after most strokes.
handwritten item, *n*—an item bearing something written by hand (for example, cursive writing, hand printing, signatures). NOTE —As used in this standard "handwriting" and "handwritten" are generic terms. Writing is generally, but not invariably, produced using the hand, and may be the result of some other form of direct manipulation of a writing or marking instrument by an individual.
hesitation, *n*—a pause in the writing without the instrument being lifted.
image, *n*—optical counterpart of an object produced by means of an image producing device.
image area, *n*—area on a page occupied by all the printed information, including the space between letters and lines. (See *percent coverage* and *maximum image area*.)
image density, *n*—contrast between image and background as measured by densitometer.
imaging drum, *n*—photoreceptive drum coated with a charge-sensitive material used in the image transfer systems of toner devices.
impact printer, *n*—a printer in which printing is the result of mechanical impacts.
impression, *n*—an image formed by pressure
impression defect, *n*—a deviation from the intended evenness in appearance of a character over the entire impression of the character or relative to the impression of another character. *See* off-foot.
impression format, *n*—the manner in which the paper is embossed or shredded.
indentations, *n*—latent or visible impressions in paper or other media.
indirect contact, *n*—two sheets of paper, one on top of the other, with one or more intervening sheets.
individual prefix, *n*—a prefix especially designed for a particular customer.

individualizing characteristic (writing), *n*—marks or properties that serve to individualize writing. Note: Both class characteristics (marks or properties that associate individuals as members of a group) and individual characteristics (marks or properties that differentiate the individual members in a group) are individualizing characteristics.
individualizing characteristics, *n*—marks or properties that serve to uniquely characterize. Both *class characteristics* (marks or properties that associate individuals as members of a group) and *individual characteristics* (marks or properties that differentiate the individual members in a group) are individualizing characteristics.
indentations, *n*—latent or visible impressions in paper or other media.
infrared (IR), n—referring to radiant flux having wavelengths longer than the wavelengths of light, usually wavelengths from about 760 nm to about 3 mm.
infrared luminescence (IRL), n—the emission of radiant energy during a transition from an excited electronic state of an atom, molecule, or ion to a lower electronic state (fluorescence or phosphorescence, or both), where the spectrum of the excitation source is in the ultraviolet (UV) or visible region of the electromagnetic spectrum, or both, and the spectrum of the emitted energy is in the far red or infrared (IR) region of the electromagnetic spectrum.
ink jet printer, *n*—nonimpact printer in which the characters are formed by projecting droplets of ink onto a substrate.
inked ribbon, *n*—a ribbon composed of a supporting substrate of film, fabric, or paper and a coating or impregnation of a coloring material. The coloring material is of such nature that it will transfer in part or entirely to a copy sheet at the point of pressure contact.
item**,** *n*—an object or quantity of material on which a set of observations can be made
known*, n/adj*——of established origin associated with the matter under investigation
landscape mode, *adj*—printer output orientation in which printed lines run parallel to the direction of movement of the paper.
laser printer, *n*—nonimpact printer that uses a laser light source driven by digital signals to create images on a photoconductor. (See *electrophotographic printer*.)
lift, *n*—the product of an ESDA examination; a self-adhesive plastic sheet adhering to a film that preserves the results of an ESDA examination.
lift-off, *n*—the removal of one or more images of copy from the substrate by transferring to an intermediate member.
lift-off correction, *n*—the removal of a typed character by re-striking with the same character while interposing an adhesive coated tape or sheet, thereby causing the imprinted character to adhere to the coating and be stripped from the record-medium.
line quality, *n*—the sum total of the attributes of the writing movement (for example, speed, pressure, and skill).
line spacing, *n*—the distance between successive lines of text, usually measured from baseline to baseline, and usually expressed in millimeters or as lines per inch for typewritten text. Synonym for vertical escapement.

