New

Opens a new window where you can record sound into or paste previously copied seletions.

Creating a new audio file
New dialog box
Welcome to Audio Editor Help

Open

Opens existing audio files into the workspace.

(Shortcut key: Ctrl+O)

 Opening an audio file
 Open dialog box
 Welcome to Audio Editor Help

Restore

Returns the current waveform to its last saved version. This is essentially the same as closing the file without saving and then reopening it again. This command cannot be undone and is useful if you have made several changes and cannot recall how to undo them.

Recovering from mistakes
Welcome to Audio Editor Help

Close

Closes the current file without exiting the program. If you have made any changes to the file since you last saved it, Audio Editor prompts you to save them.

Closing an audio file
Welcome to Audio Editor Help

Save

Saves the current file. If the file has not been previously saved, the Save As dialog box opens prompting you for a name, destination and other settings. To save files that are already named, use the Save command.

(Shortcut key: Ctrl+S)

 Saving an audio file
 Save As dialog box
 Welcome to Audio Editor Help

Save As

Saves the current file with a new name and destination. The Save As dialog box opens where you can assign a name, destination, and other settings. To save files that are already named, use the Save command.

Note: If saving audio data to an existing AVI file, Audio Editor writes to the audio track without affecting the video.

Saving an audio file
Save As dialog box
Welcome to Audio Editor Help

Preferences

Customizes the Audio Editor and MediaStudio working environment. The Preferences dialog box opens where you can define how audio files appear in the workspace, identify the audio mixing and recording program to use with Audio Editor, and other general MediaStudio settings.

(Shortcut key: F6)


Customizing Audio Editor


Preferences dialog box


Welcome to Audio Editor Help

Exit

Quits Audio Editor. If any open files have been changed since you last saved them, Audio Editor prompts you to save them first.

(Shortcut key: Ctrl+Q)



Quitting Audio Editor


Welcome to Audio Editor Help

Recent Files

Lists the most recently opened audio files. You can set the maximum number of files to show here by clicking File: Preferences.

Preferences dialog box

Welcome to Audio Editor Help

Undo/Redo

Reverses the last applied command (if possible). If you need to undo all unsaved changes, choose Restore from the File menu, or reopen it normally.

(Shortcut key: Ctrl+Z)



Recovering from mistakes

Welcome to Audio Editor Help

Cut

Removes the active selection from the current waveform and places it onto the clipboard. If there is no selection, this command is not available.

(Shortcut key: Ctrl+X)



Clearing audio data

Welcome to Audio Editor Help

Copy

Copies the active selection in the current waveform onto the clipboard. If nothing is selected, Audio Editor copies the entire waveform.

(Shortcut key Ctrl+C)

Welcome to Audio Editor Help

Paste

- **Insert** *(Shortcut key: Ctrl+V)* Inserts the clipboard contents at the insertion point pushing the remainder of the waveform to the right.
- **Replace** Overwrites the existing waveform data with that of the clipboard.
- **Mix** Combines the existing waveform data with that of the clipboard.
- **Fill** Inserts the clipboard data into the active selection so that it repeats until the entire selection is filled.
- **As a New Document** Creates a new audio window consisting of the clipboard data.

Pasting data into a waveform

Paste Mix dialog box

Welcome to Audio Editor Help

Clear

Permanently removes the active selection from the waveform. Once information has been cleared, you can recover it by immediately applying the Undo command in the Edit Menu.

(Shortcut key: Del)

Clearing audio data

Welcome to Audio Editor Help

Select All

Selects the entire waveform. This command saves you time if you want to apply commands to the whole file.

(Shortcut key: Ctrl+L)

Selecting areas in a file

Welcome to Audio Editor Help

Select None

Clears any selection made in the current waveform and places the insertion point immediately to the left of where the selection originally began.

(Shortcut key: Ctrl+N)

Welcome to Audio Editor Help

Mute

Changes the amplitude of a selected area to zero so that when you play that portion of the waveform, no sound is heard. To restore the original sound, you have to immediately undo the mute command.

Welcome to Audio Editor Help

Retain

Deletes all unselected portions in the current waveform and displays only the selected area.

Clearing audio data
Welcome to Audio Editor Help

Trim Silence

Removes all sections with zero amplitude from a selected area or the current waveform, truncating the waveform accordingly.

Note: When reviewing the waveform, some areas may seem silent, but actually contain hard to notice audio data. If such sections exists in your waveform, try using the Remove Noise command before Trim Silence.

Working with silence
Remove Noise
Trim Silence dialog box
Welcome to Audio Editor Help

Insert Silence

Inserts a silent (zero amplitude) section into the current waveform at the insertion point. Audio Editor shifts existing waveform data to the right of the cursor to make room for the inserted data. The Insert Silence dialog box allows you to specify the length for the inserted section.

Working with silence

Insert Silence dialog box

Welcome to Audio Editor Help

Find Silence

Moves the insertion point to a silent portion in the waveform, optionally placing a cue according to the Find Silence dialog box settings.

Working with silence

Find Silence dialog box

Welcome to Audio Editor Help

Merge

Combines two mono (single track) waveforms to form a new, untitled stereo (two-track) waveform. One of the tracks for the new waveform will be that of the current track while the other will be that of a compatible waveform that is currently open in the workspace. You can specify which track to place each waveform into.

Note: You can only merge waveforms if they both have the same sample rate and size.

Merging two mono files into a stereo file
Converting a waveform's data type
Merge dialog box
Welcome to Audio Editor Help

Split

Divides a stereo (two track) wave file into two mono (single track) files. After applying the Split command, Audio Editor creates two new untitled waveforms, one of the left channel and the other the right.

Welcome to Audio Editor Help

Mix

Creates a new waveform by combining the current waveform with another open one.

Note: This command can only be used to combine waveforms of the same type.

Mixing two audio files
Converting a waveform's data type
Mix dialog box
Welcome to Audio Editor Help

Cross Fade

Creates a new waveform by fading the end of the current waveform into the beginning of another selected one.

Note: This command can only be used to combine waveforms of the same type.

Performing a cross fade between files
Converting a waveform's data type
Cross Fade dialog box
Welcome to Audio Editor Help

Convert To

Changes the sample rate, sample size, and number of channels for the current waveform. Some reasons for converting waveform include reducing file size or making the waveform compatible with another existing audio file.

Converting a waveform's data type

Convert To dialog box

Play 

Plays the current waveform. Clicking Play the second time pauses the playback.
(Shortcut key: Space)

Playing an audio file
Welcome to Audio Editor Help

Stop ■

Stops the waveform playback. Click Stop twice to bring the cursor to the beginning of the waveform.
(Shortcut key: Esc)

Welcome to Audio Editor Help

Record 

Records sound and inserts it to the right of the insertion point. If no waveform is currently open, Audio Editor creates a new waveform window for the recorded data.

(Shortcut key: Ctrl+R)

Recording a waveform
Welcome to Audio Editor Help

Run Mixer 

Runs the Mixer program (defined in the Preferences dialog box) where you control the source, volume, and balance of each input channel for recording.

(Shortcut key: Ctrl+M)

Recording a waveform

Preferences dialog box

Welcome to Audio Editor Help

Play Selection

Plays only the selected area of the current waveform.
(Shortcut key: F2)

Welcome to Audio Editor Help

Start Selection

Marks the beginning of a new selection when the waveform is played.

(Shortcut key: F3)

Welcome to Audio Editor Help

End Selection

Marks the end of a new selection when the waveform is played.

(Shortcut key: F4)

Welcome to Audio Editor Help

Go To Start

Places the insertion point at the beginning of the waveform.

(Shortcut key: Ctrl+Home)

Welcome to Audio Editor Help

Go To End

Places the insertion point at the end of the waveform.

(Shortcut key: Ctrl+End)

Welcome to Audio Editor Help

Add Cue 

Creates a visual mark at the insertion point to use as a reference for future editing. By default, "&p" assigns the current cue position as the cue name. You can assign a unique name to the cue by double clicking on the cue mark. *(Shortcut key: F5)*

Working with cues

Add Cue dialog box

Welcome to Audio Editor Help

Previous Cue 

Moves the insertion point to the previous cue.
(Shortcut key: Shift+Tab)

Welcome to Audio Editor Help

Next Cue 

Moves the insertion point to the next cue.
(Shortcut key: Tab)

Welcome to Audio Editor Help

Go To Cue

Displays the Go To Cue dialog box where you can select a cue to go to.

(Shortcut key: Ctrl+G)

Go To Cue dialog box

Welcome to Audio Editor Help

Delete All Cues

Deletes all the cues in the waveform.

Note: To remove a cue simply drag it outside the Audio File Window.

Welcome to Audio Editor Help

Actual View

Shows the current waveform in normal (1x) view.

(Shortcut key: Ctrl+A)

Welcome to Audio Editor Help

Zoom In

Magnifies the view of the current waveform thus allowing you to see it in more detail.

Dragging the slider indicator to the left or clicking on the left of the indicator enlarges the view of the waveform.

(Shortcut key: +)

Welcome to Audio Editor Help

Zoom Out

Reduces the view of the current waveform thus allowing you to see more of it at one time.

Dragging the slider indicator to the right or clicking on the right of the indicator reduces the view of the waveform.

(Shortcut key: -)

Welcome to Audio Editor Help

Fit In Window

Displays the current waveform within a window size that you want, eliminating any scroll bars.

(Shortcut key: Ctrl+1)

Welcome to Audio Editor Help

Fit Selection In Window 

Zooms in on the selected area to fit it within the current window size.
(Shortcut key: Ctrl+F)

Welcome to Audio Editor Help

View Toggle 

Toggles between the last two views of the current waveform. Use this command if you have changed your display and want to go back to the previous one.

Welcome to Audio Editor Help

Properties

Displays a dialog box about the waveform attributes, file information, and other detailed description of the current waveform.

Properties dialog box

Welcome to Audio Editor Help

Toolbars & Panels

Opens a dialog box for choosing the tools to show in the workspace for easy access to various commands and help you work more efficiently. You can also choose between small and large icons for the toolbars, and decide which toolbars and panels appear.

Toolbars & Panels dialog box
Welcome to Audio Editor Help

Cascade

Arranges all open windows in the workspace, from upper left to lower right.

(Shortcut key: Shift+F5)

Welcome to Audio Editor Help

Tile Horizontally/Vertically

Evenly distributes all opened files in the workspace from left to right and top to bottom (Horizontally - *Shortcut key: Ctrl+H*) or from top to bottom and left to right (Vertically - *Shortcut key: Shift+F4*).

Welcome to Audio Editor Help

Arrange Icons

Arranges all minimized files in the workspace neatly along the bottom of the workspace.

Welcome to Audio Editor Help

Close All

Closes all opened audio files. Audio Editor prompts you to save files that have been changed since they were last saved.

Welcome to Audio Editor Help

Currently Open Files

Shows the titles of all windows currently in the workspace. Select a name to make it the current waveform in the workspace.

Welcome to Audio Editor Help

Audio Editor Help

Starts the on-line help.You can also access help topics by placing the mouse over an item of interest and pressing F1.

