Video Editing Terms

Video Editing Terms / Video Production Terminology

1.33

Standard aspect ratio used for television; one third wider than it is high (4:3). See also aspect ratio.

1.78

Widescreen aspect ratio used for film; almost twice as wide as it is high (16:9). See also aspect ratio.

2-3 / 3-2 pulldown

Process used to convert material from film to interlaced NTSC display rates, from 24 to 30 frames per second. This is done by duplicating fields, 2 from one frame and then 3 from the next frame (or 3 and then 2). Both terms are often used interchangeably to describe the effect. See also inverse telecine.

4:3

Standard aspect ratio used for television; one third wider than it is high (1.33:1). See also aspect ratio.

5.1

A surround sound system that uses three speakers across the front (right, left and center) and two stereo speakers in the rear (right and left), along with a subwoofer.

A/B Edit

An editing technique in which the output is switched form one video source (A) to another (B).

AC-3

Audio Compression-3 is usually marketed as Dolby® Digital and used in DVD, HDTV, and many movie theaters.

Analog

Analog video and audio emit a steady wave of magnetic patterns that are interpreted as video and audio to be transferred to magnetic tape for later viewing.

Anamorphic

Anamorphic filming technique was developed to make widescreen movies using 4:3 film. An anamorphic lens distorts the image picked up by the camera before it reaches the film. By using

a similar lens while projecting the film back on screen, the correct, intended aspect ratio is restored.

AVI

Stands for Audio Video Interleave and is one of the most common formats for audio and video data on the PC.

Anti-alias

Removing the jagged edges from letters and/or graphic elements such as titles and 3D objects.

Aperture

An adjustable opening in a lens that, like the iris in the human eye, controls the amount of light entering a camcorder. The size of the aperture is controlled by the iris adjustment and is measured in f-stops. A smaller f-stop number corresponds to a larger opening which passes even more light, examples: F2, F2.8, F4, F5.6, F8 and F11. F-stops are logarithmic. Each stop admits 100% more light than the previous one.

Aspect Ratio

The shape of an image or frame, expressed as the width-to-height ratio. The ratio of the width of the picture to the height. Video displays commonly have a 4:3 or 16:9 aspect ratio. Program material may have other aspect ratios such as 2.35:1, resulting in it being “letterboxed” on the display.

Assembly Edit

An edit where all existing signals on a tape are replaced with new signals. Assembly edits cannot be used for editing because they erase the control track portion of the video tape.

Blue (or Green) Screen

A special effects process in which a subject is photographed in front of a uniformly illuminated blue or green background. A new background image can be electronically substituted for the blue or green during the shoot or in postproduction through the use of chroma key to convert analog video to digital form.

CCD (Charge Coupled Device)

A CCD is a sensor that creates a video picture by recording light intensity to recognize a video image and then measures the levels of red, green and blue to reproduce a full-color picture. A single CCD captures information on RGB colors in one go, while a three-chip CCD (found on more expensive camcorders) devotes a CCD to each of the 3 colors.

Chroma Key

Also known as blue screen or green screen, this is a special effects procedure in which a subject is filmed in front of a uniformly illuminated blue or green background. A new background image can then be electronically substituted for the blue or green during the shoot or in post-production

Chrominance

The color of a video signal. Video signals are split into separate luma and chroma (color) components for higher-quality and more efficient transmission and encoding. The chroma signal is typically split into 2 components or color difference signals, such as YUV format.

ClearQAM

Unencrypted digital cable.

Composite

Composite video was created as a backward-compatible solution for television's transition from black & white to color. Usually recognized as a yellow plug, composite video cable is often teamed with a red and white audio connection.

Component Video

Component video improves the picture quality above S Video. Component video is most frequently labeled Y, Cb and Cr on high-quality video players such as DVD and HDTV decoders.

Compositing

The overlaying of several layers of DV over the main footage. This facility is found in painting, drawing and also graphics programs.

Compression

Reducing the amount of digital data associated with a single frame of video information. Compression ratios operate up to 100: 1, typically reducing 1+MB down to around 10 Kb. This means that more video information can be stored on the hard drive. There are several (mostly incompatible) compression systems including: Motion-JPEG, JPEG, MPEG, DV and Indeo. Content that has been compressed must be decompressed for playback.

Codec

Short for compressor-decompressor, a codec is any technology for compressing and decompressing data. Codecs can be implemented in software, hardware, or both.

Capture Device

A hardware component that converts analog content (either audio or video) to digital for use on a pc.

Content

A general term that refers to audio & video media, images, text, and any other information that is seen or heard as part of a media presentation.

Cross-fade

A method of smoothly moving from one video clip or photo to another. With cross-fade transitions, the frames in the playing clip fade out as the frames in the new clip fade in.

