

APPENDIX

APPENDIX 1. MOST FREQUENTLY USED MICROGRAPHICS TERMS
- ALPHABETICAL

alphanumeric: Pertaining to a character set that contains letters, numbers and usually other characters (e.g., punctuation marks and symbols).
Synonymous with alphameric.

ambient light: (1) surrounding light; (2) the general room illumination or light level.

ANSI: American National Standards Institute, formerly USASI (United States of America Standards Institute) and ASA (American Standards Association). ANSI is composed of representatives from industry, technical societies, consumer organizations and government agencies.

aperture card: (1) a card with one or more rectangular openings specifically prepared for the mounting or insertion of microfilm; (2) a processable card of standard dimensions into which microfilm frames can be inserted.

archival film: a photographic film that is suitable for the preservation of records having permanent value when the film is properly processed and stored under archival storage conditions, provided that the original images are of suitable quality.

archival quality: the ability of processing print or film to retain its original characteristics permanently. The ability to resist deterioration.

archival standards: the standards that must be met by a given type of material or process for the material to retain specified characteristics.

archival storage conditions: conditions suitable for the preservation of a photographic print or film having permanent value as defined in ANSI IT9.11.

automated retrieval: a microform retrieval system in which the image(s) are displayed automatically. Commonly the user consults an index, which may be manipulated by a computer, to locate the images.

automatic coding: index methods that are machine-readable, either digital or bit code.

background: the portion of a document, drawing, microfilm or print that does not include line work, lettering or other information.

background density: the opacity of the noninformation area of image.

batch code: the mixture identification code and/or roll number that serves to identify and define the source of unexposed photographic material.

bit: a binary digit. The smallest element of binary machine language represented by a magnetized or optical spot on a recording surface. Six to eight bits are required to form a character or byte.

blip: see document mark.

block: a set such as documents, words, characters or digits handled as a unit.

blowback: an enlarged print made from microfilm.

camera: a photographic device, employing an optical system, used for exposing light-sensitive material.

camera microfilm: first-generation microfilm. Also called master film.

camera, planetary: (flat-bed camera): see planetary camera.

camera, rotary: see rotary cameras.

card-to-card printer: a device for bringing together and holding a processed microform (image card, jacket, microfiche) in contact with an unexposed microform while making a light exposure from the first onto the second, thus resulting in a reproduction.

character: one of a set of symbols that may be arranged in ordered groups to express information. The character may be human readable and/or machine readable.

cine mode: (orientation)(vertical mode): (1) the arrangement of images on roll microfilm in which the lines of print or writing are perpendicular to the length of the film for horizontal script and parallel for vertical script. (2) the arrangement of images on a microfiche in which the first microimage is in the top left-hand corner of the grid pattern and succeeding microimages appear in sequence from top to bottom and in columns from left to right.

comic mode: (B orientation)(horizontal mode): (1) the arrangement of images on roll microfilm in which the lines of print or writing are

parallel to the length of the film for horizontal script and perpendicular for vertical script. (2) the arrangement of images on a microfiche in which the first microimage is in the top left-hand corner of the grid pattern and succeeding microimages appear in sequence from left to right and in rows from top to bottom.

computer-output-microfilm (COM): microforms containing data produced by a recorder from computer-generated electrical signals. Synonymous with COM.

computer-output-microfilmer: a recorder that converts data from a computer into human-readable language and records it onto microfilm.

computer output microfilming (COM): technique for generation of microforms directly from computer output either on-line or off-line.

copy: see duplicate.

CRT: cathode ray tube. An electronic tube in which a well-defined and controllable beam of electrons is produced and directed to give a visible or otherwise detectable display or effect. The display image may be read visually, microfilmed, photographed or recorded in some other manner.

data: a representation of facts, concepts or instructions in a formalized manner suitable for communication, interpretation or processing by humans or computers.

