



Glossary of Terms

- 4:1:1** Representation of the ratio of sampling frequencies for DV NTSC luminance and colour difference signals
- 4:2:0** Representation of the ratio of sampling frequencies for DV PAL luminance and colour difference signals
- 4:2:2** Representation of the ratio of sampling frequencies for component digital video luminance and colour difference video signals
- 4:4:4** Representation of the ratio of sampling frequencies for RGB video signals
- Aliasing** Defects or distortion in a television picture or audio. Defects are typically seen as jagged edges on diagonal lines and twinkling or brightening. In digital video, aliasing is caused by insufficient sampling or poor filtering of the digital video.
- Alpha Channel** 8 bit greyscale image used to create a matte
- Analogue** A signal which can take on a continuous range of values between a minimum and a maximum value, as opposed to digital signal, which is characterized by discrete 'bits' of information in numerical steps
- Aperture** An adjustable opto-mechanical aperture built into a camera that controls the amount of light coming through the lens also referred to as Iris and is measured in f stops
- Aperture Correction** Electronic enhancement of the video signal to improve the perceived sharpness of the image, also known as coreing or detail.
- Attenuation** The decrease in magnitude of a signal as it travels through any transmitting medium, such as a cable or circuitry. Attenuation is measured as the logarithm of a ratio. It is expressed in decibels or dB.
- ATW** Auto Tracking White, a system of white balancing that continually monitors the light and imperceptibly corrects for changes in colour temperature in real time
- Black balance** An automated process by which the individual RGB video channels of a camera are equalised to provide a neutral black
- Black Burst** A video signal made up of only synchronising blanking and colour burst information, often used as timing reference in studios
- Brightness** One of three dimensions of color; the other two are hue and saturation. The term is used to describe differences in the intensity of light reflected from or transmitted through an image independent of its hue and saturation.



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- Chromakey** The combining of a foreground and a background picture utilising a colour from the foreground as a switch signal
- Chrominance** The colour element of a television signal
- Clip** A media file eg AVI, Quicktime or JPEG
- Colour Temperature** The colour of the light source measured in Kelvin (K). 5600K is the colour temperature for average daylight conditions. Lower values produce a yellow/orange cast, higher colour temperatures produce a blue cast.
- Component** A video signal comprising of the luminance and colour difference signals
- Composite** Video signal that combines both luminance and chrominance in a single signal. Inferior to component video
- Compositor** Software used to combine several layers of video together eg After Effects
- Contrast** The difference between highlights and shadows in a photographic image. The larger the difference in density the greater the contrast
- CSO** Colour Separation Overlay another term for Chromakey
- dB** Decibel. A unit for measuring the relative strength of a signal. Usually expressed as the logarithmic ratio of the strength of a transmitted signal to the strength of the original signal. A decibel is one tenth of a "bel".
- Depth of Field** The distance between the nearest and farthest points that appear in acceptably sharp focus in a photograph. Depth of field varies with lens aperture, focal length and camera-to-subject distance.
- Digital** Electronic system which functions by converting the analogue signal into a series of discrete binary bits (ones and zeros)
- Dissolve** A video transition in which the existing image is partially or totally replaced by superimposing another image. One image fades in as the other fades out also called a MIX
- DSK** Down Stream Key, a linear keyer usually on the output of a mixer or bus often used to insert graphics or titles
- DVE** Digital Video Effect, a transition that manipulates the image i.e. page turn etc
- f stop** An aperture setting that indicates the size of the lens opening. Altering the exposure by one f stop will either double or halve the light to the camera.



