Glossary

A

Abort: An instruction used to terminate execution of a computer program or routine.

Active Video: The portion of a video signal that contains picture information.

Array: A series of like items arranged in a meaningful pattern, such as a RAM array.

ASCII: American Standard Code for Information Interchange.

Assembly: A major part of a system that consists of more than one component. For example, the main control panel is an assembly within the model 3000. (Also see Component and System.)

Asynchronous: A mode of computer operation where the CPU immediately begins a new task upon completion of the previous task. (Also see Synchronous.)

Audio Mixer: An electronic device that takes audio signals from any of several sources (such as microphones, tape recorders, etc.) to produce audio effects. (Also see Video Switcher.)

Auto Transition: A linear automatic transition made by pressing a button (AUTO TRANS) instead of moving a lever arm.

B

Background Video: (1) Video that forms a background scene into which a key may be inserted. (2) A video output generated by the BACKGROUND generator within a switcher for use as background video in key effects.

Baud Rate: The transmission rate (in bytes per second) of data between communication devices such as computers, modems, and/or printers.

BETA Format: A color difference video format that uses the Y, R-Y, B-Y components.

Binary: A numbering system based on just two digits, 0 and 1. (Also see Hex and Octal.)

Bit (Binary Digit): A single unit of information in a storage device. (Also see Byte and Word.)

Black: A black video output generated within the switcher and selected by the BLACK pushbuttons on the crosspoint buses and by the PST BLK pushbutton.

Blanking: (1) The portion of the video signal during which the picture is shut off to keep the screen dark during vertical and horizontal retrace. (2) A standard signal from a television sync generator used to create blanking in video.

Blanking Processor: A circuit which strips blanking and sync from the source video and replaces it with blanking and sync from a reference source.

Boot: The process of loading a computer program, usually automatically (upon power up) or manually (by pushbutton).

Border: One of the title border modes in which a matte is added around the holes cut by the key signal.

Brightness: The relative intensity of light determined by the sum of responses of the eye to the component wavelengths.

Buffer: An isolating component used to eliminate the loading of a driving circuit by the circuit(s) being driven by it.

Bus: A circuit which provides a path for the transfer of information from any of several sources to any of several destinations.

Bus Master: The device currently in control of the bus in a system where control is shared between the CPU and one or more other devices.

Byte: A sequence of 8 or 16 bits operated on as a unit. (Also see Bit and Word.)

C

Character Generator: An electronic device that produces letters, numbers, and symbols for video output.

Chroma: The attribute of light combining hue and saturation independent of intensity. The color perceived is determined by the relative proportions of the three primaries.

Chroma Key: An insert effect in which the key is derived from the chrominance information (hue and saturation) of the key source.

Chrominance: The colorimetric difference between any color and a reference color of equal luminance. The level of chrominance corresponds to the sensation of saturation.

Clip: A threshold level adjustment to which the key source attribute (e.g., luminance) is compared for generating a key signal.

CMOS (Complementary Metal Oxide Semiconductor): A family of semiconductors characterized by low power consumption.

Color Bars: Standard color test signal of (usually) eight colors.

Color Black: A video signal in which the luminance is at the Black reference level.

Color Burst: A nine-cycle (NTSC) or ten-cycle (PAL) burst of subcarrier on the video signal which serves as the reference for establishing the picture color.

Color Frame: Video frame polarity. To keep the video signal in phase, color frames must alternate polarity with each frame.

Component: A part of an assembly. (Also see Assembly and System.)

Component Video: A set of video signals (usually three), each of which represents a portion of the information needed to generate a full color image.

Composite Video: A video signal which contains both picture and sync information.

Control Processor: A circuit used to generate or alter control signals.

Control Signal: A signal used to moderate the mixing of video signals.

CPU (Central Processing Unit): The section of a computing device that controls and causes the execution of instructions. A CPU on a single chip is called a microcomputer

Crosspoint: An electronic switch, usually controlled by pushbutton, that allows video or audio to pass when the switch is closed.

Crosstalk: Signal interference from one part of a videotape to another.

CRT (Cathode Ray Tube): A television picture tube.

Cut: A transition between video and / or key video signals where one signal is instantaneously replaced by another, or where one signal is instantaneously added or removed.

D

Debug: To detect and correct malfunctions of a computer or errors in a computer program.

Degauss: To demagnetize (erase) all recorded material on a magnetic video or audio tape.

Diagnostics: A program, usually resident in a computer, made up of routines which check for malfunctions and identify faulty components. (Also see Program and Routine.)

Dissolve: A transition where one source of video or audio fades out at the same time another source fades in.