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data storage and retrieval systems: systems having as their main function the storage of file items for later reuse rather than modification, and most often to maintain the file items unaltered, with the exception of updating and purging.

densitometer: a device used to measure the optical density of an image or base by measuring the amount of incident radiant energy (light) reflected or transmitted.

density: the light-absorbing or light-reflecting characteristics of a photographic image, filter, etc.

diazo material: slow print film or paper, sensitized by a coating of diazonium salts, which forms an image after exposure to light and development. Diazo material generally produces nonreversed images; e.g., a positive image will produce a positive image and a negative image will produce a negative image.

direct-image film: a film that will retain the same polarity as the previous generation or the original material, e.g., tone for tone, black for black, white for white, negative for negative or positive for positive

with conventional processing.

document: (1) a medium and the data recorded on it for human use, for example, a report sheet, a book. (2) By extension, any record that has permanence and can be read by man or machine.

document mark (blip): an optical mark, usually rectangular, within the recording area below and/or above the image on a roll of microfilm; used for counting and aiding in the retrieval of images or frames automatically.

dry-process silver film: a nongelatin silver film that is developed by application of heat.

duo: a method of recording images on each half of the usable width of the microfilm. Exposures are made first on one half and then continued on the other half in the reverse direction.

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duo-duplex: a combination of duo and duplex methods in which, through the use of mirrors or prisms, images of both the front and rear sides of the documents are recorded simultaneously on half of the width of the film (the other film half being masked). When the full length of the film has passed through the camera, it is reloaded so that a second set of images can be photographed on the half previously left unexposed.

duplicate: (1) a copy of a microform made by contact printing or by optical means; (2) to make multiple copies of a document or microfilm, usually with the aid of a master or intermediate.

duplicator: any of a variety of devices designed to produce copies of photographic images.

emulsion: a single- or multi-layered coating consisting of light-sensitive materials in a medium carried as a thin layer on a film base.

enlargement: a copy larger than the microimage. See Blowback.

exposure: (1) the act of exposing a sensitive material to radiant energy to obtain an image; (2) the time during which a sensitized material is subjected to the action of radiation; (3) product of radiation intensity and the time during which it acts on photosensitive material.

film: any sheet or strip of transparent plastic coated with a light-sensitive emulsion.

film insert: a strip of microfilm cut to fit a film jacket, aperture card or holder.

film rewind: a device used to transfer microfilm from one reel, spool or core to another.

film, roll: flexible, wound on a reel, spool or core, and normally 100 ft. or 200 ft. in length.

film size: film width, generally expressed in millimeters, e.g., 16mm.

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film strip: a short strip of process photographic film, usually 16 or 35 mm, containing a number of frames.

film unit: that part of a microfilm camera which contains the film, film -advance mechanism and, in some microfilm cameras, the lens.

frame: the area of the film on which light can fall during a single exposure.

generation: one of the successive stages of photographic reproduction of an original or a master. The camera film is the first generation. Copies made from this first generation are second generation, etc.

generation printing: use of copies from an original or master to make additional copies.

halide: any compound of chlorine, iodine, bromine or fluorine or fluorine and other element. NOT: The compounds are called halogens. The silver salts of these halogens are the light-sensitive materials used in silver -halide emulsions.

hardcopy: (1) an enlarged reproduction from a microform, usually on paper; (2) a printed copy of a machine output in a readable form, for example, output from a computer printer. Synonymous with printouts.

heading: inscription, readable without magnification, placed in the heading area and used to identify the contents of a microfiche or of a jacket containing microimages.

heading area: the area at the top of a microfiche or jacket reserved for the heading. Synonymous with title area and title space.

heading coating: a translucent coating applied to the whole surface of the heading area to provide a surface that accepts writing.

icon: Symbol or pictorial representation of an object or idea. NOTE: In graphic interfaces, icons represent the different functions and data available to the user and a mouse or other

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pointing device is used to select the desired operation by pointing to one of the icons on the screen.

image: (1) in micrographics, the representation of information produced by radiation. (2) In electronic imaging, digital representation of a document.

image area: (1) part of a recording area reserved for images. (2) Area of a jacket containing film channels for the storage of microfilm images.

image card: aperture card containing imaged microfilm. See also aperture card.

index frame: usually, the first or last frame of a series of images on a microform that records a table of contents or index to facilitate the locating of information within the microform.

indexing: a listing of the contents of a microform.

in-house: within the organization. Expression applied to work such as microfilming or scanning done within an organization, as distinct from work done by a service company.

insert: microfilm strip cut in lengths to fit a jacket, film holder or for stripping up a master microfiche.

ion: atom or molecule that has an electrical charge.

