

SONIC SOLUTIONS

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# **SonicStudio 5**

## **Getting Started**

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#### SonicStudio 5, Getting Started

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## Getting Started

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# 1 12-Step Tutorial

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This chapter will teach you the basic functions of SonicStudio™ in 12 easy steps.

When you complete this chapter, you will know how to:

- Record sound to the SonicStudio hard disk.
- Edit recorded sounds.
- Play back with mix and automation.

This tutorial assumes that the SonicStudio hardware and software are already installed, working, and connected to suitable a audio source and monitoring system. It also assumes that you are familiar with basic Macintosh operations such as click and drag, selecting menu commands, etc.

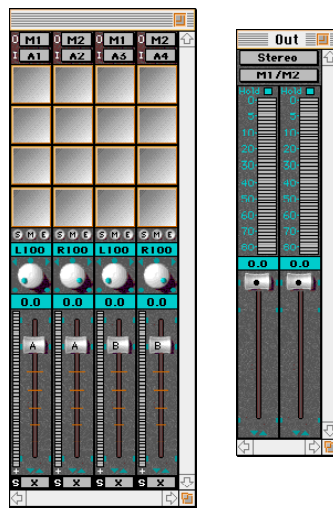
## Step 1 Start SonicStudio

To start the system, locate the SonicStudio application and double-click on the icon.



Start-up will take a few moments. As SonicStudio starts up, it displays a graphic start-up screen and a series of messages in the Status Window at the bottom.

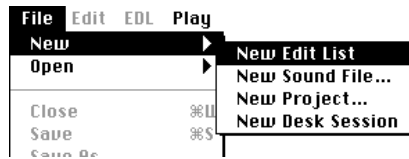
When the system finishes starting up, the Mix Desk windows will show on your screen:



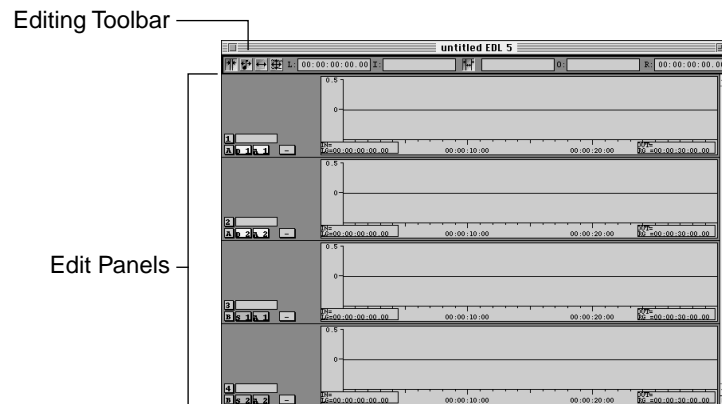
The number of channels on the mixing desk may vary with the configuration of the system you are using. Use of the mixing desk is described in Step 12 of this tutorial.

## Step 2 Make a New EDL

The window in which you edit audio is called an Edit Decision List, or EDL. To open a new EDL, go to the File menu and choose the command New, then select New Edit List from the pull-right submenu.



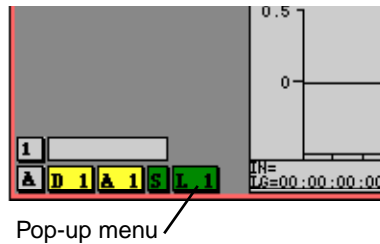
A new, untitled EDL window appears.



## Step 3 Record a Sound

You can record directly into any panel or group of panels in the EDL. Before recording, you must assign an input and arm the panel to record.

1. Click on the first panel to select it.



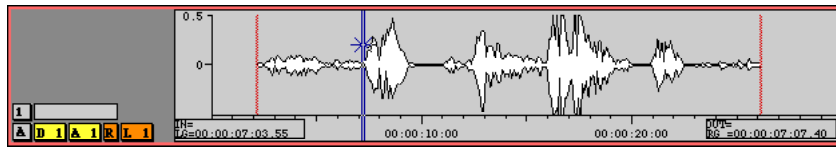
2. Use the pop-up menu to select a line input (I1, etc.).
3. Click on the Record/Safe button to arm the panel.

You can record to more than one panel at a time, the exact number depending on the configuration of your system.

4. Press the space bar to start play.
5. As the play head starts to move, cue your audio source.
6. Press the / key to enter Record.
7. Press the space bar to stop playing and display the recorded sound.

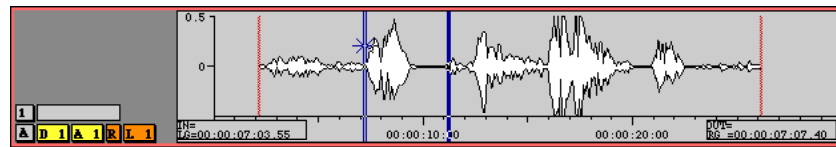
## Step 4 Play the Sound

Once a sound has been opened into the EDL panel, you can play from any point in the panel by using the keyboard space bar.



1. Click in the left hand portion of the panel. Drag to place the gates at the point that you want to begin play.

The left and right gates are the pointers used to mark points and regions in the waveform display. You can place them as desired by dragging with the mouse.

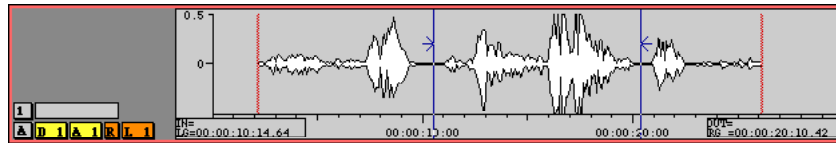


2. Press the space bar to begin playback from the left gate. Press again to stop play.

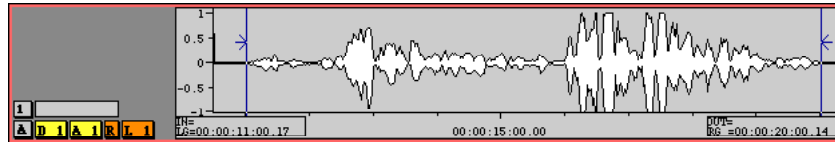
Although the space bar is the most convenient way to start and stop playback, the Play menu provides a variety of commands to play defined portions of the panel. The Transport Panel (accessed from the File menu) can also be used control playback of the SonicStudio System as well as external transports.

## Step 5 Divide Sound into Segments

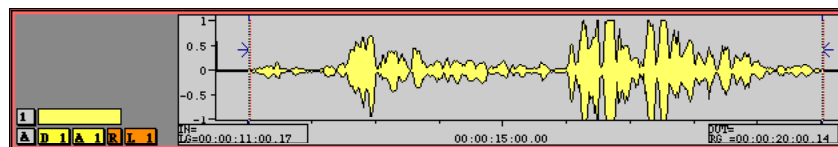
The Create Segments command places cuts (shown as vertical pink lines) at the positions of the gates, and highlights the section of audio in between. Repeat the operation to create additional audio segments.



1. Use the mouse to place the left and right gates around a section of sound you would like to clip out as an audio segment.



2. From the View menu select Zoom to Gates. Place the gates to more precisely define the segment you would like to clip.

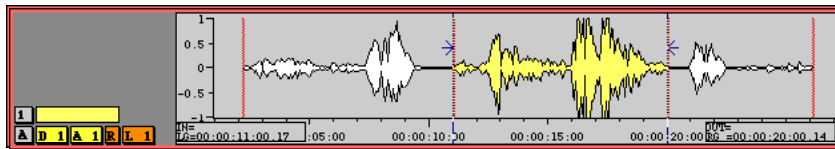


3. From the Edit menu select Create Segments, From Gates.

The Create Segments command places cuts (shown as vertical pink lines) at the positions of the gates and highlights the section of audio in between. Repeat the operation to create additional audio segments.

## Step 6 Name the Segments

An edit panel can be viewed as a text-based play-list, as well as in waveform or bar mode. The text display shows each segment (the one you created as well as those before and after it) as line of text with a name, start time, etc.



1. Select Zoom to Entire from the View menu to see the entire file again.

| in:  | name     | trk | start-seg      | end            | length         | gain | lock | f |
|------|----------|-----|----------------|----------------|----------------|------|------|---|
|      | Take33   | 1   | 00:00:02:03.61 | 00:00:11:00.41 | 00:00:08:26.60 | 0.0  | N    | X |
| out: | Take33_1 | 1   | 00:00:10:29.72 | 00:00:20:00.38 | 00:00:09:00.46 | 0.0  | N    | X |
|      | Take33_2 | 1   | 00:00:19:29.70 | 00:00:26:02.63 | 00:00:06:02.73 | 0.0  | N    | X |

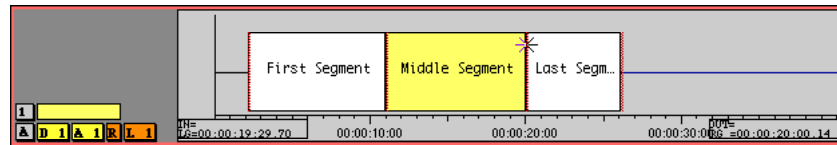
2. From the EDL command Display Panel As, select the option Text to show the contents of the panel in textual form.

| in:  | name           | trk | start-seg      | end            | length         | gain | lock | f |
|------|----------------|-----|----------------|----------------|----------------|------|------|---|
|      | First Segment  | 1   | 00:00:02:03.61 | 00:00:11:00.41 | 00:00:08:26.60 | 0.0  | N    | X |
| out: | Middle Segment | 1   | 00:00:10:29.72 | 00:00:20:00.38 | 00:00:09:00.46 | 0.0  | N    | X |
|      | Last Segment   | 1   | 00:00:19:29.70 | 00:00:26:02.63 | 00:00:06:02.73 | 0.0  | N    | X |

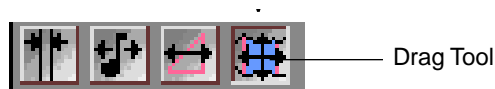
3. Select, then double-click on the Name field for each segment and assign that segment a meaningful name.

## Step 7 Rearrange the Segments

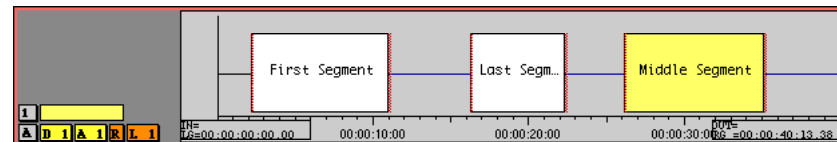
You can also view a panel in Bar mode, and rearrange the order of segments using the Drag tool.