Download: The process of transferring specific information from a large device to a (usually) smaller device.

Dub: To make a copy of a video recording.

Dump: To record the contents of internal memory at a given instant of time as an aid in detecting program errors.

Dupe: A duplicate copy of a videotape.

Duration: The length of time (in hours, minutes, seconds and frames) that a particular effect or event lasts.

DVE®: A registered trademark of Nippon Electric Corporation which stands for Digital Video Effects.

E

Editor: A (usually computerized) system which provides remote control of VTRs, switchers, and other devices from a control panel. An Editor enables production of finished video programs which combine video tape and effects from several sources.

EDL (Edit Decision List): A record of edit decisions made for a program (in-times, out-times, and effects). Often saved on a floppy disk, it can be used for Auto Assemble at a later time.

EEPROM (Electrically Erasable Programmable Read Only Memory): An information storage device on which the information cannot readily be changed. It is nonvolatile memory in that power conditions do not effect the information. (Also see PROM, RAM, and ROM.)

E-MEM® : A registered trademark of Grass Valley Group, Inc. which stands for Effects Memory). It is an effect learned or programmed into the switcher for later recall.

Error Message: A message generated by the program to identify a program error or the area in which a malfunction occurs.

Event Number: Number assigned by the editing system to each performed edit.

Exception Processing: The activity of a CPU in response to an interrupt in its normal execution of instructions.

Execution: The carrying out of a particular set of instructions.

F

Fade: A dissolve from full video to black or from full audio to no audio.

Fade-to-Black: See PRESET BLACK

Fault Isolation: The determination of the cause of a failure by identifying a defective component or circuit.

Field: One complete scan of the TV screen by the electron beam. For NTSC, two interleaved fields of 262 and 263 raster lines make up a frame. For PAL, two interleaved fields of 312 and 313 raster lines make up a frame.

File: A collection of related records in a computer system treated as a unit.

Firmware: Physical devices which house computer programs. (Also see Hardware and Software.)

Flag: A bit of information used to tell the program that some condition has occurred.

Flash: Interference or breakup to one field of video, also known as a hit.

Floppy Disk: An electronic device which is capable of storing data and programs for ease of retrieval and use by a computer. (Also see Hard Disk.)

Frame: Two interleaved fields which form one complete picture.

Frame Lock: Synchronization of the video signal with SMPTE time code.

Freeze Frame: The recording of a single frame of video.

Front Porch: The portion of the video signal that occurs during blanking and extends from the end of active video to the beginning of sync.

G

Generation: The number of times a dupe is removed from the original videotaped material. A copy of the original is a second generation tape, and so on.

GPI (General Purpose Interface): An electronic device containing switches activated by a remote signal. An editing system controls various remote components through GPIs.

Grey Scale: Range of luminance levels from black to white.

H

Hard Copy: A print out on paper of data contained on another media, such as a monitor or disk.

Hard Disk: An electronic device which is capable of storing large amounts of data and programs for retrieval and use by a computer. (Also see Floppy Disk).

Hardware: The electric, electronic, and mechanical equipment used to perform the tasks controlled by a computer. (Also see Firmware and Software).

Head: An electromagnetic device that reads, writes, or erases information in a storage media, such as a floppy or hard disk.

HEX (Hexadecimal): A numerical notation system using a base of 16. (Also see Binary and Octal).

House Sync: The signal generated in the studio as a reference for other timing signals.

I

I/O Device: Equipment used to send information or data signals to and from a computerized editing system.

In-Point: The beginning of an edit; the first frame that is recorded.

Interface: The method by which assemblies within a system and independent systems communicate with each other.

Interrupt: A special control signal which informs the CPU that its attention is needed for some type of exception processing.

J

Jogging: The process of moving the videotape forward or backward at a variable rate of speed.

K

Key: Electronic method of inserting one source of video into another.

Keyboard: A device which displays symbols and functions which serve to provide a human interface into an electronics system.

L

Linear Key: A key which is used by the switcher without processing; clip and gain are bypassed and the key signal is applied directly to the video switcher.

Load: To transfer data to or from a storage device.

M

Macro: A function that provides for one keystroke to take the place of many keystrokes.

Mask: A pattern used to obscure parts of a video key.

Master/Slave: Editing process in which one or more VTRs (slaves) are controlled by another VTR (master).

Matte: An internally generated flat color signal which is adjusted for luminance, hue, and chrominance.

Matrix: An array of signal lines whose intersections form crosspoints.

Mix: A transition limit in which the pattern edge between two video signals is set up with a lever arm and stored in microprocessor memory.

Mix/Effects (M/E): An electronic system capable of processing video signals with other video or control signals.