(microfilm) jacket: a transparent plastic carrier with a single or multiple sleeve or pocket made to hold microfilm in flat strips.

jacket filler: device, generally equipped with a positioning screen, that cuts microfilm into strips and inserts them into the film channels of a jacket.

jacket rib: thin adhesive strips that form the channels on some jackets.

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leader: (1) a length of non-microimage-bearing photographic film or other

material at the beginning of a roll of microfilm used for protection and for threading into micrographics equipment such as a camera, projector, or processing machine. (2) An unused or blank length of magnetic tape at the beginning of a reel of tape. The leader precedes the tent of the recorded data.

LE designation: a rating for the "life expectancy" of recording materials and systems. NOTE: The number following the LE symbol is a prediction of the minimum life expectancy in years for which information can be retrieved without significant loss when properly stored, e.g. LE-100 indicates that information can be retrieved after at least 100 years of storage. See also life expectancy.

legend: caption, title or brief description.

lens: one or more pieces of optical glass precisely ground for the purpose of directing light rays by refraction to form an image.

life expectancy: length of time that information is retrievable in a system. See also LE designation.

magnetic tape: a continuous flexible recording medium which has a base material impregnated or coated with a magnetic material, on which data can be stored by selective polarization of portions of the surface.

magnification: apparent enlargement. The ratio of the size of the image to that of the object.

master: (1) Creating of the first recording. A document or microform from which duplicates or intermediates can be obtained.

master film: any film, but usually the camera microfilm, used to produce further reproductions, such as intermediates or distribution copies.

master processing: creation of the first recording (the master) in the CD-ROM replication process.

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media: materials used to store information and data.

media conversion: process of converting information stored on one type of media to another, such as from magnetic tape to optical disk.

medium-term film: (deprecated) See LE designation and life expectancy.

medium term storage conditions: storage conditions suitable for the preservation of recorded information for a minimum of ten years. See also

LE designation and life expectancy.

meter: (1) general term for a measuring instrument. (2) Unit of length in the metric system equal to 100 centimeters (39.37 inches).

micro: (1) in the metric system, prefix meaning one-millionth, as in micrometer (one-millionth of a meter) . (2) Generally, a prefix meaning "small". (3) in photofabrication, involving at least one dimension less than 0.0508 mm (0.002 inch).

microcopy: copy obtained by photography in a size too small to be read without magnification.

microfiche: a transparent sheet of film with microimages arranged in a grid pattern. A heading or number large enough to read without magnification normally appears at the top of the microfiche in a space reserved for this purpose.

microfilm: (1) a fine-grain, high resolution film used to record images reduced in size from the original; (2) a microform consisting of strips of film on rolls that contain multiple microimages; (3) to record microphotographs on film.

microform: a generic term for any form, usually film, which contains microimages.

microform production: process of creating a microform from documents, from another microform or from images stored in an electronic medium (e.g., magnetic tape) and recreated by a transducer such as a CRT (cathode-ray tube) or a computer-output microfilm recorder.

micrographics: techniques associated with the production, handling and use of microforms.

microimage: an image of information too small to read without magnification.

micropublishing: to issue new (not previously published or reformatted) information in microform for sale or distribution.

NBS: National Bureau of Standards.

negative-appearing image: an image in which the lines and characters appear light against a dark background.

notch: a cut-out in either the top or bottom edge of the microform (microfiche, jacket) which is used for indexing, coding or retrieval.

OCR: optical character recognition. A technique by which printed or photographically recorded characters can be rapidly recognized by a combination of scanning techniques and electronic logic and converted by binary digital codes for storage, transmission, etc.

offline: (1) pertaining to equipment or devices not under direct control of the central processing unit; (2) pertaining to equipment or devices not directly linked to a computer-output microfilmer.

online: (1) pertaining to equipment or devices under control of the central processing unit; (2) pertaining to a user's ability to interact with a computer; (3) pertaining to equipment or devices under control of a computer-output microfilmer.

opacity: (1) the ratio of the light level (illuminance) of a sample of film, etc., to the light transmitted by the sample. (2) the characteristic of a material which prevents light from passing through it.

original: a document that may be reproduced.