Welcome to Audio Editor Help

About Audio Editor

Displays the Audio Editor product information box.

Welcome to Audio Editor Help

Drag-and-Drop 

Copies the current waveform to another program by clicking and dragging the mouse.

Dragging-and-Dropping

Welcome to Audio Editor Help

Zoom Ruler 

Allows you to zoom in and out on a waveform. Drag the slider indicator or click anywhere on the left to zoom in and the right to zoom out.

Welcome to Audio Editor Help

Mark In / Mark Out 

Sets the beginning and ending of a selected area during playback. Click once to start the selection and click again to end the selection.

Welcome to Audio Editor Help

Selected Area
Represented by a darkened area in the waveform that you can delete, add effects, or even replace it with other data.

Cue Handle
Is the blue triangle below the horizontal axis that indicates the cues you have created in the waveform. You can drag it outside the audio window to delete it or double-click on it to change its name.

Cue Name
This identifies the selected cue. By default, Audio Editor assigns newly created cues, names corresponding to the timecodes where they are created. You can assign your own names to cues by double-clicking their handles.

Insertion Point
Is the red vertical line which indicates where you are in the waveform.

Status Bar Information
The number on the left displays the total waveform length; the number on the right shows the insertion point position. When playing or recording a wave file, this field shows insertion point's progress.

Status Bar Information
This shows the sampling rate, sample size and whether the wave file is stereo or mono.

Status Bar Information
This shows a selected area's starting point, length, and ending point.

Current Pointer Position
This shows a range of samples present in the insertion point.

Current Pointer Position
This shows the highest and lowest amplitudes falling in the insertion point.

Welcome

Welcome to Audio Editor help. Besides this introduction, this document contains these sections to help you learn.

Using Audio Editor Offers instruction on completing single tasks.

Reference Describes menu commands, the workspace, and dialog boxes. It also provides a complete list of shortcut keys for your reference.

Contacting Ulead How to contact Ulead Systems when you need advice or have comments.

What is Audio Editor?

Audio Editor brings sound to your desktop with an intuitive interface that makes working with audio data as simple as point and click. This full-featured program allows you to record, mix and edit mono, stereo, 8-bit and 16-bit files with fidelity matching that of your best CD. Its wide range of special effects such as echo, reverse, fade, and pan offer you the freedom to enhance your sounds to add dimension and texture you thought was only possible from a professional recording studio.

Reading this Help

This help contains several aids to make navigating through topics easier.

 Jumps to the shown topic.

 Pops up extra information to enhance understanding.

 Jumps to a topic describing the listed dialog box.

 Pops up tips to help you work more efficiently.

You can also access the other helps included in your package by clicking Other Modules on any main page button bar.

Audio Editor Basics

Customizing Audio Editor

Creating a new audio file

Opening audio files

Playing an audio file

Recording a waveform

Saving an audio file

Closing an audio file

Quitting Audio Editor

Editing Audio Files

Enhancing Audio Data

- Changing the amplification of a waveform
- Removing background noise
- Working with silence
- Removing a file from a mixed waveform
- Calibrating files recorded from different devices

Applying Special Effects

Combining Waveforms

Merging two mono files into a stereo file

Mixing two audio files

Performing a cross fade between files

Handling Audio Files

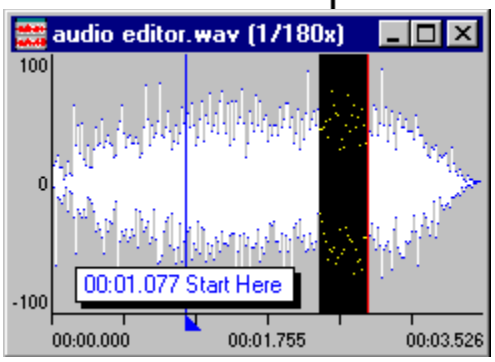
Audio File Window

Workspace

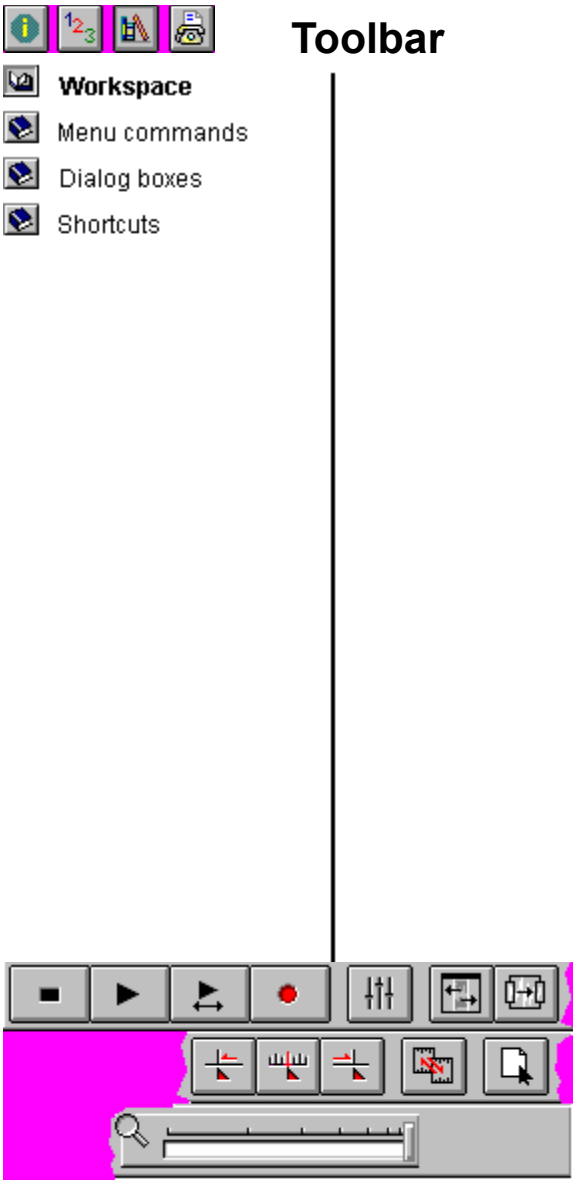
Menu commands

Dialog boxes

Shortcuts

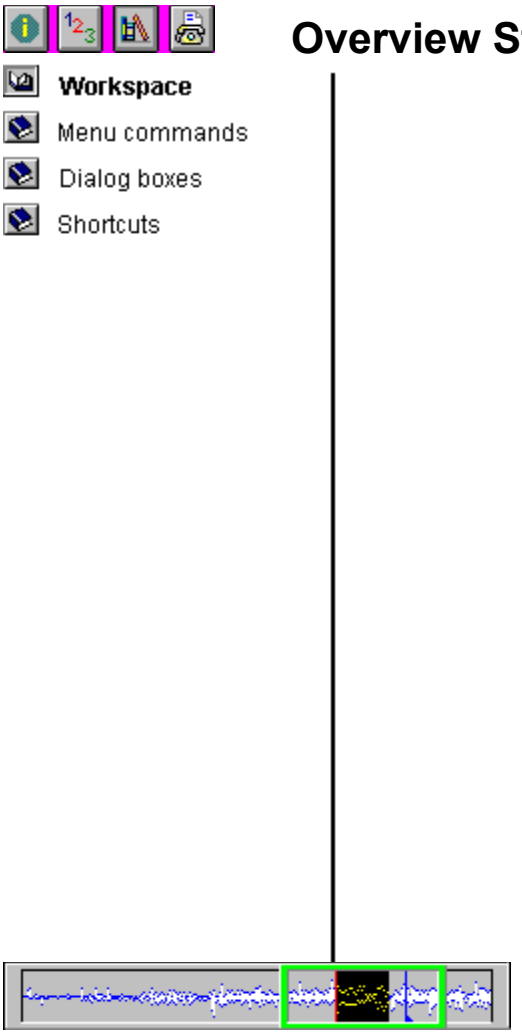


The Audio File Window shows a visual representation of an audio file. The horizontal axis shows the file length according to the scale selected in the Preferences dialog box; the vertical axis displays the amplitude of the waveform. The darkened area in the waveform is a selected portion with the insertion point location in red. When viewing stereo files, the left channel appears on top and the right channel below.



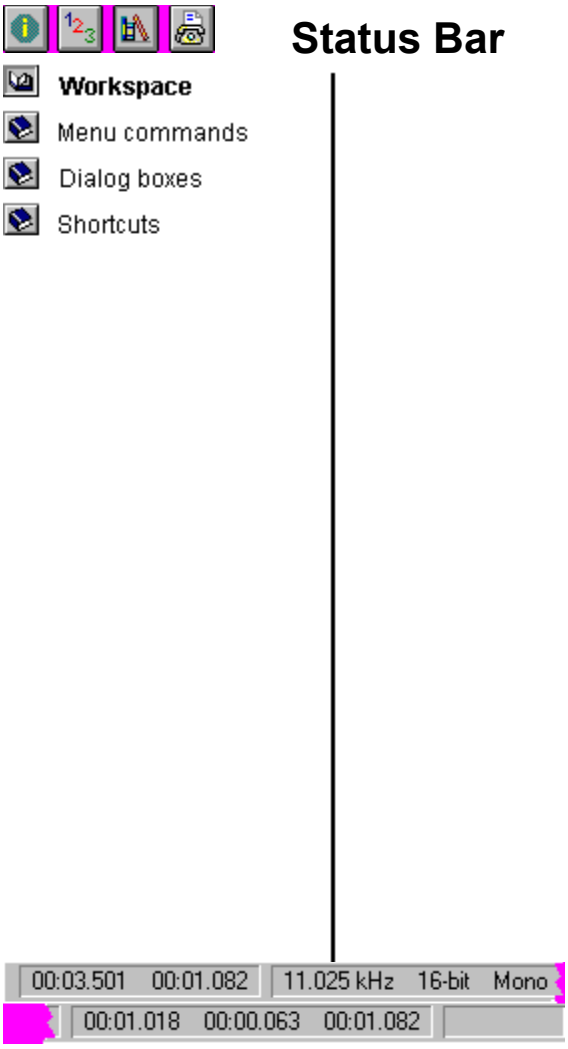
The Toolbar appears below the menu bar. It contains easily recognizable buttons for playing and editing of waveforms. For details about each button, click on the above image.

Overview Strip



The Overview Strip normally appears below the Toolbar and displays an overview of the entire waveform. The part of the waveform enclosed by the View Box is what is currently shown in the audio file window. By moving or resizing the view box you can change which part or how much of the waveform is shown in the Audio Window. Double clicking anywhere outside the View Box in the Overview Strip selects the whole waveform; a single click deselects the selection area.

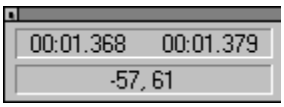
Status Bar



The Status Bar runs along the bottom of the Audio Editor workspace. It shows useful information about the active waveform, and your system. When you position the mouse pointer over certain Audio Editor components, the Status Bar displays a brief explanation of that item. For more information about each Status Bar field, click on that field in the above image.

Note: Double-clicking the Status Bar displays the Preferences dialog box.

