GLOSSARY

A

ADSL: Asymmetric Digital Subscriber Line - high speed internet connection technology which enables high-speed connections over existing telephone lines.

Alpha Channel: An additional image channel used to store transparency info for composition.

Analog: Represented as a continuous signal or quantity, continuous, as opposed to digital; represented by discrete numbers with an extremely wide range of values.

Anamorphic: 1. A type of lens adapter designed to produce a wide screen image from an equally condensed image on the film
2. 16:9 images recorded as 4:3 frame sizes.

ANSI: American National Standards Institute. Organisation responsible for most standards used for US audio-visual and computer equipment.

Aspect Ratio: The proportions of a picture area. Standard video aspect ratio is 4 units wide by 3 units high, usually shown 4:3. Wide screen aspect ratio is 16:9. Many other aspect ratios are valid for graphically created images.

Audio Clip: A media clip containing audio samples.

Authoring: Content creation.

AVI: Audio Video Interleaved. A sound and motion picture file which conforms to the Microsoft Windows Resource Interchange file format. (RIFF).

B

Bandwidth: The amount of information that can be transmitted over a network at a given time. The higher the bandwidth, the more data can pass over the network.

Batch Capture: A process where information stored in clips is used to control the camcorder to automatically capture, or digitise the video or audio material that corresponds to each clip.

Batch Compression: Grouping two or more movies together to be compressed sequentially.

Baud Rate: Number of bits of information transmitted per second from one digital device to another.

Bit mapped: Refers to an image created in a map form as against a mathematical form. The Image is formed by placing dots (or bits) in rows and columns, with several thousand dots forming the complete image.

Brightness: Achromatic intensity, relative lighting without regard to colour.

Broadband: A transmission medium which can carry signals from multiple independent network carriers.

Broadcast: Usually refers to sending a message to everyone connected to a network or service. See also- Narrowcast / Multicast

Bus: A communications interface which transfers data between Electronic Data Processing Elements.

Byte: Abbreviation for binary term, a unit of storage capable of holding a single character. On almost all modern computers, a byte is equal to 8 bits. Large amounts of memory are indicated in terms of kilobytes (1,024 bytes), megabytes (1,048,576 bytes), and gigabytes (1,073,741,824 bytes)

C

CGA: Colour Graphics Adapter. An early graphics resolution standard bases on broadcast video capability.

Chroma: The colour info contained in a video signal.

Composite Video Signals: Analogue Video signals with combined picture and sync information.

Compression: Process by which files are reduced in size by the removal of redundant or less important data.

Contrast: How much brighter the white areas are than the black areas.

Contrast Range: The range of greys in a video image, usually a ratio of light to dark.

Contrast Ratio: The ratio of brightness of the whitest areas to the blackest areas of an Image.

Convergence: Proper alignment of the vertical and horizontal lines, as in video projection.

CPU: Central Processing Unit - processor chip in a computer.

CRT: Cathode Ray tube; a display device used on many video or computer monitors and television sets.

Curved Screen: A section of surface of a large sphere or parabola. Curved screens have viewing angles less than 180 degrees and gains greater than 1.

D

Data Conversion: To change digital information from its original code so that it can be recorded by an electronic memory using a different code.

Day Part: Specific timing for content.

DB: Decibel; a unit of measurement of sound or Signal to Noise Ratio expressed on a logarithmic scale.

Decode: In multimedia, this term refers to decompressing a compressed file.

Decompression: The procession of creating a viewable image for playback from a compressed video, graphics or audio file.

Deinterlace: To remove the interlacing artefacts caused by the two-fields-per-frame nature of video.

Digitise: The process of converting analogy signals to numeric values that can be processed by computer.

Display: Output device, for presenting legible information often a Cathode Ray Tube or Liquid Crystal Display.

Distribution: (Casting) which includes also managing the network.

DLP: The core of the DLP systems from Texas Instruments Inc is the Digital Micro Mirror Device, a semiconductor light switch controlling thousands of tiny mirrors on a single microchip. The mirrors are digitally controlled and individually activated to create very high definition, high contrast images with absolute picture uniformity, and full colour saturation from middle to all edges.

Dongle: Hardware copy protection device.

Download: To copy a file from a server or network to your machine.

DVD: Digital Versatile Disc. Standards based media format, which is intended to replace CD - ROM VHS and audio CDs.