Cutaway

A shot of something outside the frame that can be used to hide an edit (i.e. going from a wide shot of a scene to a close-up of the reaction of a person).

Dissolve

A video transition where one shot gradually fades out while a 2nd shot fades in.

Digital Video (DV)

A format for storing digital audio and video used by DV standard digital video cameras.

Dolby® Digital

Dolby® Digital (AC-3) is Dolby's third generation audio coding algorithm. Dolby Digital is a perceptual coding algorithm developed to allow the use of lower data rates with a minimum of perceived degradation of sound quality. Dolby Digital audio is used as the standard audio track on Digital Versatile Discs (DVD), is the standard audio format for High Definition Television (HDTV), and is being used for digital cable and satellite transmissions.

Dub

To duplicate or make a copy of a video or section of video.

DVD (Digital Video Disc)

A CD-sized media providing MPEG-2 cinema-quality video and high levels of interactivity

Edit Controls

Some VCRs and camcorders can have their transport actions directly controlled via cables. Most DV devices also be controlled from the PC through a FireWire® cable.

Fade

A video image that gradually increases or decreases in brightness usually to or from black. Sound can also fade in or from silence.

FPS (Frames per Second)

FPS refers to how many video frames are shown on a screen every second. PAL and SECAM video are delivered to the screen at 25 Frames Per Second. NTSC video is 29.97 or 30 FPS, while cinema films are 24 FPS.

FireWire

FireWire® is a standard for high-speed transfers between devices including digital camcorders and FireWire-enabled PCs. This standard supports data rates of 100/200/400 Mbps. The other terms referring to the same standard are iLink and IEEE (Institute of Electrical and Electronics Engineers) 1394. The latest FireWire standard (FireWire 800) is able to support data rates of 800 Mbps.

Frame Rate

Speed based on frames per second.

Freeze Frame

A technique that allows a video editor to pause or freeze a particular frame of video.

Green Screen

A common special effects procedure in which a subject is photographed in front of a uniformly illuminated blue or green background. A new background image can be electronically substituted for the blue or green during the shoot or in postproduction through the use of chroma key to convert analog video to digital form.

H.264

The high-compression multimedia format/technology supported by Apple® iPod® and Sony® PSP®. H.264 encoding delivers high quality videos with 2 to 3 times the compression efficiency of solutions such as the MPEG-2 standard, which is used in DVD video.

Insert Edit

An electronic edit where the original video and audio are replaced with any new footage.

Interlaced Video

A technique used for television video formats, such as NTSC and PAL, in which each full frame of video actually consists of alternating lines taken from 2 separate fields captured at slightly different times. The two fields are interlaced or interleaved into the alternating odd and even lines of the full video frame. When displayed on television equipment, the alternating fields are displayed in sequence, depending on the field dominance of the source material.

Jog

Moving slowly though a clip. Frame by frame advance and rewind.

Letterbox

The technique for displaying widescreen video on a screen with a different aspect ratio by adding black borders above and below the original frame.

Linear/Non-Linear

When video is stored on normal video tape it is done so in a linear fashion. This means that one scene follows another in a sequential order. With non-linear editing the video information is stored on the hard drive in the computer and you can record scenes in any order. This is because it is possible to access the material on the hard disk almost instantly and randomly.

MiniDV

MiniDV is the most popular camcorder format, with cassettes holding 60 to 120 minutes of footage. The video format has an impressive 500 lines of resolution, and can be easily transferred to a PC with FireWire capability.

Moire Patterns

Video artifacts that occur when recording an object that has many thin parallel lines; the lines appear to move or crawl on the screen and can be annoying.

Movie File

The file created by combining the audio, video, and stills contained in your project.

Master

The original video tape, dvd or video project.

MPEG

MPEG stands for Moving Picture Experts Group. MPEG is a group of standards used for coding audio-visual information (e.g. movies, video, music) in a digital compressed format. MPEG formats use sophisticated compression methods to deliver video over the Web, on DVD or VCD, depending on the MPEG format.

Monitor

A video display similar to a TV . However, a monitor does not have a television tuner.

Mono

Monophonic audio. Single channel of audio.

NAS

Network attached storage.

NTSC

National Television Standards Committee created the first international television system for use in the United States and other countries. It produces pictures by creating 525 alternating lines across the television screen for each frame of video. Since PAL and SECAM, the other two world systems, were developed later, they took advantage of better technology.

Overscan

Outer edge of video typically cut by consumer television sets

PAL

Phase Alternation by Line. An international TV standard.

Pan-and-Zoom

A technique for creating moving video from high resolution still images by varying the magnification at which the image is displayed and/or changing the area of the image which fills the screen.