Sample Information Window



The Sample Information Box is displayed by clicking View: Toolbars & Panels and selecting Sample information window. Double-clicking its title bar hides the sample information box; double-clicking anywhere else displays the Properties dialog box. For more about each field, click the above image.

File Menu

- Workspace
- **Menu commands**
- Dialog boxes
- Shortcuts

New
Save As

Open
Properties

Restore
Preferences

Close
Recent Files

Save
Exit

Edit Menu

- Workspace
- **Menu commands**
- Dialog boxes
- Shortcuts

Retain

Effect Menu

- Workspace
- **Menu commands**
- Dialog boxes
- Shortcuts

Control Menu

- Workspace
- **Menu commands**
- Dialog boxes
- Shortcuts

Play
Go To Start

Stop
Go To End

Record
Add Cue

Run Mixer
Previous Cue

Play Selection
Next Cue

Start Selection
Go To Cue

End Selection
Delete All Cues

View Menu

- Workspace
- **Menu commands**
- Dialog boxes
- Shortcuts

Window Menu

- Workspace
- **Menu commands**
- Dialog boxes
- Shortcuts

Cascade
Arrange Icons

Tile Horizontally
Close All

Tile Vertically
Currently Open Files

Help Menu

- Workspace
- **Menu commands**
- Dialog boxes
- Shortcuts

Audio Editor Help
Online Registration

Ulead On The Web
About Audio Editor

Switch Menu

The Switch menu opens a menu listing other Ulead programs for easy access. Click on a name to invoke the corresponding program.


File Menu


Edit Menu

Effect Menu

Control Menu

View Menu

Window Menu

Help Menu

Switch Menu

File Menu dialog boxes

- Workspace
- Menu commands
- **Dialog boxes**
- Shortcuts

Edit Menu dialog boxes

- Workspace
- Menu commands
- **Dialog boxes**
- Shortcuts

Effect Menu dialog boxes

- Workspace
- Menu commands
- **Dialog boxes**
- Shortcuts

Control & View dialog boxes

Control Menu

View Menu

Shortcuts

Audio Editor has many shortcuts that allow you to access commands and open dialog boxes without having to go through the menus.

Click **here** to view all shortcuts.

Back to Main Page

Shortcuts

Audio Editor has many shortcuts that allow you to access commands and open dialog boxes without having to go through the menus.

File Menu

Ctrl + N -- Displays the New dialog box

Ctrl + O -- Displays the Open dialog box

Ctrl + W -- Closes an audio file

Ctrl + S -- Saves an existing audio file

Alt + Enter -- Displays information about the audio file

F6 -- Displays the Preferences dialog box

Ctrl + Q -- Exits Audio Editor

Edit Menu

Ctrl + Z -- Undoes the last applied command

Ctrl + X -- Cuts a selection area and places it onto the clipboard

Ctrl + C -- Copies a waveform or selection area onto the clipboard

Ctrl + V -- Pastes the clipboard contents

Del -- Deletes a selection area

Ctrl + L -- Selects the entire waveform

Ctrl + K -- Deselects any selection area

Control Menu

Space -- Plays/Pauses the waveform

Esc -- Stops playing the waveform

Ctrl + R -- Records to an audio file

Ctrl + M -- Runs the Mixer program

F2 -- Plays only the selection area

F3 -- Starts selecting during playback

F4 -- Ends a selection during playback

Ctrl + Home -- Goes to the start of the selected area

Ctrl + End -- Goes to the end of the selected area

F5 -- Places a cue on the waveform

Shift + Tab -- Goes to the previous cue

Tab -- Goes to the next cue

Ctrl + G -- Displays the Go To Cue dialog box

View Menu

Ctrl + A -- Displays the actual view of the waveform

+ -- Zooms in on the waveform

- -- Zooms out on the waveform

Ctrl + 1 -- Fits the entire waveform in the window

Ctrl + F -- Fits a selection in the window

Ctrl + T -- Toggles between current view and actual view

Window Menu

Shift + F5 -- Cascades all waveforms

Ctrl + H -- Tiles all waveforms horizontally

Shift + F4 -- Tiles all waveforms vertically

Help Menu

F1 -- Displays the contents for Audio Editor Help

Miscellaneous

Double-click title bar -- Maximizes or restores the active window

Double-click Toolbar -- Hides the Toolbar

Double-click Overview Strip/waveform -- Selects the whole waveform

Double-click Sample Information title bar -- Hides the Sample Information box

Double-click Sample Information box -- Displays the Wave Information dialog box

Double-click Status Bar -- Displays the Preferences dialog box

Esc -- Closes dialog boxes without making changes

This is the Glossary Help included in your package for better understanding of terms used in the help topics and also other related words. Click  to display the terms.
You can also access this help by clicking Glossary on any program's main page button bar.

Glossary

A - C
D - I
J - Q
R - T
U - Z
Close Glossary

To find out the definition of a term used in this help, click the appropriate button.

4:4:4 Sampling
ADPCM
Aliasing
Alpha Channel
Amplitude
Analog
Animation
Anti-aliasing
ASF
Aspect Ratio
Averaging
AVI
Background Matte
Bandwidth
Batch Capture
Bins
Bit
Bitmap
Black and White
Blue Screen
Brightness
Burn
Channel
Chroma
Chroma Subsampling
CinePak
Clip
Clipboard
Cloning
CMYK
Codec
Color Calibration
Color Channel
Color Model
Color Table
Complimentary Color
Component Video
Composite Image
Composite Video
Compression
Contrast
Control Line
Control Point
Cropping
Cross-Fade
Curved Segment
Cue
Cusp Node

Glossary

A - C
D - I

To find out the definition of a term used in this help, click the appropriate button.

Data Rate
Data Type
Dedicated System
Effects Animation
Envelope
Export
Frames Per Second
Gamma
Garbage Matte

Device Control
Digital
Digitizing
DirectShow
Dissolve
Dithering
DNLE
Dodge
DPI
Driver
DV
Edit Window
EDL
Fade
File Format
Filter
Final Cut
FireWire
Flash Converter
Flatbed
Flick
Floating Selection
Footage
Frame
Frame Rate
Frame Size
Graphics Files
Grayscale
Halftoning
HiColor
HSB
Hue
IEEE
IEEE1394
Image
Import
Indexed Color
Interleave

Glossary

A - C

J - Q

To find out the definition of a term used in this help, click the appropriate button.

Jaggies
Jog Control
Key Color
Key Frame
Linear Editing
Linear Segment
Link
Lossless Compression
Lossy Compression
Luminance
Macro
Mask
Matte
MCI
MIDI
MPEG
MPEG1
MPEG2
MPEG4
Node
Noise
Non-Linear Editing
Onionskin
On-line
Overlay
PAL
Parade
Pixel
Playlist
Plug-in
Posterization
PPI
Prime Colors

Mark In/Mark Out
Marquee
NTSC
Off-line
QuickTime

Glossary

A - C

R - T

To find out the definition of a term used in this help, click the appropriate button.

Raster
Reel Name
Render
Resolution
RGB
RealVideo
Ripple
Rotoscoping
Rough Cut
Sample Rate
Sample Size
Saturation
SECAM
Sequence
Shuttle Control
Smooth Node
SMPTE
Sound Sweetening
Source
Storyboards
Streaming
Stretching Frames
Subsampling
Symmetric Node
Synthespians
Textures
Thumbnail
Timecode
Transition Effect
Traveling Matte
True Color

Glossary

U - Z

To find out the definition of a term used in this help, click the appropriate button.

VCD
Vector Graphics
Vector Scope
VGA
Video For Windows
Virtual Environment
Virtual Sets
VISCA
VLAN
Volume
VTR
Warping
Waveform
Wild Sound
Wireframe
Wire Removal

4:4:4 Sampling

One of the various ratios of sampling frequencies used to digitize the luminance and color difference components (Y, B-Y, R-Y) or the RGB components of a video signal. In this particular ratio, there are always an equal number of samples of all components. RGB 4:4:4 is commonly used in standard platform computer-based equipment. TV recording and transmission systems are generally based on 4:2:2 or 4:2:0 sampling so the gains are minimal and could even be negated by the double conversion between sampling systems. Another variation is 4:4:4:4 sampling where a key signal sampled at 13.5 MHz is added.
(See also: Subsampling)

ADPCM

Adaptive **D**elta **P**ulse **C**ode **M**odulation is a compression method used to compress audio files.

Aliasing

Jagged edges or “stepped” changes along the edges of curved or angled shapes due to the inability of a printer, screen display, or other output device to adequately reproduce the actual shape. This problem can be corrected through a process called anti-aliasing, where pixels along the edges of the shape are averaged with the background color to blend more smoothly into the image. The image on the upper left shows an example of aliasing.
(See also: Anti-aliasing)

Alpha Channel

A grayscale layer in some image or video files that serves to help isolate portions of the image or video for editing and enhancing. In digital video editing, the alpha channel is primarily used for overlays and mattes.
(See also: 4:4:4:4, Blue Screen, Keying, Overlays, Mattes)

Amplitude

The strength of a sound signal at a particular time. Amplitude ranges from -100% to 100%. An amplitude of 0 represents complete silence while the two extremes represent the strongest signal that can be reproduced without introducing unwanted distortion into the sound. The best recordings are those whose loudest sounds have amplitudes of exactly 100% (or -100%).

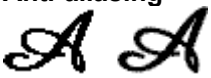
Analog

Wave signals carried over the air or recorded onto a magnetic tape that represent information, such as sound or pictures. The various peaks and troughs of this wave as well as the frequency or speed at which it travels account for the type of information it represents. An analog device can interpret or reproduce infinite differences in the signal it receives and is only limited by its ability to duplicate the information accurately. This contrasts with digital information which explicitly defines the characteristics of a signal with a specific and predefined numerical value.

Animation

The simulation of movement produced by rapidly displaying a series of sequential images.

Anti-aliasing



The process of removing jagged edges from a curved or angled shapes in images or text. This is averaging the pixels around the edges of shapes so that their colors are more similar to the background. For example, in this image, the letter on the left is aliased while the one on the right is anti-aliased.

ASF

Advanced **S**treaming **F**ormat is one of the formats developed by Microsoft that supports streaming of audio and video files over the network.
(See also: Streaming)

Aspect Ratio

The relationship of width to height for a given image or graphic. Keeping or maintaining the aspect ratio refers to the process of maintaining size relationships when either the width or height of an image or graphic is changed.

Averaging

A filtering process which takes the gray/color value of each pixel and averages it with the values of surrounding pixels. The value of each pixel is then replaced with the averaged value.

AVI

Audio-**V**ideo **I**nterleave is a digital video file format designed specifically for the Microsoft Windows environment.

Background Matte

An image or group of images that serves as a backdrop for other images or animations in a video.
(See also: Garbage Matte)

Bandwidth

The maximum amount of data (information) transferred from one location to another in a specified period of time The higher the bandwidth, the greater the amount of information being transferred. Controlling bandwidth is one of the biggest issues associated with creating digital video as the speed of the hardware is not always fast enough to transfer the large amount of data required for reproducing smooth and accurate animation and sound.
(See also: Data Transfer Rate)

Batch Capture

Allows you to capture only the needed clip segments from a source footage based on the start and ending timecodes which you have defined for each clip. (To do batch capture, your capture card must have device control capabilities.)