Dynamic Range: The highest and lowest signal levels on a given device.

E

Encode: In multimedia this term means compressing a file.

F

Field Frequency: The number of fields per second; NTSC field frequency is 60 per second, PAL and SECAM frequencies are 50.

Fire wire: Apple's trademark name for the IEEE 1394 standards, which a very fast external bus, often used to connect DV cameras to computers.

Firewall: Network device, which may be configured to limit unauthorised entry or use of a private network.

Flash: A bandwidth friendly and browser independent vector-graphic animation technology. As long as different browsers are equipped with the necessary plug-ins, Flash animations will look the same. With Flash, users can draw their own animations or import other vector-based images.

Flat Screen: A flat reflecting surface with 180 degree viewing angles and gains approximately equal to 1.

Focal Length: The distance between a focal point of a lens or mirror of projection equipment and the corresponding principal plane. Shorter focal length means larger image size on the screen for given projection distance.

Foot-Candle: The amount of light reflected by a surface one foot from a lighted candle. Metric equivalent is one lumen or one foot candle of light over a one square foot surface.

FPS: Frames Per Second - measure of the frame rate of video or film.

Frame: One single still image among the many that make up a movie.

Frame Rate: Number of frames per second of a movie.

Front Screen Projection: An image projected on the audience side of a light-reflecting screen.

FTP: ***F****ile* ***T****ransfer* ***P****rotocol* - common internet protocol used for transferring files.

G

Gain: Amplification of a signal or intensity measurement, expressed as a number equal to Output divided by Input.

Genlock: A device which locks the frequency of its internal sync generator to an external source.

GHz: Gigahertz; 1 billion cycles per second.

GIF: Short for ***G****raphics* ***I****nterchange* ***F****ormat*, another of the graphics formats supported by the Web. Unlike JPEG, the GIF format is a lossless compression technique and it supports only 256 colors. GIF is better than JPG for images with only a few distinct colors, such as line drawings, black and white images and small text that is only a few pixels high. With an animation editor, GIF images can be put together for animated images. GIF also supports transparency, where the background color can be set to transparent in order to let the color on the underlying Web page to show through.

H

Hardware: The electronic and mechanical components of a computer system.

HD: High Definition; often meaning HDEP and HDTV

HDEP: High Definition Electronic Production.

HDTV: High Definition Television. In the UK, HDTV results in 1250 TV lines scanned at 31.25 Khz instead of the current TV standard which provides 625 lines at 15.625 KHz.

Hertz (Hz): The frequency of an alternating signal, formerly called cycles per second.

High Resolution: Camera, monitor or projector with a great number of scanning lines (1000-2000) which produces a very sharp, detailed image.

Http: Hyper Text Transfer Protocol - most common transfer protocol used on the web.

I

Interactive Display: A display requiring the consumer to actively participate in the selling process by supplying information about needs and preferences through the use of a computer keyboard or a touch sensitive screen. The computer, in turn, processes the consumer's needs and the product attributes, and makes a recommendation.

Interlaced Video: Each NTSC or PAL video frame consists of two "fields". When displaying video, NTSC televisions display one field every 1/60th of a second, and PAL televisions display one field every 1/50th of a second. Our eyes put the two different fields together to create 30 whole NTSC frame per second.

Interlacing: Increasing video resolution by doubling the number of horizontal scan lines.

Internet: Decentralised global computer network, the term "Internet" is often incorrectly used for the World Wide Web, which is a specific application of the internet.

IP: Internet Protocol - commonly used protocol for transferring data over the internet.

IR: Infra red - wave lengths just beyond (longer than) the visible spectrum; often filtered out to reduce heat on film or slide.

ISP: Internet service Provider - company which provides internet related services, often including connectivity, email accounts and web hosting.

J

JPEG/JPG: Short for ***J****oint* ***P****hotographic* ***E****xperts* ***G****roup*, the original name of the committee that wrote the standard. JPEG is a technique that is designed to compress color and grayscale continuous-tone images. The information that is discarded in the compression is information that the human eye cannot detect. JPEG images support 16 million colors and are best suited for photographs and complex graphics. The user typically has to compromise on either the quality of the image or the size of the file. JPG does not work well on line drawings, lettering or simple graphics because there is not a lot of the image that can be thrown out in the process, so the image loses clarity and sharpness.