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- Field** One video frame is composed of two fields; one field consists of the odd numbered lines in the frame and the other field consists of the even numbered lines.
- Filter** A piece of colored glass, plastic, or other material that selectively absorbs some of the wavelengths of light passing through it.
- Filter thread** The machined edge of a filter that is screwed into the front of the lens barrel it has both diameter and pitch
- Foot candles** A unit of measure of the luminous intensity of light
- Frame** One complete video picture. A frame contains two video fields, scanned at the NTSC rate of 30 frames per second or the PAL rate of 25 frames per second.
- Gain** The increase of voltage, current or power over a standard or previous reading. Usually expressed in decibels.
- Genlock** The term used to describe the ability of a camera to lock its internal synchronization to an external source, the external reference is normally provided by a black burst signal
- Halo** A soft line around object edges in a image
- Hue** The colour tint of an image. Three factors determine the colour of the video signal: hue, saturation, and luminance.
- IEEE1394** a standard communications protocol for high-speed, short-distance data transfer. It has been developed from Apple Computer's original "FireWire" proposal
- Interlace** A scanning standard in which alternate raster lines of a frame are displaced vertically by half the scan line pitch and displaced temporally by half the frame time, to form an odd field and an even field. Also called 2:1 interlace.
- Iris** An adjustable opto-mechanical aperture built into a camera that controls the amount of lights coming through the lens also referred to as Aperture and is measured in f stops
- Keyer** Hardware or software used to combine two images together triggered by either a select level of the luminance or chrominance component of the foreground signal
- LED** A Light Emitting Diode is a semi conducting device that emits light when passing an electric current . It uses significantly less power, releases less heat, and lasts a lot longer than an incandescent light bulb.



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- Lumens** A unit of luminous flux; overall light output; quantity of light, expressed in lumens. For example, a dinner candle provides about 12 lumens and a 60-watt soft white incandescent lamp provides about 840 lumens.
- Luminaire** A complete lighting unit, consisting of a lamp or lamps together with the components required to distribute the light, position the lamps, and connect the lamps to a power supply. Often referred to as a fixture.
- Luminance** The brightness information of a television picture. It is also used to refer to the brightness component (Y signal) of a PAL, SECAM or NTSC television signal.
- Lux** The International Standard (SI) unit of measure for luminous flux density at a surface. One Lux equals one lumen per square meter
- Matte** An image or a part of an image containing transparency information. The matte is usually a black and white image (1-8 bit) where the white areas are opaque and black areas transparent. This is suitable for compositing,
- Mix** A video transition in which the existing image is partially or totally replaced by superimposing another image. One image fades in as the other fades out. Also known as a DISSOLVE
- NLE** Non Linear Editor e.g. Final Cut Pro or Premiere Pro
- Peak to Peak** The maximum instantaneous value of a varying current or voltage across two points
- Retroreflective** An object that returns most of the emitted light back down the same axis of that of the emitter is said to be retro-reflective.
- RGB** Video format comprising of the individual Red Green and Blue elements
- Saturation** The degree to which a colour is undiluted by white light. If a colour is 100 percent saturated, it contains no white light. If a colour has no saturation, it is a shade of grey.
- SDI** Serial Digital Interface
- Shadow** Darkness in a region, caused by an obstruction between the source of light and the region
- Shutter speed** An electronic circuit available on many CCD cameras. Allowing the light gathering period (normally 1/50th of a second) of the camera to be decreased (to as little as 1/100,000th of a second)
- Switcher** A device that allows the video signals from multiple cameras to be displayed on a monitor, or recorded on a VCR one at a time in sequence. Also referred to as a Vision Mixer



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- Transition** A visual effect used to change the video output of a mixer or NLE from one source to another.
- Vectorscope** A electronic instrument that displays the amplitude and phase angle of the colour component of a video signal
- Video** An electrical picture signal containing timing (synchronization), luminance (intensity), and often chrominance (colour) information
- Waveform monitor** An electronic instrument that displays amplitude and timing of the luminance and the chrominance components of a video signal
- White balance** A video camera feature that compensates for colour temperature, automatically adjusting light levels to improve colour recording. White balance is set prior to shooting by aiming the camera at a uniformly white object.
- XLR** Professional multipole connector used for audio and power connections in sound and vision applications
- Y/C** Video signal in which the luminance and sync information are recorded separately from the colour information. Superior to composite video. Sometimes referred to as S-Video
- YUV** Component video format comprising of the separate Luminance and colour difference signals
- Zoom Ratio** The ratio between the widest and narrowest angle of view of a lens