Digital Post Services

# Glossary of Terms

**A & B roll:** Two film or video sources played simultaneously, to be mixed or cut between.

**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.

**Active Picture Area:** The part of a TV picture that contains actual picture as opposed to sync or other data. Vertically the active picture area is 576 lines for **PAL** and 486 lines for **NTSC**. The inactive area is called blanking.

**AES/EBU:** The digital audio standard set by the Audio Engineering Society and European Broadcast Union and used by most forms of digital audio.

**AFM:** See **Audio Frequency Modulation**. American Film Market (Loews Hotel, Santa Monica).

**AGC:** See **Automatic gain control**.

**Aliasing:** Undesirable jagged edge in a picture caused by a low sampling frequency or poor filtering.

**Ambient sound:** Natural background audio representative of a given recording environment. On-camera dialogue may be thought of as primary sound, where traffic noise and refrigerator hum would be ambient.

**Analogue:** A signal represented by a variable voltage.

**Anamorphic:** 1 An optical system having different magnifications in the horizontal and vertical dimensions of the image, feature films typically using 2x anamorphic

lenses for 2.35 widescreen presentations. 2. An electronic method of 'squashing' the picture, usually by flicking a switch on a camera resulting in a 16:9 picture into a 4:3 frame, also known as FHA.

**Animation:** A phenomena relying on our persistence of vision whereby still progressive images displayed in rapid succession create the illusion of movement.

**Animation camera:** See **rostrum camera**.

**Answer print:** The first print of a finished film, taken from a cut negative.

**Anti aliasing:** The mathematical process and technique to reduce the effect of aliasing by interpolating pixels of intermediate color along displayed edges.

**Aperture:** See **iris**.

**Artifact:** An undesirable visual effect caused by an error or limitation in the system.

**Artificial light:** Man-made illumination such as tungsten bulbs, fluorescent strips, electric torches, car headlights etc. Has lower color temperature than natural light and thus more reddish qualities.

**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.

**Aspect ratio:** Proportion of width to height of picture. Current standard for television receivers and monitors is 1.33:1 (4x3) and 1.77:1 (16x9) for widescreen and **HDTV**. Typical cinema aspect ratios are 1.85:1 for UK/USA, 1.75:1 for the rest of Europe and 2.35:1 for anamorphic widescreen presentations.

**ARC:** Aspect Ratio Conversion The process of converting from one aspect to another.

**Assemble edit**: An edit wherein all existing signals on a tape, if any, are replaced with new signals. (See **insert edit**).

**Audio Frequency Modulation:** Method of recording hi-fi audio on videotape along with video signals.

**Audio mixer:** Device with user-adjustable controls to blend multiple sound inputs into desired composite output.

**Auto assembly**: Process of assembling an edited video tape on a computerized editing system, controlled by an edit decision list (See **EDL**).

**Autocue:** A brand of **video prompter**.

**Automatic exposure:** Circuitry that monitors light levels and adjusts the camera's iris accordingly, compensating for changing light conditions.

**Automatic gain control:** Camcorder circuitry that adjusts incoming signal levels automatically, alleviating excessive image brightness and distortion of loud sound.

**Available light:** Amount of illumination normally present in a particular environment.

**Avid:** Industry standard non linear off line editing system based on Apple Macintosh computers.

# B

**B-Mode Edit**: An editing method where the footage is assembled in the order it appears on the source reels. Missing scenes are left as black holes to be filled in by a later reel. Requires fewer reel changes and generally results in a faster edit session.

**Back light:** Illumination from behind, creates sense of depth by separating foreground subject from background area. Applied erroneously, causes severe silhouetting. (See **fill light**, **key light**, **three point lighting**).

**Bandwidth:** The amount of information that can be passed in a given time. The larger the bandwidth, the greater the picture detail. Usually measured in Megahertz (MHz).

**Barndoors:** Accessory for video lights, two or four folding flaps that control light distribution.

**Best Boy:** Film crew member assisting the **Gaffer.**

**Betacam:** Broadcast quality component analogue 1/2"" videotape cassette system. Also improved Betacam SP and Digital Betacam.

**Betamax:** More commonly known as Beta, a half-inch videotape format developed by Sony, eclipsed by the VHS format in home video market popularity.

**Bidirectional:** Microphone pickup pattern whereby sound is absorbed equally from two sides only. (See **omnidirectional**, **unidirectional**).

**Bi-pack:** Two pre-filmed images sandwiched together, both being apparently 100%.

**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.

**Bit:** A single element (1 or 0) of digital information.

**Bit Rate:** The amount of data transported in a given amount of time, usually defined in Mega (Million) bits per second (Mbps). Bit rate is one means used to define the amount of compression used on a video signal.

**Bit Stream:** A continuous series of bits. Commonly used to describe a large file such as **MPEG** video that is read as a stream instead of all at once.

**BITC:** Burned-in-time-code. Time code numbers superimposed on the picture giving a frame-by-frame picture reference.

**Blanking:** The part of the video signal that contains no picture information. This is the time that the scanning beam in a TV picture tube is blanked to allow it to track back to the beginning without drawing diagonal lines across the screen.

**Bleeding:** Video image imperfection characterized by blurring of color borders; colors spill over defined boundaries and "run" into neighboring areas.

**Blimp:** Soundproof cover put around noise generating equipment during shooting, especially cameras.

**Blue screen:** Foreground subject is shot against a plain blue screen, on film or video, so that background images can be added electronically in post production. Blue is chosen as it is the least naturally occurring color in flesh tones. (See **chromakey**)

**BMP:** The standard Windows bitmap image format on DOS and Windows compatible computers.

**BNC:** Bayonet Fitting Connector. Durable cable connector for transfer of high-frequency composite video in/out signals. Connects with a push and a twist.

**Boom:** Extension arm used to suspend a microphone or camera over subject being recorded.

**Booming:** Camera move above or below subject with aid of a balanced boom arm, creating a sense of floating around a scene. Can combine effects of **panning**, **tilting**, and **pedding** in one fluid movement.

**Bug:** An error in a computer program.

**Bump map:** A computer graphics term - to apply an image texture that influences the shading of an object, e.g. giving an appearance of roughness or texture.

**Burned in Time Code:** See **BITC**.

**Byte:** 8 bits. The combination of 8 bits into 1 byte allows each byte to represent 256 possible values. (See **Megabyte**, **Gigabyte**, **Terabyte**)

# C

**Camera tapes:** The master videotapes shot on location. Also called **rushes**.

**Cameo lighting:** Foreground subjects illuminated by highly directional light, appearing before a completely black background.

**Cannon:** See **XLR.**

**Cardioid:** The most common type of unidirectional microphone; pickup pattern resembles a heart-shaped figure.

**CBR:** Constant Bit Rate. **MPEG** video compression where the amount of compression does not change.

**CC:** See **Closed Captioning**.

**CCD:** Charged Coupled Device. Light-sensitive computer chip in video cameras that converts images into electrical flows.

**CD-ROM:** Compact Disc Read Only Memory. Physically identical to a Digital Audio Compact Disc used in a CD player, but the bits recorded on it are interpreted as computer data instead of music.

**CD-R:** Compact Disc Recordable. A WORM (Write Once Read Many) disc, usually gold in coloration, used to transport large volumes of recordable data (650Mb). Kodak's PhotoCD system is an example of the recordable CD format.

**Cel animation:** Traditional hand animation on acetate cels which produces moving images when shot frame by frame on to film or video.

**Cell compression:** A compression technique developed by Sun Microsystems, Inc.

**Character generator:** Device which electronically produces letters, numbers, symbols, and other graphic displays for on-screen video titling.

