

Glossary

action One of many integer constants used by QuickTime movie controller components in the `MCDoAction` function. Applications that include action filters may receive any of these actions.

active movie segment A portion of a QuickTime movie that is to be used for playback. By default, the active segment is set to the entire movie. You can change the active segment of a movie by using the Movie Toolbox.

active source rectangle The portion of the **maximum source rectangle** that contains active video that can be digitized by a video digitizer component.

aliasing The result of sampling a signal at less than twice its natural frequency. Aliasing causes data to be lost in the conversion that occurs when resampling an existing signal at more than twice its natural frequency.

alpha channel The portion of each display pixel that represents the blending of video and graphical image data for a video digitizer component.

alternate group A collection of movie **tracks** that contain alternate data for one another. The Movie Toolbox chooses one track from the group to be used when the movie is played. The choice may be based on such considerations as quality or language.

anti-aliasing The process of sampling a signal at more than twice its natural frequency to ensure that **aliasing** artifacts do not occur.

area of interest The portion of a test image that is to be displayed in the standard image-compression dialog box.

atom The basic unit of data in a movie resource. There are a number of different atom types, including movie atoms, track atoms, and media atoms. There are two varieties of atoms: container atoms, which contain other atoms, and leaf atoms, which do not contain any other atoms.

attached controller A movie controller with an attached movie.

automatic key frame A key frame that is inserted automatically by the Image Compression Manager when it detects a scene change. When performing temporal compression, the Image Compression Manager looks for frames that have changed more than 90 percent since the previous frame. If such a change occurs, the Image Compression Manager assumes a scene change and inserts a key frame. A **key frame** allows fast random access and reverse play in addition to efficient compression and picture quality of the frame.

badge A visual element in a movie's display that distinguishes a movie from a static image. The movie controller component supplied by Apple supports badges.

band A horizontal strip from an image. The Image Compression Manager may break an image into bands if a compressor or decompressor component cannot handle an entire image at once.

base media handler component A component that handles most of the duties that must be performed by all **media handlers**. See also **derived media handler component**.

black level The degree of blackness in an image. This is a common setting on a video digitizer. The highest setting will produce an all-black image whereas the lowest setting will yield very little, if any, black even with black objects in the scene. Black level is an important digitization setting since it can be adjusted so that there is little or no noise in an image.

blend matte A pixel map that defines the blending of video and digital data for a video digitizer component. The value of each pixel in the pixel map governs the relative intensity of the video data for the corresponding pixel in the result image.

callback event A scheduled invocation of a Movie Toolbox **callback function**. Applications establish the criteria that determine when the callback function is to be invoked. When those criteria are met, the Movie Toolbox invokes the callback function.

callback function An application-defined function that is invoked at a specified time or based on specified criteria. These callback functions are data-loading functions, data-unloading functions, completion functions, and progress functions. See also **callback event**.

chunk In the movie resource formats, a collection of sample data in a media. Chunks allow optimized data access. A chunk may contain one or more samples. Chunks in a media may have different sizes and the samples within a chunk may have different sizes. In the Sound Manager, a chunk may refer to a collection of sampled sound and definitions of the characteristics of sampled sound and other relevant details about the sound.

clipped movie boundary region The region that is clipped by the Movie Toolbox. This region combines the union of all track movie boundary regions for a movie, which is the movie's **movie boundary region**, with the movie's **movie clipping region**, which defines the portion of the movie boundary region that is to be used.

clock component A **component** that supplies basic time information to its clients. Clock components have a **component type** value of 'clock'.

color ramps Images in which the shading goes from light to dark in smooth increments.

component A software entity, managed by the Component Manager, that provides a defined set of services to its clients. Examples include clock components, movie controller components, and image compressor components.

component instance A channel of communication between a **component** and its client.

component subtype An element in the classification hierarchy used by the Component Manager to define the services provided by a **component**. Within a **component type**, the

component subtype provides additional information about the component. For example, image compressor components all have the same component type value; the component subtype value indicates the compression algorithm implemented by the component.

component type An element in the classification hierarchy used by the Component Manager to define the services provided by a **component**. The component type value indicates the type of services provided by the component. For example, all image compressor components have a component type value of 'imco'. See also **component subtype**.

compressor component A general term used to refer to both **image compressor components** and **image decompressor components**.

