

Glossary of Film / Video Terms (A-Z)

A

A & B CUTTING. A method of assembling original material in two separate rolls, allowing optical effects to be made by double printing (A and B Printing).

A OR B WIND. When a roll of 16mm film, perforated along one edge, is held so that the outside end of the film leaves the roll at the top and toward the right, winding "A" should have the perforations on the edge of the film toward the observer, and winding "B" should have the perforations on the edge away from the observer. In both cases, the emulsion surface should face inward on the roll.

ADDITIVE COLOR. Color mixture by the addition of light of the three primaries, red, green, and blue.

ADO (Ampex Digital Optics). Trade name for digital effects system manufactured and sold by Ampex.

ADVANCE. The separation between a point on the sound track of a film and the corresponding picture image.

AGC (Automatic Gain Control). A circuit that automatically adjusts audio or video input levels.

ANALOG. An electrical signal that is continuously variable.

ANIMATIC. Limited animation consisting of art work shot and edited to serve as a video tape storyboard. Commonly used for test commercials.

ANAMORPHIC. An optical system having different magnifications in the horizontal and vertical dimensions of the image.

ANSWER PRINT. The first print combining picture and sound submitted by the laboratory for the customers' approval.

APERTURE. Effective Aperture: The apparent diameter of a lens viewed from the position of the object against a diffusely illuminated background, such as a sky. Picture Aperture: The rectangular opening in a metal plate at which each frame of the motion picture film is situated during exposure, printing, or projection. Relative Aperture: The ratio of the focal length of a lens to its effective aperture for an object located at infinity. See f/number.

ASA. Exposure Index or speed rating that denotes the film sensitivity, defined by the American National Standards Institution. Actually defined only for black-and-white films, but also used in the trade for color films.

ASSEMBLY EDIT. An edit wherein all existing signals on a tape, if any, are replaced with new signals. (See also Insert Edit)

AUTO ASSEMBLY. Process of assembling an edited video tape on a computerized editing system, controlled by an edit decision list.

B

BACKING. Anti-halation Backing: A temporary, dark-colored, gelatin coating which is sometimes applied to the rear side of a photographic plate or film to reduce halation by absorbing any light that may pass through the emulsion. Non-Curl Backing: A transparent, gelatin coating, sometimes applied to the opposite side of a photographic film from the emulsion to prevent curling by balancing the forces that tend to curl the film as it is wet and dried during processing.

BASE. The transparent, flexible support, commonly cellulose acetate, on which photographic emulsions are coated to make photographic film.

BI-PHASE. Electrical pulses from the tachometer of a telecine, used to update the film footage encoder for each new frame of film being transferred.

BLANKING. Portions of the video signal during which both camera and receiver complete a scan line (horizontal blanking) or field (vertical blanking), and retrace to begin the next scan.

BLEACH. (1) Converting a metallic silver image to a halide or other salt which can be removed from the film with hypo. When bleaching is not carried to completion, it is called reducing. (2) Any chemical reagent that can be used for bleaching.

BREAK-DOWN. The separation of a roll of camera original negative into its individual scenes.

C

CAMERA LOG. A record sheet giving details of the scenes photographed on a roll of original negative.

CELL SIDE. The base ('Celluloid') surface of a strip of film.

CHANGE-OVER. In projection, the act of changing from one projector to another, preferably without interrupting the continuity of projection; or, the points in the picture at which such a change is made.

CHECKER-BOARD CUTTING. A method of assembling alternate scenes of negative in A and B rolls allowing prints to be made without visible splices.

CHROMAKEY. Electronically matting or inserting an image from one camera into the picture produced by another. Also called "keying." The subject to be inserted is shot against a solid color background. Signals from the two sources are merged through a special effects generator.

CHROMINANCE. The color portion of a video signal.

CINCH MARKS. Short scratches on the surface of a motion picture film, running parallel to its length; these are caused by improper winding of the roll, permitting one coil of film to slide against another.

CINEMASCOPE. Trade name of a system of anamorphic widescreen presentation.