liquid ink jet device, *n*—device in which the ink supply is in fluid (for example, solvent or aqueous) form.
liquid toner, *n*—toner material composed of carbon particles or colorants suspended in a liquid carrier.
loop, *n*—a formation that curves and crosses itself.
luminescence, *n*—the emission of radiant energy during a transition from an excited electronic state of an atom, molecule, or ion to a lower electronic state.
manual typewriter, *n*—a typewriter whose operation depends solely upon the mechanical action powered by the operator.
manuscript, *n*—see hand printing.
maximum image area, *n*—portion on a page that can be printed. (See *percentage coverage* and *image area*.)
maximum print position, *n*—rightmost point at which the printer can mark the paper.
model signature, *n*—a signature that is used as a prototype for a simulation or copy, by manual electronic or other means.
monocomponent development, *n*—single component dry toner used for developing electrostatic images in copiers.
monospacing, *n*—see fixed pitch.
motion (as related to typebar typewriters), *n*—the distance traveled by the mechanism for case shifting (usually by the typebar segment or the carriage) and the corresponding separation of the characters on the type slug.
motion defect *(as related to typebar typewriters)*, *n*—a deviation from the intended evenness in appearance of the baseline alignment of unshifted characters relative to shifted characters.
mottling, *n*—non-uniformity of image density which follows patterns in the substrate or by non-uniform ink-substrate interaction.
multi-strike film ribbon, *n*—a ribbon wherein the substrate film such as polyester is coated or impregnated with an ink which allows several different imprints to be made from multiple overstrikes on the same location on the ribbon, and still result in full characters being printed.
natural writing, *n*—any specimen of writing executed without an attempt to control or alter its usual quality of execution.
nonimpact printer, *n*—a printer in which image formation is not the result of mechanical impacts.
nonrecirculating system, *n*—fuser oil application system in which none of the fuser oil that has been removed from the reservoir is returned.
off-foot, *n*—the lack of desired and optimum uniformity of contact between the typeface and the substrate. While the on-feet adjustment of the typewriter evens the impression of the upper and lower portions of all the characters, this term is also applied to uneven impressions that are heavier or lighter on the sides or corners (usually due to misalignment or distortion of individual typebars).
offset, *n*—unintentional transfer of ink (as from a freshly printed substrate).
on-feet, *n*—the desired and optimum uniformity of contact between the typeface and the substrate

on-feet adjustment, *n*—the positioning and setting of various mechanisms of a typewriter to ensure the even printing of the upper and lower portions of the characters.
opacity, *n*—the property of paper that prevents the transmission of light.
original typed text, *n*—typed text imprinted onto the surface of a record-medium as the result of the impact of a type-face striking directly or through a ribbon.
overprint correction, *n*—the removal of a typed character from the text by re-striking with the same character while interposing a tape or sheet coated with an opaque coating material, thereby causing the imprinted character to be covered by the coating.
overtoning**,** *n*—any of the conditions occurring in the developing unit when the toner concentration is too high.
paper fiber impression, *n*—the imprint of a paper fiber in the ribbon substrate.
parylene processing, *n*—the deposition of a clear polymer coating on a document(s) within a vacuum chamber to strengthen and stabilize the document(s).
patching, *n*—retouching a portion of a written stroke.
payee perforator, *n*—an optional device on a check-writer that perforates or shreds a pattern above the numeric impression region for the purpose of protecting the payee entry from alteration.
pen lift, *n*—an interruption in a stroke caused by removing the writing document from the writing surface.
pen position, *n*—the relationship between the writing instrument and the writing surface.
pen pressure, *n*—the force with which the writing instrument contacts the paper.
percent coverage, *n*—ratio of the area actually covered by the ink (or print material) to the area of the page times one hundred. (See *image area* and *maximum image area*.)
perforation, *n*—penetration through the document.
picker bar, *n*—metal bars used in the delivery system to remove individual sheets of paper from the photoconductive drum in a toner device.
piezoelectric, *n*—ink jet technology where the electrically stimulated deformation of a crystal causes the expulsion of the droplets from the ink chamber.
pitting, *n*—small defects in the surface of the photoreceptor that produce spots or voids on the printout.
pixilation, *n*—stair-stepped or jagged effect resulting from analog to digital conversion.
platen, *n*—a bar-shaped object that pushes the paper stock against the typeface and provides the pressure necessary to obtain an impression.
polyester film encapsulation, *n*—a process whereby a document is sealed between two sheets of polyester film to preserve, stabilize, and facilitate handling.
portrait mode, *adj*—printer output orientation in which print lines run perpendicular to the direction of movement of the paper.
prefix, *n*—the portion of the check-writer impression located immediately to the left of the numeric value.
primary indentations, *n*—impressions caused by the act of writing or other dynamic actions.