1. From the EDL command Display Panels As, select the option Bars. Use Zoom Out from the View menu to open up space to rearrange the segments.



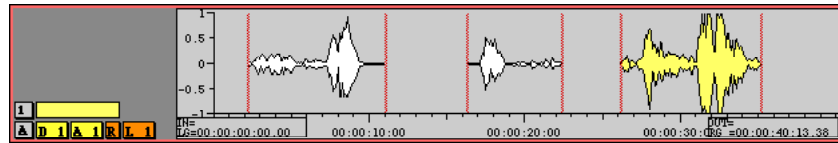
2. Click on the Drag tool from the toolbar in the upper left of the EDL window.



3. Using the Drag tool, select and drag to rearrange the order of the individual sound segments.

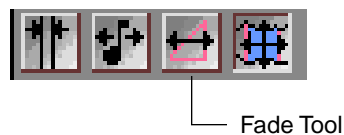
## Step 8 Adjust Segment Length

From the editing toolbar, you can also select the Fade tool and use it to adjust the start and end of any segment



1. From the Display Panel As menu, switch back to Waveform display.

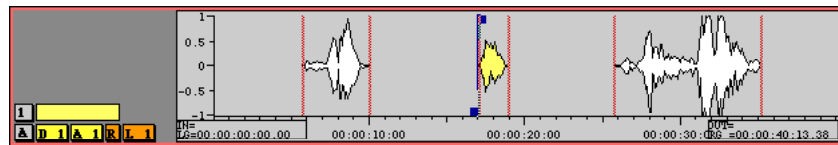
The Fade tool lets you adjust the start and end points, as well as fade time, for each segment



Fade Tool

2. Select the Fade tool from the toolbar.

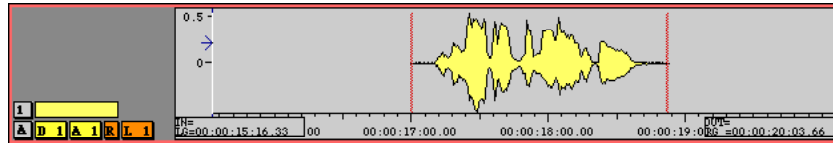
When you drag a fade, the underlying audio remains so that you can shorten or lengthen the segment as desired.



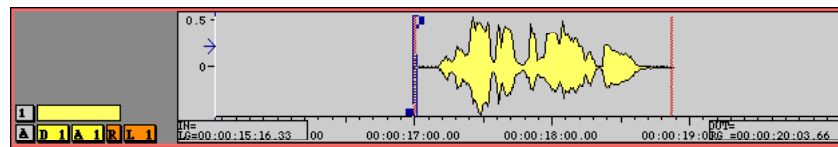
3. Select the individual edits at head and tail, and drag to adjust the start and end of the individual segments.

## Step 9 Adjust Fade In and Fade Out

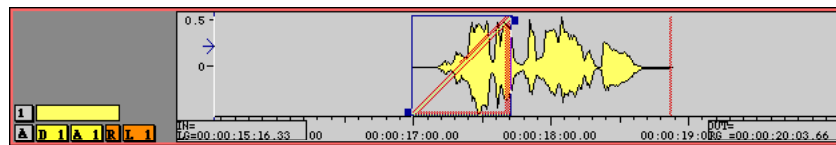
The Fade tool is a fast and effective way to adjust fade time.



1. Switch back to the Gates tool, and then use Zoom to Gates to view a single segment more closely.



2. Return to the Fade tool and select the leading cut of the segment you are examining.

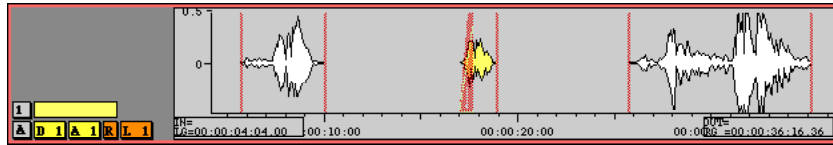


3. Drag the upper-right grab-box to lengthen the fade. Use the space bar to listen to the result.

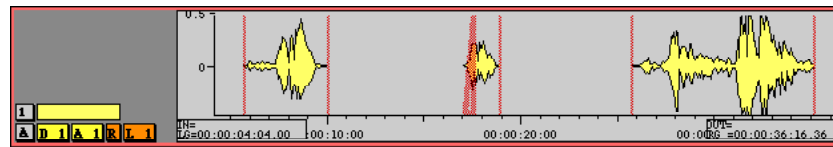
The Fade tool is a very fast way to adjust fades, but for complete control of every aspect of an audio edit, use the Edit Fade window as described in the *Reference Manual*.

## Step 10 Save Segments as Cues

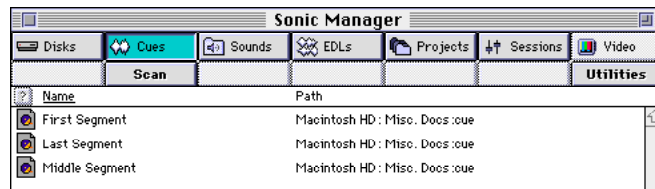
The edited segments you have created can be saved permanently as audio elements, called Cues that can be used in any EDL you create.



1. Use Zoom to Entire from the View menu to see the entire panel.



2. Use the Select All option for Select Segments in the Edit menu to highlight all of the segments you have created.
3. Select Make Cue Files from the EDL menu to turn segments into elements that can be used in other EDLs.

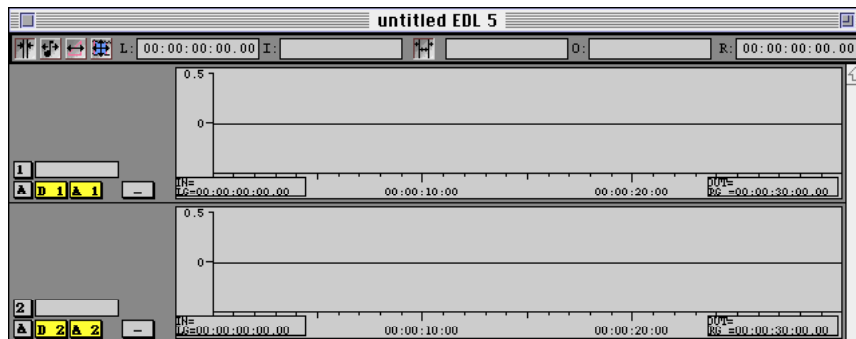


4. Select Sonic Manager from the Mangers menu. In the Sonic Manager, click on the Cues button to select the Cues library.

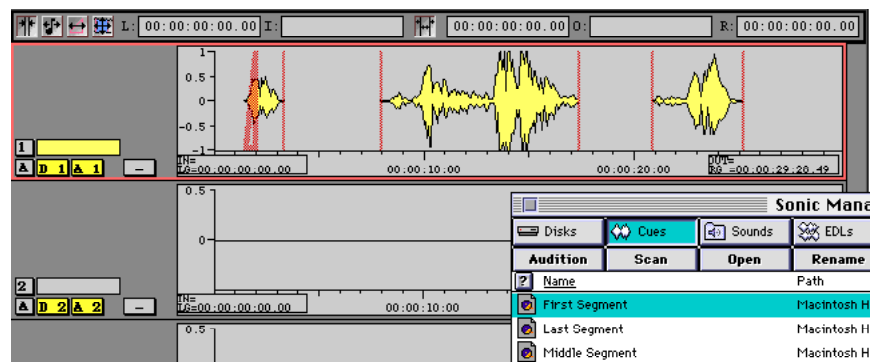
The names of the segments you created will appear in the window, along with those of any preexisting Cue files.

## Step 11 Use the Cues Library

Cues provide a very effective a flexible way to organize the elements of an audio production.



1. Create a new EDL as in Step 1 of this tutorial.

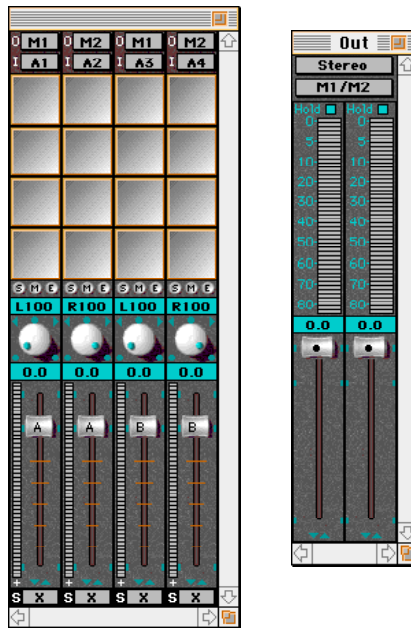


2. Using the mouse, drag Cues one at a time from the Sonic Manager into the newly created EDL.

If screen space doesn't permit dragging, you can open cues by double-clicking or using the Open button.

## Step 12 Mix with Automation

The Sonic Mix Desk provides a multi-channel digital console with extensive equalization and automation.



1. Select the New Desk Session option from the File menu New command to open an automation file.
2. Begin play back by pressing the space bar.
3. As audio plays, adjust level and other parameters of the desk.
4. Stop then restart playback by pressing the space bar twice.

The faders and other controls of the desk will move as recorded. You can update as they and all new moves will be reflect on the next playback.

## Congratulations!

You've completed the Sonic 12-Step Tutorial. Now you know everything you need to be able to record, edit, mix, and deliver sound to the output. With these tools, you can do lots of real-world work quickly and effectively.

Of course, there's lots more you can do with SonicStudio, and all of it is described in the Installation and Reference manual delivered with your system.

Dive in and Good Editing!

## 2 Introducing SonicStudio

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This short guide is intended to help you learn the basic functions of SonicStudio, so you can use them confidently in the shortest amount of time.

The SonicStudio system is a comprehensive and flexible environment for any audio editing project:

- Sound-for-Picture
- CD Premastering
- Radio Production
- Music recording
- Multi-media
- Audio restoration.

This tutorial introduces the basic functions of the system that are used in all applications. This tutorial covers the functions of:

- Recording
- Editing
- Transfer to a delivery medium.

For detailed information about the many functions and abilities of SonicStudio, please refer to the *SonicStudio Reference Manual*.

## Sonic Solutions Customer Support

If you have specific questions about SonicStudio features, Customer Support is available by the following means:

Support Hot Line: (415) 893-7000, 7:00 am - 6:30 PM PST

Support FAX line: (415) 893-8008, 24 hours/7 days per week

Internet address: [soniccare@sonic.com](mailto:soniccare@sonic.com)

## Internet Users Group

If you have access to the Internet (highly recommended) and would like to address other SonicStudio users, you can subscribe to a "daw-sonic" mail list by sending an email message to:

*mailserv@oregon.uoregon.edu*

with the following single line message.