CINEX STRIP. A short test print in which each frame has been printed at a different exposure level.

COMPOSITE PRINT. A motion picture print with both picture and sound on the same strip of film.

COLOR BURST. Sample of the color sub carrier inserted into the horizontal blanking interval at the start of each line of video.

COMPONENT VIDEO. System of signal recording and processing that maintains the original video elements separately rather than combined (encoded) into a single, composite signal.

COMPOSITE VIDEO. A video signal in which the luminance and chrominance elements have been combined, as in NTSC, PAL and SECAM.

CONTRAST. (1) The general term for describing the tone separation in a print in relation to a given difference in the light-and-shade of the negative or subject from which it was made. Thus, "contrast" is the general term for the property called "gamma" (γ), which is measured by making an H & D Curve for the proces under study. (2) The range of tones in a photographic negative or positive expressed as the ratio of the extreme opacities or transparencies or as the difference between the extreme densities This range is more properly described as "scale" or "latitude" (3) The ability of a photographic material, developer, or process as a whole to differentiate among small graduations in the tones of the subject.

CONTROL TRACK. Electronic sprocket holes recorded on video tape to guide the heads and control tape transport during playback.

CRI. Color Reversal Intermediate, a duplicate color negative prepared by reversal processing.

CROSS MOD. A test method for determining the optimum print requirements for a variable area sound track.

CURL. A defect of a photographic film consisting of unflatness in a plane cutting across the width of the film. Curl may result from improper drying conditions, and the direction and amount of curl may vary with the humidity of the air to which the film is exposed.

CUTTING. The selection and assembly of the various scenes or sequences of a reel of film.

D

D-1. Component video in the 19 mm digital cassette format.

D-2: Composite video in the 19 mm digital cassette format,

D-3: Composite video in the half-inch digital cassette format.

D-5: Component video in the half-inch digital cassette format. (There is no D-4 format.)

DAILIES. The first positive prints made by the laboratory from the negative photographed on the previous day.

DENSITY. The negative logarithm to the base ten of the transmittance (or reflectance) of the sample. A sample which transmits 1/2 of the incident light has a transmittance of 0.50. or 50% and a density of 0.30.

DECIBEL: A unit of measure applied to both sound and electrical signals, based on a logarithmic scale. Also referred to as "db's."

DIGITAL: A system whereby a continuously variable (analog) signal is broken down and encoded into discrete binary bits that represent a mathematical model of the original signal.

DISSOLVE A transition between two scenes where the first merges imperceptibly into the second (Lap Dissolve: Mix).

DROP FRAME: A type of SMPTE time code designed to match clock time exactly. Two frames of code are dropped every minute, on the minute, except every tenth minute, to correct for the fact that color frames occur at a rate of 29.97 per second, rather than an exact 30 frames per second (see Non-Drop Frame). Designed to drive editors crazy.

DUBBING The combination of several sound components into a single recording.

DUPE, DUPE NEGATIVE A duplicate negative, made from a master positive by printing and development or from an original negative by printing followed by reversal development.

DVE (Digital Video Effects): Special effects, such as picture compression, rotation, reversal, etc., performed with a digital effects system. Also, the trade name for a video system manufactured by NEC.

E

EBERHARD EFFECT. Another manifestation of adjacency effects. A series of photographic line images of various widths, all exposed with equal intensities. As the lines become narrower, the concentration of reaction products is reduced, and thus the narrower lines develop to a higher density than do the wider lines. This effect would be expected to continue with successive narrowing until one reached the width of the spread function of the system, including film, used to expose the line. Beyond this point, the effects of the spread function of the system dominate, and light scattering decreases the true light exposure in the film, but the size of the image is not smaller than the spread function of the system.

EBR (Electronic Beam Recorder): Exposes film directly using an electronic beam compared to recording from a CRT. (See also Kinescope.)

EDGE NUMBERS. Numbers printed along one edge of a motion picture film outside the perforations to designate the footage.