**Chroma:** The color component in a composite coded signal. From Greek khrõma (color).

**Chromakey:** Technique which allows a vision mixer to substitute a saturated color (usually blue or green) in a picture for another picture source. (See **blue screen**).

**Chroma format:** Defines the number of chrominance blocks in a macroblock.

**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:** A system of anamorphic widescreen presentation with an aspect ratio of 2.35:1, developed by Twentieth Century Fox in the fifties.

**Clapperboard:** Identification slate with hinged, striped top that smacks together for on-camera scene initiation. Originally used to synchronize movie sound with picture, it is more often being replaced with a **digislate** device.

**Closeup:** Tightly framed camera shot in which subject is viewed at close range, appearing relatively large and dominant on screen. Extent of view may be designated "medium closeup" or "extreme closeup". (See **medium shot**, **long shot**).

**Closed Captioning:** American term for **teletext** often abbreviated to CC. A ROM chip within the TV receiver converts lines of **VITC** into a burned in picture subtitle display, often for the convenience of the hard of hearing.

**Critical area:** See **safe title area**.

**Color bars:** Standard test signal containing samples of primary and secondary colors, used as reference in aligning color video equipment.

**Color correction:** Process to create "looks" and color balance the image at the telecine stage or later after an edit as a **mastergrade**. The most sophisticated tools are available at the telecine stage although most graphics and edit suites have some form of color correction tools.

**Color temperature:** Relative amount of "white" light's reddish or bluish qualities, measured in degrees Kelvin.

**Component:** A matrix, block or single pel from one of the three matrices (luminance and two chrominance) that make up a picture.

**Component video:** A video signal in separate component parts, chrominance and luminance. Unlike composite systems, component signals retain maximum bandwidth, therefore reducing loss in quality.

**Composite video:** A video signal in which both chrominance and luminance information are combined, using one of the television coding standards **PAL**, **NTSC**.

**Compositing:** The generic name given to the method of layering multiple pictures on top of each other to create a special effect.

**Composition:** Visual makeup of a picture, including such variables as balance, framing, field of view, texture -all aesthetic considerations. Combined qualities form an image that's pleasing to view, and effectively communicates.

**Compression:** The process of reducing the size of digital information, usually by throwing out redundant information, or calculation, making it possible to store reasonably large amounts of video on a hard disk. Compression techniques are distinguishes by whether they remove color and detail from an image. Lossless techniques such as **RLE** compress data without removing detail. Lossy techniques such as **JPEG** compress images by removing detail.

**Compression Ratio:** The ratio of the amount of data in the original video compared to the amount of data in the compressed video. The higher the ratio the greater the compression.

**Condenser:** Microphone with built-in amplifier, the type installed on camcorders. Also called capacitor or electret condenser, requires battery or external power source.

**Continuity:** (1) Logical succession of recorded or edited events, necessitating consistent placement of props, positioning of characters, and progression of time. (2) Consistency in camera to subject relationships, to avoid confusing a viewer's perspective.

**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" (Y), which is measured by making an H & D curve for the process 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.

**CPU:** Central processing unit. The computer's "brain".

**Crab:** Shifting a camera or microphone sideways.

**Crawl:** Text or graphics that move across screen horizontally, typically produced with a character generator. (See **roll**).

**Cross fade:** Simultaneous fade in of one audio source or lighting effect as another fades out; may overlap temporarily. Transition analogous to video dissolve.

**CRT:** Cathode Ray Tube. The technical name for a television picture tube or the scanning tube in a flying spot telecine.

**Cucalorous:** Lighting accessory consisting of random pattern of cutouts that forms shadows when light passes through it. Used to imitate shadows of natural lighting. Also known as a cookie.

**Cue:** (1) Signal to begin, end, or otherwise influence on-camera activity while recording. (2) Presetting specific starting points of audio or video material so it's available for immediate and precise playback when required.

**Cut:** (1) Instantaneous change from one shot to another. (2) Director's command to immediately terminate on camera action and recording.

**Cutaway shot:** Other than principal action (but peripherally related), frequently used as transitional footage or to avoid a jump cut.

**Cutout:** See **matte**.

**Cuts only editing:** Editing limited to immediate shifts from one scene to another, without smoother image transition capabilities such as dissolving or wiping.

**Cyclorama:** A curtain, back cloth or wall around the inside of a studio.

# D

**D1:** Digital video tape format using the **CCIR-601** standard to record **4:2:2** component video on 19mm tape. Currently the highest quality video tape format generally available. The first digital video tape format, hence D1.

**D2:** Digital video tape format using the **4 fsc** method to record composite digital video on 19mm cassettes similar to D1. Superior quality to 1 inch and Betacam, with fast performance. The second digital video tape format, hence D2 (See **composite**).

**D3:** Digital video tape format using **4 fsc** composite signals like D2.

**D5:** Digital video tape format using **CCIR-601**, **4:2:2** video.

**D16:** A format to store film resolution images on D1 format tape recorders. Records one film frame in the space normally used for 16 video frames.

**DA:** See **distribution amplifier**.

**Dailies:** The first positive prints made by the laboratory from the negative photographed on the previous day.

**DAT:** Digital Audio Tape cassette format.

**Data:** The information stored, manipulated and transmitted in the digital realm as binary digits.

**Da Vinci:** Telecine suite control system, providing both primary and secondary color correction for film and tape-to-tape grading. Now known as **DUI**.

**DCP:** See **mastergrade**.

**DCT:** Discrete Cosine Transform. A widely used method of video compression. Also an Ampex **CCIR-601** digital VTR using **DCT** to compress the video before recording it to tape.

**Decibel (Db):** Measure of audio signal strength based on a logarithmic scale. Also the unit of measure for sound pressure level (loudness).

**Depth of field:** Area in which all objects, located at different distances from the camera, appear in focus. Varies with subject-to-camera distance, focal length of camera lens, and camera's aperture setting.

**Diffused light:** Illuminates relatively large area indistinctly; often created with floodlights, producing soft shadows. (See **directional light**).

**Diffuser:** Gauze or translucent material that alters the quality of light passing through it to produce less intense, flatter lighting with weaker, less noticeable shadows.

**Diffusion filter:** Mounted on the front of camera lens, or interrupting telecine's light path, giving images a foggy, fuzzy, dreamy look.

**Digislate:** Electronic slateboard device that displays timecode when activated and is used for sync sound purposes. (See **clapperboard). Same as: Smart Slate**

**Digital:** Electronic signal in the form of numeric representation of pictures or audio, i.e. ones and zeros.

**Digital audio:** Sound that has been converted to digital information.

**Digital Betacam:** Popular Component 10 bit DVTR using 2:1 compression.

**Digital compositing:** Separate elements scanned and manipulated within a computer environment.

**Digitization:** The process of converting a continuous analogue video or audio signal to digital data (ones and zeros) for computer storage.

**Directional light:** Illuminates relatively small area with distinct light beam usually created with a spotlight, yielding harsh defined shadows. (See **diffused light**).

**Dissolve:** Transitional effect where one picture slowly fades out as the second fades in. The process which allows one shot to melt into another.

**Distribution amplifier:** Divides single video or audio signals, while boosting their strength, for delivery to multiple audio/video acceptors. Allows simultaneous recording from same source, especially useful for tape duplication.

**DLT:** A high capacity data tape format.

**Dolly:** Camera support mounted on wheels enabling smooth movement in any direction.

**Dollying:** Camera movement toward or away from a subject. Effect may appear same as zooming, which reduces and magnifies the image, but dollying in or out maintains perspective while changing picture size.

**Drop out:** Momentary loss of signal on a video tape, showing up as randomly occurring white spots on the picture, a result of minute bare spots on a tape's magnetic particle coating, or tape debris covering particles and blocking signals.