Modem: A device that converts signals from a form compatible with data processing equipment to a form compatible with transmission facilities (such a telephone lines) and vise versa.

Monitor: A device used for video output.

N

NAB: National Association of Broadcasters.

Nanosecond (ns): One billionth of a second.

Noise: Interference present in a video picture.

NTSC (National Television Standard for Color): The U.S. standard for color TV transmission consisting of 525 lines of information scanned at a rate of 30 frames per second. (Also see PAL.)

O

OCTAL: A numerical notation system using a base of 8. (Also see Binary and Hex.)

Off-Line Editing: Editing which produces an Edit Decision List which will be used to assemble the program.

On-Line Editing: Final editing session in which the finished program master is assembled.

Open-Ended Edit: An edit that has a start time but no designated end (out-point).

Operating Program: The complex sequence of instructions that determine the ability of a computer to both sequentially and concurrently run specific programs. (Also see Program and Routine.)

Out-Point: A designated end of an edit.

P

PAL (Phase Alternating Line): A color TV standard consisting of 625 lines scanned at a rate of 25 frames per second. PAL is used in many countries. (Also see NTSC.)

Port: A connection point between a computer and other hardware devices.

Preset Black: A transition mode in which one video signal is faded to color black before another video signal is faded up.

Preview: To rehearse an edit without recording it.

Printer: A device which converts signals into letters, numbers, symbols, and graphics for output onto paper. (Also see Hard Copy.)

Program: A complex sequence of instructions which tell the computer how to receive, process, store and transmit information for a specific task or related tasks. (Also see Operating Program and Routine.)

PROM (Programmable Read Only Memory): An information storage device on which the information once entered cannot readily be changed. It is nonvolatile memory in that power conditions do not effect the information. (Also see EEPROM, RAM, and ROM.)

Pulse Count: A method of editing in which the system counts control track pulses to find locations on the tape.

R

RAM (Random Access Memory): A computer memory system that allows the storage and rapid retrieval of information. It is (usually) considered volatile in that the information is lost if power is interrupted.

Raster: The area of the TV picture tube that is scanned by the electron beam.

Reaction Time: The delay (in frames) between the time the operator sees the desired edit point and the time the in-point or out-point is actually entered.

Real Time: Actual clock time in which events occur.

Reboot: The process of reloading the computer operating program (see Boot).

Recall: (1) To retrieve a previously performed event. (2) To bring a set up from E-MEM and set up a switcher with it.

Reentry: Entry of a processed video signal into another processing circuit.

Register: A storage location in microprocessor memory which is accessed for storage or recall by one of the pushbuttons on the E-MEM keypad.

Registration: The alignment of various signal components to produce a more exact video image.

RGB Chroma Key: An insert key effect in which the key signal is derived from a video signal on the basis of RGB chroma hue and saturation.

S

Scroll: To move up or down a list.

Self Key: An insert key effect in which the key video signal serves as both the key source and the insert source.

Sequence: An operating mode which allows automatic recall of the contents of a series of E-MEM registers.

Shadow: A title border mode in which the title border is wider and appears only to the right and bottom of the key.

Signal-to-Noise Ratio: A measurement of the amount of unwanted noise present in an audio or video signal.

SMPTE: Society of Motion Picture and Television Engineers.

Software: Computer programs. (Also see Hardware and Firmware.)

Split Key: A key mode in which the key signal and the key video are from different sources.

Streaking: Video irregularity that appears as dark streaks extending toward the right side of the picture.

Sync: Synchronization pulses that coordinate the operation of several interconnected video components.

Sync Roll: Synchronizing and rolling the VTRs for editing purposes.

Synchronous: A mode of computer operation where all task, regardless of the time they take for execution, are allotted identical time cycles. (Also see Asynchronous.)

System: A grouping of assemblies which perform multiple related tasks. (Also see Assembly and Component.)

T

Terminator: A loop back connector which contains a 75 ohm resistive load to ensure proper signal levels.

Time Base Corrector (TBC): An electronic device used to correct video signal instability.

Transition: A change from one picture to another. A transition can be a wipe, mix, or cut.

U

Upload: Transferring information from one device to a (usually) larger device.

V

Video Switcher: An electronic device that takes video signals from any of several sources (such as cameras, VTRs, character generators, etc.) to produce video effects. (Also see Audio Mixer.)

W

White Clip: Circuit that corrects positive over-modulation of a composite video signal.

Wipe: Special effect transition in which one video source wipes (replaces) over another.

Word: A unit of data which occupies one location in memory and is acted upon as a unit. (Also see Bit and Byte.)

Workprint: Edited master recording created during off-line editing.