Bins

A term used in conventional video and film making for the storage locations of recorded footage.

Bit

The unit of measure for the smallest element of a computer's memory. In terms of multimedia, bits define the maximum number of divisions possible for storing different levels of information for every pixel or moment in an image, video, or sound file.

1-bit Only two divisions are possible. For images or video, each pixel can be either black or white. For sound, it can either be on or off.

8-bit 256 different levels of color or sound are possible.

16-bit 65,536 different levels of color or sound are possible.

24-bit Over 16-million different levels of color or sound are possible.

Bitmap

An image made up of a pattern of different colored dots or "pixels." Also referred to as "Raster."
(See also: Vector)

Black and White

The simplest kind of image data type, consisting of only black or white pixels. Shades of gray can be simulated through a process called dithering. *(See also: Dithering , Data Type)*

Blue Screen

A technique by which selected colors (usually shades of blue or green) are removed or filtered from a video or image to allow an image on a layer below the blue-screened image to show through. Blue screen techniques are valuable for removing unwanted details from a completed video or to create virtual sets. Viewing a weather map behind the weather man on the evening news is one common use of a blue screen. Also referred to as Chroma Keying and Overlaying. *(See also: Overlay, Virtual Sets)*

Brightness

A description of how much light appears to emanate from an image; also referred to as luminance. The two extremes of brightness are black (no light) and white (all light): black represents 0% brightness, while white represents 100% brightness. *(See also: Color Model, HSB)*

Burn

A term from photography that refers to the process of making areas in a photograph that are too light darker.

Channel

One component of an audio, video, or image file that, when combined with others creates the desired image or sound produced by the computer. For example, most image files consist of three color channels, red, green, and blue. By varying the intensities of each of these channels and combining them, other colors can be produced.

Chroma/Chrominance

The color value of a video signal that represents the combined hue and saturation values of the shown colors. For NTSC and PAL signals the chrominance combines with luminance (brightness) to control the colors shown on screen.

Chroma Subsampling

A method of interpreting image data to compression by grouping and averaging color data over a block of pixels.

Cinepak

One of the widely used software codecs for PC video and CD-ROM. Users can benefit from it due to its cross-platform capability and extremely low CPU requirements. (Files can run in 486 PCs.) The disadvantage of using Cinepak is its image quality which is lower than many other codecs at the same data rates.
(See also: Codec)

Clip

Anything placed or intended to be placed into a video timeline as part of a larger project.

Clipboard

A temporary storage area shared by all Windows programs used to hold data during cut, copy, and paste operations. Whenever you place new data onto the clipboard, it immediately replaces the existing data.

Cloning

Replicating part of an image within the same image, or between different images.

CMYK

A popular color model for post-process printing. It uses subtractive colors (Cyan, Magenta, and Yellow) to create all the other colors. A fourth channel, Black is added to create varying shades of gray and black.
(See also: Color Model, RGB, HSB)

Color Calibration

Adjusting or correcting the colors of one device so that they accurately match and reproduce those of another. In MediaStudio, you can calibrate Video Capture and Video Editor to match the colors of your video sources.

Codec

A **Co**mpressor/**dec**ompressor is a software or hardware component that compresses video and audio data to minimize the file size and decompresses media files during playback. Most software codecs available today are used for compressing AVI and Apple QuickTime files. Depending on the capture card used, some hardware codecs can support formats like Motion-JPEG or DV.

Color Channel

Refers to one of the components of a color model. Different color models use different

components to represent image colors. The RGB color model uses red, green and blue color component channels. The HSB color model uses hue, saturation and brightness color component channels. (Grayscale images can be thought of as single-channel images.)

Color Model

A method of describing the colors that can be shown in an image. Three of the most popular color models are RGB which combines red, green, and blue to form other colors, CMYK, which combines cyan, magenta, yellow, and black, and HSB, which combines hue, saturation, and brightness.
(See also: CMYK, HSB, RGB)

Color Table / Color Palette

For indexed color images, the color table (or palette) lists and arranges all the available colors for that image as a reference. All pixels in the image refer to this list to determine how they appear.

Complimentary Color

The color that, when mixed with its opposite, will combine to create white. For example, the complimentary color to red is cyan.

Component Video

A video signal which separates luminance and chrominance into different parts. Betacam video employs a component video signal.

Composite Image

An image created by combining two or more images into one.

Composite Video

A video signal that combines luminance and chrominance. NTSC and PAL are examples of composite video.

Compression

A method of reducing file size for storage by finding or creating patterns of data that can be easily classified. There are two general categories of compression: “Lossless” and “Lossy.” Lossless compression reduces file size without any data loss. Lossy compression, on the other hand, discards data during compression, and may result in noticeable file degradation.

Contrast

The difference between light and dark values in an image. High contrast results in sharp transitions from light to dark, while lower contrast allows for more subtle transitions.

Control Line

A line connecting two control points when creating or editing a shape for an image's outline or path for an animated sequence to follow.
(See also: Control Point)

Control Point

A point on the outline of a shape or path that can be dragged to another location to change the shape or orientation of the shape or path.

Cropping

A method trimming away unwanted image data by selecting only that portion you wish to retain and then deleting the remainder, resizing the image's dimensions accordingly.

Cross-fade

A special effect in Video Editor that produces a natural audio mix in sound clips. The volume of an audio clip will smoothly fade out as the next audio clip starts to play.

Curved Segment

A junction with a rounded edge, or from which the segments extending from it are rounded or curved.
(See also: Linear Segment)

Cue

A timecode within a video project or a clip which has been marked for future reference. In Video Editor, you can use project cues to jump to specific parts of a project and use clip cues to easily align clips which are in different tracks.

Cusp Node

A node where you can move one control handle at a time to change the curve of a path on one side without affecting other.
(See also: Symmetric Node, Smooth Node)

Data Transfer Rate

The speed at which information passes between a storage medium (such as a CD ROM or hard disk), and a display device (such as a monitor or MCI device). The maximum rate of the playback system depends on the speed of its components: the CPU, the hard drive, and the display card.

(See also: Bandwidth)

Data Type

A digital representation used by computers to describe the amount of color information (in bits) contained in an image. The data type of an image controls the amount of information that the image can retain and therefore its displayed appearance.
(See also: Bit)

Dedicated System

Hardware and software built for a specific task and not for general purpose. This becomes very important in high-end editing to improve processing speeds as demands increase heavily.

Device Control

A software driver that allows programs to control video sources like the camcorder or VCR.

Digital

A data storage method where audio or image information is converted into a series of numerical values. These values, in turn, can be read by computers and reproduced on a computer monitor or over speakers.
(See also: Analog)

Digitizing

The process of converting analog input to a digital form so that it can be used by the computer.

DirectShow

Successor to Microsoft's Video For Windows and ActiveMovie. DirectShow allows the capture of video and audio files in formats which can be streamed over the Internet. It supports a wide variety of video/audio formats, which include AVI, DV AVI, MPEG, Apple QuickTime, WAV, and more.

Dissolve

A type of video transition effect where a clip on one video track (Va) gradually disappears to reveal a video clip on another track (Vb).
(See also: Transition Effect)

Dithering

Method of making images with limited colors available appear to contain more. Most notably for making Black & White images appear to contain near-continuous changes in tone (gray

shades). By arranging pixels of different colors close together, dithering can simulate colors not directly supported by an image data type. The various dithering techniques differ in the way they calculate and arrange new pixel values.

DNLE

Digital **N**on-**L**inear **E**diting is a method of combining and editing multiple video clips to produce a finished product. DNLE offers random access to all source materials and all portions on the master tape at all times during the editing process.

Dodge

A term from photography that refers to the process of making areas in a photograph that are too dark lighter.

DPI

Dots **P**er **I**nch is a measure of screen, image and printer resolution that is expressed as the number of dots that a device can print or display per linear inch.
(See also: Resolution)

Driver

A program that handles control and communication with a hardware device.

DV

Digital **V**ideo with a capital "D" and a capital "V" stands for a very specific format of video, just like VHS or High-8. This format can be understood (played back, recorded) by your camcorder and also by your computer, if you have the proper hardware (capture card) and software (DV codec). The most exciting thing about DV is that it can be copied from your camcorder to your computer, and then back to your camcorder (after editing, of course) without any loss of quality.

EDL

Edit **D**ecision **L**ist is a list of all clips, effects, and transitions in a video project included in a video project. The EDL clearly states the sources for all the clips, which portions of the clips are to be used, where in the final project they are to be used, and any transitions or other effects that will be applied. Many professional mixing consoles accept specially formatted EDLs to automate the final mix for a completed video project.

Edit Window

The window in the workspace where you can perform changes to an open file.

Effects Animation

Effects that have been painted on frames of video to create the illusion of interaction with the live-action elements, such as lasers, lighting, or ionization.

Envelope

A closed path that encloses the selection to which it belongs. Directly adjusting the envelope of a selection results in that selection being distorted accordingly to fit its boundaries.

Export

The process of sharing files between applications. When you export a file, the data is usually converted into a format that is recognizable by the receiving application. The original file remains unchanged.

Fade

A transition effect where the clip gradually disappears or appears. In video, the picture would gradually change to or from a solid color; for audio, the transition would be from full volume to complete silence or vice-versa.
(See also: Dissolve)

File Format

A file structure which defines the way information is stored. File formats can be as simple as an ASCII text or can be quite complicated such as TIFF and EPS.

Filter

An effect applied to an image or video, or sound that changes its appearance by altering the color pixel formation or sound quality.

Final Cut

The point at which the picture portion of the editing is complete. After the final cut, the only remaining task is to record the finished video to an output medium such as video tape or the hard disk.

FireWire

A standard interface used for connecting digital audio/video devices such as DV camcorders to computers. It is the trademarked name given by Apple Computers for the IEEE 1394 standard.
(See also: IEEE 1394 , IEEE)

Flash Converter

A device used to convert analog signals to digital signals. Through the flash converter, it is possible to convert frame(s) of video into data that can then be interpreted by computers.

Flatbed

A machine that is used to play films. With flatbeds modified to include a CCD (charged couple device) video camera, the film is played and then transformed into electrical signals that can be digitized directly to computer disk.

Flick

A fast preview where each frame is displayed sequentially without actually viewing them in the conventional manner.
(See also: Shuttle)

Floating Selection

A selected group of pixels that floats above the image until deselected and dropped onto the desired position on the image.

Footage

A length of recorded film intended for use in a larger project.

Frame

A single image in a video or animation sequence.

Frame Rate

The number of frames captured or displayed in one second of a video or animation sequence.
(See also: Frame)

Frame Size

The size of displayed images in video or animation sequences. If an image intended for the sequence is larger or smaller than the current frame size, it must be resized or cropped.
(See also: Cropping, Frame)

Frames Per Second (FPS)

The number of frames captured or displayed per second in video or animation sequences.

Gamma

The method of determining how the range of possible colors is portrayed on a screen.

Garbage Matte

Animated mattes that block out unwanted objects captured during the original photography.
(See also: Background Matte)

Graphics Files

A file whose data is composed largely of vector graphics. Vector graphics do not have a basic component, like a pixel, but are defined as lines between points, and fills between lines.