**DTV:** (1) Digital Television. Another acronym for the new digital television standards. (See **HDTV)**. (2) Also an older acronym for **desktop video**.

**Dub:** (1) Process or result of duplicating a videotape in its entirety. (2) Editing technique whereby new audio or video replaces portion(s) of existing recording.

**Dupe neg:** Duplicate Negative. Safety copy of a master film negative, used for producing prints to avoid putting the master negative at risk.

**DVD:** Digital Video Disk. Also Digital Versatile Disk. A format for putting full length movies on a 5" CD using MPEG-2 compression for "better than VHS" quality.

**DVD-ROM:** DVD disks for computers. Expected to eventually replace the conventional CD-ROM. The initial version stores 4.7GB on one disk. DVD-ROM drives for computers will play DVD movie disks.

**DVTR:** Digital Video Tape Recorder. Multiple generations or passes on DVTR's do not suffer from tape noise degradation associated with analogue tape formats. (See **D1**).

**Dynamic:** Microphone type, also called moving coil. Works much like a loudspeaker in reverse, employing a simple magnet and wire coil to convert sound waves into an electrical signal.

# E

**8mm:** Compact videocassette format, popularized by camcorders, employing 8mm wide videotape. (See **Hi8**, **Exabyte**).

**Edge numbers:** Numbers printed along one edge of 16 and 35mm motion picture film at one foot intervals outside the perforations to designate the footage and allows frames to be identified in an edit list.

**Edit:** The assembling of a commercial, music video etc, by transposing or combining separate recorded sequences, either physically by cutting film or electronically by selective copying from videotape.

**Edited master:** See **master**.

**EDL:** Edit Decision List. Computer file usually saved to a PC formatted floppy disk containing edit points of an off-line editing session to be used in an on-line editing session.

**Effects animation:** Hand drawn effects such as lightning bolts, pixie dust and shadows usually done as cel animation.

**Eight perf:** 35mm film format used for effects work. The film passes through the camera horizontally in similar fashion to a stills camera resulting in a high quality format providing twice as much negative area at a higher resolution than conventional 35mm. (See **VistaVision**).

**Electret condenser:** Microphone type incorporating a precharged element, eliminating need for bulky power sources. (See **condenser**).

**Emulsion:** The light sensitive silver halide layer(s) that coat the film's surface. Color film stocks have three such layers, each sensitive to Red, Green and Blue light, and are applied to a cellulose acetate or polyester base.

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

**Enhancer:** See **image enhancer**.

**EPS:** Encapsulated postscript. Industry standard file format for DTP/design developed by Adobe systems. EPS files can contain both vector and bitmap graphics.

**Equalization:** Emphasizing specific audio or video frequencies and eliminating others as signal control measure, usually to produce particular sonic qualities. Achieved with an equalizer.

**Establishing shot:** Opening picture of a program or scene. Usually a wide or distant perspective, orientates viewer to overall setting and surroundings.

**Exabyte:** 8mm cassette based data archive format. Popular for storing graphics files due to it's low cost and high capacity (commonly 8GB, but new models hold up to 40GB).

**Extra:** Accessory talent not essential to a production, assuming some peripheral on-camera role. In movie work, performers with fewer than five lines are called "under fives".

# F

**4 fsc:** Composite Digital video as used in D2 and D3 VTRs. Stands for 4 times the Frequency of Subcarrier, which is the sampling rate used.

**4K:** Common abbreviation for a film image scanned into a computer file at a horizontal resolution of 4096 pixels.

**4:2:2:** The sampling ratio used in the D1 (**CCIR-601**) digital video signal. For every 4 samples of luminance there are 2 samples each of R-Y (Red minus Luminance) and B-Y (Blue minus luminance).

**4:4:4:** The best available digital picture standard, with double the color resolution of **4:2:2**, providing sharper images and better **chromakeying**.

**4:3** The aspect ratio of traditional television, 4 horizontal to 3 vertical units. Also know as 12:9
and 1.33:1.

**14:9** A "middle ground" solution used to display 16:9 images on a 4:3 set. The format is not anamorphic but is a 4:3 picture with a 1.55:1 letterbox. The edges of the 16:9 image are lost, but not as much as if a 4:3 picture was just cut from the center. The aspect that the ITV network will broadcast on their analogue service from July 1st 2000. see **C DAY**.

**15:9** The aspect of Super 16mm film and sometimes used as a universal mastering format for drama that is originated on Super16mm. Program are transferred 15:9 anamorphic and all other formats are derived from this at master body stage.1.66:1

**16 x 9** The aspect ratio of native HD TV. 1.78:1.

**525:** This is the American standard of TV line resolution, specifying the number of horizontal lines that makes up the TV picture.

**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.

**f-stop:** Theoretical calibration of lens aperture. The higher the number, the less light enters.

**Fade:** A controlled gradual reduction or increase of a visual image/audio signal.

**Feed:** Act or result of transmitting a video signal from one point to another.

**Feedback:** (1: video) Infinite loop of visual patterns from signal output being fed back as input; achieved by aiming live camera at receiving monitor. [2: audio] Echo effect at low levels, howl or piercing squeal at extremes, from audio signal being fed back to itself; achieved by aiming live microphone at receiving speaker.

**FHA:** Full Height Anamorphic. The method of electronically 'squashing' a 16:9 picture into a 4:3 frame.

**Field:** Half a scanning cycle. Two fields comprise a complete video **frame**.

**Field of view:** Extent of a shot that is visible through a particular lens; its vista.

**Fill light:** Supplementary illumination, usually from a floodlight positioned midway between camera and subject, which lightens or eliminates shadows created by key light. (See **back light**, **key light**, **three point lighting**).

**Film opticals:** See **opticals**.

**Film style:** Out of sequence shooting approach, to be edited in appropriate order at post-production stage. Advantageous for concentrating on and completing recording at one location at a time, continuity and convenience assured.

**Filmstrip:** A format used for RGB animation or movie files created by Adobe Premiere, a powerful desktop computer editing program.

**Filter:** (1) Transparent material, typically a glass accessory, mounted at front of camera lens to regulate light passing through, manipulating colors and image patterns, often for special effect purposes. (2) Software that applies a special effect to an image.

**Flare:** Bright flashes and/or extreme contrast reduction evident in picture, caused by excessive light beaming into a camera lens and reflecting off its' internal glass elements.

**Flat lighting:** Illumination characterized by even, diffused light without shadows, highlights, or contrast. May impede viewer's sense of depth, dimension, and drama.

**Floodlight:** Radiates a diffused, scattered blanket of light with soft, indistinct shadows. Best used to spread illumination on broad areas, whereas spotlights focus on individual subjects.

**Fluid head tripod:** Mount type containing viscous fluid which lubricates moving parts and dampens friction. Design facilitates smooth camera moves, alleviates jerkiness. (See **friction head**).

**Focal length:** Distance from a camera's lens to a focused image with the lens focused at infinity. Short focal lengths offer a broad field of view (wide-angle); long focal lengths offer a narrow field of view (telephoto). Zoom lenses have a variable focal length. The distance from the centre of the lens (the nodal point) to the focal plane, the CCD image sensor (in video cameras), or the photographic plate.

**Follow focus:** Controlling lens focus so that an image maintains sharpness and clarity despite camera and/or subject movement.

**Font:** Also spelt fount, a style of lettering used in character generators.

**Forced perspective:** The creation of realistic depth of field in a limited space by clever or combined use of set design, miniatures and props placement. The placing of smaller objects behind larger foreground objects.