*subscribe daw-sonic*

The daw-sonic mail list is independent of Sonic Solutions (many thanks to Jim Rusby of the University of Oregon for this service). Sonic Solutions technical support representatives subscribe to the list and participate in problem solving and discussion.

## Assumptions of this Tutorial

We assume you know basic Macintosh operations such as click and drag, selecting menu commands, etc. For additional help, consult your Mac manual. Make sure you have the Sonic QuicKeys keyset installed. Also, this tutorial assumes you have a single Sonic Solution Processor (SSP-3) card two or four input channels. For larger systems, apply the same procedures for each four-channel grouping.

## Starting SonicStudio

This tutorial assumes that the SonicStudio system hardware and software is installed correctly and connected to appropriate external audio equipment. If in doubt, read the Installation and Checkout chapters of the main manual to make sure you have correctly installed the SSP or USP hardware, connected external audio devices such as DAT machines, or analog to digital converters and installed the SonicStudio System application on your Macintosh Hard Drive.

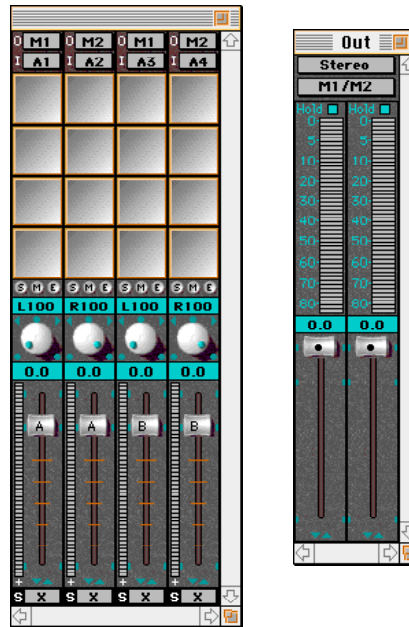
The SonicStudio System application is found on your hard drive in a folder labeled Sonic.

1. Find the Sonic folder.
2. Open the folder.
3. Double-click on the Sonic Icon.



As the SonicStudio System starts up, it will display a graphic start-up screen and a series of messages will appear rapidly in the Status Window at bottom. The boot process will take one or two minutes, depending on system configuration.

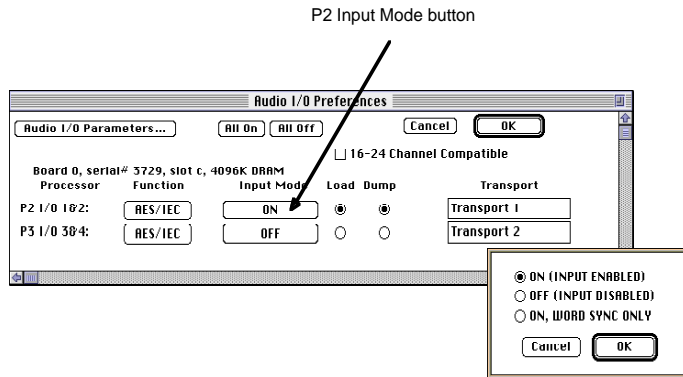
When the Sonic application is running, this pair of windows will show on your screen:



This is called the Desk (or Mixing Desk). It is a virtual digital mixing console designed as a classic split console with an in-line multi-channel section (number of channels dependent on your Sonic configuration) and main stereo output section.

## Audio Setup

Audio input to the SonicStudio System is controlled by the Audio I/O Preferences dialog. It is important to make sure this dialog is set properly for your configuration.



For this tutorial, we assume that the input source (DAT, A/D converter, etc.) connects to inputs 1 and 2 (P2). To set the SonicStudio System so that it will receive digital audio from a source connected to inputs 1/2:

1. Open the Audio I/O Preferences dialog.
2. Click once on the Input Mode button for in the P2 I/O 1 & 2 row. A small dialog box appears.
3. In the small dialog, select ON (input enabled) and click on the OK button.
4. Set the P3 Input Mode to OFF.
5. Click on the OK button to close dialog.

## Recording a Sound File

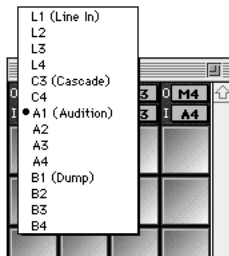
### Setting Up the Mix Desk

Configure the in-line section to monitor line inputs or playback from hard disk.

Before setting  
Line Inputs



Input Select  
Buttons



After setting  
Line Inputs



To select the line input for channels 1 and 2:

1. Click-hold on the Input Select button (second from top) for the first channel.
2. In the pop-up list that appears, drag the mouse to select L1 (Line In).
3. Set the input for the second channel to L2.
4. Verify that the Output Select buttons for the first two channels are set to the main outputs ("M1" and "M2").

When you play back sounds from your source machine, you will see the LEDs in the Sonic fader sections move correspondingly.

### Sound Disk Verification and Selection

Next, you will verify that the hard disk(s) you're using for sound are properly connected, formatted, and available to record.



When you're operating you will not have to do this each time you record, but it's important to know how to manage the system's selection of sound disks.

To check the status of your sound disks:

1. Open the Sonic Manager window, using the submenu to the Managers item in the File menu.

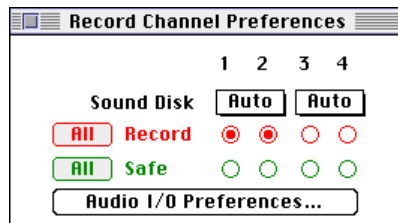
The Sonic Manager window will open initially with its Sounds "library" (described later) selected. To check the disks, you must select the Disks library.

2. In the Sonic Manager window, click once on the Disks button at upper left.

Mounted and available sound drives will appear in the Sonic Manager's window.

## Selecting Inputs for Recording

To record stereo on a 4-channels or multi-channel, you need a way to designate which inputs will actually be recorded.



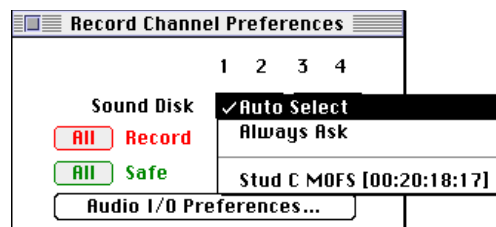
To select line inputs for recording:

1. Using the Preferences submenu in the File main menu, open the Record Channel Preferences dialog.
2. Click on the Record buttons beneath channels 1 and 2.

Dots will appear within the circles, indicating that these are channels that will be recorded to disk. Note that channels 3 and 4 cannot be set to record at this time because they are switched OFF in the Audio I/O Preferences.

### Selecting a Sound Drive

If you have more than one sound disk on your system, or you are networked with other systems via a MediaNet™ network, you will want to designate which disk drive will receive the recorded sound.



To select the drive onto which the sound files will reside:

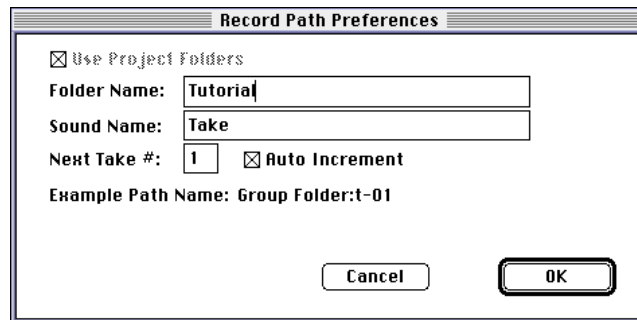
1. Click-hold on the Sound Disk button for channels 1/2.
2. In the pop-menu that appears, drag the cursor to your selection. For our purposes, choose Auto Select.

The available selections are Auto Select, Always Ask, and the available sound drives by name. Auto Select will record onto whatever disk has available room. Always Ask will cause the program query you to select a disk each time you record;

3. Close the Record Channel Preferences dialog.

## Setting the Sound File Name

When you record, the system assigns a name to the file. If desired, you can override the automatic selection and place the file anywhere you like, with any name desired. Automatic name and folder assignment is controlled by the Record Path Preferences dialog.



To designate the file name and path selection:

1. Open the Record Path Preferences dialog.
2. Type in the Folder Name to read “Tutorial.”  
The Sound Name should read “Take.”
3. Set the Next Take number to 1.
4. Check to make sure that the Auto Increment option is enabled (the box has an X in it).
5. Click on OK.

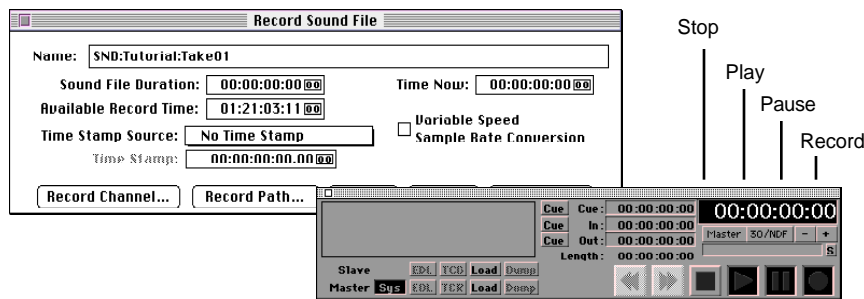
Each time you make a new recording, the program creates a folder called “SND” with another folder inside called “Tutorial.” The sound folder itself will be called “Take01” (02, etc.). Each time you record, the take number is automatically incremented. This saves you the trouble of typing in a new file name each time you record a new take.

## Recording

Now you are ready to start the actual recording.

## Getting Started

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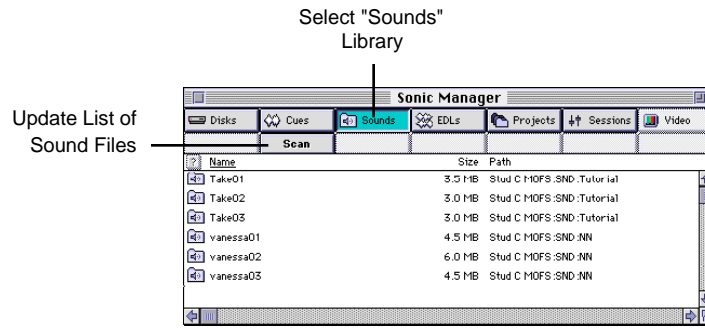
To begin recording:

1. Select Record Sound File from the File menu.  
This opens the Record Sound File dialog and the Transport Panel.
2. Cue audio source for recording.
3. Begin the recording by clicking the Play or Pause button on the SonicStudio System Transport Panel.
4. Start audio source.
5. To stop recording, click the Transport panel Stop button.