EDIT SYNC (LEVEL SYNC) (EVEN SYNC). The relation between the picture and sound records during editing, when they are in alignment and not offset as for projection.

EDL (Edit Decision List): List of edits prepared during off-line editing prior to on-line editing.

EMULSION, EMULSION LAYER. (1) Broadly, any light-sensitive photographic material consisting of a gelatin emulsion containing silver halide together with the base and any other layers or ingredients that may be required to produce a film having desirable mechanical and photographic properties (2) In discussions of the anatomy of a photographic film, the emulsion layer is any coating that contains light sensitive silver halide grains, as distinguished from the backing, base, substratum, or filter layers.

ENCODER: A circuit that combines the primary red, green and blue signals into a composite video signal.

EPR (Electronic Pin Register): Stabilizes the film transport of a telecine. Reduces ride (vertical movement) and weave (horizontal movement). Operates in real time. (See also Steady Gate.)

F

f-NUMBER. A symbol that expresses the relative aperture of a lens. For example, a lens having a relative aperture of 4.5 would be marked: f/4.5.

FADE. An optical effect in which the image of a scene is gradually replaced by a uniform dark area, or vice versa.

FAST. (1) Having a high photographic speed. The term may be applied to a photographic process as a whole, or it may refer to any element in the process, such as the optical system, emulsion, developer. (2) Resistant to the action of destructive agents. For example, a dye image may be fast to light, fast to heat, or fast to diffusion.

FIELD: One-half of a television frame, containing all the odd or even scanning lines of the picture.

FILTER LAYERIn a photographic film, a thin, uniform, colored layer that is coated above or below the emulsion to serve as a light filter; it controls the spectral quality of the light reaching the emulsion.

FIXING. The removal of unexposed silver halides from the film during processing.

FLAT. An image is said to be "flat" if its contrast is too low. Flatness is a defect that does not necessarily affect the entire density scale of a reproduction to the same degree. Thus, a picture may be "flat" in the highlight areas, or "flat" in the shadow regions, or both.

FLICKER. The alternation of light and dark periods which can be visually appreciated.

FLUTTER. In sound, rapid period variation of frequency caused by unsteadiness of the film or tape drive.

FOG. Darkening of photographic film by its exposure to undesirable light, or by poor emulsion or improper development.

FOLEY: Background sounds added during audio sweetening to heighten realism, e.g., footsteps, bird calls, heavy breathing, short gasps, etc.

FOOTAGE ENCODER TIME CODE GENERATOR: An electronic device which takes the input from a reader of Keycode numbers, decodes this information and correlates the numbers with the SMPTE time code it generates. These data, along with 3:2 pull-down status of the transfer, footage count, and audio time code (if applicable) are made available for window burn-ins, VITC-LTC recording and output to a computer. (See KODAK Guide to Film and Video Post Production - Publication H-64.)

FORMAT. The size or aspect ratio of a motion picture frame.

FRAME (FILM). The individual picture image on a strip of motion picture film.

FRAME (VIDEO): A complete television picture made up of two fields, produced at the rate of approximately 29.97 Hz (color), or 30 Hz (black & white).

FRAMESTORE: A digital device designed to store and display a single television frame as a "freeze frame." (See also Still Store.)

FREEZE FRAME. An optical printing effect in which a single frame image is repeated so as to appear stationary when projected.

FRONT END. General terms for all production and preparation work up to the Answer Print stage before Release Printing.

G

GATE. The aperture assembly at which the film is exposed in a camera, printer or projector.

GENLOCK: A system whereby the internal sync generator in a device, such as a camera, locks on to and synchronizes itself with an incoming signal.

H

HALATION. A defect of photographic films and plates. Light forming an image on the film is scattered by passing through the emulsion or by reflection at the emulsion or base surfaces. This scattered light causes a local fog which is especially noticeable around images of light sources or sharply defined highlight areas.

HARD. (1) As applied to a photographic emulsion or developer, having a high contrast. (2) As applied to the lighting of a set, specular or harsh, giving sharp dense shadows and glaring highlights.