connection A channel of communication between a **component** and its client. A **component instance** is used to identify the connection.

container atom A QuickTime atom that contains other atoms, possibly including other container atoms. Examples of container atoms are track atoms and edit atoms. Compare **leaf atom**.

controller boundary rectangle The rectangle that completely encloses a movie controller. If the controller is attached to its movie, the rectangle also encloses the movie image.

controller boundary region The region occupied by a movie controller. If the controller is attached to its movie, the region also includes the movie image.

controller clipping region The clipping region of a movie controller. Only the portion of the controller and its movie that lies within the clipping region is visible to the user.

controller window region The portion of a movie controller and its movie that is visible to the user.

cover function An application-defined function that is called by the Movie Toolbox whenever a movie covers a portion of the screen or reveals a portion of the screen that was previously hidden by the movie.

current error One of two error values maintained by the Movie Toolbox. The current error value is updated by every Movie Toolbox function. The other error value, the **sticky error**, is updated only when an application directs the Movie Toolbox to do so.

current selection A portion of a QuickTime movie that has been selected for a cut, copy, or paste operation.

current time The time value that represents the point of a QuickTime movie that is currently playing or would be playing if the movie had a nonzero rate value.

data dependency An aspect of image compression in which compression ratios are highly dependent on the image content. Using an algorithm with a high degree of data dependency, an image of a crowd at a football game (which contains a lot of detail) may produce a very small compression ratio, whereas an image of a blue sky (which consists mostly of constant colors and intensities) may produce a very high compression ratio.

data handler A piece of software that is responsible for reading and writing a media's data. The data handler provides data input and output services to the media's **media handler**.

data reference A reference to a media's data.

derived media handler component A component that allows the Movie Toolbox to access the data in a media. Derived media handler components isolate the Movie Toolbox from the details of how or where a particular media is stored. This not only frees the Movie Toolbox from reading and writing media data, but also makes QuickTime extensible to new data formats and storage devices. These components are referred to as *derived* components because they rely on the services of a common base media handler component, which is supplied by Apple. See also **base media handler component**.

detached controller A movie controller component that is separate from its associated movie.

digitizer rectangle The portion of the **active source rectangle** that you want to capture and convert with a video digitizer component.

display coordinate system The QuickDraw graphics world, which can be used to display QuickTime movies, as opposed to the movie's **time coordinate system**, which defines the basic time unit for each of the movie's tracks.

dithering A technique used to improve picture quality when you are attempting to display an image that exists at a higher bit-depth representation on a lower bit-depth device. For example, you might want to dither a 24 bits per pixel image for display on an 8-bit screen.

duration A time interval. Durations are time values that are interpreted as spans of time, rather than as points in time.

edit state Information defining the current state of a movie or track with respect to an edit session. The Movie Toolbox uses edit states to support its undo facilities.

fixed point A point that uses fixed-point numbers to represent its coordinates. The Movie Toolbox uses fixed points to provide greater display precision for graphical and image data.

fixed rectangle A rectangle that uses **fixed points** to represent its vertices. The Movie Toolbox uses fixed rectangles to provide greater display precision.

flattening The process of copying all of the original data referred to by reference in QuickTime tracks into a QuickTime movie file. This can also be called *resolving references*. Flattening is used to bring in all of the data that may be referred to from multiple files after QuickTime editing is complete. It makes a QuickTime movie stand-alone—that is, it can be played on any system without requiring any additional QuickTime movie files or tracks, even if the original file referenced hundreds of files. The flattening operation is essential if QuickTime movies are to be used with CD-ROM discs.

frame A single image in a **sequence** of images.

frame differencing A form of temporal compression that involves examining redundancies between adjacent frames in a moving image sequence. Frame differencing can improve compression ratios considerably for a video sequence.

frame rate The rate at which a movie is displayed—that is, the number of frames per second that are actually being displayed. In QuickTime the frame rate at which a movie was recorded may be different from the frame rate at which it is displayed. On very fast machines, the playback frame rate may be faster than the record frame rate; on slow machines, the playback frame rate may be slower than the record frame rate. Frame rates may be fractional.

genlock A circuit that locks the frequency of an internal clock to an external timing source. This term is used to refer to the ability of a video digitizer to rely on external clocking.