Grayscale

An image data type containing a maximum of 256 different shades of gray. This normally means 254 different grays plus black and white.
(See also: Data Type)

Halftoning

A common form of dithering that uses patterns of black and white pixels to produce what appears to be shades of gray.
(See also: Dithering)

HiColor

A 16-bit image data type that can contain up to 65,536 colors. The TGA file format supports images of this type. Other file formats require prior conversion of a HiColor image into True Color. For displays, HiColor normally refers to 15-bit (5-5-5) display adapters that can display up to 32,768 colors.
(See also: Data Type, True Color)

HSB

A color model that specifies colors in a way that is easier for people to visualize than the RGB model. H represents the hue or basic color; S represents the saturation or purity of the color; and B represents the Brightness or amount of light the color appears to emit.
(See also: Brightness, CMYK, Color Model, Hue, Saturation; RGB)

Hue

The quality of a color that sets it apart from other colors with the same base. For example, yellow and orange are different hues.

IEEE

Institute of **E**lectrical and **E**lectronics **E**ngineers is a non-profit organization that sets and reviews standards for the electronics industry.
(See also: IEEE-1394)

IEEE 1394

A standard that allows high-speed serial connections between the computer and a DV camcorder, VCR or any kind of digital audio/video device. Devices conforming with this standard are capable of transmitting digital data at 100 megabits per second (at the least).
(See also: FireWire , IEEE)

Image

A digital picture shown as a collection of dots or pixels arranged on a page or screen.
(See also: Bitmap)

Import

The process of bringing data into one program from another. Once imported, the data may be altered to accommodate the new program without affecting the original file.

Indexed Color

A data type that includes a set or index of unique values assigned to each color or shade allowed in an image.
(See also Data Type)

Interleave

A process of arranging audio and video data during compression used to obtain smoother playback and synchronization.

Jaggies

Undesired jagged edges that appear around the edge of bitmapped objects and text; also referred to as “aliasing.”
(See also: Aliasing, Anti-aliasing)

Jog Control

(See Shuttle Control)

Keyframe

A specific frame in a clip that is flagged for special editing or other activities in order to control the flow, playback or other characteristics of the completed animation. For example, when creating a moving path, assigning a keyframe controls the movement of the object(s) along a path. When creating a video, assigning keyframes on parts where there are high data transfer requirements helps control how smoothly the video plays back.

Key Color

A color or range of colors in an image made transparent during an overlay effect to allow another image or clip to show through.
(See also: Blue Screen, Chroma Key, Overlay)

Linear Editing

Traditional editing done on a flatbed where the source film is fed in one side, marked, cut, and spliced, and then fed out the other end. It's called linear because tape must be edited in the order it's presented (as opposed to *non-linear* editing).
(See also: DNLE)

Linear Segment

A junction with a straight edge or from which the segments extending from it are straight.
(See also: Curved Segment)

Link

A method of storing previously saved information in another program without significantly affecting the size of the resulting file. Linking offers another advantage in that the original file can be modified in its original program and the changes will automatically be reflected in the program where it is linked.

Lossless Compression

A method of reducing file size without changing any data when the file is reopened.
(See also: Lossy Compression)

Lossy Compression

A method of reducing file size by selectively discarding nonessential data. The resulting files are smaller than those using lossless compression, but some information is permanently lost even after the file is reopened.
(See also: Lossless Compression)

Luminance

(See Brightness)

Macro

A tool for recording and automating repeated actions that you frequently perform. In Video Paint, macros are essential elements in creating sophisticated animations.

Mark In / Mark Out

The start and end timecodes that identify the portions of clips to be included in a video project.

(See also: Clip)

Marquee

An outline that identifies the edges of a selection area. Also referred to as “Bounding box.”

Mask

A selection area used to isolate a portion of an image while editing. By using a mask, you can protect parts of an image from unwanted changes.
(See also: Matte)

Matte

Opaque images that prevent exposure in a particular area of film and allow the blacked-out space to be filled in with another image or color.

MCI

Media **C**ontroller **I**nterface is a software driver designed by Microsoft to allow audio and video files to be played in Windows. MCI devices also allow you to control compatible VCRs and Laser disk players using controls on your computer.

MIDI

Musical **I**nstrument **D**evice **I**nterface is an industry standard file format for both hardware and software which allows musical instruments, synthesizers, and components to be linked together.

MPEG

Moving **P**icture **E**xperts **G**roup is an organization involved with defining standards for compressing video data for use on the PC. Also refers to the file format that utilizes the compression standards defined by this group.

MPEG-1

MPEG-1 generates very small media files yet provides excellent video and audio quality. It is a widely used standard for playing videos on the computer, especially on slower PCs (200MHz or less). MPEG is very CPU intensive, which means that your computer must work very hard to decode the video. MPEG-1 is limited by frame size and data rate. If you want to make VCDs, you must use this format and you must very carefully create whitebook standard files.
(See also: VCD)

MPEG-2

MPEG-2 is a much more flexible format and is capable of producing higher quality movies, but

it is also only recommended for playback (and capture) on faster computers (350MHz and above). Although this is the format used in DVD movies, it is not possible at this time (Fall 1999) to record MPEG-2 files to a CD-R for playback on a stand-alone DVD player. By experimenting with data rates you should be able to create extremely high quality movies for playback on a PC with an appropriate MPEG-2 player software.

MPEG-4

MPEG-4 is a new MPEG standard currently under development (as of Fall 1999). Its design will be based on the QuickTime file format and will be intended for web video.

Node

A point where two line segments meet. In MediaStudio Pro, nodes determine specific points where images and paths can be reshaped, resized, or rotated.

Noise

Small audible or visual discrepancies that adversely affect audio and video files which have been recorded or captured incorrectly or with faulty equipment.

Non-linear Editing

(See DNLE.)

NTSC

National **T**elevision **S**tandards **C**ommittee is an organization that defines the standards for television used in North America and Japan characterized by 30 frames per second and 525 scan lines per frame. This standard include restrictions on the range of colors available for displaying on television.

Off-line

Term used to refer to editing video away from the source material. Video Editor is an example of an off-line video editor.

Onionskin

Term used in rotoscoping (video painting) whereby layers are created to appear over a video. You can “peel” these layers away to reveal more layers or the underlying video. This is useful for obtaining a good idea of how an animation is progressing by viewing a series of still images laid over each other.

On-line

Term used to refer to editing directly with the source material in real-time. On-line editors generally consist of several tape machines which pass through a controlling device and the resulting video is output to another tape.

Overlay

The process of rendering part of one image transparent to allow a second image to appear through this transparent area.
(See also: Blue Screen, Chroma Key, Key Color)

PAL

Phase **A**lternation **L**ine is the television standard used in Europe, Africa, and South America characterized by 25 frames per second and 625 scan lines per frame. This standard includes restrictions on the range of colors available for displaying on television.

Parade

Form of color model used by the Perception video capture board which defines color as Y, R-Y and B-Y (luminance, red minus luminance and blue minus luminance).

Pixel (or Pel)

The smallest component that makes up an image. Computer images are made up of rows of pixels, each of which can be a different color. This is usually used as the unit of measurement for an image. The term is derived from the shortening of the words “picture element” or “picture cell.”

Playlist

A list of items to be played back in a certain order.
(See also: EDL)

Plug-in

Plug-ins are additions to the programs of MediaStudio Pro that are not part of the standard package. They provide more capture features and add to the tools, filters or effects to expand the video editing options available.

Posterization

An image filter which reduces the number of colors in an image to produce a flat poster-like effect.

PPI

Pixels **P**er **I**nch is a unit of measure for determining the density of pixels in a bitmap image. For printing and displaying, this also determines the physical size of the image.

Prime Colors

The colors that are the basis of the RGB color model: red, green, and blue. By varying how these colors are blended, it is possible to create any other color.

Proxy File

A low-resolution copy of a video or image file that reduces system demands while performing previews of your video project in Video Editor.

QuickTime

A compression scheme developed by Apple Computer which allows you to compress video files. QuickTime files are referred to as movies and have an MOV extension.

Raster

(See Bitmap.)

Resolution

The resolution of an image determines the size of the individual pixels in an image, and thus the size of the whole image when printed or displayed. Resolution is shown in pixels per inch (PPI) or dots per inch (DPI).
(See also: DPI, PPI)

Reel Name

A name assigned to source video that aids in recalling where captured video clips came from. This information is particularly useful when doing batch capturing or referring to an EDL.

Render

The process of combining source information into a single file after applying transitions and other effects for output.

RGB

The model used in televisions and computer monitors to display color. By mixing varying amounts of red, green, and blue you can create other colors in the spectrum.
(See also: CMYK, Color Model, HSB)

RealVideo

Streaming technology developed by RealNetworks for delivering live video to users

over the Internet. Media files of this format can be played using RealPlayer.

Ripple

The automatic adjustment of the times of all subsequent entries on the Video Editor timeline after adding a clip upstream.

Rotoscoping

Painting over a sequence of existing frames, one at a time, to create artificial effects.
(See also: Effects Animation)

Rough Cut

The initial edit of a video. Usually the rough cut is prepared quickly to offer an idea of how the finished project will appear.

Sample Rate

The number of audio samples recorded per second (measures in megahertz). Generally there are three rates: 11,025 MHz, (microphone quality) 22,050 MHz (radio quality) and 44,100 MHz (CD quality).

Sample Size

The amount of memory allocated to record audio data. You can choose between two types: 8-bit or 16-bit. 16-bit produces better quality but at twice the file size as 8-bit.

Saturation

The degree of a color's purity. A color that is highly saturated will be more pure and appear stronger. Increasing a color's saturation makes it appear quite vivid while reducing saturation makes the color seem washed out.

SECAM

Systém Électronic Pour Coleur Avec Mémoire. The television standard used in France, Russia, and Africa characterized by 25 frames per second and 625 scan lines per frame.

Sequence

Use *Clip* instead.

Shuttle Control

A control used to manually move backward and forward through a video or audio file.
(See also: Flick)

Smooth Node

A node where you can move the control handles independently from each other and still remain on a linear path when changing the curve of a path.
(See also: Cusp Node, Symmetric Node)

SMPTE

Society of **M**otion **P**icture and **T**elevision **E**ngineers is an organization based in the United States that makes recommendations for video standards to be adopted by the industry.

Sound Sweetening

Enhancing sound, for example by removing noise.

Source

Original data imported into another program as the basis for further editing or modification.

Storyboards

Graphic representations of shots done during pre-production or before filming to help the director and / or crew visualize how a shot is laid out.

Streaming

The process of sending multimedia files over the Internet. As a video or audio file is delivered over the Internet, the user can start viewing the content without waiting for the whole file to be fully downloaded.

Stretching Frames

A technique of enhancing action and excitement in a video sequence with slow-motion.