HARRY. Trade name of a highly sophisticated and versatile digital effects system manufactured by Quantel. Incorporates Quantel's Paintbox digital effects generator.

I

IN THE CAN. Describes a scene or program which has been completed. Also, "that's a wrap."

INSERT EDIT. An electronic edit in which the existing control track is not replaced during the editing process. The new segment is inserted into program material already recorded on the video tape.

INTERLACE. The manner in which a television picture is composed, scanning alternate lines to produce one field, approximately every 1/60 of a second in NTSC. Two fields comprise one television frame. Therefore, the NTSC television frame rate of approximately 30 fps.

INTERMEDIATES. General term for color masters and dupes.

INTER-POSITIVE. A color master positive print.

J

JAM SYNC. Process of synchronizing a secondary time code generator with a selected master time code, *i.e.*, synchronizing the smart slate and the audio time code to the same clock.

K

KEY NUMBER. See EDGE NUMBER.

KEYCODE NUMBERS READER. Device attached to a telecine or part of a bench logger which reads Keycode numbers bar code from motion picture film and provides electronic output to a decoder.

KINESCOPE. A film recording of a video image displayed on a specially designed television monitor. Also called "Kine." Only means of recording TV programs before video recorders and tape were invented.

L

LATENT IMAGE. The invisible image formed in a camera or printer by the action of light on a photographic emulsion.

LATITUDE. In a photographic process, the range of exposure over which substantially correct reproduction is obtained. When the process is represented by an H & D curve, the latitude is the projection on the exposure axis of that part of the curve which approximates a straight line with-in the tolerance permitted for the purpose at hand.

LAYBACK. Transferring the finished audio track back to the master video tape.

LEADER. Any film or strip of material used for threading a motion picture machine. Leader may consist of short lengths of blank film attached to the ends of a print to protect the print from damage during the threading of a projector, or it may be a long length of any kind of film which is used to establish the film path in a processing machine before the use of the machine for processing film.

LIQUID GATE. A printing system in which the original is immersed in a suitable liquid at the moment of exposure in order to reduce the effect of surface scratches and abrasions.

LOW KEY. A scene is reproduced in a low key if the tone range of the reproduction is largely in the high density portion of the H & D scale of the process.

LTC (Longitudinal Time Code). Time code recorded on one of the audio channels of video tape. Requires tape movement to read. (See also VITC.)

LUMINANCE. The monochrome (high resolution) portion of a video signal.

M

MATCH FRAME EDIT. An edit in which the source and record tapes pick up exactly where they left off. Often used to extend a previous edit. Also called a "tracking edit."

MATTE. An opaque outline which limits the exposed area of a picture, either as a cut.out object in front of the camera or as a silhouette on another strip of film.

MOS. Slang for silent shooting. From the slang German "mit out sprechen" ("without talking." The correct German phrase would be "ohne sprechen.")

MULTIPLEXER. Device or circuit used for mixing television signals to a single video recorder.

N

NON-DROP FRAME. A type of SMPTE time code that continuously counts a full 30 frames per second. As a result, non-drop-frame time code does not exactly match real time. (See also Drop Frame.)

NTSC: National Television Standards Committee: Committee that established the color transmission system used in the U.S. and some other countries. Also used to indicate the system itself, consisting of 525 lines of information, scanned at approximately 30 frames per second.

O

OFF-LINE. Preliminary editing done on relatively low-cost editing systems, usually to provide an EDL for final on-line editing and assembly of the finished show.

ON-LINE. Final editing or assembly using master tapes to produce a finished program ready for distribution. Often preceded by off-line editing, but in some cases programs go directly to the on-line editing suite. Usually associated with high-quality computer editing and digital effects.

OPTICAL EFFECTS. Trick shots prepared by the use of an optical printer in the laboratory, especially fades and dissolves.

OPTICAL SOUND. A sound track in which the record takes the form of variations of a photographic image.

OUT-TAKE. A take of a scene which is not used for printing or final assembly in editing.