printer, *n*—an output unit that produces durable hard-copy record of data in the form of a sequence of discrete graphic characters belonging to a predetermined character set.
printer output area**,** *n*—maximum area on the page to which the printer will print.
print head, *n*—printing device of an ink jet printing system.
printing element, *n*—the parts of the total check-writer impression that are not parts of the prefix which may encompass the currency type, decimal points, and commas.
printing module, *n*—those components in the laser printer that together drive the laser scanner, create the image on the page, deliver the page to the stacker.
proportional spacing, *n*—a system of printing where the character spacing is set in accordance with the character width. See fixed pitch.
questioned*, n/adj*——associated with the matter under investigation about which there is some question, including, but not limited to, whether the Questioned and Known items have a common origin
range of variation, *n*—the accumulation of deviations among repetitions of respective handwriting characteristics that are demonstrated in the writing habits of an individual. (see *variation*)
raster output scanner, *n*—output peripheral, either stand alone or within a printer, that converts computer data into a bit mapped image, which is sent to the host for storage or a printer for output.
rebound, *n*—a double impression of a typed character, the second lighter than and overlapping the first.
record medium, *n*—a piece of material, usually paper, on which an image is recorded.
retrace, *n*—a stroke written back over the preceding stroke in the reverse direction.
ribbon shift, *v*—the movement of a multi-colored inking ribbon allowing for a change in color to manifest itself in an impressed character.
rubber stamp, *n*—any of a wide variety of hand printing devices made of many materials not necessarily rubber. Syn.—*hand stamp, cachet*.
satellite, *n*—extraneous or undesirable ink droplets. (See also *spatter*, *spray*)
secondary impression*(s)*, *n*—fiber disturbances caused by contact with the embossed side of indentations and not caused by the act of writing.
segment, *n*—a single device on which is forged or attached a set of numerals or symbols which can be set by the operator in establishing an impression value. On some machines a different segment is used for each digit.
side lighting, n—illumination from a light source that is at a low angle of incidence, or even parallel, to the surface of the item. May also be referred to as ***oblique lighting***.
significant difference, *n*—an individualizing characteristic that is structurally divergent between handwritten items, that is outside the range of variation of the writer, and that cannot be reasonably explained.
significant similarity**,** *n*—an individualizing characteristic in common between two or more handwritten items.
single element typewriter, *n*—a typewriter that generates text via interchangeable "elements" that each contain a full set of characters.