hue value A setting that is similar to the tint control on a television. Hue value can be specified in degrees with complementary colors set 180° apart (red is 0°, green is +120°, and blue is -120°). Video digitizer components support hue values that range from 0 (-180° shift in hue) to 65,535 (+179° shift in hue), where 32,767 represents a 0° shift in hue. Hue value is set with the video digitizer component's `VDSethue` function.

identity matrix A **transformation matrix** that specifies no change in the coordinates of the source image. The resulting image corresponds exactly to the source image.

image compressor component A **component** that provides image-compression services. Image compressor components have a **component type** of `'imco'`.

image decompressor component A **component** that provides image-decompression services. Image decompressor components have a **component type** value of `'imdc'`.

image sequence A series of visual representations usually represented by video over time. Image sequences may also be generated synthetically, such as from an animation sequence.

interesting time A time value in a movie, track, or media that meets certain search criteria. You specify the search criteria in the Movie Toolbox. The Movie Toolbox then scans the movie, track, or media and locates time values that meet those search criteria.

interlacing A video mode that updates half the scan lines on one pass and goes through the second half during the next pass.

interleaving A technique in which sound and video data are alternated in small pieces, so the data can be read off disk as it is needed. Interleaving allows for movies of almost any length with little delay on startup.

intraframe coding A process that compresses only a single frame. It does not require looking at adjacent frames in time to achieve compression, but allows fast random access and reverse play.

Joint Photographic Experts Group

(JPEG) Refers to an international standard for compressing still images. This standard supplies the algorithm for image compression. The version of JPEG supplied with QuickTime complies with the baseline International Standards Organization (ISO) standard bitstream, version 9R9. This algorithm is best suited for use with natural images.

JPEG See **Joint Photographic Experts Group**.

key color A color in a destination image that is replaced with video data by a video digitizer component. Key colors represent one technique for selectively displaying video on a computer display. Other techniques include the use of **alpha channels** and **blend mattes**.

key frame A sample in a sequence of temporally compressed samples that does not rely on other samples in the sequence for any of its information. Key frames are placed into temporally compressed sequences at a frequency that is determined by the **key frame rate**. Typically, the term *key frame* is used with respect to temporally compressed sequences of image data. See also **sync sample**.

key frame rate The frequency with which **key frames** are placed into temporally compressed data sequences.

layer A mechanism for prioritizing the tracks in a movie. When it plays a movie, the Movie Toolbox displays the movie's tracks according to their layer—tracks with lower layer numbers are displayed first; tracks with higher layer numbers are displayed over those tracks.

leaf atom A QuickTime atom that contains no other atoms. A leaf atom, however, may contain a table. An example of a leaf atom is an edit list atom. The edit list atom contains the edit list table. Compare **container atom**.

lossless compression A compression scheme that preserves all of the original data.

lossy compression A compression scheme that does not preserve the data precisely; some data is lost, and it cannot be recovered after compression. Most lossy schemes try to compress the data as much as possible, without decreasing the image quality in a noticeable way.

mask region A 1-bit-deep region that defines how an image is to be displayed in the destination coordinate system. For example, during decompression the Image Compression Manager displays only those pixels in the source image that correspond to bits in the mask region that are set to 1. Mask regions must be defined in the destination coordinate system.

master clock component A movie's clock component.

matrix See **transformation matrix**.

matte See **blend matte**, **track matte**.

maximum source rectangle A rectangle representing the maximum source area that a video digitizer component can grab. This rectangle usually encompasses both the vertical and horizontal blanking areas.

media A Movie Toolbox data structure that contains information that describes the data for a track in a movie. Note that a media does not contain its data; rather, a media contains a reference to its data, which may be stored on disk, CD-ROM disc, or any other mass storage device.

media handler A piece of software that is responsible for mapping from the movie's time coordinate system to the media's time coordinate system. The media handler also interprets the media's data. The **data handler** for the media is responsible for reading and writing the media's data. See also **base media handler component**, **derived media handler component**.

media information Control information about a media's data that is stored in the media structure by the appropriate **media handler**.

movie A set of time-based data that is managed by the Movie Toolbox. A QuickTime movie may contain sound, video, animation, laboratory results, financial data, or a combination of any of these types of time-based data. A QuickTime movie contains one or more **tracks**; each track represents a single data stream in the movie.