**Format:** Videotape and video equipment design differences, physical and technical, dictating compatibility and quality. In the most basic sense, refers to standardized tape widths and videocassette sizes. (See **Betacam**, **D1**, **U-Matic**, **VHS**).

**FPS:** Frames Per Second. The rate at which a movie camera exposes film. A rate of 24 fps is the accepted rate for motion picture work, 25 fps for European television, and 30 for US Television.

**Frame:** Single television frame or film image. In European television 25 frames per second are scanned to give an illusion of continuous movement, 30 in one second of American television. Each frame is composed of 2 fields.

**Framestore:** Common term applied to solid state storage devices. Technically the term implies storage of one complete video frame, but the term is also used more generically to describe storage of any amount of video from a few lines to many frames.

**Framing:** Act of composing a shot in the camera viewfinder for desired content, angle, and field of view. Overall composition.

**Freeze frame:** Single frame paused and displayed for an extended period during video playback; suspended motion perceived as still snapshot.

**Frequency:** Number of vibrations produced by a signal or sound, usually expressed as cycles per second, or **hertz** (Hz).

**Frequency response:** Measure of the range of frequencies a medium can respond to and reproduce. Good video response maintains picture detail; good audio response accommodates the broadest range, most exacting sound.

**Friction head tripod:** mount type with strong spring that counterbalances camera weight, relying on friction to hold its position. More appropriate for still photography than movement-oriented video making. (See **fluid head**).

**Front projection:** An in-camera effects technique for the projection of background plates onto a highly reflective screen placed at the back of a set. The plate is projected along the same optical path as the taking camera with the aid of a beam splitter. (See also **rear projection**).

**Full-motion video:** A standard for video playback on a computer; refers to smooth-flowing, full color video, similar to a video recording or television. Also known as full- screen, full color or true-color video.

**FX:** See **special effects**.

# G

**Gaffer:** Production crew technician responsible for placement and rigging of all lighting instruments.

**Gain:** Video amplification, signal strength. "Riding gain" means varying controls to achieve desired contrast levels.

**Garbage matte:** Simple rough **matte** used to remove unwanted parts of a scene.

**Gate:** Part of a film camera, projector or Telecine where the film is held steady during exposure.

**Gel:** Colored filter placed in front of a light source to alter its hue. Useful for correcting mismatches in lighting, as in scenes lit by both daylight and artificial light.

**Generation loss:** Degradation in picture and sound quality resulting from duplication of original master video recording. Copying a copy and all successive duplication compounds generation loss.

**Generations:** The number of times a video clip is copied or processed. In analog systems, extensive efforts are made to keep generations to a minimum, as each copy adds noise. Digital systems can still exhibit generation loss as well.

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

**Ghosting:** Undesirable faint double screen image caused by signal reflection or improperly balanced video circuitry. "Ringing" appears as repeated image edges.

**GIF:** Graphics Interchange Format. A file format enabling pictures with a reduced color palette to be placed in HTML documents. Typically used for the World Wide Web and other online services.

**Gigabyte (Gb):** 1 Billion bytes.

**Glitch:** Transient interruption to a signal or data.

**Grading:** The process of adjusting picture color from scene to scene, either from film or tape. (See **color correction**).

**Grain:** Blanketed signal noise viewed as fuzziness, unsmooth images attributable to luminance inadequacies.

**Green screen:** Green color used for compositing where blue may cause a problem. (See **blue screen**).

**Grip:** Production crew stagehand responsible for handling equipment, props, and scenery before, during, and after production.

**Group of Pictures (GOP):** The group of I, B and P frames required to make a complete MPEG sequence. A typical MPEG GOP could be IBBPBBPBBP. An I-Frame contains all the data to recreate a complete image. A B-Frame (Bidirectional Frame) is created by comparing the difference between the current frame and the frames before and after it. A P-Frame (Predicted Frame) is created by predicting the difference between the current frame and the previous one.
(See **MPEG**).

# H

**HDTV:** High Definition Television. This television system standard affords greater resolution for sharper pictures and wide-screen viewing via specially-designed TV equipment.

**The New HDTV/SDTV Standards**
Resolution (*SDTV)
Frame Rate (i=interlaced p=progressive)
Aspect Ratio
1920 x 1080 30i, 30p, 24p 16 x 9
1280 x 720 60p, 30p, 24p 16 x 9
720 x 483* 60p, 30p, 24p 16 x 9
640 x 480* 30i 4 x 3

**Hard disks:** Common digital storage component in a computer. For video use, hard disks need: 1) an access time of less than 10 milliseconds; 2) a sustained throughput (data transfer rate) of 3 Megabytes per second; and 3) a maximum time for housekeeping of 33 milliseconds (one video frame).

**Haze (UV) filter:** See **Skylight (1A)**.

**Head:** (1) Electromagnetic components within VTRs that record, receive, and erase video and audio signals on magnetic tape. (2) Tripod's camera mount.

**hertz (Hz)**: Unit of **frequency** produced by a signal or sound, usually expressed as cycles per second. Named after Heinrich Rudolph Hertz.

**Hi8:** (High-band 8mm) Improved version of 8mm videotape format characterized by higher luminance resolution for a sharper picture. Compact "conceptual equivalent" of Super-VHS. (See **8mm**).

**Hi-fi:** High Fidelity. Generalized term defining audio quality approaching the limits of human hearing, pertinent to high-quality sound reproduction systems.

**Hiss:** Primary background signal interference in audio recording, result of circuit noise from a playback recorder's amplifiers or from a tape's residual magnetism.

**HMI:** Halogen Metallide Iodide lighting, very efficient and powerful. Used in studios and location shoots.

**Horizontal resolution:** Specification denoting amount of discernible detail across a screen's width. Measured in lines, the higher the number the better the picture quality. (See **resolution**).

**Hue:** Color tone of a picture.

# I

**I Frame:** See **GOP** and **MPEG**.

**Image enhancer:** Video signal processor that compensates for picture detail losses and distortion occurring in recording and playback. Exaggerates transitions between light and dark areas by enhancing high frequency region of video spectrum.

**Image processing:** The digital manipulaton of images inside a computer.

**Image sensor:** See **pickup**.

**In-camera editing:** Assembling finished program "on the fly" as you videotape simply by activating and pausing a camcorder's record function. Reduces or eliminates post-production work, but allows less control over finished program and usually imposes quality concessions.

**Incident light:** That which emanates directly from a light source, measured from the object it strikes to the source. (See **reflected light**).

**Indexing:** Ability of some VCRs to electronically mark specific points on videotape for future access, either during the recording process (VISS: VHS index search system) or as scenes are played back (VASS: VHS address search system).

**Insert:** Editing where material replaces a section within the existing recording.

**Insert edit:** Recording video and/or audio segments within existing footage without disturbing what precedes and follows. Must replace recording of same length. (See **assemble edit**).

**Interlaced video:** Process of scanning frames in two passes, each drawing every other line on the screen, with scan lines alternately displayed in even and odd fields. **PAL** and **NTSC** are interlaced; most computers produce a **non interlaced** video signal.

**Interpositive:** A low contrast intermediate print struck from the original negative used in film **opticals**.

**Internegative:** An intermediate negative created from the Interpositive. Also an Estar based film stock used for mass quantity printing. Aka Dupe Neg.

**Iris:** A camera's diaphragm lens opening or aperture, regulating the amount of light entering the camera. Measured in **f-stops**.

**ISDN:** Integrated Services Digital Network. Allows computers to communicate over existing phone lines using a digital telephone network at much higher speeds than are possible with an analogue modem.