K

Key Frame: Is a special purpose marker that denotes the change in value to an applied affect parameter.

Keystone: The distortion of a projected image caused by improper projector-to-screen angle.

L

LAN: A computer network that spans a relatively small area. Most LANs are confined to a single building or group of buildings. However, one LAN can be connected to other LANs over any distance via telephone lines and radio waves. A system of LANs connected in this way is called a *wide-area network (WAN)*.

Most LANs connect workstations and personal computers. Each node (individual computer) in a LAN has its own CPU with which it executes programs, but it also is able to access data and devices anywhere on the LAN providing it has permission. This means that many users can share expensive devices, such as laser printers, as well as data. Users can also use the LAN to communicate with each other.

LANs are capable of transmitting data at very fast rates, much faster than data can be transmitted over a telephone line; but the distances are limited, and there is also a limit on the number of computers that can be attached to a single LAN.

L.C.D.: Liquid Crystals Display; liquid crystals exist in an intermediate state between liquid and solid, and realign under electrical stimulation. Exceptionally slim and light, they are ideal in computer and TV displays.

L.C.D. Panel: A LCD device which allows text and graphics from a personal computer to be display onto a large screen using an overhead projector as the light source.

L.E.D.: Light Emitting Diode; a semiconductor diode that converts electrical energy into visible electromagnetic radiation. Often used as indicators and display devices.

Local Area Network: Network that connects computers within a small region, often within one building.

Logging: The ability of scheduling software to save the info on what, where and when was played back.

Lumen: A measurement of quantity of light taken at the source of the light. Lumens per square foot are foot-candles.

LUX: The metric measurements of light quality. The measurement is taken from the reflection off the object illuminated. One foot candle equals 10.76 LUX. A LUX equals one LUMEN per square meter.

M

Media: Term with many meanings: Generic term for elements such as movies, sound, pictures etc something that is used for storage or transmissions, such as tapes, CD-Rs. Zip disks etc.

Modem: Short for modulator/demodulator, a device that converts digital signals to analogue tones and vice versa so that systems based on electronic memories can interface over telephone lines.

MPEG: There are three major MPEG standards: MPEG-1, MPEG-2 and MPEG-4.

- The most common implementations of the MPEG-1 standard provide a video resolution of 352-by-240 at 30 frames per second (fps). This produces video quality slightly below the quality of conventional VCR videos.
- *MPEG-2* offers resolutions of 720x480 and 1280x720 at 60 fps, with full CD-quality audio. This is sufficient for all the major TV standards, including PAL, NTSC, and even HDTV. MPEG-2 is used by DVD-ROMs. MPEG-2 can compress a 2 hour video into a few gigabytes. While decompressing an MPEG-2 data stream requires only modest computing power, encoding video in MPEG-2 format requires significantly more processing power.

- *MPEG-4* is a graphics and video compression algorithm standard that is based on MPEG-1 and MPEG-2 and Apple QuickTime technology. Wavelet-based MPEG-4 files are smaller than JPEG or QuickTime files, so they are designed to transmit video and images over a narrower bandwidth and can mix video with text, graphics and 2-D and 3-D animation layers.

MP3: Part of the MPEG format, used to encode Audio streams. The result in real terms is layer 3 shrinks the original sound data from a CD (with a bit rate of 1411.2 kilobits per one second of stereo music) by a factor of 12 (down to 112-128kbps) without sacrificing sound quality.

Because MP3 files are small, they can easily be transferred across the Internet.

Multicast: Transmitting the same media steam simultaneously to many recipients. See also - Narrowcast.

Multimedia: Media presentations which combine various elements such as sound, graphics and video.

Multi-Standard Decoder: A device that converts HTSC, PAL, SECAM, or NTSC 4.43 video to RGB video.

N

Narrowcast: The terms, Narrowcast and Multicast are often used interchangably. In general, narrowcasting / multicasting refers to sending a message to a select group, whereas Broadcasting refers to sending a message to everyone connected to a network or service.

N.T.S.C.: National Television Standards Committee, which established the US standard 525-line 60-field system, often referred to as just the NTSC format.

O

P

P.A.L.: Phase Alternate by Line; 625-line 50-field composite colour transmition system used in England, Western Europe, Scandinavia, South Africa and Australia.