movie boundary region A region that describes the area occupied by a movie in the movie coordinate system, before the movie has been clipped by the **movie clipping region**. A movie's boundary region is built up from the **track movie boundary regions** for each of the movie's **tracks**.

movie box A rectangle that completely encloses the **movie display boundary region**. The movie box is defined in the display coordinate system.

movie clipping region The clipping region of a movie in the movie's coordinate system. The Movie Toolbox applies the movie's clipping region to the **movie boundary region** to obtain a clipped movie boundary region. Only that portion of the movie that lies in the clipped movie boundary region is then transformed into an image in the display coordinate system.

movie controller component A component that manages movie controllers, which present a user interface for playing and editing movies.

movie data exchange component A component that allows applications to move various types of data into and out of a QuickTime movie. The two types of data exchange components, which provide data conversion services to and from standard QuickTime movie data formats, are the **movie import component** and the **movie export component**.

movie data export component A component that converts QuickTime movie data into other formats.

movie data import component A component that converts other data formats into QuickTime movie data format.

movie display boundary region A region that describes the display area occupied by a movie in the display coordinate system, before the movie has been clipped by the **movie display clipping region**.

movie display clipping region The clipping region of a movie in the display coordinate system. Only that portion of the movie that lies in the clipping region is visible to the user. The Movie Toolbox applies the movie's display clipping region to the **movie display boundary region** to obtain the visible image.

movie file A QuickTime file that stores all information about the movie in a Macintosh resource, and stores all the associated data for the movie separately. The resource is stored in the resource fork, and the data in the data fork. Most QuickTime movies are stored in files with double forks. Compare **single-fork movie file**.

movie poster A single visual image representing a QuickTime movie. You specify a poster as a point in time in the movie and specify the tracks that are to be used to constitute the poster image.

movie preview A short dynamic representation of a QuickTime movie. Movie previews typically last no more than 3 to 5 seconds, and they should give the user some idea of what the movie contains. You define a movie preview by specifying its start time, duration, and its tracks.

movie resource One of several data structures that provide the medium of exchange for movie data between applications on a Macintosh computer and between computers, even computers of different types.

National Television System Committee (NTSC) Refers to the color-encoding method adopted by the committee in 1953. This standard was the first monochrome-compatible, simultaneous color transmission system used for public broadcasting. This method is used widely in the United States.

NTSC See **National Television System Committee**.

offset-binary encoding A method of digitally encoding sound that represents the range of amplitude values as an unsigned number, with

the midpoint of the range representing silence. For example, an 8-bit sound sample stored in offset-binary format would contain sample values ranging from 0 to 255, with a value of 128 specifying silence (no amplitude). Samples in Macintosh sound resources are stored in offset-binary form. Compare **twos-complement encoding**.

PAL See **Phase Alternation Line**.

palindrome looping Running a movie in a circular fashion from beginning to end and end to beginning, alternating forward and backward. Looping must also be enabled in order for palindrome looping to take effect.

Phase Alternation Line (PAL) A color-encoding system used widely in Europe, in which one of the subcarrier phases derived from the color burst is inverted in phase from one line to the next. This technique minimizes hue errors that may result during color video transmission. Sometimes called *Phase Alternating Line*.

phase-locked loop (PLL) A piece of hardware that synchronizes itself to an input signal—for example, a video digitizer card that synchronizes to an incoming video source. The video digitizer component's `VDSetsPLLFilterType` function allows applications to specify which phase-locked loop is to be active.

playback quality A relative measure of the fidelity of a track in a QuickTime movie. You can control the playback (or language) quality of a movie during movie playback. The Movie Toolbox chooses tracks from **alternate groups** that most closely correspond to the display quality you desire. In this manner you can create a single movie that can take advantage of the hardware configurations of different computer systems during playback.