Picture-in-Picture (PIP)

Showing one video playing inside of another video that is playing.

Playback Controls

A set of buttons that allow you to playback the tape in the camcorder. These controls are much like the ones on a VCR. The controls usually include the basic functions of Play, Stop, REW, FF and Pause.

Player

A program that displays multimedia content, typically animated images, video and audio. Some player examples include Microsoft® Window Media® Player and Apple® QuickTime® Media Player.

Preroll

During video recording, both source and recording machines can be rewound so that the beginning of the recording starts when both machines are running at the correct speed.

Program AE

When selected, the camcorder's Auto Exposure can be set to perform specific program functions. Program settings include Portrait, Sports, High-Speed Action, Twilight, Spotlight, Sand & Snow,Low Light and more.

Progressive Scan

Video display in which entire screen is refreshed at once.

Project File

The file created when you save the results of adding various clips to the workspace.

Rendering

The computer process of creating a special effect, animation or editing task. Rendering can take minutes or hours depending on the project and hardware.

RGB

Acronym for red, green & blue. Color represented as red, green and blue components. Computer monitors use RGB pixels to display an image.

Safe Area

Margins left outside of an image

Sample Rate

The rate at which samples of a ongoing signal (music, sound etc.) are captured into a digital representation of the original signal. A higher audio sampling rate capturing more samples per second, creates a more accurate representation of the original sound.

Scratch Disk

A dedicated work area on hard disk used for temporary storage and preview files.

Scrub

To play a video in the timeline by dragging edit line.

SCART 21-pin

Connector for composite, Y/C, RGB, and stereo audio.

Shuttle

To move quickly through through video. Forward and reverse.

Shutter Speed

A shutter electronically controls the amount of time that light passing through a lens exposes onto the CCD. Most camcorders are set at a shutter speed of 1/50 sec, with fast shutter speeds varying from 1/120 sec through to 1/10,000 sec. The higher the speed the more precise the detail and the less blur noticeable.

S/PDIF

Digital audio outputs.

Split Screen

A divided video display that shows two clips side by side.

Stereo

Two channel audio. Right and left channels.

Storyboard

A storyboard is a view of the workspace, showing thumbnails of the clips in the video editing program. Storyboards also refer to sketches or descriptions of scenes to be shot in a video before production gets underway.

Streaming

Streaming video is video that can be played in portions over a network. A connection to a network or to the internet is required.

Synchronize

Keeping two sequences playing at the same rate or sync. A series of video clips can be synced to the beat on an audio track. A talking-head video needs to be lip-synced so that the audio matches the mouth movements of the speaker.

Surround Sound

Any multichannel audio system designed to provide both front and rear sound sources in addition to left and right channels. Surround sound adds a 3rd dimension to the program.

S-Video

S-Video provides better color separation and a much cleaner signal than traditional composite by keeping separate the color and picture parts of a composite-video signal.

Talking Head

Clip of a person talking showing only their head and shoulders.

Timecode

Exact time used to identify specific frame.

Timeline

A view of the workspace that focuses on the timing of your video clips.

Time Shifting

Capability offered by the software included in some TV tuners, that allows consumers to pause, rewind and fast forward live TV when watching TV in a computer.

Tracks

Timelines are made up of horizontal sections known as tracks. Clips are arranged in tracks to adjust their timing relative to one another.

Transcode

The process of converting a media file or object from one format to another. Transcoding is often used to convert video formats.

Transition

The method of smoothly moving from one video clip, animation or photo to another.

Trimming

This process involves removing parts of a clip that you do not want in your project without deleting them from the original source material. The editor can trim by adjusting the start or end trim points of a clip.

USB (Universal Serial Bus)

Some of capture devices can be connected to the PC via the USB port. These offer a much lower data-rate than FireWire/iLink, however they do not require a capture card to be installed into the PC.

VTR

Video Tape Recorder

White Balance

White balance is the camera setting that adjusts for lighting in order to make white objects appear white in photos. This is more difficult than it might seem due to the fact that light cast from different sources is different in color. Light is rarely truly white in nature. The light from an incandescent or halogen bulb is red and orange in color, while the light that from the sun is rela-

tively blue. A proper white balance setting in a camera will prevent a white table cloth in a photo from appearing orange in color when it is being illuminated by a candle.

Widescreen

Video content produced in wider aspect ratio than the standard TV ratio (4:3 or 1.33:1) is commonly referred to as widescreen video. Anything with an aspect ratio that is above 1.66:1 can be considered widescreen. Widescreen material is presented on DVDs in either anamorphic or letter-boxed format. Widescreen material is also cropped into 4:3 format using pan-and-zoom.