# J

**Jack:** Any female socket or receptacle accepting plug for circuit connection.

**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.

**Jib:** Arm of camera crane. Vertical movement of a camera.

**Jitter:** Video image aberration seen as slight, fast vertical or horizontal shifting of a picture or portion of one.

**JPEG:** Joint Photographic Experts Group. A lossy compression standard for still pictures enabling photographs and other continuous tone images to be placed in HTML documents. Typically used for the World Wide Web and other online services.

**Jump cut:** Unnatural, abrupt switch between shots identical in subject but slightly different in screen location. Awkward progression makes subject appear to jump from one screen location to another. Remedied with **cutaway**.

# K

**K Spool:** Type of **1 inch** tape spool holding enough tape to record short programs, commercials, pop promo's etc.

**Kelvin (K):** Temperature scale used to define the color of a light source, named after William Thomson Kelvin. (See **color temperature**).

**Key:** Effect that allows a picture to be superimposed over a background.

**Key frame:** A particular frame in an animation sequence, or **DVE** move that is used as a reference point for subsequent action/movements.

**Key Grip:** Film crew technician responsible for the camera tracks.

**Key light:** Primary illumination lamp for the subject in a studio shoot normally positioned slightly off centre and angled to provide shadow detail. (See **back light**, **fill light**, **three point lighting**).

**Key stoning:** Perspective distortion from a flat object being shot by a camera at other than a perpendicular angle. Nearer portion of object appears larger than farther part.

**Keycode:** A barcode on the edge of motion picture film which allows the film edge numbers to be electronically read and inserted into an edit list. Very useful for generating a negative cut list from a video off-line **EDL**.

**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.

**Kilobyte (Kb):** One thousand bytes.

# L

**Lavaliere:** Small, easily concealed, unobtrusive, and aesthetically pleasing microphone, typically attached to clothing or worn around the neck for interview settings.

**Layback:** Transferring the finished audio track back to the master video tape.

**Lazy eight:** See **eight perf**.

**Letterbox:** Placing a wide screen image on a conventional TV by placing black bands at the top and bottom of the screen.

**Linear editing:** Analogue, tape-based editing. Called linear because scenes are laid in a line along the tape. Has many disadvantages, such as the need to rewind and fast forward and the inability to insert footage without re-recording everything that follows. Compare with **nonlinear editing**.

**Lip sync:** Proper synchronization of video with audio. Lip movement with audible speech. Better known as technique widely practiced with music video recordings, whereby "vocalists" mime to playback of prerecorded music. (See **synchronous sound**).

**Long shot:** Camera view of a subject or scene, usually from a distance, showing a broad perspective. (See **closeup**, **medium shot**).

**Low band:** Standard U-Matic, not BVU or High Band.

**LTC:** Longitudinal Time Code. Time code recorded on one of the audio channels of video tape.  Requires tape movement to read.

**Luminance:** The black and white information of a video signal; frequently abbreviated as **Y.**

**Lux:** Amount of lumens in a square meter. Means of measuring low-light sensitivity; minimum amount of light required to record an acceptable image. The lower the lux reading the greater the sensitivity.

**LZW:** Lemple-Zif-Welch. A lossless compression technique supported by SGI, TIFF, PDF, GIF and PostScript language file formats. This is a technique useful for compressing large areas of single color such as titles on a black background or key information.

# M

**Master:** First generation recording. Also master edit, an original copy of tape in its edited form, often abbreviated to **ME**.

**Master shot:** In single camera shooting, a continuous shot of the whole scene.

**Mastergrade:** Grading of tapes in Telecine, not film. (See **color correction**).

**Matched dissolve:** Dissolve from one image to another that's similar in appearance or shot size.  (See **dissolve**).

**Matrix:** Switching apparatus which enables signals to be routed to different destinations.

**Matte:** An area blanked off within a frame in order to include additional material, or remove unwanted material.

**Medium shot:** Defines any camera perspective between long shot and closeup, whereby subjects are viewed from medium distance. (See **closeup**, **long shot**).

**Megabyte (Mb):** 1 million bytes.

**Mic:** (Mike) Short for microphone.

**MIDI:** (Musical Instrument Digital Interface) System of communication between digital electronic instruments allowing synchronization and distribution of musical information.

**Mix:** A visual/audio effect equivalent to a dissolve. (See **dissolve**).

**Model release:** Agreement to be signed by anyone appearing in a film or video work, protecting film/video maker from right of privacy lawsuit. Specifies event, date, compensation provisions, and rights being waived.

**Monitor:** Television set without receiving circuitry wired to a DVD player or broadcast device for display of live or recorded video signals.

**Monochrome:** Pictures which contain no color information. Such pictures have luminance but no chrominance.

**Monopod:** One-legged camera support. (See **tripod**).

**Montage:** Rapid sequence of video shots assembled to communicate a particular image or mood.
Juxtaposition of seemingly unrelated material can conjure new idea or message.

**Morph:** Computer animation software allowing an image, moving or still, to transform into a different image.

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

**Mosaic:** Electronic special effect whereby individual pixels comprising an image are blown up into larger blocks creating a "moving checkerboard" effect.

**Motion blur:** Technique that blurs a still image to simulate motion.

**Motion capturing:** Method of digitizing the action of real actors for use in 3D computer programs.

**Motion control:** A computer assisted camera and rig with multiple moving axes, enabling high precision, repeatable camera moves.

**Moviola:** American brand of "upright" film editing machine.

**Moving Coil:** See **dynamic** microphone.

**MPEG:** Moving Picture Experts Group. A standard for compressing moving pictures. MPEG uses the similarity between frames to create a sequence of I, B, and P frames. Only the I frame contains all the picture data. The B and P frames only contain information relating to changes since the last I frame. MPEG 1 uses a data rate of 1.2 Mbps (Mega Bits per Second), the speed of CD-ROM. MPEG 2 supports much higher quality with a data rate (also called bit rate) from 1.2 to 15 Mpbs. MPEG 2 is the format most favored for video on demand, DVD, and is the format for transmitting Digital Television. (See **GOP**).

**Multi layering:** Combining several "layers" of pictures to create complex images.

# N

**Nagra:** Professional 1/4" studio audio tape recorder.

**Natural light:** Planetary illumination from the sun, be it indoors or out. Has higher **color temperature** than artificial light and thus more bluish qualities.

**ND (Neutral Density) filter:** Mounted at front of camera lens, reduces light intensity without affecting its color qualities.

**Noise:** Undesirable video or audio signal interference; typically seen as snow, heard as hiss.

**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.

**Non synchronous sound:** Audio without precisely matching visuals. Usually recorded separately, includes wild sound, sound effects, or music incorporated in post-production. (See **synchronous sound**).

**Non interlaced video:** Process of scanning complete frames in one pass, drawing every line on the screen, yielding higher picture quality than that of interlaced video. Most computers produce a non interlaced video signal; **PAL** and **NTSC** is interlaced.

**Nonlinear editing:** Digital "cut and paste" editing that uses a hard drive instead of tape to store images. Random access allows easy arrangement of scenes in any order.

Also eliminates the need for rewinding and allows for multiple dubs without generational loss. Compare with **linear editing**.

**NTSC:** National Television Standards Committee. Group formed by Federal Communications Commission to regulate U.S. television broadcasting specifications. **NTSC** refers to all video systems conforming to this 525-line 30-frame-per-second signal standard used in USA, Canada and Japan. Consists of 525 horizontal lines at a field rate of 60 fields per second. Only 486 of these lines are used for picture. The rest are used for sync or extra information such as **VITC** and **Closed Captioning**. (See **PAL**, **SECAM**).

# O

**1 inch:** Reel to reel analogue broadcast video tape format.

**Off-line:** A pre-edit used to establish edit points for an on-line edit, usually on a computer and disk based edit system in which the creative editing decisions can be made at lower cost and often with greater flexibility than in an expensive, fully equipped on-line edit suite.