PLL See **phase-locked loop**.

preferred rate The default playback rate for a QuickTime movie.

preferred volume The default sound volume for a QuickTime movie.

preroll A technique for improving movie playback performance. This technique is used when prerolling a movie. The Movie Toolbox

informs the movie's **media handlers** that the movie is about to be played. The media handlers can then load the appropriate movie data. In this manner, the movie can play smoothly from the start.

preview A short, potentially dynamic, visual representation of the contents of a file. The Standard File Package can use file previews in file dialog boxes to give the user a visual cue about a file's contents.

preview component A component used by the Movie Toolbox's standard file preview functions to display and create visual previews for files. Previews usually consist of a single image, but they may contain many kinds of data, including sound. In QuickTime, the Movie Toolbox is the primary client of preview components. Rarely, if ever, do applications call preview components directly.

progress function An application-defined function that is invoked by the Movie Toolbox or the Image Compression Manager. You can use these functions to track the progress of time-consuming activities, and thereby keep the user informed about that progress.

rate A value that specifies the pace at which time passes for a **time base**. A time base's rate is multiplied by the time scale to obtain the number of **time units** that pass per second. For example, consider a time base that operates in a time coordinate system that has a time scale of 60. If that time base has a rate of 1, 60 time units are processed per second. If the rate is set to 1/2, 30 time units pass per second. If the rate is 2, 120 time units pass per second.

sample A single element of a sequence of time-ordered data.

sample number A number that identifies the sample with data for a specified time.

saturation value A setting that controls color intensity. For example, at high saturation levels, red appears to be red; at low saturation, red appears pink. Valid saturation values range from 0 to 65,535, where 0 is the minimum saturation value and 65,535 specifies maximum saturation. Saturation value is set with the video digitizer component's `VDSetSaturation` function.

SECAM See **Système Electronique Couleur avec Memoire**.

selection duration A time value that specifies the duration of the **current selection** of a movie.

selection time A time value that specifies the starting point of the **current selection** of a movie.

sequence A series of images that may be compressed as a sequence. To do this, the images must share an image description structure. In other words, each image or **frame** in the sequence must have the same compressor type, pixel depth, color lookup table, and boundary dimensions.

sequence grabber channel component A component that manipulates captured data for **sequence grabber components**.

sequence grabber component A component that allows applications to obtain digitized data from sources that are external to a Macintosh computer. For example, you can use a sequence grabber component to record video data from a **video digitizer component**. Your application can then request that the sequence grabber store the captured video data in a QuickTime movie. In this manner you can acquire movie data from various sources that can augment the movie data you create by other means, such as computer animation. You can also use sequence grabber components to obtain and display data from external sources, without saving the captured data in a movie.

sequence grabber panel component A component that allows sequence grabber components to obtain configuration information from the user for a particular **sequence grabber channel component**. An application never calls a sequence grabber panel component directly; application developers use panel components only by calling the **sequence grabber component**.

shadow sync sample A self-contained sample that is an alternate for an already existing frame difference sample. During certain random access operations, a shadow sync sample is used instead of a normal key frame, which may be very far away from the desired frame. See also **frame differencing**.

single-fork movie file A QuickTime movie file that stores both the movie data and the movie resource in the data fork of the movie file. You can use single-fork movie files to ease the exchange of QuickTime movie data between Macintosh computers and other computer systems. Compare **movie file**.

spatial compression Image compression that is performed within the context of a single **frame**. This compression technique takes advantage of redundancy in the image to reduce the amount of data required to accurately represent the image. Compare **temporal compression**.

standard image-compression dialog component A component that provides a consistent user interface for selecting parameters that govern compression of an image or image sequence and then manages the compression operation.

sticky error One of two error values maintained by the Movie Toolbox. The sticky error is updated only when an application directs the Movie Toolbox to do so. The other error value, the **current error**, is updated by every Movie Toolbox function.

s-video A video format in which color and brightness information are encoded as separate signals. The s-video format is component video as opposed to composite video, which is the NTSC standard.

sync sample A sample that does not rely on preceding frames for content. See also **key frame**.

Système Electronique Couleur avec Memoire (SECAM) Sequential Color With Memory; refers to a color-encoding system in which the red and blue color-difference information is transmitted on alternate lines, requiring a one-line memory in order to decode green information.

tearing The effect you obtain if you redraw the screen from the buffer while the buffer is only half updated, so that you get one half of one image and one half of another on a single raster scan.

temporal compression Image compression that is performed between **frames** in a sequence. This compression technique takes advantage of redundancy between adjacent frames in a sequence to reduce the amount of data that is required to accurately represent each frame in the sequence. Sequences that have been temporally compressed typically contain **key frames** at regular intervals. Compare **spatial compression**.

thumbnail picture A picture that can be created from an existing image that is stored as a pixel map, a picture, or a picture file. A thumbnail picture is useful for creating small representative images of a source image and in previews for files that contain image data.