Recording is a background task, meaning that you can perform other operations, such as editing or processing, while recording continues. You do not need to monitor input during the record, but can switch the desk to provide playback from disk or monitoring of other inputs.

### Verifying the Recording

Once you have completed recording, verify that you can locate the new file on disk.

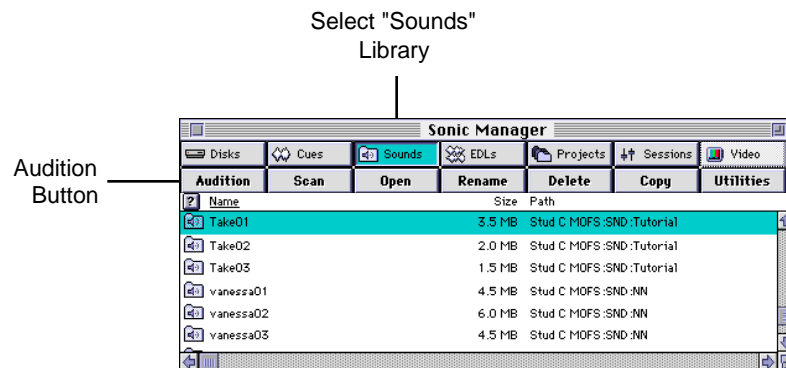


To see where your newly recorded sounds reside on the disk drive:

1. Open the Sonic Manager window.
2. Select the Sounds button to bring you to the Sounds library.
3. Click on the Scan button in the lower rank of buttons at top of the window.

Now, you should see the file or files you have recorded listed in the Sonic Manager window.

### Auditioning the Recorded File



To listen to the newly recorded file:

1. Using the Windows main menu, select "Desk" as the frontmost window.
2. Reset the Input Select buttons for channels 1 and 2 to "A1" and "A2" respectively.
3. Bring the Sonic Manager window back to the front of the screen by clicking on the window, using the Windows menu, or using QuicKeys equivalents.
4. In the Sonic Manager, click on the file name for the sound that you want to hear to highlight it.
5. Click on the Audition button at left of the lower rank of buttons. To halt playback, click the Audition button again.

The record process is now complete and you are ready to begin editing.

## The Edit Decision List (EDL)

The environment for editing audio on the SonicStudio System is called an Edit Decision List, or EDL.



To open a new EDL:

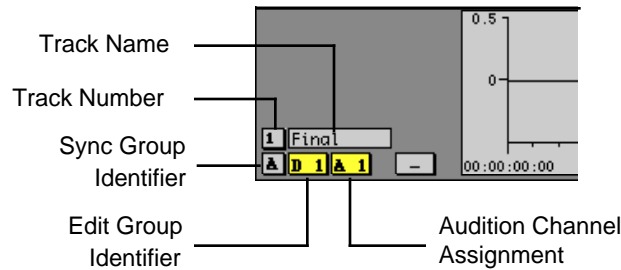
- ◆ Select the command New Edit List from the New submenu in the File main menu.

The illustration shows an EDL with four editing panels, configured for assembly of stereo material. This is the default configuration. You can define other editing configurations with more panels, etc. using the EDL Preferences dialog, as described in the *Reference Manual*.

If your EDL does not look like the illustration shown, you must change the user preferences for the number and initial grouping of panels. Refer to the *Reference Manual* for instructions.

### Panels and Groups

In the horizontal *edit panels*, you can open sound files, trim, adjust, assemble (and even record) audio segments as desired.



At the left of each panel is a group of labels and indicators that control the way that panels are tied together into groups. Editing, view, and play commands act on the *currently selected* panel (shown by a red border) as well as other panels that are grouped with it.

Panels are grouped in two ways:

- Groups of tracks (panels) that display and play together are called "Sync Groups".

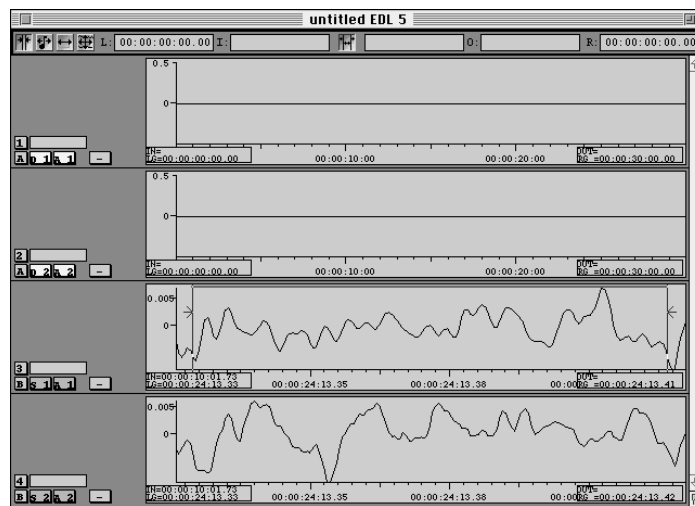
There are 32 Sync groups, designated by letter. When you select any play, zoom, or move commands (describe later), the currently selected panel and all panels in the same Sync group are affected.

- Groups of panels (tracks) that are edited together are "Edit Groups."

There are two Edit Groups, "Source" and "Destination". Many editing commands work by moving audio from the Source group to the Destination group. In the tutorial example, the bottom two panels are designated Source, while the top two are set as Destination.

### Opening a Sound File

You can open previously recorded sound files into the Source panels. For this example, we will open a stereo sound file into the lower panels of the EDL created in the previous step.



To insert a sound into the new EDL:

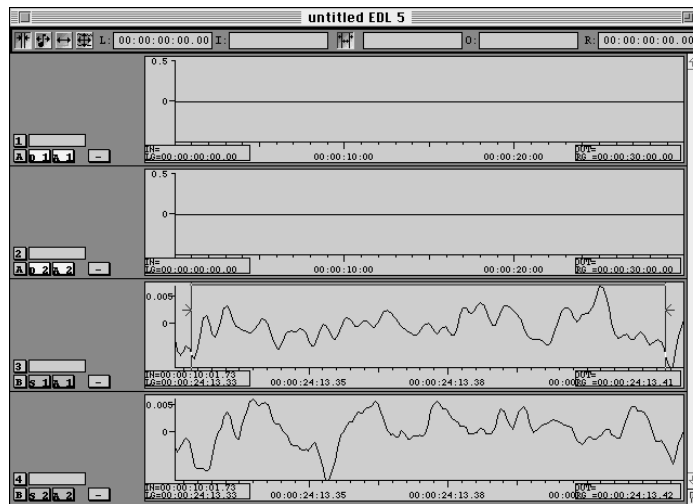
1. Open the Sonic Manager window.
2. If the Sounds library is not already selected, click on the Sounds button.

3. Select the desired file by clicking on its entry in the list.
4. Click on the Open button.

The waveform of the selected file will appear in the two lower (Source) panels of the EDL.

### Playing from the EDL

There are many ways to trigger playback. The most common way is to simply hit the keyboard *<space bar>* while the EDL window or the Mix Desk is frontmost on screen.



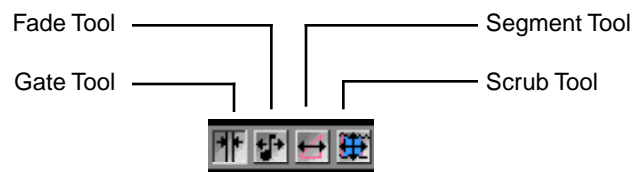
To start playback from the EDL:

1. Make sure the EDL or Mix Desk is frontmost on the screen.
2. Select the panel to play by clicking on it.
  - When you play, the selected panels will play back, along with any panels that are assigned to the same Sync (letter-name) group.
3. Press the space bar to start playing from the left edge of the panel.

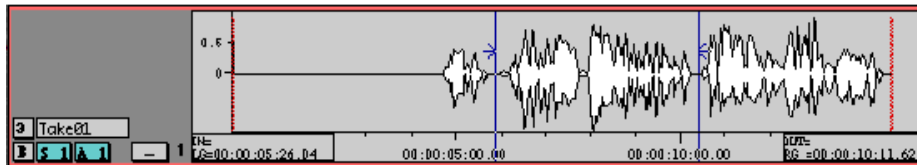
4. Press the space bar again to stop playback.

### Edit Tools: Left and Right Gates

When you click and drag the mouse inside an edit panel, the action performed depends on which of the four "tools" is selected.



When you open a new EDL, the "Gate" tool is selected by default. You can select the Gate tool by clicking on its icon or pressing <G>. Using this tool, you can place the left and right "Gates", vertical markers that define where editing and other commands will operate within the panel.



To activate the left and right Gates in the panel:

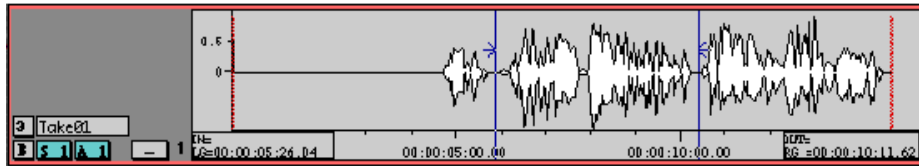
1. Select the panel to edit by clicking on it.
2. Click anywhere within the area of the panel that displays the audio waveform.

When you click in the left half of the panel, the "left" Gate (as shown by the small arrow attached to the vertical line) will appear.

3. Click in the other half of the panel to make the other Gate marker appear.

## Edit Tools: Placing the Gates

Using the mouse, you can drag the Gates wherever you wish to place marks, make edits, play a section, and so on.



To define a region within a panel:

1. Click on the left Gate and drag it to the start point of audio, or to another prominent feature of the sound in the panel.
2. Click-drag the right Gate to a point you wish to use as the right-hand boundary of your region.

The position of the left Gate determines where playback will start when you hit the space bar.

To play audio starting from the Left Gate:

1. Press the keyboard space bar.
2. Press again to stop play.

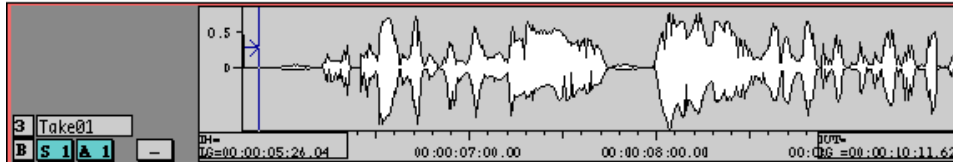
You may want to practice positioning the left Gate and playing from various locations.