**Omnidirectional:** Microphone pickup pattern whereby sound is absorbed equally from all directions. (See **bidirectional**, **unidirectional**).

**On-line:** An editing system where a video master is created. An on-line bay usually consists of an editing computer, video switcher, audio mixer, 1 or more channels of **DVE**, character generator, and several video tape machines. The main edit during which mixes, effects and audio are brought together using broadcast standard equipment in order to create a **master** edit.

**Optical disks:** Writeable optical disks that perform in much the same way as a computer hard disk.

**Optical printer:** One or more 35mm register pin projectors with lamp houses that project images directly into a taking camera loaded with 35 mm film stock. Optical compositing has now mostly been superseded by digital processes.

**Opticals:** The photochemical process of compositing separately filmed elements by using a series of complex multiple exposure techniques. (see **aerial image camera**, **optical printer**).

**Out take:** Footage not to be included in final production.

**Over-the-shoulder shot:** View of primary camera subject framed by another subject's shoulder and back of head in foreground. Common in interview situations, perspective affords sense of depth.

# P

**PAL:** Phase Alternate Line. 625-line 50 field-per-second television signal standard used in Europe (not France), Scandinavia, China, India, Australia, South Africa etc. Only 576 of these lines are used for picture. The rest are used for sync or extra information such as **VITC** and **teletext**. (See **NTSC**, **SECAM**).

**PAL M:** A version of **PAL** standard, but using a 525 line 60 field structure. Used only in South America.

**PALplus:** A 16x9 widescreen European television standard that is compatible with existing 4x3 TV sets. Non 16x9 TVs show the picture in a letterbox form.

**Pan:** Horizontal swivel of a camera about a fixed axis. Follows a subject, redirects viewer's attention from one subject to another, shows relationships between subjects, and scans subjects too large to fit into one shot.

**Pan and Scan:** The process of selecting a different area of a 4:3 picture on a shot by shot basis during an **ARC**.

**Parametric object:** 3D graphics terminology; an object that responds to changes in its parameters by dynamically updating its properties.

**PCX:** A commonly used picture format for IBM PC compatible computers.

**PDF:** Portable Document Format. A file format used by Adobe Acrobat, Adobe's electronic publishing software for all major computing platforms.

**Pedding:** Vertical camera movement, rising or lowering, with camera levelness maintained throughout. The up/down equivalent of dollying.

**Periscope lens:** Transmits image to film, achieving the camera's point of view, for low or inaccessible sets. Used especially on motion control rigs.

**Petabyte:** 1000 Terabytes, or 1 million Gigabytes.

**Phone plug:** Sturdy male connector compatible with audio accessories, particularly for insertion of microphone and headphone cables. Not to be confused with phono plug.

**Phono plug:** Also called RCA or RCA phono, popular cable connector for home audio as well as video components. Standard connection for direct audio/video inputs/outputs. Not to be confused with phone plug.

**Pickup:** (1) A video camera's image sensing element, either **CCD** (charge coupled device) or MOS (metal oxide semiconductor); converts light to electrical energy. (2) A microphone's sound reception.

**Pickup pattern:** Defines a microphone's response to sounds arriving from various directions or angles. (See **bidirectional**, **omnidirectional**, **unidirectional**).

**PICT File:** Widely used among Macintosh graphics applications as an intermediary file format for transferring files between applications.

**PIXAR:** Acclaimed 3D animation studio in Richmond, California famous for ground breaking film projects and software innovations. Also a file format designed specifically for exchanging files with PIXAR image computers.

**Pixel:** Short for Picture Element. The basic unit from which a video or computer image is made. Essentially, a dot with a given color and brightness value. PAL and NTSC TV systems use a non-square pixel aspect ratio which is stretched to either 4x3 or 16x9 format by the receiving equipment.

**Playback:** Videotaped material viewed and heard as recorded, facilitated by camcorder or VCR.

**Polarizing filter:** Mounted at front of camera lens, reduces undesirable glare and reflections.

**Post production (post):** Any film or video production activity following initial photography. Typically involves telecine, editing, addition of background music, voice-over, sound effects, titles, graphics and/or various electronic visual effects. Results in completed production.

**Posterisation:** Special effect transforming a normal video image into a collage of flattened single-colored areas, without graduations of color and brightness.

**POV:** Point Of View. Shot perspective whereby the camera assumes subject's view.

**Primal:** A collection of **telecine** tools tools including an image processing engine, designed by the British company First Art. Primal is capable of creative filmic filters in real time during a telecine session.

**Pre-roll:** Starting tape playback earlier than necessary to ensure full operating speed and stabilization.

**Prime lens:** Fixed focal length lens, not wide angle or telephoto.

**Proc amp:** Processing amplifier. Video image processor that boosts video signal's luminance, chroma, and sync components to correct such problems as low luminance and weak color.

**Progressive Scan:** A scanning system for video screens where each line is displayed progressively (1,2,3,4) as opposed to interlaced (1,3,5 ...2,4,6). Computer monitors use progressive scan. Some of the new **HDTV** standards call for progressive scan.

**Prompter:** See **video prompter**.

**Props:** Short for properties, objects used either in decorating a set (set props) or by talent (hand props).

**PSF:** (Progressive segmented frame) - a progressive frame is sliced into two "segments", with the odd lines in one segment and the even lines in the other segment. This allows for a progressive picture to be processed through the same electronic circuitry that is used to store, process and route interlaced video. Technically, progressive segments are equivalent to interlaced fields, but unlike native interlaced video, there is no motion between the two fields that make up the video frame, both fields represent the same instant in time.

**Pyro/Pyrotechnics:** The controlled creation of explosions, smoke and fire effects.

**PZM:** Pressure Zone Microphone. Small, sensitive condenser mike, usually attached to a 5-inch-square metal backing plate. Senses air pressure changes in tiny gap between mike element and plate. (See **condenser**).

# Q

**Q-Lock:** Device for synchronizing audio with video machines.

**Quantel:** English hardware manufacturer of graphics, effects and editing systems such as Pablo 4K.

# R

**Rack focus:** Shifting focus during a shot in progress, typically between background and foreground subjects.

**Raw:** A flexible image file format for transferring files between applications and computer platforms.

**RCA plug:** See **phono plug**.

**Reaction shot cutaway:** View showing someone's response to primary action. (See **cutaway**).

**Rear projection:** An in-camera effects technique for the projection of background plates onto a translucent screen built into a set. The plate is projected from behind by a synchronized projector. (See **front projection**).

**Real time:** The actual time during which video recording occurs, distinguished from the tampering of time via editing.

**Receiver:** Television set that includes a tuner as well as an audio amplifier and speaker. Accommodates broadcast RF signals, whereas a monitor accepts composite video signals only.

**Reflected light:** That which bounces off the illuminated subject. (See **incident light**).

**Reflector:** Lighting accessory helpful for spreading light as well as filling in shadows. Often made of lightweight reflective metal or poster board covered with metallic material.

**Remote:** Equipment allowing control from a distance.

**Renaissance:** **Da Vinci** color grading system for film and video tape giving higher definition and improved processing.

**Rendering:** The 'coloring-in' of a computer graphic frame. The mathematical process which the computer undergoes in generating graphics.

**Resolution:** The definition of a television picture, and the ability to determine small objects. The more detail, the sharper and better defined the picture. Also used to describe the size of an image, usually in pixels. (See **horizontal resolution**).

**Resolution Independent:** A term to describe equipment that can work in more than one resolution. Most equipment can do either film resolution or video resolution, but not both. Resolution independent equipment will work at both resolutions.