time base A set of values that define the time basis for an entity, such as a QuickTime movie. A time base consists of a **time coordinate system** (that is, a **time scale** and a **duration**) along with a rate value. The rate value specifies the speed with which time passes for the time base.

time coordinate system A set of values that defines the context for a **time base**. A time coordinate system consists of a **time scale** and a **duration**. Together, these values define the coordinate system in which a **time value** or a time base has meaning.

time scale The number of **time units** that pass per second in a **time coordinate system**. A time coordinate system that measures time in sixtieths of a second, for example, has a time scale of 60.

time unit The basic unit of measure for time in a time coordinate system. The value of the time unit for a time coordinate system is represented by the formula (1 / time scale) seconds. A time coordinate system that has a time scale of 60 measures time in terms of sixtieths of a second.

time value A value that specifies a number of time units in a **time coordinate system**. A time value may contain information about a point in time or about a **duration**.

track A Movie Toolbox data structure that represents a single data stream in a QuickTime **movie**. A movie may contain one or more tracks. Each track is independent of other tracks in the

movie and represents its own data stream. Each track has a corresponding **media**. The media describes the data for the track.

track boundary region A region that describes the area occupied by a track in the track's coordinate system. The Movie Toolbox obtains this region by applying the **track clipping region** and the **track matte** to the visual image contained in the **track rectangle**.

track clipping region The clipping region of a track in the track's coordinate system. The Movie Toolbox applies the track's clipping region and the **track matte** to the image contained in the **track rectangle** to obtain the **track boundary region**. Only that portion of the track that lies in the track boundary region is then transformed into an image in the movie coordinate system.

track height The height, in pixels, of the **track rectangle**.

track matte A pixel map that defines the blending of track visual data. The value of each pixel in the pixel map governs the relative intensity of the track data for the corresponding pixel in the result image. The Movie Toolbox applies the track matte, along with the **track clipping region**, to the image contained in the **track rectangle** to obtain the **track boundary region**.

track movie boundary region A region that describes the area occupied by a track in the movie coordinate system, before the movie has been clipped by the **movie clipping region**. The **movie boundary region** is built up from the track movie boundary regions for each of the movie's **tracks**.

track offset The blank space that represents the intervening time between the beginning of a movie and the beginning of a track's data. In an audio track, the blank space translates to silence; in a video track, the blank space generates no visual image. All of the tracks in a movie use the movie's time coordinate system. That is, the movie's time scale defines the basic time unit for each of the movie's tracks. Each track begins at the beginning of the movie, but the track's data might not begin until some time value other than 0.

track rectangle A rectangle that completely encloses the visual representation of a track in a QuickTime movie. The width of this rectangle in pixels is referred to as the **track width**; the height, as the **track height**.

track width The width, in pixels, of the track rectangle.

transformation matrix A 3-by-3 matrix that defines how to map points from one coordinate space into another coordinate space.

twos-complement encoding A system for digitally encoding sound that stores the amplitude values as a signed number—silence is represented by a sample with a value of 0. For example, with 8-bit sound samples, twos-complement values would range from -128 to 127, with 0 meaning silence. The Audio Interchange File Format (AIFF) used by the Sound Manager stores samples in twos-complement form. Compare **offset-binary encoding**.

user data Auxiliary data that your application can store in a QuickTime movie, track, or media structure. The user data is stored in a **user data list**; items in the list are referred to as **user data items**. Examples of user data include a copyright, date of creation, name of a movie's director, and special hardware and software requirements.

user data item A single element in a **user data list**.

user data list The collection of **user data** for a QuickTime movie, track, or media. Each element in the user data list is referred to as a **user data item**.

vertical blanking rectangle A rectangle that defines a portion of the input video signal that is devoted to vertical blanking. This rectangle occupies lines 10 through 19 of the input signal. Broadcast video sources may use this portion of the input signal for closed captioning, teletext, and other nonvideo information. Note that the blanking rectangle cannot be contained in the **maximum source rectangle**.

video digitizer component A component that provides an interface for obtaining digitized video from an analog video source. The typical client of a video digitizer component is a sequence grabber component, which uses the services of video digitizer components to create a very simple interface for making and previewing movies. Video digitizer components can also operate independently, placing live video into a window.

white level The degree of whiteness in an image. It is a common video digitizer setting.