Many other options for playback are available, in the Play menu as well as from the keyboard and Transport Panel, as described in the *Reference Manual*.

## Changing the View: Zoom To Gates

In the SonicStudio System, you can zoom in or out to view as much or as little of the audio waveform as you wish to see.

One of the most commonly used view commands is called Zoom to Gates.



To use the Zoom To Gates command:

1. Place the left and right Gates to bound the area that you wish to zoom in on.
2. Select the command Zoom To Gates from the View menu.

The waveform display will zoom in quickly to show the area you had bracketed with the Gates.

### Changing the View: Zoom to Previous

After zooming in to a section of the waveform, you may wish to return to the previous view. Zoom to Previous accomplishes this quickly and easily.

To use Zoom To Previous:

- ◆ Select Zoom To Previous from the View menu.

You will be returned immediately to the view you had before the last move or zoom command.

### Other Ways to Zoom and Move

There are many ways of moving around within the active panel. Besides Zoom To Gates and Zoom To Previous, the most commonly-used commands for moving around the audio waveform are available in the View Menu:

- Move Forward <right arrow>
- Move Backward <left arrow>

- Zoom In < Command-I>
- Zoom Out < Command-O>
- Zoom to Entire Track <E or Command-E>

The View menu provides a variety of options for moving to different locations in the panel.

### Synchronizing the View Across Panel Groups

Zoom and move commands affect the Sync group, but panels in different groups may be at entirely different view locations. You may wish to set the view so that all panels display the same section of time.

To set the view of all panels and groups to show the same area:

1. Select the topmost panel by clicking with the mouse.
2. Hold down the Shift key and select the bottommost panel  
All panels between the two panels will become selected.
3. Use any zoom or move command to shift the view.  
All selected panels will shift together, so that now all of the panels will show the same section of sound.
4. To de-select any panel, hold down the Command key and click on that panel. Then release the Command key and click on any panel to activate it so you can work on it.

As you proceed through this tutorial keep in mind that most operations operate on the *selected* panel, as shown by the red border highlight.

If the panel you want to work on is not already selected, you must activate the panel by clicking on it before you can perform any operations on it. For instance, to place Gates into an unselected panel you first click on the panel to activate it, then click *again* to place the Gates.

### Four-Point Editing: Insert and Delete

The SonicStudio System provides two complementary models, or methods, for editing: "Four-point" editing and "Segment" editing.

The Four-point model is similar to traditional tape editing. Edits are made by marking "cut points" in the Source and Destination panel, then moving, appending, or deleting audio by making cuts and splices.

The Four-point editing model is exemplified by the Insert and Delete commands in the Edit menu. This editing style is commonly used for assembling a stereo master for CD release, for example.

Segment editing is based on the now-familiar computer model of Cut and Paste, Drag and Drop. Different regions, or "Segments" of sound are defined, then these Segments are moved around or modified individually. Among other things, editing in this style is very powerful in assembling sound effects and dialog.

You'll probably find your work is most efficiently performed by mixing the two models as appropriate or convenient.

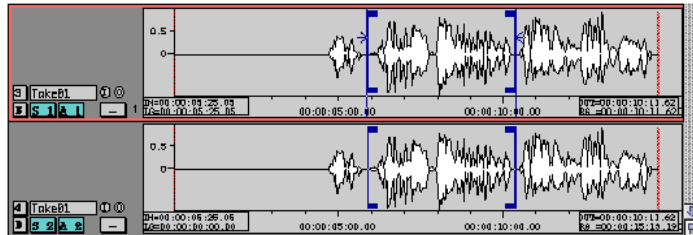
When you use the Insert and Delete commands, there are four "edit points" that define where audio is to be cut and/or spliced:

- Source In and Out points define where the selected material from the source should begin and end.
- Destination In and Out points define where you want to place the selected material.

Depending on the edit, it may not be necessary to specify all four points. As we will see, you may have to place only one, two, or three (or even none) in order to perform the edit you want.

### Setting Edit Points

The menu commands Set In Point and Set Out Point are used to place the In and Out points. However, you can more conveniently set these by simply pressing the left bracket <[> or right bracket <]> keys on the keyboard.



To set the Edit (In and Out) Points in the Source panel(s):

1. If playback is in progress, stop it by hitting the keyboard space bar once.
2. In the one of the Source panels, place the left and right Gates where you wish to make your edits.

Notice how the SonicStudio System's high-resolution waveform display makes it easy to identify attacks and other audio features. In many cases, you can place your edits precisely from visual examination alone.

3. To place the In point, select Set In Point from the Mark menu. The In point marker, a heavy bracket shape, appears at the position of the left Gate.
4. Select Set Out Point in the Mark menu.

While playing audio from the EDL, you can set the In and Out Points on the fly.

To place In and Out points while playing:

1. Move the left Gate to a position ahead of the section you wish to mark.
2. Hit the space bar to start playing from the left Gate.
3. Monitor the audio playing back from the EDL.

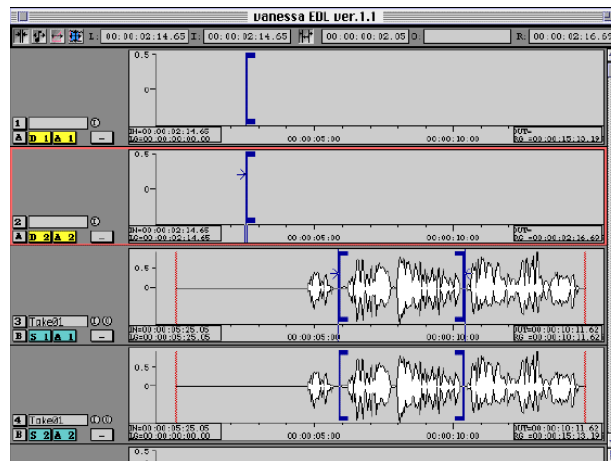
4. At the point you wish to place the edit marker, hit the left bracket (In point) or right bracket (Out point) keys.

The In and Out points will be "dropped" at the exact times you select.

If you inadvertently place the In or Out points incorrectly, simply repeat the operation.

### Placing the In Point in the Destination Panels

Having defined a section of audio in the Source panels, you now can determine where this section will go when it is inserted into the Destination panels. There are several ways to do this.



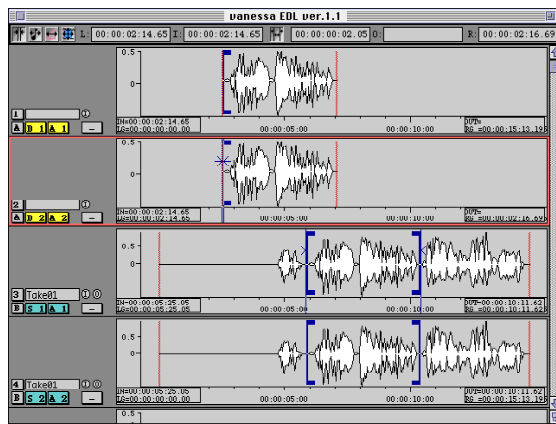
To place an In point in the Destination panel group:

1. Select either of the Destination panels by clicking on it.
2. Click within left portion of the selected panel to place a left Gate.
3. Drag this Gate to the exact position at which you want the sound segment from the Source panels to appear.
4. Use Set In Point from the Mark menu to set an In Point at the left Gate.

The Destination In point will be the place where the left edge of the Source segment is placed.

## Insert Edit

Once you have placed these edit points, you can select any of the available variations of the Insert command in the Edit menu.



To move the designated Source segment into the Destination panels:

- ◆ From the Insert submenu in the Edit main menu, select the command Ins. w/CROSS-FADE.  
Note that using the F1 QuicKey is much faster.

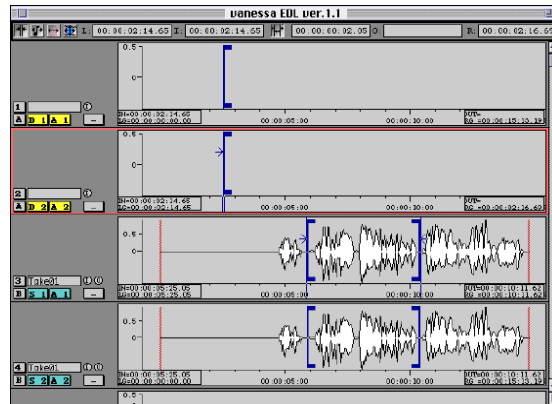
For the keyboard command to work properly, the QuicKeys application and Sonic keyset must be installed as described in the *Reference Manual*

The section of audio that you marked in the Source panels appears at the In point in the Destination panels.

You have performed your first audio edit on the SonicStudio System.

## Undo Edit

Let's back up and move the segment to the Destination panel using another method.



To restore the EDL to the state prior to the last edit:

1. Select the command Undo Edit from the Edit menu.

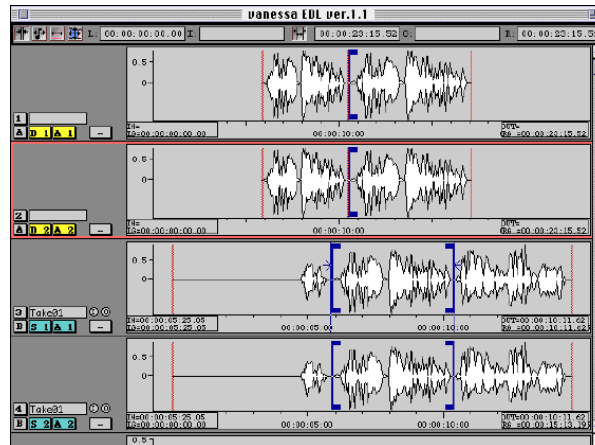
Unlike most Macintosh applications, the SonicStudio System can perform many Undo Edits, backing up through a whole series of changes. This is another way in which the SonicStudio System provides total flexibility and control to the audio editor.

Now that we've demonstrated Undo Edit, let's return to the editing commands.

2. Select Redo Edit to return the audio to the Destination panels.

### Append Audio

One of the easiest and most useful operations on the SonicStudio System is assembly of stereo segments or cuts.