Subsampling

A method of interpreting image data to enhance compression by grouping and averaging color data over a block of pixels. Think of your image as groups of pixels arranged into blocks. Each square block contains four pixels. Without subsampling, each block requires twelve entries (12 bytes) to describe it, (three for each pixel). If we subsample using the 4-1-1 method, each pixel keeps its own brightness (H) value, but the color values (Cb and Cy) are each summed and then averaged. Each pixel in the block then uses this value, so the number of required entries for the block drops to six, (four brightness values and two color values.) The 4-2-2 subsampling method is a compromise between None and 4-1-1 and consists of eight entries, (four brightness, two for the first color channel, and two for the second color channel).

Symmetric Node

A node where you can move the control handles while keeping a fixed linear path and equal length for the preceding and succeeding nodes when changing the curve of a path.
(See also: Cusp Node, Smooth Node)

Synthespians

The contemporary slang term for unreal “actors.” Synthespians are entirely computer generated, though voice characterization may be done by real actors on a separate sound track.

Textures

Uniquely patterned bitmaps that can seamlessly be tiled together in an image to serve as a background or fill.

Thumbnail

A small, low resolution representation of an image.

Timecode

A method of identifying a specific frame’s location relative to other frames in a video. Its standard form is Hours:Minutes:Seconds: Frames.

Transition Effect

A process in which one video clip replaces another.

Traveling Matte

An animated shape that protects an area of each frame in a sequence from being changed while a special effect or transition progresses over the rest of the frame.

True Color

A graphics file format containing 24 bits of color information, yielding 16.7 million possible colors, or photographic quality.
(See also: File Format)

VCD

Video **C**D **D**isc is a special type of CD-ROM that contains a special video file in MPEG-1 format. This MPEG-1 file is not just any MPEG-1 file, but one that exactly follows a WhiteBook specification.

Vector Graphics

Images created based on actual shapes rather than individual pixels.
(See also: Graphics Files)

Vector Scope

A device which displays the color values of a video signal. Used primarily to calibrate video recorded on different machines to ensure accurate color reproduction on both.

VGA

Video **G**raphics **A**rray is a type of display card that provides a standard resolution of 640x480 supporting 16 colors.

Video For Windows

Video **F**or **W**indows (also known as AVI) is the first multimedia architecture developed by Microsoft. It is one of the most common formats for playing video files on the PC.
(See also: AVI)

Virtual Environment

A setting used in a video project that does not actually exist in the real world. By using images and photographs instead of building large and complex sets, you can save a lot of money and time. Also referred to as “Virtual Space.”

Virtual Sets

Term for movie sets that have a photorealistic quality but exist solely within a digital environment. Digitally created background mattes are a good example of virtual sets.

VISCA

A standard protocol used to control external video sources from a computer.

VLAN

An industry standard set of controls and or devices that allows you to connect video playback, recording, and other devices to a PC for performing linear or non-linear digital video editing.

Volume

How loud a sound seems. When the sound is very loud, the volume is considered to be high.

VTR

Video **T**ape **R**ecorder is a device capable of recording visual information onto magnetic tape so that it can be played back and shown on a

television display.

Warping

A method of distorting an image by moving control points on a grid from their original positions to a new position, thus causing distortion in the image.
(See also: Control Point)

Waveform

A visual representation of sound used to enhance editing in a digital environment.

Wild Sound

Sound clips intended for use with video that do not already have video to accompany them. This could, for example, include the sound of a train approaching that was recorded independently from the actual filming of the train or sound effects, such as thunder and lightning that cannot be planned and timed during the actual filming and must be added later.

Wipe

A video transition where the new picture appears to progressively slide over the original.

Wireframe

A shape or object that appears as a single or multiple lines that show its outline.

Wire Removal

The process of digitally removing wires, props, and other undesirable elements from a scene. Wire removal software has superseded the “garbage matte” process of conventional optics.

New dialog box

Sampling rate Select the sampling rate to use for the new waveform. A low sampling rate loses some higher frequencies.

Channels Select if the waveform to create is mono or stereo.

Sample size Select 8-bit if you want smaller file size or 16-bit if you need to produce a waveform with better quality and lesser amount of noise.

Creating a new audio file
Recording a waveform
Welcome to Audio Editor Help

Sampling rate is the frequency at which samples of sound are recorded. If the sampling rate is increased, more information is recorded during a specified amount of time. Therefore, the quality of sound increases. The higher the sampling rate, the better is the quality of the recorded sound.

Sample size is the number of bits of information that are recorded for each sample. It also relates to the final quality and size of the new file. 16-bit files are better quality but double the size of similar 8-bit files.

Open dialog box

Look in Find the desired folder.


View the contents of the next higher folder in your system.


Create a new folder.


View files as icons.


View files by names with statistics.

File name Identify the file(s) selected for opening.

Files of type Select a particular file format for opening.

Subject Displays the subject assigned to the file (optional).

Description Displays the description of the file contents (optional).

Auto play Select to immediately play the selected file in the preview thumbnail.

Play button Click to preview the selected file when Auto play is not selected.

Info Click to open a dialog box containing information about the selected file, as well as audio and video contained in it.

Browse Search for files or folders.

Opening an audio file

Finding files

Welcome to Audio Editor Help

Save As dialog box

Save in Find the desired folder.

View the contents of the next higher folder in your system.

Create a new folder.


View files as icons.


View files by names with statistics.

File name Identify the file(s) selected for saving.

Save as type Select a particular file format for saving.

Subject Assign a subject to the file (optional) to give you an idea of the file's purpose.

Description Type a description of the file contents (optional) to describe in more detailed the file's purpose.

Options Click to open the Save Options dialog box for available compression schemes as well as advanced saving commands.

Browse Click to search for files or folders.

Select Click to choose an image to display in the preview window when selected in any file dialog boxes.

Saving an audio file

Welcome to Audio Editor Help

Preferences dialog box

X-axis unit [Time format] Set the current time display format to use when displaying waveform properties.

Waveform display Select Precise Scan to display every detail in a waveform. Select Quick Scan when saving display time and if you don't need to display the waveform in such detail.

Move cursor when playing Select to enable animation of the cursor when playing.

Snap to cues Causes the cursor to move to the nearest cue and make it as one of the endpoints of the selected area. This is applicable when one of the endpoints of the selection you are creating is very close to a cue marker.

Number of recently opened files Specify the number of files to list on the File menu.

Mixer program Define the path and name of the mixer program to use when recording.

Browse Click to open the Browse dialog box; use this dialog box to search for a mixer file.

Selecting areas in a file
Recording a waveform
Welcome to Audio Editor Help

Time Select to display audio file information in minutes (M), seconds (S), and milliseconds (ms).

SMPTE Select to display audio file information in minutes (min), seconds (sec) and frames. This is useful if you are editing audio for a video file.

Samples Select to display audio file information using time in samples per second (e.g. if your sampling rate is 11.025 kHz, then the waveform will show 11,025 sample points per second). This is useful for detailed editing.

This list contains file names of your most recently opened files. You can click a name from the list to reopen the file.

Paste Mix dialog box

Active waveform Define the amplitude for the current waveform.

Clipboard waveform Define the amplitude for the clipboard data.

Pasting data into a waveform

Welcome to Audio Editor Help

Trim Silence dialog box

Remove all silence Select to delete all silent passages from the current waveform.

Reserve silence for Select to shorten silent passages in the specified length. Audio Editor leaves passages that are already shorter than the specified time unchanged.

Working with silence
Welcome to Audio Editor Help

Insert Silence dialog box

Duration Specify the period of silence you want to insert into the current waveform.

Working with silence

Welcome to Audio Editor Help

Find Silence dialog box

Location Select whether to find the start or end of a silent portion.

Previous Click to look for silent portions to the left of the insertion point.

Next Click to look for silent portions to the right of the insertion point.

Add Cue Click to create a cue at the current insertion point.

Working with silence

Welcome to Audio Editor Help

Merge dialog box

Merge with Click a file name from the list box of all open compatible waveforms to merge with the current one.

Channel setting Select which channel of the current waveform becomes active when merged.

Merging two mono files into a stereo file
Welcome to Audio Editor Help

Mix dialog box

Mix with Select a waveform from the list box of all open compatible waveforms to combine with the current one.

Mixing level Specify the amplitude for the current and target waveforms.

Mixing two audio files

Removing a file from a mixed waveform

Reversing a waveform

Welcome to Audio Editor Help

Cross Fade dialog box

Cross fade with Click a file name from the list box of all open compatible waveforms for cross fading with the current waveform.

Cross duration Define a value setting for how the current and selected waveforms will overlap.

Transformation curve Select whether to use linear, exponential or logarithmic transformation.

Performing a cross fade between files
Welcome to Audio Editor Help

Convert To dialog box

Sampling rate Select the sampling rate to use for conversion. A low sampling rate loses some higher frequencies.

Channels Select whether to convert the waveform to mono or stereo.

Sample size Select 8-bit if you want smaller file size or 16-bit if you need to produce a waveform with better quality and lesser amount of noise.

Converting a waveform's data type

Welcome to Audio Editor Help

Add Cue / Change Cue Name dialog box

Cue name Type a name for the newly added or changed cue.

Working with cues

Welcome to Audio Editor Help

Go To Cue dialog box

Search for Type the cue name to look for or select from the Cue list.

Cue Shows the existing cues; you can select a cue and press the Go To button.

Search After typing a cue name, click Search to find the first cue matching the name in the Search for text box. Clicking Search again finds the next one, if any.

Go To Moves the cursor to the selected cue.

Display silence cues only Select to display only the cues found in silent periods.

Find Silence dialog box
Welcome to Audio Editor Help

Properties dialog box

Displays information about the attributes, actual file, and other descriptions of the current waveform. This dialog box has three major sections:

Attributes Displays sample rate and size, channel, and duration information of the current waveform.

File Displays the location, format, compression, and size information of the waveform.

Representation data Displays additional information of the purpose of the waveform and also shows the thumbnail representation of the waveform, if any.

Getting information
Welcome to Audio Editor Help

Toolbars & Panels dialog box

Determines how various Audio Editor items appear in the workspace. Select each item you want to appear or clear the ones you want to hide or disable.

Welcome to Audio Editor Help

Open dialog box

Look in Find the desired folder.

View the contents of the next higher folder in your system.

Create a new folder.

View files as icons.

View files by names with statistics.

File name Identify the file to use as a thumbnail representing the audio file you are saving.

Files of type Select a particular file format for opening.

Welcome to Audio Editor Help

Creating a new audio file

1. Click File: New to display the New dialog box.
2. Select a sampling rate. 
3. Select stereo or mono.
4. Select a sample size. 
5. Click OK. The dialog box closes and Audio Editor opens a new window in the workspace.

New dialog box
Audio Editor Basics - Procedures Contents

A sampling rate of 11.025 kHz is good for voice recording while 22.05 kHz is fine for music quality recording. For CD Quality, select 44.1 kHz.

A 16-bit sample size yields better sound quality but requires more disk space than 8-bit.

Opening audio files

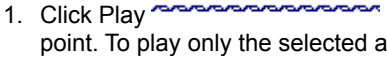
1. Click File : Open to open previously saved audio files. 
2. Select the file extension of the audio file to open from the Files of type drop-down combo box.
3. Switch to the folder containing the sound file(s) you want to open by clicking the Look in drop-down arrow to display other drives and folders or click Browse to scan for files.
4. Select the audio file(s) from the File names list box. Press the Shift key to select a range of files or the Ctrl key to select several individual ones.
5. Click Open. The dialog box closes and opens the selected waveform(s).