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pagination: a term referring to the arrangement of pages or microimages of pages on a microform.

planetary camera: a type of microfilm camera in which the document and the film remain stationary during exposure.

polarity: the charge or retention of the dark to light relationship of an image i.e. a first-generation negative to a second-generation positive indicates a polarity change while a first-generation negative to a second-generation negative indicates the polarity is retained.

portable reader: a microform reader of suitable size and weight such that it can be carried by hand.

positive-appearing image: an image in which the lines and characters appear dark against a light background.

print: (1) a reproduction or copy on photographic film or paper; (2) to produce a reproduction or copy on photographic film or paper.

printer: (1) in micrographics, an apparatus that produces hardcopies of microimages at determined enlargement ratios. NOTE: Sometimes equipped with a viewing screen. (2) In electronic imaging, a hardcopy output device.

processing: a series of steps involved in the treatment of exposed photographic material to make the latent image visible and ultimately

usable, e.g., development, fixing, washing, drying.

processor: any machine that performs the various operations necessary to process photographic material, e.g., development, fixing, washing, etc.

pulldown: the distance between the corresponding points on two successive frames.

reader: a device that enlarges microimages for viewing; usually consisting of a light source, illuminating optics, microfilm holder, objective lens and screen.

reader/printer: a device that enlarges microimages for viewing and also has the capability of producing a hardcopy of the enlarged image.

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rear projection: the projection of an image onto a translucent screen from the side opposite to that from which the image is viewed.

reduction: the quotient of a linear dimension of an object and the corresponding linear dimension of the image of the same object expressed as 1:24, 1:48, etc. (often shown as 24X, 48X, etc.)

reel: a flanged holder on which processed roll film is wound, designed to be inserted into readers, reader-printers and retrieval devices.

resolution: the ability of a photographic system to record fine detail.

resolution test chart: a chart containing a number of increasingly smaller resolution test patterns. The pattern is a set of horizontal and vertical lines of specific size and spacing. The National Bureau of Standards (NBS) Microcopy Resolution Chart 1010A is generally used in micrographics.

retrieval coding: the techniques for retrieving specific images or data from microfilm.

roll microfilm: microfilm that is or can be put on a reel, spool or core.

rotary camera: a type of microfilm camera that photographs documents while they are being moved by some form of transport mechanism. The document transport mechanism is connected to a film transport mechanism and the film also moves during exposure, so there is no difference in the rate of relative movement between the film and the image on the document.

semiautomated retrieval: a microform retrieval system in which the user receives mechanical assistance in selecting the appropriate microform from the file and then manually positions the microform for viewing. These systems are usually supported by auxiliary indexes.

shelf life: the period of time before deterioration renders a material unusable.

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silver film: a photographic film containing photosensitive silver compounds suspended in a suitable material. When developed, the image consists of metallic silver.

silver gelatin: a compound of silver and one of the following elements known as halogens: chlorine, bromine, iodine and fluorine.

simplex: a method of recording images in which a single microimage occupies all or part of a major portion of the usable width of the microfilm.

step-and-repeat camera: a type of microfilm camera that can expose a series of separate images on an area of film according to a predetermined format, usually in orderly rows and columns, e.g., microfiche.

step test: (1) a series of exposures made to determine the optimum exposures of either film or paper prints. (2) to test for contrast or latitude, a step tablet is used in a single exposure.

target: a target containing material for checking the quality of microfilm.

ultrafiche: microfiche with images reduced more than 90X.

ultrastrip: short lengths of processed microfilm containing material photographed at high reductions. Ultrastrips are generally produced in a two-step process that consists of filming the material and then refilming this film at higher reductions.

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unitize: (1) to separate a roll of microfilm into individual frames or groups of frames and insert them into a carrier, e.g., aperture cards, jackets; (2) to microfilm on one or more microfiche a unit of information

such as a report, a specification, periodical, etc.

updatable microfilm: a microfilm that permits the addition or deletion of images.

vesicular film: a film in which the light-sensitive component is suspended in a plastic layer. On exposure, the component creates optical vesicles (bubbles) on the layer. These imperfections form the latent image. The latent image becomes visible and permanent by heating the plastic layer and then allowing it to cool.