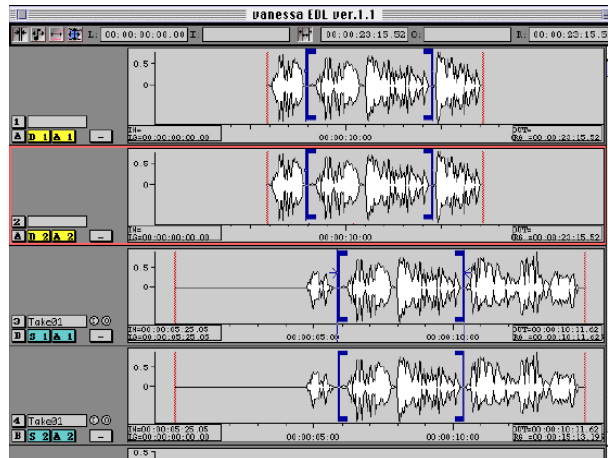
To append a second copy of the Source segment in the Destination panels.

1. Select the topmost Destination panel. Place the left Gate just to the right of the previous edit.
2. Select Left Gate to Next Edit (Move Left Gate submenu in the View main menu).  
The left Gate jumps to the end of the previously inserted segment.
3. Place an In point at the left Gate.
4. Insert your audio at this In Point by selecting the command Ins. w/CROSS-FADE from the Insert submenu in the Edit menu.

You can just as easily define a new segment (or open another sound file) and attach it to the end of the previous audio.

### Insert and Ripple

There are two variants of the Insert command that include the option of *rippling* audio that follows the inserted section.



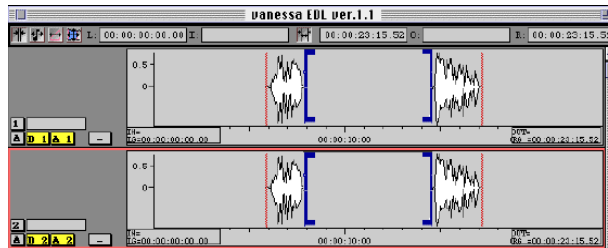
To demonstrate Insert with Ripple:

1. Use Undo Edit to return your EDL to the state prior to the last exercise.
2. Place an In point somewhere in the middle of the audio in the Destination panel.
3. From the Insert submenu in the Edit main menu, select the command Ins. & Ripple w/CROSS-FADE.

As shown above, the new audio segment is inserted into the middle of the existing audio. The audio that follows the In point in the Destination panels moves (ripples) to the right.

### The Delete Command

The Delete commands do not require separate Source and Destination panels. All you have to do is mark the section to be deleted with In and Out marks, and select one of the Delete or Delete w/Ripple commands.



To demonstrate Delete:

1. Place In and Out points to mark the section of sound to be deleted.

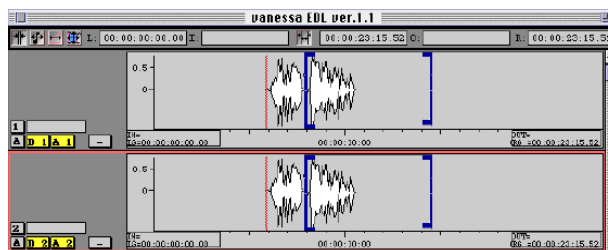
In the example shown, we have left these as the same points they occupied at the end of the previous exercise.

2. From the Delete submenu of the Edit main menu, select the command Del. w/CROSS-FADE.

The section of sound bounded by the In and Out points will disappear, replaced by silence.

### Delete with Ripple

As with Insert, the Delete command is available in variants that include a "Ripple" option. When you select Delete with Ripple, the marked section is removed and all audio following slides down to fill the gap.



To demonstrate Delete with Ripple:

- ◆ With In and Out point placed as desired, select the command Del. & Ripple w/IN CROSS-FADE from the Delete submenu.

When you select Delete with Ripple option, the same section of sound is deleted, but all audio to the right of that point moves ahead so that no silence remains.

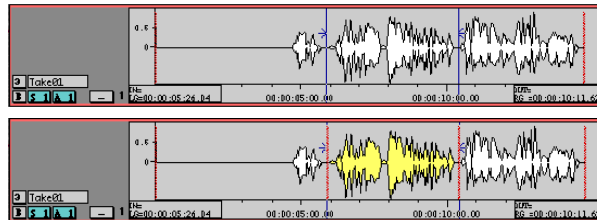
Notice that although the audio moves, the Out point remains at the same time as before.

## Editing with Audio Segments

All of the edits we've performed so far can be performed using Segment-style editing instead of Insert and Delete (Four-Point) editing.

### Creating Segments from Sound Files

Segment-style editing consists of dividing a source sound file or files into discrete pieces of sound (segments) that you can then move and manipulate as desired. Segments can be created in a variety of ways.



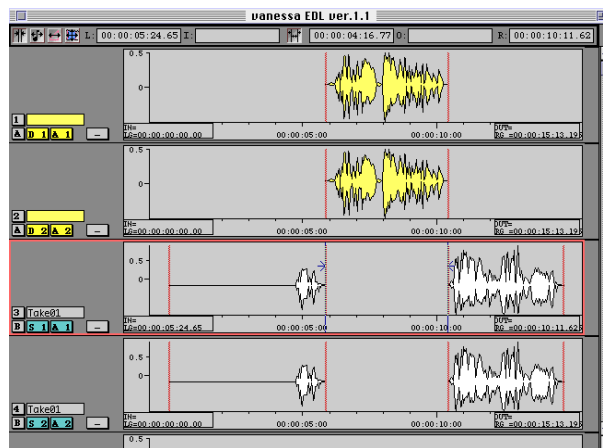
To create segments using left and right Gates:

1. Create a new EDL as described before, and open the sound file you used previously into the Source panels.
2. Place Gates in the positions used for placing In and Out points as in the previous example.
3. Select the From Gates command in the Create Segments submenu of the Edit menu.

Vertical pink *splice* indicators appear where the left and right Gates are, and the audio between become highlighted in yellow.

## Dragging Segments

You can manipulate segments as discrete chunks of sound, using Macintosh-style actions such as dragging and cut-copy-paste.



To place a segment by dragging.

1. Select the Segment Tool or click the Segment tool icon in the upper left of the EDL.



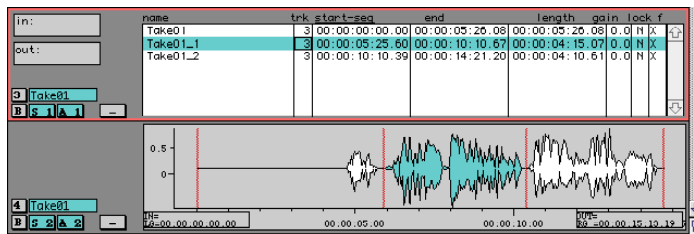
The cursor becomes a 4-pointed cross as on the Segment tool icon.

2. Using the Segment Tool cursor, click on the middle segment, the one created in the previous step.
3. Drag the selected segment into the Destination panels with the mouse and release.

As you move the segment, you will see a *ghost* outline of the segment. When you release the mouse, the segment appears in the new position.

## Text View Mode

Besides the waveform display we have used so far, the SonicStudio System can display and edit sound in textual format. In Text mode, you can move segments within a panel or between panels by entering times and track number.



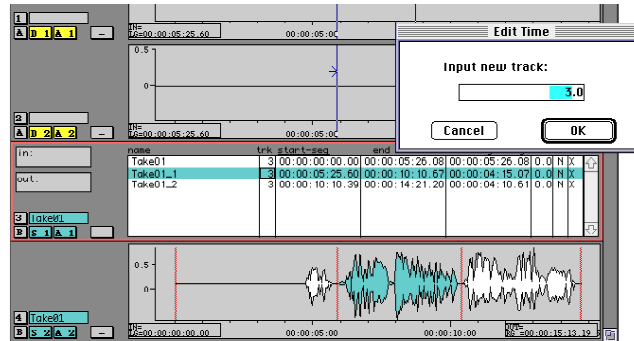
To demonstrate editing with Text mode:

1. Using Undo Edit, return your EDL to its state at the beginning of the last exercise.
2. Select the upper of the two Source panels.
3. From the EDL menu, select the command Text from the Display Panel As... submenu.

The upper panel will change from the default waveform mode into the text list format. Each segment in the waveform display is represented by a line of text. Note that the selected segment is highlighted in the text view.

### Moving Audio Using the Text View

Using the Text mode display, you can perform the same moves as you did earlier by dragging.



To move a segment from one track to another:

1. Double-click on the "Track" (trk) column (second from left) for the middle segment.
2. In the Edit Track dialog that appears, change the number shown from "3" to "1."
3. Click OK.

Both channels of the selected segment move up to the Destination panels (1 and 2), with the same start time as when it was in panels 3 and 4.

Double-clicking on the respective fields, you can move the segment in time, change its length, give it a new name and so on. With practice, text view editing becomes a fast and powerful way to do audio editing.

### Save Often, Save Well

When editing, form the habit of saving your work frequently. In event of a power failure, computer crash, or just a mistake, you will always have a recent version stored safely away.



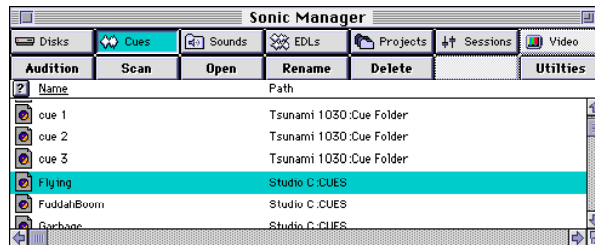
To save the EDL to disk:

1. Make sure the EDL is the active window
2. Select Save from the File menu.

The first time you do this with a new EDL, a Macintosh-standard dialog will appear to let you assign a name and a folder for the Edit List. After you've saved the new EDL once and assigned it a name, every time you use the Save command < -S> the file will be saved to that same destination and a backup file will be created.

## Creating and Placing Cue Files

When you edit in Segment-style, you will create various sections of audio for sound effects, dialog phrases, musical sections, and so on. You can save these as "Cues", which you can open and place within an EDL.



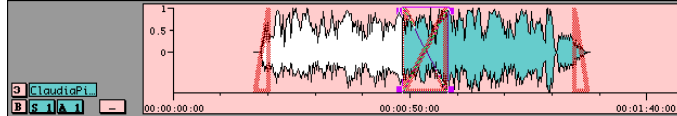
To create Cue files from selected segments

1. In the Text view display, double-click on the Name field for a selected segment.



## Using the Fade Tool

The Fade Tool provides quick editing of your fades.



To use the Fade Tool:

1. Select the Fade Tool by clicking on its icon (third from left) in the toolbar, or by hitting the F key on the keyboard.



The mouse cursor will switch to a left-right arrow shape.