Open dialog box
Audio Editor Basics - Procedures Contents

For quick access to recently visited files, click File and select a filename from the Recent Files List displayed before the Exit command.

To listen to a currently selected waveform, click Play on the Toolbar.

Playing an audio file

1. Click Play  on the Toolbar to start the playback of the current waveform from the insertion point. To play only the selected area, click on the Toolbar.
2. Click Play on the Toolbar again or Stop  on the Toolbar to pause the playback.

Audio Editor Basics -Procedures Contents

If you used Stop on the Toolbar to stop the playback, clicking it again will move the insertion point back to the beginning of the waveform.

If using the keyboard is more convenient, you can use the Spacebar to play the audio file and the Esc key to stop the playback. To play a selected area, press F2.

You can print the complete list of keyboard shorcuts in the Reference section, Shortcuts of the Audio Editor Help.

Saving an audio file

1. Click File: Save As to save a file for the first time.
2. Specify a location and name for the file.
3. If you want, type a subject or a description for the selected file and click Select to assign a unique thumbnail image to it.
4. Click Save.

Note: If saving audio data to an existing AVI file, Audio Editor writes to the audio track wiithout affecting the video.

Save As dialog box
Audio Editor Basics -Procedures Contents

For quick saving using the same filename, click File: Save.

This is helpful because the next time you select this file when opening a waveform, you can have an idea of the purpose of this waveform or where you have used it before.

Closing an audio file

You can close an open waveform by:

- Double-click the active window's control menu box.
- Click the active window's control menu box and click Close.
- Click Window: Close All.

Audio Editor Basics - Procedures Contents

Selecting areas in a file

You can select portions of a waveform by:

- Click and drag the mouse over the waveform portion that you want to select. To grow or shrink an existing selection, position your mouse at the edge of the selection you wan to change and click and drag it in the desired direction.
- Click and drag the mouse pointer in the Overview Strip; the selected area appears in the Audio File Window. To clear the selection, right click on the Overview Strip.
- Press "F3" and "F4" to mark the start and end of a selected area when playing a file.
- Click Edit: Select All to select the entire waveform.
- Double-click anywhere in the waveform's window or the Overview Strip to select the entire waveform.

Preferences dialog box
Editing Audio Files - Procedures Contents

If "Snap to Cue" is selected in the Preferences dialog box, the selection snaps to the nearest cue when the selection you have created is very close to an existing cue marker.

Converting a waveform’s data type

Click Edit: Convert To and select the desired sampling rate, channels, and sample size for the waveform. Click OK to accept the new settings.

Convert To dialog box
Editing Audio Files - Procedures Contents

If you are converting the waveform in preparation for mixing or merging with another (target) waveform with a different data type, select the target waveform and then click File: Properties to obtain the information you need for the Convert To dialog box.

Working with cues

Placing cues during playback As the waveform plays, press F5 to place a cue. Each waveform may contain up to 64 cues.

Placing cues manually Place the insertion point where you want to add a cue and then click Control: Add Cue.

Changing a cue name Double-click on a cue handle  to display the Change Cue Name dialog box and assign it a unique name.

Navigating cues Press Tab to go to the next cue or Shift-Tab to go to the previous one.

Deleting cues Drag the cue's blue handle out of the waveform window.

Add Cue dialog box

Editing Audio Files - Procedures Contents

By default, Audio Editor automatically names cues according to the time code of the waveform where the cues is placed.

To remove all cues in one step, simply click Control: Delete All Cues.

Recording a waveform

1. Click Mixer on the Toolbar to prepare and start the playback device that will be supplying the audio you want to record.
2. Click Record on the Toolbar. The Recording Monitor dialog box shows the current recording levels and allows you to calibrate the mixer.
3. Switch to your playback device and start playing the audio you want to record and adjust the output of the source to obtain good recording levels.
4. When your levels are set properly, return to the point where you want to start recording and in Audio Editor, click Record on the Toolbar.
5. Click OK to end the recording and show the results in a waveform window.

Audio Editor can record sound from a CD Player, a microphone, or any other supported external device. It is better to record sound from a single source at a time and combine the files using the Mix or Merge commands in the Edit menu.

Creating a new audio file
Calibrating files recorded from different devices
Audio Editor Basics - Procedures Contents

The mixer program you are going to use must be specified in the Audio Editor Preferences dialog box.

For the best recordings, your recording bar(s) should almost reach the right edge of the recording level bar most of the time without ever touching the edge.

If no audio windows are open when you click Record on the Toolbar, the New dialog box opens.

Finding files

1. Click File: Open to display the Open dialog box.
2. Click Browse to define the location, file name, sorting order for the search.
3. Type the file extension to search for in the File name text box.
4. From the Folders window, select the folder where you want to start the search.
5. Click Scan. Audio Editor searches the selected folder with a name matching that in the Filename text box. Files are then listed in the File name list box in the order specified in the Sort files section.
6. Click the file name you want to open from the File name list box.
7. Click OK. The Browse dialog box closes, returning you to the Open dialog box. The selected file and path name will appear in the File name text box.
8. To open the file, click Open.

Handling Audio Files - Procedures Contents

Getting information

To get information on:

Current waveform Click File: Properties.

Selected file on any file dialog boxes Click the file name you want to get information from in the list box and click Info button.

Properties dialog box

Handling Audio Files - Procedures Contents

Dragging and Dropping

1. Arrange your windows so that the Audio File Window and the target document are both visible.
2. Save the waveform you want to insert into another document.
3. Click and hold the left mouse button on the drag and drop button .
4. Drag the pointer to the target document and release the mouse button.

Handling Audio Files - Procedures Contents

Recovering from mistakes

Reversing the last action Click Edit: Undo to restore the waveform to the condition it was in just before you completed the most recent command. If, after undoing a command, you want to reapply it again, click Edit: Redo.

Restoring the file to its last saved condition If you have made many changes and are not sure exactly what commands you want to undo, you can return the project to the same condition it was in when you last saved it by clicking File: Restore. Be sure you want to restore the file before using this command as it cannot be undone.

Handling Audio Files - Procedures Contents

Customizing Audio Editor

Display and time unit of waveforms Click File: Preferences and select the options on how Audio Editor draws waveforms. You also have to define the Mixer program to use when you want to record sound.

Zooming in or out Click View: Zoom In or Zoom Out or drag the Zoom Tool slider on the Toolbar.

Switching views Click  on the Toolbar.

Revealing hidden portions in the window frame Drag the View Box (the one with the green border) in the Overview Strip to the portion you want. To return to the entire waveform, click View: Fit In Window.

Viewing sample information Click View: Toolbars & Panels and select Sample Information.

Showing or hiding the Toolbar Click View: Toolbars & Panels and select Toolbar to display it or clear to hide. You can also double-click on the Toolbar to hide it.

Preferences dialog box
Audio Editor Basics - Procedures Contents

Quitting Audio Editor

- Click File: Exit.
- Click the Exit button on the top right corner of the Audio Editor title bar.
- Double-click the top left corner of the Audio Editor title bar.

Audio Editor prompts you to save any changes made since your last saved version.

- Saving an audio file
- Audio Editor Basics - Procedures Contents

Clearing audio data

There are two ways to delete portions from a waveform. But first, you have to make a selection and then choose from the following:

- Click Edit: Clear or press the Del key to remove the selected area from the waveform. This will adjust the duration of the waveform accordingly.
- Click Edit: Retain to remove data from outside the selected area, and thereby keeping the selected area.
- Click Edit: Cut to remove the selected area and place it onto the clipboard.

Selecting areas in a file
Editing Audio Files - Procedures Contents

Pasting data into a waveform

To paste a data from the clipboard, you first have to cut or copy some audio data into it. Then, click Edit: Paste and choose from one of the following ways of putting the clipboard data into the workspace:

Insert To add the clipboard data to an existing waveform at the insertion point. This increases the duration of the file.

Replace To change the data in a waveform with that of the clipboard starting from the insertion point.

Mix To open the Paste Mix dialog box to combine the clipboard data with that of the current waveform starting from the insertion point.

Fill To replace a selected area of the waveform with the clipboard data.

As a New Document To create a new audio window containing the clipboard data.

Paste Mix dialog box
Editing Audio Files - Procedures Contents

If the clipboard data exceeds the duration of the waveform it is pasted into, the extra data is truncated.

In the Paste Mix dialog box, you can specify how much of the clipboard data is mixed with the waveform and vice versa.

Depending on the duration of the selected area, the clipboard data will be truncated or repeated until the selection is filled. This command is disabled if there is no selected area.

Changing the amplification of an audio file

1. Click Effect: Amplify to increase or decrease the amplitude of the current waveform.
2. In the Amplify dialog box, specify the percentage change in amplification. An increase of 200% doubles the current amplitude, 50% halves it, and 100% produces no change.

Amplify dialog box
Enhancing Audio Data - Procedures Contents

If the audio file’s amplitude is too loud or quiet, changing its amplification produces just the right sound. This is also very helpful when you want to combine files which have been recorded at different levels to ensure that one does not dominate the rest.

If you increase the amplitude too much, you will introduce distortion of the file, (where the waveform exceeds the ±100% level). To avoid possible distortion, click Effect: Normalize to adjust the waveform only until the highest peak in the waveform reaches ±100% level.

Removing background noise

1. Click Effect: Remove Noise to open the Remove Noise dialog box.
2. Specify the threshold of the noise to remove and click OK to clear the data that is below the set value.

Remove Noise dialog box
Enhancing Audio Data - Procedures Contents

Noise usually appears at very low amplitudes and in most cases a 5% to 10% selection proves adequate. Specifying too high a threshold may erase necessary data.

Working with silence

To insert a silent area, click Edit: Insert Silence. This opens a dialog box for specifying the duration of the silent area to insert.

To silence a particular section of a waveform, select that portion and click Edit: Mute. This removes the data in the selected area keeping the duration of the waveform the same.

To find silent areas, click Edit: Find Silence. This opens a dialog box where you can create cues so you can return to them later and perform trimming or adding data.

To remove silent areas, click Edit: Trim Silence. This opens a dialog box where you can either remove all silence or reserve a specified duration of silence. This is useful if you want to create a pause in the audio file or to maintain synchronization with other media files.

Insert Silence dialog box

Find Silence dialog box

Trim Silence dialog box

Enhancing Audio Data - Procedures Contents

Before silence, click Edit: Remove Noise so that areas in the waveform that may appear silent, but actually contain background noise will first be removed.

Removing a file from a mixed waveform

When a number of files have been fully integrated, you may want to remove one of those files from the mixed file. You can avoid possible effects on the other files :

1. Take the original version of the file you want to remove from the mixed file.
2. Click Effect: Invert to reverse the orginal waveform.
3. With the resulting waveform, click Edit: Mix and select the mixed waveform from the Mix with list box. The inverted waveform works by canceling out or negating the original waveform thus removing it from the file.