OVERCOAT. A thin layer of clear or dyed gelatin sometimes applied on top of the emulsion surface of a film to act as a filter layer or to protect the emulsion from abrasion during exposure and processing.

P

PAINTBOX. Trade name of a computer graphics system manufactured by Quantel. Used to create two-dimensional graphics, transpose and transform objects and change colors. The computer graphics generator for Quantel's Harry system.

PAL (Phase Alternation by Line). Color television system developed in Germany, and used by many European and other countries. PAL consists of 625 lines scanned at a rate of 25 frames per second.

PERFORATIONS. Regularly spaced and accurately shaped holes which are punched throughout the length of a motion picture film. These holes engage the teeth of various sprockets and pins by which the film is advanced and positioned as it travels through cameras, processing machines, and projectors.

PITCH. (1) That property of sound which is determined by the frequency of the sound waves. (2) Distance from the center of one perforation on a film to the next; or from one thread of a screw to the next; or from one curve of a spiral to the next.

PROTECTIVE MASTER. A master positive from which a dupe negative can be made if the original is damaged.

PULL-DOWN. The telecine transfer relationship of film frames to video fields. Film shot at 24 fps is transferred to 30 fps NTSC video with an alternating two-field/three-field relationship.

Q

R

RACK. A frame carrying film in a processing machine.

RASTER. The scanned area comprising the active portion of a video signal displayed on a cathode ray tube (CRT).

REDUCTION PRINTING. Making a copy of smaller size than the original by optical printing.

REGISTRATION. The accurate positioning of film or the images formed on it.

RELEASE PRINT. In a motion picture processing laboratory, any of numerous duplicate prints of a subject made for general theater distribution.

RETICULATION. The formation of a coarse, crackled surface on the emulsion coating of a film during improper processing. If some process solution is too hot or too alkaline, it may cause excessive swelling of the emulsion and this swollen gelatin may fail to dry down as a smooth homogeneous layer.

REVERSAL PROCESS. Any photographic process in which an image is produced by secondary development of the silver halide grains that remain after the latent image has been changed to silver by primary development and destroyed by a chemical bleach. In the case of film exposed in a camera, the first developer changes the latent image to a negative silver image. This is destroyed by a bleach and the remaining silver halide is converted to a positive image by a second developer. The bleached silver and any traces of halide may now be removed with hypo.

RGB. Red, green & blue, the primary color components of the additive color system used in color television.

RIPPLE. Automatic updating of an EDL after a length-altering edit. "Ripple the list."

S

SAFETY FILM. A photographic film whose base is fire-resistant or slow burning. At the present time, the terms "safety film" and "acetate film" are synonymous.

SECAM (Systeme Electronique Pour Colour Avec Memoire). The color television system developed in France, and used there and in most of the former communist-block countries and a few other areas including parts of Africa.

SENSITOMETER. An instrument with which a photographic emulsion is given a graduated series of exposures to light of controlled spectral quality, intensity, and duration. Depending upon whether the exposures vary in brightness or duration, the instrument may be called an intensity scale or a time scale sensitometer.

SKIP FRAME An optical printing effect eliminating selected frames of the original scene to speed up the action.

SOFT. The opposite of "hard". (1) As applied to a photographic emulsion or developer, having a low contrast. (2) As applied to the lighting of a set, diffuse, giving a flat scene in which the brightness difference between highlights and shadows is small.

SPLICE. Anytype of cement or mechanical fastening by which two separate lengths of film are united end-to-end so they function as a single piece of film when passing through a camera, film processing machine, or projector.

SPROCKET. A toothed driving wheel used to move film through various machines by engaging with the perforation holes.

STEADY GATE. A pin-registered device manufactured by Steady Film for precise telecine transfers. Provides more stable images than EPR, but does not operate in real time.

STEP PRINTER. A printer in which each frame of the negative and raw stock is stationary at the time of exposure.

STILL STORE. Device which stores individual video frames, either in analog or digital form, allowing extremely fast access time.