2. With the Fade Tool, click on a crossfade you would like to adjust.

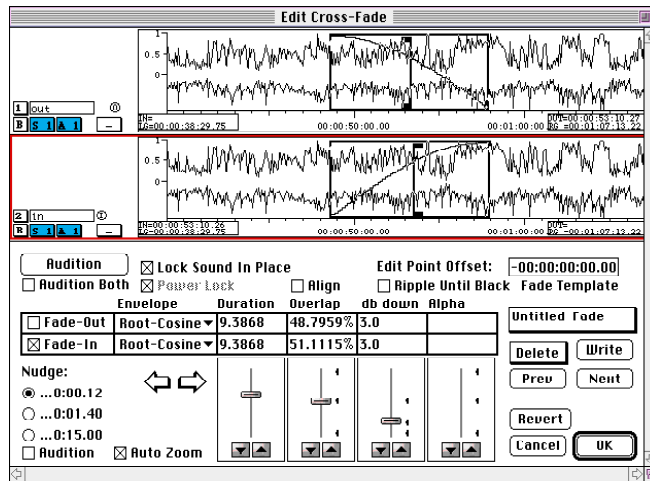
The selected crossfade will be highlighted with "grab-boxes" at upper left and right, and at lower left and right.

3. With the mouse, click-hold on the upper-right grab box.
4. Drag to the right and release the mouse.

The crossfade you selected will be extended and will now appear as a distinct *box* rather than a narrow line.

## The Edit Fade Window

The Edit Fade window provides very detailed control of every aspect of a fade or splice.



To open the Edit Cross-Fade window:

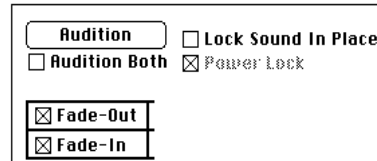
1. Place the left Gate just to the left of the splice you would like to modify.
2. Select the command Edit Fade from the Edit menu.

The Edit Cross-Fade window will appear on screen, with a detailed view showing the fade-out of the leading segment and the fade-in of the following segment.

Controls and buttons along the bottom of the window provide total control over every aspect of the splice.

### Edit Fade: Audition and Control

The Audition and Control Section of the window determines which channels play back during an audition of your edit and which portion is affected when you adjust any of the variable parameters.



To audition and edit Fade-Out and Fade-In individually:

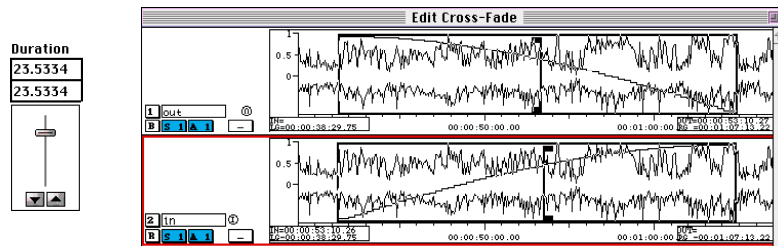
1. Select both Fade-Out and Fade-In checkboxes
2. Click on the Audition button.  
You will hear the complete fade.
3. Deselect one box or the other and click Audition again.

This time you will hear only the portion of the fade whose checkbox is selected.

You can override single channel playback by selecting the Audition Both option.

### Edit Fade: Fade Duration

One of the simplest adjustments you can make in the Edit Fade window is a change to the duration of the fade.



To adjust fade duration:

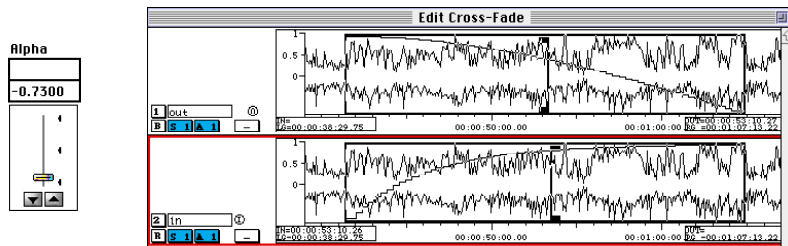
1. Leave both the Fade-Out and Fade-In checkboxes selected.

2. Adjust the fade length by clicking on the Duration slider and holding down the mouse button as you move the slider up to increase duration.
3. Audition your sound to hear the changes you've made.

Note that you can extend fade duration up to 100 seconds. If you extend the duration of the fade so that it no longer fits in the display window, the window will automatically adjust so as to display the entire fade. You can override this feature by deselecting the "Auto Zoom" option.

### Edit Fade: Fade Shape

Besides changing fade duration, you can change the shape of either (or both) sides of the fade.



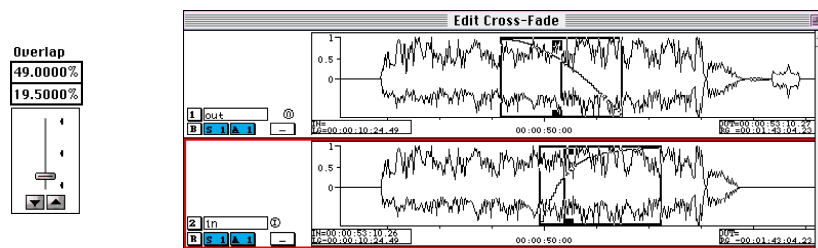
To change the shape of the fade-in (following segment):

1. Deselect the **Fade-Out** checkbox, so that only the Fade-In will be affected.
2. Then click on the Envelope option for Fade-In. A pop-up menu appears with several options.
3. Drag the mouse to select Alpha-Exponential and release.
4. Click and drag the Alpha slider to change the shape of the Fade-In curve.
5. Select the Audition Both option to hear both sounds and listen to the edit to hear how the sound of the crossfade changes.

Various options are available for fade shapes. Experiment with these to become familiar with the effect of different curves.

### Edit Fade: Overlap Parameter

Besides changing length and shape, you can adjust where the fade-in or fade-out is placed in relation to the splice point.



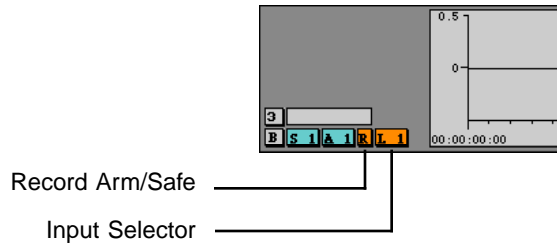
To see how Overlap changes the crossfade:

1. Click and drag the Overlap slider.
2. Move the slider up and down and observe how the placement of the fade-in graphic changes.
3. Audition various settings to hear how the edit sounds with various overlap settings.

There are many, many options for modifying a splice fade, as well as placement of the actual edit points. Refer to the *Reference Manual* for details of these operations.

## Recording in the EDL: Setup and Arming

It is possible to record directly into any panel of an EDL. In many cases, this will be faster and more convenient than the Four-Point and Segment editing techniques we will discuss later.



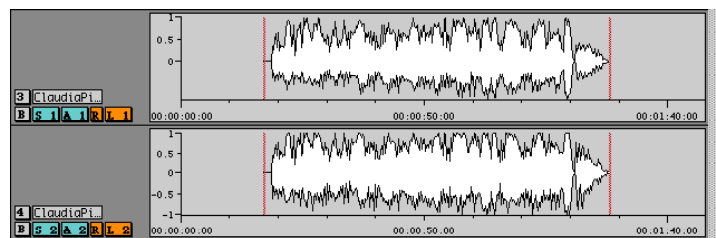
To arm a group of panels for recording:

1. In the topmost of the two Source panels, click-hold on the Input Selector box.
2. Select L1 (line input 1) from the list of selections that appears.
3. Click once on the Record Arm/Safe button. The letter within will change to an R.
4. In the lower panel, set the input to L2 and arm the channel as in step 3.

With the panels set to line input and armed for recording, you are ready to "punch in". Actual recording is done as the panels play.

### Recording in the EDL: Punch-In

Recording into the EDL is a very simple process.



To punch in to record:

1. Select one or the other of Source panels you have armed for recording.
2. Start playback of your audio source.
3. Press the keyboard space bar which starts the play cursor moving from left to right across the panel.
4. While the play cursor moves across screen, press the slash key. The Input Selector and Record Arm/Safe button will change from orange to red.
5. To stop recording, hit the space bar again. After a moment, the newly-recorded sound will appear in the panels.

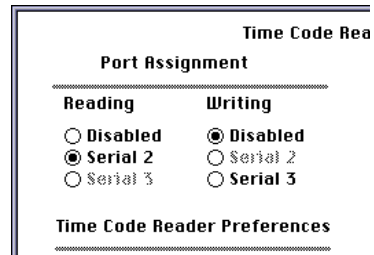
You can use the "slash" key to punch in and out of record as many times as you want while the source material plays. The recorded waveform will not appear until you halt playback, however. You can also punch in at will over previously existing audio. The "delete" key will abort a take as if it never was performed.

## Time Code and the SonicStudio System

Many professional application of the SonicStudio System require use of longitudinal (LTC) or serial (9-pin) time code. Time code reading and synchronization are built into the system

### Reading Time Code: Setting Up

To read longitudinal time code, you must have the time code connector cable installed as described in the *Reference Manual*. To enable time code reading, you must select a port in the Time Code Reader/Generator Preferences.



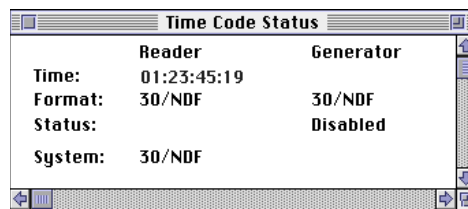
To set up the SonicStudio System to read time code:

1. Select Time Code Read/Write from the Preferences submenu of the File main menu.
2. In the Port Assignment section (upper left), set the Reading port to Serial 2.
3. Click OK to close the preferences dialog.

Time Code reading should now operate properly.

### Reading Time Code: Display LTC

With the time code reader enabled, you will want to check to see that incoming time code is being read properly.



To check time code reading:

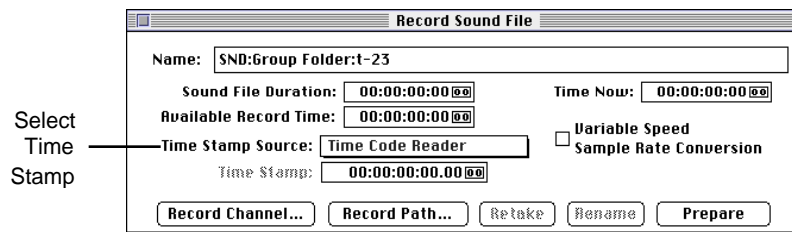
1. Select Time Code Status from the Status Monitors submenu in the File main menu.  
The Time Code Status window will appear on screen.