Mix dialog box
Enhancing Audio Data - Procedures Contents

If you listen to an inverted waveform, you will not hear any difference. Invert command only affect the “mapping” of the waveform and not the original data.

If you have already applied an effect to a mixed file, you cannot remove a file with the Invert command.

Calibrating files recorded from different devices

When mixing files with different baselines, it may not produce a good result. To solve this, click Effect: DC Offset and adjust the baseline level of the waveform so that it equals that of the other waveform to produce a more evenly distributed sound.

DC Offset dialog box

Enhancing Audio Data - Procedures Contents

If you used several sources to record audio, some may be calibrated differently to your hardware. This results in files whose baseline (0) is at a different level in the waveform. Before mixing files baselines on different levels, it is better to first calibrate them to make them all the same.

Performing a fade effect

To create a smooth start and end segments of a waveform, click Effect: Fade, select the fade options, and click OK to apply the effect.

Fade dialog box
Applying Special Effects - Procedures Contents

Changing the speed of a waveform

To increase or decrease the duration of a waveform and also produce interesting distortion effects, click Effect: Speed to open the Speed dialog box. Adjust the slider to the desired change in speed. You can check the effect on the waveform in the File Information box.

Speed dialog box
Applying Special Effects - Procedures Contents

Panning stereo files

To create a “surround sound” effect while moving from one channel to another, click Effect: Pan to open the Pan dialog box. For complete silence, set the start and end levels to 0%. Setting the start and end levels to 100% leaves the output unchanged.

Pan dialog box
Applying Special Effects - Procedures Contents

Reversing a waveform

To encode recorded messages:

1. Click Effect: Reverse to make the end of the waveform become the beginning.
2. Open another waveform (e.g. a background music).
3. Click Edit: Mix and in the dialog box select the reversed waveform.
4. With the resulting mixed waveform, click Effect: Reverse again to decipher the original message.

Mix dialog box
Applying Special Effects - Procedures Contents

Performing echo effects

Click Effect and choose from:

Echo Select to define you own parameters for the effect.

Long Echo Select for long delay and strong decay effect.

Long Repeat Select for shorter delay and less decay effect.

Resonance Select for short delay, little decay and a very short bound effect.

Stadium Select for similar effect as the Long Echo but this starts and ends sooner.

Echo dialog box

Applying Special Effects - Procedures Contents

Changing the pitch of a waveform

To adjust how high or low something sounds, click Effect: Pitch to open the Pitch dialog box. High pitch may sound very shrill, like a whistle and a low pitch is deep, like a fog horn.

Pitch dialog box
Applying Special Effects - Procedures Contents

For best results, try experimenting with various levels and playing back the results.

Reducing the bit size of an audio file

To change the number of bits of an audio file, click Effect: Quantize and type the new bit value. Some waveform data is discarded and this produces varying degrees of static over the original file. You can only retrieve the lost data by clicking Edit: Undo immediately before performing another tasks.

Quantize dialog box
Applying Special Effects - Procedures Contents

Merging two mono files into a stereo file

1. Click File: Open to select the two mono files for merging.
2. Click Edit: Merge and select the audio file to merge with the current one.
3. Select the channel setting where to place the current waveform when merged and click OK.

Merge dialog box

Combining Waveforms - Procedures Contents

The “Merge with” lists only the open audio files in the workspace that are of the same data type as the current waveform.

To split a stereo waveform into two mono ones, click Edit: Split and this immediately seperates the two channels into two mono audio windows.

Mixing two audio files

To combine the contents of two files into one and create a final master sound track, you have to:

1. Click File: Open and select the two files to mix together.
2. Click one of the files to make it active and click Edit: Mix.
3. In the Mix dialog box, define how much one file is combined with the other. At 100%, the current file is mixed at the same amplitude as the other.
4. Click OK to close the dialog box.

Mix dialog box
Combining Waveforms - Procedures Contents

Mixing waveforms is a cumulative effect. If the sum of the waveform amplitudes at any point in the mix (after weighing) exceeds 100%, you will introduce distortion into the new waveform.

Performing a cross fade between files

To smooth out the transition between two files that you want to combine, do the following:

1. Click one of the files you want to combine to another.
2. Click Edit: Cross Fade to open the Cross Fade dialog box.
3. Select the file to combine with the current one and define how the files fade in and out to each other.
4. Select the type of fade by selecting one of the Transformation Curve options.
5. Click OK to close the dialog box.

Cross Fade dialog box
Combining Waveforms - Procedures Contents

The file from the Cross Fade list box will be appended to the end of the current waveform.

Switch Menu

Opens a menu listing other Ulead programs for easy access.

Technical Support


Technical Support


How To Contact Us

Please prepare the following information before contacting us so we can offer you the best possible support:

- The program name and serial number.
- Nature of the problem.
- Any error messages or dialog boxes that appear when the problem occurs.
- System information including CPU, operating system, and any other programs running when the problem occurs.

How To Contact Us

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North & South America
International

Field-based videos, when viewed on the computer show unwanted horizontal lines. This is due to the interlacing of video for the TV screen. When the proper hardware is used, these horizontal lines disappear when shown on a television monitor.

Pan dialog box

Left channel Specify the amount to fade in or out the left channel.

Right channel Specify the amount to fade in or out the right channel.

Transformation curve Select whether to use linear, exponential or logarithmic transformation.

Panning stereo files

Welcome to Audio Editor Help

Linear Causes the sound level to change at a constant rate over time. Choose this if you want do a gradual fade.

Exponential Causes sound levels to start out slowly and end very quickly, while an exponential fade-out causes sound levels to start out fast and end very slowly.

Logarithmic Starts quickly and then levels out slowly, while a logarithmic fade-out starts very slowly and then drops suddenly.

Echo dialog box

Echo effects From the drop-down list, choose the type of echo effect to apply.

Echo characteristics Adjust the delay, decay and bound parameters. Delay defines the time separating each echo. Decay specifies the level to which sound fades away and Bound defines the minimum level of decayed sound that can be discarded. The lower the bound, the more resonance is created.

Performing echo effects
Welcome to Audio Editor Help

Amplify dialog box

Percentage Specify the amount of increase or decrease in the amplification.

Changing the amplification of an audio file

Welcome to Audio Editor Help

Quantize dialog box

Level Changes the number of bits used in a waveform. Reducing the number of bits results in data loss and therefore, produces lower quality sound. For 8-bit files, you can specify a quantize level from 1 to 7 bits. For 16-bit files, specify the quantize level from 1 to 15 bits.

Reducing the bit size of an audio file
Welcome to Audio Editor Help

Remove Noise dialog box

Threshold Specify the range of background noise to remove.

Removing background noise

Welcome to Audio Editor Help

DC Offset dialog box

Offset Specify the amount for recentering the mean-line (or baseline) of a waveform. This is useful when you want to make two waveforms with different baselines the same to prepare it for mixing or merging.

Calibrating files recorded from different devices
Welcome to Audio Editor Help

Pitch dialog box

Change pitch Adjust the pitch slider to make the current waveform sound higher or lower.

Changing the pitch of a waveform
Welcome to Audio Editor Help

Speed dialog box

Faster/Slower Increase or reduce the length of a selected area or the current waveform.
File information Displays the original and the new length of the file.

Changing the speed of a waveform
Welcome to Audio Editor Help

Fade dialog box

Fade control Specify the amount of fade in or out for a specified time period.

Fade effects Select the type of fade effect from the drop-down list that you want to create.

Transformation curve Select whether to use linear, exponential or logarithmic transformation.

Performing a fade effect
Welcome to Audio Editor Help

Amplify

Adjusts the amplification of a selected area or the current waveform affecting the output volume.

- Changing the amplification of an audio file
- Amplify dialog box
- Welcome to Audio Editor Help

Normalize

Evaluates and adjusts a selected area or the current waveform so that the highest peak reaches 100% amplitude, correcting the rest accordingly.

Welcome to Audio Editor Help

Quantize

Changes the number of bits used in a selected area or the current waveform. Reducing the quantize level (in bits) results in data loss and gives you a poor quality sound, but reduces file size.

Note: Increasing the quantize level does not have any effect on sound quality.

Reducing the bit size of an audio file
Quantize dialog box
Welcome to Audio Editor Help

Remove Noise

Removes the background noise from a selected area or the current waveform.

- Removing background noise
- Remove Noise dialog box
- Welcome to Audio Editor Help

Reverse

Flips a selected area or the current waveform so that when played, it sounds as though it is being played backwards.

Reversing a waveform
Welcome to Audio Editor Help

Invert

Turns a selected area or the current waveform upside down. This effect does not change the sound output and is particularly useful when you want to remove sound from that part of the waveform mixed in the whole file.

Removing a file from a mixed waveform

Welcome to Audio Editor Help

DC Offset

Raises or lowers the mean-line (or baseline) of a selected area or the current waveform. You can use this to recenter waveforms that do not oscillate about the correct mean-line. This effect will not affect the output sound unless you move the mean-line so that the peak sound data is clipped.

- Calibrating files recorded from different devices
- DC Offset dialog box
- Welcome to Audio Editor Help

Pitch

Makes a selected area or the current waveform sound higher or lower.

- Changing the pitch of a waveform
- Pitch dialog box
- Welcome to Audio Editor Help

Speed

Increases or decreases the length of a selected area or the current waveform. This effect makes the file sound slower or quicker.

- Changing the speed of a waveform
- Speed dialog box
- Welcome to Audio Editor Help

Fade

Fades a selected area or the current waveform in or out.

- Performing a fade effect
- Fade dialog box
- Welcome to Audio Editor Help

Pan

Independently fades the left and right channels of a stereo file in or out. By fading out one channel while fading in the other you can make sound appear to shift from one channel to the other as it plays.

- Panning stereo files
- Pan dialog box
- Welcome to Audio Editor Help

Echo

Defines and applies an echo effect to a selected area or the current waveform.

- Performing echo effects
- Echo dialog box
- Welcome to Audio Editor Help

Long Echo

Applies a predefined echo to a selected area or the current waveform to produce an echo with a long delay that decays quickly.

Performing echo effects

Welcome to Audio Editor Help

Long Repeat

Applies a predefined echo to a selected area or the current waveform. This effect is somewhat similar to the Long Echo command but the repeats are louder and last longer.

Performing echo effects
Welcome to Audio Editor Help

Resonance

Applies a predefined echo to a selected area or the current waveform to produce a robot-like sound.

Performing echo effects
Welcome to Audio Editor Help

Stadium

Applies a predefined echo to a selected area or the current waveform to give an effect similar to that produced in a large auditorium.

Performing echo effects

Welcome to Audio Editor Help

Ulead On The Web

The commands in this submenu will bring you to various locations at the Ulead web site.

Ulead Homepage

Opens your Internet browser and takes you to Ulead's web site.

MediaStudio Pro Homepage

Launches your web browser and takes you to the MediaStudio Pro section of Ulead's web site.

Technical Support

Launches your web browser and loads the Technical Support section of Ulead's web site.

Online Registration

Opens Ulead Systems Registration Wizard which allows you to register your products through our web page or the e-mail internet connection. Registering your software ensures periodic updates of all our products.