STRIP. Part of a wide roll of manufactured film slit to its final width for motion picture use.

STRIPE. A narrow band of magnetic coating or developing solution applied to a length of motion picture film.

SWEETENING. Audio postproduction, at which time minor audio problems are corrected. Music, narration and sound effects are mixed with original sound elements.

SWITCHER. Device with a series of input selectors that permits one or more selected inputs to be combined, manipulated and sent out on the program line.

SYNC, SYNCHRONIZATION. Two picture records or a picture record and a sound record are said to be "in sync" when they are placed relative to each other on a release print so they can be projected in correct temporal or spacial relationship. When this condition is not met, the two records are said to be "out of sync."

T

TAKE. When a particular scene is repeated and photographed more than once in an effort to get a perfect recording of some special action, each photographic record of the scene or of a repetition of the scene is known as a "take." For example, the seventh scene of a particular sequence might be photographed three times, and the resulting records would be called: Scene 7, Take 1; Scene 7, Take 2; and Scene 7, Take 3.

TBC (Time Base Corrector): An electronic device with memory and clocking circuits to correct video signal timing errors which affect image stability and color when editing from multiple video tape sources.

TELECINE: Device for transferring motion picture film to video tape.

THIN. As applied to a photographic image, having low density.

TIME CODE: A frame numbering system adopted by SMPTE that assigns a number to each frame of video which indicates hours, minutes, seconds and frames (e.g., 01:42:13:26).

TIMING. The process of selecting the printing values for color and density of successive scenes in a complete film to produce the desired visual effects.

TRAVELLING MATTE. A process shot in which foreground action is superimposed on a separately photographed background by optical printing.

TYPE C: SMPTE standard for 1-inch non-segmented helical video recording format.

U

U-MATIC: Trade name for 3/4-inch video cassette system originally developed by Sony. Now established as the ANSI (American National Standards Institute) Type F video tape format.

ULTIMATE: Trade name of a high-quality special effects system similar in application to a chromakey switcher. Electronic implementation of the "blue screen" used for motion picture special effects.

UNDERSCAN: Reducing height and width of the picture on a video monitor so that the edges, and thus portions of the blanking, can be observed.

UNSCQUEEZED PRINT. A print in which the distorted image of an anamorphic negative has not been corrected for normal projection.

USER BITS: Portions of VITC and LTC reserved for recording information of the user's choosing, e.g., Keycode numbers, footage count, etc.

V

VECTORSCOPE: An oscilloscope designed for television which is used to set up and monitor the chrominance portion of a video signal. See, also, waveform monitor.

VERTICAL INTERVAL: Indicates the vertical blanking period between each video field. Contains additional scan lines above the active picture area into which non-picture information (captioning, test and control signals, user bits) can be recorded.

VERTICAL SYNC: Synchronizing pulses used to define the end of one television field and the start of the next, occurring at a rate of approximately 59.94 Hz (color), and 60 Hz (black & white).

VISION MIXER: British video switcher.

VITC (Vertical Interval Time Code): Time code recorded in the vertical blanking interval above the active picture area. Can be read from video tape in the "still mode."

W

WAVEFORM MONITOR: Oscilloscope designed for television which looks at luminance and all other parts of the composite video signal. See, also, vectorscope.

WEAVE Periodic sideways movement of the image as a result of mechanical faults in camera, printer or projector.

WET-GATE PRINTING. A system of printing in which the original is temporarily coated with a layer of liquid at the moment of exposure to reduce the effect of surface faults.

WIDESCREEN. General term for form of film presentation in which the picture shown has an aspect ratio greater than 1'33:1.

WINDOW DUB: "Burned-in windows," usually on a video workprint, displaying Keycode numbers and time code, footage count, audio time code, scene, take, etc. (May also be burned in.)

WIPE. Optical transition effect in which one image is replaced by another at a boundary edge moving in a selected pattern across the frame.

WORK PRINT. In a motion picture studio or processing laboratory, a rough print of a motion picture film used for editing and study of action and continuity.

X

Y

Z