2. If not already running, start your time code generator or other time code source feeding the LTC input to the SonicStudio System.
3. Observe the Time: field in the Reader column of the Status window.

The current value of time code input should appear here. If not, check all connections and make sure that valid time code is being fed to the system.

### Recording with Time Stamp

A common use of time code is to "stamp" a sound file with current time code as it is loaded into the system.



To record a sound file with time stamp:

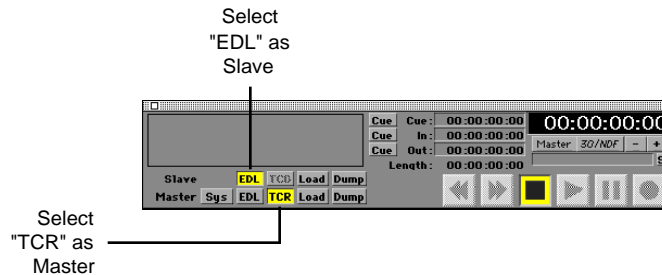
1. Select Record Sound File from the File menu, as discussed previously.  
In Record Sound File, there is a pull-down menu labeled Time Stamp Source. Initially, this will read No Time Stamp.
2. Click-hold on the Time Stamp Source field. From the pull-down menu, drag to select Time Code Reader.
3. Start recording, using the Transport Panel.

The time stamp will be taken during the first few seconds of recording, and is automatically back-timed so that the time stamp matches the first sample of audio

When you open the resulting sound into an EDL, the audio will be aligned at the time stamp, maintaining perfect synch with the original.

## Slaving Playback to Time Code

Using the Transport Panel, you can set the SonicStudio System to slave playback to incoming time code.



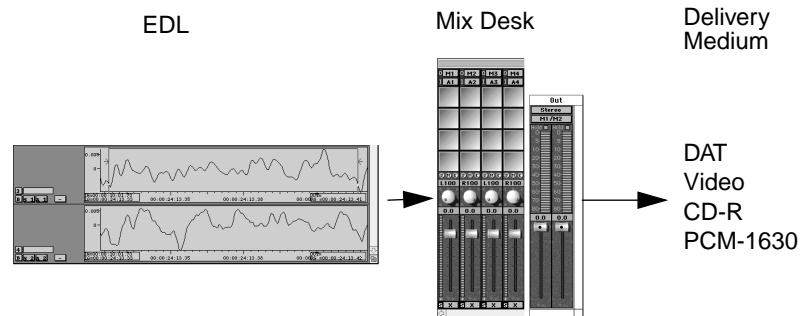
To slave playback to incoming time code:

1. If not already available, open the Transport Panel by choosing the command Transport Panel from the File menu. In the Transport Panel's lower left section, there are two rows of buttons labeled Master and Slave.
2. In the row labeled Master (lower), click on the TCR button.
3. In the upper row (Slave), click on the EDL button.

This sets up the relationship that playback from the EDL will be slaved to the Time Code Reader (TCR). The active EDL will play at the location of incoming time code.

## Transfer for Delivery

For most professional projects, the final stage of work will be to transfer the edited material from the SonicStudio System back to a medium such as DAT tape that can be delivered to the client.



In the SonicStudio System, there are several options for transfer (also called *roll-off* or *layback*) to a delivery medium.

- You can simply start a recording device connected to the SonicStudio System's main output, and hit play on the system.
- You slave EDL playback to time code from the layback device for time aligned transfer.
- Using serial machine control, you can automate the transfer entirely, and have the SonicStudio System cue, arm, and punch-in to the delivery deck
- Using a CD Recorder and PQ editing options, you can transfer output directly to Premaster Compact Disc.

With any of these options, you have the opportunity to process audio through the mixing desk during transfer, with or without mix automation.

### Wild Dump

The simplest way to transfer to an output device is to simply connect the system's output to the target device, arm that device and start it recording, then begin playback from the beginning of your EDL.

This type of transfer always passes through the Mix Desk, where you can modify it by manual or automated mixing.

### Slave to Time Code

If you slave the EDL to time code from the target device, as discussed earlier, you can do transfers that are aligned precisely to time code on the target device.

### Dump with Machine Control

If you are using a target device with serial machine control capability, and the Sonic Machine Control option, you can fully automate the process of transfer by using the Project Manager.

Use of the Project Manager is described in detail in the *Reference Manual* for the SonicStudio System, and lies somewhat beyond the scope of this tutorial.

### Transfer to CD-R

If your system is equipped with the CD Printer and PQ Editing options, you can use the Project Manager to transfer directly to recordable Compact Disc. The resulting disc is completely compatible with any CD player, and can be sent directly to the plant for replication.

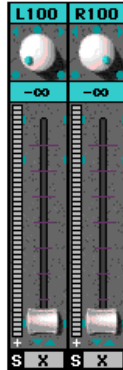
The process of transfer to CD-R is described in detail in the manual for the PQ Editing option, SS-525.

## The Mix Desk

The Sonic Mix Desk, which was discussed earlier, provides comprehensive mix, level control, EQ, metering, and mix automation.

### Setting Levels

You set individual channel and master levels from the Desk windows.



To adjust output levels for individual channels or master outputs:

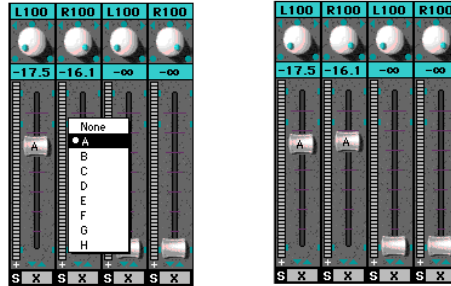
- ◆ Click on that channel's slider control and drag to your desired output level.

You can use the faders in real time, and fine-tune your levels using the hot spots near the sliders. The numbers above each slider change to reflect the current gain setting.

You can set specific levels with the up/down nudge buttons at the bottom of the slider. Click and hold to increment at a moderate speed. Accomplish the same thing also by holding SHFT as you click and drag on the slider control.

### Grouping Faders

You can group faders so that moving one slider will correspondingly move all faders in that group by the same amount.



To group faders

1. Hold the option key and click on the fader handle.  
A pop-up menu will appear.
2. Drag to select a group letter A through H (None deselects that channel from any group) and release the mouse button.

The group letter you selected will now show on the fader handle.

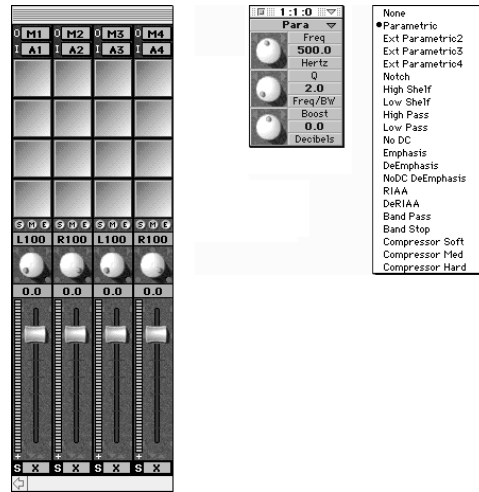
The Master Faders are normally grouped together as indicated by the black dots in the middle of the fader handle. They can be ungrouped if desired using the same procedure as for the channel faders.

## Setting EQ

You can process your sound by using the SonicStudio System EQ options.

## Getting Started

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To select and adjust a filter section:

1. Double-click on one of the four empty squares in the Input Channel Fader Section.  
A small filter window appears.
2. In the filter window, click-hold on the down arrow to the left of where it says None.”
3. Select a filter type from the list that appears.
4. Use the controls in the filter window to adjust the parameters that apply to the filter selected.

You can have any number of filter windows open at one time. Filters may be grouped, similar to the channel faders, using the down-pointing arrow at top right of the window.

### Using Mix Automation

You can automate your mixing moves so that each time you play back, the system will perform the same moves for you.

To add an automated mix to a channel:

1. Open a new Desk Session.
2. Bring the Desk window to the foreground.
3. Position the Left Gate some time before the beginning of where you want to edit and press the space bar to begin sound playback and initiate recording the automation moves.
4. As the sound plays, adjust the fader levels.
5. When you are finished hit the space bar again to stop.
6. Press the spacebar to play back your sound again.  
This time you should hear the mix you just performed, and you will see the faders move correspondingly.

To Save and Close your mix:

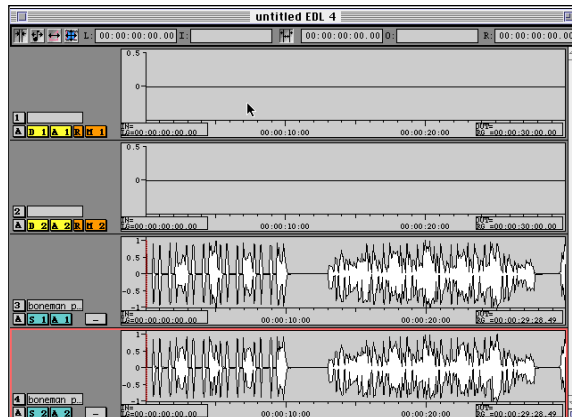
1. Make sure the Desk window is active as above.
2. Save the file.
3. Give the File a name and any destination you like.
4. Close the file.

### Capture from Desk

Mix (with or without automation) and recording to EDL can be combined to "capture" edited/processed audio into a new sound file.

## Getting Started

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To capture a stereo sound file through the mixing desk:

1. Like you did at the beginning of this tutorial's EDL section, create a 4-panel EDL and open a sound file.
2. Create a mix using any features of the Desk, including automation.
3. Set the Record Input Selectors for the top two panels to M1 and M2. This sets the panels to record the mix outputs, rather than the line inputs.
4. Assign all four panels to the same Sync group (A).
5. Start playback with the space bar, then press the slash key to go into record. All four panels will play, but only the top two will go into record.
6. Press the space bar again to complete the recording.

## Conclusion

This completes the start-up tutorial for the SonicStudio System. Once you have completed this tutorial, you will have mastered the basic operations of recording, editing, mixing, and transfer to delivery medium.

The SonicStudio System is a diverse and powerful editing environment, and includes many features and options that are not discussed here. The *Reference Manual*, along with the individual manuals for various software options, describe all of the features of the system in detail.

True facility in the use of the SonicStudio System will come only with use, and will be conditioned by the task at hand. Having completed this tutorial, you are on your way to mastery of the System's many powerful capabilities.

Good Editing!

## Getting Started

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