**RF:** Radio Frequency. Combination of audio and video signals coded as a channel number, necessary for television broadcasts as well as some closed-circuit distribution.

**RF converter:** Device that converts audio and video signals into a combined RF signal suitable for reception by a standard TV receiver.

**RGB:** Red, Green, Blue. Primary television colors before encoding to a composite signal if required. Also defines type of color monitor.

**RLE:** Run Length Encoding. A lossless file format compression technique supported by SGI, TIFF, Photoshop and common Windows formats.

**Roll/Roller:** Credits that move up the screen, typically produced with a character generator. (See **crawl**).

**Rostrum camera:** A film or television camera mounted vertically on a fixed or adjustable column, for shooting graphics and/or animation.

**Rotoscoping:** Tedious animation process of tracing around an image outline for the creation of effects or mattes.

**Rough cut:** The first assembly of edited shots in their intended script order. (See **Off-line**).

**Rule of thirds:** Composition consideration suggesting that a picture appeals most with its primary point of interest appearing off centre. With screen divided into thirds vertically and horizontally, important elements should be targeted wherever imaginary lines cross.

**Rushes:** Uncut material before editing.

# S

**16x9:** A wide screen television format in which the aspect ratio of the screen is 16 units wide by 9 high (compared to the conventional 4x3 normal TV format).

**625:** This is the UK standard of TV line resolution, specifying the number of horizontal lines that makes up the TV picture.

**Safe title area:** Boundaries within which contents of a television picture are sure to be seen, regardless of size differences in receiver displays. Also called "critical area" and "essential area" encompasses 80 percent of total screen.

**Sampling Frequency:** The number of sample measurements taken from an analogue signal in a given period of time. These samples are then converted into numerical values stored in bytes to create the digital signal.

**Scan converter:** Device that changes scan rate of a video signal, possibly converting it from non-interlaced to interlaced mode. Allows computer graphics to be displayed on a standard video screen, for example.

**Scan line:** Result of television's swift scanning process which sweeps out a series of horizontal lines from left to right, then down a bit and left to right again. A complete **PAL** picture consists of 625 scan lines per frame.

**Scan rate:** Number of times a screen is "redrawn" per second. Computer displays operate at different scan rates than standard video.
**Scene:** In film and television terminology, a sequence of related shots usually constituting action in one particular location.

**Scrim:** Lighting accessory made of wire mesh lessens intensity of light source without softening it. Half scrims and graduated scrims reduce illumination in more specific areas.

**Script:** Text specifying content of a production or performance, used as a guide. May include character and setting profiles, production directives (audio, lighting, scenery, camera moves), as well as dialogue to be recited by talent. (See **storyboard**).

**Scroll:** Where lettering traverses the screen.

**SECAM:** Sequential Color And Memory. 625-line 25-frame-per-second television signal standard used in France and the Soviet Republic. (See **NTSC**, **PAL**).

**Selective focus:** Adjusting camera focus to emphasize desired subject in a shot. Selected area maintains clarity while remainder of image blurs. Useful for directing viewer's attention.

**Sepia:** "Antique look" typical of old photographs. Black information replaced by red (sepia) tint.

**SGI:** Silicon Graphics, Inc. Computer manufacturer.

**Shooting ratio:** Amount of raw footage recorded relative to the amount used in the final edit.

**Shot:** All pictorial material recorded by a camera. More strictly speaking, shots are intentional, isolated camera views which collectively comprise a scene.

**Shotgun:** Highly directional microphone with long barrel, designed to pick up sound from extreme subject-to-mike distances.

**Signal Generator**: Device that generates a **test pattern** for diagnostic or reference purposes such as color bars.

**Signal to noise ratio (S/N):** Relationship between signal strength and a medium's inherent noise. Video S/N indicates how grainy or snowy a picture will be, plus color accuracy; audio S/N specifies amount of background tape hiss present with low- or no-volume recordings. The higher the S/N the cleaner the playback.

**Simulcast:** The process of broadcasting from a **16:9 FHA** master via an **Aspect Ratio Converter** to produce a 14:9 signal for analogue TV at the same time as broadcasting the original 16:9 to digital viewers.

**Skylight (1A):** aka haze (UV) filter. Mounted at front of camera lens, virtually clear glass that absorbs ultraviolet light. Also excellent as constant lens protector.

**SMPTE:** Society of Motion Picture and Television Engineers which sanctions the time code standard for film and video. (See **time code**).

**Snow:** Electronic picture interference; resembles scattered snow on the television screen. Synonymous with chroma and luma noise.

**SoftImage:** Computer modeling and animation package.

**Solarization:** Multi coloring of live action images, originally achieved by exposing photographic materials to sunlight, prior to shooting.

**Solid state:** The generic name given to integrated circuits and other electronic data storage systems, containing no moving parts as part of their prime function (excluding cooling fans etc).

**Sound bite:** Any recorded video or audio segment salvageable for use in edited program- usually a highlight phrase or event.

**Sound effects (SFX):** Contrived audio, usually prerecorded, incorporated with a soundtrack to simulate the real thing.

**Soundtrack:** The audio portion of a program's recording, often multifaceted with voice-over, background music, sound effects, etc. In the film industry, refers more strictly to musical score.

**Special effects (FX):** Tricks and illusions, electronic or on camera, employed in film and video to define, distort, or defy reality.

**Spotlight:** Radiates a well-defined directional beam of light, casting hard, distinct shadows. Best used to focus illumination on individual subjects, whereas floodlights blanket broader areas.

**Stabilizer:** Video signal processor used primarily for tape dubbing to eliminate picture jump and jitter, maintain stability.

**Stereo:** Sound emanating from two isolated sources, intended to simulate pattern of natural human hearing.

**Stock shot:** Common footage i.e. city traffic, clouds, waterfall etc. conveniently accessed as needed.

**Storyboard:** Series of thumbnail sketches illustrating the action and composition of a shot, accompanied by corresponding audio information. (See **script**).

**Streak photography:** Rostrum camera technique where the camera travels along its column during a long exposure of backlit artwork, resulting in light streaks on the developed film. (See **slit scan**).

**Super:** (Superimposition) Titles or graphics appearing over picture. From film optical days of double exposing a white title over a background plate.

**Standard:** Television standard - e.g. **PAL** / **SECAM** / **NTSC**.

**Standards conversion:** The process of converting between different TV transmission signals. Usually refers to conversion to and from **PAL** and **NTSC**.

**Stop frame/Stop motion:** Animation which is done one frame at a time.

**Storyboard:** Chart giving indication of visuals and sound in preparation for shooting.

**Synchronous sound:** Audio recorded with images. When the mouth moves, the words match the movement. (See **lip sync**, **non synchronous sound**).

**Super:** Superimpose a caption or graphic over another picture. (See **key**).

**Sweetening:** Post-production process of adding music/sound effects to or otherwise enhancing, purifying, "massaging" a final audio track.

**Switcher:** Simple picture cut device between several sources. American term for Vision Mixer.

**Sync:** (Synchronization.) Horizontal and vertical timing signals or electronic pulses; a component of composite signal, supplied separately in RGB systems. Aligns video origination (live camera, videotape) and reproduction (monitor or receiver) sources.

# T

**2K:** Common abbreviation for a film image scanned into a computer file at a horizontal resolution of 2048 pixels.

**3:2 Pulldown:** The technique used to convert 24 frames per second film to 30 frames per second **NTSC** video. Every other film frame is held for 3 video fields resulting in a sequence of 3 fields, 2 fields, 3 fields, 2 fields etc.

**T-stop:** Calibration of the aperture of a lens which compensates for light loss in the lens due to internal reflections off the glass surfaces.