single-strike film ribbon, *n*—an inked ribbon wherein the substrate is a plastic film material such as polyethylene, where each area of the ribbon is capable of producing only one image.
single-strike paper ribbon, *n*—an inked ribbon wherein the substrate is paper, where each area of the ribbon is capable of producing only one image.
slit glass, *n*—alternate scanning surface found in some digital photocopiers used in conjunction with an automatic document feeder.
smudge, *n*—tendency of an image to smear or streak onto an adjacent area when rubbed; involves the redisposition of abraded material.
spatter, *n*—type of extraneous or undesirable ink droplet originating when a portion of an ink droplet strikes the intended area and is deflected to an unintended area.
spray, *n*—type of extraneous or undesirable ink dot near the printed zones which originate from the printhead.
submersion, *v*—the placement of a document(s) into an appropriate liquid to facilitate cleaning, unfolding, or separation of the document(s).
sufficient quantity, *n*—that amount of writing required to assess the writer's range of variation, based on the writing examined.
thermal imaging transfer ribbon, *n*—plastic film or other material, upon which a dye or pigmented coating is applied; imaging results when a thermal printhead transfers the coating onto a suitable substrate or receptor media.
thermal impulse, *n*—ink jet technology where the rapid expansion of a bubble in the ink created by localized electrical heating expels the droplets from the ink chamber.
thimble element, *n*—an element used in a typewriter in which the fully formed characters are located on the ends of finger-like devices that are similar to a daisy wheel except that the device is formed to produce a cup-like or thimble structure.
thread count, *n*—the total number of warp and filling threads in one square inch of fabric.
transmitted light, n—illumination that passes through a document.
type element, *n*—see element
type of writing, *n*—refers to hand printing, cursive writing, numerals, symbols, or combinations thereof, and signatures.
type slug, *n*—the block (usually metal) attached to the end of the typebar that bears the typeface.
type bar, *n*—a bar, mounted on a typewriter, that holds a type slug(s).***ultraviolet*** (UV), n—referring to radiant flux having wavelengths shorter than the wavelengths of light, usually wavelengths from about 10 to 380 nm. Long-wave UV usually refers to the spectral range of UV-A, with wavelengths from about 315 to 380 nm. Short-wave UV usually refers to the spectral range of UV-C, with wavelengths from 100 to 280 nm.
typeface, *n*—the portion of the element or type slug that projects from the body and contacts the surface of the substrate to form the character.
typeface defect, *n*—deviation from the intended appearance of a character due to physical damage to the typeface or its malformation in manufacture.

typestyle, *n*—a particular variant of a type design.
typestyle classification scheme, *n*—a hierarchical taxonomic schematic, key, or computer database that can be used to determine the source of a particular typestyle.
typestyle library, *n*—an organized collection of reference samples of typestyles and related materials. Reference materials can also include information such as typestyle catalogs, treatises relative to typography and the design of typestyles used on typewriters and other printing systems, typewriters, type slugs, type elements, actual strike-ups, and instruction and repair manuals.
typewriter, *n*—a self-contained machine for character-by-character direct writing by means of keyboard-operated typefaces.
ultraviolet *(UV)*, *n*—referring to radiant flux having wavelengths shorter than the wavelengths of light, usually wavelengths from about 10 nm to 380 nm.
unaccustomed hand, *n*—the opposite hand (or other body part) from that normally used for writing.
variation, *n*—those deviations among repetitions of the same handwriting characteristic(s) that are normally demonstrated in the habits of each writer. Since variation is an integral part of natural writing, no two writings of the same material by the same writer are identical in every detail. Within a writer's range of variation, there are handwriting habits and patterns that are repetitive and similar in nature. These repetitive features give handwriting a distinctive individuality for examination purposes. Variation can be influenced by internal factors such as illness, medication, intentional distortion, etc. and external factors such as writing conditions and writing instrument, etc. *n*—imprecise duplication in multiple impressions from the same machine.
VSC, n – equipment that provides multi-spectral examinations of documents are made under UV, visible and near IR illumination with live on-screen images
watermark, *n*—a localized modification of the formation and/or opacity of a sheet of paper so that a pattern, design, or word group can be seen in the dry sheet when viewed using side lighting or transmitted light.
white write, *n*—process in electrostatic printing where the photoconductive element is charged with a charge of the opposite sign as that of the toner. A light beam, acting like a "charge eraser" is used to discharge all areas of the photoconductor that are not to receive toner to form the image. The toner is attracted to the remaining charged areas of the photoconductor when the latent electrostatic image is developed.

Sources of Error: Not applicable

References:
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