P.A.L.-M.: Phase Alternate by Line; Brazilian Broadcast Standard which consists of 525 lines and 60 fields per second.

Parabolic Screen: Please see Curved Screen.

Peak White: The whitest portion of a picture signal.

Pixel: Picture Element; the smallest element to create an image in computer graphics; a dot.

Pixel Resolution: A measurement of resolution of an image defined in terms of discernable pixels.

Plasma Screen: Full name-Gas Plasma screen; Illuminescent phosphor pixels, energised by electrically stimulated gas plasma cells. This technology is now commonly used to produce large format, colour displays with very slim profiles.

PNG: Short for ***P****ortable* ***N****etwork* ***G****raphics*, the third graphics standard supported by the Web (though not supported by all browsers). PNG was developed as a patent-free answer to the GIF format but is also an improvement on the GIF technique. An image in a lossless PNG file can be 5%-25% more compressed than a GIF file of the same image. Saving, restoring and re-saving a PNG image will not degrade its quality. PNG does not support animation like GIF does.

Post Production: The process of editing film or video after acquiring the footage.

Q

Quick Time: Apple Computers cross platform multimedia technology. Widely used for CD-ROM, Web video, editing and more.

R

R.A.I.D.: Redundant Array of Independent Disks. A method of providing non linear editors with many gigabytes of high performance data storage, by teaming together a group of slower, smaller, cheaper disks.

R.A.M.: Random Access Memory. The computer memory capacity measured in bytes, which determines the amount of data the computer can process and temporarily store at one time.

Rear Projection Screen: A translucent screen of glass or plastic with a specially formulated coating on which the image is projected though the screen for viewing. The screen is between the projector and the viewer. The image must be reversed or a mirror used to correct the image for viewing.

Reporting: Please see logging.

Resolutions:

TV & Video Frame Resolutions

Name	Type	Horiz	Vert	Rate	Frame	Aspect
Australia						
PAL (576i)	DVD/TV	720	576	25hz	Interlaced	4:3
576p	HDTV/DVD	1024	576	25hz	Progressive	16:9
1080i@50	HDTV	1920	1080	25hz	Interlaced	16:9
America						
NTSC (480i)	DVD/TV	640	480	29.97hz	Interlaced	4:3
480p	DVD/HDTV	640	480	29.97hz	Progressive	4:3
720p	HDTV	1280	720	29.97hz	Progressive	16:9
1080i@60	HDTV	1920	1080	29.97hz	Interlaced	16:9

Computer Resolutions

Name	Horizontal	Vertical	Total Pixels	Aspect
VGA	640	480	307,200	4:3
SVGA	800	600	480,000	4:3

XGA	1,024	768	786,432	4:3
SXGA	1,280	1,024	1,310,720	5:4
SXGA+	1,400	1,050	1,470,000	4:3
UXGA	1,600	1,200	1,920,000	4:3
WSVGA	1,024	576	589,824	16:9
WXGA	1,280	720	921,600	16:9
QXGA	2,048	1,536	3,145,728	4:3

S

Scheduling: Creating scripts or plays lists that handle particular content over the period of time.

Screen - Glass Beaded: A glass beaded screen surface has the ability to achieve a higher gain by reflecting more of the projected light back along the projection axis. Glass beads impregnated in the screen's surface provide additional reflectance providing a screen surface for vibrant, life-like colour reproduction at moderate viewing angles. Not recommended for areas where screen will be subject to abuse or soiling.

Screen - Lenticular: A screen surface characterised by a lens-like embosses to provide maximum light over a wide horizontal and narrow vertical angle.

Screen - Matte White: One of the most versatile screen surfaces and the number one choice for situations where ambient light is controllable. Its surface evenly distributes light over a wide viewing area. Colours remain bright and life-like, with no shift in hue.

Script: List of ordered content.

Sorenson Video Code: High quality, low bandwidth QuickTime video codec.

T

T.C.P.: Transfer control protocol - common network transfer protocol used widely on the internet.

Touch Screen: A computer display that allows for control of a computer program though the touch of a finger on the screen.

U

V

Vector: In multimedia it refers to formats, which store graphical information in terms of mathematical algorithms, instead of pixels.

W

WAN: Wide Area Network.

Web: Short for World Wide Web.

X

Y

Z