**Talent:** Generic term for the people or creatures assuming primary on-screen roles.

**Talkback:** Intercom system used in television production.

**Targa:** A file format designed for systems using the Truevision video board commonly supported by MS-DOS color applications.

**Tape to tape:** (See **Mastergrade**).

**TBC:** Time Base Corrector. Device required to correct time base errors of a VTR which build up during operation. Needed in dubbing, particularly of poor quality material.

**TDL:** Telecine Decision List. A list of the edits made in a telecine session which can be loaded into an off-line editor.

**Telecine:** Device for transferring film to video tape. Film can be color graded during this process.

**Telephoto:** Camera lens with long focal length, narrow horizontal field of view. Opposite of wide-angle, captures magnified, close-up images from considerable distance.

**Teletext:** A system used to read news and general information broadcast with TV pictures in the vertical interval in the form of white dots often seen at the top of the TV picture (**VITC**). It is also used to burn in a subtitle display for the convenience of the hard of hearing. Known in the US as **Closed Captioning**.

**Terabyte:** 1 trillion bytes. A 2 hour HDTV movie at the maximum resolution of 1920 x 1080 would take about 1 terabyte to store in an uncompressed format.

**Test pattern:** Any of various combinations of converging lines, alignment marks, and grey scales appearing on screen to aid in video equipment adjustment for picture alignment, registration, and contrast. (See **color bars**).

**Texture map:** Adding textures in computer graphics. 2D images are placed onto 3D objects to give texture i.e. steel, marble and wood-grain.

**Three point lighting:** Basic lighting approach employing key, back, and fill lights to illuminate subject with sense of depth and texture. Strategic placement imitates natural outdoor lighting environment, avoids flat lighting. (See **back light**, **fill light**, **key light**).

**Three shot:** Camera view including three subjects, generally applicable to interview situations.

**TIFF:** Tagged-Image File Format. A popular file format used to exchange files between applications and computer platforms and is supported by virtually all image editing, paint and DTP applications.

**Tilt:** The vertical swivel movement of a camera.

**Time base Corrector:** See **TBC**.

**Time code:** Binary Code recorded on video and audio tape recorders, uniquely assigning a corresponding hours, minutes, seconds, and frame-number designation to each frame. Used for synchronizing recorders and editing. (See **SMPTE**).

**Time lapse recording:** Shooting individual frames over long durations of actual time. Upon playback, slow processes such as a flower blooming or clouds drifting through the sky may be viewed in rapid motion.

**Time line editing:** A computer-based method of editing in which video and audio clips are represented on a computer screen by bars proportional to the length of the clip. These bars can be moved and resized along a grid whose horizontal axis relates to the time of the program.

**Track:** Camera term where action is followed by moving the camera. Usually refers to backwards or forwards movement. Also sound (audio)"track".

**Tripod:** Three-legged camera mount offering stability and camera placement consistency. (See **monopod**).

**Tuner:** Television and VCR component that receives RF signals from an antenna or other RF sources and decodes into separate audio and video signals.

**Two shot:** Camera view including two subjects, generally applicable to interview situations.

# U

**U-Matic:** Sony video tape 3/4 inch cassette format.

**UltiMatte:** A device to create high quality mattes. Type of **chromakey** matting.

**Umbrella:** Umbrella shaped lighting accessory available in various sizes usually made of textured gold or silver fabric. Facilitates soft, shadowless illumination by reflecting light onto the subject.

**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.

**Unidirectional:** Highly selective microphone pickup pattern, rejects sound coming from behind while absorbing that from in front. (See **bidirectional**, **omnidirectional**).

**User bits:** Portions of **VITC** and **LTC** reserved for recording information of the user's choosing, e.g., Key code numbers, footage count, etc.

# V

**VBR:** Variable Bit Rate. **MPEG** video compression where the amount of compression can be varied to allow for minimum degradation of the image in scenes that are harder to compress.

**VCR:** Video Cassette Recorder. Machine intended primarily for recording and playback of videotape stored in cassettes.

**Vectorscope:** An oscilloscope designed for television which is used to set up and monitor the chrominance portion of a video signal.

**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 (**teletext**, test and control signals, user bits, **VITC**) can be recorded.

**VHS:** Video Home System. Predominant half-inch videotape format developed by Matsushita and licensed by JVC.

**VHS-C:** VHS compact. Scaled-down version of VHS using miniature cassettes compatible with full-size VHS equipment through use of an adaptor.

**Video Prompter:** A mechanical device that projects and advances text on a mirror directly in front of a camera lens, allowing talent to read lines while appearing to maintain eye contact with viewers. (See **Autocue**).

**Vignette:** Visual effect whereby the viewer sees an image through a perceived shape, the shape typically being black and out of focus.

**Vignetting:** Undesirable darkening at the corners of a picture.

**Vision Mixer:** Device which determines which of numerous possible sources (camera, VTR, etc) goes "on air". Creates mixes, wipes, keys, fades, special effects, etc.

**VistaVision:** An eight perf film format developed by Paramount in the fifties in response to Twentieth Century Fox's CinemaScope.

**VITC:** Vertical Interval Time Code. Code recorded in the vertical blanking interval above the active picture area. Can be read from video tape in still or jog mode. Multiple lines of VITC can be added to the signal allowing the encoding of more information than can be stored in normal **LTC**.

**Voiceover (VO):** Narration accompanying picture, heard above background sound or music, without the narrator seen on camera.

**VTR:** Abbreviation and generic for all types of Video Tape Recorder.

# W

**Warp:** Digital picture manipulation device which curves pictures.

**Waveform monitor:** Specialized oscilloscope testing device providing a graphic display of a video signal's strength. Plus, like a sophisticated light meter, aids in precise setting of picture's maximum brightness level for optimum contrast.

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

**Whip pan**: Extremely rapid camera movement from left to right or right to left, appearing as image blur.

**White balance**: Video camera's electronic adjustment of light levels to retain "true" colors. Proper setting established by aiming at white object.

**Wide angle**: Camera lens with short focal length and broad horizontal field of view. Opposite of telephoto, supports viewer perspective and tends to reinforce perception of depth.

**Wild track:** (Also called wild sound) Sound recorded without simultaneous pictures.

**Windshield:** (Also called windscreen) Sponge-like microphone shield, thwarts undesirable noise from wind and rapid mike movement.

**Wipe:** Vision mixer technique where one picture is replaced with another by a moving edge. Many different patterns are used.

**Wire frame:** Computer generated model comprised of lines connecting at key points to approximate a specific form.

**Wireless microphone:** Consisting of radio transmitter and receiver, utilizing a low-power radio signal for cable free operation.

**Workprint:** Copy of a master roll of film/videotape used for edit planning and rough cut without excessively wearing or otherwise jeopardizing safekeeping of original material. Also called "working master."

**Wow and Flutter:** Sound distortions consisting of a slow rise and fall of pitch, caused by speed variations in audio/video playback system.

**Wrap:** One of the best loved words in the industry: "Let's go Home".

# X

**XLR:** (Also called Cannon) Three-pin plug for three-conductor balanced audio cable, employed with high-quality microphones, mixers, and other audio equipment.

# Y

**Y:** Symbol for luminance, or brightness, portion of a video signal; the complete color video signal consists of R, G, B and Y.

# Z

**ZIP encoding:** A lossless compression technique for still images that is most effective with large areas of single color.

**Zoom Length:** Variance of focal length, bringing subject into and out of close-up range. Lens capability permits change from wide-angle to telephoto, or vice versa, in one continuous move.  "Zoom in" and "zoom out" are common terms.

**Zoom Ratio:** Range of a lens' focal length, expressed as a ratio. 6:1, for example, implies same lens from same distance can make same image appear six-times closer.